APPENDIX C

Regulated Materials Survey

27952 HSB B-Wing B339-365 Final Letter Report
May 19, 2020

IAN C. FOURNIE  
Client Account Manager, Campus Architecture & Planning  
UW Facilities, Asset Management

Hello Ian,

On May 14th, 2020, Dan Schwert (Certification Number 176309, expiration date 12-24-20), an AHERA Accredited Building Inspector with the University of Washington, Regulated Materials Management Office, performed targeted sampling of requested materials in specified locations in Suite B339-365 in the B-Wing of the Health Sciences Building on the University of Washington Campus. The inspection was performed under UW Work Order Number 27952, AIM W/R# 728889, Phase 001. Fourteen (14) samples were collected to represent the suspected asbestos containing materials present. Four (4) samples were collected to represent the majority of suspect lead-containing materials present. The materials sampled were limited to the specified areas. A summary of the regulated materials is as follows:

Table 1: Bulk Asbestos Sample Results

<table>
<thead>
<tr>
<th>HSA ID, Material Description and AHERA Classification</th>
<th>Material Location</th>
<th>Lab Results</th>
</tr>
</thead>
</table>
| 27952-ASB1: Wallboard and joint compound (M)          | Throughout Suite B339-365 | Gypsum: ND  
Joint compound: 2% Chrysotile Asbestos  
1<1% asbestos as composite sample |
| 27952-ASB2: Brown 4” cove base with soft, clear mastic and brown, brittle mastic (M) | Rooms B343-B357, common areas and hallways in Suite B339-365 | All layers: ND |
| 27952-ASB3: Light brown 4” cove base with brown, brittle mastic (M) | Rooms B345, B357 & B365 in Suite B339-365 | All layers: ND |
| 27952-ASB4: Tan 4” cove base with brown, brittle mastic (M) | Rooms B345, B357 & B365 in Suite B339-365 | All layers: ND |
| 27952-ASB5: Black 4” cove base with brown, brittle mastic (M) | Rooms B359 & B361 in Suite B339-365 | All layers: ND |
| 27952-ASB6: Light brown 12” x 12” floor tile with black mastic (M) | Throughout Suite B339-365 | Floor tile: ND  
Black mastic: 3% Chrysotile Asbestos |
<p>| 27952-ASB7: Tan 12” x 12” floor tile (M) | Replacement tiles in hallways and common areas in Suite B339-365 | ND |</p>
<table>
<thead>
<tr>
<th>HSA ID, Material Description and AHERA Classification</th>
<th>Material Location</th>
<th>Lab Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>27952-ASB8: Off-white 12” x 12” floor tile with tan mastic (M)</td>
<td>Replacement tiles in Room B365 in Suite B339-365</td>
<td>All layers: ND</td>
</tr>
<tr>
<td>27952-ASB9: White 2’ x 2’ suspended acoustical ceiling tile with worm hole pattern</td>
<td>Throughout Suite B339-365</td>
<td>ND</td>
</tr>
</tbody>
</table>

HSA: material that is uniform in color, texture, general appearance, and construction and application date, M: Miscellaneous material per AHERA, S: Surfacing material per AHERA, ND: Non-detect

The joint compound associated with the gypsum was found to contain detectable levels of asbestos. The wall system samples (gypsum/joint compound) were analyzed as composite samples and found to contain <1% asbestos.

Table 2. Paint Chip Sample Results

<table>
<thead>
<tr>
<th>Sample Number and Description</th>
<th>Material Location</th>
<th>Lab Results in PPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>27952-Pb1-01: Light purple paint on wallboard</td>
<td>Room B349 in Suite B339-365</td>
<td>&lt;50</td>
</tr>
<tr>
<td>27952-Pb2-01: Light brown paint on wallboard</td>
<td>Multiple locations throughout Suite B339-365</td>
<td>&lt;51</td>
</tr>
<tr>
<td>27952-Pb3-01: Tan paint on wallboard</td>
<td>Multiple locations throughout Suite B339-365</td>
<td>&lt;52</td>
</tr>
<tr>
<td>27952-Pb4-01: Off-white paint on wallboard</td>
<td>Multiple locations throughout Suite B339-365</td>
<td>&lt;52</td>
</tr>
</tbody>
</table>

<: below the reporting limit, PPM = Parts per Million
FINDINGS AND RECOMMENDATIONS:

The black mastic associated with the light brown 12” x 12” floor tiles contains detectable levels of asbestos. The joint compound associated with the gypsum (HSA numbers: 27952-ASB1-01 to 27952-ASB1-05) was found to contain detectable levels of asbestos. The wall system samples (gypsum/joint compound) were analyzed as composite samples and found to contain <1% asbestos.

Should additional materials be uncovered during scheduled work activities not previously identified the Regulated Materials Management Office should be contacted for an assessment. Unidentified materials should be treated as assumed ACM (asbestos-containing material) in accordance with all applicable local, state, and federal regulations.

Asbestos-related work must be performed in compliance with Washington State worker protection and environmental protection regulations. See WAC 296-62, 296-65, and PSCAA Regulation III, Article 4 for additional information.

LEAD-CONTAINING BUILDING MATERIALS CONCLUSIONS

The paint/coatings sampled were found to contain no detectable levels of lead.

If other portions of the building material may be impacted by proposed renovations the Regulated Materials Management Office should be contacted for an assessment. Other paints/coatings may contain detectable levels of lead. If this building or portions of it will be demolished and disposed of, a toxicity characteristic leachate procedure (TCLP) sample that is representative of the waste stream must be collected and analyzed per the requirements of WAC173-303. If the results of the TCLP analysis determine the waste to be a “dangerous waste” as defined by WAC 173-303, it must be disposed of accordingly. It is the University’s responsibility to characterize the waste stream for lead prior to disposal.
Sincerely,

Dan Schwert  
Industrial Hygienist 2  
Regulated Materials Management Office  
Facilities Maintenance & Construction

Plant Services Building  
4515 25th Avenue NE Box 354285  
Seattle, Washington 98195-4285  
Cell: 206-491-6076  
schwertd@uw.edu

This message is intended for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us.
Pictures and Analysis Results
Pic. 1: Off-white paint, Wallboard and joint compound, Brown 4” cove base with soft, clear mastic and brown, brittle mastic, Light brown 12” x 12” floor tile with black mastic & White 2’ x 2’ suspended acoustical ceiling tile with worm hole pattern

Pic. 2: Light brown 4” cove base with brown, brittle mastic & Tan 4” cove base with brown, brittle mastic
Pic. 3: Black 4” cove base with brown, brittle mastic

Pic. 4: Tan 12” x 12” floor tile
Pic. 5: Off-white 12” x 12” floor tile with tan mastic

Pic. 6: Light purple paint
Pic. 7: Light brown paint

Pic. 8: Tan paint
May 19, 2020

Dan Schwert
UW- Facilities Maintenance & Construction
Plant Services Building- Box 354285, 4515 25th Ave. NE
Seattle, WA 98105-4104

RE:    Bulk Asbestos Fiber Analysis; NVL Batch # 2008539.00

Client Project: BPO 441
Location:  HSB B-Wing B339-365, WO 27952 AIM 728889-001

Dear Mr. Schwert,

Enclosed please find test results for the 14 sample(s) submitted to our laboratory for analysis on 5/14/2020.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with both EPA 600/M4-82-020, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and EPA 600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Matt Macfarlane, Asbestos Lab Supervisor

Enc.: Sample Results
## Lab ID: 20063398  Client Sample #: 27952-ASB1-01
### Comments:
Insufficient sample amount for thorough analysis (layer 1).

<table>
<thead>
<tr>
<th>Layer 1 of 2</th>
<th>Description: White compacted powdery material with paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>Cellulose 3%</td>
</tr>
</tbody>
</table>

### Lab ID: 20063399  Client Sample #: 27952-ASB1-02
### Comments:
Composite result (per client request) for whole sample is less than 1% asbestos.

<table>
<thead>
<tr>
<th>Layer 1 of 3</th>
<th>Description: White compacted powdery material with paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td>Cellulose 3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 3</th>
<th>Description: White compacted powdery material with paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Calcareous binder, Calcareous particles</td>
<td>Cellulose 17%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 3 of 3</th>
<th>Description: White chalky material with paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Fibrous Materials:</td>
<td>Other Fibrous Materials:%</td>
</tr>
<tr>
<td>Gypsum/Binder, Fine grains</td>
<td>Cellulose 26%</td>
</tr>
<tr>
<td>Glass fibers 5%</td>
<td>Cellulose 4%</td>
</tr>
</tbody>
</table>

**Asbestos Type:**
- **Lab ID: 20063398**
  - None Detected ND
- **Lab ID: 20063399**
  - None Detected ND

---

**Sampled by:** Client
**Analyzed by:** Tiffany Querry
**Reviewed by:** Matt Macfarlane
**Date:** 05/18/2020
**Date:** 05/19/2020

**Note:** If samples are not homogeneous, then subsamples of the component were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.

---

---
# Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

**Client:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building- Box 354285,  
4515 25th Ave. NE  
Seattle, WA 98105-4104

**Attention:** Mr. Dan Schwert  
**Project Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

## Lab ID: 20063400  
**Client Sample #:** 27952-ASB1-03

**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001  
**Comments:** Composite result (per client request) for whole sample is less than 1% asbestos.

<table>
<thead>
<tr>
<th>Layer 1 of 3</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White compacted powdery material with paint</td>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Calcareous binder, Calcareous particles, Paint</td>
<td></td>
<td>Cellulose</td>
<td>3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 3</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White compacted powdery material with paper</td>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Calcareous binder, Calcareous particles</td>
<td></td>
<td></td>
<td>Chrysotile 2%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 3 of 3</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White chalky material with paper</td>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Gypsum/Binder, Fine grains</td>
<td></td>
<td>Cellulose</td>
<td>18%</td>
</tr>
</tbody>
</table>

## Lab ID: 20063401  
**Client Sample #:** 27952-ASB1-04

**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001  
**Comments:** Composite result (per client request) for whole sample is less than 1% asbestos.

<table>
<thead>
<tr>
<th>Layer 1 of 1</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>White chalky material with paper and paint</td>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Gypsum/Binder, Fine grains, Paint</td>
<td></td>
<td>Cellulose</td>
<td>25%</td>
</tr>
</tbody>
</table>

## Lab ID: 20063402  
**Client Sample #:** 27952-ASB1-05

**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001  
**Comments:** Composite result (per client request) for whole sample is less than 1% asbestos.

<table>
<thead>
<tr>
<th>Layer 1 of 2</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Off-white compacted powdery material with paint</td>
<td></td>
<td></td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>Binder/Filler, Fine grains, Paint</td>
<td></td>
<td>Cellulose</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

**Sampled by:** Client  
**Reviewed by:** Matt Macfarlane  
**Reviewed by:** Tiffany Querry  
**Date:** 05/18/2020  
**Date:** 05/19/2020

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVL/AP or any other agency of the US Government.
# Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

**Client:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building- Box 354285,  
4515 25th Ave. NE  
Seattle, WA 98105-4104  
**Attention:** Mr. Dan Schwert  
**Project Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001  

**Batch #: 2008539.00**  
**Client Project #:** BPO 441  
**Date Received:** 5/14/2020  
**Samples Received:** 14  
**Samples Analyzed:** 14  
**Method:** EPA/600/R-93/116 & EPA/600/M4-82-020

### Layer 2 of 2

**Description:** White chalky material with paper  
**Non-Fibrous Materials:**  
- Gypsum/Binder, Fine grains  
- Cellulose 25%  
- Glass fibers 5%  
**Asbestos Type:** %  
**None Detected ND**

### Lab ID: 20063403  
**Client Sample #:** 27952-ASB2-01  
**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

#### Layer 1 of 4

**Description:** Brown rubbery material  
**Non-Fibrous Materials:**  
- Vinyl/Binder, Fine particles  
- None Detected ND  
**Asbestos Type:** %  
**None Detected ND**

#### Layer 2 of 4

**Description:** Clear soft adhesive  
**Non-Fibrous Materials:**  
- Adhesive/Binder, Fine grains, Fine particles  
- Cellulose 2%  
**Asbestos Type:** %  
**None Detected ND**

#### Layer 3 of 4

**Description:** Brown brittle mastic  
**Non-Fibrous Materials:**  
- Mastic/Binder, Fine particles  
- Talc fibers 2%  
**Asbestos Type:** %  
**None Detected ND**

#### Layer 4 of 4

**Description:** White compacted powdery material with paint  
**Non-Fibrous Materials:**  
- Calcareous binder, Calcareous particles, Paint  
- Cellulose <1%  
**Asbestos Type:** %  
**Chrysotile 2%**

### Lab ID: 20063404  
**Client Sample #:** 27952-ASB3-01  
**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

#### Layer 1 of 3

**Description:** Tan rubbery material  
**Non-Fibrous Materials:**  
- Vinyl/Binder, Fine particles  
- None Detected ND  
**Asbestos Type:** %  
**None Detected ND**

---

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 05/18/2020  
**Date:** 05/19/2020

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVL/AP or any other agency of the US Government.
# Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

## Client: UW- Facilities Maintenance & Construction
Address: Plant Services Building- Box 354285, 4515 25th Ave. NE Seattle, WA 98105-4104

**Attention: Mr. Dan Schwert**
Project Location: HSB B-Wing B339-365. WO 27952 AIM 728889-001

## Lab ID: 20063405  Client Sample #: 27952-ASB4-01
Location: HSB B-Wing B339-365. WO 27952 AIM 728889-001

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1 of 3</td>
<td>Tan rubbery material</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected ND</td>
</tr>
<tr>
<td>Layer 2 of 3</td>
<td>Brown brittle mastic</td>
<td>Mastic/Binder, Fine particles</td>
<td>Talc fibers 2%</td>
</tr>
<tr>
<td>Layer 3 of 3</td>
<td>White chalky material with paper and paint</td>
<td>Gypsum/Binder, Fine grains, Paint</td>
<td>Cellulose 27%</td>
</tr>
</tbody>
</table>

**Asbestos Type:** None Detected ND

## Lab ID: 20063406  Client Sample #: 27952-ASB5-01
Location: HSB B-Wing B339-365. WO 27952 AIM 728889-001

<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer 1 of 3</td>
<td>Black rubbery material</td>
<td>Vinyl/Binder, Fine particles</td>
<td>None Detected ND</td>
</tr>
<tr>
<td>Layer 2 of 3</td>
<td>Brown brittle mastic</td>
<td>Mastic/Binder, Fine particles</td>
<td>Talc fibers 2%</td>
</tr>
<tr>
<td>Layer 3 of 3</td>
<td>White chalky material with paper and paint</td>
<td>Gypsum/Binder, Fine grains, Paint</td>
<td>Cellulose 29%</td>
</tr>
</tbody>
</table>

**Asbestos Type:** None Detected ND

---

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 05/18/2020  
**Date:** 05/19/2020  
**Signature:** Matt Macfarlane, Asbestos Lab Supervisor

---

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 800/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
## Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

**Client:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building- Box 354285,  
4515 25th Ave. NE  
Seattle, WA 98105-4104  
**Attention:** Mr. Dan Schwert  
**Project Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001  
**Batch #:** 2008539.00  
**Client Project #:** BPO 441  
**Date Received:** 5/14/2020  
**Samples Received:** 14  
**Samples Analyzed:** 14  
**Method:** EPA/600/R-93/116 & EPA/600/M4-82-020

<table>
<thead>
<tr>
<th>Layer 2 of 3</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastic/Binder, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 3 of 3</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gypsum/Binder, Fine grains, Paint</td>
<td>Cellulose 30%</td>
<td>None Detected ND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lab ID:** 20063407  
**Client Sample #:** 27952-ASB6-01  
**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

<table>
<thead>
<tr>
<th>Layer 1 of 2</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl/Binder, Calcareous particles, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 2 of 2</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black asphaltic mastic</td>
<td>Cellulose &lt;1%</td>
<td>Chrysotile 3%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lab ID:** 20063408  
**Client Sample #:** 27952-ASB7-01  
**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

<table>
<thead>
<tr>
<th>Layer 1 of 1</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl/Binder, Calcareous particles, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Layer 1 of 2</th>
<th>Description</th>
<th>Non-Fibrous Materials:</th>
<th>Other Fibrous Materials:</th>
<th>Asbestos Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl/Binder, Calcareous particles, Fine particles</td>
<td>None Detected</td>
<td>ND</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 05/18/2020  
**Date:** 05/19/2020

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
# Bulk Asbestos Fibers Analysis

**By Polarized Light Microscopy**

**Client:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building- Box 354285, 4515 25th Ave. NE  
**Seattle, WA 98105-4104**

**Attention:** Mr. Dan Schwert  
**Project Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

---

| Layer 2 of 2 | Description: Tan crumbly material  
| Non-Fibrous Materials: |  
| Binder/Filler, Fine grains, Fine particles | Other Fibrous Materials:%  
| None Detected | Asbestos Type: % | ND | None Detected

**Lab ID:** 20063410  
**Client Sample #:** 27952-AS9-01  
**Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

| Layer 1 of 1 | Description: Tan compressed fibrous material with paint  
| Non-Fibrous Materials: |  
| Binder/Filler, Fine particles, Paint | Other Fibrous Materials:%  
| Glass debris, Perlite | Cellulose 43%  
| Glass fibers 32% | Asbestos Type: % | None Detected ND

---

| Layer 1 of 1 | Description: Tan compressed fibrous material with paint  
| Non-Fibrous Materials: |  
| Binder/Filler, Fine particles, Paint | Other Fibrous Materials:%  
| Glass debris, Perlite | Cellulose 43%  
| Glass fibers 33% | Asbestos Type: % | None Detected ND

---

**Sampled by:** Client  
**Analyzed by:** Tiffany Querry  
**Reviewed by:** Matt Macfarlane  
**Date:** 05/18/2020  
**Date:** 05/19/2020  
**Signature:** Matt Macfarlane, Asbestos Lab Supervisor

---

Note: If samples are not homogeneous, then subsamples of the component were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government.
## ASBESTOS LABORATORY SERVICES

**Company:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building- Box 354285, 4515 25th Ave. NE  
**Project Manager:** Mr. Dan Schwert  
**Phone:** (206) 685-3357  
**Cell:** (206) 491-6076  
**NVL Batch Number:** 2008539.00  
**TAT:** 3 Days  
**AH:** No  
**Due Date:** 5/19/2020  
**Time:** 3:45 PM  
**Email:** schwertd@uw.edu  
**Fax:** (206) 221-7756

**Project Name/Number:** BPO 441  
**Project Location:** HSB B-Wing B339-365. WO 27952 AIM 728889-001

**Subcategory:** PLM Bulk  
**Item Code:** ASB-02  
**EPA 600/R-93-116 Asbestos by PLM <bulk>**

**Total Number of Samples:** 14  
**Rush Samples:**

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20063398</td>
<td>27952-ASB1-01</td>
<td>A</td>
</tr>
<tr>
<td>2</td>
<td>20063399</td>
<td>27952-ASB1-02</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>20063400</td>
<td>27952-ASB1-03</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>20063401</td>
<td>27952-ASB1-04</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>20063402</td>
<td>27952-ASB1-05</td>
<td>A</td>
</tr>
<tr>
<td>6</td>
<td>20063403</td>
<td>27952-ASB2-01</td>
<td>A</td>
</tr>
<tr>
<td>7</td>
<td>20063404</td>
<td>27952-ASB3-01</td>
<td>A</td>
</tr>
<tr>
<td>8</td>
<td>20063405</td>
<td>27952-ASB4-01</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>20063406</td>
<td>27952-ASB5-01</td>
<td>A</td>
</tr>
<tr>
<td>10</td>
<td>20063407</td>
<td>27952-ASB6-01</td>
<td>A</td>
</tr>
<tr>
<td>11</td>
<td>20063408</td>
<td>27952-ASB7-01</td>
<td>A</td>
</tr>
<tr>
<td>12</td>
<td>20063409</td>
<td>27952-ASB8-01</td>
<td>A</td>
</tr>
<tr>
<td>13</td>
<td>20063410</td>
<td>27952-ASB9-01</td>
<td>A</td>
</tr>
<tr>
<td>14</td>
<td>20063411</td>
<td>27952-ASB9-02</td>
<td>A</td>
</tr>
</tbody>
</table>

**Print Name:**  
**Signature:**  
**Company:**  
**Date:**  
**Time:**

<table>
<thead>
<tr>
<th>Sampled by</th>
<th>Relinquished by</th>
<th>Company</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Drop Box</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Office Use Only**

<table>
<thead>
<tr>
<th>Received by</th>
<th>Signature</th>
<th>Company</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Schubert</td>
<td></td>
<td>NVL</td>
<td>5/14/20</td>
<td>1545</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analyzed by</th>
<th>Signature</th>
<th>Company</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tiffany Querry</td>
<td></td>
<td>NVL</td>
<td>5/18/20</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results Called by</th>
<th>Faxed</th>
<th>Emailed</th>
</tr>
</thead>
</table>

**Special Instructions:** Composite request received 5/19/2020 from schwertd@uw.edu

**Date:** 5/14/2020  
**Time:** 3:55 PM  
**Entered By:** Fatima Khan

---

**Page:** page 8 of 9
### CHAIN of CUSTODY
### SAMPLE LOG

**NVL Batch Number**: 2008539
**Client Job Number**: BPO 411
**Total Samples**: 14
**Turn Around Time**:
- 1 Hr
- 2 Hrs
- 4 Hrs
- 6 Hrs
- 1 Day
- 2 Days
- 3 Days
- 4 Days
- 5 Days

Please call for TAT less than 24 Hrs

**Email address**: schwertd@uw.edu

**Phone**: (206) 685-3357
**Fax**: (206) 221-7756

**Project Manager**: Mr. Dan Schwert
**Project Location**: HSB B-Wing B339 - 365

**Client**: UW - Facilities Maintenance & Construction
**Address**: Plant Services Building - Box 354285, 4515 25th Ave. NE
**City**: Seattle
**State**: WA
**Zip**: 98105-4104

**Condition of Package**: Good

<table>
<thead>
<tr>
<th>Seq. #</th>
<th>Lab ID</th>
<th>Client Sample Number</th>
<th>Comments (e.g. Sample are, Sample Volume, etc)</th>
<th>Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27952-ASB 1-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>27952-ASB 1-02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>27952-ASB 1-03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>27952-ASB 1-04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>27952-ASB 1-05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>27952-ASB 2-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>27952-ASB 3-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>27952-ASB 4-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>27952-ASB 5-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>27952-ASB 6-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>27952-ASB 7-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>27952-ASB 8-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>27952-ASB 9-01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>27952-ASB 0-02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Print Below**
- **Sampled by**: Dan Schwert
- **Received by**: D. Mann
- **Analyzed by**: Dan Scherwet
- **Results Called by**: 
- **Results Faxed by**: 

**Special Instructions**: Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.

---

**Company**: UW
**Date**: 8/14/2015
**Time**: 9:30

---

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Page 9 of 9
May 18, 2020

Dan Schwert

UW- Facilities Maintenance & Construction
Plant Services Building- Box 354285, 4515 25th Ave. NE
Seattle, WA 98105-4104

RE:  Total Metal Analysis
Method: EPA 7000B Lead by FAA <paint>
Item Code: FAA-02

Client Project: BPO 441
Location: HSB B-Wing B339-365. WO 27952 AIM 728889-001

Dear Mr. Schwert,

NVL Labs received 4 sample(s) for the said project on 5/14/2020. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B , unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Yasuuki Hida, Laboratory Analyst

Enc.: Sample results
Analysis Report
Total Lead (Pb)

Client: UW- Facilities Maintenance & Construction
Address: Plant Services Building- Box 354285, 4515 25th Ave. NE
Seattle, WA 98105-4104

Attention: Mr. Dan Schwert
Project Location: HSB B-Wing B339-365. WO 27952 AIM 728889-001

Batch #: 2008543.00
Matrix: Paint
Method: EPA 3051/7000B
Client Project #: B1-P 441
Date Received: 5/14/2020
Samples Received: 4
Samples Analyzed: 4

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Client Sample #</th>
<th>Sample Weight (g)</th>
<th>RL in mg/Kg</th>
<th>Results in mg/Kg</th>
<th>Results in percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20063475</td>
<td>27952-Pb1-01</td>
<td>0.1989</td>
<td>50</td>
<td>&lt; 50</td>
<td>&lt; 0.0050</td>
</tr>
<tr>
<td>20063476</td>
<td>27952-Pb2-01</td>
<td>0.1964</td>
<td>51</td>
<td>&lt; 51</td>
<td>&lt; 0.0051</td>
</tr>
<tr>
<td>20063477</td>
<td>27952-Pb3-01</td>
<td>0.1912</td>
<td>52</td>
<td>&lt; 52</td>
<td>&lt; 0.0052</td>
</tr>
<tr>
<td>20063478</td>
<td>27952-Pb4-01</td>
<td>0.1923</td>
<td>52</td>
<td>&lt; 52</td>
<td>&lt; 0.0052</td>
</tr>
</tbody>
</table>

**Sampled by:** Client
**Analyzed by:** Shalini Patel
**Reviewed by:** Yasuyuki Hida
**Date Analyzed:** 05/18/2020
**Date Issued:** 05/18/2020

Yasuyuki Hida, Laboratory Analyst

mg/Kg = Milligrams per kilogram
Percent = Milligrams per kilogram / 10000

Note: Method QC results are acceptable unless stated otherwise.
      Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.
**LEAD LABORATORY SERVICES**

**Company**: UW- Facilities Maintenance & Construction  
**Address**: Plant Services Building- Box 354285, 4515 25th Ave. NE

**NVL Batch Number**: 2008543.00  
**TAT**: 3 Days  
**AH**: No  
**Rush TAT**:  
**Due Date**: 5/19/2020  
**Time**: 3:45 PM  
**Email**: schwertd@uw.edu  
**Fax**: (206) 221-7756

---

**Project Name/Number**: BPO 441  
**Project Location**: HSB B-Wing B339-365. WO 27952 AIM 728889-001

**Subcategory**: Flame AA (FAA)  
**Item Code**: FAA-02  
**EPA 7000B Lead by FAA <paint>**

---

**Total Number of Samples**: 4  
**Rush Samples**:  

<table>
<thead>
<tr>
<th>Lab ID</th>
<th>Sample ID</th>
<th>Description</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 20063475</td>
<td>27952-Pb1-01</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>2 20063476</td>
<td>27952-Pb2-01</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>3 20063477</td>
<td>27952-Pb3-01</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>4 20063478</td>
<td>27952-Pb4-01</td>
<td></td>
<td>A</td>
</tr>
</tbody>
</table>

---

**Print Name**  
**Signature**  
**Company**  
**Date**  
**Time**

| Sampled by | Client | | | |
|------------|--------| | | |
| Relinquished by | Drop Box | | | |

**Office Use Only**  
**Print Name**  
**Signature**  
**Company**  
**Date**  
**Time**

| Received by | Emily Schubert | NVL | 5/14/20 | 1545 |
| Analyzed by | Shalini Patel | NVL | 5/18/20 |

**Special Instructions:**

---

Date: 5/14/2020  
Time: 4:20 PM  
Entered By: Fatima Khan

page 3 of 4
# CHAIN of CUSTODY SAMPLE LOG

**Client:** UW- Facilities Maintenance & Construction  
**Address:** Plant Services Building - Box 354285, 4515 25th Ave. NE, Seattle, WA 98105-4104  
**Project Manager:** Mr. Dan Schwert  
**Project Location:** HS&B Wing B339-365  
**Phone:** (206) 685-3357  
**Fax:** (206) 221-7756  
**Email:** schwertd@uw.edu  
**NVL Batch Number:** B90 441  
**Client Job Number:**  
**Total Samples:**  
**Turn Around Time:**  
- [ ] 1 Hr  
- [ ] 6 Hrs  
- [x] 3 Days  
- [ ] 10 Days  
- [ ] 2 Hrs  
- [ ] 1 Day  
- [ ] 4 Days  
- [ ] 4 Hrs  
- [ ] 2 Days  
- [ ] 5 Days  
**Note:** Please call for TAT less than 24 Hrs

**Asbestos Air**  
- [ ] PCM (NIOSH 7400)  
- [ ] TEM (NIOSH 7402)  
- [ ] TEM (AHERA)  
- [ ] TEM (EPA Level II)  
- [ ] Other  
**Asbestos Bulk**  
- [ ] PLM (EPA/600/R-93/116)  
- [ ] PLM (EPA Point Count)  
- [ ] PLM (EPA Gravimetry)  
- [ ] TEM BULK  
**Mold/Fungus**  
- [ ] Mold Air  
- [ ] Mold Bulk  
- [ ] Rotometer Calibration  
**METALS**  
- [x] Total Metals  
- [ ] TCLP  
- [ ] Cr 6  
- [ ] Det. Limit  
- [ ] Matrix  
- [ ] FAA (ppm)  
- [ ] Air Filter  
- [ ] ICP (ppm)  
- [ ] Drinking water  
- [x] GFAA (ppl)  
- [ ] Dust/wipe (Area)  
- [ ] Soil  
- [ ] Paint Chips in %  
- [ ] Paint Chips in cm  
- [ ] Waste Water  
- [ ] Other  
**RCRA Metals**  
- [ ] Arsenic (As)  
- [ ] Barium (Ba)  
- [ ] Mercury (Hg)  
- [ ] Cadmium (Cd)  
- [ ] Selenium (Se)  
- [ ] Chromium (Cr)  
- [ ] Silver (Ag)  
**Other Metals**  
- [ ] All 8  
- [ ] All 3  
- [ ] Copper (Cu)  
- [ ] Nickel (Ni)  
- [ ] Zinc (Zn)  
**Other Types of Analysis**  
- [ ] Fiberglass  
- [ ] Nuisance Dust  
- [ ] Other (Specify)  
- [ ] Silica  
- [ ] Respirable Dust  

**Condition of Package:**  
- [ ] Good  
- [ ] Damaged (no spillage)  
- [ ] Severe damage (spillage)  

<table>
<thead>
<tr>
<th>Seq. #</th>
<th>Lab ID</th>
<th>Client Sample Number</th>
<th>Comments (e.g. Sample are, Sample Volume, etc)</th>
<th>A/R</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td>27952-PB-01</td>
<td></td>
</tr>
</tbody>
</table>

**Print Below:**  
- [ ] Sampled by  
- [ ] Relinquished by  
- [ ] Received by  
- [ ] Analyzed by  
- [ ] Results Called by  
- [ ] Results Faxed by  

**Sign Below:**  
- [ ] Company  
- [ ] Date  
- [ ] Time  

**Special Instructions:** Unless requested in writing, all samples will be disposed of two (2) weeks after analysis.