

Lead Based Paint Inspection & Risk Assessment



240 Bates ST

Lewiston, ME 04240

Phone: (207) 576-3396

Fax: (207) 576-3396



Property Location:

***10 Clifford Street Apt-001
Biddeford, Maine***

Inspection Date:

04/02/21

Lead Risk Assessor:

Michael Iwans LR-0421

LEAD PAINT INSPECTION & RISK ASSESSMENT REPORT

REPORT NUMBER: S#03308 – 04/02/21 11:13

INSPECTION FOR: Biddeford Lead Hazard Control Program

PERFORMED AT: 10 Clifford Street. APT-001
Biddeford, Me

INSPECTION DATE: 04/02/21

INSTRUMENT TYPE: R M D
MODEL LPA-1
XRF TYPE ANALYZER
Serial Number: 03308

ACTION LEVEL: 1.0 mg/cm**2

OPERATOR LICENSE: LR-0421

STATEMENT:

SIGNED _____ **DATE** _____



Table of content

- Cover Page(s)
- Contents Page
- Understanding the Report & Definitions
- Letter to Owner (Purpose of Report & Disclosure Regulations)
- Background & Education for Lead Paint
- Executive Summary Data Page
- Chart with Hazards Found & Excluded Components
- Diagrams/ Sketches/ or Floor Plans

Appendixes

XRF Data

- Sequence App. A
- Summary App. B
- Detailed App. C
- Distribution App. D
- XRF Performance Characteristics/ Random Re-tests App. E

Lab Testing Summary Report

- (or Lab Results for dust and soil) App. F
- Building Condition survey App. G
- Visual Assessment survey App. H

HUD OLHCHH Requirements

- Questionnaire 5.0 (5.6 for buildings with 5 or more units) App. I
- Hazard Control, Feasibility, Methods, & Maintenance App. J
- Lead Terms Glossary, Units of Measure, Resources App. K

UNDERSTANDING THE LEAD PAINT INSPECTION REPORT

The Lead Paint Inspection Report is composed of the following parts:

Cover Sheet. The cover sheet contains general information as to where the inspection took place, date of inspection, inspector's name, action level, and reference report number.

Summary. The Summary contains general information that is required by regulation. General information such as: inspection location, facility owner, facility age/description, inspection date, and relevant inspection number is found here. The summary also lists the testing method and procedure used in the inspection. The DEP uses as XRF (X-ray fluorescence) direct read analyzer to determine lead concentration in paint. This is a non-destructive testing method that does not require laboratory analysis. The analyzer gives us a lead concentration reading of the tested surface in about twenty seconds. A procedure known as "testing combinations" is used to determine what surfaces (building components) will be tested. This is a representative sampling of the facility. Using this method, all painted surfaces are not routinely inspected. The method requires each room within the facility be tested separately. Similar building components (such as window sash, window sill, door, door jamb, base board) or unique individual components (such as ceilings, floors, walls) are grouped to form a testing combination. One painted surface from each testing combination is selected to be tested. The summary shows the total number of testing combinations and total number of individual XRF readings. The summary will also indicate if any of the components tested contained lead-based paint in poor condition will be listed. A building component containing lead-based paint in poor condition is a lead hazard. Other surfaces may be noted as lead hazards depending on location and use. The results of any samples (soil, water, dust, air, paint chip) collected for laboratory analysis are listed in the summary. An example of these results is provided.

Diagram. This is a rough (not to scale) drawing of each floor of the facility where testing took place. Perimeter wall sides are identified with letters A, B, C, D. Side A is typically the street side of the facility. Sides B, C, and D are identified clockwise from side A as one faces the dwelling; thus wall B is to the left, wall C is across from side A, and side D is to the right of side A.

Doors and windows are identified with letters A, B, C, and D and is identified going clockwise when facing the door or window. This code represents only the side of the building component in a particular room or area where the surface is exposed.

Each room equivalent is identified by room number and room name. Rooms are consecutively numbered clockwise. The exterior is always assigned as a separate room equivalent. Sides in an interior room equivalent follow the overall housing unit side allocation as described above. Therefore, when standing in any four-sided room facing side C, the room's side A will always be to the rear, side B will be to the left, and side D will be to the right.

Environmental Lead Inspection Summary. All certified Lead Inspectors are required by law to complete this form and submit to the DEP Lead Program, 17 State House Station, Augusta, ME 04333. This is a copy of the Inspection Summary submitted for this Lead Determination or Inspection.

Sequential Report. This report is generated from readings stored in the XRF analyzer. The report lists individual rooms and every surface tested in that room in sequential order. Doors and windows are identified by wall and as left, center or right. These are only reference points showing the location of the building components tested. Like building components are grouped together to form testing combinations. Testing combinations used are listed in the comment section. Any building component in poor condition will be listed using the identifying code from the floor diagram.

Detailed Report. This report is generated from readings stored in the XRF analyzer. The report lists individual rooms and every surface tested in that room in non-sequential order. Doors and windows are identified by wall and as left, center or right. These are only reference points showing the location of the building components tested. Like building components are grouped together to form testing combinations. Testing combinations used are listed in the comment section. Any building component in poor condition will be listed using the identifying code from the floor diagram.

Summary Report. This report is organized identically to the detailed report. However, for this report, only readings or average sets, which have a lead value that is equal to or greater than the present abatement level, are shown.

Lead Safe Certificate. If applicable, a Lead-Safe Certificate is completed for all structures found to be lead-safe. "Lead-safe" means a residential dwelling or child-occupied facility that contains no lead hazards (paint, dust, soil, or water). A lead-safe condition may persist provided that no additional lead-based substances are introduced into the residential dwelling or child-occupied facility, or the condition of the existing lead-based substances does not deteriorate. This certificate will expire 6 months

Biddeford Lead Hazard Control Program

from the date of the inspection. For renewal of certificates, the owner must visually assess all painted surfaces for condition and have a dust wipes test performed at 6 months, and then annually thereafter.

Laboratory Analysis. XRF testing is an acceptable testing method for painted surfaces. Paint chip samples, soil, dust, or water samples, if collected, must be sent to a certified laboratory for analysis. The test results from the reporting laboratory are included in the Lead Paint Inspection Report.

QA/QC. Two separate procedures are followed to validate XRF testing results. Calibration of the analyzer is performed before, during, and after the inspection. The XRF is checked against a known lead concentration following the manufacturer's recommended procedure. Any instrument falling outside of certain limits cannot be used. Quality of XRF testing is determined by retesting certain building components. Results of the retest must fall within a certain range to determine the validity of the XRF readings. This is based on validated test results.

Paint Condition. The condition of paint shall be identified using the following classifications.

Intact condition is one in which the paint is entirely intact

Deteriorated/Poor condition is one in which paint is severely worn, weathered or no longer adhering, i.e., peeling, cracking, flaking, chalking; or the substrate is broken, exposed or otherwise deteriorated. Individual interior components with large surface areas (walls, ceilings, floors, doors) that evidence greater than 2 square feet of normal wear and tear or direct damage are considered to be in poor condition. Individual interior components with small surface areas (window sills, baseboard) that evidence greater than 10 percent normal wear and tear or direct damage on the total surface area of the component are considered to be in poor condition. Exterior components with large surface areas that evidence greater than 10 square feet of normal wear and tear or direct damage are considered to be in poor condition. Individual exterior components with small surface areas (soffits, trim) that evidence greater than 10 percent normal wear and tear or direct damage on the total surface area of the component are considered to be in poor condition.

XRF Readings. XRF readings less than 1.0 mg/cm², (milligrams per centimeter squared), are considered negative results. XRF readings 1.0 mg/cm² or greater are considered positive results indicating the presence of lead-based substances.

Lead Hazards. Leaded surfaces with a lead content of 1.0 mg/cm² or greater and in "Deteriorated/Poor" condition are lead hazards.

Chewable, friction, or impact surfaces with a lead content of 1.0 mg/cm² or greater may be identified as a hazard dependent upon the surface condition, location, and other relevant factors. For example, chewable surfaces that evidence children's teeth marks, friction surfaces that are subject to abrasion, and impact surfaces with chipping or flaking paint may be classified as a lead hazard.

Please be advised that improper removal of lead-based paint can pose serious health risks to dwelling occupants and removal personnel. Removal should be done by qualified professionals who are trained and licensed.

LETTER TO OWNER

Community Concepts, Inc.
240 Bates St
Lewiston, ME 04240

Re: 10 Clifford Street Biddeford, Maine 04276

Dear Owner:

The purpose of the lead inspection/risk assessment was to determine the existence of lead-based paint and lead based paint hazards 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.

As part of the assessment, a visual survey of the property and structure was conducted, dust wipe sampling was performed on interior surfaces, and soil samples were collected when applicable. In addition, onsite paint testing using a x-ray fluorescence (XRF) analyzer was performed.

The following report details the results of the investigation. The Lead Paint Inspection Summary details all of the lead paint hazards, soil hazards and dust wipe hazards found during this investigation. Please review the Understanding the lead paint inspection report for additional information on how to interpret XRF results, definition of terms, measurement standards, site and floor plan, etc.

Disclosure Regulations

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 your local health department or Maine Childhood Lead Poisoning Prevention Program MCLPPP.

Conditions & Limitations

Staff of COMMUNITY CONCEPTS has performed the tasks listed above requested by the Client in a thorough and professional manner consistent with commonly accepted standard industry practices, using state of the art practices and best available known technology, as of the date of the assessment. COMMUNITY CONCEPTS cannot guarantee and does not warrant that this Assessment has identified all adverse environmental factors and/or conditions affecting the subject property on the date of the Assessment. COMMUNITY CONCEPTS cannot and will not warrant that the Assessment that was requested by the client will satisfy the dictates of, or provide a legal defense in connection with, any environmental laws or regulations. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards, including EPA's Renovation, Repair and Painting regulation.

The results reported, and conclusions reached by COMMUNITY CONCEPTS are solely for the benefit of the client. The results and opinions in this report, based solely upon the conditions found on the property as of the date of the Assessment, will be valid only as of the date of the Assessment. COMMUNITY CONCEPTS assume no obligation to advise the client of any changes in any real or potential lead hazards at this residence that may or may not be later brought to our attention. Further conditions and limitations to this contracted report are included in the general terms and conditions supplied to the client with the contract for services.

Sincerely,

Michael Iwans

Lead Inspector /Risk Assessor

Background & educational information for lead

Health Effects of Lead Exposure

Lead is a soft metal, naturally occurring in the Earth's crust. It has been determined, however, that lead has no useful purpose in the human body and acts as a toxin. It takes the place of essential minerals such as calcium, potassium, and iron, which are vital to the construction and repair of bones, organs and blood. Lead exposures are a major health concern, especially in young children under the age of six.

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

Sources of Lead Poisoning

Since lead is ingested by routine daily activities such as eating, playing and working, it is important to understand the sources of lead exposures. The most common places to find leads in household settings are interior and exterior paint, and contaminated dust or soil. Lead-Based paint is most hazardous when it is chipping, peeling, cracking, or chalking; or applied to friction surfaces of components such as doors, windows, and floors. The abrasive action of painted surfaces rubbing together causes lead-containing paints to be ground into a fine dust. Lead dust can also be created from decaying vinyl mini blinds. Lead dust then settles on furniture, play area floors, and children's toys, where children are exposed during regular activities. Several other sources of lead in the home include lead dust brought into the home from occupational exposures, water pipes, fixtures and soldered joints; decorative china, "leaded" crystal, fishing lures and sinkers, firearms ammunition, wine bottles and cosmetics. Some hobbies may also contribute to lead contamination within the home. Exposures to all sources of lead should be minimized or eliminated.

Methods to Reduce Exposure the Lead Hazards

The simplest and often most effective way to reduce lead exposures is through regular washing of hands, toys, and horizontal surfaces in the home with a liquid hand soap or dish soap and water. It is highly recommended that disposable cleaning materials be used to wash surfaces, so as not to re-contaminate them with a used mop or cloth.

Other ways of reducing lead hazards within the home include taking shoes off before entering living areas, letting water run prior to drinking or cooking, covering exposed soil with plant materials, and vacuuming with a High Efficiency Particulate Air (HEPA) filtered vacuum. For more information regarding lead poisoning and prevention, contact your local health department or Maine Childhood Lead Poisoning Prevention Program MCLPPP

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

Chewable surface: An interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an “accessible surface” as defined in 42 U.S.C. 4851b(2). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable.

Deteriorated paint: Any paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligating, cracking, or otherwise becoming separated from the substrate.

Drip line/foundation area: The area within 3 feet out from the building wall and surrounding the perimeter of a building.

Bare soil: Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Play area: An area of frequent soil contact by children of under age 6 as indicated by, but not limited to, such factors including the following: the presence of outdoor play equipment (e.g., sandboxes, swing sets, and sliding boards), toys, or other children’s possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners.

Soil-lead hazard: Bare soil on residential property that contains lead in excess of the standard established by the Maine EPA under chapter 424. These Guidelines is 375 µg/g in play areas and 1,000 µg/g in perimeter soil.

Dust-lead hazard: Surface dust in residences that contains an area or mass concentration of lead equal to or in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for dust-lead hazards, which are based on wipe samples, are published at 40 CFR 745.65(b); as of the publication of this edition of these Guidelines, these are

- 10 µg/ft² on floors and
- 100 µg/ft² on interior window sills.
- 100 µg/ft² on interior window trough.
- 375 ppm for play area soil.
- 1000 ppm for perimeter area soil.

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

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

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land use controls. Interim controls that disturb painted surfaces are renovation activities under EPA's Renovation, Repair and Painting Rule.

Lead-based paint: Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 mg/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis. (Local definitions may vary.)

Lead-based paint hazard: A condition in which exposure to lead from lead contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA at 40 CFR 745.65, under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, paint-lead hazards, dust-lead hazards, and soil-lead hazards.

Paint-lead hazard: Lead-based paint on a friction surface that is subject to abrasion and where a dust-lead hazard is present on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor); damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component; a chewable lead-based painted surface on which there is evidence of teeth marks; or any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

Lead Paint Inspection Summary

Report No:	RMD# 3308 04/02/21 11:13
Inspection Location:	10 Clifford Street Apt #001 Biddeford, Maine
Facility Owner:	Ahmed Alnuaimi
Inspection Date:	04/02/21
Inspector:	Michael Iwans
Testing Method:	XRF
Laboratory:	Maine State Lab
QA/QC:	Calibration Check as recommended by instrument manufacturer. XRF Testing Evaluation as described in Performance Characteristic Sheet, Oct, 25 2006, Edition No. 5
Age of Facility:	1900
Facility Description:	Multi - Family
Total XRF Reading:	94



Testing Results: Approximately 1% of the building components tested was **positive** for Lead-based paint as defined by standards and methods in ME Lead Management regulations, Chapter 424.

The following list shows the type and location of those building components containing lead-based paint or assumed to contain lead-based paint in poor condition. These areas are by definition **Lead Hazards**.

<i>Room # and Name</i>	<i>Building Component</i>	<i>Location</i>	<i>Repair recommendation</i>
Living room #1	Siding {located in entry area}	Upper D side	Cover

Notes:

Please be advise that improper removal of lead paint can pose serious health risk to dwelling occupants and removal personnel. Removal must be done by qualified professionals who have de-leading experience and licensing and who have the proper equipment to ensure that no one is put at risk.

{Dust level} indicates that a lead hazard was identified though surface wipe sampling results are summarized on the following pages.

By law, lead hazards may only be identified by a Maine-licensed lead inspector or risk assessor in the course of a lead inspection. Lead inspections may be performed to comply with a licensing requirement, as requested prior to a real estate sale, as part of a lead poisoning investigation, or because an owner wants to learn where there are lead hazards and lead paint in a home. Prior to any lead remediation or repairs tenants must be notified. {Maine DEP Chapter 424 Lead Management Regulation}

EPA’s 2008 Lead-Based Paint Renovation, Repair and Painting (RRP) Rule (as amended in 2010 and 2011), aims to protect the public from lead-based paint hazards associated with renovation, repair and painting activities. These activities can create hazardous lead dust when surfaces with lead paint. The rule requires workers to be certified and trained in the use of lead-safe work practices, and requires renovation, repair, and painting firms to be EPA-certified. These requirements became fully effective April 22, 2010. {EPA regulation on residential property renovation at 40 CFR 745, Subpart E}

Unit layout

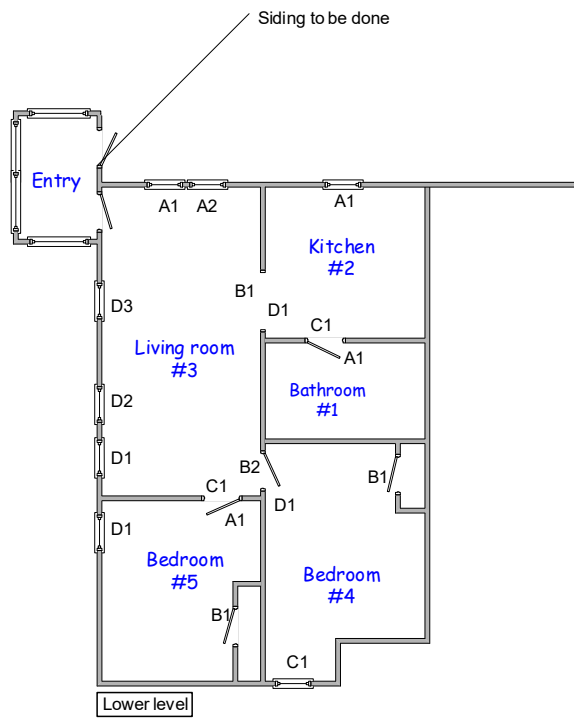
Address : 10 Clifford Street Apt #001 Biddeford Maine
Date : 04-02-2021

A

Clifford Street

D

B



C

Not drawn to scale

Note: Please be advise that improper removal of lead paint can pose serious health risk to dwelling occupants and removal personnel. Removal should be done by qualified professionals who have de-leading experience and the proper equipment to ensure that no one is put at risk.

Keys



Appendix A Sequential

SEQUENTIAL REPORT OF LEAD PAINT INSPECTION FOR: Biddeford Lead

Inspection Date: 04/02/21 10 Clifford Street Apt#001
 Report Date: 4/02/2021 Biddeford Me
 Abatement Level: 1.0
 Report No. S#03308 - 04/02/21 11:13
 Total Readings: 94
 Job Started: 04/02/21 11:13
 Job Finished: 04/02/21 12:25

Read No.	Rm	Room Name	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm ²)	Mode
1		CALIBRATION								0.9	TC
2		CALIBRATION								0.8	TC
3		CALIBRATION								0.9	TC
4		CALIBRATION								-0.2	TC
5		CALIBRATION								-0.2	TC
6		CALIBRATION								-0.1	TC
7	001	bathroom	A	Wall		Ctr	I	plaster	White	-0.4	QM
8	001	bathroom	B	Wall		Ctr	I	plaster	White	-0.5	QM
9	001	bathroom	C	Wall		Ctr	I	plaster	White	-0.7	QM
10	001	bathroom	D	Wall		Ctr	I	plaster	White	-0.2	QM
11	001	bathroom	1	Ceiling		Ctr	D	plaster	White	-0.1	QM
12	001	bathroom	A	A1 door		Ctr	I	wood	White	-0.5	QM
13	001	bathroom	A	A1 door		Ctr Casing	I	wood	Brown	0.0	QM
14	001	bathroom	A	A1 door		Ctr Jamb	I	wood	Brown	-0.1	QM
15	001	bathroom	A	Baseboard		Ctr	I	wood	Brown	0.1	QM
16	001	bathroom	B	Baseboard		Ctr	I	wood	Brown	-0.3	QM
17	002	kitchen	A	Wall		Ctr	I	plaster	White	-0.2	QM
18	002	kitchen	B	Wall		Ctr	I	plaster	White	-0.2	QM
19	002	kitchen	C	Wall		Ctr	I	plaster	White	0.0	QM
20	002	kitchen	D	Wall		Ctr	I	plaster	White	-0.1	QM
21	002	kitchen	1	Ceiling		Ctr	I	plaster	White	-0.1	QM
22	002	kitchen	A	A1 window		Ctr Casing	I	wood	Brown	-0.1	QM
23	002	kitchen	A	A1 window		Ctr Sill	I	wood	Brown	0.1	QM
24	002	kitchen	A	A1 window		Ctr Sash	D	wood	Brown	-0.2	QM
25	002	kitchen	A	A1 window		Ctr Trough	D	wood	White	-0.3	QM
26	002	kitchen	C	C1 door		Ctr Casing	D	wood	Brown	0.0	QM
27	002	kitchen	D	D1 door		Ctr Casing	D	wood	Brown	0.0	QM
28	002	kitchen	D	D1 door		Ctr Jamb	I	wood	Brown	-0.1	QM
29	003	living room	A	Wall		Ctr	I	plaster	White	-0.4	QM
30	003	living room	B	Wall		Ctr	I	plaster	White	-0.3	QM
31	003	living room	C	Wall		Ctr	I	plaster	White	-0.4	QM
32	003	living room	D	Wall		Ctr	I	plaster	White	-0.2	QM
33	003	living room	1	Ceiling		Ctr	I	plaster	White	-0.7	QM
34	003	living room	A	A1 window		Ctr Casing	I	wood	Brown	0.1	QM
35	003	living room	A	A1 window		Ctr Sill	I	wood	Brown	0.1	QM
36	003	living room	A	A1 window		Ctr Sash	D	wood	Brown	0.1	QM
37	003	living room	A	A2 window		Ctr Casing	I	wood	Brown	-0.2	QM
38	003	living room	A	A2 window		Ctr Sill	I	wood	Brown	-0.1	QM
39	003	living room	A	A2 window		Ctr Sash	I	wood	Brown	-0.1	QM
40	003	living room	B	B1 door		Ctr Casing	I	wood	Brown	0.1	QM
41	003	living room	B	Baseboard		Ctr	I	wood	Brown	0.0	QM
42	003	living room	B	B2 door		Ctr Casing	I	wood	Brown	-0.1	QM
43	003	living room	D	D1 window		Ctr Casing	I	wood	Brown	0.0	QM
44	003	living room	D	D1 window		Ctr Sill	I	wood	Brown	0.0	QM
45	003	living room	D	D2 window		Ctr Casing	I	wood	Brown	-0.2	QM
46	003	living room	D	D2 window		Ctr Sash	D	wood	Brown	0.0	QM
47	003	living room	D	D2 window		Ctr Sill	D	wood	Brown	-0.1	QM
48	003	living room	D	D3 window		Ctr Sill	I	wood	Brown	0.0	QM

Biddeford Lead Hazard Control Program

49	003	living room	D	D3 window	Ctr Casing	I wood	Brown	-0.2	QM
50	003	living room	D	D3 window	Ctr Sash	I wood	Brown	0.0	QM
51	003	living room	D	D1 door	Ctr Casing	I wood	Brown	-0.2	QM
52	003	living room	D	Entry	Ctr siding	D wood	Brown	>9.9	QM
53	003	living room	D	Entry	Ctr Floor	D wood	gray	-0.4	QM
54	003	living room	D	Entry	Ctr Window sill	D wood	Cream	-0.1	QM
55	003	living room	D	Entry	Ctr Window casi	D wood	Cream	-0.3	QM
56	003	living room	D	Entry	Ctr Door casing	D wood	Cream	-0.2	QM
57	004	bedroom	A	Wall	Ctr	I plaster	White	-0.3	QM
58	004	bedroom	B	Wall	Ctr	I plaster	White	-0.1	QM
59	004	bedroom	C	Wall	Ctr	I plaster	White	-0.1	QM
60	004	bedroom	D	Wall	Ctr	I plaster	White	-0.2	QM
61	004	bedroom	1	Ceiling	Ctr	I plaster	White	-0.2	QM
62	004	bedroom	D	D1 door	Ctr	I wood	White	-0.3	QM
63	004	bedroom	D	D1 door	Ctr Casing	I wood	Brown	-0.2	QM
64	004	bedroom	D	D1 door	Ctr Jamb	I wood	Brown	-0.2	QM
65	004	bedroom	B	B1 door	Ctr	I wood	Brown	0.0	QM
66	004	bedroom	B	B1 door	Ctr Casing	I wood	Brown	-0.1	QM
67	004	bedroom	C	C1 window	Ctr Casing	I wood	White	0.0	QM
68	004	bedroom	C	C1 window	Ctr Sill	I wood	White	-0.3	QM
69	004	bedroom	C	Baseboard	Ctr	I wood	White	-0.2	QM
70	005	bedroom	A	Wall	Ctr	I plaster	White	-0.4	QM
71	005	bedroom	B	Wall	Ctr	I plaster	White	-0.5	QM
72	005	bedroom	C	Wall	Ctr	I plaster	White	-0.1	QM
73	005	bedroom	D	Wall	Ctr	I plaster	White	-0.1	QM
74	005	bedroom	1	Ceiling	Ctr	I plaster	White	0.0	QM
75	005	bedroom	D	D1 window	Ctr casing	I wood	Brown	0.0	QM
76	005	bedroom	D	D1 window	Ctr Sill	I wood	Brown	0.1	QM
77	005	bedroom	B	B1 door	Ctr	I wood	Brown	0.0	QM
78	005	bedroom	B	B1 door	Ctr Casing	I wood	Brown	-0.1	QM
79	006	Xrf retest	A	Wall	Ctr	I plaster	White	-0.4	QM
80	006	Xrf retest	B	Wall	Ctr	I plaster	White	-0.2	QM
81	006	Xrf retest	C	Wall	Ctr	I plaster	White	-0.2	QM
82	006	Xrf retest	D	Wall	Ctr	I plaster	White	-0.2	QM
83	006	Xrf retest	A	Wall	Ctr	I plaster	White	-0.5	QM
84	006	Xrf retest	B	Wall	Ctr	I plaster	White	-0.3	QM
85	006	Xrf retest	C	Wall	Ctr	I plaster	White	-0.1	QM
86	006	Xrf retest	D	Wall	Ctr	I plaster	White	-0.2	QM
87	006	Xrf retest	A	A1 window	Ctr Casing	I wood	Brown	-0.1	QM
88	006	Xrf retest	A	A1 window	Ctr Sill	I wood	Brown	-0.1	QM
89		CALIBRATION						0.9	TC
90		CALIBRATION						0.8	TC
91		CALIBRATION						0.8	TC
92		CALIBRATION						-0.2	TC
93		CALIBRATION						-0.2	TC
94		CALIBRATION						-0.1	TC

---- End of Readings ----

Appendix B Summary report

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Biddeford Lead

Inspection Date: 04/02/21 10 Clifford Street Apt#001
Report Date: 4/02/2021 Biddeford Me
Abatement Level: 1.0
Report No. S#03308 - 04/02/21 11:13
Total Readings: 94 Actionable: 1
Job Started: 04/02/21 11:13
Job Finished: 04/02/21 12:25

Read No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm ²)	Mode
Interior Room 003 living room									
052	D	Entry	Ctr	siding	D	wood	Brown	>9.9	QM
Comment: VCT Flooring									
----- End of Readings -----									

Appendix C Detailed

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Biddeford Lead Hazard

Inspection Date: 04/02/21 10 Clifford Street Apt#001
 Report Date: 4/02/2021 Biddeford Me
 Abatement Level: 1.0
 Report No. S#03308 - 04/02/21 11:13
 Total Readings: 94
 Job Started: 04/02/21 11:13
 Job Finished: 04/02/21 12:25

Read No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Paint Color	Lead (mg/cm ²)	Mode
Interior Room 001 bathroom									
012	A	A1 door	Ctr		I	wood	White	-0.5	QM
013	A	A1 door	Ctr	Casing	I	wood	Brown	0.0	QM
014	A	A1 door	Ctr	Jamb	I	wood	Brown	-0.1	QM
007	A	Wall	Ctr		I	plaster	White	-0.4	QM
015	A	Baseboard	Ctr		I	wood	Brown	0.1	QM
011	1	Ceiling	Ctr		D	plaster	White	-0.1	QM
008	B	Wall	Ctr		I	plaster	White	-0.5	QM
016	B	Baseboard	Ctr		I	wood	Brown	-0.3	QM
009	C	Wall	Ctr		I	plaster	White	-0.7	QM
010	D	Wall	Ctr		I	plaster	White	-0.2	QM

Comment:
 VCT Flooring, Could no access C, D Baseboards

Interior Room 002 kitchen									
022	A	A1 window	Ctr	Casing	I	wood	Brown	-0.1	QM
023	A	A1 window	Ctr	Sill	I	wood	Brown	0.1	QM
024	A	A1 window	Ctr	Sash	D	wood	Brown	-0.2	QM
025	A	A1 window	Ctr	Trough	D	wood	White	-0.3	QM
017	A	Wall	Ctr		I	plaster	White	-0.2	QM
021	1	Ceiling	Ctr		I	plaster	White	-0.1	QM
018	B	Wall	Ctr		I	plaster	White	-0.2	QM
026	C	C1 door	Ctr	Casing	D	wood	Brown	0.0	QM
019	C	Wall	Ctr		I	plaster	White	0.0	QM
027	D	D1 door	Ctr	Casing	D	wood	Brown	0.0	QM
028	D	D1 door	Ctr	Jamb	I	wood	Brown	-0.1	QM
020	D	Wall	Ctr		I	plaster	White	-0.1	QM

Comment:
 VCT Flooring, No Baseboards,

Interior Room 003 living room									
034	A	A1 window	Ctr	Casing	I	wood	Brown	0.1	QM
035	A	A1 window	Ctr	Sill	I	wood	Brown	0.1	QM
036	A	A1 window	Ctr	Sash	D	wood	Brown	0.1	QM
037	A	A2 window	Ctr	Casing	I	wood	Brown	-0.2	QM
038	A	A2 window	Ctr	Sill	I	wood	Brown	-0.1	QM
039	A	A2 window	Ctr	Sash	I	wood	Brown	-0.1	QM
029	A	Wall	Ctr		I	plaster	White	-0.4	QM
033	1	Ceiling	Ctr		I	plaster	White	-0.7	QM
040	B	B1 door	Ctr	Casing	I	wood	Brown	0.1	QM
042	B	B2 door	Ctr	Casing	I	wood	Brown	-0.1	QM
030	B	Wall	Ctr		I	plaster	White	-0.3	QM
041	B	Baseboard	Ctr		I	wood	Brown	0.0	QM
031	C	Wall	Ctr		I	plaster	White	-0.4	QM
043	D	D1 window	Ctr	Casing	I	wood	Brown	0.0	QM
044	D	D1 window	Ctr	Sill	I	wood	Brown	0.0	QM
045	D	D2 window	Ctr	Casing	I	wood	Brown	-0.2	QM
046	D	D2 window	Ctr	Sash	D	wood	Brown	0.0	QM
047	D	D2 window	Ctr	Sill	D	wood	Brown	-0.1	QM

Biddeford Lead Hazard Control Program

048	D	D3 window	Ctr	Sill	I	wood	Brown	0.0	QM
049	D	D3 window	Ctr	Casing	I	wood	Brown	-0.2	QM
050	D	D3 window	Ctr	Sash	I	wood	Brown	0.0	QM
051	D	D1 door	Ctr	Casing	I	wood	Brown	-0.2	QM
052	D	Entry	Ctr	siding	D	wood	Brown	>9.9	QM
053	D	Entry	Ctr	Floor	D	wood	gray	-0.4	QM
054	D	Entry	Ctr	Window sill	D	wood	Cream	-0.1	QM
055	D	Entry	Ctr	Window casi	D	wood	Cream	-0.3	QM
056	D	Entry	Ctr	Door casing	D	wood	Cream	-0.2	QM
032	D	Wall	Ctr		I	plaster	White	-0.2	QM

Comment:

VCT Flooring, Could not access A, C, D Baseboards. No Baseboards in Entry. Ceiling is Wood Stained.

Interior Room 004 bedroom

057	A	Wall	Ctr		I	plaster	White	-0.3	QM
061	1	Ceiling	Ctr		I	plaster	White	-0.2	QM
065	B	B1 door	Ctr		I	wood	Brown	0.0	QM
066	B	B1 door	Ctr	Casing	I	wood	Brown	-0.1	QM
058	B	Wall	Ctr		I	plaster	White	-0.1	QM
067	C	C1 window	Ctr	Casing	I	wood	White	0.0	QM
068	C	C1 window	Ctr	Sill	I	wood	White	-0.3	QM
059	C	Wall	Ctr		I	plaster	White	-0.1	QM
069	C	Baseboard	Ctr		I	wood	White	-0.2	QM
062	D	D1 door	Ctr		I	wood	White	-0.3	QM
063	D	D1 door	Ctr	Casing	I	wood	Brown	-0.2	QM
064	D	D1 door	Ctr	Jamb	I	wood	Brown	-0.2	QM
060	D	Wall	Ctr		I	plaster	White	-0.2	QM

Comment:

Carpet Flooring

Vinyl Window sash, No A, B, D Baseboards.

Interior Room 005 bedroom

070	A	Wall	Ctr		I	plaster	White	-0.4	QM
074	1	Ceiling	Ctr		I	plaster	White	0.0	QM
077	B	B1 door	Ctr		I	wood	Brown	0.0	QM
078	B	B1 door	Ctr	Casing	I	wood	Brown	-0.1	QM
071	B	Wall	Ctr		I	plaster	White	-0.5	QM
072	C	Wall	Ctr		I	plaster	White	-0.1	QM
075	D	D1 window	Ctr	casing	I	wood	Brown	0.0	QM
076	D	D1 window	Ctr	Sill	I	wood	Brown	0.1	QM
073	D	Wall	Ctr		I	plaster	White	-0.1	QM

Comment:

Carpet Flooring

Vinyl Window sash, Could not access baseboards. All Door & Trim is all stained, new construction.

Interior Room 006 Xrf retest

087	A	A1 window	Ctr	Casing	I	wood	Brown	-0.1	QM
088	A	A1 window	Ctr	Sill	I	wood	Brown	-0.1	QM
079	A	Wall	Ctr		I	plaster	White	-0.4	QM
083	A	Wall	Ctr		I	plaster	White	-0.5	QM
080	B	Wall	Ctr		I	plaster	White	-0.2	QM
084	B	Wall	Ctr		I	plaster	White	-0.3	QM
081	C	Wall	Ctr		I	plaster	White	-0.2	QM
085	C	Wall	Ctr		I	plaster	White	-0.1	QM
082	D	Wall	Ctr		I	plaster	White	-0.2	QM
086	D	Wall	Ctr		I	plaster	White	-0.2	QM

Biddeford Lead Hazard Control Program

Calibration Readings

001	0.9	TC
002	0.8	TC
003	0.9	TC
004	-0.2	TC
005	-0.2	TC
006	-0.1	TC
089	0.9	TC
090	0.8	TC
091	0.8	TC
092	-0.2	TC
093	-0.2	TC
094	-0.1	TC

---- End of Readings ----

Appendix D Distribution

DISTRIBUTION REPORT OF LEAD PAINT INSPECTION FOR: Biddeford Lead Hazard

Inspection Date: 04/02/21 10 Clifford Street Apt#001
 Report Date: 4/02/2021 Biddeford Me
 Abatement Level: 1.0
 Report No. S#03308 - 04/02/21 11:13
 Total Readings: 82
 Job Started: 04/02/21 11:13
 Job Finished: 04/02/21 12:25

Structure	Structure Distribution				
	Total	Positive	Negative	Inconclusive	
A1 door	1	0 <0%>	1 <100%>	0 <0%>	
A1 door Casing	1	0 <0%>	1 <100%>	0 <0%>	
A1 door Jamb	1	0 <0%>	1 <100%>	0 <0%>	
A1 window Casing	3	0 <0%>	3 <100%>	0 <0%>	
A1 window Sash	2	0 <0%>	2 <100%>	0 <0%>	
A1 window Sill	3	0 <0%>	3 <100%>	0 <0%>	
A1 window Trough	1	0 <0%>	1 <100%>	0 <0%>	
A2 window Casing	1	0 <0%>	1 <100%>	0 <0%>	
A2 window Sash	1	0 <0%>	1 <100%>	0 <0%>	
A2 window Sill	1	0 <0%>	1 <100%>	0 <0%>	
B1 door	2	0 <0%>	2 <100%>	0 <0%>	
B1 door Casing	3	0 <0%>	3 <100%>	0 <0%>	
B2 door Casing	1	0 <0%>	1 <100%>	0 <0%>	
Baseboard	4	0 <0%>	4 <100%>	0 <0%>	
C1 door Casing	1	0 <0%>	1 <100%>	0 <0%>	
C1 window Casing	1	0 <0%>	1 <100%>	0 <0%>	
C1 window Sill	1	0 <0%>	1 <100%>	0 <0%>	
Ceiling	5	0 <0%>	5 <100%>	0 <0%>	
D1 door	1	0 <0%>	1 <100%>	0 <0%>	
D1 door Casing	3	0 <0%>	3 <100%>	0 <0%>	
D1 door Jamb	2	0 <0%>	2 <100%>	0 <0%>	
D1 window Casing	2	0 <0%>	2 <100%>	0 <0%>	
D1 window Sill	2	0 <0%>	2 <100%>	0 <0%>	
D2 window Casing	1	0 <0%>	1 <100%>	0 <0%>	
D2 window Sash	1	0 <0%>	1 <100%>	0 <0%>	
D2 window Sill	1	0 <0%>	1 <100%>	0 <0%>	
D3 window Casing	1	0 <0%>	1 <100%>	0 <0%>	
D3 window Sash	1	0 <0%>	1 <100%>	0 <0%>	
D3 window Sill	1	0 <0%>	1 <100%>	0 <0%>	
Entry Door casing	1	0 <0%>	1 <100%>	0 <0%>	
Entry Floor	1	0 <0%>	1 <100%>	0 <0%>	
Entry siding	1	1 <100%>	0 <0%>	0 <0%>	
Entry Window casi	1	0 <0%>	1 <100%>	0 <0%>	
Entry Window sill	1	0 <0%>	1 <100%>	0 <0%>	
Wall	28	0 <0%>	28 <100%>	0 <0%>	
Inspection Totals:	82	1 < 1%>	81 < 99%>	0 < 0%>	

Appendix E Performance characteristic sheet
Performance Characteristic Sheet

**RMD LPA-1, PCS Edition 5 Page
 1 of 4 Performance Characteristic Sheets**

EFFECTIVE DATE: October 25, 2006 **EDITION NO.:** 5
MANUFACTURER AND MODEL:

Make: *Radiation Monitoring Devices*

Model: *LPA-1*

Source: ⁵⁷Co

Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Quick mode or 30-second equivalent standard (Time Corrected) mode readings.

XRF CALIBRATION CHECK LIMITS:

0.7 to 1.3 mg/cm ² (inclusive)

SUBSTRATE CORRECTION:

For XRF results below 4.0 mg/cm², substrate correction is recommended for:

Metal using 30-second equivalent standard (Time Corrected) mode readings.

None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second equivalent standard (Time Corrected) mode readings

Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

THRESHOLDS:

30-SECOND EQUIVALENT STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Results corrected for substrate bias on metal substrate only	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0
QUICK MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Readings 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

RMD LPA-1, PCS Edition 5 Page 2 of 4

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 from the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

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 readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments 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 1.02 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 covered 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):

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

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. Use either the Quick Mode or 30-second equivalent standard (Time Corrected) Mode readings. RMD LPA-1, PCS Edition 5 Page 3 of 4

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 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 re-test 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:

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm² lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm²

lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm² and none of the quick mode readings were less than 1.0 mg/cm². The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model. RMD LPA-1, PCS Edition 5 Page 4 of 4

30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm ²)	PRECISION* (mg/cm ²)
0.0 mg/cm ²	Brick	0.0	0.1
	Concrete	0.0	0.1
	Drywall	0.1	0.1
	Metal	0.3	0.1
	Plaster	0.1	0.1
	Wood	0.0	0.1
0.5 mg/cm ²	Brick	0.0	0.2
	Concrete	0.0	0.2
	Drywall	0.0	0.2
	Metal	0.2	0.2
	Plaster	0.0	0.2
	Wood	0.0	0.2
1.0 mg/cm ²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.0	0.3
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.0	0.3
2.0 mg/cm ²	Brick	-0.1	0.4
	Concrete	-0.1	0.4
	Drywall	-0.1	0.4
	Metal	0.1	0.4
	Plaster	-0.1	0.4
	Wood	-0.1	0.4

*Precision at 1 standard deviation.

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION:

An EPA document titled *Methodology for XRF Performance Characteristic Sheets* 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 Information Center Clearinghouse at 1-800-424-LEAD. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, www.hud.gov/offices/lead.

This XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). 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*.

Evaluation of XRF Testing - Performance Characteristic Retest Protocol

XRF: LPA-1, S/N 3308

Location: 10 Clifford Street Apt-001 Biddeford Me

Inspection Date: 04/02/2021

The following is part of a QA/QC program evaluating XRF testing readings. Procedure following described in Performance Characteristics Sheet Date October 25, 2006, Edition No. 5 for RMD LPA - 1

(a) Reading	(b) Initial Result	(c) Reading	(d) Initial Result	(e) Average (b	(f) (e) ²
7	-0.4	79	-0.4	-0.4	0.16
8	-0.5	80	-0.2	-0.35	0.12
9	-0.7	81	-0.2	-0.45	0.20
10	-0.2	82	-0.2	-0.2	0.04
17	-0.2	83	-0.5	-0.35	0.12
18	-0.2	84	-0.3	-0.25	0.06
19	0.0	85	-0.1	-0.05	0.00
20	-0.1	86	-0.2	-0.15	0.02
22	-0.1	87	-0.1	-0.1	0.01
23	0.1	88	-0.1	0	0.00
totals	-2.3		-2.3	-2.3	0.745
Averages	-0.23		-0.23	-0.23	0.07

totals
Averages

(g)	(h)	(f)
Difference between (g)&(h)= 0	C=total (f)	0.75
2.Retest Tolerance Limit = 0.32	Cx0.0072=	0.01 D
	D + 0.032=	0.04 E
	Square Root of E =	0.19 F
		0.32

3. If the difference between (g) and (h) is less than the Retest Tolerance Limit, the inspection has passed the retest.



**RMD LPA-1 XRF
Calibration Check Results**

Company Name : **Community Concepts** Inspector **Michael Iwans**
 Company Address **240 Bates St** License # **LR-0421**
 Town, State, Zip **Lewiston Maine** Date : **4/2/2021**
 Inspection Address **10 Clifford Street 001**
 Biddeford Me
 XRF S/N : **3308**
 XRF Model : **RMD LPA-1**

NIST SRM : **1.0**
 Calibration Check Tolerance **Plus or minus 0.3 mg/cm2**

First Calibration Check: Calibration Start Time:

First Reading	Second Reading	Third Reading	First Average	Difference between Average
0.9	0.8	0.9	0.9	-0.13

Second Calibration Check: Calibration Start Time:

First Reading	Second Reading	Third Reading	First Average	Difference between Average
0.9	0.8	0.8	0.8	-0.17

Calibration Check Tolerance: plus or minus 0.3 mg/cm2

First Calibration Check: Calibration Start Time:

First Reading	Second Reading	Third Reading	First Average	Difference between Average
-0.2	-0.1	-0.2	-0.2	-0.17

Second Calibration Check:

First Reading	Second Reading	Third Reading	First Average	Difference between Average
-0.2	-0.2	-0.1	-0.2	-0.17

If the difference of the calibration check average for the first NIST SRM film value is greater than the specified calibration check tolerance for this device, consult the manufacturer's recommendations to bring the instrument back into control. Retest all testing combinations tested since the last successful calibration check test.

Appendix F Laboratory water, soil & dust results
Dust level report

Community Concepts, Inc.
240 Bates St
Lewiston, ME 04240

06/09/20

RE: Lead dust inspection & wipe sampling
10 Clifford Street
Biddeford, Maine

Community Concepts, Inc. conducted a dust sampling & visual assessment at 10 Clifford Street Apt-001 Biddeford, Maine. The dust sampling inspection was performed by Andrew Watson; Maine licensed Lead Inspector/ Risk Assessor (License # LR-0396) at the above property on 06/09/20. The inspector collected a set of dust wipes to determine if each area met the HUD clearance standards.

Lead dust samples were collected from floors, window sills and window wells throughout the property. A one square foot sampling area was used for floors. A minimum of one field blank was submitted to the laboratory for analysis. Wipe samples were placed in fifty milliliter centrifuge tubes and were submitted to the Maine Health and Environmental Testing Laboratory. Lead dust samples were analyzed by Atomic Absorption Spectrometry (AAS) utilizing the EPA 200.7 method.

The clearance standards utilized were as follows:

Floors: 10 ug/sq ft
Window Sills: 100 ug/sq ft
Window Wells: 100 ug/sq ft
Perimeter soil: 1000 Ppm
Water: 15 ug/L

Date of Test:	06/09/2020
Lead Inspector:	Andrew Watson
Certification Number:	LR-0396
Property Address:	10 Clifford Street Biddeford, Maine
Apartment:	001
Owner Name: Tenant Name:	Ahmed Alnuaimi
Laboratory:	Maine D. H. S. Health & Environmental Lab
Address:	12 State House Station 211 State St. Augusta, Me. 04333
Telephone Number:	207 – 287 – 2727
HETL Folder Number:	2011045

Dust level summary

Sample #	Room location	Surface	Lead Readings	Limits	Hazard
1 -001		Blank	<3 UG/FT2	10 UG/FT2	No
2 -001	Bathroom #1	Floor	<3 UG/FT2	10 UG/FT2	No
3 -001	Kitchen	Floor	<3 UG/FT2	10 UG/FT2	No
4 -001		Window Sill	<3 UG/FT2	100 UG/FT2	No
5 -001	Living room #3	Floor	<3 UG/FT2	10 UG/FT2	No
6 -001		Window Sill	21 UG/FT2	100 UG/FT2	No
7 -001	Bedroom #4	Floor	<3 UG/FT2	10 UG/FT2	No
8 -001		Window Sill	<3 UG/FT2	100 UG/FT2	No
9 -001	Bedroom #5	Floor	<3 UG/FT2	10 UG/FT2	No

Appendix G Building condition
Building Condition

Property Address: 10 Clifford Street Biddeford
 Property Owner: Ahmed Alnuaimi
 Name of Lead Risk Assessor: Michael Iwans Assessment Date: 04/02/21

Condition Found	Yes	No	Comments
Roof missing parts of surfaces (such as: tiles, boards, shakes, etc.)		X	
Roof has holes or large cracks		X	
Gutters / downspouts broken / missing		X	
Chimney masonry cracked, bricks loose or missing, badly out of plumb		X	
Exterior or Interior walls have large cracks or holes, requiring more than routine painting, (or masonry pointing)		X	
Exterior siding has missing pieces		X	
Water stains on interior walls or ceilings from an active leak		X	
Walls or ceilings deteriorated		X	
More than a "very small" amount of paint in a room deteriorated		X	
Two or more windows or doors broken, missing, or boarded up		X	
Porch or steps have major elements broken, missing, or boarded up		X	
Foundation has major cracks, missing material, structure leans, or is visibly unsound		X	
Exterior soil samples collected		X	No bare soil – {Pavement noted}

Appendix H Visual assessment
Visual Assessment

Date of inspection:	04/02/21
Technician:	Michael Iwans
Client:	Ahmed Alnuaimi
Property Address:	10 Clifford Street Biddeford Maine

Location:	Identify visible areas of dust, paint chips, painted debris, and deteriorated paint. <i>(Note location: walls, ceilings, floors, doors, windows, trim, cabinets, etc.)</i>
Interior	Window vinyl sashes & Door Jambs {A side window noted wooden sash}
	VCT flooring & carpet flooring
	Plaster walls & ceiling
Exterior	Vinyl exterior siding
	Window casing & sill covered with coil along with upper trim & soffit

Appendix I Questionnaire 5. Form

Property Address: 10 Clifford Street Biddeford Me

Property Owner: Ahmed Alnuaimi

Date: 04/02/21

Unit #: 001

Name of Lead Risk Assessor: Michael Iwans

Other Household Information and Family

1. Any children under age 6 live in the home or visit frequently? Yes, No How many? 2
2. If Yes, please provide the following information about each child if known:

	Child 1	Child 2	Child 3	Child 4
(a) Age:	3	1		
(b) Blood lead level:	unknown	Unknown		
(d) Location of bedroom:	Bedroom 6&7	Bedroom 6&7		
(e) Main room where child eats:	Kitchen & Bedroom	Kitchen & Bedroom		
(f) Main room where child plays:	Bedroom & kitchen	Bedroom & kitchen		
(g) Main room where toys are stored:	Bedrooms	Bedrooms		
(h) Main locations where child plays outdoors:	Drive way	Drive way		

(If a resident child under 6 has had an EBLL, an environmental investigation may be necessary [Chapter 16 of the HUD Guidelines].)

Children and Children's Habits

1. What rooms does your child play in the most? Kitchen & bedrooms
2. Are there any rooms in the home where your child is not allowed to go? No
3. Where does your child sleep? Bedrooms
4. Does your child have a favorite window to look out or play at? Yes No
5. If Yes, where _____
(For inspector: Is there any paint in poor condition in this area? Yes No)
6. Does your child suck his/her fingers or thumb? Yes No
7. Does your child chew on painted surfaces in the house such as window sills, railings, door moldings? Yes No
8. Does your child put other objects in his/her mouth such as toys or jewelry? Yes No
8. Do you have a pet such as a dog or cat that could track lead soil or dust into the house? Yes No

Building Renovations

3. Were building renovations or repainting done here in the last 12 months? _____Yes _____No

- Remodeling: Yes No
- Renovation: Yes No
- Window replacement: Yes No
- Repainting: Yes No
- Are there areas of bare soil outside the house? Yes No
- Are there paint chips near the building or play areas? Yes No
- If Yes, where? _____
- Has there been any exterior renovation or repainting done on this building? Yes No
- If Yes, when? _____

**Appendix J:
Lead Based Paint, Hazard Control Options**

Lead abatement, interim controls, lead-safe work practices and worker/occupant protection practices complying with current EPA, HUD and OSHA standards will be necessary to safely complete all work involving the disturbance of LBP coated surfaces and components. In addition, any work considered lead hazard control will enlist the use of interim control (temporary) methods and/or abatement (permanent) methods. It should be noted that all lead hazard control activities have the potential of creating additional hazards or hazards that were not present before. Properly trained and certified persons, as well as properly licensed firms (as mandated) should accomplish all abatement/interim control activities conducted at this residence.

Details for the listed lead hazard control options and issues surrounding occupant/worker protection practices can be found in the publication entitled: *Guidelines for the Evaluation and Control of LBP Hazards in Housing* published by HUD, the Environmental Protection Agency (EPA) lead-based paint regulations, and the Occupational Safety and Health Administration (OSHA) regulations found in its Lead in Construction Industry Standard.

Interim controls, as defined by HUD, means a set of measures designed to temporarily reduce human exposure to LBP hazards and/or lead containing materials. These activities include, but are not limited to: component and/or substrate stabilization, paint and varnish stabilization, and tilling and placement of appropriate ground cover over bare soil areas.

Abatement, as defined by HUD, means any set of measures designed to permanently eliminate LBP and/or LBP hazards. The product manufacturer and/or contractor must warrant abatement methods to last a minimum of twenty (20) years, or these methods must have a design life of at least twenty (20) years. These activities include but are not necessarily limited to: the removal of LBP from substrates and components; the replacement of lead-based paint components; the permanent enclosure of LBP with construction materials; the encapsulation of LBP with approved products; and the removal or permanent covering (concrete or asphalt) of soil-lead hazards.

Cost Comparison for Treatments

(per Maine DEP Chapter 424, updated October 3, 2016)

Type of Hazard	Treatment Lower Initial Cost	Option A: Higher Initial Cost	Option B: Higher Initial Cost
Soil Hazard	Mixing of contaminated soil with lead-free soil or soil amendments	Excavation and Replacement of Soil.	Complete covering of the bare soil with concrete or asphalt to a depth of at least two (2) inches
Dust Hazard	Cleaning practices that minimize generation of dust, per Maine DEP Chapter 424 (including HEPA vacuum wet-cleaning, HEPA vacuum)		
Deteriorated Paint (Interior)	Encapsulation treatments (Scrape, Prime and Paint)	Component Removal	
Deteriorated Paint (Exterior)	Encapsulation treatments (Scrape, Prime and Paint)	Enclosure system of rigid durable construction materials, and mechanically fastened to the substrate	Component Removal

Friction Surface	Paint Removal: Scrape to Bare, Prime and Paint (for small surface areas)	Enclosure system of rigid durable construction materials, and mechanically fastened to the substrate (for large surface areas)	Component Removal (for complex surface friction areas)
Impact Surface	Paint Removal: Scrape to Bare, Prime and Paint (for small surface areas)	Enclosure system of rigid durable construction materials, mechanically fastened to the substrate (for large surface areas)	Component Removal (for complex surface friction areas)
Carpet	Lead-contaminated rugs, carpets or other fabric surfaces may be abated by steam cleaning	Removal and disposal	

Feasibility for Treatments

(Reasons treatments may fail and become Lead Hazards again)

- o Repainting or encapsulating an area of deteriorated paint caused by moisture problems (leaky roof, poor vapor barrier, uncorrected plumbing leaks, window air conditioner, etc.) without correcting the moisture problem first
- o Repainting or encapsulating an area subject to impact and friction
- o Repainting or encapsulating deteriorated paint or varnish without preparing the surface first
- o Attaching encapsulants or enclosures to deteriorating structural members that may not be able to support the integrity of the enclosure
- o Applying liquid encapsulants to deteriorated substrates
- o Replacing window sashes in frames that are severely deteriorated
- o Cleaning surfaces that are not sealed or made “cleanable”
- o Cleaning highly soiled furnishings and carpets, instead of replacing them
- o Mulching or covering lead-contaminated soil in areas where pets tend to sleep or dig
- o Planting grass seed in high-traffic areas
- o Treatments in properties which are frequently damaged

Paint Removal

(per Maine DEP Chapter 424, updated October 3, 2016)

- (a) Prohibited methods of paint removal.** The following paint removal methods shall not be used to remove lead-based paint:
- (i) Open flame burning or torching;
 - (ii) Machine sanding or grinding without a HEPA exhaust control;
 - (iii) Uncontained hydro blasting or high pressure wash;
 - (iv) Abrasive blasting or sandblasting without HEPA exhaust control;
 - (v) Heat guns operating above 1100 degrees Fahrenheit;
 - (vi) Chemical paint strippers containing methylene chloride except as noted in section 6(C)(2)(b)(ii) below;
 - (vii) Dry scraping or dry sanding, except in conjunction with heat guns or around electrical outlets.

Ongoing Monitoring and Maintenance

On-going monitoring will be necessary in this property since lead based paint (LBP) is present. When LBP is present, the potential exists for LBP hazards to develop. Hazards can develop by means such as, but not limited to: the failure of lead hazard control measures; previously intact LBP becoming deteriorated; dangerous levels of lead-in-dust (dust lead) re-accumulating through friction, impact, and deterioration of paint; or, through the introduction of contaminated exterior dust and soil into the interior of the structure.

Ongoing monitoring typically includes two different activities: re-evaluation and annual visual assessments. A re-evaluation is a risk assessment that includes limited soil and dust sampling and a visual evaluation of paint films and any existing lead hazard controls. Re-evaluations are supplemented with visual assessments by the property owner, which should be conducted at least once a year, when the property owner or its management agent (if the housing is rented in the future) receives complaints from residents about deteriorated paint or other potential lead hazards, when the residence (or if, in the future, the house will have more than one dwelling unit, any unit that turns over or becomes vacant), or when significant damage occurs that could affect the integrity of hazard control treatments (e.g., flooding, vandalism, fire).

The visual assessment should cover the dwelling unit (if, in the future, the housing will have more than one dwelling unit, each unit and each common area used by residents), exterior painted surfaces, and ground cover (if control of soil-lead hazards is required or recommended). Visual assessments should confirm that all paint with known LBP is not deteriorating, that lead hazard control methods have not failed, and that structural problems do not threaten the integrity of any remaining known or suspected LBP.

Visual assessments do not replace the need for professional re-evaluations by a certified risk assessor. The re-evaluation should include:

1. A review of prior reports to determine where lead-based paint and lead-based paint hazards have been found, what controls were done, and when these findings and controls happened;
2. A visual assessment to identify deteriorated paint, failures of previous hazard controls, visible dust and debris, and bare soil;
3. Environmental testing for lead in dust, newly deteriorated paint, and newly bare soil; and
4. A report describing the findings of the reevaluation, including the location of any lead-based paint hazards, the location of any failures of previous hazard controls, and, as needed, acceptable options for the control of hazards, the repair of previous controls, and modification of monitoring and maintenance practices.

The first reevaluation should be conducted no later than two years after completion of hazard controls, or, if specific controls or treatments are not conducted, two years from the beginning of ongoing lead-based paint monitoring and maintenance activities. Subsequent reevaluations should be conducted at intervals of two years, plus or minus 60 days. If two consecutive reevaluations are conducted two years apart without finding a lead-based paint hazard, reevaluation may be discontinued.

Please refer to your community development agency, housing authority, or other applicable agency for additional local/regional regulations and guidelines governing re-evaluation activities.

Appendix K: Lead Terms Glossary

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

Bare soil: Soil not covered with grass, sod, some other similar vegetation, or paving, including the sand in sandboxes.

Chewable surface: An interior or exterior surface painted with lead-based paint that a young child can mouth or chew. A chewable surface is the same as an "accessible surface" as defined in 42 U.S.C. 4851b(2). Hard metal substrates and other materials that cannot be dented by the bite of a young child are not considered chewable.

Deteriorated paint: Any paint coating on a damaged or deteriorated surface or fixture, or any interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligatoring, cracking, or otherwise becoming separated from the substrate.

Dripline/foundation area: The area within 3 feet out from the building wall and surrounding the perimeter of a building.

Dust-lead hazard: Surface dust in residences that contains an area or mass concentration of lead equal to or in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for dust-lead hazards, which are based on wipe samples, are published at 40 CFR 745.65(b); as of the publication of this edition of these *Guidelines*, these are 40 µg/ft² on floors and 250 µg/ft² on interior windowsills. Also called lead-contaminated dust.

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

Garden area: An area where plants are cultivated for human consumption or for decorative purposes.

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

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include, but are not limited to, specialized cleaning, repairs, maintenance, painting, temporary containment, and the establishment and operation of management and resident education programs. Monitoring, conducted by owners, and reevaluations, conducted by professionals, are integral elements of interim control. Interim controls include dust removal; paint film stabilization; treatment of friction and impact surfaces; installation of soil coverings, such as grass or sod; and land use controls. Interim controls that disturb painted surfaces are renovation activities under EPA's Renovation, Repair and Painting Rule.

Lead-based paint: Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0 mg/cm² as measured by XRF or laboratory analysis, or 0.5 percent by weight (5000 mg/g, 5000 ppm, or 5000 mg/kg) as measured by laboratory analysis. (Local definitions may vary.)

Lead-based paint hazard: A condition in which exposure to lead from lead contaminated dust, lead contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA at 40 CFR 745.65, under Title IV of the Toxic Substances Control Act). Lead-based paint hazards include, for example, **paint-lead hazards**, **dust-lead hazards**, and **soil-lead hazards**.

Paint-lead hazard: Lead-based paint on a friction surface that is subject to abrasion and where a dust-lead hazard is present on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor); damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component; a chewable lead-based painted surface on which there is evidence of teeth marks; or any other deteriorated lead-based paint in any residential building or child-occupied facility or on the exterior of any residential building or child-occupied facility.

Play area: An area of frequent soil contact by children of under age 6 as indicated by, but not limited to, such factors including the following: the presence of outdoor play equipment (e.g., sandboxes, swing sets, and sliding boards), toys, or other children's possessions, observations of play patterns, or information provided by parents, residents, care givers, or property owners.

Soil-lead hazard: Bare soil on residential property that contains lead in excess of the standard established by the EPA under Title IV of the Toxic Substances Control Act. EPA standards for soil-lead hazards, published at 40 CFR 745.65(c), as of the publication of this edition of these *Guidelines*, is 400 µg/g in play areas and 1,200 µg/g in the rest of the yard, also called lead-contaminated soil.

UNITS OF MEASUREMENT

Gram (g or gm): A unit of mass in the metric system. A nickel weighs about 1 gram, as does a 1 cube of water 1 centimeter on each side. A gram is equal to about 35/1000 (thirty-five thousandths of an ounce). Another way to think of this is that about 28.4 grams equal 1 ounce.

µg (microgram): A microgram is 1/1000th of a milligram. To put this into perspective, a penny weighs 2 grams. To get a microgram, you would need to divide the penny into 2 million pieces. A microgram is one of those two million pieces.

µg/dL (microgram per deciliter): used to measure the level of lead in children's and worker's blood to establish whether intervention is needed. A deciliter is a little less than a half a cup.

µg/ft² (micrograms per square feet): the unit used to express levels of lead in dust samples. All reports should report levels of lead in dust in µg/ft².

mg/cm² (milligrams per square centimeter): used to report levels of lead in paint thru XRF testing.

ppm (parts per million): Typically used to express the concentrations of lead in soil. This can also be used to express the amount of lead in a surface coating on a mass concentration basis. This measurement can also be shown as: µg/g, mg/kg or mg/l.

ppb (parts per billion): Typically used to express the amount of lead found in drinking water. This measurement is also sometimes expressed as: µg/L (micrograms per liter).

HUD OLHCHH LEAD-BASED PAINT AND PAINT HAZARD STANDARDS

(Effective April 1, 2017)

Lead-Based Paint (may be determined in either of two ways)

- Surface concentration (mass of lead per area) 1.0 µg/cm²
- Bulk concentration (mass of lead per volume) 0.5%, 5000 µg/g, or 5000 ppm

Dust Action Levels for Lead-Contamination

- Floors 10 µg/ft²
- Interior Window Sills 100 µg/ft²

Dust Clearance Levels for Lead-Contamination

- Same as above and
- Porch Floors (clearance examination only) 40 µg/ft²
- Window Troughs (clearance examination only) 100 µg/ft²

Maine DEP Standards (most stringent)
(Effective October 3, 2016)

Soil Action Levels for Lead Contamination

- Play areas used by children under age 6 375 µg/g, or 375 ppm
- Other areas 1,000 µg/g, or 1,000 ppm

RESOURCES FOR INFORMATION ON LEAD-BASED PAINT HAZARDS

National Lead information Center & Clearinghouse:

1-800-424 LEAD

www.epa.gov/lead/pubs/nlic.htm

Centers for Disease Control and Prevention Lead Program:

www.cdc.gov/lead

Toll-free CDC Contact Center: 800-CDC-INFO; TTY 888-232-6348

Consumer PRODUCT SAFETY COMMISSION

www.cpsc.gov

Toll-free consumer hotline: 1-800-638-2772; TTY 301-595-7054

Environmental Protection Agency Lead Program:

www.epa.gov/lead

202-566-0500

HUD OFFICE OF HEALTHY HOMES AND LEAD HAZARD CONTROL:

www.hud.gov/offices/lead

202-402-7698

Maine Childhood Lead Poisoning Prevention Program:

www.maine.gov/dhhs/mecdc/environmental-health/eohp/lead/providers.shtml

Phone: 1-866-292-3474 or 287-4311

Hearing- or speech-challenged individuals may access the federal agency numbers above through TTY by calling the toll-free Federal Relay Service at 800-877-8339; see also <http://www.federalrelay.us/tty>.