PBS | Engineering + Environmental

Lead Paint Hazard Assessment

Hayhurst Elementary School
B-Classrooms 14 and 15
5037 SW Iowa Street, Portland, OR

Prepared for:

Portland Public Schools
501 N Dixon Street
Portland, Oregon 97227

September 2016
Project No. 06500.714

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LEAD PAINT HAZARD ASSESSMENT

Performed at
Hayhurst Elementary School
B-Classrooms 14 and 15
5037 SW Iowa St, Portland, OR

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Portland Public Schools

This lead paint hazard assessment is for the exclusive use of the Client and/or building owner and is not to be photographed, photocopied, or similarly reproduced, in total or in part, without the expressed written consent of the Client and/or building owner.

Prepared by
PBS Engineering and Environmental Inc.
4412 SW Corbett Ave, Portland, Oregon 97239

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Risk Assessor / Certified Industrial Hygienist
Consulting Firm
Analytical Laboratory

1.0 EXECUTIVE SUMMARY

PBS Engineering and Environmental Inc. (PBS) recently performed a lead hazard assessment at Hayhurst Elementary School, B-classrooms 14 and 15, in Portland, Oregon. This service was performed because of concerns regarding potential lead exposures associated with lead paint in these rooms.

The following is a summary of findings:

- PBS performed a visual assessment of painted and varnished surfaces in the aforementioned classrooms. Most painted surfaces appeared to be in good or fair condition with minor contact damage. PBS did find the varnished surfaces of the lower cabinet faces around the sinks and painted window sashes and bases to be in poor condition. Paint and varnish conditions were assessed using US Department of Housing and Urban Development (HUD) guidelines, as shown in Table 1. The condition assessment is presented in Table 2, attached to this report.
- A total of forty-four (44) surface readings using a X-Ray Fluorescence Analyzer (XRF) were collected in both rooms. No painted or varnished surfaces were identified as lead-based paint. The complete list of surface readings is presented in Table 2 attached to this report.
- A total of fourteen (14) dust wipe samples were collected from floors, windowsills, window troughs, and desks. Twelve (12) of the samples collected were below the limits of detection. Two (2) samples collected in window troughs contained 15,000 and 20,000 micrograms per square foot ($\mu g/ft^2$) of lead. As a result of the testing, no lead dust hazards were identified within the functional space of the rooms on interior surfaces tested; however, results indicate that there is a lead dust hazard within the window troughs. The complete list of surfaces wiped is presented in Table 3, attached to this report.
- A total of two (2) bulk paint chip samples were collected from the window sashes. The concentration of lead in the samples are 10,000 parts per million and 12,000 parts per million (PPM). These components are considered lead-based paint. The list of components tested is presented in Table 4, attached to this report.

Based on the findings of this investigation, paint found in poor condition should be stabilized and window troughs need to be cleaned. PBS recommends that the windows remain closed until an Oregon Health Division certified abatement firm using certified workers can clean the window troughs and surrounding interior and exterior surfaces. After cleaning, a certified renovation repair and painting (RRP) contractor, using lead-safe work practices, should repaint the window components and lower cabinetry in the rooms.

2.0 SCOPE OF THE ASSESSMENT

On September 13, 2016, PBS conducted a lead hazard assessment that included a visual assessment of painted surfaces; XRF testing of major representative building components; bulk paint chip sampling of damaged window sashes; and dust wipe sampling of floors, desktops, window sills, and window troughs in these two rooms. All assessment work was completed by an Oregon Health Authority certified lead risk assessor (CIH). This lead hazard assessment was limited to the B-classrooms 14 and 15 within the building. No other assumptions or conclusions are implied.

3.0 BACKGROUND

Lead-containing paint is ubiquitous in the built environment. As paint degrades over time, lead can be released into the environment. This is a result of the degradation and erosion of lead containing

paint. Regulations have been developed over the years to address this potential exposure hazard. Lead concentrations upwards of 50 percent were common in older paints while newer paint, since 2009, has been limited to 90 ppm per the Consumer Product Safety Commission (CPSC).

Most lead exposures occur when a person ingests or breaths lead particulate. Lead ingestion typically occurs when a person has lead residues on his or her hands and then transfers those residues to the food he or she eats.

Currently, lead hazards are controlled through various Environmental Protection Agency (EPA) and Department of Housing and Urban Development (HUD) regulations.

Following is a listing of definitions and abbreviated discussions applicable to this project.

4.0 DEFINITIONS

40 CFR 745.103 definition of lead-based paint

Lead-based paint means paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter (1mg/cm2) or 0.5 percent by weight (5,000ppm).

40 CFR 745.65 definitions of lead-based paint hazards

(a) Paint-lead hazard. A paint-lead hazard is any of the following:

(1) Any lead-based paint on a friction surface that is subject to abrasion and where the lead dust levels on the nearest horizontal surface underneath the friction surface (e.g., the window sill, or floor) are equal to or greater than the dust-lead hazard levels identified in paragraph (b) of this section.

(2) Any damaged or otherwise deteriorated lead-based paint on an impact surface that is caused by impact from a related building component (such as a doorknob that knocks into a wall or a door that knocks against its doorframe.

(3) Any chewable lead-based painted surface on which there is evidence of teeth marks.

(4) 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.

(b) Dust-lead hazard. A dust-lead hazard is surface dust in a residential dwelling or child-occupied facility that contains a mass-per-area concentration of lead equal to or exceeding 40 µg/ft 2 on floors or 250 µg/ft 2 on interior windowsills based on wipe samples.

40 CFR 745.227 Dust lead clearance levels (by wipe sampling)

40 µg/ft2 – floors (includes carpeted and uncarpeted interior floors)
250 µg/ft2 – interior windowsills
400 µg/ft2 – window troughs (previously called “window wells” in some literature)

5.0 SAMPLING

5.1 XRF Sampling

PBS performed surface sampling A handheld Innovex LBP-4000 X-Ray Fluorescence Analyzer (XRF) was used to perform an analysis of painted and varnished surfaces. All calibration readings were within the tolerance for this instrument. No substrate correction is required with the Innovex XRF per the instrument's performance characteristic sheet.

The "side" information presented on the XRF data sheets relates to the side of the rooms where the XRF test spot is located. The risk assessor used the main entry door of each room as the basis to establish side "A"; sides B, C, and D follow in clockwise rotation.

5.2 Dust Sampling

The purpose of dust sampling is to determine the lead concentration in settled dust. Dust is an important pathway for childhood exposure to lead. Children can be exposed to leaded dust by inhalation or ingestion. Ingestion of leaded dust is a common pathway, especially for kids six years old and younger, during normal hand to mouth activities involving their fingers or toys that have come in contact with leaded dusts.

Wipe sampling is the recommended method for collecting surface dust samples. Dust samples are typically collected from floors near friction and impact spots or areas of deteriorated paint, interior windowsills, and window troughs. Cabinets, shelves, and tabletops may also be sampled if there is reason to suspect a surface dust hazard may exist caused by friction, impact points, or from areas of deteriorated paint nearby.

Dust wipes were collected in accordance with EPA 747-R-95-001, Residential Sampling for Lead: Protocols for Dust and Soil Sampling. All wipe samples were analyzed using EPA Method SW846-7000B, flame atomic absorption. Sample collection results and their locations are presented in Table 3.

5.3 Bulk Paint-Chip Sampling

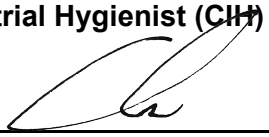
A total of two bulk paint-chip verification samples were collected from damaged painted window component surfaces. Representative paint-chip samples were submitted to a qualified lab for analysis by atomic absorption via EPA Method 7420. Bulk paint-chip sample laboratory results are presented in Table 4.

6.0 LIMITATIONS OF SCOPE

This study was limited to the tests and locations as indicated above. The site as a whole may have other environmental concerns that will not be characterized by this study. Further study may be recommended. The findings and conclusions of this work are not scientific certainties are probabilities based on professional judgment concerning the significance of the data gathered during the course of this investigation. PBS is not able to represent conditions on the site or adjoining sites beyond those conditions detected or observed by PBS.

CERTIFICATIONS

OHA Certified Risk Assessor (#1806)
Certified Industrial Hygienist (CIH)
Clark Nelson



09.15.2016

Signature | Date

Certifying Firm
PBS Engineering and Environmental Inc.
4412 SW Corbett Ave.
Portland, Oregon 97239
Phone: 503.248.1939

Certification No: 1038-LBP FIRM
Expiration Date: 9/3/2016

Certified Laboratory
R.J. Lee Group, Inc
350 Hochberg Road
Monroeville, Pennsylvania 15146
Phone: 724.325.1776

AIHA ELLAP Certification No: 100364

TAB 1

Tables

Table 1 - HUD Guideline Categories of Paint Deterioration
Table 2 - XRF Data Sheet and Condition Assessment
Table 3 - Lead Dust Wipe Sample Results
Table 4 - Bulk Paint Chip Sample Results

Table 1. HUD Guideline Categories of Paint Deterioration

Total Area of Deteriorated Paint on Each Component			
Type of Building Component	**Intact**	**Fair**	**Poor**
Exterior components with large surface areas	Entire surface is intact	Less than or equal to 10 square feet	More than 10 square feet
Interior components with large surface areas (walls, ceilings, floors, doors)	Entire surface is intact	Less than or equal to 2 square feet	More than 2 square feet
Interior and exterior components with small surface areas (windowsills, baseboards, soffits, trim)	Entire surface is intact	Less than or equal to 10 percent of the total surface area of the component	More than 10 percent of the total surface area of the component

Table 2. XRF Data Sheet and Condition Assessment

ID #	Room	Side	Structure	Feature	Substrate	Color	Condition	Results (mg/cm^2)
1	Standardization							Successful
2	Calibration							1.07 (Pos)
3	Calibration							1.02 (Pos)
4	Calibration							1.08 (Pos)
5	14	A	Wall	Upper	Plaster	Blue	Intact	0.10 (Neg)
6	14	A	Wall	Lower	Plaster	Blue	Intact	0.16 (Neg)
7	14	B	Wall	Upper	Plaster	White	Intact	0.11 (Neg)
8	14	B	Wall	Lower	Plaster	White	Intact	0.11 (Neg)
9	14	C	Wall	Upper	Plaster	White	Intact	0.07 (Neg)
10	14	C	Wall	Lower	Plaster	White	Intact	0.15 (Neg)
11	14	D	Wall	Upper	Plaster	White	Intact	0.1 (Neg)
12	14	D		Lower	Plaster	White	Intact	0.11 (Neg)
13	14	D	Entry door	Face	Wood	Varnish	Fair	0.54 (Neg)
14	14	D	Entry door	Jamb	Wood	Varnish	Fair	0.23 (Neg)
15	14	A	Closet door	Face	Wood	Varnish	Fair	0.63 (Neg)
16	14	A	Cabinet	Lower door face	Wood	Varnish	Poor	0.13 (Neg)
17	14	B	Window	Frame	Wood	White	Fair	0.12 (Neg)
18	14	B	Window	Base	Wood	White	Fair	0.42 (Neg)
19	14	B	Window	Sash	Wood	White	Poor	0.22 (Neg)
20	14	B	Window	Radiator cover	Metal	White	Fair	0.04 (Neg)
21	14	B	Book shelf	Top	Wood	Varnish	Fair	0.31 (Neg)
22	14	B	Window	Exterior sill	Wood	Tan	Fair	0.16 (Neg)
23	14	C	Elect	Conduit	Metal	White	Intact	0 (Neg)
24	14	D	HVAC	Defusier	Metal	White	Intact	0.08 (Neg)
25	14	Ceiling	Beam		Wood	Varnish	Intact	0.32 (Neg)
26	14	Ceiling	Tile		Firtex	White	Intact	0.01 (Neg)
27	15	A	Wall	Upper	Plaster	Red	Fair	0.11 (Neg)
28	15	A	Wall	Lower	Plaster	Red	Fair	0.07 (Neg)
29	15	A	Wall	Upper	Plaster	Olive	Fair	0.06 (Neg)
30	15	B	Wall	Lower	Plaster	Olive	Fair	0.07 (Neg)
31	15	C	Wall	Upper	Plaster	Olive	Fair	0.05 (Neg)
32	15	C	Wall	Lower	Plaster	Olive	Fair	0.12 (Neg)
33	15	D	Wall	Upper	Plaster	Olive	Fair	0.19 (Neg)
34	15	D	Wall	Lower	Plaster	Olive	Fair	0.1 (Neg)

35	15	D	Entry door	Face	Wood	Varnish	Fair	0.21 (Neg)
36	15	D	Entry door	Jamb	Wood	Varnish	Fair	0.06 (Neg)
37	15	A	Cabinet	Upper door face	Wood	Varnish	Intact	0.28 (Neg)
38	15	A	Cabinet	Lower door face	Wood	Varnish	Poor	0.36 (Neg)
39	15	B	Window	Frame	Wood	White	Fair	0.23 (Neg)
40	15	B	Window	Sash	Wood	White	Poor	0.7 (Neg)
41	15	B	Window	Base	Wood	White	Fair	0.35 (Neg)
42	15	B	Window	Radiator cover	Metal	White	Poor	0.03 (Neg)
43	15	B	Window	Exterior sill	Wood	Tan	Fair	0.2 (Neg)
44	15	B	Book shelf		Wood	Varnish	Fair	0.43 (Neg)
45	15	C	Elect	Conduit	Metal	White	Intact	0 (Neg)
46	15	D	HVAC	Defusier	Metal	Olive	Fair	0.03 (Neg)
47	15	Ceiling	Beam		Wood	Varnish	Intact	0.19 (Neg)
48	15	Ceiling	Tile		Firtex	White	Intact	0 (Neg)
49	Calibration							1.05 (Pos)
50	Calibration							1.17 (Pos)
51	Calibration							1.13 (Pos)

(mg/cm^2) = milligrams per centimeter squared

Table 3. Lead Dust Wipe Sample Results

Sample Number	Location	Description	Results
6500.714-2001	Room 14; Outside in hallway	Floor	<20 µg/ft2
6500.714-2002	Room 14; In front of sink area	Floor (Wall A)	<20 µg/ft^2
6500.714-2003	Room 14; In front of bookshelf	Floor (Wall B)	<20 µg/ft^2
6500.714-2004	Room 14; Top of bookshelf	Laminate surface (Wall C)	<20 µg/ft^2
6500.714-2005	Room 14; Window sill	(Wall C)	<40 µg/ft^2
6500.714-2006	Room 14; Window trough	(Wall C)	15,000 µg/ft^2
6500.714-2007	Room 14; Student desk	Center of room	<20 µg/ft^2
6500.714-2008	Room 15; Outside in hallway	Floor	<20 µg/ft^2
6500.714-2009	Room 15; In front of sink	Floor (Wall A)	<20 µg/ft^2
6500.714-2010	Room 15; In front of bookshelf	Floor (Wall B)	<20 µg/ft^2
6500.714-2011	Room 15; Top of bookshelf	Laminate surface (Wall C)	<20 µg/ft^2
6500.714-2012	Room 15; Window sill	(Wall C)	<20 µg/ft^2
6500.714-2013	Room 15; Window trough	(Wall C)	20,000 µg/ft^2
6500.714-2014	Room 15; Play table	Center of room	<20 µg/ft^2
6500.714-2015	999-2003; Spike	Q.C.	1,000 µg/ft^2

Table 4. Lead-Based Paint Sampling Results

Location	Component	Substrate	Color	Lead (ppm)
Room 14	Window Sash	Wood	White	10,000
Room 15	Window Sash	Wood	White	12,000

ppm – part per million

TAB 2

Sample Inventory and laboratory Reports
Lead Dust Wipe
Lead Bulk Paint Chip

Code	Material	Analysis	Location	Lab
PAINT				
LB06500.714-1001	Paint	10,000 ppm	B-classroom 14; window sash, wood, white, fair condition	R.J. Lee Group
LB06500.714-1002	Paint	12,000 ppm	B-classroom 15; window sash, wood, white, poor condition	R.J. Lee Group

RJ Lee Group, Inc.
350 Hochberg Road, Monroeville, PA 15146
Tel: (724) 325-1776 | Fax: (724) 733-1799

LABORATORY REPORT

PBS Engineering & Environmental
4412 Southwest Corbett Ave.
Portland, OR 97239

Attn: Hailey Edmeades
Phone: 503-417-7594

Email: hailey.edmeades@pbsenv.com

RJ Lee Group Job No.: PA090920160004
Samples Received: September 9, 2016
Report Date: September 12, 2016
Client Project: 06500.714 Phase 0002
Purchase Order No.: N/A
Matrix: Solid
Prep/Analysis: EPA 3050B / EPA 7000B-Paint

Client Sample ID	RJ Lee Group ID	Sampling Date	Analyte	Sample Concentration		Minimum Reporting Limit		Analysis Date	Q
				Weight Percent (%)	Parts per Million (PPM) - mg/kg	Weight Percent (%)	Parts per Million (PPM) - mg/kg		
LB06500.714-1001	PA090920160004-001	NP	Lead	1.00	10000	0.015	150	09/12/2016	AN
LB06500.714-1002	PA090920160004-002	NP	Lead	1.2	12000	0.0100	100	09/12/2016	AN

Comments:

Report Qualifiers (Q):

P *: PA-DEP Accredited (PA DEP Lab ID 02-00396, NELAP)*
N *: NY ELAP Accredited (NY ELAP Lab Code 10884)*
C *: CA ELAP Accredited (CA ELAP Certificate 1970)*
A *: AIHA-LAP, LLC Accredited (Lab ID 100364)*
E = Value above highest calibration standard
J = Value below lowest calibration standard but above MDL (Method Detection Limit)
L = LCS (Laboratory Control Standard)/SRM (Standard Reference Material) recovery outside accepted recovery limits
H = Holding times for preparation or analysis exceeded
B = Analyte detected in the associated Method Blank
S = Spike Recovery outside accepted limits
R = RPD (relative percent difference) outside accepted limits
D = RL (reporting limit verification) outside accepted limits
NP = Not Provided
— : Test (analyte-matrix-preparation-analysis) is performed under RJLG's General Quality System requirements and is not part to any of the above scopes of accreditations

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of thirty (30) days before discarding. A shipping and handling fee will be assessed for the return of any samples.
This laboratory operates in accord with ISO 17025:2005 guidelines, and holds a limited scope of accreditations under different accrediting agencies; refer to http://www.rjlg.com/about-us/accreditations/ for more information and current status. Unless it is specifically stated otherwise (under the Q column using the appropriate accrediting agency qualifier(s)) the work contained in this report is performed under RJLG's General Quality System requirements and is not part of any scope of accreditations. This report may not be used to claim product endorsement by any laboratory accrediting agency. The results contained in this report relate only to the items tested or to the sample(s) as received by the laboratory. Any reproduction of this document must be in full for the report to be valid.

Unless otherwise noted (either in the comments section of the report and/or with the appropiate qualifiers under the report qualifiers (Q) column) the following apply: (a) Samples were received in good condition, (b) All QC samples are within acceptable established limits, (c) All samples designated as NELAP meet the requirements of the NELAC standard; if not applicable qualifiers will be used to designate the non-compliance and (d) Results have not been blank corrected. Quality Control data is available upon request.

Philip Grindle
Laboratory Supervisor

PBS | Engineering + Environmental

TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

Project No.: 06500.714 Phase 0002

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: September 08, 2016

PBS Engineering and Environmental Inc.
4412 SW Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

Hailey Edmeades
Name

HEdmeades 9/8/16
Authorized Signature **Date**

RECEIVER

Date Received: 09/09/16 1000

Company: R.J. Lee Group
Address: 350 Hochberg Road
Monroeville, PA 15146
724-325-1776

M. Sully
Name

M. Sully 09/09/16 1000
Authorized Signature **Date**

Sender's ID No.	Brief Description	Receiver's ID No.
LB06500.714-1001		
LB06500.714-1002		

ANALYSIS REQUESTED:

LEAD:
- [x] Paint
- [ ] Wipe
- [ ] Soil/Misc.
- [ ] Air
- [ ] TCLP

Please analyze the enclosed 2 sample(s) for LEAD content using Atomic Absorption Method. PBS requests prior notification if samples will be disposed.

Please fax and mail the results to the above address.

TURNAROUND DESIRED:

24 Hour

SPECIAL INSTRUCTIONS:

SD

Code	Material	Analysis	Location	Lab
WIPE				
LB06500.714-2001	WIPE	<20 µg/sf	Room 14; outside in hallway, floor	R.J. Lee Group
LB06500.714-2002	WIPE	<20 µg/sf	Room 14; in front of sink area, floor (wall A)	R.J. Lee Group
LB06500.714-2003	WIPE	<20 µg/sf	Room 14;in front of book shelf, floor (wall B)	R.J. Lee Group
LB06500.714-2004	WIPE	<20 µg/sf	Room 14; top of bookshelf, laminate surface (wall C)	R.J. Lee Group
LB06500.714-2005	WIPE	<40 µg/sf	Room 14; window sill (wall C)	R.J. Lee Group
LB06500.714-2006	WIPE	15,000 µg/sf	Room 14; window trough (wall C)	R.J. Lee Group
LB06500.714-2007	WIPE	<20 µg/sf	Room 14; student desk, center of room	R.J. Lee Group
LB06500.714-2008	WIPE	<20 µg/sf	Room 15; outside in hallway, floor	R.J. Lee Group
LB06500.714-2009	WIPE	<20 µg/sf	Room 15; in front of sink, floor (wall A)	R.J. Lee Group
LB06500.714-2010	WIPE	<20 µg/sf	Room 15; in front of bookshelf, floor (wall B)	R.J. Lee Group
LB06500.714-2011	WIPE	<20 µg/sf	Room 15; top of bookshelf, laminet surface (wall C)	R.J. Lee Group
LB06500.714-2012	WIPE	< 40 µg/sf	Room 15; window sill (wall C)	R.J. Lee Group
LB06500.714-2013	WIPE	20,000 µg/sf	Room 15; window trough (wall C)	R.J. Lee Group
LB06500.714-2014	WIPE	<20 µg/sf	Room 15; play table (center of room)	R.J. Lee Group
LB06500.714-2015	WIPE	1000 µg/sf	999-2003; spike	R.J. Lee Group

RJ LeeGroup
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Tel: (724) 325-1776 | Fax: (724) 733-1799

LABORATORY REPORT

PBS Engineering & Environmental
4412 Southwest Corbett Ave.
Portland, OR 97239

Attn: Hailey Edmeades
Phone: 503-417-7594

Email: hailey.edmeades@pbsenv.com

RJ Lee Group Job No.: PA090920160005
Samples Received: September 9, 2016
Report Date: September 12, 2016
Client Project: 06500.714 Phase 0002
Purchase Order No.: N/A
Matrix: Wipe
Prep/Analysis: EPA 3050B / EPA 7000B (Wipes)-PA

Client Sample ID RJ Lee Group ID	Sampling Date	Analyte	Wipe Area (in^2)	Sample Concentration		Minimum Reporting Limit		Analysis Date	Q
				Total µg	µg/ft²	Total µg	µg/ft²		
LB06500.714-2001 PA090920160005-001	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2002 PA090920160005-002	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2003 PA090920160005-003	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2004 PA090920160005-004	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2005 PA090920160005-005	N/A	Lead	36	< 10	< 40	10	40	09/12/2016	
LB06500.714-2006 PA090920160005-006	N/A	Lead	28.8	3000	15000	10	50	09/12/2016	
LB06500.714-2007 PA090920160005-007	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2008 PA090920160005-008	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2009 PA090920160005-009	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2010 PA090920160005-010	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	

Philip Grindle

Philip Grindle
Laboratory Supervisor

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Tel: (724) 325-1776 | Fax: (724) 733-1799

LABORATORY REPORT

PBS Engineering & Environmental
4412 Southwest Corbett Ave.
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Attn: Hailey Edmeades
Phone: 503-417-7594

Email: hailey.edmeades@pbsenv.com

RJ Lee Group Job No.: PA090920160005
Samples Received: September 9, 2016
Report Date: September 12, 2016
Client Project: 06500.714 Phase 0002
Purchase Order No.: N/A
Matrix: Wipe
Prep/Analysis: EPA 3050B / EPA 7000B (Wipes)-PA

Client Sample ID RJ Lee Group ID	Sampling Date	Analyte	Wipe Area (in^2)	Sample Concentration		Minimum Reporting Limit		Analysis Date	Q
				Total µg	µg/ft²	Total µg	µg/ft²		
LB06500.714-2011 PA090920160005-011	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2012 PA090920160005-012	N/A	Lead	36	< 10	< 40	10	40	09/12/2016	
LB06500.714-2013 PA090920160005-013	N/A	Lead	28.8	3900	20000	10	50	09/12/2016	
LB06500.714-2014 PA090920160005-014	N/A	Lead	72	< 10	< 20	10	20	09/12/2016	
LB06500.714-2015 PA090920160005-015	N/A	Lead	144	1000	1000	10	10	09/12/2016	

Comments: Lead wipe analysis by EPA 7000B is accredited by AIHA-LAP, LLC (Lab ID 100364) and NY-DOH (Lab ID 10884)

Report Qualifiers (Q):
H = Holding times for preparation or analysis exceeded
E = Value above highest calibration standard
J = Estimated Value - Result is below lowest calibration standard.
L = LCS (Laboratory Control Standard)/SRM (Standard Reference Material) recovery outside accepted recovery limits
B = Analyte detected in the associated Method Blank
S = Spike Recovery outside accepted limits
R = RPD (relative percent difference) outside accepted limits
D = RL (reporting limit verification) outside accepted limits

Philip Grindle
Laboratory Supervisor

PBS | Engineering + Environmental

TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

Project No.: 06500.714 Phase 0002

Individuals signing this form warrant that the information provided is correct and complete. The Sender should keep a copy and send the original. The Receiver should complete the form, keep a copy and return the original to the Sender. Receiver shall report damage of package immediately to Sender.

SENDER

Date Sent: September 08, 2016

PBS Engineering and Environmental Inc.
4412 SW Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

Hailey Edmeades
Name

HEdmeades 9/8/16
Authorized Signature **Date**

RECEIVER

Date Received: 09/09/16 1000

Company: R.J. Lee Group
Address: 350 Hochberg Road
Monroeville, PA 15146
724-325-1776

M. Scully
Name

M. Scully 09/09/16 1000
Authorized Signature **Date**

Sender's ID No.	Brief Description	Receiver's ID No.
LB06500.714-2001	Lead Wipe Area: .50 S.F	
LB06500.714-2002	Lead Wipe Area: .50 S.F	
LB06500.714-2003	Lead Wipe Area: .50 S.F	
LB06500.714-2004	Lead Wipe Area: .50 S.F	
LB06500.714-2005	Lead Wipe Area: .25 S.F	
LB06500.714-2006	Lead Wipe Area: .20 S.F	
LB06500.714-2007	Lead Wipe Area: .50 S.F	
LB06500.714-2008	Lead Wipe Area: .50 S.F	
LB06500.714-2009	Lead Wipe Area: .50 S.F	
LB06500.714-2010	Lead Wipe Area: .50 S.F	
LB06500.714-2011	Lead Wipe Area: .50 S.F	
LB06500.714-2012	Lead Wipe Area: .25 S.F	
LB06500.714-2013	Lead Wipe Area: .20 S.F	
LB06500.714-2014	Lead Wipe Area: .50 S.F	
LB06500.714-2015	Lead Wipe Area: 1.0 SF	

PBS | Engineering + Environmental

TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

ANALYSIS REQUESTED:

LEAD:

- ☐ Paint
- ☑ Wipe
- ☐ Soil/Misc.
- ☐ Air
- ☐ TCLP

Please analyze the enclosed 15 sample(s) for LEAD content using Atomic Absorption Method. PBS requests prior notification if samples will be disposed.

Please fax and mail the results to the above address.

TURNAROUND DESIRED:

24 Hour

SPECIAL INSTRUCTIONS:

SD

TAB 3

Certifications
Risk Assessor / Certified Industrial Hygienist
Consulting Firm
Analytical Laboratory

CLARK RICHARD NELSON
4412 SW CORBETT AVE
PORTLAND, OR 97239

CONSTRUCTION CONTRACTORS BOARD
LEAD BASED PAINT
INSPECTOR LICENSE

EXPIRATION DATE: 6/24/2017

This document certifies that

CLARK RICHARD NELSON
4412 SW CORBETT AVE
PORTLAND, OR 97239

is licensed in accordance with Oregon Law as a Lead Based Paint Inspector.

9151806-I

STATE OF OREGON
CONSTRUCTION CONTRACTORS BOARD
LEAD BASED PAINT
INSPECTOR LICENSE

LICENSE NUMBER: 9151806-I

This document certifies that:

CLARK RICHARD NELSON
4412 SW CORBETT AVE
PORTLAND, OR 97239

is licensed in accordance with Oregon Law as a Lead Based Paint Inspector.

License Details:

LICENSE NO.: 9151806-I
EXPIRATION DATE: 6/24/2017

CLARK RICHARD NELSON
4412 SW CORBETT AVE
PORTLAND, OR 97239

CONSTRUCTION CONTRACTORS BOARD
LEAD BASED PAINT
RISK ASSESSOR LICENSE

EXPIRATION DATE: 6/24/2017

This document certifies that

CLARK RICHARD NELSON
4412 SW CORBETT AVE
PORTLAND, OR 97239

is licensed in accordance with Oregon Law as a Lead Based Paint Risk Assessor.

9151806-RA

STATE OF OREGON
CONSTRUCTION CONTRACTORS BOARD
LEAD BASED PAINT
RISK ASSESSOR LICENSE

LICENSE NUMBER: 9151806-RA

This document certifies that:

CLARK RICHARD NELSON
4412 SW CORBETT AVE
PORTLAND, OR 97239

is licensed in accordance with Oregon Law as a Lead Based Paint Risk Assessor.

License Details:

LICENSE NO.: 9151806-RA
EXPIRATION DATE: 6/24/2017

PUBLIC HEALTH DIVISION
Center for Health Protection
Kate Brown, Governor

Oregon Health Authority

June 9, 2016

800 NE Oregon Street, Suite 640
Portland, OR 97232
Phone: (971) 673-0440
Fax: (971) 673-0457
TTY Nonvoice: (971) 673-0372

Clark R. Nelson
PBS Engineering and Environmental Inc,
4412 S.W. Corbett Ave
Portland, OR 97239

RE: LEAD-BASED PAINT ACTIVITIES, INDIVIDUAL CERTIFICATION NO. 1806--Indv--R

This letter is your official notification that you have met the certification requirements under Oregon Administrative Rule (OAR) 333-069 to conduct lead-based paint activities in Oregon, in the following disciplines: Risk Assessor; Inspector

In addition to certification by the Oregon Health Authority, you are required to be licensed by the Construction Contractors Board (CCB) if you plan to conduct lead-based paint activities in Oregon. This license is different than, and in addition to, the standard contractor license issued by CCB. Both individuals and firms must obtain this license. For more information on CCB lead-based paint licensing, visit their web site at www.oregon.gov/CCB or call 503-378-4621.

As a certified individual in Oregon, you must meet all the requirements of OAR 333-069, including work practice standards for conducting lead-based paint activities in target housing and child-occupied facilities. As a certified individual, you must perform work under a firm that is certified by the Authority for conducting lead-based paint activities.

You are required to wear the enclosed badge in plain view when conducting lead-based paint activities. Please note that the badge and certificate will expire on 6/30/2017. If you wish to maintain your certification after 6/30/2017, you must submit an application postmarked at least 60 days before expiration and document that your lead-based paint activities training is current.

As a public service the Authority publishes a list of individuals performing lead-base
Oregon. The list is distributed statewide to consumers interested in lead-based paint s
individuals that are certified by the state are eligible to be on this list.

If you have any questions concerning your certification or other aspects of the Lead-l
please contact program staff at 971-673-0440.

Sincerely,

Ben Maynard
Lead-Based Paint Program
Oregon Health Authority

Enclosures: 1) Badge; 2) Certificate

Clark R. Nelson

Risk Assessor
Inspector
Lead-Based Paint
Activities
CERTIFICATION
 # 1806--Indv--R
6/30/2017
Expires

CERTIFIED

State of Oregon
Oregon Health Authority

Clark R. Nelson

is certified by the Oregon Health Authority to conduct Lead-Based Paint Activities

Risk Assessor

Certification Number:	1806--Indv--R
Issuance Date:	6/9/2016
Expiration Date:	6/30/2017

Oregon Health Authority

State of Oregon
Oregon Health Authority

Clark R. Nelson

is certified by the Oregon Health Authority to conduct Lead-Based Paint Activities

Inspector

Certification Number:	1806--Indv--I
Issuance Date:	6/9/2016
Expiration Date:	6/30/2017

Oregon Health Authority

ABIH®

american board of industrial hygiene®

organized to improve the practice of industrial hygiene
proclaims that

Clark R. Nelson

having met all requirements of
education, experience and examination,
is hereby certified in the

COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH

Certificate Number	**10954 CP**
Awarded:	**November 30, 2015**
Expiration Date:	**June 1, 2021**

Susan Ripple
Chair, ABIH

Allen K. Olin
Chief Executive Officer, ABIH

State of Oregon
Oregon Health Authority

PBS Engineering and Environmental Inc.

is certified by the Oregon Health Authority to conduct Lead-Based Paint Activities

Certification Number:	1038--LBP FIRM
Issuance Date:	5/16/2016
Date of Expiration:	6/30/2017

Oregon Health Authority

PUBLIC HEALTH DIVISION
Center for Health Protection
Kate Brown, Governor

Oregon Health Authority

May 17, 2016

800 NE Oregon Street, Suite 640
Portland, OR 97232
Phone: (971) 673-0440
Fax: (971) 673-0457
TTY Nonvoice: (971) 673-0372

PBS Engineering and Environmental Inc.
4412 SW Corbett Ave
Portland, OR 97239

Attention: Derek May

RE: LEAD-BASED PAINT ACTIVITIES, FIRM CERTIFICATION NO. 1038--LBP FIRM

This letter is your official notification that PBS Engineering and Environmental Inc. has met certification requirements under Oregon Administrative Rules (OAR) 333-069 to conduct lead-based paint activities in Oregon. Please note that the enclosed certificate will expire on 6/30/2017.

In addition to certification by the Oregon Health Authority (Authority), PBS Engineering and Environmental Inc. is required to be licensed by the Construction Contractors Board (CCB) prior to conducting lead-based paint activities in Oregon. This license is different than, and in addition to, the standard contractor license issued by CCB. Both individuals and firms must obtain this license. For more information on CCB lead paint licensing, visit their web site at www.oregon.gov/CCB or call 503-378-4621.

As a firm certified to conduct lead-based paint inspection activities in Oregon, PBS Engineering and Environmental Inc. must meet all requirements set forth in OAR 333-069. It must comply with standards for conducting lead-based paint inspection and/or risk assessment activities in target housing and child-occupied facilities and employ only certified individuals to conduct regulated activities.

As a public service, the Authority publishes a list of firms performing lead-based paint activities in Oregon. The list is distributed statewide to consumers interested in lead-based paint services. Only those firms that are certified by the state are eligible to be on this list.

If you have any questions concerning this certification or other aspects of the Lead-Based Paint Program, please contact program staff at (971) 673-0440.

Sincerely,

Ben Maynard
Lead-Based Paint Program
Oregon Health Authority

This document can be obtained in an alternate format by calling: (971) 673-0440.

PBS ENGINEERING & ENVIRONMENTAL INC
4412 SW CORBETT
PORTLAND OR 97239

CONSTRUCTION CONTRACTORS BOARD
LEAD INSPECTION CONTRACTORS LICENSE
LICENSE No.: LBPI129143
EXPIRATION DATE: 7/31/2017

This document certifies that

PBS ENGINEERING & ENVIRONMENTAL INC
4412 SW CORBETT
PORTLAND OR 97239

is licensed in accordance with Oregon Law as a Lead Inspection Contractor.

STATE OF OREGON
CONSTRUCTION CONTRACTORS BOARD
LEAD INSPECTION CONTRACTORS LICENSE

LICENSE NUMBER: LBPI129143

This document certifies that:

PBS ENGINEERING & ENVIRONMENTAL INC
4412 SW CORBETT
PORTLAND OR 97239

is licensed in accordance with Oregon Law as a Lead Inspection Contractor.

License Details:

LBPI LICENSE NO.: LBPI129143
EXPIRATION DATE: 7/31/2017

AIHA Laboratory Accreditation Programs, LLC

acknowledges that

RJ Lee Group, Inc.

350 Hochberg Road, Monroeville, PA 15146

Laboratory ID: 100364

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

✓	**INDUSTRIAL HYGIENE**	Accreditation Expires: 02/01/2018
✓	**ENVIRONMENTAL LEAD**	Accreditation Expires: 02/01/2018
☐	**ENVIRONMENTAL MICROBIOLOGY**	Accreditation Expires:
☐	**FOOD**	Accreditation Expires:
☐	**UNIQUE SCOPES**	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Gerald R Schultz

Gerald Schultz, CIH
Chairperson, Analytical Accreditation Board

Cheryl O. Morton

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 14: 03/26/2014

Date Issued: 01/29/2016

AIHA Laboratory Accreditation Programs, LLC
SCOPE OF ACCREDITATION

RJ Lee Group, Inc.
350 Hochberg Road, Monroeville, PA 15146

Laboratory ID: **100364**
Issue Date: 01/29/2016

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

Environmental Lead Laboratory Accreditation Program (ELLAP)

Initial Accreditation Date: 12/05/1995

Field of Testing (FoT)	Technology sub-type/ Detector	Method	Method Description (*for internal methods only*)
Paint		EPA SW-846 3050B	
		EPA SW-846 7000B	
Soil		EPA SW-846 3050B	
		EPA SW-846 7000B	
Settled Dust by Wipe		EPA SW-846 3050B	
		EPA SW-846 7000B	
Airborne Dust		NIOSH 7082	
		NIOSH 7300	

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: http://www.aihaaccreditedlabs.org