PBS | Engineering + Environmental

May 12, 2015

Lake Oswego School District #7J
Rob Dreier
Director of Facility Operations
2455 Country Club Road
PO Box 70
Lake Oswego, Oregon 97034-0070

Re: Limited Asbestos, Lead Paint, and Fungal Investigation
Lake Oswego School District Swim Pool Building
PBS Project No. 21600.036 Phase 0001

Dear Mr. Dreier:

On April 13, 2015, PBS Engineering and Environmental Inc. (PBS) conducted a limited asbestos, lead paint, and fungal investigation on a wall assembly section located above the bleachers. The study area was approximately 4–6 square feet in size. Moisture impacts and deteriorated wallboard materials were observed. The wall assembly consisted of gypsum wallboard with mudded joints and wood framing. PBS tested the gypsum wallboard for asbestos and fungal impacts. The paint on the gypsum wallboard was also tested for lead content. Below is a summary of our findings.

FINDINGS

Asbestos Results

PBS collected one (1) bulk sample from the gypsum wallboard assembly. The joint compound layer tested positive for asbestos. Please refer to the attached PBS bulk sample inventory and associated laboratory report for further details.

Lead Paint Results

PBS collected one (1) lead paint sample from the impacted gypsum wallboard area above the bleachers. The white, peeling paint tested negative for lead paint. The results were below the limit of detection. Please refer to the attached lead sample inventory and associated laboratory report for further details.

Fungal Sampling and Results

PBS collected two (2) bulk samples from moisture impacted wall assembly. No fungi were observed on either sample. Please refer to the attached laboratory report for further details.

CONCLUSIONS/RECOMMENDATIONS

- Asbestos-containing joint compound was identified in the damaged wall assembly. This material must be handled, removed, and disposed of by certified asbestos abatement workers.
- Lead was not detected in the white paint found in this location.
- Fungal activity was not identified in this location.

4412 SW Corbett Avenue, Portland, OR 97239
503.248.1939 Main
866.727.0140 Fax
888.248.1939 Toll-Free
www.pbsenv.com

Feel free to contact me if you have any questions or concerns. My direct line is 503.417.7607.

Sincerely,
PBS Engineering and Environmental Inc.

Bob Kleckner
Sr. Project Manager

Attachments: Photo Documentation
PBS Asbestos Bulk Sample Inventory
Lab/Cor Portland Inc. Asbestos Analysis Laboratory Report
PBS Lead Paint Sample Inventory
RJ Lee Group Lead Paint Analysis Laboratory Report
Lab/Cor Inc. Fungal Identification Analysis Laboratory Report
AHERA Certification

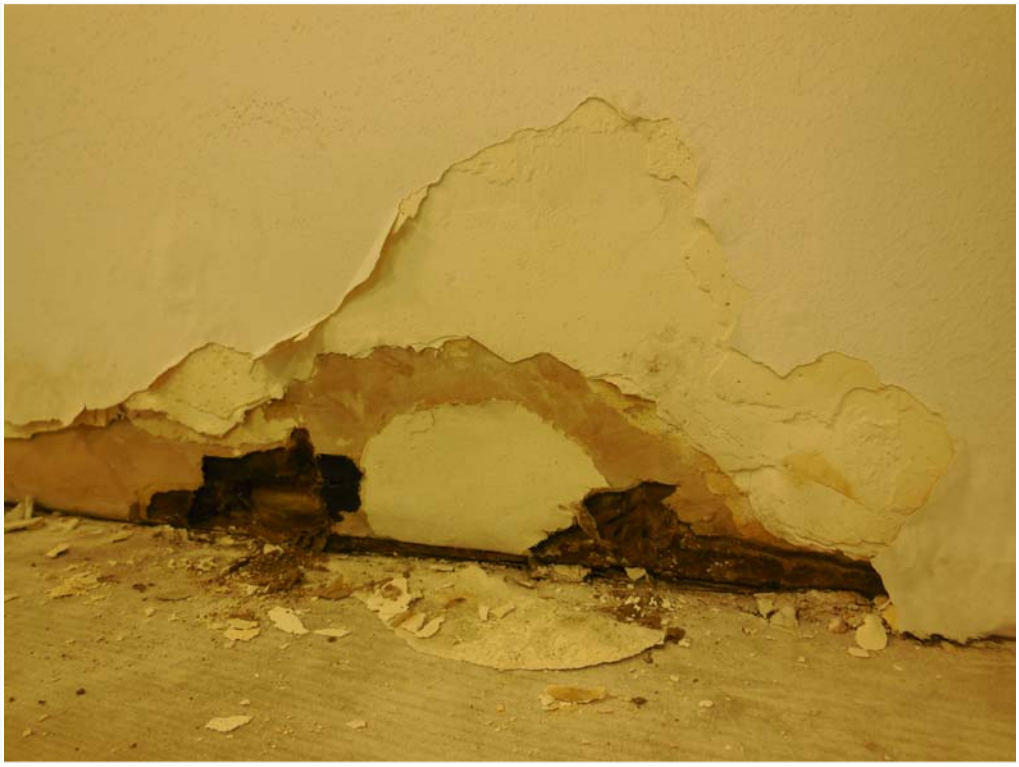

Photo 1: Gypsum wallboard impacts. Wall assembly above the bleachers.

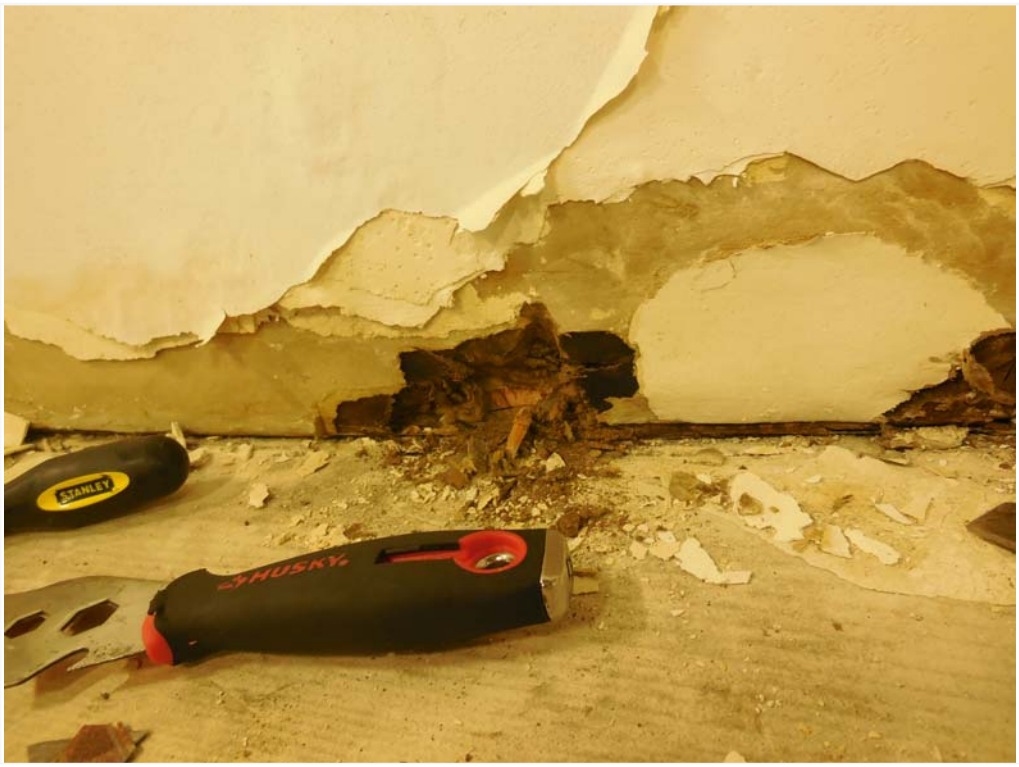

Photo 2: Close-up of previous.

Code	Material	Location	Results	Lab
21600.036-0003	Gypsum Wallboard/Joint Compound	West wall; above bleachers, gypsum wallboard/joint compound		Lab Cor

Layer:	Description:	Analysis:
Layer 1	fine compact powder, off-white, with paint, white, and fibrous backing	2% Chrysotile
Layer 2	chalky material, white	No Asbestos Detected
Layer 3	friable fibrous material, brown	No Asbestos Detected

LabCor Portland Inc

Lab/Cor Portland, Inc.
4321 SW Corbett Ave., Ste A
Portland, OR 97239

BULK SAMPLE ASBESTOS ANALYSIS

Asbestos and Environmental Analysis

Phone: (503) 224-5055
Fax: (503) 228-8282
http://www.labcorpdx.net

Client: PBS Engineering and Environmental
4412 SW Corbett Avenue
Portland, OR 97239

Report Number: 150912R01
Report Date: 04/20/2015

P.O. No: n/a

Job Number: **150912**
Project Name:
Project Number: 21600.036 Phase 0001
Project Notes:

Client Sample ID: **21600.036-0003** **Sample ID:** S1 **Date Analyzed:** 04/20/2015
Client Sample Description: **Analyst:** Ellie Brown

Asbestos Mineral Fibers	Layer Percent:	Chrysotile	Amosite	Crocidolite			**Percent Asbestos:**
Layer 01							
fine compact powder, off-white, with paint, white, and fibrous backing	40 %	2 %	-	-			**2 %**
Layer 02							
chalky material, white	15 %	-	-	-			**NAD**
Layer 03							
friable fibrous material, brown	45 %	-	-	-			**NAD**

Other Fibers	Fibrous Glass	Cellulose	Mineral Wool	Synthetic	Other		Matrix
Layer 01	-	3 %	-	-	-	-	95 %
Layer 02	-	Trace	-	-	-	-	100 %
Layer 03	10 %	5 %	-	-	-	-	85 %

This laboratory participates in the National Voluntary Laboratory Accreditation Program (NVLAP).
Testing method is per 40 CFR 763 Subpart F, Appendix A, PLM.

Layered samples are considered non-homogeneous."Misc" is miscellaneous. "NAD" is No Asbestos Detected.
Asbestos consists of the following minerals: chrysotile, amosite, crocidolite, tremolite, actinolite, anthophyllite.
Small diameter fibers such as those found in vinyl floor tiles, may not be detected by PLM.
Asbestos detection interferences may result from material binders.
Qualitative and quantitative TEM analysis may be recommended for difficult samples.
Quantitative analysis by PLM point count or TEM is recommended for samples testing at < or = to 1% asbestos.
The following estimate of error for this method by visual estimation of asbestos percent are as follows:
1% asbestos: 0-3% error, 5% asbestos: 1-9% error, 10% asbestos: 5-15% error, 20% asbestos: 10-30% error.
This report pertains only to the samples listed on the report. Report considered valid only when signed by analyst.

Reviewed by:

x

Ellie Brown
Analyst

PBS | Engineering + Environmental

150912

TRANSMITTAL AND CHAIN OF CUSTODY FOR ASBESTOS BULK SAMPLES

Project No.: 21600.036 Phase 0001

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: April 13, 2015

PBS Engineering + Environmental
4412 SW Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

Jammony Killory
Name

H Killory 4/13/15 4pm
Authorized Signature **Date**

Sender's ID No.

21600.036-0003

RECEIVER

Date Received: 4-13-15 4:05 PM

Company: Lab Cor
Address: 4321 SW Corbett Ave Ste A
Portland, OR 97239
503-224-5055

Ryan Brown
Name

Ryan M Brown 4-13-15
Authorized Signature **Date**

Brief Description

Receiver's ID No.

Please analyze the enclosed 1 sample(s) for asbestos content using PLM with dispersion staining. PBS requests prior notification if samples will be disposed.
Request verbal results by: _____ AM/PM _____Date.
Please fax and mail the results to the above address.
TURNAROUND DESIRED: **5 Day**

SPECIAL INSTRUCTIONS:

BLC

Code	Material	Analysis	Location	Lab
PAINT				
LB21600.036-1001	Paint	<99.5 ppm	West wall above bleachers; wall, gypsum/joint compound, white, peeling 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 Environmental - Portland, OR
4412 Southwest Corbett Ave.
Portland, OR 97239

Attn: Harmony Kilby
Phone: 503-248-1939
Fax: 866-727-0140
Email: harmony.kilby@pbsenv.com

RJ Lee Group Job No.: PA140420150013
Samples Received: April 14, 2015
Report Date: April 21, 2015
Client Project: 21600.036 Phase 0001
Purchase Order No.: N/A
Matrix: Solid
Prep/Analysis: EPA 3050B / EPA 7000B

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		
LB21600.036-1001	PA140420150013-001	NP	Lead	< 0.00995	< 99.5	0.00995	99.5	04/14/2015	–

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)*
– : 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

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

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. 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

8

PBS | Engineering + Environmental

PA140420150013

TRANSMITTAL AND CHAIN OF CUSTODY FOR LEAD BULK SAMPLES

Project No.: 21600.036 Phase 0001

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: April 13, 2015

PBS Engineering + Environmental
4412 SW Corbett Avenue
Portland, OR 97239
503.248.1939, Fax: 866.727.0140

Harmony Kelley
Name

H Kelley 4/13/15
Authorized Signature **Date**

RECEIVER

Date Received: 04-14-15

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

Tashina Fiscus
Name

[signature] 04-14-15
Authorized Signature **Date**

Sender's ID No.	Brief Description	Receiver's ID No.
LB21600.036-1001		

ANALYSIS REQUESTED:

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

Please analyze the enclosed 1 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:

5 Day

SPECIAL INSTRUCTIONS:

BK

Lab/Cor, Inc.
7619 6th Ave NW
Seattle, WA 98117

Analysis Report Cover

Final Report

A Professional Service Corporation in the Northwest

Phone: (206) 781-0155
Fax: (206) 789-8424
http://www.labcor.net

Job Number: 150291 **SEA**

Report Number: 150291R02
Report Date: 4/22/2015

Client: PBS Engineering + Environmental
Address: 4412 SW Corbett Ave
Portland, OR 97239
Project Name: Lake Oswego Swim Ctr.
Project No.: 21600.036
PO Number: 0002
Sub Project:
Reference No.:

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
150291 - S1	002 - West Wall, Above Bleachers, All Layers	NV, Bulk, Fungal ID Qual.	No Fungi Observed	4/15/2015
150291 - S2	003 - West Wall, Above Bleachers , Underlying Layers	NV, Bulk, Fungal ID Qual.	No Fungi Observed	4/15/2015

Nonviable Bulk Bulk samples follow preparation and analysis techniques outlined in Method 6 of the laboratory SOP. Sub-samples were collected from areas of known or suspected microbial growth on the submitted sample. If appropriate, each layer was separated and sampled to determine whether fungal colonization was present.

Characteristic morphologies were observed by optical microscopy at a magnification of 600x. Bulk samples that were analyzed qualitatively were reported in Relative Abundance of fungal and particulate types; High, Moderate, Low, and Trace. The Minimum Reporting Limit for qualitative samples is Trace (1-10 count in sample portion examined). Bulk samples that were analyzed quantitatively were reported as the total concentration for each fungal and particulate type.

Disclaimer The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in both structures/cm3 and structures/mm2 are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor, Inc. the opportunity to provide you with the analytical services.

Sincerely,

X

Derk Wipprecht
Laboratory Supervisor

Fungal / Particulate Sample Chain of Custody Record

150291

Lab/Cor, Inc
7619 6th Ave NW
Seattle, WA 98117

Office (206) 781-0155
Fax (206) 789-8424

mail@labcor.net
www.labcor.net

Client: PBS Engineering and Environmental
Address: 4412 SW Corbett Ave.
City, State, Zip: Portland, OR 97239
Contact: Bob Kleckner
Phone: (503) 209-1476 Fax:
Email: bob.kleckner@pbsenv.com
Other Info:

Analysis Type:
Nonviable Options:
X Fungal ID
___ Fungal & Particulate ID
___ Particulate ID
___ Quantitative Analysis *(Total Count)*
___ Qualitative Analysis *(Relative Abundance)*
Viable Options:
___ Complete Analysis
___ Genera Only ___ Stachy Only

Turnaround Time:
___ 6 hr **RUSH***
___ 24 hours*
___ 48 hours
___ 3 days *(NV Std)*
X 5 days
___ Viable *(7-10 days)*

Project Name: Lake Oswego Swim Ctr. **Project Number:** 21600.036 **P.O. Number:** 0002

		Sample Information												Sampling Information						
		Sample Type									Media Type			Sample Date	Sample Time		Sample Flow Rate			Total Volume / Area
		Air		Swab		Bulk		Dust		Tape										
Sample #	Sample Description	NV	V	NV	V	NV	V	NV	V	NV	MEA	Stachy	Other		On	Off	Start	End	Avg	
002	West Wall, above bleachers, All layers					X								4-13-15						
003	West Wall, above bleachers, underlying layers					X								4-13-15						

Internal Lab Use Only:
Prelim Released: ____ Final Results Released: ____ Hardcopy / Invoice Mailed: ____
By: ☐ Fax ☐ Phone ☐ E-mail ☐ Verbal By: ☐ Fax ☐ Phone ☐ E-mail Reviewed By: ____

By signing below you are agreeing to comply with Lab/Cor's Requests, Tenders and Contracts. ** Call ahead for TATs of 24 hours or less*

Relinquished by: Nathan Carlson
Received By: Sierra Humble
Date: 4/15/15
Time: 10:38 AM

THIS IS TO CERTIFY THAT

NATHAN CARLSON

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 07/11/2014

Course Location: Portland, OR

Certificate: IR-14-1775B

PBS | Engineering + Environmental

Expiration Date: 07/11/2015

AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

For verification of the authenticity of this certificate contact:
PBS Environmental
4412 SW Corbett Avenue
Portland, OR 97239
(503) 248-1939

David Stover

David Stover, Director of Training