## **LEAD-BASED PAINT INSPECTION REPORT**



### HEALTH & SAFETY • ENGINEERING • ENVIRONMENTAL

1553 West Todd Drive, Suite 201 ~ Tempe, AZ 85283 tel 480-460-8334 fax 480-460-8335 csceng.com

Presented To:

Barbara Wethington Weston Solutions, Inc. 960 West Elliot Road, Suite 201 Tempe, Arizona 85284

Project:

Sun Chief Mill Site Southeast Corner of Arizona 77 and US 70 Globe, Arizona

CSC Project # 5002357

Inspection Date: January 26, 2009

Report Date: February 3, 2010



## **<u>1. PROJECT SUMMARY</u>**

Project Name & Address:	Lead-Based Paint Inspection Sun Chief Mill Site Southeast Corner of Highways 70 & 77 Globe, AZ
CSC Project Number:	5002357
Client:	Barbara Wethington, Project Manager Weston Solutions, Inc. 960 West Elliot Road, Suite 201 Tempe, Arizona 85284 Phone: 480-477-4900 Email: b.wethington@WestonSolutions.com
On Site Contact:	Steve Kleinheider, Site Manager Weston Solutions, Inc. 960 West Elliot Road, Suite 201 Tempe, Arizona 85284
Consultant:	Clark Seif Clark, Inc. (CSC) 1553 West Todd Drive - Suite 201 Tempe, Arizona 85283 Phone: 480-460-8334 Fax: 480-460-8335
Project Manager:	Derrick A. Denis, CIAQP, CAC, CIEC
EPA Certified Lead-Based Paint Risk Assessor:	Robert E. Crawley, CIEC AZ-R-6260-2, Expires January 24, 2011
Inspection and sampling date:	January 26, 2010
Report date:	February 3, 2010

Attachments:

Detailed Report of Lead Paint Inspection Lead-based Paint Risk Assessor AZ-R6260-2 Certificate CSC Lead Based Paint Certificate Niton Performance Characteristic Sheet

### **INTRODUCTION**

On January 26, 2010, Clark Seif Clark, Inc. (EPA lead-based paint certified firm AZ-17588-1) lead-based paint risk assessor, Mr. Robert E. Crawley, (EPA Certification #AZ-R-6260-2, exp. 01/24/11) performed the Lead-based Paint (LBP) inspection following the analytical methodology as described in the HUD guidelines: *Lead Based Paint: Interim Guidelines for Hazard Identification and Abatement in Public and Indian Housing*, June, 1995, Revision of Chapter 7: 1997 at the Sun Chief Mill Site located at the southeast corner of Arizona 77 and US 70 near Globe, Arizona (referred to hereunder as the subject property).

## **EXECUTIVE SUMMARY**

Buildings surveyed included the following: the Warehouse, the Office, the Trailer, the Bunker, and the Mill Site. A total of 255 readings were taken including seven (7) for calibration purposes. All interior and exterior components tested were found to be negative for lead-based paint (i.e., containing less than 1.0 mg Pb/cm<sup>2</sup> with 95% confidence).

Areas tested are generally outlined in the attached diagram titled "Generalized Floor Plan for Lead-Based Paint Testing" and the attached "Detailed Report of Lead Paint Inspection."

### PURPOSE AND SCOPE

The purpose of the limited LBP survey was to determine the presence or absence of lead-based paint on suspect surfaces of accessible building materials at the Subject Property.

The scope of LBP testing was delimited by the methodologies of the HUD guidelines and conditions of the structure.

### **METHODOLOGY**

Selected sites in each room, including all walls and nominally one site for each type of component tested, as well as the exterior were surveyed for the presence of LBP using a spectrum analyzer portable X-ray fluorescence (XRF) paint tester, Niton model 309, serial number 3432 (cadmium 109 source assay date 05/08/08.)

The performance characteristics sheet for the instrument is attached at the end of this document. The spectrum analyzer automatically subtracts from a spectrum the fluorescence from the substrate of the paint, so as to give an accurate reading of lead content without taking of samples or stripping of the paint. This is performed via a computer program stored in the analyzer, which gives an instantaneous readout of the lead content of a site in milligrams of lead per square centimeter of surface area (mg/cm<sup>2</sup>). The instrument performance is checked before and after the project survey by reading a 1.0 mg/cm<sup>2</sup> sample three times. The instrument performance is similarly checked during the survey at least once every 4 hours.

### **SAMPLING RESULTS**

Buildings surveyed included the following: the Warehouse, the Office, the Trailer, the Bunker, and the Mill Site. A total of 255 readings were taken including seven (7) for calibration purposes. All interior and exterior components tested were found to be negative for lead-based paint (i.e., containing less than 1.0 mg Pb/cm<sup>2</sup> with 95% confidence).

Attached at the end of this document, please find a Detailed Report that contains location, substrate, color, and result of each tested site. The Detailed Report contains a description of the paint condition. These descriptions will include an "I" for intact, and "F" for fair, or a "P" for poor. It is important to consider the condition of the paint, as it can be an indicator of lead dust hazards.

### **GENERAL INFORMATION**

Lead is a highly toxic metal that was used for many years in products, such as lead-based paint (LBP), found in and around homes and commercial buildings. LBP use was banned in 1978 and is regulated by the Environmental Protection Agency (EPA) and Housing and Urban Development (HUD) in the Residential Lead-Based Paint Hazard Reduction Act of 1992, including the Residential Lead-Based Paint Disclosure Program Section 1018, as well as the Residential Lead Hazard Standards in TSCA Section 403. In addition, the Occupational Safety and Health Administration (OSHA) regulates worker protection during renovation and/or demolition of structures with LBP.

The lead in dust and paint chips is toxic if ingested or inhaled. The smallest lead dust particles cannot be seen, but if they get into the body, the lead can cause numerous health problems. Children and pregnant women are particularly susceptible to lead poisoning, which can cause reduced IQ and learning disabilities by affecting developing nervous systems, as well as causing slowed growth, hearing problems and behavior problems. Adults are also susceptible to lead, which can result in high blood pressure, headaches, digestive problems, memory and concentration problems, kidney damage, mood changes, nerve disorders, sleep disturbances, and muscle or joint pain.

A single, very high exposure to lead can cause lead poisoning. Lead-based paint that is in poor condition, or that is disturbed during renovation and remodeling projects, such as demolition, dry-sanding, scraping, brushing, or burning surfaces with a layer of LBP, can produce dust with lead, which can be inhaled, or enter the body from hand-to-mouth contact. If renovation work is not conducted properly, lead dust can remain in a home or building long after the work is done. Some painted surfaces may obtain levels of lead below 1.0 mg/cm<sup>2</sup>, which could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping, or sanding. Typically, a risk assessment is performed to help determine additional hazards associated with potential lead dust.

## **CONCLUSIONS AND RECOMMENDATIONS**

### Conclusions:

- 1. No lead was detected at or above the HUD guideline of 1.0 mg/cm<sup>2</sup> in any of the interior or exterior painted surfaces tested.
- 2. It is important to note that the *HUD Guidelines for the Reduction of Lead Hazards in Public and Indian Housing, 1997 revision,* stipulates that one of each component/substrate combination be tested in each room equivalent with the exception of the walls, in which case all four are to be tested. There are many occasions where a particular component/substrate combination tests positive in one room and then negative in another room despite indistinguishable construction histories. In these cases, it is impossible to positively ascertain whether or not every member of a component/substrate combination is positive or negative for lead-based paint without actually testing every member in the property. As such, one can assume that if a combination is found to be positive for lead-based paint in a building, then every similar but untested combination is also positive, unless proven otherwise.

### Recommendations:

- 1. A copy of the summary must be provided to new lessees (tenants) and purchasers of this property under Federal law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers and it must be made available to new tenants.
- 2. CSC has no further recommendations.

## **LIMITATIONS**

This lead based paint inspection was performed under contract with Weston Solutions. No warranties, expressed or implied, are made by CSC or its employees as to the use of any information, apparatus, product, or process disclosed in this report. CSC or those representing CSC bear no responsibility for the actual condition of the structure or safety of a site pertaining to lead-based paint regardless of the actions taken by the client.

The field observations, measurements, and research reported herein are considered sufficient in detail and scope for a limited lead based paint inspection at the subject property. The assessment, conclusions, and recommendations presented herein are based upon specifically limited data. They do not represent all conditions at the subject property as they reflect the information gathered for specific building systems. CSC warrants the findings and conclusions contained herein have been promulgated in accordance with generally accepted industrial hygiene methodology and only for the site described in this report.

### **UNIDENTIFIABLE CONDITIONS**

This lead-based paint related environmental consulting report has been developed to provide the client with information regarding apparent conditions related to limited accessible building materials in the subject property. Although CSC believes that the findings and conclusions provided in this report are reasonable, the assessment is necessarily limited to the conditions observed and to the information available at the time of the work. Due to the nature of the work, there is a possibility conditions exist that could not be identified within the scope of the assessment or which were not apparent at the time of our site work. The assessment is also limited to information available from the client at the time it was conducted. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. CSC does not accept responsibility for changes in the state of the art.

Clark Seif Clark, Inc. does not guarantee that all contaminated areas in the subject property were recognized during our evaluation. This report is limited only to the samples taken and locations sampled. Additional sampling may be needed to further identify other pollutants, or other affected areas inside the property.

We have employed state-of-the-art practices to perform this analysis of risk and identification, but this evaluation is limited in scope to the areas listed above. Our services consist of professional opinions and recommendations made in accordance with generally accepted engineering principles and practices, and are designed to provide an analytical tool to assist the client.

Clark Seif Clark or those representing Clark Seif Clark bear no responsibility for the actual condition of the structure or safety of a site pertaining to IAQ contamination regardless of the actions taken by the client.

Thank you for choosing Clark Seif Clark, Inc. to provide professional consulting services. If for some reason you have any questions regarding this report, please do not hesitate to contact us.

Thank you, Clark Seif Clark, Inc.

Written by:

Robert E. Crawley, CIEC Lead-based Paint Risk Assessor AZ-R6260-2

Reviewed and approved by:

anderen LV

Paul V. Anderson, MS, CIEC Industrial Hygienist

#### SITE PHOTOS









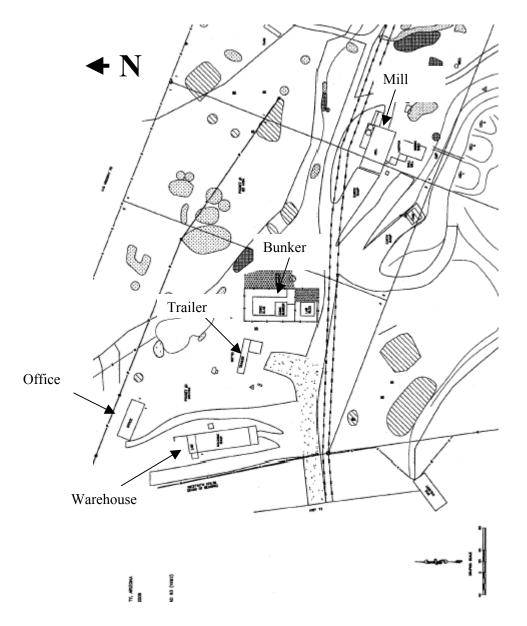


Photo 3: Mill overview

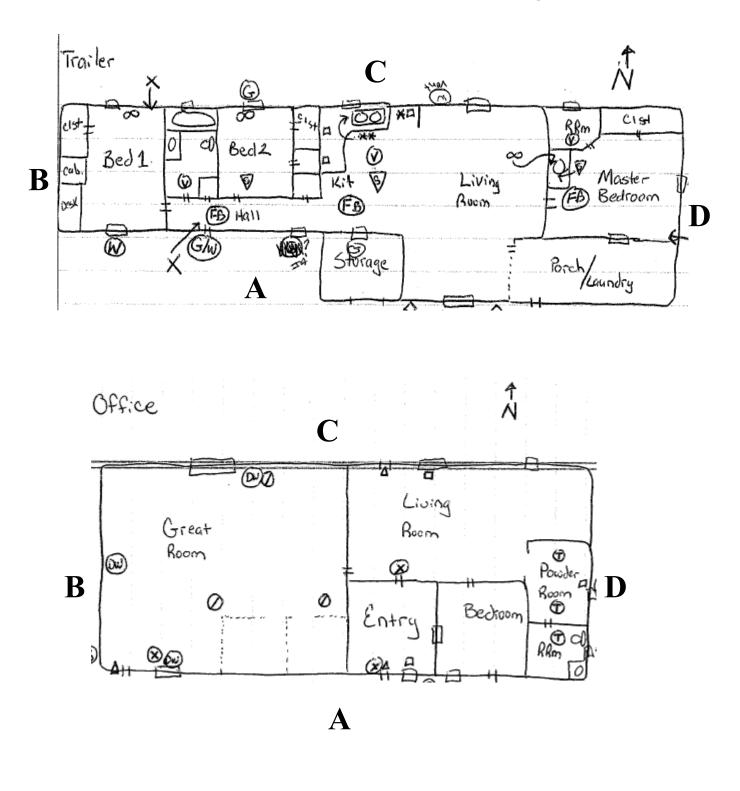




## SITE DIAGRAMS Subject Property Overview

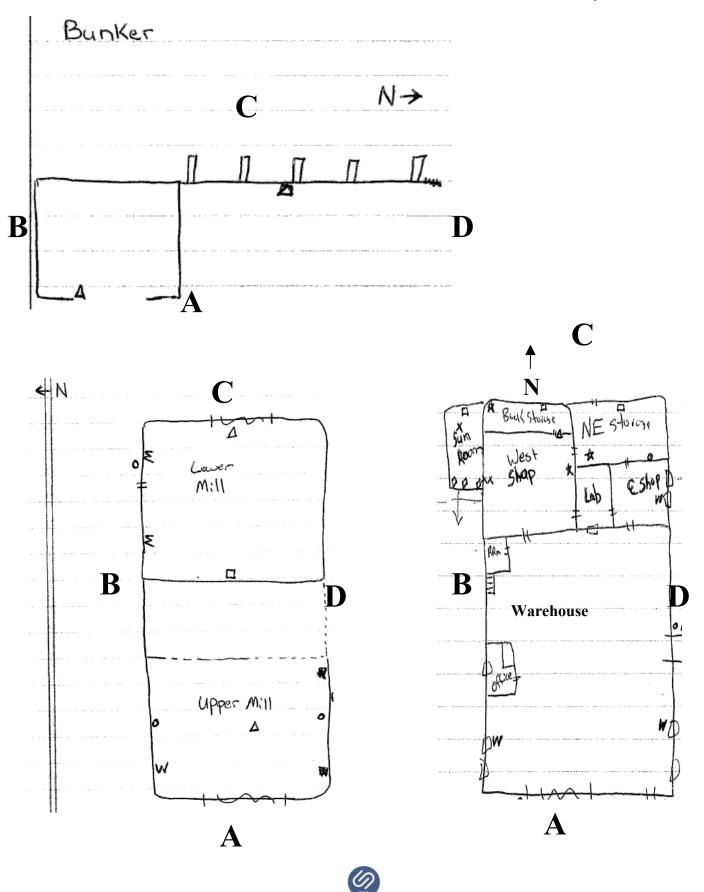






## **Generalized Floor Plans for Lead-Based Paint Testing**

1553 West Todd Drive, Suite 201 ~ Tempe, AZ 85283 tel 480-460-8334 fax 480-460-8335 csceng.com Lead-Based Paint Inspection Sun Chief Mill Site: Southeast Corner of Highways 70 & 77, Globe, AZ CSC Project Number 5002357



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# Detailed Report of Lead Paint Inspection



Paint Page 1

## Serial #XL309-U3432NR9826 Site: Date: 1/26/2010

<b>No</b> 1	Site	Side	<b>Room</b> Shutter Cal 1	Strc	Sub	Feat	Cnd	Clr	<b>Ssec</b> 70.3	<b>Date/Time</b> 1/26/2010 06:22:36	Result	Pbc ± Prec NA
2			NIST Calibration						20.8	1/26/2010 06:24:09	POS	$1.07 \pm 0.12$
3			NIST Calibration						20.8	1/26/2010 06:25:04	POS	$1.06 \pm 0.08$
4			NIST Calibration						14.2	1/26/2010 06:26:00	POS	$1.08 \pm 0.10$
5	Warehouse	A Center	Office	Beam	Metal		Intact	Green	20.9	1/26/2010 06:33:27	NEG	$0.17 \pm 0.09$
6	Warehouse	B Left	Main Floor	Beam	Metal		Intact	Green	5.2	1/26/2010 06:34:33	NEG	$0.05 \pm 0.04$
7	Warehouse	D Center	Main Floor	Beam	Metal		Intact	Green	3.2	1/26/2010 06:35:01	NEG	$0.02 \pm 0.02$
8	Warehouse	C Center	Main Floor	Wall	Wood	Lower	Intact	White	5.5	1/26/2010 06:35:19	NEG	$0.00 \pm 0.09$
9	Warehouse	D Center	Main Floor	Pillar	Metal		Intact	Green	5.2	1/26/2010 06:35:47	NEG	$0.05 \pm 0.11$
10	Warehouse	A Left	Main Floor	Door	Metal	Upper Left	Intact	Green	5.3	1/26/2010 06:36:30	NEG	$0.11 \pm 0.24$
11	Warehouse	A Left	Main Floor	Door	Metal	Right Jamb	Intact	Green	5.2	1/26/2010 06:36:48	NEG	$0.10 \pm 0.17$
12	Warehouse	B Center	Main Floor	Office wall	Wood		Intact	White	5.6	1/26/2010 06:37:20	NEG	$0.00 \pm 0.07$
13	Warehouse	A Center	Office	Wall	Wood	Upper	Intact	Stain	3.2	1/26/2010 06:38:08	NEG	$0.00 \pm 0.07$
14	Warehouse	B Left	Office	Wall	Wood	Upper	Intact	Stain	3.2	1/26/2010 06:38:51	NEG	$0.00 \pm 0.11$
15	Warehouse	C Center	Office	Wall	Wood	Lower	Intact	Stain	3.2	1/26/2010 06:39:04	NEG	$0.00\pm\ 0.08$
16	Warehouse	D Center	Office	Wall	Wood	Upper	Intact	Stain	3.2	1/26/2010 06:39:20	NEG	$0.00\pm\ 0.08$
17	Warehouse	D Right	Office	Door	Wood	Right Jamb	Intact	Stain	5.4	1/26/2010 06:39:36	NEG	$0.00 \pm 0.01$
18	Warehouse	D Left	Office	Cabinet	Wood		Intact	Stain	3.2	1/26/2010 06:39:53	NEG	$0.01 \pm 0.22$
19	Warehouse	D Left	Office	Cabinet Drawer	Wood		Intact	Stain	3.2	1/26/2010 06:40:12	NEG	$0.02 \pm 0.27$
20	Warehouse	B Right	Main Floor	Stringer	Wood		Intact	Brown	5.5	1/26/2010 06:40:49	NEG	$0.00\pm\ 0.08$
21	Warehouse	B Right	Main Floor	Rail	Wood		Intact	Brown	3.2	1/26/2010 06:41:16	NEG	$0.00 \pm 0.19$
22	Warehouse	B Right	Main Floor	Step	Wood		Intact	Brown	3.2	1/26/2010 06:41:31	NEG	$0.00 \pm 0.10$
23	Warehouse	B Right	Main Floor	RRm Wall	Wood		Intact	Brown	3.2	1/26/2010 06:41:45	NEG	$0.00 \pm 0.12$
24	Warehouse	B Right	Main Floor	RRm Door	Wood		Intact	Brown	3.2	1/26/2010 06:42:00	NEG	$0.00 \pm 0.11$
25	Warehouse	B Right	Main Floor	RRm Ceiling	Wood		Intact	Brown	3.2	1/26/2010 06:43:41	NEG	$0.01 \pm 0.28$
26	Warehouse	A Right	Loft	Floor	Wood		Intact	Brown	3.2	1/26/2010 06:44:05	NEG	$0.02 \pm 0.28$
27	Warehouse	A Right	Loft	Rail	Wood		Intact	Brown	3.2	1/26/2010 06:44:21	NEG	$0.00 \pm 0.13$
28	Warehouse	A Left	West Shop	Wall	Drywall	Upper	Fair	White	10.3	1/26/2010 06:47:59	NEG	$0.00 \pm 0.05$
29	Warehouse	B Left	West Shop	Wall	Drywall	Lower	Fair	White	8.0	1/26/2010 06:48:30	NEG	$0.00 \pm 0.07$
30	Warehouse	C Center	West Shop	Wall	Drywall	Upper	Fair	White	10.3	1/26/2010 06:49:04	NEG	$0.00 \pm 0.07$
31	Warehouse	D Left	West Shop	Wall	Drywall	Lower	Fair	White	15.0	1/26/2010 06:49:33	NEG	$0.10 \pm 0.49$
32	Warehouse	D Left	West Shop	Baseboard	Wood		Intact	White	3.2	1/26/2010 06:50:13	NEG	$0.00 \pm 0.01$
33	Warehouse	D Left	West Shop	Door	Wood	Lower Right	Intact	White	3.1	1/26/2010 06:50:27	NEG	$0.00 \pm 0.19$
34	Warehouse	D Left	West Shop	Door	Wood	Right Jamb	Intact	White	3.2	1/26/2010 06:50:39	NEG	$0.01 \pm 0.21$
35	Warehouse	D Left	West Shop	Door	Wood	Right Case	Intact	White	3.2	1/26/2010 06:50:52	NEG	$0.00 \pm 0.11$
36	Warehouse	C Center	West Shop	Beam	Wood	č	Intact	White	5.5	1/26/2010 06:51:19	NEG	$0.08 \pm 0.18$
37	Warehouse	C Center	West Shop	Pillar	Wood		Intact	White	3.2	1/26/2010 06:51:38	NEG	$0.00 \pm 0.14$
38	Warehouse	A Center	West Shop	Bench	Wood		Intact	White	3.2	1/26/2010 06:51:59	NEG	$0.02\pm\ 0.26$

No	Site	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	Date/Time	Result	Pbc ± Prec
39	Warehouse	D Right	West Shop	Shelf	Wood		Intact	White	3.2	1/26/2010 06:52:15	NEG	$0.00 \pm 0.10$
40	Warehouse	A Center	West Shop	Ceiling	Drywall		Intact	White	17.4	1/26/2010 06:53:25	NEG	$0.06 \pm 0.40$
41	Warehouse	D Right	Sun Room	Door	Wood	Upper Left	Intact	Brown	3.2	1/26/2010 06:56:04	NEG	$0.00 \pm 0.12$
42	Warehouse	D Left	Sun Room	Door	Wood	Left Jamb	Intact	White	3.2	1/26/2010 06:58:01	NEG	$0.00 \pm 0.10$
43	Warehouse	A Left	Back Storage	Door	Wood	Upper Right	Intact	White	3.2	1/26/2010 06:58:35	NEG	$0.00\pm\ 0.08$
44	Warehouse	A Left	Back Storage	Door	Wood	Right Jamb	Intact	White	3.2	1/26/2010 06:58:53	NEG	$0.00 \pm 0.12$
45	Warehouse	C Center	Back Storage	Chairrail	Wood		Intact	White	19.2	1/26/2010 06:59:15	NEG	$0.34 \pm 0.32$
46	Warehouse	D Center	Back Storage	Baseboard	Wood		Poor	White	5.5	1/26/2010 07:00:15	NEG	$0.00 \pm 0.01$
47	Warehouse	B Center	Back Storage	Wall	Brick	Lower	Intact	White	17.4	1/26/2010 07:00:40	NEG	$0.14 \pm 0.56$
48	Warehouse	C Center	Back Storage	Wall	Brick	Lower	Intact	White	19.7	1/26/2010 07:01:32	NEG	$-0.12 \pm 0.52$
49	Warehouse	A Center	Back Storage	Window Case	Wood		Intact	White	3.2	1/26/2010 07:02:39	NEG	$0.00 \pm 0.19$
50	Warehouse	A Left	Back Storage	Wall	Drywall	Upper	Poor	White	7.9	1/26/2010 07:02:54	NEG	$0.00 \pm 0.06$
51	Warehouse	B Center	Back Storage	Wall	Drywall	Upper	Poor	White	22.0	1/26/2010 07:03:19	NEG	$0.03 \pm 0.09$
52	Warehouse	C Left	Back Storage	Wall	Drywall	Upper	Poor	White	8.0	1/26/2010 07:04:16	NEG	$0.01 \pm 0.02$
53	Warehouse	D Center	Back Storage	Wall	Drywall	Lower	Poor	White	7.9	1/26/2010 07:04:42	NEG	$0.00 \pm 0.04$
54	Warehouse	A Center	Back Storage	Ceiling	Drywall		Intact	White	7.9	1/26/2010 07:25:51	NEG	$0.00\pm\ 0.08$
55	Warehouse	B Center	Northeast Storage	Ceiling	Drywall		Fair	White	10.3	1/26/2010 07:26:52	NEG	$0.00\pm\ 0.09$
56	Warehouse	C Left	Northeast Storage	Door	Metal	Lower Left	Intact	White	3.3	1/26/2010 07:27:54	NEG	$0.01 \pm 0.18$
57	Warehouse	D Right	Northeast Storage	Door	Wood	Right Jamb	Intact	White	5.5	1/26/2010 07:28:26	NEG	$0.00 \pm 0.10$
58	Warehouse	A Left	Northeast Storage	Door	Metal	Upper Right	Intact	Beige	5.5	1/26/2010 07:28:45	NEG	$0.00\pm\ 0.08$
59	Warehouse	A Left	Northeast Storage	Door	Metal	Right Case	Intact	Beige	3.2	1/26/2010 07:29:06	NEG	$0.02 \pm 0.18$
60	Warehouse	A Center	Northeast Storage	Window Case	Metal		Intact	Beige	8.7	1/26/2010 07:29:24	NEG	$0.02 \pm 0.23$
61	Warehouse	A Center	Northeast Storage	Wall	Metal	Lower	Poor	Beige	12.9	1/26/2010 07:29:58	NEG	$0.03 \pm 0.50$
62	Warehouse	B Left	East Shop	Door	Wood	Right Jamb	Intact	White	3.2	1/26/2010 07:31:30	NEG	$0.00 \pm 0.14$
63	Warehouse	B Left	East Shop	Door	Wood	Upper Right	Intact	White	3.2	1/26/2010 07:31:47	NEG	$0.00 \pm 0.14$
64	Warehouse	B Left	East Shop	Table	Wood		Intact	White	3.2	1/26/2010 07:32:33	NEG	$0.00 \pm 0.11$
65	Warehouse	B Center	East Shop	Wall	Wood	Upper	Fair	White	5.5	1/26/2010 07:32:46	NEG	$0.00 \pm 0.01$
66	Warehouse	C Right	East Shop	Pillar	Metal		Intact	Green	3.0	1/26/2010 07:33:06	NEG	$0.05\pm\ 0.08$
67	Warehouse	C Right	East Shop	Beam	Metal		Intact	Green	3.1	1/26/2010 07:33:21	NEG	$0.09 \pm 0.23$
68	Warehouse	A Center	Lab	Window Sill	Wood		Intact	White	3.2	1/26/2010 07:34:02	NEG	$0.01 \pm 0.21$
69	Warehouse	A Center	Lab	Window Case	Wood		Intact	White	3.2	1/26/2010 07:34:17	NEG	$0.00 \pm 0.13$
70	Warehouse	B Left	Lab	Door	Wood	Upper Right	Intact	White	3.1	1/26/2010 07:34:33	NEG	$0.00 \pm 0.14$
71	Warehouse	B Left	Lab	Door	Wood	Left Case	Intact	White	3.2	1/26/2010 07:34:46	NEG	$0.01 \pm 0.24$
72	Warehouse	B Center	Lab	Shelf	Wood		Intact	White	3.2	1/26/2010 07:35:03	NEG	$0.00\pm\ 0.07$
73	Warehouse	A Center	Lab	Ceiling	Drywall		Intact	White	7.9	1/26/2010 07:35:33	NEG	$0.00 \pm 0.06$
74	Warehouse	A Center	Lab	Wall	Drywall	Upper	Intact	White	7.9	1/26/2010 07:35:56	NEG	$0.00\pm\ 0.07$
75	Warehouse	B Left	Lab	Wall	Drywall	Lower	Intact	White	7.7	1/26/2010 07:36:27	NEG	$-0.35 \pm 0.64$
76	Warehouse	C Left	Lab	Wall	Drywall	Upper	Intact	White	12.6	1/26/2010 07:36:57	NEG	$0.11 \pm 0.58$
77	Warehouse	D Right	Lab	Wall	Drywall	Upper	Intact	White	10.3	1/26/2010 07:37:34	NEG	$0.00\pm\ 0.05$

No	Site	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	Date/Time	Result	Pbc ± Prec
78	Warehouse	A Center	Lab	Window Sash	Metal		Poor	White	3.1	1/26/2010 07:38:43	NEG	$0.03 \pm 0.25$
79	Warehouse	A Right	Exterior	Door	Metal	Lower Left	Poor	Beige	3.2	1/26/2010 07:42:51	NEG	$0.08 \pm 0.38$
80	Warehouse	A Right	Exterior	Door	Metal	Left Case	Poor	Beige	9.9	1/26/2010 07:43:04	NEG	$0.07 \pm 0.13$
81	Warehouse	A Center	Exterior	Garage Door	Metal	Left Case	Poor	Beige	5.3	1/26/2010 07:43:38	NEG	$0.12 \pm 0.18$
82	Warehouse	A Left	Exterior	Wall	Metal	Lower	Poor	Beige	5.4	1/26/2010 07:44:01	NEG	$0.05 \pm 0.14$
83	Warehouse	B Right	Exterior	Wall	Metal	Lower	Poor	Beige	10.8	1/26/2010 07:44:29	NEG	$-0.03 \pm 0.51$
84	Warehouse	B Right	Exterior	Window Sash	Metal		Poor	Beige	3.1	1/26/2010 07:45:05	NEG	$0.02 \pm 0.32$
85	Warehouse	B Left	Exterior	Wall	Wood	Upper	Poor	Beige	3.2	1/26/2010 07:46:13	NEG	$0.00 \pm 0.12$
86	Warehouse	C Right	Exterior	Wall	Wood	Upper	Poor	Beige	3.2	1/26/2010 07:46:32	NEG	$0.00 \pm 0.17$
87	Warehouse	C Center	Exterior	Door	Metal	Upper Center	Poor	Beige	3.3	1/26/2010 07:47:08	NEG	$0.00 \pm 0.02$
88	Warehouse	C Left	Exterior	Window Case	Wood		Poor	Beige	3.2	1/26/2010 07:47:39	NEG	$0.00 \pm 0.11$
89	Warehouse	D Right	Exterior	Wall	Wood	Upper	Poor	Beige	3.2	1/26/2010 07:48:21	NEG	$0.00 \pm 0.12$
90	Warehouse	D Left	Exterior	Wall	Metal	Lower	Poor	Beige	25.2	1/26/2010 07:49:01	NEG	$0.37\pm~0.38$
91	Office	A Center	Entry	Wall	Brick	Upper	Intact	Beige	22.0	1/26/2010 08:08:39	NEG	$0.01 \pm 0.08$
92	Office	B Left	Entry	Wall	Brick	Lower	Intact	Beige	22.0	1/26/2010 08:10:02	NEG	$0.08 \pm 0.13$
93	Office	C Left	Entry	Wall	Brick	Upper	Intact	Beige	5.6	1/26/2010 08:11:01	NEG	$0.01 \pm 0.16$
94	Office	D Center	Entry	Wall	Brick	Upper	Intact	Beige	22.1	1/26/2010 08:11:20	NEG	$0.00 \pm 0.03$
95	Office	A Right	Entry	Door	Wood	Right Jamb	Intact	Brown	3.2	1/26/2010 08:12:18	NEG	$0.01 \pm 0.21$
96	Office	A Right	Entry	Door	Wood	Right Case	Intact	Brown	3.2	1/26/2010 08:12:32	NEG	$0.01 \pm 0.25$
97	Office	B Center	Entry	Window Sill	Wood		Intact	Stain	3.2	1/26/2010 08:12:48	NEG	$0.00 \pm 0.11$
98	Office	B Center	Entry	Window Jamb	Wood		Intact	Stain	3.2	1/26/2010 08:13:01	NEG	$0.00 \pm 0.13$
99	Office	A Left	Entry	Window Sash	Metal		Intact	Beige	3.2	1/26/2010 08:13:37	NEG	$0.00 \pm 0.03$
100	Office	A Center	Great Room	Window Sash	Metal		Intact	Beige	12.7	1/26/2010 08:14:27	NEG	$-0.11 \pm 0.59$
101	Office	A Right	Great Room	Door	Wood	Upper Left	Poor	Brown	3.1	1/26/2010 08:15:09	NEG	$0.00\pm\ 0.08$
102	Office	A Right	Great Room	Door	Wood	Left Jamb	Poor	Brown	5.5	1/26/2010 08:15:23	NEG	$0.00\pm\ 0.08$
103	Office	A Right	Great Room	Door	Wood	Left Case	Poor	Brown	3.2	1/26/2010 08:15:41	NEG	$0.00 \pm 0.10$
104	Office	C Center	Great Room	Ceiling	Drywall		Poor	White	14.8	1/26/2010 08:16:11	NEG	$-0.04 \pm 0.46$
105	Office	A Right	Great Room	Wall	Drywall	Upper	Fair	White	8.0	1/26/2010 08:17:15	NEG	$0.00\pm\ 0.09$
106	Office	B Left	Great Room	Wall	Drywall	Lower	Fair	White	10.3	1/26/2010 08:17:38	NEG	$0.01 \pm 0.09$
107	Office	C Right	Great Room	Wall	Drywall	Upper	Fair	White	8.0	1/26/2010 08:18:14	NEG	$0.01 \pm 0.12$
108	Office	D Left	Great Room	Wall	Drywall	Upper	Fair	White	8.0	1/26/2010 08:18:36	NEG	$0.00 \pm 0.06$
109	Office	A Center	Great Room	Cubicle Wall	Wood		Intact	Stain	5.5	1/26/2010 08:19:04	NEG	$0.00\pm\ 0.01$
110	Office	A Center	Great Room	Cabinet Wall	Wood		Intact	Stain	3.2	1/26/2010 08:19:27	NEG	$0.00 \pm 0.10$
111	Office	B Left	Living Room	Door	Wood	Left Case	Intact	Stain	3.2	1/26/2010 08:20:04	NEG	$0.01 \pm 0.23$
112	Office	B Left	Living Room	Door	Wood	Right Jamb	Intact	Brown	3.2	1/26/2010 08:20:19	NEG	$0.00 \pm 0.13$
113	Office	B Left	Living Room	Door	Wood	Upper Right	Intact	Brown	3.2	1/26/2010 08:20:31	NEG	$0.00 \pm 0.12$
114	Office	B Center	Living Room	Cabinet Wall	Wood		Intact	Brown	5.4	1/26/2010 08:20:43	NEG	$0.00\pm\ 0.01$
115	Office	C Left	Living Room	Door	Wood	Upper Left	Intact	Brown	3.1	1/26/2010 08:21:11	NEG	$0.00 \pm 0.15$
116	Office	C Left	Living Room	Door	Wood	Left Jamb	Intact	Brown	3.2	1/26/2010 08:21:43	NEG	$0.00\pm\ 0.06$

No	Site	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	Date/Time	Result	Pbc ± Prec
117	Office	C Left	Living Room	Door	Wood	Left Case	Intact	Brown	3.2	1/26/2010 08:22:01	NEG	$0.00 \pm 0.10$
118	Office	D Left	Living Room	Closet Door	Wood		Intact	Brown	3.3	1/26/2010 08:22:22	NEG	$0.00 \pm 0.11$
119	Office	D Left	Living Room	Cabinet Door	Wood	Case	Intact	Brown	3.2	1/26/2010 08:22:39	NEG	$0.13 \pm 0.28$
120	Office	A Center	Living Room	Door	Wood	Upper Left	Intact	Stain	5.5	1/26/2010 08:23:08	NEG	$0.00 \pm 0.13$
121	Office	A Center	Living Room	Door	Wood	Left Case	Intact	Stain	3.2	1/26/2010 08:23:24	NEG	$0.00 \pm 0.13$
122	Office	C Center	Living Room	Window Sash	Metal		Intact	White	21.9	1/26/2010 08:23:45	NEG	$0.00 \pm 0.01$
123	Office	A Center	Living Room	Wall	Brick	Upper	Intact	White	15.0	1/26/2010 08:24:56	NEG	$-0.02 \pm 0.63$
124	Office	B Left	Living Room	Wall	Brick	Lower	Intact	White	15.0	1/26/2010 08:25:38	NEG	$0.09 \pm 0.63$
125	Office	C Left	Living Room	Wall	Brick	Upper	Intact	White	22.1	1/26/2010 08:26:19	NEG	$0.00 \pm 0.05$
126	Office	D Center	Living Room	Wall	Brick	Upper	Intact	White	19.7	1/26/2010 08:27:19	NEG	$-0.19 \pm 0.55$
127	Office	B Center	Powder Room	Wall	Brick	Upper	Intact	White	10.3	1/26/2010 08:28:14	NEG	$0.01 \pm 0.10$
128	Office	C Left	Powder Room	Wall	Brick	Upper	Intact	White	19.7	1/26/2010 08:28:45	NEG	$-0.11 \pm 0.54$
129	Office	D Left	Powder Room	Wall	Brick	Upper	Intact	White	10.3	1/26/2010 08:29:36	NEG	$0.00 \pm 0.06$
130	Office	D Center	Powder Room	Window Sash	Metal		Intact	White	3.3	1/26/2010 08:30:11	NEG	$0.00 \pm 0.01$
131	Office	A Center	Powder Room	Ceiling	Transite		Intact	White	5.6	1/26/2010 08:31:35	NEG	$0.00 \pm 0.11$
132	Office	A Center	Powder Room	Door	Wood	Upper Left	Intact	Brown	3.2	1/26/2010 08:32:23	NEG	$0.00 \pm 0.13$
133	Office	A Center	Powder Room	Door	Wood	Left Case	Intact	Brown	3.2	1/26/2010 08:32:37	NEG	$0.00 \pm 0.13$
134	Office	A Center	Powder Room	Door	Wood	Right Jamb	Intact	Brown	3.2	1/26/2010 08:32:51	NEG	$0.00 \pm 0.11$
135	Office	D Right	Restroom	Cabinet	Wood	C	Poor	Stain	5.4	1/26/2010 08:33:30	NEG	$0.01 \pm 0.17$
136	Office	D Right	Restroom	Cabinet Door	Wood		Poor	Stain	3.2	1/26/2010 08:33:50	NEG	$0.00 \pm 0.14$
137	Office	D Right	Restroom	Window Sash	Metal		Fair	White	3.2	1/26/2010 08:34:07	NEG	$0.00 \pm 0.12$
138	Office	A Left	Restroom	Wall	Brick	Upper	Intact	White	19.7	1/26/2010 08:35:11	NEG	$0.08 \pm 0.55$
139	Office	B Center	Restroom	Wall	Brick	Upper	Intact	White	10.3	1/26/2010 08:36:04	NEG	$0.08 \pm 0.17$
140	Office	D Right	Restroom	Wall	Brick	Upper	Intact	White	22.1	1/26/2010 08:36:34	NEG	$0.00 \pm 0.06$
141	Office	C Center	Restroom	Ceiling	Transite		Fair	White	5.6	1/26/2010 08:37:37	NEG	$0.00 \pm 0.08$
142	Office	A Right	Exterior	Door	Wood	Upper Right	Poor	Brown	5.3	1/26/2010 08:38:40	NEG	$0.00 \pm 0.01$
143	Office	A Right	Exterior	Door	Wood	Right Case	Poor	Brown	3.2	1/26/2010 08:38:58	NEG	$0.00 \pm 0.13$
144	Office	A Right	Exterior	Fascia	Wood	C	Poor	Brown	3.2	1/26/2010 08:39:18	NEG	$0.02 \pm 0.28$
145	Office	A Right	Exterior	Rafter	Wood		Poor	Brown	3.2	1/26/2010 08:39:49	NEG	$0.00 \pm 0.16$
146	Office	A Right	Exterior	Soffit	Wood		Poor	Brown	3.2	1/26/2010 08:40:24	NEG	$0.00 \pm 0.14$
147	Office	A Right	Exterior	Window Sash	Metal		Poor	Brown	3.2	1/26/2010 08:41:17	NEG	$0.07 \pm 0.28$
148	Office	A Center	Exterior	Wall	Stucco	Upper	Poor	Beige	8.0	1/26/2010 08:41:49	NEG	$0.00 \pm 0.06$
149	Office	B Right	Exterior	Wall	Stucco	Lower	Fair	Beige	5.6	1/26/2010 08:42:25	NEG	$0.00 \pm 0.12$
150	Office	C Right	Exterior	Wall	Stucco	Lower	Fair	Beige	19.7	1/26/2010 08:42:55	NEG	$0.02 \pm 0.09$
151	Office	D Center	Exterior	Wall	Stucco	Lower	Fair	Beige	10.3	1/26/2010 08:44:40	NEG	$0.00 \pm 0.07$
152	Office	D Center	Exterior	Gable Wall	Wood		Poor	Brown	5.5	1/26/2010 08:47:31	NEG	$0.00 \pm 0.01$
153	Laundry	A Center	Upper Mill	Garage Door	Metal	Right Jamb	Poor	Beige	7.6	1/26/2010 09:01:53	NEG	$0.11 \pm 0.12$
154	Mill Site	A Right	Upper Mill	Beam	Metal	Lower	Poor	Beige	5.5	1/26/2010 09:02:22	NEG	$0.23 \pm 0.23$
155	Mill Site	A Right	Upper Mill	Pillar	Metal		Fair	Beige	3.1	1/26/2010 09:02:49	NEG	$0.05 \pm 0.30$
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No	Site	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	Date/Time	Result	Pbc ± Prec
156	Mill Site	A Right	Upper Mill	Wall	Metal	Lower	Poor	Beige	13.1	1/26/2010 09:03:07	NEG	$0.20 \pm 0.47$
157	Mill Site	B Left	Upper Mill	Wall	Metal	Lower	Poor	Beige	8.7	1/26/2010 09:04:09	NEG	$0.17 \pm 0.34$
158	Mill Site	B Left	Upper Mill	Window Sash	Metal		Poor	White	3.0	1/26/2010 09:04:47	NEG	$0.00 \pm 0.01$
159	Mill Site	C Left	Upper Mill	Wall	Metal	Upper	Poor	Beige	4.6	1/26/2010 09:05:07	NEG	$0.04 \pm 0.45$
160	Mill Site	D Left	Upper Mill	Wall	Metal	Lower	Poor	Beige	8.5	1/26/2010 09:05:45	NEG	$0.09 \pm 0.47$
161	Mill Site	C Center	Lower Ext.	Garage Door	Metal	Jamb	Poor	Beige	3.1	1/26/2010 09:09:18	NEG	$0.01 \pm 0.19$
162	Mill Site	C Left	Lower Ext.	Wall	Metal	Lower	Poor	Beige	8.2	1/26/2010 09:10:03	NEG	$0.06 \pm 0.34$
163	Mill Site	B Left	Lower Ext.	Wall	Metal	Lower	Poor	Beige	8.3	1/26/2010 09:11:24	NEG	$0.06 \pm 0.54$
164	Mill Site	B Left	Lower Ext.	Window Sash	Metal		Poor	Beige	3.1	1/26/2010 09:11:54	NEG	$0.02 \pm 0.23$
165	Mill Site		Lower Ext.	NULL	Metal		Poor	Beige	3.1	1/26/2010 09:12:24	INCOM	$0.27 \pm 0.50$
166	Mill Site	B Left	Lower Ext.	Door	Metal		Poor	Green	5.3	1/26/2010 09:12:38	NEG	$0.23 \pm 0.21$
167	Mill Site	B Left	Lower Ext.	Door	Metal	Left Case	Poor	Beige	3.1	1/26/2010 09:13:18	NEG	$0.05 \pm 0.17$
168	Mill Site	D Right	Lower Ext.	Board	Wood		Poor	Gray	3.2	1/26/2010 09:14:25	NEG	$0.00 \pm 0.05$
169	Mill Site	D Right	Lower Ext.	Pillar	Metal		Poor	Green	5.2	1/26/2010 09:14:57	NEG	$0.13 \pm 0.14$
170	Mill Site	D Center	Lower Ext.	Machine	Metal		Poor	Gray	3.2	1/26/2010 09:15:31	NEG	$0.00 \pm 0.13$
171	Mill Site	D Center	Lower Ext.	Machine	Metal		Poor	Beige	5.5	1/26/2010 09:16:21	NEG	$0.08 \pm 0.18$
172	Mill Site	D Right	Lower Ext.	Tank	Metal		Poor	White	3.3	1/26/2010 09:17:06	NEG	$0.03 \pm 0.24$
173	Mill Site	A Right	Upper Ext.	Wall	Metal	Lower	Poor	Beige	19.7	1/26/2010 09:18:19	NEG	$-0.12 \pm 0.41$
174	Mill Site	B Right	Upper Ext.	Wall	Metal	Lower	Poor	Beige	10.2	1/26/2010 09:19:51	NEG	$0.04 \pm 0.20$
175	Bunker	A Center	Bunker	Beam	Metal		Fair	Blue	3.1	1/26/2010 09:27:41	NEG	$0.01 \pm 0.22$
176	Trailer	A Center	Laundry	Wall	Wood	Upper	Poor	White	5.6	1/26/2010 09:47:29	NEG	$0.00 \pm 0.07$
177	Trailer	B Left	Laundry	Wall	Wood	Lower	Poor	White	5.5	1/26/2010 09:47:47	NEG	$0.00 \pm 0.01$
178	Trailer	C Left	Laundry	Wall	Wood	Lower	Poor	White	5.6	1/26/2010 09:48:04	NEG	$0.00 \pm 0.12$
179	Trailer	D Center	Laundry	Wall	Wood	Upper	Poor	White	3.3	1/26/2010 09:48:24	NEG	$0.00 \pm 0.10$
180	Trailer	B Center	Laundry	Ceiling	Wood		Poor	White	3.3	1/26/2010 09:48:44	NEG	$0.01 \pm 0.20$
181	Trailer	A Right	Laundry	Door	Wood	Lower Right	Poor	Beige	5.5	1/26/2010 09:49:09	NEG	$0.00 \pm 0.01$
182	Trailer	A Right	Laundry	Door	Wood	Right Case	Poor	Stain	3.3	1/26/2010 09:49:38	NEG	$0.00 \pm 0.11$
183	Trailer	A Left	Living Room	Wall	Wood	Upper	Poor	Stain	3.3	1/26/2010 09:49:55	NEG	$0.02 \pm 0.28$
184	Trailer	B Left	Living Room	Wall	Wood	Upper	Poor	Stain	5.6	1/26/2010 09:50:13	NEG	$0.00 \pm 0.01$
185	Trailer	C Center	Living Room	Wall	Wood	Upper	Poor	Stain	3.3	1/26/2010 09:50:34	NEG	$0.01 \pm 0.24$
186	Trailer	D Center	Living Room	Wall	Wood	Upper	Poor	Stain	3.3	1/26/2010 09:50:50	NEG	$0.01 \pm 0.09$
187	Trailer	D Center	Living Room	Wall	Fiberboard	Upper	Poor	White	3.3	1/26/2010 09:51:04	NEG	$0.00 \pm 0.01$
188	Trailer	D Center	Living Room	Ceiling	Fiberboard		Poor	White	3.2	1/26/2010 09:51:31	NEG	$0.01 \pm 0.02$
189	Trailer	A Center	Living Room	Ceiling	Wood		Poor	Stain	5.6	1/26/2010 09:52:01	NEG	$0.18 \pm 0.32$
190	Trailer	A Left	Kitchen	Wall	Wood	Upper	Poor	Stain	5.6	1/26/2010 09:52:38	NEG	$0.01 \pm 0.17$
191	Trailer	B Left	Kitchen	Wall	Wood	Upper	Poor	Stain	3.3	1/26/2010 09:53:02	NEG	$0.00 \pm 0.02$
192	Trailer	C Left	Kitchen	Wall	Wood	Lower	Poor	Stain	5.6	1/26/2010 09:53:18	NEG	$0.01 \pm 0.18$
193	Trailer	D Left	Kitchen	Wall	Wood	Lower	Poor	Stain	3.2	1/26/2010 09:53:37	NEG	$0.04 \pm 0.28$
194	Trailer	B Center	Kitchen	Cabinet	Wood		Poor	Stain	3.2	1/26/2010 09:53:55	NEG	$0.00\pm\ 0.02$

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No	Site	Side	Room	Strc	Sub	Feat	Cnd	Clr	Ssec	Date/Time	Result	Pbc ± Prec
195	Trailer	C Center	Kitchen	Ceiling	Fiberboard		Poor	White	3.3	1/26/2010 09:54:12	NEG	$0.01 \pm 0.19$
196	Trailer	C Center	Hall	Ceiling	Fiberboard		Poor	White	3.3	1/26/2010 09:54:47	NEG	$0.00\pm\ 0.02$
197	Trailer	A Center	Hall	Wall	Wood	Upper	Poor	Stain	5.6	1/26/2010 09:55:03	NEG	$0.00 \pm 0.15$
198	Trailer	C Center	Hall	Wall	Wood	Upper	Poor	Stain	7.9	1/26/2010 09:55:23	NEG	$0.01 \pm 0.19$
199	Trailer	C Center	Hall	Cabinet Door	Wood		Poor	Stain	3.2	1/26/2010 09:56:07	NEG	$0.02\pm\ 0.03$
200	Trailer	D Right	Bedroom 1	Door	Wood	Upper Right	Poor	Stain	3.3	1/26/2010 09:56:56	NEG	$0.00 \pm 0.17$
201	Trailer	A Left	Bedroom 1	Wall	Wood	Lower	Poor	Stain	3.3	1/26/2010 09:57:11	NEG	$0.00 \pm 0.12$
202	Trailer	B Right	Bedroom 1	Wall	Wood	Upper	Poor	Stain	5.4	1/26/2010 09:57:28	NEG	$0.00 \pm 0.14$
203	Trailer	D Center	Bedroom 1	Wall	Wood	Lower	Poor	Stain	3.2	1/26/2010 09:57:47	NEG	$0.04 \pm 0.36$
204	Trailer	C Right	Bedroom 1	Wall	Wallpaper	Lower	Poor	Stain	3.3	1/26/2010 09:58:01	NEG	$0.00 \pm 0.10$
205	Trailer	C Center	Bedroom 1	Ceiling	Fiberboard		Poor	White	3.3	1/26/2010 09:58:17	NEG	$0.00\pm\ 0.01$
206	Trailer	B Center	Bedroom 1	Cabinet	Wood		Poor	Stain	3.2	1/26/2010 09:58:46	NEG	$0.01 \pm 0.21$
207	Trailer	B Center	Bedroom 1	Cabinet Door	Wood		Poor	Stain	5.4	1/26/2010 09:59:01	NEG	$0.11 \pm 0.18$
208	Trailer	A Center	Hall Restroom	Door	Wood	Lower Left	Poor	Stain	3.3	1/26/2010 09:59:42	NEG	$0.00 \pm 0.17$
209	Trailer	A Left	Hall Restroom	Wall	Wood	Lower	Poor	Stain	3.3	1/26/2010 09:59:59	NEG	$0.01 \pm 0.26$
210	Trailer	D Center	Hall Restroom	Wall	Wood	Upper	Poor	Stain	3.3	1/26/2010 10:00:11	NEG	$0.00 \pm 0.16$
211	Trailer	B Center	Hall Restroom	Wall	Wood	Upper	Poor	White	3.2	1/26/2010 10:00:30	NEG	$0.02 \pm 0.33$
212	Trailer	C Center	Hall Restroom	Wall	Fiberboard	Upper	Poor	White	3.2	1/26/2010 10:00:48	NEG	$0.00 \pm 0.12$
213	Trailer	C Center	Hall Restroom	Ceiling	Fiberboard		Poor	White	3.2	1/26/2010 10:01:02	NEG	$0.01 \pm 0.22$
214	Trailer	B Center	Hall Restroom	Cabinet	Wood		Poor	Stain	3.2	1/26/2010 10:01:22	NEG	$0.00 \pm 0.13$
215	Trailer	B Center	Hall Restroom	Cabinet Door	Wood		Poor	Stain	7.7	1/26/2010 10:01:38	NEG	$0.17 \pm 0.19$
216	Trailer	A Right	Bedroom 2	Wall	Wood	Upper	Poor	Stain	3.2	1/26/2010 10:02:27	NEG	$0.01 \pm 0.21$
217	Trailer	B Left	Bedroom 2	Wall	Wood	Upper	Poor	Stain	3.3	1/26/2010 10:02:38	NEG	$0.01 \pm 0.19$
218	Trailer	C Center	Bedroom 2	Wall	Wallpaper	Upper	Poor	White	5.6	1/26/2010 10:02:55	NEG	$0.13 \pm 0.20$
219	Trailer	D Right	Bedroom 2	Wall	Wood	Upper	Poor	Stain	5.6	1/26/2010 10:03:13	NEG	$0.00 \pm 0.01$
220	Trailer	D Center	Bedroom 2	Cabinet	Wood		Poor	Stain	5.6	1/26/2010 10:03:34	NEG	$0.01 \pm 0.16$
221	Trailer	D Center	Bedroom 2	Cabinet Door	Wood		Poor	Stain	5.4	1/26/2010 10:03:50	NEG	$0.15 \pm 0.24$
222	Trailer	A Center	Bedroom 2	Ceiling	Fiberboard		Poor	White	3.3	1/26/2010 10:04:11	NEG	$0.01 \pm 0.04$
223	Trailer	B Center	Master Bedrm	Wall	Wallpaper	Upper	Poor	White	5.6	1/26/2010 10:05:17	NEG	$0.00\pm\ 0.03$
224	Trailer	A Right	Master Bedrm	Wall	Wood	Upper	Poor	Stain	5.6	1/26/2010 10:05:33	NEG	$0.00\pm\ 0.08$
225	Trailer	C Right	Master Bedrm	Wall	Wood	Upper	Poor	Stain	5.6	1/26/2010 10:05:53	NEG	$0.01 \pm 0.20$
226	Trailer	D Left	Master Bedrm	Wall	Wood	Lower	Poor	Stain	3.3	1/26/2010 10:06:10	NEG	$0.01 \pm 0.09$
227	Trailer	C Center	Master Bedrm	Closet Door	Wood		Poor	Stain	3.3	1/26/2010 10:06:25	NEG	$0.00\pm\ 0.04$
228	Trailer	B Left	Master Bedrm	Door	Wood		Poor	Stain	3.3	1/26/2010 10:06:50	NEG	$0.03 \pm 0.26$
229	Trailer	B Center	Master Bedrm	Cabinet	Wood		Poor	Stain	3.3	1/26/2010 10:07:13	NEG	$0.02 \pm 0.32$
230	Trailer	B Center	Master Bedrm	Cabinet Door	Wood		Poor	Stain	3.2	1/26/2010 10:07:25	NEG	$0.05\pm\ 0.38$
231	Trailer	A Center	Master Bath	Wall	Wood	Upper	Poor	Stain	5.6	1/26/2010 10:07:58	NEG	$0.02 \pm 0.25$
232	Trailer	B Left	Master Bath	Wall	Wood	Upper	Poor	Stain	5.5	1/26/2010 10:08:15	NEG	$0.02 \pm 0.17$
233	Trailer	C Left	Master Bath	Wall	Wood	Lower	Poor	Stain	3.2	1/26/2010 10:08:32	NEG	$0.06\pm\ 0.29$

Room	Stre	Sub	Feat	Cnd	Clr	Ssec	Date/Time	Result	Pbc ± Prec
Master Bath	Wall	Wood	Upper	Poor	Stain	5.4	1/26/2010 10:08:48	NEG	$0.00 \pm 0.07$
Master Bath	Door	Wood	Lower Left	Poor	Stain	3.3	1/26/2010 10:09:04	NEG	$0.02 \pm 0.30$
Exterior	Wall	Wood	Upper	Poor	White	5.5	1/26/2010 10:11:55	NEG	$0.00 \pm 0.08$
Exterior	Door	Wood	Upper Right	Poor	Beige	3.2	1/26/2010 10:12:19	NEG	$0.00\pm\ 0.03$
Exterior	Fascia	Wood		Poor	Beige	3.2	1/26/2010 10:13:06	NEG	$0.00 \pm 0.14$
Exterior	Wall	Wood	Lower	Poor	White	3.2	1/26/2010 10:13:43	NEG	$0.00 \pm 0.10$
Exterior	Skirt	Metal		Poor	White	96	1/26/2010 10.14.19	NEG	$0.00 \pm 0.10$

254	riuner	DLUI	Musici Dulli	vv u li	wood	Opper	1 001	Stum	5.4	1/20/2010 10.00.40	TILO	$0.00 \pm 0.07$
235	Trailer	D Right	Master Bath	Door	Wood	Lower Left	Poor	Stain	3.3	1/26/2010 10:09:04	NEG	$0.02 \pm 0.30$
236	Trailer	A Right	Exterior	Wall	Wood	Upper	Poor	White	5.5	1/26/2010 10:11:55	NEG	$0.00\pm\ 0.08$
237	Trailer	A Right	Exterior	Door	Wood	Upper Right	Poor	Beige	3.2	1/26/2010 10:12:19	NEG	$0.00 \pm 0.03$
238	Trailer	A Right	Exterior	Fascia	Wood		Poor	Beige	3.2	1/26/2010 10:13:06	NEG	$0.00 \pm 0.14$
239	Trailer	D Left	Exterior	Wall	Wood	Lower	Poor	White	3.2	1/26/2010 10:13:43	NEG	$0.00 \pm 0.10$
240	Trailer	D Center	Exterior	Skirt	Metal		Poor	White	9.6	1/26/2010 10:14:19	NEG	$0.00 \pm 0.10$
241	Trailer	A Left	Exterior	Wall	Metal	Lower	Poor	White	12.7	1/26/2010 10:15:54	NEG	$-0.28 \pm 0.39$
242	Trailer	C Right	Exterior	Wall	Metal	Lower	Poor	White	8.0	1/26/2010 10:16:57	NEG	$-0.05 \pm 0.50$
243	Trailer	D Right	Exterior	Wall	Metal	Lower	Poor	White	8.0	1/26/2010 10:19:04	NEG	$0.01 \pm 0.53$
244	Office	A Left	Bedroom 1	Wall	Brick	Upper	Intact	White	22.0	1/26/2010 10:35:08	NEG	$0.00 \pm 0.03$
245	Office	B Center	Bedroom 1	Wall	Brick	Lower	Intact	White	8.0	1/26/2010 10:36:07	NEG	$0.00\pm\ 0.07$
246	Office	C Center	Bedroom 1	Wall	Brick	Upper	Intact	White	22.0	1/26/2010 10:36:34	NEG	$0.01 \pm 0.10$
247	Office	D Center	Bedroom 1	Wall	Brick	Lower	Intact	White	8.0	1/26/2010 10:37:36	INCOM	$0.00 \pm 0.09$
248	Office	B Left	Bedroom 1	Window Case	Wood		Intact	Stain	5.5	1/26/2010 10:38:00	NEG	$0.00 \pm 0.14$
249	Office	A Center	Bedroom 1	Window Sash	Metal		Intact	Beige	3.3	1/26/2010 10:38:19	NEG	$0.00 \pm 0.04$
250	Office	A Left	Bedroom 1	Door	Wood	Right Case	Intact	Brown	5.5	1/26/2010 10:38:53	NEG	$0.00 \pm 0.02$
251	Office	A Left	Bedroom 1	Door	Wood	Left Jamb	Intact	Brown	3.2	1/26/2010 10:39:09	NEG	$0.00 \pm 0.17$
252	Office	A Left	Bedroom 1	Door	Wood	Lower Left	Intact	Brown	3.1	1/26/2010 10:39:24	NEG	$0.00 \pm 0.16$
253			NIST Calibration						23.0	1/26/2010 10:41:35	POS	$1.11 \pm 0.15$
254			NIST Calibration						16.4	1/26/2010 10:42:38	POS	$1.00 \pm 0.08$
255			NIST Calibration						14.2	1/26/2010 10:43:22	POS	$1.06 \pm 0.14$

No

234

Site

Trailer

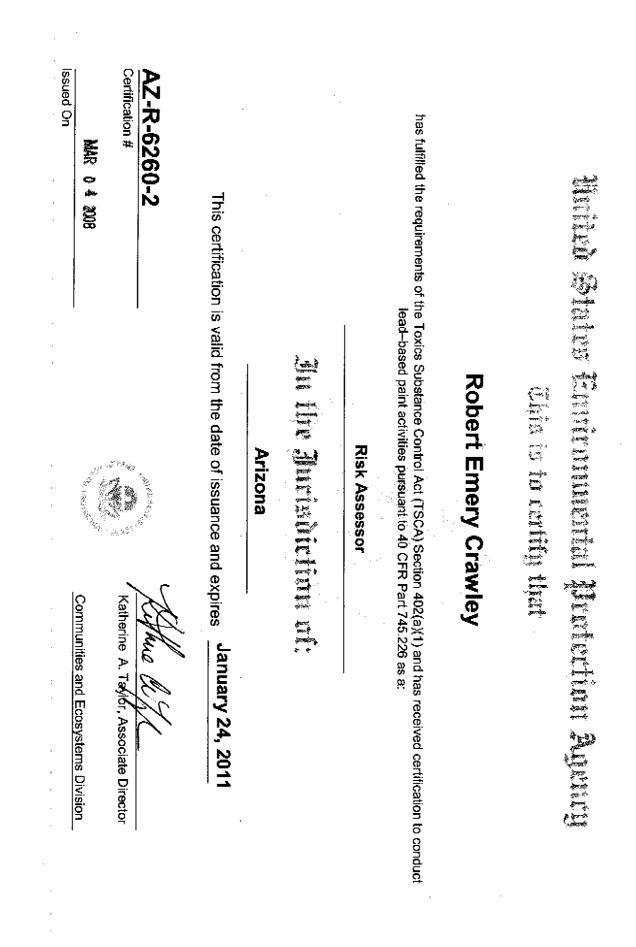
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# LBP Certificates & Niton Performance Characteristic Sheet







From: 4804608335 Page: 1/1

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## Performance-Characteristic Sheet-

## **EFFECTIVE DATE: April 17, 1998**

EDITION NO.: 4

### MANUFACTURER AND MODEL :

Make: *Niton Corporation* Models: XL-309, 701-A, 702-A, and 703-A Spectrum Analyzers Source: <sup>109</sup>Cd (10 - 40 mCi initial source strength) Note: This Performance Characteristic Sheet (PCS) is applicable to the listed Niton

XRF instruments which have an operating software version of 5.1 (or equivalent) using a variable-time mode, and to Niton instruments having an operating software version of 1.2C (or equivalent) using a fixed-time mode. This sheet supersedes all previous sheets for the XRF instruments made by the Niton Corporation and the 1993 testing of XL prototypes reported in the document titled: *A Field Test of Lead-Based Paint Testing Technologies*: *Technical Report* (EPA Report No. 747-R-95-002b, May 1995).

### FIELD OPERATION GUIDANCE

This PCS provides supplemental information to be used in conjunction with Chapter 7 (Lead-Based Paint Inspection) of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown in this sheet are applicable only when operating the instrument using the manufacturer's instructions and the procedures described in Chapter 7 of the HUD Guidelines.

#### **OPERATING PARAMETERS:**

Use of variable-time paint test mode ("K & L + Spectra" mode) on instruments running software version 5.1 (or equivalent) using the "Combined Lead Reading" with the instrument's display of a 95%--confident (2-sigma) *Positive* or *Negative* determination versus the action-level as the stopping point of the measurement.

Use of nominal 20-second readings for L-shell results or 120-second readings for K-shell results on instruments running software version 1.2C (or equivalent) in a fixed-time mode.

#### XRF CALIBRATION CHECK LIMITS:

0.9 to 1.2 mg/cm<sup>2</sup> (inclusive) for instruments running software version 5.1 (or equivalent) 0.9 to 1.1 mg/cm<sup>2</sup> (inclusive) for instruments running software version 1.2C (or equivalent)

#### SUBSTRATE CORRECTION :

(applicable to instruments running software versions 5.1 (or equivalent) or 1.2C (or equivalent))

For XRF results below 4.0 mg/cm<sup>2</sup>, substrate correction recommended for:

None.

Substrate correction is <u>not</u> recommended for:

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

#### THRESHOLDS:

(applicable to instruments running software versions 5.1 (or equivalent) or 1.2C (or equivalent))

DESCRIPTION	SUBSTRATE	THRESHOLD <sup>*</sup> (mg/cm <sup>2</sup> )
	Brick	1.0
	Concrete	1.0
Results not corrected for substrate bias	Drywall	. 1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

For instruments running software version 1.2C (or equivalent), application of the decision making methodology recommended in this PCS can result in inconclusive results regardless of whether decisions are based on L-shell readings, K-shell readings, or both.

## BACKGROUND INFORMATION

#### EVALUATION DATA SOURCE AND DATE

Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Three rounds of tests were conducted on approximately 150 test locations in each round.

One round of testing was conducted March 1995 using a single instrument with an October 1994 source at 10 mCi initial strength while running software version 1.2C in a fixed-time mode with nominal 20-second readings for L-shell results or 120-second readings for K-shell results.

The two other rounds of testing were conducted December 1997 using three different instruments, each running software version 5.1. Two of these instruments had new sources installed November 1997, the other instrument had a new source installed December 1997, all with 10 mCi initial strength. The December 1997 testing was performed in the variable-time paint test mode "K & L + Spectra" using the "Combined Lead Reading" with 2-sigma confidence interval as the stopping point of the measurement.

#### **XRF CALIBRATION CHECK:**

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> film). Measurements should be bracketed by successful XRF calibration check readings. XRF calibration checks are performed at the beginning and end of the day's inspections or at extended delays in testing, and (at least) every four hours during inspections or at a frequency recommended by the manufacturer, whichever is more stringent. If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds. Measurements which are not bracketed by successful calibration checks should be considered suspect.

#### EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for re-testing from each house or from two randomly selected units in multifamily housing. (A testing combination is a location on a painted surface as defined in Chapter 7 of the HUD Guidelines.) For testing combinations involving up to four walls in a room, each wall is classified on its individual XRF reading. (See Chapter 7 for testing procedures if there are more than four walls in a room, and for testing exterior walls.)

For instruments running software version 5.1 (or equivalent), conduct the test in the variable-time paint test mode "K & L + Spectra" using the "Combined Lead Reading" with 2-sigma confidence interval as the

stopping point of the measurement. For instruments running software version 1.2C (or equivalent) in the fixed-time mode, use either 20-second readings for the L-shell results or 120-second readings for the K-shell results, as described in the "Classifications of Results" section below.

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

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 multifamily 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 retest XRF result for each testing combination.

Square the average for each testing combination.

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

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

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

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

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

Compute the average of all ten original XRF results.

Compute the average of all ten retest XRF results.

Find the absolute difference of the two averages.

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

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

#### BIAS AND PRECISION:

Bias and precision data were not computed for instruments using software version 5.1 and taking variable mode readings. (See Appendix B, Section B.3.2 of the document titled *Methodology for XRF Performance Characteristic Sheets*, EPA-747-R-45-008, September 1997). During the 1997 testing, there were 12 testing locations with laboratory-measured lead levels equal to or greater than 4.0 mg/cm<sup>2</sup> lead which were tested using two instruments in the variable-time paint test mode. None of these testing locations had XRF readings less than 1.0 mg/cm<sup>2</sup>. These data are for illustrative purposes only. Substrate correction is not recommended for this XRF instrument.

The bias and precision data given below are for instruments running software version 1.2C (or equivalent) and were computed without substrate correction using the 20-second L-shell readings from samples with

reported laboratory results less than  $4.0 \text{ mg/cm}^2$  lead. Readings reported by the instrument in the "x" or ">>x" format were not used in the computation. During the 1995 testing there were 15 test locations with a laboratory reported result equal to or greater than  $4.0 \text{ mg/cm}^2$  lead. Of these, 12 readings were reported in the ">x" or ">>x" format, but of the 3 remaining, 1 had an XRF reading less than 1.0 mg/cm<sup>2</sup>.

MEASURED AT	SUBSTRATE	BIAS (mg/cm <sup>2</sup> )	PRECISION <sup>*</sup> (mg/cm <sup>2</sup> )	
0.0 mg/cm <sup>2</sup>	All	0.0	<0.1	
0.5 mg/cm <sup>2</sup>	All	0.0	0.2	
1.0 mg/cm <sup>2</sup>	All	0.0	0.3	
2.0 mg/cm <sup>2</sup>	All	-0.1	0.5	

Bias & Precision Results for Niton Model XL-309 Instruments Using Software Version 1.2C (or equivalent)

#### CLASSIFICATION OF RESULTS:

This section describes how to apply information displayed by this instrument to determine the presence or absence of lead in paint using the procedures recommended in Chapter 7 of the HUD Guidelines. These guidelines recommend classifying XRF results as positive, negative, or inconclusive compared to the lead-based paint 1.0 mg/cm<sup>2</sup> standard.

For Niton Model XL-309, 701-A, 702-A, and 703-A instruments running software version 5.1 (or equivalent), XRF results are classified using a threshold. There is no inconclusive classification when using the threshold for instruments running software version 5.1. In single-family and multifamily housing, an XRF result is a single reading taken on each testing combination. (A testing combination is a location on a painted surface as defined in Chapter 7 of the HUD Guidelines.) For testing combinations involving up to four walls in a room, each wall is classified on its individual XRF reading. (See Chapter 7 for testing procedures if there are more than four walls in a room, and for testing exterior walls.) For computing the XRF result, use all digits that are displayed by the instrument as the "Combined Lead Reading." Results are classified as positive (i.e.,  $\ge 1.0 \text{ mg/cm}^2$ ), if greater than or equal to the threshold, or negative (< 1.0 mg/cm<sup>2</sup>) if less than the threshold. Threshold values, provided in the tables above, were determined by comparing XRF test results to the 1.0 mg/cm<sup>2</sup> standard.

For Niton Model XL-309 instruments running software version 1.2C (or equivalent), additional procedures are needed to classify readings because this software displays readings <u>and</u> ancillary information useful for classification purposes. An algorithmic procedure is described that makes use of the XRF reading and other displayed information.

The algorithm for classifying results is first applied to 20-second nominal L-shell readings followed by 120second nominal K-shell readings to resolve inconclusive results, or to recommend laboratory analysis of paint-chip samples, if necessary. A listing of laboratories recognized by the EPA National Lead Laboratory Accreditation Program (NLLAP) for the confirmational analysis of inconclusive results is available from the National Lead Clearinghouse at 1-800-424-LEAD.

XRF results are classified using threshold values for the Model XL-309 software version 1.2C (or equivalent). Results are classified as positive if greater than or equal to the threshold, and as negative if less than the threshold. There is no inconclusive classification when using threshold values. However, in some cases, inconclusive results still may be obtained regardless of whether decisions are based on L-shell readings, K-shell readings, or both, as described below. Use all digits that are reported by the instrument. Threshold values, which were determined for comparing results to the 1.0 mg/cm<sup>2</sup> standard, are provided in the table above.

This instrument displays its lead-based paint measurements as both L-shell and K-shell readings based on

#### Niton XL-309. PCS 4/17/98, ed. 4

the corresponding L-shell and K-shell X-ray fluorescence (refer to Chapter 7 of the HUD Guidelines for more details). The L-shell readings (or L-readings) are displayed as a numerical result alone, or as a numerical result preceded by either one greater-than symbol (">") or preceded by two greater-than symbols (">>"). The two greater-than symbols will only be displayed when the detected lead level is greater than 5.0 mg/cm<sup>2</sup>. Since the maximum lead level reported by this instrument is 5.0 mg/cm<sup>2</sup>, lead levels greater than 5.0 mg/cm<sup>2</sup> are displayed as ">>5.0". Other examples of how L-readings can be displayed (in mg/cm<sup>2</sup> units) are "0.6" and ">0.9". The numerical display alone implies that the instrument measured the lead in the paint at the displayed level using L-shell X-ray fluorescence; 0.6 mg/cm<sup>2</sup> in the example. A number preceded by a single greater than the displayed value. In the example, >0.9 indicates that the instrument detected lead deeply buried in paint at a level greater than 0.9 mg/cm<sup>2</sup>. K-shell readings (or K-readings) are displayed in one of two ways: 1) as a single K-reading plus and minus a "precision" value or 2) as an upper K-reading and lower K-reading.

The same method is used for testing in single-family and multifamily housing. The HUD Guidelines recommend taking a single XRF reading on a testing combination. (A testing combination is a location on a painted surface as defined in Chapter 7 of the HUD Guidelines.) For testing combinations involving up to four walls in a room, each wall is classified on its individual XRF reading. (See Chapter 7 for testing procedures if there are more than four walls in a room, and for testing exterior walls.)

- A. Take a single 20-second nominal reading on each testing combination.
- B. Classify the L-reading based on the type of information displayed.

#### If two greater-than symbols are displayed then:

- Classify the >>5.0 L-reading as POSITIVE

If one greater-than symbol is displayed then:

- Classify the L-reading as POSITIVE if the numerical result that follows the greater than symbol is equal to or greater than 1.0.
- Classify the L-reading as INCONCLUSIVE if the numerical result that follows the greater than symbol is less than 1.0.

## If the numerical L-reading is displayed alone (that is, without any preceding greater-than symbols) then:

- Classify the L-reading as POSITIVE if the numerical result is equal to or greater than 1.0.
- Classify the L-reading as NEGATIVE if the numerical result is less than 1.0.
- C. Resolution of results classified as inconclusive.

All results classified as inconclusive above require further investigation. Take a 120-second nominal XRF reading and use the K-shell reading. In multifamily housing, resolve the inconclusive classification with a single K-shell reading or laboratory analysis as described below.

- Classify the result as POSITIVE if either the K-reading minus the displayed precision value <u>or</u> the lower K-reading is equal to or greater than 1.0.
- Classify the result as NEGATIVE if either the K-reading plus the displayed precision value <u>or</u> the upper K-reading is less than 1.0.
- Classify the result as INCONCLUSIVE if neither of the above decision rules using the K-reading provided a classification which can occur when the upper K-reading is equal to or greater than 1.0 or the lower K-reading is less than 1.0.

- To resolve a remaining INCONCLUSIVE classification, remove a paint-chip sample as described in Chapter 7 of the HUD Guidelines and have it analyzed by a qualified laboratory as described in Chapter 7.

#### TESTING TIMES (FOR SOFTWARE VERSION 5.1):

For the variable-time paint test mode "K & L + Spectra," the instrument continues measuring until a positive or negative result is indicated relative to an action level (1.0 mg/cm<sup>2</sup> for archive testing) and the current precision, or until the reading is terminated by moving the instrument away from the testing surface. None of the variable mode readings were terminated because of the two-minute limit used for archive testing. The following table provides testing time information for this testing mode. Source strength and type of substrate will affect actual testing times.

Testing Times for Instruments Running Software Version 5.1								
	Variable mode testing All data			times (seconds) Median for laboratory—measured lead levels (mg/cm <sup>2</sup> )				
Substrate	25 <sup>th</sup> Percentile	Median	75 <sup>th</sup> Percentile	Pb < 0.25	0.25 <= Pb < 1.0	1.0 <= Pb		
Wood Drywall	6	8	15	6	20	5		
Metal	6	13	20	13	20	6		
Brick Concrete Plaster	6	11	20	9	18	6		

#### DOCUMENTATION:

This PCS was developed in accordance with the methodology in the EPA report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008, September 1997). This report provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Clearinghouse at 1-800-424-LEAD.

This XRF Performance Characteristic Sheet was developed by the Midwest Research Institute (MRI) under a grant from the U. S. Environmental Protection Agency and a separate contract between MRI and the XRF manufacturer. The U.S. Department of Housing and Urban Development (HUD) has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. While MRI reserves the right to revise this XRF Performance Characteristic Sheet at any time, HUD's statement of acceptance would not apply to a revision until HUD has reviewed the revision and made a determination of its acceptability.