

Appendix Q

Analytical Reports – Asbestos (LabCor – Ceiling Tiles)

CHAIN OF CUSTODY RECORD

SWV2_RemovalAction/TX

Contact Name: John Koehnen

Contact Phone: 909-331-5102

No: 6-010914-164648-0035

Lab Phone: 503-224-5055

[illegible]

Special Instructions: Project Code: S101-19H

**SAMPLES TRANSFERRED FROM
CHAIN OF CUSTODY #**

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
5	SS	8/29/14	Terex	8/29/14	1730						
			Paluck	11/10/14	9:00am						



Lab/Cor Portland, Inc.

4321 SW Corbett Ave., Ste A
Portland, OR 97239

Analysis Report Cover Final Report

Asbestos and Environmental Analysis

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

Job Number: 140056 **PDX**
Client: Dynamac
Address: 1323 Columbia Drive, Suite 307
Richardson, TX 75081
Project Name: SWV2_RemovalAction-TX
Project No.: 6-010914-164648-0035
PO Number:
Sub Project:
Reference No.:

Report Number: 140056R01
Report Date: 1/16/2014

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:
140056 - S1	SWV2_WARC01 - Unimpacted Insulation - Ceiling	EPA 600-R-93-116 - TEM - Bulk Semi-Quantitative		1/10/2014
140056 - S2	SWV2_WARC02 - Impacted Insulation - Ceiling	EPA 600-R-93-116 - TEM - Bulk Semi-Quantitative		1/10/2014

EPA 600-R-93-116 - TEM - Bulk Semi-Quantitative

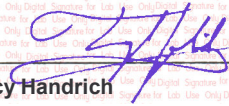
Preparation of the above sample was conducted in accordance with the EPA protocol EPA/600/R 93/116 for the identification of regulated asbestiform minerals in bulk building materials. Briefly, each sample was taken from at least three randomly selected areas. The sample was then weighed (Original Sample Weight) on an analytical balance (0.01 milligram sensitivity), ashed in a muffle furnace to remove the organic component, and weighed (Particulate After Ash). After a brief dissolution in concentrated hydrochloric acid, the suspension was immediately diluted in 20 ml of laboratory reagent water. The suspension was then filtered onto a dry, pre weighed 0.1 micron polycarbonate (PC) filter and a series of 0.22 micron mixed cellulose ester (MCE) filter. After drying, the filter was weighed again (Hydrolysis Adjusted Weight). The sample was coated with a thin film of carbon in a vacuum evaporator. After dissolution of the filter debris in N,N-dimethylformamide and acetone, the sample was placed on a 200 mesh copper TEM grid and examined by TEM microscopy. After confirmation of the principal mineral type by diffraction and EDS chemistry, a visual estimate of the concentration of asbestiform regulated minerals relative to the non-asbestos was determined. Fibers with an aspect ratio of at least 3:1 with proper diffraction and chemistry were counted as regulated asbestiform mineral types. "Trace" is reported for those samples whose percent asbestos is below 1.0%

This test report relates only to the items tested in this report. The scope of this analysis is to differentiate purified regulated asbestiform minerals that have been added to bulk building materials. Samples such as soils, sediments or raw ores may require further mineralogical analysis to differentiate mineral species. Interpretation of these results is the sole responsibility of the client. Results are subject to the variation in the layers of the sample, the accuracy of the balance, the visual estimate on the microscope as well as other variations within the procedure.

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 Portland, Inc. the opportunity to provide you with the analytical services.

Sincerely,


Tracy Handrich
 Analyst

EPA 600-R-93-116 - TEM - Bulk Semi-Quantitative

Job Number: 140056 PDX

Client: Dynamac

Report Number: 140056R01

Date Received: 1/10/2014

Project Name: SWV2_RemovalAction-TX

Lab/Cor Sample No.: S1

Client Sample No.: SWV2_WARC01

Description: Unimpacted Insulation - Ceiling

Analyst(s)	Analysis Date	Microscope	Magnification
TH	1/15/2014	H-7000	20000

Analyte Description	Weight Percent	Gravimetric Reduction	Weight Percent
	0.00%	Acid Solubles	47.12%
Richterite	0.46%	Organics	6.79%
Winchite	0.46%	Total Other Non-Asbestos Percent	53.92%
Total Asbestos Percent	ND*		

Lab/Cor Sample No.: S2

Client Sample No.: SWV2_WARC02

Description: Impacted Insulation - Ceiling

Analyst(s)	Analysis Date	Microscope	Magnification
TH	1/15/2014	H-7000	20000

Analyte Description	Weight Percent	Gravimetric Reduction	Weight Percent
Winchite	0.36%	Acid Solubles	64.57%
Total Asbestos Percent	ND*	Organics	6.79%
		Total Other Non-Asbestos Percent	71.36%

Reviewed by:

X

Tracy Handrich

Tracy Handrich
Analyst

ND* - None Detected

Regulated Asbestos - Chrysotile, Actinolite, Tremolite, Amosite, Crocidolite, Anthophyllite

**Lab/Cor Portland, Inc.**4321 SW Corbett Ave., Ste A
Portland, OR 97239**Final Report**Phone: (503) 224-5055
Fax: (503) 228-8282
<http://www.labcorpdx.net>*Asbestos and Environmental Analysis***EPA 600-R-93-116 - TEM - Bulk Semi-Quantitative**

Job Number: 140056

PDX

Report Number: 140056R01

Client: Dynamac

Date Received: 1/10/2014

Project Name: SWV2_RemovalAction-TX

Lab/Cor Sample No: S1

Client Sample No: SWV2_WARC01

Description: Unimpacted Insulation - Ceiling

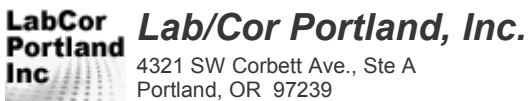
Container Weight		17.26902 g	Hydrolysis Filter PreWeight		0.01047 g
Weight Before Ash		17.42652 g	Filter Post Hydrolysis		0.01773 g
Orig Sample Weight		0.15750 g	After Hydrolysis Weight		0.00726 g
Weight After Ash		17.41582 g	Hydrolysis Aliquot		2 ml
Particulate After Ash		0.14680 g	Hydrolysis Adjusted Weight		0.07258 g
Percent Organics		6.79%	Begin Volume		20 ml
			Acid Solubles		47.12%
Grid	Analyte	Visual Estimate	Elements		Comment
G4	Richterite	1.00%	Na, Mg, Si, K, Ca, Fe		
			ItemType	ItemNum	Confirmed Comment
			Brightfield	H24705BF	
			Diffraction	H24705DF	TH 1/15/2014 0.53 nm ROW SPACING
			Spectra	H24705SP	TH 1/16/2014
G4	Winchite	1.00%	Na, Mg, Al, Si, K, Ca, Fe		
			ItemType	ItemNum	Confirmed Comment
			Diffraction	H24706DF	TH 1/15/2014 0.53 nm ROW SPACING
			Spectra	H24706SP	TH 1/16/2014
			Brightfield	H24706BF	
G5		0.00%			

Lab/Cor Sample No: S2

Client Sample No: SWV2_WARC02

Description: Impacted Insulation - Ceiling

Container Weight		17.26902 g	Hydrolysis Filter PreWeight		0.01047 g
Weight Before Ash		17.42652 g	Filter Post Hydrolysis		0.01498 g
Orig Sample Weight		0.15750 g	After Hydrolysis Weight		0.00451 g
Weight After Ash		17.41582 g	Hydrolysis Aliquot		2 ml
Particulate After Ash		0.14680 g	Hydrolysis Adjusted Weight		0.04511 g
Percent Organics		6.79%	Begin Volume		20 ml
			Acid Solubles		64.57%
Grid	Analyte	Visual Estimate	Elements		Comment
G4	Winchite	1.00%	Na, Mg, Si, K, Ca, Fe		
			ItemType	ItemNum	Confirmed Comment
			Brightfield	H24725BF	
			Diffraction	H24725DF	TH 1/16/2014 0.53 nm ROW SPACING
			Spectra	H24725SP	TH 1/16/2014
G5	Winchite	1.50%			



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EPA 600-R-93-116 - TEM - Bulk Semi-Quantitative

Project Name: SWV2_RemovalAction-TX

Reviewed by:

X

Tracy Handrich

Analyst