

# **Post Abatement Summary**

Pierce College Olympic South

Abatement and Repairs

9401 Farwest Drive SW

Lakewood, Washington 98498

Prepared for:

State of Washington

Department of Enterprise Services

PO Box 41012

Olympia, Washington 98504

August 2022

PBS Project 40535.488



214 EAST GALER STREET, SUITE 300

SEATTLE, WA, 98102

206.233.9639 MAIN

866.727.0140 FAX

[PBSUSA.COM](http://PBSUSA.COM)

## **Post Abatement Summary**

Pierce College  
Olympic South Abatement and Repairs  
9401 Farwest Drive SW  
Lakewood, Washington 98498

### **Prepared for:**

Washington State Department of Enterprise Services  
Lakewood, Washington

### **Prepared by:**

PBS Engineering and Environmental  
214 E Galer Street, Suite 300  
Seattle, WA 98102  
(206) 233-9639

PBS Project 40535.488  
August 2022

*This report is for the exclusive use of the client for planned development of the property and is not to be relied upon by other parties. It is not to be photographed, photocopied, or similarly reproduced in total or in part without the expressed written consent of the client and PBS.*

## Table of Contents

<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
1.1	Initial Discovery	1
1.2	Project Background	1
<b>2</b>	<b>ASBESTOS SURFACE TESTING</b>	<b>2</b>
<b>3</b>	<b>CLEANING/ABATEMENT PROCESS</b>	<b>2</b>
3.1	Surface Cleaning	3
3.2	Content Cleaning	3
3.3	Heating, Ventilation and Air-Conditioning (HVAC)	4
3.4	Electrical Systems	4
3.5	Elevator Hydraulic Fluid	4
3.6	Playground Activities	4
3.7	Cascade 432 Activities	4
3.8	Maintenance Building Activities	5
<b>4</b>	<b>REGULATED MATERIALS ACTIVITIES</b>	<b>5</b>
4.1	Asbestos-Containing Materials	5
4.2	PCB-Containing Materials	5
4.3	Mercury-Containing Materials	5
<b>5</b>	<b>AIR MONITORING DESCRIPTION</b>	<b>6</b>
5.1	Air Sampling Process	6
5.2	Equipment	6
5.3	Personal Exposure Monitoring	6
5.4	Area Monitoring	6
5.5	Quality Control Procedures	6
5.6	Asbestos Air Clearance Testing	7
<b>6</b>	<b>REMAINING STRUCTURE</b>	<b>7</b>
<b>7</b>	<b>CONCLUSIONS</b>	<b>8</b>

## Supporting Data

### APPENDICES

#### Appendix A: Construction Phase Dust Sampling Information

SVY1.3 First Floor

SVY1.3A Playground Area

SVY2.3 Second Floor

SVY3.3 Third Floor

Construction Phase Dust Sample Inventory

Construction Phase Dust Sample Laboratory Reports and Chain of Custody Documentation

#### Appendix B: Reports

Pierce College Playground Soil Memorandum (April 2022)

Cascade 432 Air Monitoring Letter Report (June 2022)

**Appendix C: PBS Documentation**

Field Observation Reports, 4/29/2021 to 6/8/2022

Air Sample Data Sheets, 4/30/2021 to 6/6/2022

Air Clearance Sample Inventory

Air Clearance Laboratory Data Sheets and Chain of Custody Documentation

**Appendix D: Bulk PCB Sampling Information**

Bulk PCB Sample Inventory

Bulk PCB Laboratory Data Sheets and Chain of Custody Documentation

©2022 PBS Engineering and Environmental Inc.

## 1 INTRODUCTION

### 1.1 Initial Discovery

PBS Engineering and Environmental Inc. (PBS) was retained by Washington State Department of Enterprise Services (DES) to provide monitoring and observation in conjunction with the Pierce College Early Childhood Education (ECE) Renovations project at the Pierce College Olympic South building located at 9401 Farwest Drive SW in Lakewood, Washington. On March 4, 2021, PBS collected 3 surface dust samples, as part of a visual inspection and clearance activities of the asbestos abatement in the ECE. The samples were collected from the return air plenum space located above the suspended ceiling in the neighboring work areas. All three samples revealed significantly elevated levels of asbestos structures in the accumulated surface dust.

PBS continued asbestos surface dust sampling to define the extent of asbestos contamination. Testing was initiated in the neighboring rooms from the original work area and expanded throughout the entire Olympic South building. As part of the initial investigation approximately 600+ surface dust samples were collected from surfaces, including heating, ventilation, and air conditioning (HVAC) systems throughout all areas of Olympic South and various locations around campus.

The initial investigation found elevated asbestos structures in the accumulated dust of the HVAC system on Levels 1, 2, and 3. Significant asbestos contamination was found on contents of Levels 1 and 2. However, no significant asbestos contamination was discovered on contents on Level 3. See Dust Report dated July 2021, for detailed information regarding the initial dust sampling and discovery effort.

In May 2021 the Dickson Company was hired to isolate the building to prevent asbestos fiber migration. Once the Level 3 HVAC system was sealed from the occupied space, Level 3 contents were removed prior to abatement.

The source of the asbestos contamination was unknown at this point in the investigation.

### 1.2 Project Background

MacDonald Miller Facility Solutions (MMFS) was the general contractor for the Pierce College Olympic South Abatement and Repairs project. Dickson Company was subcontracted by MMFS for the removal, disposal and cleanup activities. PBS was retained by DES to monitor the abatement and related operations from April 2021 to July 2022. Claire Tsai, Mike Smith, Peter Stensland, Cameron Budnick, Toan Nguyen, Ferman Fletcher, Kaitlin Soukup, and Janet Murphy performed project documentation and air monitoring for PBS during scheduled regulated materials work. Gregg Middaugh served as Project Manager for PBS.

PBS developed Hazardous Material Abatement plans HM1-3 and HM1A to generally define the scope of abatement work. During demolition activities and our ongoing investigation of potential asbestos sources, additional systems were found to have been impacted. Work scope developments and changes during the project are outlined in the Regulated Materials Activities and Cleaning/Abatement Process sections below. For sample diagrams of dust samples collected during construction see Appendix A.

The following is a summary of the dust sampling methodology, abatement process, regulated material activities, air monitoring and information regarding the remaining structure, including PBS' findings and conclusions.

## 2 ASBESTOS SURFACE TESTING

Settled dust can provide information about past asbestos releases and the presence of fibers that may not be currently airborne. Finding of an elevated asbestos concentration in settled dust indicates the presence of asbestos fibers which have been released and may be available for re-suspension. There is limited understanding of the relationship between surface load and the potential for re-suspension, exposure, and health risk.

PBS uses surface dust sampling as a screening tool to determine the location and extent of potential asbestos contamination. Surface samples were generally collected from the following representative suspect surfaces including but not limited to, floors, window and door sills, countertops, interiors and exteriors of HVAC equipment, supply and return plenums, building transformers, concealed contents, furniture, desks, musical equipment, exteriors of electronics, artwork, tops of books and other exposed items. This is not an exhaustive list.

PBS used the American Society for Testing and Materials (ASTM) D5755-09 Standard Test Method for, "Microvacuum Sampling and Indirect Analysis of Dust by Transmission Electron Microscopy for Asbestos Structure Number Surface Loading." The sampler is a pump and filter cassette arrangement through which the air is drawn. A 100 cm<sup>2</sup> disposable template is placed on the surface in question and the sampler is used like a vacuum cleaner to collect available dust within the template area. This is called the "microvacuum method." The samples were labeled with unique identification numbers, packaged, and delivered with chain-of-custody documentation to Lab/Cor, Inc. of Seattle, Washington. All samples were analyzed by ASTM Method D5755-09 for Asbestos Dust Analysis.

There are no regulatory thresholds for the amount of asbestos in settled dust. Researchers believe that surface dust asbestos concentrations below 1,000 structures/cm<sup>2</sup> (s/cm<sup>2</sup>) are unlikely to result in elevated exposures.<sup>1</sup> Background levels of asbestos structures in accumulated dust range from an average of 1,000 s/cm<sup>2</sup> in non-industrial areas to 10,000 s/cm<sup>2</sup> in cities and industrial areas where asbestos materials are common. Levels above 10,000 s/cm<sup>2</sup> are generally considered to be above background in any geographical location. Because this project is a school the team agreed that the 1,000 s/cm<sup>2</sup> would be used as the cleanup threshold. For this project, if surface dust contained more than 1,000 s/cm<sup>2</sup> it was considered "elevated" and above the remediation threshold (i.e., 1,000 s/cm<sup>2</sup>) established for this project.

## 3 CLEANING/ABATEMENT PROCESS

The Dickson Company performed the following tasks to remediate the asbestos contaminated dust.

An asbestos abatement control plan was developed by Dickson Company for the removal of ACMs and asbestos-contaminated dust to ensure the work was performed in such a manner to minimize and/or eliminate the impact of the asbestos and hazardous materials removal activities to workers, the environment, and areas adjacent to the removal activities. The following is a summary of the process followed by Dickson Company during the removal and clean-up of ACMs at Pierce College related to the Olympic South Abatement and Repairs Project.

All asbestos related work performed on this project was conducted by Washington State Certified Asbestos Supervisors and Workers in accordance with WAC 296-62 and all applicable local, state, and federal

---

<sup>1</sup> Newman, David. EPA World Trade Center Expert Technical Review Panel on the Issue of Microvac Sampling. May 3, 2004.

regulations. All abatement and cleaning work was performed inside regulated and fully contained, negative pressure work areas. Engineering controls included critical barriers that were established at the limits of the work areas. The critical barriers were constructed with polyethylene sheathing (poly) and duct tape and covered all doorways and other openings to the work area. Decontamination and load out chambers were constructed and connected to each of the negative pressure work areas. Differential pressure fans equipped with high-efficiency particulate air (HEPA) filters were established as an engineering control to provide airflow and a negative pressure differential between the containment and the area outside the containment. Once appropriate engineering controls were in place, removal and cleaning activities began. Areas surrounding containments and buildings, including sidewalks, stairs, concrete under the covered play area, and portable walkways were periodically cleaned with HEPA filtered vacuums to help ensure there was no cross-contamination or migration of asbestos to other areas of the school property.

### **3.1 Surface Cleaning**

All surfaces were cleaned systematically throughout all areas impacted by the asbestos release. Workers wet wiped and HEPA vacuumed all surfaces. Rags were wetted with water/surfactant solution and used to wipe contaminated surfaces. Rags were only used once for wiping a surface and then discarded to not cross contaminate other surfaces. After wet wiping, areas were then vacuumed using a HEPA filtered vacuum to lift and remove all disrupted asbestos fibers present on the surface. Areas were cleaned while in containment with airflow created by HEPA filtered fan units. Cleaning was started at a point furthest away from the negative pressure fan units, therefore any asbestos fibers disrupted would be pulled toward the fans and areas yet to be cleaned. Systematically cleaning in this fashion lowers the chances of an area being re-contaminated by suspended asbestos fibers potentially created during the cleaning process. All cleaned surfaces were visually inspected by PBS and confirmation surface testing was performed to help ensure the asbestos had been removed. Clearance air samples were then collected and analyzed after the abatement/cleaning activity was completed in each regulated work area.

### **3.2 Content Cleaning**

PBS provided photographic documentation to the project team of areas inside the building affected by asbestos contamination. A college representative met with building occupants to review the photographs and document which items required saving/cleaning and which items could be disposed. PBS retrieved and segregated items to be saved, cleaned and returned.

Some contents were not considered cleanable because of the nature (e.g., porous fabrics) of the material they were made of, or because the configuration of the item made it impossible to access all surfaces for proper cleaning. Items such as electronics with internal fans and venting where internal components are not accessible are not considered cleanable. Upholstered items such as furniture, stuffed animals, pillows, and rugs are not considered cleanable. Artwork on exposed canvas is considered not cleanable. All College owned uncleanable contents were photo documented and disposed.

Contents requested to be returned were cleaned in a similar process to that described in the Surface Cleaning section above. A regulated work area was established. Workers wet wiped and HEPA vacuumed all "cleanable" contents. Items were moved to an established clean room for PBS industrial hygienists to visually inspect for visible dust. Once cleaning of an item was completed and passed visual inspection PBS used the surface dust sampling methodology to confirm the cleaning conducted by the professional abatement firm (Dickson Company) was adequate to meet the criteria established for this project.

If an item was found to be "uncleanable" a Pierce College Representative discussed the potential asbestos related risks with the owner of the object. If the object owner still wanted to keep the asbestos contaminated

item an "Assumption of Risk Form" was generated and signed by both parties. All personal uncleanable (i.e., asbestos contaminated) items were returned to the owner sealed in poly sheeting and duct tape with a College and PBS representative present.

When requested, paper documents were scanned and provided to the college as digital files. After papers were scanned, they were returned to bags, sealed and disposed of as an ACM waste.

### **3.3 Heating, Ventilation and Air-Conditioning (HVAC)**

All HVAC systems throughout the building were found to be asbestos contaminated. HVAC parts with small openings, electronics, or that contained interior insulation were not considered cleanable. Cleaning and removal of HVAC systems were performed in negative pressure regulated work areas and properly disposed.

### **3.4 Electrical Systems**

PBS tested representative electrical systems throughout the building to see if they had been impacted by the known asbestos contamination in the building. Approximately 10-18 dust samples were collected from each floor of the Olympic South building. Asbestos contamination was found in the electrical system throughout. Due to the limited access of electrical conduit and equipment the system could not be cleaned. All accessible electrical conduit was removed by the Dickson Company. Some electrical conduit is embedded in concrete floor and ceiling slabs. Since these components could not be sampled, they were presumed to be asbestos contaminated. Conduit penetrations into concrete slabs were sealed with fire stop or spray foam and labeled with asbestos warning signage. Electrical conduit runs beneath the building from the vault on the east side of the building to the conduit that daylight in the concrete slab of the former mechanical room. This conduit is presumed contaminated and as such was sealed.

### **3.5 Elevator Hydraulic Fluid**

The elevator shaft and cab were contaminated with asbestos and as such demolished inside a negative pressure enclosure. The elevator system contained hydraulic fluid. PBS tested the elevator hydraulic fluid for PCBs. PCBs were not detected in the sample collected. Dickson Company drained the elevator hydraulic fluid and properly disposed of it.

### **3.6 Playground Activities**

Through the process of discovery and testing of asbestos contamination in Olympic South Building the abatement team identified pieces of equipment (i.e., toys, furniture and educational equipment) that had potentially been moved from inside the ECE lab area to the vehicle drive-through and adjacent storage sheds, prior to the start of the ECE renovation work. As part of the investigation, surface dust samples were collected from equipment located outside the building, in storage sheds, and from open air play structures. Laboratory analysis revealed the presence of elevated asbestos fibers in the surface dust on the equipment and in the sheds and their associated contents.

All storage sheds, their contents, and playground structures were demolished. The remaining soils were seeded for erosion and dust control until further action is taken.

See April 2022 Pierce College Playground Soils Memorandum in Appendix B for further information.

### **3.7 Cascade 432 Activities**

During the clean up of Olympic South, the college notified PBS that theater items previously stored in Olympic South had been moved to Cascade 432. Out of an abundance of caution PBS collected representative dust samples of Cascade Room 432 and its contents to determine the existence of asbestos contamination. Minor



contamination was found on the contents, in the room, and in the supply and return duct work associated with the room.

In September 2021, the Dickson Company disposed of all contents and cleaned surfaces in the room. PBS industrial hygienists performed visual inspections and clearance testing associated with this cleanup effort in accordance with the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763.

See the June 2022 Cascade 432 Air Monitoring Letter Report in Appendix B for more information.

### **3.8 Maintenance Building Activities**

During the clean up of Olympic South, the college notified PBS that theater items previously stored in Olympic South had been moved to the Maintenance Building. PBS collected representative dust samples of the Maintenance Building and its contents to determine the existence of asbestos contamination. Asbestos contamination was not found in the samples collected. Out of an abundance of caution the college decided to dispose of all theater contents stored in the maintenance building. Some tools and theater posters were cleaned with the space.

In September 2021, the Dickson Company disposed contents and cleaned surfaces and requested items in the room. PBS industrial hygienists performed visual inspections and clearance testing associated with this cleanup effort in accordance with the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763.

## **4 REGULATED MATERIALS ACTIVITIES**

Following is a general summary of regulated materials activities performed as part of the project and observed by PBS.

### **4.1 Asbestos-Containing Materials**

Following is a general summary of asbestos related activities performed as part of the project and observed by PBS. The following asbestos-containing materials were removed:

- Asbestos-containing sheet vinyl flooring and associated mastic – Room 161B Kitchen (350 SF)
- Sinks with asbestos-containing undercoating's – Rooms 161 Kitchen, 164, 166A, and 285A (5 EA)
- Fireproofing – Corrugated roof under decking and trusses of Room 281, 282, 283, 283A, 284, 284A, and south end of associated corridor, south end of Room 278 and the mechanical mezzanine (Approximately 4,500 SF and overspray from wall cavities)
- Asbestos-containing caulking – Room 283 (20 LF)
- Asbestos-containing glue dots associated with non-ACM ceiling tiles – Rooms 272 and 276 (200 SF)
- Asbestos-contaminated dust from throughout the interior of the building. All finishes, electrical systems, lighting systems and HVAC systems were impacted by the asbestos contamination

### **4.2 PCB-Containing Materials**

All magnetic fluorescent light fixture ballasts are considered suspect PCB-containing. Sixty-three (63) suspect ballasts were found during the project, recovered and disposed by Dickson Company.

### **4.3 Mercury-Containing Materials**

All fluorescent light tubes, lamps and bulbs are considered mercury-containing. Approximately 1,200 fluorescent light tubes, lamps and bulbs were removed, packaged and disposed by the Dickson Company.

The attached PBS Field Observation Reports, located in Appendix C, provide observations of the asbestos abatement and other related activities.

## **5 AIR MONITORING DESCRIPTION**

Air Monitoring performed by PBS is summarized under this section of the report. Air sample data sheets completed during air monitoring operations can be found in Appendix C. Area and clearance sampling was performed by PBS. All clearance airborne fiber counts were within acceptable ranges.

### **5.1 Air Sampling Process**

Air samples are taken to determine representative fiber levels in the air as an index to the potential asbestos content of the air. Air sampling is done to ensure the safety of abatement workers and other personnel in the building and assist in determining whether the building is safe for public occupancy after asbestos is removed. The sampler is a pump and filter cassette arrangement through which air is drawn. The fibers in the air are then deposited on the filter where they can be subsequently analyzed under a microscope.

### **5.2 Equipment**

High-volume air sampling pumps are AC-powered and used when large volumes of relatively clean air need to be sampled. These pumps typically operate at flow rates of about 10 liters of air per minute. Low-volume pumps are battery operated and primarily used for personal monitoring. They operate at 1.0 to 4 liters per minute flow rates.

### **5.3 Personal Exposure Monitoring**

According to the Occupational Safety and Health Administration (OSHA), an employer must perform monitoring to determine the exposure level for each employee, or at least the exposure for each type of task on the abatement project. Breathing zone air samples are collected to represent full shift exposure. This could be one sample or a series of samples representing a period of six to seven hours or more. The Dickson Company was responsible for collecting their own personal air samples.

### **5.4 Area Monitoring**

Ambient air samples are taken to determine representative fiber levels in the air as an index to the potential asbestos content of the air. Air sampling was done to ensure the safety of abatement workers and other personnel in the building in accordance with Washington Administrative Code (WAC) 296-62-077. Air samples are also collected to give daily feedback of ambient air conditions around active abatement areas and to verify that there is no potential cross-contamination between abatement and clean areas. These samples are collected and analyzed in accordance with NIOSH Method 7400 Phase Contrast Microscopy (PCM). PCM analysis does not allow for the distinction of asbestos fibers from non-asbestos fibers. PBS collected daily ambient air samples during all abatement and cleaning activities.

Ambient air samples are collected outside of abatement work areas to detect possible elevated fiber levels because of abatement. Clearance samples (a type of ambient air sample) are taken prior to removing plastic isolation barriers to confirm that the space is safe to reoccupy without respiratory protection.

### **5.5 Quality Control Procedures**

Air sampling pumps are calibrated before and after use to determine accurate flow rates. Microscopes are also frequently adjusted for proper operation. All equipment undergoes routine maintenance to ensure optimal functioning.

PBS analysts have completed air sampling/analysis training courses and participate in an internal quality control program, a national sample exchange program, and the American Industrial Hygiene Association's Proficiency Analytical Testing Program (PAT). This variety of quality control practices ensures the highest possible proficiency.

"Blanks" are unused filter cassettes that are periodically analyzed to determine the level of background fibers on the filters. All samples undergo chain-of-custody documentation. Records are kept of equipment calibration and maintenance.

## 5.6 Asbestos Air Clearance Testing

PBS was requested to use the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763 air clearance protocols. This regulation requires collection and analysis of air samples to be performed by transmission electron microscopy (TEM). TEM analysis allows distinction between asbestos fibers and non-asbestos fibers.

AHERA requires that the average concentration of the total samples collected in the contained area is less than 70 structures per square millimeter (s/mm<sup>2</sup>). All areas where asbestos abatement/cleaning took place were cleared using this method in addition to surface sampling. All samples were labeled with unique identification numbers, packaged, and delivered with chain-of-custody documentation to Lab/Cor, Inc. of Seattle, Washington.

Clearance air samples were collected in the following regulated areas:

- Cascade Room 432
- Maintenance Building
- Level 3
- Level 2
- Level 1
- East Stairwell

All clearance air samples met the regulatory criteria set by AHERA.

A table of asbestos air sampling laboratory data can be found in Appendix C.

## 6 REMAINING STRUCTURE

Some materials containing asbestos remain in the building.

The following materials were determined to contain **greater than 1% asbestos**:

- **Marble Crete** exposed and concealed under plaster and EIFS in various locations– Building exterior north elevation on first and second floors, east elevation on first and second floors, west elevation north area on first and second floors, and south elevation on Level 1
- **CMU** – South area of Level 2
- **Plaster** – The underside of Level 2 skybridge from Olympic South to Cascade
- **Black mastic** – Located below the sill plate of the perimeter metal wall studs throughout the second floor

- **Residual grey sealant and white caulking** beneath non-asbestos dark grey sealant –Level 1 south and east store front windows, Level 1 and 2 north elevation windows, Northwest stairwell/ storefront windows Level 1 and 2, south elevation of the northeast quadrant windows
- **Concealed brown/grey adhesive** –Window rough openings on Level 1 south store front windows, Level 1 and 2 north elevation windows, south elevation of the northeast quadrant windows, west elevation three southern windows

The following materials were determined to contain **less than 1% asbestos**:

- Plaster – Exterior of east stairwell Levels 1, 2 and 3
- Concrete – All concrete throughout building and stairwell
- Site soils – All non-hardscaped areas surrounding the building

Asbestos contaminated dust is presumed to exist in the following locations:

- Sealed conduit embedded in concrete ceiling and floor slabs – Throughout the building
- Sealed Conduit buried beneath slab
- Sealed structural brace framing interiors – All floors and stairwell
- Sealed exterior column cavities – South and east elevations
- Sealed cavity below skybridge to Cascade
- Transformer – West elevation between Olympic South and Olympic North
- Exterior power shut off panel and conduit – West elevation
- Sub grade electrical vaults – East and west elevations
- Conduit associated with emergency power – Level 1 north area overhead conduit runs from Cascade to Olympic North
- Emergency power disconnect – Near northeast entrance

See the Pierce College Olympic South Post Abatement Hazardous Materials Survey Report dated July 2022 for further details.

## 7 CONCLUSIONS

Asbestos-contaminated dust was discovered in the accumulated dust in various areas of the building on Levels 1, 2, and 3. Significant asbestos contamination was also found on contents of Level's 1 and 2. Extensive testing revealed no significant contamination on surfaces of the occupied space of Level 3.

It is PBS's opinion that the following materials have likely contributed to the widespread contamination found in the building: demolished Marble Crete, CMU and fireproofing on second floor, and concrete throughout the building.

All abatement work was performed in accordance with State of Washington regulations. All final visual inspections and air monitoring were in compliance with state and federal regulations.

All interior finishes and most systems were removed, and the remaining structure was cleaned by the Dickson Company. PBS Engineering and Environmental conducted oversight during the abatement process, post-abatement visual inspections and clearance testing to ensure all areas were safe to reoccupy. A total of

approximately 1800+ air samples and 1,100+ surface dust samples were collected throughout the discovery, oversight and clearance processes. Final laboratory analysis in all areas revealed that the surface dust threshold established for this project and the air clearance testing criteria required by EPA were met. Areas inaccessible for cleaning were sealed. It is PBS' opinion that the building is safe to reoccupy.

Please do not hesitate to contact us if you have any questions regarding this report or require additional information.

Report prepared by:

Claire Tsai  
AHERA Building Inspector  
Cert. No. IRO-21-7316B Exp. 12/10/2022

Report Reviewed by:  
Gregg Middaugh  
Senior Project Manager/Industrial Hygienist II

## **APPENDIX A**

---

### **Construction Phase Dust Sampling Information**

SVY1.3 First Floor

SVY1.3A Playground Area

SVY2.3 Second Floor

SVY3.3 Third Floor

Construction Phase Dust Sample Inventory

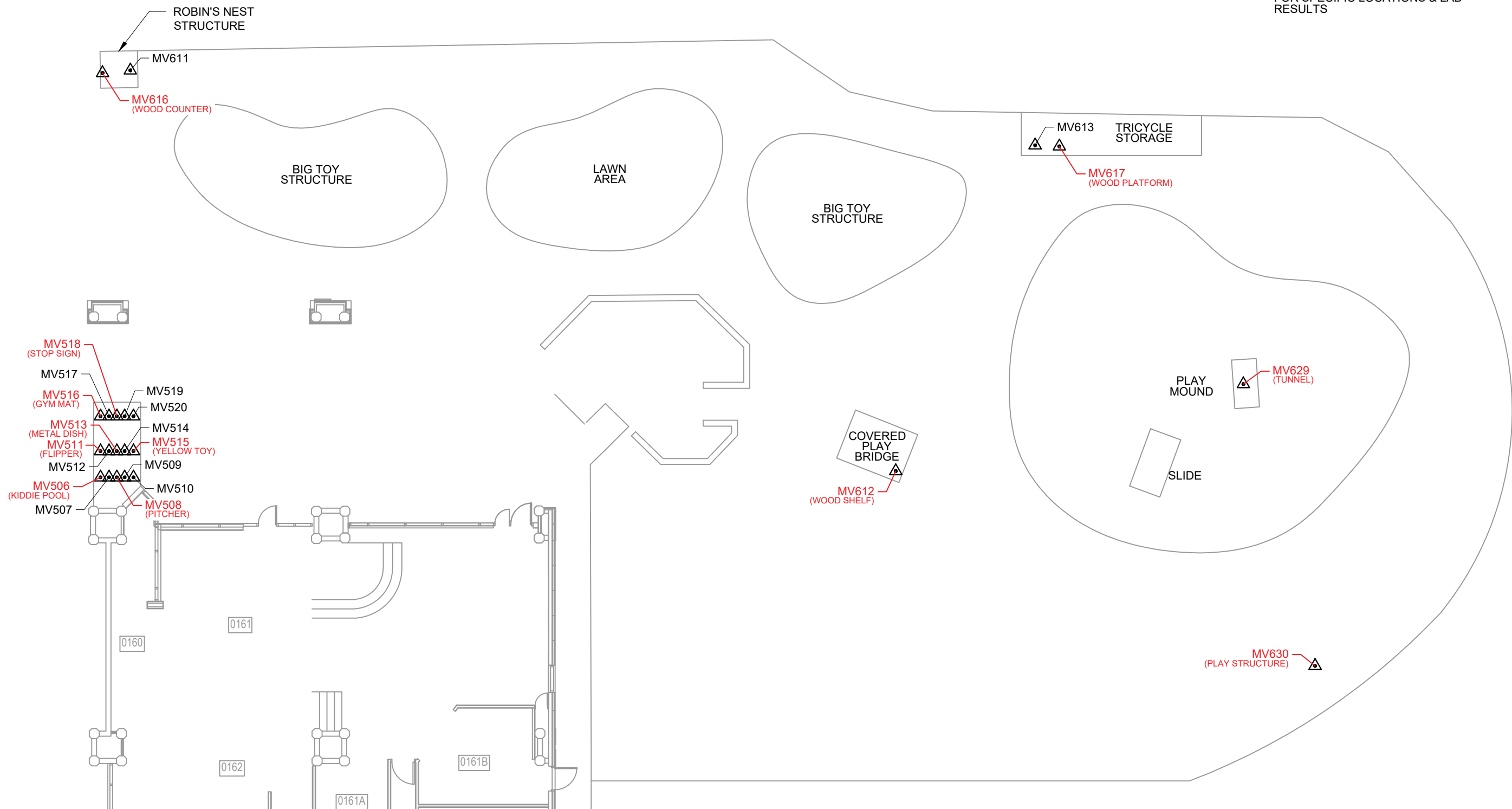
Construction Phase Dust Sample Laboratory Reports and Chain of Custody Documentation



**LEGEND**

- ▲ MV01 MICROVAC SURFACE SAMPLES
- RED >1,000 STRUCTURES/CM<sup>2</sup>

NOTE: LOCATIONS SHOWN ARE FOR DIAGRAMMATIC PURPOSES. ACTUAL LOCATIONS MAY VARY. SEE DUST SAMPLE INVENTORY FOR SPECIFIC LOCATIONS & LAB RESULTS



1 **PLAYGROUND AREA**  
SCALE: 1" = 14'-0"  
PROJECT NORTH



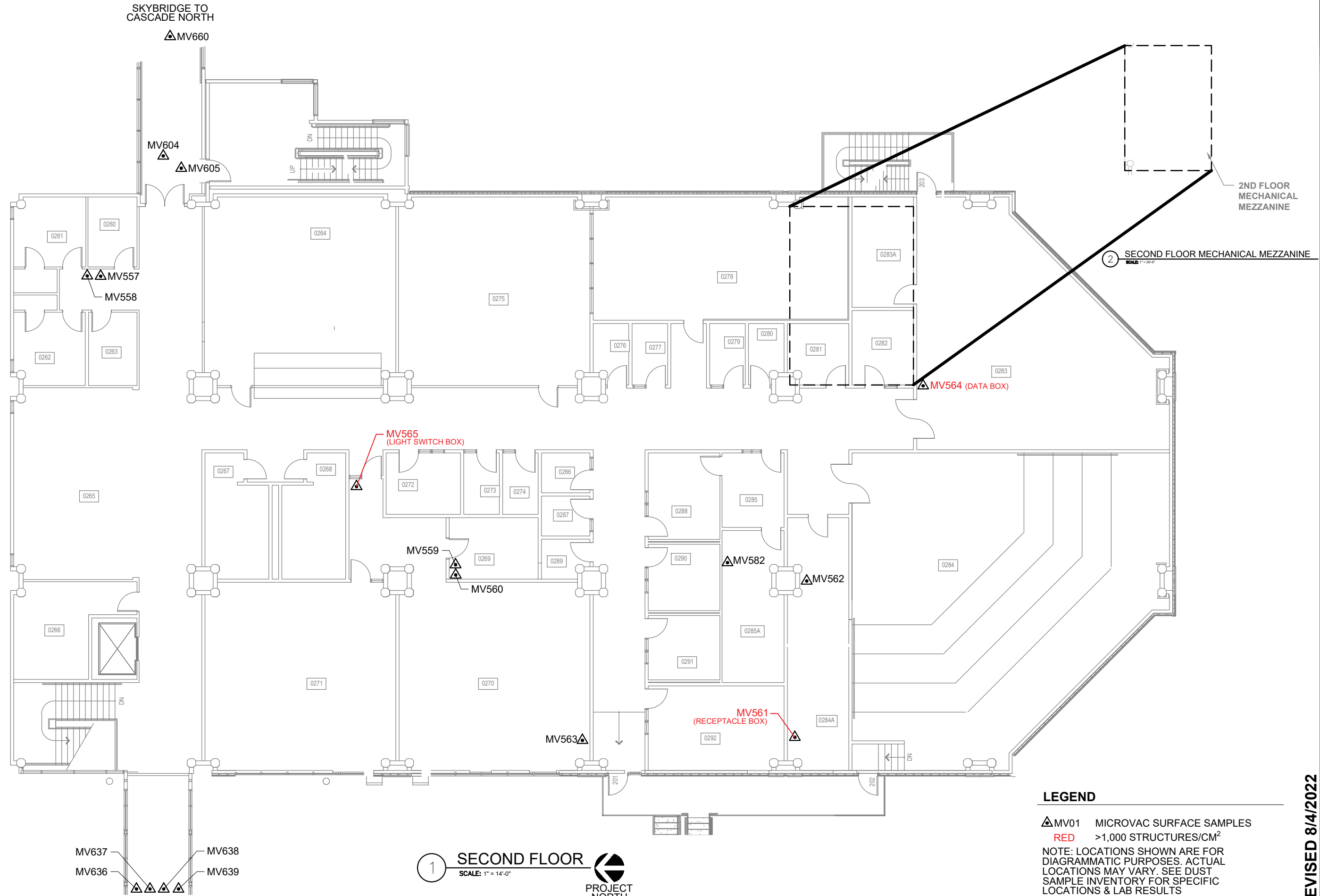
**CONSTRUCTION PHASE DUST SAMPLE LOCATION PLAN**  
**PERCE COLLEGE - OLYMPIC SOUTH ABATEMENT & REPAIRS**  
9401 FARWEST DRIVE SOUTHWEST, LAKEWOOD, WASHINGTON

PROJECT	40535.488
DATE	AUG 2022
SHEET ID	

REVISED 8/4/2022

**SVY1.3A**





① SECOND FLOOR  
SCALE: 1" = 14'-0"  
PROJECT NORTH

**LEGEND**

▲ MV01 MICROVAC SURFACE SAMPLES  
■ >1,000 STRUCTURES/CM<sup>2</sup>

NOTE: LOCATIONS SHOWN ARE FOR DIAGRAMMATIC PURPOSES. ACTUAL LOCATIONS MAY VARY. SEE DUST SAMPLE INVENTORY FOR SPECIFIC LOCATIONS & LAB RESULTS

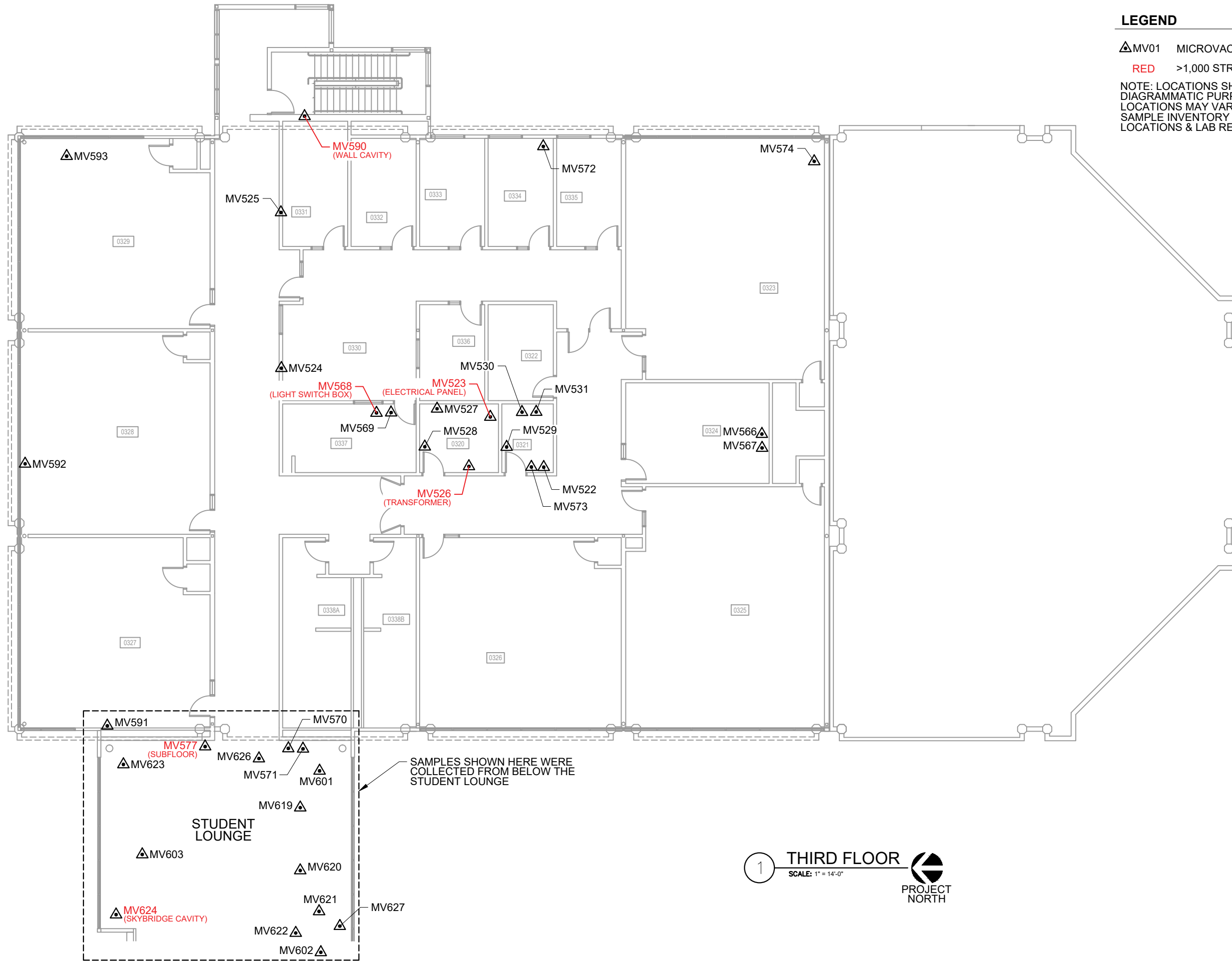
REVISED 8/4/2022

CONSTRUCTION PHASE DUST SAMPLE LOCATION PLAN  
**PERCE COLLEGE - OLYMPIC SOUTH ABATEMENT & REPAIRS**  
 9401 FARWEST DRIVE SOUTHWEST, LAKEWOOD, WASHINGTON

PROJECT	40535.488
DATE	AUG 2022
SHEET ID	<b>SVY2.3</b>

**PBS**  
 PBS Engineering and Environmental Inc.  
 214 East Galer Street, Ste 300  
 Seattle, WA 98102  
 206.233.9639  
 pbsusa.com

Full Size Sheet Format Is 11x17; If Printed Size Is Not 11x17, Then This Sheet Format Has Been Modified & Indicated Drawing Scale Is Not Accurate.



**LEGEND**

▲MV01 MICROVAC SURFACE SAMPLES

RED >1,000 STRUCTURES/CM<sup>2</sup>

NOTE: LOCATIONS SHOWN ARE FOR DIAGRAMMATIC PURPOSES. ACTUAL LOCATIONS MAY VARY. SEE DUST SAMPLE INVENTORY FOR SPECIFIC LOCATIONS & LAB RESULTS.

PBS Engineering and Environmental Inc.  
 214 East Galer Street, Ste 300  
 Seattle, WA 98102  
 206.233.9639  
 pbsusa.com



**CONSTRUCTION PHASE DUST SAMPLE LOCATION PLAN**  
**PERCE COLLEGE - OLYMPIC SOUTH ABATEMENT & REPAIRS**  
 9401 FARWEST DRIVE SOUTHWEST, LAKEWOOD, WASHINGTON

PROJECT	40535.488
DATE	AUG 2022
SHEET ID	SVY3.3

REVISED 8/4/2022

1 THIRD FLOOR  
 SCALE: 1" = 14'-0"  
 PROJECT NORTH

Full Size Sheet Format Is 11x17; If Printed Size is Not 11x17, Then This Sheet Format Has Been Modified & Indicated Drawing Scale Is Not Accurate.

ASBESTOS DUST SAMPLE INVENTORY

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV505	Dust - 100cm2 area	Olympic South elevator shaft from doors	3,157	3 Chrysotile	7/27/2021	Lab/Cor
MV506A	Dust - 100cm2 area	Olympic North Room 104 Laser cutter exhaust tube	<993	-	8/12/2021	Lab/Cor
MV506	Dust - 100cm2 area	Blue kiddie pool – North shed – ECE	4,385	5 Chrysotile	9/7/2021	Lab/Cor
MV507	Dust - 100cm2 area	Black toy truck – North shed – ECE	<877	-	9/7/2021	Lab/Cor
MV508	Dust - 100cm2 area	Plastic water pitcher – North shed – ECE	3,508	4 Chrysotile	9/7/2021	Lab/Cor
MV509	Dust - 100cm2 area	Blue & red kids' life-jacket – North shed – ECE	<877	-	9/7/2021	Lab/Cor
MV510	Dust - 100cm2 area	Bowling pin – North shed – ECE	877	1 Chrysotile	9/7/2021	Lab/Cor
MV511	Dust - 100cm2 area	Black swimming flipper – Central shed – ECE	65,242	29 Chrysotile 2 Actinolite	9/7/2021	Lab/Cor
MV512	Dust - 100cm2 area	Wooden, stackable box – Central shed – ECE	<877	-	9/7/2021	Lab/Cor
MV513	Dust - 100cm2 area	Metal alloy dish – Central shed – ECE	25,255	12 Chrysotile	9/7/2021	Lab/Cor
MV514	Dust - 100cm2 area	Connectable wooden pieces – Central shed – ECE	<877	-	9/7/2021	Lab/Cor
MV515	Dust - 100cm2 area	Yellow toy play set – Central shed – ECE	35,395	37 Chrysotile	9/7/2021	Lab/Cor
MV516	Dust - 100cm2 area	Blue & white gym mat – South shed – ECE	10,523	11 Chrysotile 1 Amosite	9/7/2021	Lab/Cor
MV517	Dust - 100cm2 area	Yellow studded flooring – traffic play set – South shed – ECE	<877	-	9/7/2021	Lab/Cor
MV518	Dust - 100cm2 area	Stop sign – traffic play set – South shed – ECE	1,754	2 Chrysotile	9/7/2021	Lab/Cor
MV519	Dust - 100cm2 area	Orange plastic wheelbarrow – South shed – ECE	<877	-	9/7/2021	Lab/Cor

**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV520	Dust - 100cm2 area	Black faux leather football – South shed – ECE	<877	-	9/7/2021	Lab/Cor
MV521	--	Field Blank	N/A	-	9/7/2021	Lab/Cor
MV522	Dust - 100cm2 area	AC Unit Intake Room 321	877	1 Tremolite	9/15/2021	Lab/Cor
MV523	Dust - 100cm2 area	RM 320 inside base of H7RB Sec 2 Electric Panel	<b>2,505</b>	1 Chrysotile	9/15/2021	Lab/Cor
MV524	Dust - 100cm2 area	RM 330 reception north wall above ceiling conduit penetration	<877	-	9/15/2021	Lab/Cor
MV 525	Dust - 100cm2 area	RM 331 north wall above ceiling at conduit penetration	<957	-	9/15/2021	Lab/Cor
MV 526	Dust - 100cm2 area	Rm. 320 Transformer base	<b>4,783</b>	1 Actinolite	9/24/2021	Lab/Cor
MV 527	Dust - 100cm2 area	Rm. 320 Inside electrical panel H7RA	<993	-	9/24/2021	Lab/Cor
MV 528	Dust - 100cm2 area	Rm. 320 inside LVP – 1	<957	-	9/24/2021	Lab/Cor
MV 529	Dust - 100cm2 area	Rm. 321 Fire Alarm Pull – Box base	<999	-	9/24/2021	Lab/Cor
MV 530	Dust - 100cm2 area	Rm. 321 Security Pull Box base	<877	-	9/24/2021	Lab/Cor
MV 531	Dust - 100cm2 area	Rm. 321 Superterm box #13 base	<877	-	9/24/2021	Lab/Cor
MV 532	Dust - 100cm2 area	Mech. 173 – Fire alarm box base	<b>389,348</b>	37 Chrysotile	9/24/2021	Lab/Cor
MV 533	Dust - 100cm2 area	Mech. 173 – ADM. Box base	<b>84,183</b>	8 Chrysotile	9/24/2021	Lab/Cor
MV 534	Dust - 100cm2 area	Mech. 173 – H7LA Disconnect box base	<b>121,013</b>	23 Chrysotile	9/24/2021	Lab/Cor
MV 535	Dust - 100cm2 area	Mech. 173 – Panel F5LX base	<b>263,073</b>	25 Chrysotile	9/24/2021	Lab/Cor
MV 536	Dust - 100cm2 area	Mech. 173 – HVAC control box base	<b>1,754</b>	2 Chrysotile	9/24/2021	Lab/Cor
MV 537	Dust - 100cm2 area	Mech. 173 – Fire alarm main panel inside	<b>31,569</b>	36 Chrysotile	9/24/2021	Lab/Cor

**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV 538	Dust - 100cm2 area	Mech. 173 – F5RA base	<b>63,137</b>	3 Chrysotile	9/24/2021	Lab/Cor
MV 539	Dust - 100cm2 area	Rm. 173 Transformer base	<b>3,408,253</b>	106 Chrysotile	9/23/2021	Lab/Cor
MV 540	Dust - 100cm2 area	Rm. 173 Johnson Control FEC2611 – HVAC control	<804	-	9/24/2021	Lab/Cor
MV 541	Dust - 100cm2 area	Rm. 173. ABB HVAC unit	<b>1,608</b>	2 Chrysotile	9/24/2021	Lab/Cor
MV 542	Dust - Unknown area	Mech 173 Panel F5RA Breaker 1	<b>Present</b>	12 Chrysotile 1 Actinolite	9/30/2021	Lab/Cor
MV 543	Dust - Unknown area	Mech 173 Panel F5RA Breaker 39	<b>Present</b>	23 Chrysotile	9/30/2021	Lab/Cor
MV 544	Dust - Unknown area	Mech 173 Fire alarm conduit to J box blank	<b>Present</b>	1 Chrysotile	9/30/2021	Lab/Cor
MV 545	Dust - Unknown area	Mech 173 Conduit to VFD with wires	Absent	-	9/30/2021	Lab/Cor
MV 546	Dust - Unknown area	Room 181A J-box to Mech 173 conduit with wire	Absent	-	9/30/2021	Lab/Cor
MV 547	Dust - Unknown area	Room 168 data/phone box	<b>Present</b>	9 Chrysotile	9/30/2021	Lab/Cor
MV 548	Dust - Unknown area	168 corridor data conduit with wire	Absent	-	9/30/2021	Lab/Cor
MV 549	Dust - Unknown area	Room 181 west light switch box	Absent	-	9/30/2021	Lab/Cor
MV 550	Dust - Unknown area	Room 181 light switch conduit J-box to F5LA #6	Absent	-	9/30/2021	Lab/Cor
MV 551	Dust - Unknown area	Room 169 light switch north wall	Absent	-	9/30/2021	Lab/Cor
MV 552	Dust - Unknown area	Room 169 data box east wall	Absent	-	9/30/2021	Lab/Cor
MV 553	Dust - Unknown area	Room 181 middle room data box	Absent	-	9/30/2021	Lab/Cor
MV 554	Dust - Unknown area	Receptacle box across from Room 184 north wall	<b>Present</b>	110 Chrysotile	9/30/2021	Lab/Cor

**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV 555	Dust - Unknown area	Receptacle box room 169 east wall	<b>Present</b>	1 Richterite	9/30/2021	Lab/Cor
MV 556	Dust - Unknown area	Receptacle box 181A adjacent to door of 181B	<b>Present</b>	6 Chrysotile	9/30/2021	Lab/Cor
MV 557	Dust - Unknown area	Data box – adjacent to O260 door	Absent	-	9/30/2021	Lab/Cor
MV 558	Dust - Unknown area	Data conduit – adjacent to O260 door	Absent	-	9/30/2021	Lab/Cor
MV 559	Dust - Unknown area	Light switch – O269 – North wall	Absent	-	9/30/2021	Lab/Cor
MV 560	Dust - Unknown area	Light switch conduit – O269 ->H6CA	Absent	-	9/30/2021	Lab/Cor
MV 561	Dust - Unknown area	Receptacle box – 284A – NW wall	<b>Present</b>	21 Chrysotile	9/30/2021	Lab/Cor
MV 562	Dust - Unknown area	Receptacle conduit – 284A – HCRB, breaker 12+26	Absent	-	9/30/2021	Lab/Cor
MV 563	Dust - Unknown area	Receptacle box – 270 – SW wall	Absent	-	9/30/2021	Lab/Cor
MV 564	Dust - Unknown area	Data box – O283 – South wall – by piano	<b>Present</b>	2 Chrysotile	9/30/2021	Lab/Cor
MV 565	Dust - Unknown area	Light switch – Corridor of O269-271 – South wall	<b>Present</b>	13 Chrysotile	9/30/2021	Lab/Cor
MV 566	Dust - Unknown area	Receptacle box – O324	Absent	-	9/30/2021	Lab/Cor
MV 567	Dust - Unknown area	Receptacle conduit – O324 -> H7RB	Absent	-	9/30/2021	Lab/Cor
MV 568	Dust - Unknown area	Light switch – Break/printer room of O330	<b>Present</b>	1 Chrysotile	9/30/2021	Lab/Cor
MV 569	Dust - Unknown area	Light switch conduit – Break/printer room of O330 -> H7LA	Absent	-	9/30/2021	Lab/Cor
MV 570	Dust - Unknown area	Data box – 3rd Fl. student lounge – E. wall	Absent	-	9/30/2021	Lab/Cor
MV 571	Dust - Unknown area	Data box conduit – 3rd Fl. student lounge – E. wall -> floor plenum	Absent	-	9/30/2021	Lab/Cor

**Pierce College Olympic South Abatement and Repairs**  
**Washington Department of Enterprise Services**

Construction Phase  
 MV

**PBS Engineering + Environmental**  
**PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV 572	Dust - Unknown area	Receptacle box – Office room O334/O335	Absent	-	9/30/2021	Lab/Cor
MV 573	Dust - Unknown area	Light switch – 3rd Fl. IDF room -> J-box-> H7LA	Absent	-	9/30/2021	Lab/Cor
MV 574	Dust - Unknown area	Data box – O323 – SE wall.	Absent	-	9/30/2021	Lab/Cor
MV 575	--	Field Blank	NA	-	9/30/2021	Lab/Cor
MV 576	Dust - 100cm2 area	Mech 173 Jace unit	<804	-	10/1/2021	Lab/Cor
MV 577	Dust - 100cm2 area	3rd Fl. Student lounge sub-floor	<b>1,608</b>	1 Chrysotile	9/30/2021	Lab/Cor
MV 578	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11335	<804	-	10/7/2021	Lab/Cor
MV 579	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11341	<804	-	10/7/2021	Lab/Cor
MV 580	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11406	<804	-	10/7/2021	Lab/Cor
MV 581	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11408	804	1 Actinolite	10/7/2021	Lab/Cor
MV 582	Dust - 100cm2 area	Olympic South Room 285A Inside Guitar	<804	-	10/14/2021	Lab/Cor
MV 583	Dust - 100cm2 area	Cascade 432 supply fiberglass lined duct	<b>9,646</b>	2 Chrysotile	10/21/2021	Lab/Cor
MV 584	Dust - 100cm2 area	Cascade 432 return fiberglass lined duct	<b>19,292</b>	1 Chrysotile	10/21/2021	Lab/Cor
MV 585	Dust - 100cm2 area	Olympic South Room 168 Wooden Clock Inside Case	<804	-	11/3/2021	Lab/Cor
MV 586	--	Field Blank	NA	-	11/3/2021	Lab/Cor
MV 587	Dust - 100cm2 area	Olympic South, East Elevation subgrade power vault fire conduit	<b>3,858</b>	2 Chrysotile	1/10/2022	Lab/Cor
MV 588	Dust - 100cm2 area	Olympic South, East Elevation subgrade power vault power conduit	<965	-	1/10/2022	Lab/Cor
MV 589	--	Field Blank	NA	-	1/10/2022	Lab/Cor

**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV 590	Dust - 100cm2 area	East level 3 stairwell west wall cavity I-beam from Level 3 subfloor	<b>9,646</b>	1 Chrysotile	1/6/2022	Lab/Cor
MV 591	Dust - 100cm2 area	Level 3 Above gypsum ceiling between framing and I-beam west wall north	<965	-	1/10/2022	Lab/Cor
MV 592	Dust - 100cm2 area	Level 3 Above gypsum ceiling between framing and I-beam North central area	<965	-	1/10/2022	Lab/Cor
MV 593	Dust - 100cm2 area	Level 3 Above gypsum ceiling between framing and I-beam east wall north	<984	-	1/10/2022	Lab/Cor
MV 594	Dust - 100cm2 area	Olympic North 106 inside Fire panel	<804	-	1/12/2022	Lab/Cor
MV 595	Dust - 100cm2 area	Olympic North 106 SE area top of elevator cart lights panel below Panel 1HN2	<965	-	1/12/2022	Lab/Cor
MV 596	--	Field Blank	NA	-	1/12/2022	Lab/Cor
MV 597	Dust - 100cm2 area	Olympic South, West Elevation west subgrade power vault cable	<b>7,717</b>	4 Actinolite 3 Chrysotile 1 Tremolite	1/25/2022	Lab/Cor
MV 598	Dust - 100cm2 area	Olympic South, West Elevation east subgrade power vault cable	<b>2,894</b>	3 Actinolite	1/25/2022	Lab/Cor
MV 599	Dust - 100cm2 area	Olympic South, West Elevation Main Disconnect panel	<b>130,221</b>	25 Chrysotile 2 Actinolite	2/11/2022	Lab/Cor
MV 600	Dust - 100cm2 area	Olympic South, West Elevation conduit to main disconnect panel	804	1 Chrysotile	2/11/2022	Lab/Cor
MV 601	Dust - 100cm2 area	Olympic South, Student Lounge Underdeck East Side 10ft Out (S)	<804	-	2/15/2022	Lab/Cor
MV 602	Dust - 100cm2 area	Olympic South, Student Lounge Underdeck West Side (S)	<804	-	2/15/2022	Lab/Cor
MV 603	Dust - 100cm2 area	Olympic South, Student Lounge Underdeck Central (N)	804	1 Chrysotile	2/15/2022	Lab/Cor
MV 604	Dust - 100cm2 area	Cascade to Olympic South Skybridge west area top of light fixture	<877	-	2/16/2022	Lab/Cor
MV 605	Dust - 100cm2 area	Cascade to Olympic South Skybridge west area junction box cover plate	804	1 Tremolite	2/16/2022	Lab/Cor



**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV 606	Dust - 100cm2 area	Olympic South LV1 east elevation landing cavity above door	<b>1,608</b>	1 Actinolite	2/16/2022	Lab/Cor
MV 607	Dust - 100cm2 area	Olympic South LV1 east elevation landing cavity above door north conduit cover	<804	-	2/16/2022	Lab/Cor
MV 608	Dust - 100cm2 area	Olympic South LV1 east elevation landing cavity above door south conduit cover	<804	-	2/16/2022	Lab/Cor
MV 609	Dust - 100cm2 area	Olympic South LV1 east elevation conduit below skybridge Cascade side north conduit cover	<804	-	2/16/2022	Lab/Cor
MV 610	Dust - 100cm2 area	Olympic South LV1 east elevation conduit below skybridge Cascade side south conduit cover	<804	-	2/16/2022	Lab/Cor
MV 611	Dust - 100cm2 area	Olympic South Robin's nest garden shed blue wood stand	965	1 Chrysotile	2/16/2022	Lab/Cor
MV 612	Dust - 100cm2 area	Olympic South covered shed west elevation wood shelf	<b>21,221</b>	17 Chrysotile 5 Actinolite	2/16/2022	Lab/Cor
MV 613	Dust - 100cm2 area	Olympic South short shed tricycle on platform	804	1 Chrysotile	2/16/2022	Lab/Cor
MV 614	Dust - 100cm2 area	Room 173 server rack equipment composite	<b>21,221</b>	22 Chrysotile	2/16/2022	Lab/Cor
MV 615	Dust - 100cm2 area	West Elevation Transformer between Olympic South and North	<b>14,469</b>	4 Actinolite 11 Chrysotile	2/21/2022	Lab/Cor
MV 616	Dust - 100cm2 area	South Elevation Robin's Nest wood counter	<b>6,029</b>	2 Chrysotile	2/21/2022	Lab/Cor
MV 617	Dust - 100cm2 area	Southwest Elevation short shed wood platform floor	<b>6,752</b>	4 Actinolite 3 Chrysotile	2/21/2022	Lab/Cor
MV 618	--	Field Blank	NA	-	2/21/2022	Lab/Cor
MV 619	Dust - 100cm2 area	Skybridge SE	<804	-	3/1/2022	Lab/Cor
MV 620	Dust - 100cm2 area	Skybridge S Center	<804	-	3/1/2022	Lab/Cor
MV 621	Dust - 100cm2 area	Skybridge SW	<804	-	3/1/2022	Lab/Cor

**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV 622	Dust - 100cm2 area	Skybridge W Center	<804	-	3/1/2022	Lab/Cor
MV 623	Dust - 100cm2 area	Skybridge NE	<804	-	3/1/2022	Lab/Cor
MV 624	Dust - 100cm2 area	Skybridge NW	<b>1,608</b>	2 Chrysotile	3/1/2022	Lab/Cor
MV 625	--	Field Blank	NA	-	3/1/2022	Lab/Cor
MV 626	Dust - 100cm2 area	Skybridge S Containment NE Corner Layer 2 (2 Layers)	<965	-	3/10/2022	Lab/Cor
MV 627	Dust - 100cm2 area	Skybridge S Containment SW Skybridge (1 Layer)	<965	-	3/10/2022	Lab/Cor
MV 628	--	Field Blank	NA	-	3/10/2022	Lab/Cor
MV 629	Dust - 100cm2 area	Playground Tunnel	<b>4,368</b>	2 Chrysotile	3/16/2022	Lab/Cor
MV 630	Dust - 100cm2 area	Playground Yellow and Orange Equipment	<b>5,460</b>	4 Chrysotile 1 Actinolite	3/16/2022	Lab/Cor
MV 631	Dust - 100cm2 area	Olympic North Hallway ceiling fire junction box near Room 203	<910	-	3/31/2022	Lab/Cor
MV 632	Dust - 100cm2 area	Olympic North Room 228 east wall north 4" blank conduit	<910	-	3/31/2022	Lab/Cor
MV 633	Dust - 100cm2 area	Olympic North Room 228 east wall south 4" blank conduit	<910	-	3/31/2022	Lab/Cor
MV 634	Dust - 100cm2 area	Olympic North Room 228 Santa Box	<910	-	3/31/2022	Lab/Cor
MV 635	--	Field Blank	NA	-	3/31/2022	Lab/Cor
MV 636	Dust - 100cm2 area	E Skybridge Large Blank N Conduit to Olympic N	<910	-	4/11/2022	Lab/Cor
MV 637	Dust - 100cm2 area	E Skybridge Large Blank S Conduit to Olympic N	<910	-	4/11/2022	Lab/Cor
MV 638	Dust - 100cm2 area	Olympic North Emergency Power Junction Box S conduit (group of 4)	<910	-	4/11/2022	Lab/Cor
MV 639	Dust - 100cm2 area	Olympic North Radiant Heat Junction Box N Panel Along Construct. Wall	<910	-	4/11/2022	Lab/Cor
MV 640	Dust - 100cm2 area	Olympic N Room 228 S Central Conduit with large black wires	<910	-	4/14/2022	Lab/Cor

**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV 641	Dust - 100cm2 area	Olympic N Room 228 SW floor	<993	-	4/14/2022	Lab/Cor
MV 642	-	Field Blank	NA	-	4/14/2022	Lab/Cor
MV643	Dust - 100cm2 area	Olympic South level 3 northwest roof cover southeast insulation	<910	-	4/26/2022	Lab/Cor
MV644	Dust - 100cm2 area	Olympic South level 3 large south roof cover northeast insulation	<910	-	4/26/2022	Lab/Cor
MV645	Dust - 100cm2 area	Olympic South level 3 large south roof cover southeast insulation	<910	-	4/26/2022	Lab/Cor
MV646	--	Field Blank	NA	-	4/26/2022	Lab/Cor
MV647	Dust - 100cm2 area	Sunrise building Electrical Room Box from Conduit A	910	1 Actinolite	4/27/2022	Lab/Cor
MV648	Dust - 100cm2 area	Sunrise building Electrical Room Box from Conduit B	<993	-	4/27/2022	Lab/Cor
MV649	Dust - 100cm2 area	Sunrise building Electrical Room Box from Conduit C	<993	-	4/27/2022	Lab/Cor
MV650	Dust - 100cm2 area	Sunrise building Electrical Room Box from Conduit D	<993	-	4/27/2022	Lab/Cor
MV651	Dust - 100cm2 area	Sunrise building Electrical Room Floor behind transformer	<993	-	4/27/2022	Lab/Cor
MV652	--	Field Blank	NA	-	4/28/2022	Lab/Cor
MV653	Dust - 100cm2 area	Olympic S emergency power large junction box NE	<b>6,552</b>	6 Chrysotile	4/28/2022	Lab/Cor
MV654	Dust - 100cm2 area	Olympic N emergency power large junction box NE	<b>5,460</b>	3 Chrysotile 2 Tremolite	4/28/2022	Lab/Cor
MV655	Dust - 100cm2 area	Olympic N emergency power large junction box mechanical room	<910	-	4/28/2022	Lab/Cor
MV656	Dust - 100cm2 area	Olympic N emergency power elbow at wall penetration mech. room	<910	-	4/28/2022	Lab/Cor
MV657	--	Field Blank	NA	-	5/9/2022	Lab/Cor
MV658	Dust - 100cm2 area	Olympic S Beneath the pan decking in skybridge cavity to CAS	<b>74,620</b>	82 Chrysotile	5/9/2022	Lab/Cor
MV659	Dust - 100cm2 area	Olympic S Long soffit adjacent to stairwell underneath skybridge to CAS	<b>14,891</b>	12 Chrysotile 3 Tremolite	5/9/2022	Lab/Cor

**Pierce College Olympic South Abatement and Repairs  
Washington Department of Enterprise Services**

Construction Phase  
MV

**PBS Engineering + Environmental  
PBS Project # 40535.488**

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Lab Result (struc/cm2)</u>	<u>Analyte</u>	<u>Lab report Date</u>	<u>Lab</u>
MV660	Dust - 100cm2 area	Skybridge to CAS Red I beam under floor plate on CAS side	910	1 Actinolite	5/10/2022	Lab/Cor

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210691**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210691R01**

**Report Date: 7/27/2021**

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

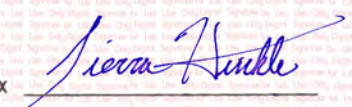
Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
210691 - S1	MV505 -	ASTM D 5755-09 - Microvac		7/27/2021
ASTM D 5755-09 - Microvac	Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.			

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Sierra Hinkle**  
 Technician/Analyst

**ASTM D 5755-09 - Microvac Final Report**

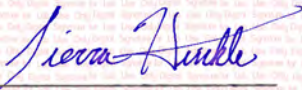
**Job Number:** 210691      **SEA**      **Report Number:** 210691R01  
**Client:** PBS Engineering + Environmental      **Date Received:** 7/27/2021  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S1      **Sample Area/Mass/Volume (cm<sup>2</sup>):** 100  
**Client Sample No.:** MV505      **Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Description:**      **Grid Openings Analyzed:** 10  
**Filter Fraction:** 1      **Aliquot Dilution:** 0.025      **Average Grid Opening Area:** 0.011  
**Residual Ash Vol:** 20 ml      **Final Dilution:** 0.025      **Area Analyzed (mm<sup>2</sup>):** 0.11  
**Begin Volume:** 20 ml      **Analytical Sens. (struc/cm<sup>2</sup>):** 1052.291  
**Volume Taken:** 0.5 ml

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
SH      7/27/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	3156.873	651.368 - 9225.434 - Poisson	3
ASTM Asbestos >=5.0µm	< 1052.291	0 - 3881.901 - Poisson	0
ASTM Libby-Other >0.5µm	< 1052.291	0 - 3881.901 - Poisson	0
ASTM Total Asbestos >=0.5µm	3156.873	651.368 - 9225.434 - Poisson	3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
X  
**Sierra Hinkle**  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 210691      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Report Number:** 210691R01  
**Project No.:** 40535.488      **Date Received:** 7/27/2021

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV505  
**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C42				NSD							
G10	2	E41				NSD							
G10	3	E44				NSD							
G10	4	F43				NSD							
G10	5	F44				NSD							
G10	6	G44	CDQ	1		Fiber	1.56	0.1	15.6	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum	Confirmed	Comment				
						Diffraction	F65521DF	SH 7/27/2021	0.53nm ROW SPACING				
						Spectra	F65521SP	SH 7/27/2021					
						Brightfield	F65521BF						
G11	7	F32				NSD							
G11	8	C34	CQ	2		Fiber	1.5	0.09	16.7	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
G11	9	E51	CQ	3		Fiber	1.3	0.11	11.8	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
G11	10	E52				NSD							

Count Categories					
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst





**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210748**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**

**Report Number: 210748R02**  
**Report Date: 8/12/2021**

**Project Name:** Pierce College Olympic South Abatement and Repairs  
**Project No.:** 40535.488  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

Note duplicate sample  
 number CT edit to MV506A

**Report Note:** R02 is a revision from R01 to include the extended analysis.

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:
210748 - S1	MV506 -	ASTM D 5755-09 - Microvac	Some Mg-Al-Si fibers present	8/10/2021

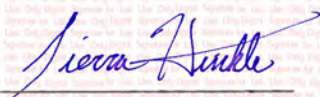
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Sierra Hinkle**  
 Technician/Analyst

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 210748      **SEA**      **Report Number:** 210748R02  
**Client:** PBS Engineering + Environmental      **Date Received:** 8/10/2021  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S1      **Sample Area/Mass/Volume (cm<sup>2</sup>):** 100  
**Client Sample No.:** MV506      **Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Description:**      **Grid Openings Analyzed:** 53  
**Filter Fraction:** 1      **Aliquot Dilution:** 0.005      **Average Grid Opening Area:** 0.011  
**Residual Ash Vol:** 20 ml      **Final Dilution:** 0.005      **Area Analyzed (mm<sup>2</sup>):** 0.583  
**Begin Volume:** 20 ml      **Analytical Sens. (struc/cm<sup>2</sup>):** 992.727  
**Volume Taken:** 0.1 ml

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
SH      8/12/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Asbestos >=5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Libby-Other >0.5µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 992.727	0 - 3662.171 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
Sierra Hinkle  
Technician/Analyst

Note duplicate sample number CT edit to MV506A

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210748      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210748R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/10/2021

Project No.: 40535.488

Lab/Cor Sample No: S1  
 Client Sample No: MV506  
 Description:

Note duplicate sample  
 number CT edit to MV506A

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G10	1	E43				NSD								
G10	2	E44				NSD								
G10	3	F43				NSD								
G10	4	F44				NSD								
G10	5	G43				NSD								
G11	6	C42				NSD								
G11	7	E41				NSD								
G11	8	E42				NSD								
G11	9	F41				NSD								
G11	10	F42				NSD								
G10	11	C31				NSD								
G10	12	C32				NSD								
G10	13	E31				NSD								
G10	14	E32				NSD								
G10	15	F31				NSD								
G10	16	F32				NSD								
G10	17	G31				NSD								
G10	18	G32				NSD								
G10	19	H31				NSD								
G10	20	H32				NSD								
G10	21	C33				NSD								
G10	22	C34				NSD								
G10	23	E33				NSD								
G10	24	E34				NSD								
G10	25	F33				NSD								
G10	26	F34				NSD								
G10	27	G33				NSD								
G10	28	G34				NSD								
G10	29	H33				NSD								
G10	30	H34				NSD								
G10	31	C41				NSD								
G10	32	C42				NSD								
G10	33	E41				NSD								
G10	34	F41				NSD								
G10	35	F42				NSD								
G10	36	G41				NSD								
G10	37	G42				NSD								
G10	38	H41				NSD								
G10	39	H42				NSD								
G11	40	E31				NSD								

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 210748      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 210748R02  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 8/10/2021

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV506  
**Description:**

Note duplicate sample  
 number CT edit to MV506A

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G11	41	E32			NSD							
G11	42	F31			NSD							
G11	43	F32			NSD							
G11	44	G31			NSD							
G11	45	G32			NSD							
G11	46	H31			NSD							
G11	47	H32			NSD							
G11	48	C33			NSD							
G11	49	C34			NSD							
G11	50	E33			NSD							
G11	51	E34			NSD							
G11	52	F33			NSD							
G11	53	F34			NSD							

Count Categories	
ASTM_>=5.0	ASTM Asbestos >=5.0µm      ASTM_0.5-5.0      ASTM Asbestos >=0.5µm - <5.0µm      ASTM_Total      ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm

**Reviewed by:**

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210836**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210836R01**

**Report Date: 9/7/2021**

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

Lab/Cor Sample #	Client Sample Number	Analysis	Analysis Notes	Date Received:
210836 - S1	MV506 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S2	MV507 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S3	MV508 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S4	MV509 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S5	MV510 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S6	MV511 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S7	MV512 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S8	MV513 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S9	MV514 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S10	MV515 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S11	MV516 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S12	MV517 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S13	MV518 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S14	MV519 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S15	MV520 -	ASTM D 5755-09 - Microvac		8/30/2021
210836 - S16	MV521 -	ASTM D 5755-09 - Microvac		8/30/2021

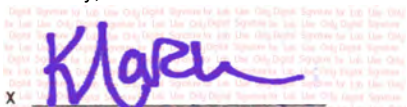
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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,



**Kate March**  
**Quality Control Officer**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210836      SEA  
Client: PBS Engineering + Environmental

Report Number: 210836R01  
Date Received: 8/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV506      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/7/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	4384.5455	1424.1004 - 10232.6522 - Poisson	5
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	4384.5455	1424.1004 - 10232.6522 - Poisson	5

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV507      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/7/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210836      SEA  
Client: PBS Engineering + Environmental

Report Number: 210836R01  
Date Received: 8/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV508	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed: 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area: 0.011
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.044
	Analytical Sens. (struc/cm <sup>2</sup> ): 876.9091

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/7/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	2630.7273	542.8067 - 7687.862 - Poisson	3
ASTM Asbestos >=5.0µm	876.9091	21.9227 - 4886.1375 - Poisson	1
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	3507.6364	955.8309 - 8981.3029 - Poisson	4

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV509	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed: 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area: 0.011
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.044
	Analytical Sens. (struc/cm <sup>2</sup> ): 876.9091

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/7/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210836      SEA  
Client: PBS Engineering + Environmental

Report Number: 210836R01  
Date Received: 8/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S5      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV510      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/7/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	876.9091	21.9227 - 4886.1375 - Poisson	1
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	876.9091	21.9227 - 4886.1375 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV511      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 10  
Filter Fraction: 1      Aliquot Dilution: 0.0125      Average Grid Opening Area: 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.0125      Area Analyzed (mm<sup>2</sup>): 0.11  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 2104.5818  
Volume Taken: 0.25 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/3/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	65242.0364	44328.8068 - 92605.8092 - Poisson	31
ASTM Asbestos >=5.0µm	< 2104.5818	0 - 7763.8023 - Poisson	0
ASTM Libby-Other >0.5µm	< 2104.5818	0 - 7763.8023 - Poisson	0
ASTM Total Asbestos >=0.5µm	65242.0364	44328.8068 - 92605.8092 - Poisson	31

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210836      SEA  
Client: PBS Engineering + Environmental

Report Number: 210836R01  
Date Received: 8/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S7      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV512      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/7/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV513      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 10  
Filter Fraction: 1      Aliquot Dilution: 0.0125      Average Grid Opening Area: 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.0125      Area Analyzed (mm<sup>2</sup>): 0.11  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 2104.5818  
Volume Taken: 0.25 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/3/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	25254.9818	13050.5119 - 44116.2441 - Poisson	12
ASTM Asbestos >=5.0µm	< 2104.5818	0 - 7763.8023 - Poisson	0
ASTM Libby-Other >0.5µm	< 2104.5818	0 - 7763.8023 - Poisson	0
ASTM Total Asbestos >=0.5µm	25254.9818	13050.5119 - 44116.2441 - Poisson	12

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210836      SEA      Report Number: 210836R01  
Client: PBS Engineering + Environmental      Date Received: 8/30/2021  
Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S9	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV514	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.044
	Analytical Sens. (struc/cm <sup>2</sup> ): 876.9091

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	9/7/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S10	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV515	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 11
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 0.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.121
	Analytical Sens. (struc/cm <sup>2</sup> ): 956.6281

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	9/7/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	31568.7273	21729.8073 - 44334.9293 - Poisson	33
ASTM Asbestos >=5.0µm	3826.5124	1042.7246 - 9797.785 - Poisson	4
ASTM Libby-Other >0.5µm	< 956.6281	0 - 3529.0011 - Poisson	0
ASTM Total Asbestos >=0.5µm	35395.2397	24920.162 - 48788.0331 - Poisson	37

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210836      SEA  
Client: PBS Engineering + Environmental

Report Number: 210836R01  
Date Received: 8/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S11	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV516	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.044
	Analytical Sens. (struc/cm <sup>2</sup> ): 876.9091

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/7/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	7892.1818	3608.4809 - 14981.9918 - Poisson	9
ASTM Asbestos >=5.0µm	2630.7273	542.8067 - 7687.862 - Poisson	3
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	10522.9091	5437.7133 - 18381.7684 - Poisson	12

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV517	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.044
	Analytical Sens. (struc/cm <sup>2</sup> ): 876.9091

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/7/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210836      SEA  
Client: PBS Engineering + Environmental

Report Number: 210836R01  
Date Received: 8/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S13	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 100
Client Sample No.: MV518	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Description:	Grid Openings Analyzed : 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ) : 0.044
	Analytical Sens. (struc/cm <sup>2</sup> ) : 876.9091

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/7/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	1753.8182	212.212 - 6335.6682 - Poisson	2
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	1753.8182	212.212 - 6335.6682 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S14	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 100
Client Sample No.: MV519	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Description:	Grid Openings Analyzed : 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ) : 0.044
	Analytical Sens. (struc/cm <sup>2</sup> ) : 876.9091

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/7/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210836      SEA  
Client: PBS Engineering + Environmental

Report Number: 210836R01  
Date Received: 8/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S15      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV520      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/7/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S16      Sample Area/Mass/Volume (cm<sup>2</sup>): 0  
Client Sample No.: MV521      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.11  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/7/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*K. March*  
x  
Kate March  
Quality Control Officer

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV506

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	E44	CDQ	1		Fiber	1.44	0.2	7.2	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J65888BF						
						Diffraction	J65888DF			SB	9/7/2021	0.53nm ROW SPACING	
						Spectra	J65888SP			SB	9/7/2021		
G5	2	F43				NSD							
G6	3	G44	CD	2		Fiber	0.75	0.1	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	3	G44	CM	3		Fiber	0.51	0.1	5.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	4	H43	CD	4		Matrix 1-0	2.9	2.2	1.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	4	H43	CM	5		Fiber	0.9	0.1	9	Chrysotile			ASTM_0.5-5.0, ASTM_Total

Lab/Cor Sample No: S2

Client Sample No: MV507

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	H42				NSD							
G3	2	H34				NSD							
G4	3	F42				NSD							
G4	4	G41				NSD							

Lab/Cor Sample No: S3

Client Sample No: MV508

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F52	CDQ	1		Fiber	1.3	0.1	13	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J65889BF						
						Diffraction	J65889DF			SB	9/7/2021	0.53nm ROW SPACING	
						Spectra	J65889SP			SB	9/7/2021		
G3	1	F52	CD	2		Fiber	11	0.25	44	Chrysotile			ASTM_>=5.0, ASTM_Total
G3	1	F52	CM	3		Fiber	0.75	0.1	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	2	G51				NSD							
G4	3	F42	CD	4		Fiber	0.51	0.1	5.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	4	G41				NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210836      SEA      Ref. D5755-09  
 Client: PBS Engineering + Environmental      Report Number: 210836R01  
 Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 8/30/2021

Lab/Cor Sample No: S4  
 Client Sample No: MV509  
 Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G2	3	F34			NSD							
G2	4	G33			NSD							

Lab/Cor Sample No: S5  
 Client Sample No: MV510  
 Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G42			NSD							
G1	2	H41	CDQ	1	Fiber	2.5	0.1	25	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum				Confirmed	Comment	
					Brightfield	J65890BF						
					Diffraction	J65890DF				SB 9/7/2021	0.53nm ROW SPACING	
					Spectra	J65890SP				SB 9/7/2021		
G2	3	G54			NSD							
G2	4	H53			NSD							



**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Lab/Cor Sample No: S6

Client Sample No: MV511

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	C32	CDQ	1	Fiber	1.9	0.07	27.1	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	J65878SP			KM	9/3/2021		
					Diffraction	J65878DF			KM	9/3/2021	0.53nm ROW SPACING	
					Brightfield	J65878BF						
G3	1	C32	CD	2	Bundle	1.85	0.17	10.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	1	C32	CD	3	Fiber	1.1	0.04	27.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	2	E31	CM	4	Fiber	2	0.05	40	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	2	E31	CM	5	Fiber	1.75	0.08	21.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	2	E31	CM	6	Fiber	2.3	0.04	57.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	3	F33	CM	7	Fiber	4.6	0.08	57.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	3	F33	ADQ	8	Bundle	4.2	0.6	7	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	J65879SP			KM	9/3/2021		
					Diffraction	J65879DF			KM	9/3/2021	0.53nm ROW SPACING	
					Brightfield	J65879BF						
G3	3	F33	CD	9	Bundle	2.1	0.13	16.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	3	F33	CM	10	Fiber	3.1	0.07	44.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	3	F33	CM	11	Fiber	3.5	0.06	58.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	4	E42	CM	12	Fiber	0.8	0.05	16	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	4	E42	CM	13	Matrix 1-0	3.4	0.85	4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	5	F41	CM	14	Fiber	1.4	0.06	23.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	5	F41	CM	15	Bundle	2.1	0.15	14	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	6	E32	CD	16	Fiber	0.7	0.05	14	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	6	E32	CM	17	Fiber	0.8	0.05	16	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	7	F31	CD	18	Fiber	0.7	0.05	14	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	7	F31	CM	19	Matrix 5-0	4.8	2.6	1.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	7	F31	AQ	20	Fiber	3.2	0.32	10	Actinolite			ASTM_0.5-5.0, ASTM_Total
G4	7	F31	CM	21	Fiber	0.8	0.06	13.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	7	F31	CM	22	Fiber	1.3	0.07	18.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	7	F31	CD	23	Fiber	0.65	0.08	8.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	7	F31	CD	24	Fiber	0.5	0.03	16.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Lab/Cor Sample No: S6

Client Sample No: MV511

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	8	G41	CD	25	Bundle	2.85	0.11	25.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	8	G41	CM	26	Matrix 1-0	3.1	1.5	2.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	8	G41	CM	27	Bundle	1.85	0.25	7.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	9	G42	CM	28	Fiber	0.95	0.08	11.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	9	G42	CM	29	Matrix 1-0	1.6	0.8	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	10	H43	CD	30	Matrix 1-0	1.5	0.9	1.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	10	H43	CM	31	Fiber	1.7	0.05	34	Chrysotile			ASTM_0.5-5.0, ASTM_Total

Lab/Cor Sample No: S7

Client Sample No: MV512

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	G41			NSD							
G2	3	F42			NSD							
G2	4	G41			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Lab/Cor Sample No: S8

Client Sample No: MV513

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	E34	CDQ	1	Fiber	1.8	0.05	36	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType		ItemNum		Confirmed		Comment	
					Spectra		J65881SP		KM		9/3/2021	
					Diffraction		J65881DF		KM		9/3/2021	0.53nm ROW SPACING
					Brightfield		J65881BF					
G3	2	F33	CD	2	Fiber	3.3	0.03	110	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	2	F33	CM	3	Matrix 1-0	2.1	1.7	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	3	F42	CD	4	Matrix 1-0	2.2	1.3	1.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	3	F42	CM	5	Fiber	2.3	0.06	38.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	4	G41	CD	6	Fiber	3.1	0.1	31	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	4	G41	CM	7	Fiber	1.1	0.07	15.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G3	5	G44			NSD							
G4	6	E32	CD	8	Bundle	1.8	0.3	6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	6	E32	CD	9	Fiber	4.1	0.1	41	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	7	F32			NSD							
G4	8	G31	CD	10	Fiber	1.7	0.06	28.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	9	H33			NSD							
G4	10	F41	CD	11	Fiber	1.7	0.04	42.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G4	10	F41	CM	12	Bundle	1.6	0.15	10.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total

Lab/Cor Sample No: S9

Client Sample No: MV514

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	G41			NSD							
G2	3	G44			NSD							
G2	4	H43			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210836 SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Lab/Cor Sample No: S10

Client Sample No: MV515

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	C42	CM	1	Bundle	1	0.2	5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	1	C42	CD	2	Fiber	2	0.1	20	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	1	C42	CM	3	Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	1	C42	CMQ	4	Matrix	3.5	1	3.5	Chrysotile	Mg, Si - Ca Interference From Background		ASTM_0.5-5.0, ASTM_Total
G5	1	C42	CM	5	Fiber	1.1	0.1	11	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	1	C42	CM	6	Fiber	1.6	0.1	16	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	2	E41	CDQ	7	Matrix 1-0	2	1.4	1.4	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Brightfield	J65892BF						
					Diffraction Spectra	J65892DF J65892SP			SB 9/7/2021 SB 9/7/2021	0.53nm ROW SPACING		
G5	2	E41	CM	8	Matrix 1-0	1.5	0.8	1.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	2	E41	CM	9	Fiber	1.2	0.1	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	3	E42			NSD							
G5	4	H24	CD	10	Fiber	12	0.1	120	Chrysotile			ASTM_>=5.0, ASTM_Total
G5	4	H24	CMQ	11	Fiber	31.5	0.1	315	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total
G5	5	H32	CM	12	Fiber	2.5	0.1	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	5	H32	CM	13	Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	5	H32	CM	14	Matrix 1-0	2.5	2	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	5	H32	CM	15	Fiber	6	0.1	60	Chrysotile			ASTM_>=5.0, ASTM_Total
G5	5	H32	CM	16	Matrix 1-0	1.2	1	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	5	H32	CM	17	Bundle	0.6	0.2	3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	5	H32	CM	18	Fiber	1.2	0.1	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	5	H32	CM	19	Bundle	1.5	0.2	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	6	K31	CM	20	Fiber	1.1	0.1	11	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	6	K31	CDQ	21	Matrix	2.1	1.2	1.7	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Brightfield	J65893BF						
					Diffraction Spectra	J65893DF J65893SP			SB 9/7/2021 SB 9/7/2021	0.53nm ROW SPACING		
G5	6	K31	CM	22	Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Lab/Cor Sample No: S10

Client Sample No: MV515

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	6	K31	CM	23	Matrix 3-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	7	G34	CMQ	24	Matrix 1-0	1.4	0.9	1.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	8	H33	CM	25	Fiber	2.5	0.1	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	9	H41	CM	26	Matrix 1-0	2.5	2	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	9	H41	CM	27	Matrix 1-0	1.5	0.8	1.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	9	H41	CD	28	Bundle	2.2	0.6	3.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	9	H41	CM	29	Matrix 1-0	4	2.6	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	9	H41	CM	30	Bundle	1.4	0.2	7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	9	H41	CM	31	Fiber	1.8	0.1	18	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	10	F24	CM	32	Matrix 1-0	4.8	1.1	4.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	10	F24	CM	33	Fiber	1.35	0.1	13.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	11	G23	CM	34	Bundle	1.2	0.2	6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	11	G23	CM	35	Matrix 1-0	0.8	0.4	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	11	G23	CD	36	Bundle	8.5	0.5	17	Chrysotile			ASTM_>=5.0, ASTM_Total
G6	11	G23	CM	37	Matrix 1-0	1	0.4	2.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Lab/Cor Sample No: S11

Client Sample No: MV516

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	F42	CDQ	1	Fiber	1.8	0.1	18	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType						Confirmed	Comment
					Spectra						KM 9/7/2021	
					Diffraction						KM 9/7/2021	0.53nm ROW SPACING
					Brightfield							
G5	1	F42	CD	2	Matrix 1-1	8.5	3	2.8	Chrysotile			ASTM_>=5.0, ASTM_Total
G5	2	G43	ADQ	3	Bundle	12.3	1.7	7.2	Amosite	Mg, Al, Si, Ca, Fe		ASTM_>=5.0, ASTM_Total
					ItemType						Confirmed	Comment
					Spectra						KM 9/7/2021	
					Diffraction						KM 9/7/2021	0.53nm ROW SPACING
					Brightfield							
G5	2	G43	CM	4	Fiber	4.8	0.05	96	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	2	G43	CD	5	Fiber	1.2	0.08	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	2	G43	CD	6	Fiber	4.5	0.11	40.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	3	G43	CD	7	Fiber	8.8	0.1	88	Chrysotile			ASTM_>=5.0, ASTM_Total
G6	4	F52	CD	8	Fiber	1.3	0.08	16.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	4	F52	CM	9	Bundle	1.85	0.4	4.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	4	F52	CM	10	Fiber	0.7	0.05	14	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	4	F52	CM	11	Matrix 1-0	0.95	0.6	1.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	4	F52	CD	12	Fiber	1.2	0.08	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total

Lab/Cor Sample No: S12

Client Sample No: MV517

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F51			NSD							
G2	3	F34			NSD							
G2	4	G41			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

Lab/Cor Sample No: S13

Client Sample No: MV518

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E33			NSD							
G1	2	E34	CDQ	1	Fiber	1.47	0.08	18.4	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F65894DF			SH 9/7/2021	0.53nm ROW SPACING		
					Spectra	F65894SP			SH 9/7/2021			
					Brightfield	F65894BF						
G1	2	E34	CM	2	Fiber	1.03	0.08	12.9	Chrysotile		See F65894BF	ASTM_0.5-5.0, ASTM_Total
G2	3	C41			NSD							
G2	4	C42			NSD							

Lab/Cor Sample No: S14

Client Sample No: MV519

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G43			NSD							
G1	2	G44			NSD							
G2	3	E41			NSD							
G2	4	F41			NSD							

Lab/Cor Sample No: S15

Client Sample No: MV520

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F41			NSD							
G1	2	F42			NSD							
G2	3	E34			NSD							
G2	4	G33			NSD							

Lab/Cor Sample No: S16

Client Sample No: MV521

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C43			NSD							
G1	2	C44			NSD							
G1	3	E43			NSD							
G1	4	C51			NSD							
G1	5	C52			NSD							
G2	6	C33			NSD							
G2	7	C34			NSD							
G2	8	E33			NSD							
G2	9	E34			NSD							
G2	10	F33			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210836      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210836R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 8/30/2021

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*K March*  
 X  
 Kate March  
 Quality Control Officer



210836



LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 8/30/2021

Relinqu'd by/Signature: *Claire Tsai*

Date/Time: 8/30/2021

Received by/Signature: *[Signature]*

Date/Time: 8/30/21 5:45pm

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

E-mail results to:

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Michelle Dodson
- Toan Nguyen

TURN AROUND TIME:

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 5 Days
- Other \_\_\_\_\_

LOD <1000

SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV506	Dust - 100cm2 area	Blue kiddie pool – North shed – ECE	Labcor
MV507	Dust - 100cm2 area	Black toy truck – North shed – ECE	
MV508	Dust - 100cm2 area	Plastic water pitcher – North shed – ECE	
MV509	Dust - 100cm2 area	Blue & red kids' life-jacket – North shed – ECE	
MV510	Dust - 100cm2 area	Bowling pin – North shed – ECE	
MV511	Dust - 100cm2 area	Black swimming flipper – Central shed – ECE	
MV512	Dust - 100cm2 area	Wooden, stackable box – Central shed – ECE	
MV513	Dust - 100cm2 area	Metal alloy dish – Central shed – ECE	
MV514	Dust - 100cm2 area	Connectable wooden pieces – Central shed – ECE	
MV515	Dust - 100cm2 area	Yellow toy play set – Central shed – ECE	
MV516	Dust - 100cm2 area	Blue & white gym mat – South shed – ECE	
MV517	Dust - 100cm2 area	Yellow studded flooring – traffic play set – South shed – ECE	
MV518	Dust - 100cm2 area	Stop sign – traffic play set – South shed – ECE	
MV519	Dust - 100cm2 area	Orange plastic wheelbarrow – South shed – ECE	
MV520	Dust - 100cm2 area	Black faux leather football – South shed – ECE	
MV521	--	Field Blank	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax Verbal USPS Email

Invoice Released: \_\_\_\_\_

Fax USPS Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210895**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 210895R01**  
**Report Date: 9/15/2021**

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:
210895 - S1	MV522 -	ASTM D 5755-09 - Microvac	Some Mg, Al, Si fibers present.	9/10/2021

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_  
**Kate March**  
**Quality Control Officer**



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**


**Job Number:** 210895      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 210895R01  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 9/10/2021  
**Project No.:** 40535.488

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV522  
**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G13	1	G62				NSD							
G13	2	H51				NSD							
G13	3	C43	ADQ	1		Matrix 1-1	6.3	5.8	1.1	Tremolite	Mg, Si, Ca, Fe		ASTM_>=5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Spectra	J65976SP				KM	9/15/2021	
						Diffraction	J65976DF				KM	9/15/2021	0.53nm ROW SPACING
						Brightfield	J65976BF						
G14	4	C53				NSD							
G14	5	E53				NSD							
G14	6	G51				NSD							

Count Categories	
ASTM_>=5.0	ASTM Asbestos >=5.0µm
ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm
ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm

**Reviewed by:**

  
 X  
**Kate March**  
 Quality Control Officer



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210902**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210902R01**

**Report Date: 9/15/2021**

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

Lab/Cor Sample #	Client Sample Number	Analysis	Analysis Notes	Date Received:
210902 - S1	MV523 -	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers.	9/14/2021
210902 - S2	MV524 -	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers present.	9/14/2021
210902 - S3	MV525 -	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers present.	9/14/2021

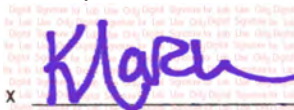
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Kate March**  
**Quality Control Officer**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210902      SEA  
Client: PBS Engineering + Environmental

Report Number: 210902R01  
Date Received: 9/14/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV523      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 21  
Filter Fraction: 1      Aliquot Dilution: 0.005      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.005      Area Analyzed (mm<sup>2</sup>): 0.231  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 2505.455  
Volume Taken: 0.1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/15/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	2505.455	62.636 - 13960.393 - Poisson	1
ASTM Asbestos >=5.0µm	< 2505.455	0 - 9242.622 - Poisson	0
ASTM Libby-Other >0.5µm	< 2505.455	0 - 9242.622 - Poisson	0
ASTM Total Asbestos >=0.5µm	2505.455	62.636 - 13960.393 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV524      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.909  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/15/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.909	0 - 3234.918 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.909	0 - 3234.918 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.909	0 - 3234.918 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.909	0 - 3234.918 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 210902      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 210902R01  
**Date Received:** 9/14/2021

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S3      **Sample Area/Mass/Volume (cm<sup>2</sup>):** 100  
**Client Sample No.:** MV525      **Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Description:**      **Grid Openings Analyzed:** 11  
**Filter Fraction:** 1      **Aliquot Dilution:** 0.025      **Average Grid Opening Area:** 0.011  
**Residual Ash Vol:** 20 ml      **Final Dilution:** 0.025      **Area Analyzed (mm<sup>2</sup>):** 0.121  
**Begin Volume:** 20 ml      **Analytical Sens. (struc/cm<sup>2</sup>):** 956.628  
**Volume Taken:** 0.5 ml

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
KM      9/15/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 956.628	0 - 3529.001 - Poisson	0
ASTM Asbestos >=5.0µm	< 956.628	0 - 3529.001 - Poisson	0
ASTM Libby-Other >0.5µm	< 956.628	0 - 3529.001 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 956.628	0 - 3529.001 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
X  
**Kate March**  
Quality Control Officer



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210902      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210902R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/14/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV523

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G3	1	F34				NSD								
G3	2	G33				NSD								
G3	3	G34				NSD								
G3	4	H33				NSD								
G3	5	H34				NSD								
G3	6	B42				NSD								
G3	7	C41				NSD								
G3	8	C42				NSD								
G3	9	E41				NSD								
G3	10	E42				NSD								
G3	11	F41				NSD								
G3	12	F42				NSD								
G4	13	E33				NSD								
G4	14	E34				NSD								
G4	15	F33				NSD								
G4	16	F34				NSD								
G4	17	G33				NSD								
G4	18	G34				NSD								
G4	19	H33				NSD								
G4	20	H34				NSD								
G4	21	C42	CDQ	1		Bundle	4.1	0.22	18.6	Chrysotile	Mg, Si			ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment			
						Spectra	J65977SP			KM	9/15/2021			
						Diffraction	J65977DF			KM	9/15/2021    0.53nm ROW SPACING - Very faint.			
						Brightfield	J65977BF							

Lab/Cor Sample No: S2

Client Sample No: MV524

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G5	1	F42				NSD								
G5	2	G44				NSD								
G6	3	E51				NSD								
G6	4	C54				NSD								

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210902      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210902R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/14/2021

Lab/Cor Sample No: S3

Client Sample No: MV525

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	C32			NSD							
G3	2	E31			NSD							
G3	3	E34			NSD							
G3	4	F33			NSD							
G3	5	F42			NSD							
G3	6	G41			NSD							
G4	7	C24			NSD							
G4	8	E23			NSD							
G4	9	E32			NSD							
G4	10	F31			NSD							
G4	11	F34			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Kate March*

**Kate March**  
 Quality Control Officer



## ASTM D 5755-09 - Microvac Final Report

**Job Number: 210914**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210914R02**

**Report Date: 9/24/2021**

**Report Note:** R01: Preliminary report; R02: Final report that includes all the extended analysis.

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

Lab/Cor Sample #	Client Sample Number	Analysis	Analysis Notes	Date Received:
210914 - S1	MV526 -	ASTM D 5755-09 - Microvac	Loads of Mg, Al, Si fibers present. Additional grid openings needed to reach <1000 sensitivity.	9/16/2021
210914 - S2	MV527 -	ASTM D 5755-09 - Microvac	Many Al, Si fibers present. Additional grid openings needed to reach <1000 sensitivity.	9/16/2021
210914 - S3	MV528 -	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers present. Additional grid openings needed to reach <1000 sensitivity.	9/16/2021
210914 - S4	MV529 -	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers present. Additional grid openings needed to reach <1000 sensitivity. This sample was also ashed and hydrolyzed to remove background interference.	9/16/2021
210914 - S5	MV530 -	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers present.	9/16/2021
210914 - S6	MV531 -	ASTM D 5755-09 - Microvac		9/16/2021
210914 - S7	MV532 -	ASTM D 5755-09 - Microvac		9/16/2021
210914 - S8	MV533 -	ASTM D 5755-09 - Microvac		9/16/2021
210914 - S9	MV534 -	ASTM D 5755-09 - Microvac		9/16/2021
210914 - S10	MV535 -	ASTM D 5755-09 - Microvac		9/16/2021
210914 - S11	MV536 -	ASTM D 5755-09 - Microvac		9/16/2021
210914 - S12	MV537 -	ASTM D 5755-09 - Microvac		9/16/2021
210914 - S13	MV538 -	ASTM D 5755-09 - Microvac		9/16/2021

---

## ASTM D 5755-09 - Microvac Final Report

**Job Number:** 210914

**Client:** PBS Engineering + Environmental

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 210914R02

**Report Date:** 9/24/2021

---


ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45  $\mu\text{m}$  pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22  $\mu\text{m}$  pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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/cm<sup>3</sup> and structures/mm<sup>2</sup> 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

**Kate March**  
Quality Control Officer

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210914      SEA      Report Number: 210914R02  
Client: PBS Engineering + Environmental      Date Received: 9/16/2021  
Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV526	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 22
Filter Fraction: 1	Aliquot Dilution: 0.0025
Residual Ash Vol: 20 ml	Final Dilution: 0.0025
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 0.05 ml	Area Analyzed (mm <sup>2</sup> ): 0.242
	Analytical Sens. (struc/cm <sup>2</sup> ): 4783.1405
<b>Analyst(s)</b> <b>Analysis Date</b> <b>Microscope</b> <b>Magnification</b>	
KM      9/17/2021      JEOL-Sr 1200      20000	

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	4783.1405	119.5785 - 26651.6588 - Poisson	1
ASTM Asbestos >=5.0µm	< 4783.1405	0 - 17645.0053 - Poisson	0
ASTM Libby-Other >0.5µm	< 4783.1405	0 - 17645.0053 - Poisson	0
ASTM Total Asbestos >=0.5µm	4783.1405	119.5785 - 26651.6588 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV527	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 106
Filter Fraction: 1	Aliquot Dilution: 0.0025
Residual Ash Vol: 20 ml	Final Dilution: 0.0025
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 0.05 ml	Area Analyzed (mm <sup>2</sup> ): 1.166
	Analytical Sens. (struc/cm <sup>2</sup> ): 992.7273
<b>Analyst(s)</b> <b>Analysis Date</b> <b>Microscope</b> <b>Magnification</b>	
KM      9/18/2021      JEOL-Sr 1200      20000	

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 992.7273	0 - 3662.1709 - Poisson	0
ASTM Asbestos >=5.0µm	< 992.7273	0 - 3662.1709 - Poisson	0
ASTM Libby-Other >0.5µm	< 992.7273	0 - 3662.1709 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 992.7273	0 - 3662.1709 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210914      SEA  
Client: PBS Engineering + Environmental

Report Number: 210914R02  
Date Received: 9/16/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV528	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 11
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Average Grid Opening Area : 0.011
Volume Taken: 0.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.121
	Analytical Sens. (struc/cm <sup>2</sup> ): 956.6281

Analyst(s)	Analysis Date	Microscope	Magnification
KM	9/17/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 956.6281	0 - 3529.0011 - Poisson	0
ASTM Asbestos >=5.0µm	< 956.6281	0 - 3529.0011 - Poisson	0
ASTM Libby-Other >0.5µm	< 956.6281	0 - 3529.0011 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 956.6281	0 - 3529.0011 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV529	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed : 483
Filter Fraction: 1	Aliquot Dilution: 0.0005
Residual Ash Vol: 20 ml	Final Dilution: 0.0005
Begin Volume: 20 ml	Average Grid Opening Area : 0.012
Volume Taken: 0.01 ml	Area Analyzed (mm <sup>2</sup> ): 5.796
	Analytical Sens. (struc/cm <sup>2</sup> ): 998.5507

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/20/2021	JEOL-Sr 1200	20000
KM	9/20/2021	JEOL-Sr 1200	20000
SB	9/21/2021	JEOL-Sr 1200	20000
SH	9/23/2021	Hitachi 7000FA	20000
SH	9/24/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 998.5507	0 - 3683.6536 - Poisson	0
ASTM Asbestos >=5.0µm	< 998.5507	0 - 3683.6536 - Poisson	0
ASTM Libby-Other >0.5µm	< 998.5507	0 - 3683.6536 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 998.5507	0 - 3683.6536 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210914      SEA  
Client: PBS Engineering + Environmental

Report Number: 210914R02  
Date Received: 9/16/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S5      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV530      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 6  
Filter Fraction: 1      Aliquot Dilution: 0.05      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.05      Area Analyzed (mm<sup>2</sup>): 0.066  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.9091  
Volume Taken: 1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/17/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV531      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/17/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210914      SEA  
Client: PBS Engineering + Environmental

Report Number: 210914R02  
Date Received: 9/16/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S7  
Client Sample No.: MV532  
Description:  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 0.05 ml

Aliquot Dilution: 0.0025  
Final Dilution: 0.0025

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 10  
Average Grid Opening Area: 0.011  
Area Analyzed (mm<sup>2</sup>): 0.11  
Analytical Sens. (struc/cm<sup>2</sup>): 10522.9091

Analyst(s)      Analysis Date      Microscope      Magnification  
KM              9/17/2021          JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	347256	239027.88 - 487684.2218 - Poisson	33
ASTM Asbestos >=5.0µm	42091.6364	11469.9709 - 107775.6349 - Poisson	4
ASTM Libby-Other >0.5µm	< 10522.9091	0 - 38819.0116 - Poisson	0
ASTM Total Asbestos >=0.5µm	389347.6364	274121.7818 - 536668.3636 - Poisson	37

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8  
Client Sample No.: MV533  
Description:  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 0.05 ml

Aliquot Dilution: 0.0025  
Final Dilution: 0.0025

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 10  
Average Grid Opening Area: 0.011  
Area Analyzed (mm<sup>2</sup>): 0.11  
Analytical Sens. (struc/cm<sup>2</sup>): 10522.9091

Analyst(s)      Analysis Date      Microscope      Magnification  
KM              9/17/2021          JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	84183.2727	36346.128 - 165883.1389 - Poisson	8
ASTM Asbestos >=5.0µm	< 10522.9091	0 - 38819.0116 - Poisson	0
ASTM Libby-Other >0.5µm	< 10522.9091	0 - 38819.0116 - Poisson	0
ASTM Total Asbestos >=0.5µm	84183.2727	36346.128 - 165883.1389 - Poisson	8

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210914      SEA  
Client: PBS Engineering + Environmental

Report Number: 210914R02  
Date Received: 9/16/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S9      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV534      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.005      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.005      Area Analyzed (mm<sup>2</sup>): 0.11  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 5261.4545  
Volume Taken: 0.1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/17/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	121013.4545	76717.2687 - 181583.3193 - Poisson	23
ASTM Asbestos >=5.0µm	< 5261.4545	0 - 19409.5058 - Poisson	0
ASTM Libby-Other >0.5µm	< 5261.4545	0 - 19409.5058 - Poisson	0
ASTM Total Asbestos >=0.5µm	121013.4545	76717.2687 - 181583.3193 - Poisson	23

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S10      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV535      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.0025      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.0025      Area Analyzed (mm<sup>2</sup>): 0.11  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 10522.9091  
Volume Taken: 0.05 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/17/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	220981.0909	136797.8182 - 337795.9047 - Poisson	21
ASTM Asbestos >=5.0µm	42091.6364	11469.9709 - 107775.6349 - Poisson	4
ASTM Libby-Other >0.5µm	< 10522.9091	0 - 38819.0116 - Poisson	0
ASTM Total Asbestos >=0.5µm	263072.7273	170239.6233 - 388347.96 - Poisson	25

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210914      SEA  
Client: PBS Engineering + Environmental

Report Number: 210914R02  
Date Received: 9/16/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S11      Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
Client Sample No.: MV536      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/17/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	1753.8182	212.212 - 6335.6682 - Poisson	2
ASTM Asbestos >=5.0µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	1753.8182	212.212 - 6335.6682 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12      Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
Client Sample No.: MV537      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.011  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.044  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 876.9091  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
KM      9/17/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	25430.3636	17031.3284 - 36522.3867 - Poisson	29
ASTM Asbestos >=5.0µm	6138.3636	2467.6222 - 12647.6598 - Poisson	7
ASTM Libby-Other >0.5µm	< 876.9091	0 - 3234.9176 - Poisson	0
ASTM Total Asbestos >=0.5µm	31568.7273	22109.5089 - 43705.1491 - Poisson	36

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210914      SEA  
 Client: PBS Engineering + Environmental

Report Number: 210914R02  
 Date Received: 9/16/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S13      Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
 Client Sample No.: MV538      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Description:      Grid Openings Analyzed : 10  
 Filter Fraction: 1      Aliquot Dilution: 0.00125      Average Grid Opening Area : 0.011  
 Residual Ash Vol: 20 ml      Final Dilution: 0.00125      Area Analyzed (mm<sup>2</sup>) : 0.11  
 Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 21045.8182  
 Volume Taken: 0.025 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
 KM      9/17/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	63137.4545	13027.3615 - 184508.688 - Poisson	3
ASTM Asbestos >=5.0µm	< 21045.8182	0 - 77638.0233 - Poisson	0
ASTM Libby-Other >0.5µm	< 21045.8182	0 - 77638.0233 - Poisson	0
ASTM Total Asbestos >=0.5µm	63137.4545	13027.3615 - 184508.688 - Poisson	3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
 X  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA      Ref. D5755-09  
 Client: PBS Engineering + Environmental      Report Number: 210914R02  
 Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 9/16/2021  
 Project No.: 40535.488

Lab/Cor Sample No: S1  
 Client Sample No: MV526  
 Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G7	1	C34				NSD								
G7	2	E33				NSD								
G7	3	E34				NSD								
G7	4	F34				NSD								
G7	5	G33				NSD								
G8	6	F42				NSD								
G8	7	G41				NSD								
G8	8	G42				NSD								
G8	9	H41				NSD								
G8	10	H42				NSD								
G7	11	B42				NSD								
G7	12	C41				NSD								
G7	13	F41				NSD								
G7	14	G41				NSD								
G7	15	G42				NSD								
G7	16	H42				NSD								
G7	17	K41				NSD								
G7	18	B44				NSD								
G7	19	C43				NSD								
G7	20	C44				NSD								
G7	21	E44				NSD								
G7	22	F43	ADQ	1		Fiber	3.6	0.4	9	Actinolite	Mg, Al, Si, K, Ca, Fe		ASTM_Total, ASTM_0.5- 5.0	
						ItemType		ItemNum			Confirmed		Comment	
						Spectra		J66033SP			KM	9/17/2021		
						Diffraction		J66033DF			KM	9/17/2021	0.53nm	ROW SPACING
						Brightfield		J66033BF						

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S2

Client Sample No: MV527

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C34			NSD							
G1	2	E33			NSD							
G1	3	E34			NSD							
G1	4	F33			NSD							
G1	5	F34			NSD							
G2	6	C31			NSD							
G2	7	C32			NSD							
G2	8	E31			NSD							
G2	9	E32			NSD							
G2	10	F31			NSD							
G1	11	E41			NSD							
G1	12	E42			NSD							
G1	13	F41			NSD							
G1	14	F42			NSD							
G1	15	G41			NSD							
G1	16	G42			NSD							
G1	17	H41			NSD							
G1	18	H42			NSD							
G1	19	C43			NSD							
G1	20	C44			NSD							
G1	21	E43			NSD							
G1	22	E44			NSD							
G1	23	F43			NSD							
G1	24	F44			NSD							
G1	25	G43			NSD							
G1	26	G44			NSD							
G1	27	H43			NSD							
G1	28	H44			NSD							
G1	29	E51			NSD							
G1	30	F52			NSD							
G1	31	G51			NSD							
G1	32	G52			NSD							
G1	33	H51			NSD							
G1	34	H52			NSD							
G1	35	G53			NSD							
G1	36	G54			NSD							
G1	37	H53			NSD							
G1	38	H54			NSD							
G1	39	G33			NSD							
G1	40	G34			NSD							
G1	41	H33			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S2

Client Sample No: MV527

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	42	H34			NSD							
G1	43	K33			NSD							
G1	44	C31			NSD							
G1	45	C32			NSD							
G1	46	E31			NSD							
G1	47	E32			NSD							
G1	48	F31			NSD							
G1	49	F32			NSD							
G1	50	G31			NSD							
G1	51	G32			NSD							
G1	52	H31			NSD							
G1	53	H32			NSD							
G2	54	G31			NSD							
G2	55	G32			NSD							
G2	56	H31			NSD							
G2	57	H32			NSD							
G2	58	K31			NSD							
G2	59	C33			NSD							
G2	60	C34			NSD							
G2	61	E33			NSD							
G2	62	E34			NSD							
G2	63	F33			NSD							
G2	64	F34			NSD							
G2	65	G33			NSD							
G2	66	G34			NSD							
G2	67	H33			NSD							
G2	68	H34			NSD							
G2	69	B42			NSD							
G2	70	C41			NSD							
G2	71	C42			NSD							
G2	72	E41			NSD							
G2	73	E42			NSD							
G2	74	F41			NSD							
G2	75	F42			NSD							
G2	76	G41			NSD							
G2	77	G42			NSD							
G2	78	H41			NSD							
G2	79	H42			NSD							
G2	80	C43			NSD							
G2	81	C44			NSD							
G2	82	E43			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S2

Client Sample No: MV527

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G2	83	E44			NSD							
G2	84	F43			NSD							
G2	85	F44			NSD							
G2	86	G43			NSD							
G2	87	G44			NSD							
G2	88	H43			NSD							
G2	89	H44			NSD							
G2	90	K43			NSD							
G2	91	K44			NSD							
G2	92	C51			NSD							
G2	93	C52			NSD							
G2	94	E51			NSD							
G2	95	E52			NSD							
G2	96	F51			NSD							
G2	97	F52			NSD							
G2	98	G51			NSD							
G2	99	G52			NSD							
G2	100	H51			NSD							
G2	101	H52			NSD							
G2	102	C54			NSD							
G2	103	E53			NSD							
G2	104	E54			NSD							
G2	105	F53			NSD							
G2	106	F54			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV528

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F24			NSD							
G7	2	G23			NSD							
G7	3	G24			NSD							
G7	4	H23			NSD							
G7	5	E31			NSD							
G7	6	E32			NSD							
G8	7	C51			NSD							
G8	8	C52			NSD							
G8	9	E51			NSD							
G8	10	E54			NSD							
G8	11	E62			NSD							



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	E22			NSD							
G10	2	F21			NSD							
G10	3	F22			NSD							
G10	4	G21			NSD							
G10	5	C23			NSD							
G10	6	C24			NSD							
G10	7	E23			NSD							
G10	8	E24			NSD							
G10	9	F23			NSD							
G10	10	F24			NSD							
G10	11	G23			NSD							
G10	12	G24			NSD							
G10	13	H23			NSD							
G10	14	H24			NSD							
G10	15	B31			NSD							
G10	16	B32			NSD							
G10	17	C31			NSD							
G10	18	C32			NSD							
G10	19	E31			NSD							
G10	20	E32			NSD							
G10	21	F31			NSD							
G10	22	F32			NSD							
G10	23	G31			NSD							
G10	24	G32			NSD							
G10	25	H31			NSD							
G10	26	B33			NSD							
G10	27	B34			NSD							
G10	28	C33			NSD							
G10	29	C34			NSD							
G10	30	E33			NSD							
G10	31	E34			NSD							
G10	32	F33			NSD							
G10	33	F34			NSD							
G10	34	G33			NSD							
G10	35	G34			NSD							
G10	36	H33			NSD							
G10	37	H34			NSD							
G10	38	K33			NSD							
G10	39	K34			NSD							
G10	40	A42			NSD							
G10	41	B41			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	42	B42			NSD							
G10	43	C41			NSD							
G10	44	C42			NSD							
G10	45	E41			NSD							
G10	46	E42			NSD							
G10	47	F41			NSD							
G10	48	F42			NSD							
G10	49	G41			NSD							
G10	50	G42			NSD							
G10	51	H41			NSD							
G10	52	H42			NSD							
G10	53	K41			NSD							
G10	54	B43			NSD							
G10	55	B44			NSD							
G10	56	C43			NSD							
G10	57	C44			NSD							
G10	58	E43			NSD							
G10	59	E44			NSD							
G10	60	F43			NSD							
G10	61	F44			NSD							
G10	62	G43			NSD							
G10	63	G44			NSD							
G10	64	H43			NSD							
G10	65	H44			NSD							
G10	66	K43			NSD							
G10	67	B51			NSD							
G10	68	B52			NSD							
G10	69	C51			NSD							
G11	70	C31			NSD							
G11	71	C32			NSD							
G11	72	E31			NSD							
G11	73	E32			NSD							
G11	74	F31			NSD							
G11	75	F32			NSD							
G11	76	H31			NSD							
G11	77	H32			NSD							
G11	78	C34			NSD							
G11	79	E33			NSD							
G11	80	E34			NSD							
G11	81	F33			NSD							
G11	82	F34			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G11	83	G33			NSD							
G11	84	H34			NSD							
G12	85	B34			NSD							
G12	86	C33			NSD							
G12	87	C34			NSD							
G12	88	E33			NSD							
G12	89	E34			NSD							
G12	90	F33			NSD							
G12	91	F34			NSD							
G12	92	G33			NSD							
G12	93	G34			NSD							
G12	94	H33			NSD							
G12	95	H34			NSD							
G12	96	K33			NSD							
G12	97	K34			NSD							
G12	98	B42			NSD							
G12	99	C41			NSD							
G12	100	C42			NSD							
G12	101	E41			NSD							
G12	102	E42			NSD							
G12	103	F41			NSD							
G12	104	F42			NSD							
G12	105	G41			NSD							
G12	106	G42			NSD							
G12	107	H41			NSD							
G12	108	H42			NSD							
G12	109	K41			NSD							
G12	110	K42			NSD							
G12	111	B43			NSD							
G12	112	B44			NSD							
G12	113	C43			NSD							
G12	114	C44			NSD							
G12	115	E43			NSD							
G12	116	E44			NSD							
G12	117	F43			NSD							
G12	118	F44			NSD							
G12	119	G43			NSD							
G12	120	G44			NSD							
G12	121	B52			NSD							
G12	122	C51			NSD							
G12	123	C52			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G12	124	E51			NSD							
G12	125	E52			NSD							
G12	126	F51			NSD							
G12	127	F52			NSD							
G12	128	G51			NSD							
G12	129	B54			NSD							
G12	130	C53			NSD							
G12	131	C54			NSD							
G12	132	E53			NSD							
G12	133	E54			NSD							
G12	134	F53			NSD							
G12	135	F54			NSD							
G12	136	C61			NSD							
G12	137	C62			NSD							
G12	138	E61			NSD							
G12	139	E62			NSD							
G12	140	F61			NSD							
G12	141	F62			NSD							
G13	142	C24			NSD							
G13	143	E23			NSD							
G13	144	E24			NSD							
G13	145	F23			NSD							
G13	146	F24			NSD							
G13	147	G23			NSD							
G13	148	G24			NSD							
G13	149	H23			NSD							
G13	150	H24			NSD							
G13	151	K23			NSD							
G13	152	B32			NSD							
G13	153	C31			NSD							
G13	154	C32			NSD							
G13	155	E31			NSD							
G13	156	E32			NSD							
G13	157	F32			NSD							
G13	158	B34			NSD							
G13	159	C33			NSD							
G13	160	C34			NSD							
G13	161	E33			NSD							
G13	162	E34			NSD							
G13	163	F33			NSD							
G13	164	F34			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G13	165	G33			NSD							
G13	166	B42			NSD							
G13	167	C41			NSD							
G13	168	C42			NSD							
G13	169	E41			NSD							
G13	170	E42			NSD							
G13	171	F41			NSD							
G13	172	F42			NSD							
G13	173	G41			NSD							
G13	174	C44			NSD							
G13	175	E43			NSD							
G13	176	E44			NSD							
G13	177	F43			NSD							
G13	178	F44			NSD							
G13	179	G43			NSD							
G13	180	G44			NSD							
G13	181	C51			NSD							
G13	182	C52			NSD							
G13	183	E51			NSD							
G13	184	E52			NSD							
G13	185	F51			NSD							
G13	186	F52			NSD							
G13	187	G51			NSD							
G13	188	G52			NSD							
G13	189	C53			NSD							
G13	190	C54			NSD							
G13	191	E53			NSD							
G13	192	E54			NSD							
G13	193	F54			NSD							
G13	194	G53			NSD							
G13	195	G54			NSD							
G13	196	H53			NSD							
G14	197	C22			NSD							
G14	198	E21			NSD							
G14	199	E22			NSD							
G14	200	F21			NSD							
G14	201	F22			NSD							
G14	202	G21			NSD							
G14	203	G22			NSD							
G14	204	H21			NSD							
G14	205	B24			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G14	206	C23			NSD							
G14	207	C24			NSD							
G14	208	E23			NSD							
G14	209	E24			NSD							
G14	210	F23			NSD							
G14	211	F24			NSD							
G14	212	G23			NSD							
G14	213	G24			NSD							
G14	214	H23			NSD							
G14	215	H24			NSD							
G14	216	B31			NSD							
G14	217	B32			NSD							
G14	218	C31			NSD							
G14	219	C32			NSD							
G14	220	E31			NSD							
G14	221	E32			NSD							
G14	222	F31			NSD							
G14	223	F32			NSD							
G14	224	G31			NSD							
G14	225	G32			NSD							
G14	226	H31			NSD							
G14	227	B33			NSD							
G14	228	B34			NSD							
G14	229	C33			NSD							
G14	230	C34			NSD							
G14	231	E33			NSD							
G14	232	E34			NSD							
G14	233	F33			NSD							
G14	234	F34			NSD							
G14	235	B41			NSD							
G14	236	B42			NSD							
G14	237	C41			NSD							
G14	238	C42			NSD							
G14	239	E41			NSD							
G14	240	E42			NSD							
G14	241	F41			NSD							
G14	242	F42			NSD							
G14	243	G41			NSD							
G14	244	G42			NSD							
G14	245	H41			NSD							
G14	246	H42			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G14	247	K41			NSD							
G14	248	K42			NSD							
G14	249	B43			NSD							
G14	250	B44			NSD							
G14	251	C43			NSD							
G14	252	C44			NSD							
G14	253	E43			NSD							
G14	254	E44			NSD							
G14	255	F43			NSD							
G14	256	F44			NSD							
G14	257	G43			NSD							
G14	258	G44			NSD							
G14	259	H43			NSD							
G14	260	H44			NSD							
G14	261	K43			NSD							
G14	262	K44			NSD							
G14	263	B51			NSD							
G14	264	B52			NSD							
G14	265	C51			NSD							
G14	266	E52			NSD							
G14	267	F51			NSD							
G14	268	F52			NSD							
G14	269	G51			NSD							
G14	270	H51			NSD							
G14	271	H52			NSD							
G14	272	K51			NSD							
G14	273	K52			NSD							
G14	274	F53			NSD							
G14	275	F54			NSD							
G14	276	G53			NSD							
G14	277	H54			NSD							
G14	278	E61			NSD							
G14	279	E62			NSD							
G14	280	F61			NSD							
G14	281	F62			NSD							
G14	282	G61			NSD							
G14	283	G62			NSD							
G14	284	H61			NSD							
G14	285	H62			NSD							
G31	286	C61			NSD							
G31	287	C62			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G31	288	E61			NSD							
G31	289	E62			NSD							
G31	290	F61			NSD							
G31	291	F62			NSD							
G31	292	G61			NSD							
G31	293	G62			NSD							
G31	294	H61			NSD							
G31	295	B54			NSD							
G31	296	C53			NSD							
G31	297	C54			NSD							
G31	298	E53			NSD							
G31	299	E54			NSD							
G31	300	F53			NSD							
G31	301	F54			NSD							
G31	302	G53			NSD							
G31	303	G54			NSD							
G31	304	H53			NSD							
G31	305	H54			NSD							
G31	306	B52			NSD							
G31	307	C51			NSD							
G31	308	C52			NSD							
G31	309	E51			NSD							
G31	310	E52			NSD							
G31	311	F51			NSD							
G31	312	F52			NSD							
G31	313	G51			NSD							
G31	314	G52			NSD							
G31	315	H51			NSD							
G31	316	H52			NSD							
G31	317	K51			NSD							
G31	318	C44			NSD							
G31	319	E43			NSD							
G31	320	E44			NSD							
G31	321	F43			NSD							
G31	322	G43			NSD							
G31	323	G44			NSD							
G31	324	H43			NSD							
G31	325	H44			NSD							
G31	326	K43			NSD							
G31	327	H42			NSD							
G31	328	K41			NSD							



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G32	329	C24			NSD							
G32	330	E23			NSD							
G32	331	E24			NSD							
G32	332	F23			NSD							
G32	333	F24			NSD							
G32	334	G23			NSD							
G32	335	G24			NSD							
G32	336	H23			NSD							
G33	337	E22			NSD							
G33	338	F22			NSD							
G33	339	C23			NSD							
G33	340	C24			NSD							
G33	341	E23			NSD							
G34	342	C22			NSD							
G34	343	E21			NSD							
G34	344	E22			NSD							
G34	345	F21			NSD							
G34	346	F22			NSD							
G34	347	G21			NSD							
G34	348	G22			NSD							
G34	349	C23			NSD							
G34	350	E24			NSD							
G34	351	F23			NSD							
G34	352	F24			NSD							
G34	353	G23			NSD							
G34	354	G24			NSD							
G34	355	H23			NSD							
G34	356	B31			NSD							
G34	357	B32			NSD							
G34	358	C31			NSD							
G34	359	C32			NSD							
G34	360	E31			NSD							
G34	361	E32			NSD							
G34	362	F31			NSD							
G34	363	F32			NSD							
G34	364	G32			NSD							
G34	365	H31			NSD							
G34	366	H32			NSD							
G34	367	B33			NSD							
G34	368	B34			NSD							
G34	369	C33			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G34	370	C34			NSD							
G34	371	E33			NSD							
G34	372	E34			NSD							
G34	373	F33			NSD							
G34	374	F34			NSD							
G34	375	G33			NSD							
G34	376	G34			NSD							
G34	377	H33			NSD							
G34	378	B41			NSD							
G34	379	B42			NSD							
G34	380	C41			NSD							
G34	381	C42			NSD							
G34	382	E41			NSD							
G34	383	E42			NSD							
G34	384	F41			NSD							
G34	385	F42			NSD							
G34	386	G41			NSD							
G34	387	G42			NSD							
G34	388	B43			NSD							
G34	389	B44			NSD							
G34	390	F43			NSD							
G34	391	F44			NSD							
G34	392	G43			NSD							
G34	393	H43			NSD							
G34	394	C51			NSD							
G34	395	C52			NSD							
G34	396	E51			NSD							
G34	397	B54			NSD							
G34	398	C53			NSD							
G34	399	C54			NSD							
G34	400	E53			NSD							
G34	401	E54			NSD							
G34	402	F53			NSD							
G34	403	C61			NSD							
G34	404	C62			NSD							
G35	405	E21			NSD							
G35	406	E22			NSD							
G35	407	F21			NSD							
G35	408	F22			NSD							
G35	409	G21			NSD							
G35	410	G22			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G35	411	H21			NSD							
G35	412	H22			NSD							
G35	413	C23			NSD							
G35	414	C24			NSD							
G35	415	E23			NSD							
G35	416	E24			NSD							
G35	417	F23			NSD							
G35	418	F24			NSD							
G35	419	G23			NSD							
G35	420	H23			NSD							
G35	421	H24			NSD							
G35	422	K23			NSD							
G35	423	C31			NSD							
G35	424	E32			NSD							
G35	425	F31			NSD							
G35	426	F32			NSD							
G35	427	G31			NSD							
G35	428	G32			NSD							
G35	429	H31			NSD							
G35	430	H32			NSD							
G35	431	K31			NSD							
G35	432	K32			NSD							
G35	433	F33			NSD							
G35	434	F34			NSD							
G35	435	G34			NSD							
G35	436	H33			NSD							
G35	437	H34			NSD							
G35	438	K34			NSD							
G35	439	F42			NSD							
G35	440	H42			NSD							
G35	441	K41			NSD							
G35	442	F43			NSD							
G35	443	F44			NSD							
G35	444	K44			NSD							
G35	445	F51			NSD							
G35	446	F52			NSD							
G36	447	B24			NSD							
G36	448	C23			NSD							
G36	449	C24			NSD							
G36	450	E23			NSD							
G36	451	E24			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S4

Client Sample No: MV529

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G36	452	F23			NSD							
G36	453	F24			NSD							
G36	454	G23			NSD							
G36	455	G24			NSD							
G36	456	B32			NSD							
G36	457	C31			NSD							
G36	458	C32			NSD							
G36	459	E31			NSD							
G36	460	E32			NSD							
G36	461	F32			NSD							
G36	462	G31			NSD							
G36	463	G32			NSD							
G36	464	B33			NSD							
G36	465	B34			NSD							
G36	466	C33			NSD							
G36	467	C34			NSD							
G36	468	E33			NSD							
G36	469	E34			NSD							
G36	470	F33			NSD							
G36	471	F34			NSD							
G36	472	G33			NSD							
G36	473	G34			NSD							
G36	474	B41			NSD							
G36	475	B42			NSD							
G36	476	C41			NSD							
G36	477	C42			NSD							
G36	478	E41			NSD							
G36	479	E42			NSD							
G36	480	F41			NSD							
G36	481	F42			NSD							
G36	482	G41			NSD							
G36	483	G42			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210914      SEA      Ref. D5755-09  
 Client: PBS Engineering + Environmental      Report Number: 210914R02  
 Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 9/16/2021

Lab/Cor Sample No: S5  
 Client Sample No: MV530  
 Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	E34			NSD							
G7	2	F33			NSD							
G7	3	F42			NSD							
G7	4	G44			NSD							
G8	5	F33			NSD							
G8	6	G42			NSD							

Lab/Cor Sample No: S6  
 Client Sample No: MV531  
 Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C33			NSD							
G4	2	E41			NSD							
G5	3	F44			NSD							
G5	4	G51			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S7

Client Sample No: MV532

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C31	CDQ	1	Matrix 1-0	3.6	0.7	5.1	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	J66024SP			KM	9/17/2021		
					Diffraction	J66024DF			KM	9/17/2021	0.53nm ROW SPACING - very faint	
					Brightfield	J66024BF						
G4	1	C31	CD	2	Matrix 15-5	13.5	9.5	1.4	Chrysotile			ASTM_>=5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	J66025DF			KM	9/17/2021	0.53nm ROW SPACING	
					Brightfield	J66025BF						
G4	1	C31	CD	3	Bundle	10.2	1.1	9.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G4	2	C32	CD	4	Matrix 1-0	4.8	3.5	1.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	C32	CD	5	Fiber	1.3	0.08	16.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	C32	CD	6	Fiber	0.8	0.08	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	C32	CD	7	Fiber	1.7	0.05	34	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	C32	CM	8	Fiber	2.1	0.05	42	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	3	E31	CM	9	Matrix 1-0	6.5	2.8	2.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G4	3	E31	CD	10	Bundle	1.7	0.15	11.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	3	E31	CM	11	Fiber	0.8	0.08	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	3	E31	CM	12	Bundle	1.35	0.17	7.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	4	E34	CM	13	Fiber	0.7	0.08	8.8	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	4	E34	CD	14	Fiber	0.85	0.03	28.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	F33	CD	15	Matrix 1-0	2	0.7	2.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	F33	CM	16	Fiber	2.1	0.07	30	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	6	E33	CD	17	Matrix 1-0	3.8	0.3	12.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	6	E33	CD	18	Bundle	2.5	0.4	6.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	6	E33	CD	19	Bundle	3.25	0.4	8.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	6	E33	CM	20	Matrix 1-0	3.5	2.5	1.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	E34	CM	21	Matrix 2-0	1.8	1.2	1.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	E34	CM	22	Fiber	0.9	0.07	12.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	E34	CM	23	Bundle	4.35	0.25	17.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	E34	CM	24	Matrix 2-0	5.1	4	1.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G5	7	E34	CD	25	Fiber	0.6	0.07	8.6	Chrysotile			ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S7

Client Sample No: MV532

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	8	F33	CD	26	Fiber	1.8	0.1	18	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	8	F33	CM	27	Fiber	1.3	0.07	18.6	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	8	F33	CM	28	Fiber	0.7	0.03	23.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F42	CM	29	Fiber	0.65	0.11	5.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F42	CM	30	Fiber	0.67	0.02	33.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F42	CD	31	Bundle	1.2	0.12	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F42	CM	32	Fiber	3.2	0.08	40	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F42	CM	33	Fiber	1.4	0.1	14	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F42	CM	34	Fiber	0.8	0.07	11.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	10	G41	CM	35	Fiber	0.9	0.07	12.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	10	G41	CM	36	Fiber	4	0.05	80	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	10	G41	CM	37	Fiber	1.7	0.1	17	Chrysotile			ASTM_Total, ASTM_0.5-5.0

Lab/Cor Sample No: S8

Client Sample No: MV533

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C33	CDQ	1	Fiber	0.67	0.07	9.6	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum		Confirmed	Comment			
					Spectra	J66027SP		KM	9/17/2021			
					Diffraction	J66027DF		KM	9/17/2021    0.53nm ROW SPACING			
					Brightfield	J66027BF						
G4	1	C33	CD	2	Fiber	1.7	0.05	34	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	C34	CM	3	Fiber	1.7	0.08	21.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	3	E33			NSD							
G4	4	E34			NSD							
G4	5	B41	CD	4	Matrix 1-0	1.2	0.6	2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	B41	CD	5	Fiber	2.1	0.07	30	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	6	E53			NSD							
G5	7	E52	CM	6	Fiber	0.7	0.08	8.8	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	8	F51			NSD							
G5	9	F44	CD	7	Fiber	1.2	0.05	24	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	10	G43	CM	8	Fiber	0.85	0.07	12.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S9

Client Sample No: MV534

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C54	CDQ	1	Fiber	1.1	0.07	15.7	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	J66028SP			KM	9/17/2021		
					Diffraction	J66028DF			KM	9/17/2021	0.53nm ROW SPACING	
					Brightfield	J66028BF						
G4	1	C54	CD	2	Bundle	2.8	0.15	18.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	E53			NSD							
G4	3	E52	CD	3	Fiber	0.85	0.08	10.6	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	3	E52	CD	4	Bundle	1.7	0.11	15.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	4	F51	CD	5	Matrix 2-0	3.1	2	1.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	4	F51	CD	6	Fiber	0.75	0.1	7.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	F44	CD	7	Bundle	2	0.15	13.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	F44	CD	8	Matrix 1-0	2.5	0.8	3.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	F44	CM	9	Fiber	1.8	0.08	22.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	6	G43	CD	10	Fiber	1.7	0.08	21.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	6	G43	CM	11	Fiber	4.1	0.03	136.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	6	G43	CD	12	Bundle	1.85	0.13	14.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	6	G43	CM	13	Fiber	0.7	0.05	14	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	6	G43	CD	14	Bundle	2.75	0.18	15.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	E44	CD	15	Bundle	1.2	0.17	7.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	E44	CM	16	Fiber	0.7	0.11	6.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	8	F43	CM	17	Matrix 1-0	3.1	2.5	1.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	8	F43	CM	18	Matrix 1-0	0.88	0.3	2.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	8	F43	CD	19	Fiber	0.7	0.1	7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F52	CM	20	Matrix 2-0	4.2	3.8	1.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F52	CD	21	Cluster 3-0	2.5	1.5	1.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	9	F52	CD	22	Matrix 1-0	3.2	0.8	4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	10	G51	CD	23	Bundle	1.2	0.2	6	Chrysotile			ASTM_Total, ASTM_0.5-5.0



**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S10

Client Sample No: MV535

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F42	CDQ	1	Fiber	0.7	0.07	10	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	J66029SP			KM	9/17/2021		
					Diffraction	J66029DF			KM	9/17/2021	0.53nm ROW SPACING	
					Brightfield	J66029BF						
G4	1	F42	CD	2	Bundle	0.85	0.11	7.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	1	F42	CM	3	Fiber	0.65	0.05	13	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	1	F42	CD	4	Matrix 1-0	2.5	0.5	5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	5	Fiber	1.6	0.05	32	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	6	Fiber	0.8	0.05	16	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	7	Matrix 3-0	2	1.1	1.8	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	8	Fiber	8.2	0.06	136.7	Chrysotile			ASTM_Total, ASTM_>=5.0
G4	2	G41	CM	9	Fiber	2	0.06	33.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CM	10	Matrix 1-0	0.8	0.3	2.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	3	G34	CD	11	Matrix 1-0	1.6	0.25	6.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	4	H33	CM	12	Fiber	4.1	0.05	82	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	4	H33	CD	13	Bundle	37.5	1.3	28.8	Chrysotile			ASTM_>=5.0, ASTM_Total
G4	4	H33	CM	14	Fiber	0.7	0.08	8.8	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	4	H33	CD	15	Matrix 1-0	3.2	1.5	2.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	G32	CD	16	Fiber	1.1	0.05	22	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	5	G32	CD	17	Matrix 1-0	7.5	4	1.9	Chrysotile			ASTM_Total, ASTM_>=5.0
G4	6	H31	CM	18	Matrix 1-0	4	1.2	3.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	6	H31	CM	19	Fiber	0.51	0.05	10.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	C54	CM	20	Fiber	1.6	0.07	22.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	7	C54	CM	21	Fiber	1.2	0.05	24	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	8	E53	CM	22	Matrix 1-0	5.7	5.1	1.1	Chrysotile			ASTM_Total, ASTM_>=5.0
G5	9	E52	CD	23	Bundle	1.1	0.15	7.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	10	F51	CM	24	Matrix 1-0	1.1	0.2	5.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	10	F51	CM	25	Cluster 4-0	3.2	0.75	4.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 210914      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 210914R02  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 9/16/2021

**Lab/Cor Sample No:** S11  
**Client Sample No:** MV536  
**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F32			NSD							
G7	2	G43			NSD							
G8	3	F34	CDQ	1	Fiber	1.2	0.08	15	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum				Confirmed	Comment	
					Spectra	J66030SP				KM 9/17/2021		
					Diffraction	J66030DF				KM 9/17/2021	0.53nm ROW SPACING	
					Brightfield	J66030BF						
G8	4	G41	CD	2	Bundle	1.2	0.13	9.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S12

Client Sample No: MV537

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F34	CM	1	Fiber	2	0.02	100	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	1	F34	CDQ	2	Matrix 3-0	6	4	1.5	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total
						ItemType	ItemNum	Confirmed	Comment			
						Spectra	J66031SP	KM 9/17/2021				
						Diffraction	J66031DF	KM 9/17/2021	0.53nm ROW SPACING			
						Brightfield	J66031BF					
G4	1	F34	CM	3	Fiber	1.2	0.05	24	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	1	F34	CD	4	Matrix 1-1	9.5	8.2	1.2	Chrysotile			ASTM_>=5.0, ASTM_Total
G4	1	F34	CM	5	Matrix 1-0	5.2	4	1.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G4	1	F34	CM	6	Fiber	1.7	0.05	34	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	1	F34	CM	7	Fiber	0.8	0.06	13.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	1	F34	CD	8	Fiber	1.8	0.12	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	1	F34	CM	9	Fiber	2.8	0.1	28	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	10	Fiber	0.85	0.08	10.6	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CM	11	Fiber	1.2	0.11	10.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CM	12	Fiber	0.8	0.1	8	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CM	13	Fiber	1.2	0.08	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CM	14	Fiber	1.5	0.1	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CM	15	Fiber	0.7	0.05	14	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	16	Fiber	1.8	0.1	18	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	17	Bundle	4	0.12	33.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G4	2	G41	CD	18	Bundle	5.1	0.85	6	Chrysotile			ASTM_>=5.0, ASTM_Total
G4	2	G41	CM	19	Fiber	1.5	0.1	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	3	F34	CD	20	Fiber	5.45	0.07	77.9	Chrysotile			ASTM_>=5.0, ASTM_Total
G5	3	F34	CM	21	Fiber	3.1	0.08	38.8	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	3	F34	CD	22	Matrix 3-3	32.2	4.5	7.2	Chrysotile			ASTM_>=5.0, ASTM_Total
G5	3	F34	CD	23	Fiber	3.2	0.1	32	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	3	F34	CD	24	Fiber	2.2	0.11	20	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	25	Fiber	0.65	0.07	9.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	26	Fiber	0.8	0.08	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	27	Fiber	2.1	0.1	21	Chrysotile			ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210914      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210914R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/16/2021

Lab/Cor Sample No: S12

Client Sample No: MV537

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	4	G41	CM	28	Matrix 1-0	0.95	0.4	2.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	29	Fiber	1.2	0.08	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	30	Fiber	1.7	0.1	17	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	31	Fiber	1.5	0.1	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	32	Matrix 2-0	6.85	2.7	2.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G5	4	G41	CD	33	Fiber	0.55	0.08	6.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	34	Fiber	0.7	0.07	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	35	Fiber	1.35	0.05	27	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G41	CM	36	Fiber	1.2	0.07	17.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0

Lab/Cor Sample No: S13

Client Sample No: MV538

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C61	CDQ	1	Fiber	3.7	0.06	61.7	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum		Confirmed	Comment			
					Spectra	J66032SP		KM	9/17/2021			
					Diffraction	J66032DF		KM	9/17/2021    0.53nm ROW SPACING			
					Brightfield	J66032BF						
G1	2	C62			NSD							
G1	3	E61	CD	2	Fiber	0.95	0.1	9.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G1	4	E54			NSD							
G1	5	F53	CMQ	3	Matrix 1-0	3.3	0.7	4.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G1	6	F52			NSD							
G2	7	C34			NSD							
G2	8	E33			NSD							
G2	9	E42			NSD							
G2	10	F41			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Kate March*  
 X  
**Kate March**  
 Quality Control Officer



# LABORATORY CHAIN OF CUSTODY

210 914

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 9/16/2021

Relinquished by/Signature: Toan Nguyen *Toan Nguyen*

Date/Time: 9/16/2021

Received by/Signature: *[Signature]*

Date/Time: 9/16/21 14:26

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Michelle Dodson
- \_\_\_\_\_

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 3 Days
- Other \_\_\_\_\_

LOD <1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV526	Dust - 100cm2 area	Rm. 320 Transformer base	Labcor
MV527	Dust - 100cm2 area	Rm. 320 Inside electrical panel H7RA	
MV528	Dust - 100cm2 area	Rm. 320 inside LVP - 1	
MV529	Dust - 100cm2 area	Rm. 321 Fire Alarm Pull - Box base	
MV530	Dust - 100cm2 area	Rm. 321 Security Pull Box base	
MV531	Dust - 100cm2 area	Rm. 321 Superterm box #13 base	
MV532	Dust - 100cm2 area	Mech. 173 - Fire alarm box base	
MV533	Dust - 100cm2 area	Mech. 173 - ADM. Box base	
MV534	Dust - 100cm2 area	Mech. 173 - H7LA Disconnect box base	
MV535	Dust - 100cm2 area	Mech. 173 - Panel F5LX base	
MV536	Dust - 100cm2 area	Mech. 173 - HVAC control box base	
MV537	Dust - 100cm2 area	Mech. 173 - Fire alarm main panel inside	
MV538	Dust - 100cm2 area	Mech. 173 - F5RA base	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbals    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210933**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210933R01**

**Report Date: 9/23/2021**

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:
210933 - S1	MV539 -	ASTM D 5755-09 - Microvac	This sample was ashed and hydrolyzed prior to filtration to remove as much background interference as possible. This was done to improve the sensitivity.	9/20/2021


ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Sierra Hinkle**  
**Technician/Analyst**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210933      SEA  
 Client: PBS Engineering + Environmental

Report Number: 210933R01  
 Date Received: 9/20/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
 Client Sample No.: MV539      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Description:      Grid Openings Analyzed : 6  
 Filter Fraction: 1      Aliquot Dilution: 0.025      Average Grid Opening Area : 0.012  
 Residual Ash Vol: 20 ml      Final Dilution: 0.00125      Area Analyzed (mm<sup>2</sup>) : 0.072  
 Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 32153.333  
 Volume Taken: 0.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH      9/23/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	2604420	2068359.627 - 3237197.6 - Poisson	81
ASTM Asbestos >=5.0µm	803833.333	520176.627 - 1186618.767 - Poisson	25
ASTM Libby-Other >0.5µm	< 32153.333	0 - 118613.647 - Poisson	0
ASTM Total Asbestos >=0.5µm	3408253.333	2790394.88 - 4123021.933 - Poisson	106

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
 X  
 Sierra Hinkle  
 Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210933      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210933R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV539

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	E32	CM	1		Matrix 1-0	1.3	0.25	5.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CQ	2		Fiber	1.8	0.08	22.5	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CM	3		Matrix 1-0	2	0.5	4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CD	4		Matrix 1-0	1.5	0.6	2.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CD	5		Matrix 2-0	6	3	2	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	1	E32	CM	6		Matrix 1-0	3.5	2.5	1.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CQ	7		Matrix 1-0	3	2	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CM	8		Matrix 2-0	4	4	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CM	9		Matrix 2-0	4.2	4.5	0.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CM	10		Matrix 1-0	4.5	1.3	3.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CM	11		Fiber	1.5	0.07	21.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CM	12		Matrix 1-0	3	2.5	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CD	13		Matrix 1-0	8	7	1.1	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	1	E32	CM	14		Fiber	3	0.08	37.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CM	15		Fiber	0.8	0.08	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CQ	16		Matrix 1-0	10	10	1	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total
G7	1	E32	CM	17		Fiber	2.3	0.1	23	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CQ	18		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	1	E32	CDQ	19		Bundle	3.31	0.25	13.2	Chrysotile	Mg, Si, Ca		ASTM_0.5-5.0, ASTM_Total

ItemType	ItemNum	Confirmed	Comment
Diffraction	F66049DF	SH 9/23/2021	0.53nm ROW SPACING
Spectra	F66049SP	SH 9/23/2021	
Brightfield	F66049BF		

G7	2	E51	CM	20		Matrix 1-0	1.5	0.7	2.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	21		Fiber	4.8	0.1	48	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	22		Bundle	1	0.2	5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	23		Matrix 2-0	5.2	4	1.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	2	E51	CM	24		Fiber	3.5	0.1	35	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	25		Fiber	2.5	0.09	27.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CD	26		Matrix 1-0	5.5	1	5.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	2	E51	CM	27		Fiber	4	0.08	50	Chrysotile			ASTM_0.5-5.0, ASTM_Total



**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210933      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210933R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No: S1

Client Sample No: MV539

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	2	E51	CM	28	Matrix 1-0	1	0.4	2.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	29	Matrix 1-0	3	1	3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CD	30	Matrix 1-0	3	2.5	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	31	Matrix 1-0	1.5	0.8	1.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	32	Fiber	1.3	0.08	16.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	E51	CM	33	Matrix 1-1	6.5	1	6.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	2	E51	CQ	34	Fiber	9	0.08	112.5	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total
G7	3	E52	CM	35	Fiber	2.5	0.08	31.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	36	Fiber	2.7	0.09	30	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	37	Matrix 1-0	2.5	0.08	31.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	38	Matrix 1-0	4.8	2	2.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	39	Matrix 1-0	2.5	2.5	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	40	Fiber	4.2	0.07	60	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	41	Fiber	3.5	0.1	35	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	42	Matrix 1-0	3.5	0.6	5.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	43	Matrix 1-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	44	Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CQ	45	Bundle	3	0.2	15	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	46	Fiber	1.5	0.08	18.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	3	E52	CM	47	Matrix 2-0	13	10	1.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	3	E52	CM	48	Bundle	2.5	0.6	4.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	49	Fiber	1.5	0.07	21.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	50	Matrix 1-0	5.3	2.5	2.1	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	4	C43	CM	51	Fiber	0.7	0.08	8.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CQ	52	Matrix 2-0	8	5	1.6	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total
G8	4	C43	CM	53	Matrix 1-0	2.2	2.2	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	54	Matrix 3-0	10.3	5	2.1	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	4	C43	CM	55	Matrix 1-0	2.2	1.5	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	56	Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	57	Matrix 1-0	3.2	0.6	5.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210933      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210933R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No: S1

Client Sample No: MV539

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G8	4	C43	CM	58	Matrix 1-0	4.5	2.8	1.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	59	Matrix 1-0	1.5	1.5	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	60	Matrix 1-0	7	3.5	2	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	4	C43	CM	61	Matrix 1-0	2.5	2.5	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CQ	62	Bundle	3	0.3	10	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	63	Fiber	0.7	0.07	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	64	Matrix 1-0	1	1	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	65	Fiber	1.2	0.1	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	4	C43	CM	66	Matrix 2-0	5	4	1.2	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	67	Fiber	0.7	0.07	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	68	Matrix 2-0	2.5	2.5	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	69	Matrix 1-0	3.5	2	1.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	70	Fiber	0.7	0.07	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	71	Matrix 1-0	5	2	2.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	72	Fiber	0.6	0.08	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	73	Bundle	4	2	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	74	Matrix 1-0	6	2	3	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	75	Matrix 1-0	10	3	3.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	76	Matrix 1-0	3	0.6	5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	77	Fiber	4	0.07	57.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	78	Matrix 1-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	79	Matrix 2-0	2.5	1.5	1.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	80	Fiber	2	0.08	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	81	Matrix 2-0	5	5	1	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	82	Fiber	2	0.08	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	83	Matrix 1-0	5	3	1.7	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	84	Fiber	0.6	0.1	6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	85	Matrix 1-1	6	2	3	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	86	Matrix 1-0	5	5	1	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	C44	CM	87	Matrix 2-0	2.5	1.5	1.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210933      SEA      Ref. D5755-09  
Client: PBS Engineering + Environmental  
Project Name: Pierce College Olympic South Abatement and Repairs      Report Number: 210933R01  
Date Received: 9/20/2021

Lab/Cor Sample No: S1  
Client Sample No: MV539  
Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G8	5	C44	CM	88	Fiber	1.2	0.1	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	5	C44	CM	89	Fiber	1.2	0.1	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	90	Fiber	2	0.07	28.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	91	Matrix 1-0	5	1	5	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	6	C31	CM	92	Matrix 1-0	10	7	1.4	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	6	C31	CQ	93	Matrix 2-0	10	7	1.4	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	6	C31	CM	94	Bundle	2	0.12	16.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	95	Fiber	0.6	0.08	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	96	Fiber	1.8	0.08	22.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	97	Fiber	1.3	0.11	11.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	98	Matrix 1-0	2.3	0.7	3.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	99	Bundle	2.3	0.15	15.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	100	Matrix 1-0	1.2	0.6	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	101	Matrix 1-0	2.5	1	2.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	102	Matrix 1-0	1.5	0.7	2.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	103	Matrix 1-0	5	4	1.2	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	6	C31	CM	104	Fiber	1	0.08	12.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	105	Matrix 1-0	2.5	2	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	6	C31	CM	106	Matrix 1-1	5.3	1	5.3	Chrysotile			ASTM_>=5.0, ASTM_Total

Count Categories					
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Sierra Hinkle*  
X  
Sierra Hinkle  
Technician/Analyst

210933



**LABORATORY CHAIN OF CUSTODY**

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 9/16/2021

Relinquished by/Signature: *Claire Tsai*

Date/Time: 9/20/2021

Received by/Signature: *[Signature]*

Date/Time: 9/20/21 4:24pm

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Michelle Dodson
- \_\_\_\_\_

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 3 Days
- Other \_\_\_\_\_

LOD <1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV539	Dust - 100cm2 area	Rm. 173 Transformer base	Labcor

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbal    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210941**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210941R01**

**Report Date: 9/24/2021**

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:
210941 - S1	MV540 -	ASTM D 5755-09 - Microvac		9/22/2021
210941 - S2	MV541 -	ASTM D 5755-09 - Microvac		9/22/2021

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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,



**Sierra Hinkle**  
 Technician/Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210941      SEA  
Client: PBS Engineering + Environmental

Report Number: 210941R01  
Date Received: 9/22/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV540      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 803.833  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/24/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV541      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 803.833  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/24/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	1607.667	194.528 - 5807.696 - Poisson	2
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	1607.667	194.528 - 5807.696 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
x  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 210941      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Report Number:** 210941R01  
**Project No.:** 40535.488      **Date Received:** 9/22/2021

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV540  
**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	E43				NSD							
G7	2	E44				NSD							
G8	3	E43				NSD							
G8	4	E44				NSD							

**Lab/Cor Sample No:** S2  
**Client Sample No:** MV541  
**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	G42	CDQ	1		Fiber	1.6	0.05	32	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						Item Type	Item Num		Confirmed		Comment		
						Diffraction	F66068DF		SH 9/24/2021		0.53nm ROW SPACING		
						Spectra	F66068SP		SH 9/24/2021				
						Brightfield	F66068BF						
G7	1	G42	CM	2		Matrix 1-0	0.8	0.2	4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	H41				NSD							
G8	3	F33				NSD							
G8	4	F34				NSD							

**Count Categories**

ASTM >=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst

210941



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 9/21/2021

Relinquished by/Signature: \_\_\_\_\_

Date/Time: 9/21/2021

Received by/Signature: \_\_\_\_\_

Date/Time: 9/22/21 8am

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Michelle Dodson
- \_\_\_\_\_

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 3 Days
- Other \_\_\_\_\_

LOD <1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV540	Dust - 100cm2 area	Rm. 173 Johnson Control FEC2611 – HVAC control	Labcor
MV541	Dust - 100cm2 area	Rm. 173. ABB HVAC unit	

Reviewed by: \_\_\_\_\_

Results Released:

Fax   Verbal   USPS   Email

Invoice Released:

Fax   USPS   Email



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210957**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Project No.:** 40535.488

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210957R03**

**Report Date: 9/30/2021**

R01: Preliminary Report

R02: Revised Preliminary Report

**Report Note:** R03 (this report): Final; Includes remaining analysis and extended analysis requested by Claire 9/30/21

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:
210957 - S1	MV542 -	ASTM D 5755-09 - Microvac	A few Mg-Al-Si fibers present.	9/27/2021
210957 - S2	MV543 -	ASTM D 5755-09 - Microvac	A few Mg-Al-Si fibers present.	9/27/2021
210957 - S3	MV544 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S4	MV545 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S5	MV546 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S6	MV547 -	ASTM D 5755-09 - Microvac	A few Mg-Al-Si fibers present.	9/27/2021
210957 - S7	MV548 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S8	MV549 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S9	MV550 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S10	MV551 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S11	MV552 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S12	MV553 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S13	MV554 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S14	MV555 -	ASTM D 5755-09 - Microvac	A few Mg-Al-Si fibers present.	9/27/2021
210957 - S15	MV556 -	ASTM D 5755-09 - Microvac	Some Mg-Al-Si fibers present.	9/27/2021
210957 - S16	MV557 -	ASTM D 5755-09 - Microvac	A few Mg-Al-Si fibers present.	9/27/2021
210957 - S17	MV558 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S18	MV559 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S19	MV560 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S20	MV561 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S21	MV562 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S22	MV563 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S23	MV564 -	ASTM D 5755-09 - Microvac	Several Mg-Al-Si fibers present.	9/27/2021
210957 - S24	MV565 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S25	MV566 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S26	MV567 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S27	MV568 -	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present.	9/27/2021
210957 - S28	MV569 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S29	MV570 -	ASTM D 5755-09 - Microvac	Some Mg-Al-Si fibers present.	9/27/2021
210957 - S30	MV571 -	ASTM D 5755-09 - Microvac	Some Mg, Al, Si Fibers Present	9/27/2021
210957 - S31	MV572 -	ASTM D 5755-09 - Microvac		9/27/2021
210957 - S32	MV573 -	ASTM D 5755-09 - Microvac	Many Mg, Al, Si Fibers Present	9/27/2021
210957 - S33	MV574 -	ASTM D 5755-09 - Microvac	Some Mg, Al, Si Fibers Present	9/27/2021
210957 - S34	MV575 -	ASTM D 5755-09 - Microvac		9/27/2021

---

## ASTM D 5755-09 - Microvac Final Report

**Job Number:** 210957

**Client:** PBS Engineering + Environmental

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 210957R03

**Report Date:** 9/30/2021

---


ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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/cm<sup>3</sup> and structures/mm<sup>2</sup> 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

**Sierra Hinkle**  
**Technician/Analyst**

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 0		
Client Sample No.: MV542	Lab Filter Area (mm <sup>2</sup> ): 289.38		
Description:	Grid Openings Analyzed : 4		
Filter Fraction: 1	Aliquot Dilution: 0.075		
Residual Ash Vol: 20 ml	Final Dilution: 0.075		
Begin Volume: 20 ml	Average Grid Opening Area : 0.012		
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.048		
	Analytical Sens. (struc/cm <sup>2</sup> ): 0		
Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/28/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	12
ASTM Asbestos >=5.0µm	NA	Not Applicable	1
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	13
Chrysotile Structures	NA	Not Applicable	12
Actinolite Structures	NA	Not Applicable	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 0		
Client Sample No.: MV543	Lab Filter Area (mm <sup>2</sup> ): 289.38		
Description:	Grid Openings Analyzed : 4		
Filter Fraction: 1	Aliquot Dilution: 0.075		
Residual Ash Vol: 20 ml	Final Dilution: 0.075		
Begin Volume: 20 ml	Average Grid Opening Area : 0.012		
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.048		
	Analytical Sens. (struc/cm <sup>2</sup> ): 0		
Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/28/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	13
ASTM Asbestos >=5.0µm	NA	Not Applicable	10
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	23
Chrysotile Structures	NA	Not Applicable	23
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV544      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/28/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	1
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	1
Chrysotile Structures	NA	Not Applicable	1
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV545      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/28/2021      Hitachi 7000FA      20000  
SH      9/30/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210957      SEA  
 Client: PBS Engineering + Environmental

Report Number: 210957R03  
 Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S5	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 0
Client Sample No.: MV546	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Description:	Grid Openings Analyzed : 10
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.012
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ) : 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ) : 0

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/28/2021	Hitachi 7000FA	20000
SH	9/30/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 0
Client Sample No.: MV547	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Description:	Grid Openings Analyzed : 10
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.012
Volume Taken: 0.5 ml	Area Analyzed (mm <sup>2</sup> ) : 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ) : 0

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/29/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	6
ASTM Asbestos >=5.0µm	NA	Not Applicable	3
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	9
Chrysotile Structures	NA	Not Applicable	9
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
 Client: PBS Engineering + Environmental

Report Number: 210957R03  
 Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S7      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
 Client Sample No.: MV548      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Description:      Grid Openings Analyzed : 10  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
 Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
 Volume Taken: 1.5 ml

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/29/2021	JEOL-Sr 1200	20000
SH	9/30/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
 Client Sample No.: MV549      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Description:      Grid Openings Analyzed : 10  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
 Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
 Volume Taken: 0.25 ml

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/29/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S9      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV550      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/29/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S10      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV551      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.25 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/29/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S11      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV552      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.25 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/29/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV553      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/29/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S13      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV554      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 6  
Filter Fraction: 1      Aliquot Dilution: 0.005      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.005      Area Analyzed (mm<sup>2</sup>) : 0.072  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/29/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	82
ASTM Asbestos >=5.0µm	NA	Not Applicable	28
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	110
Chrysotile Structures	NA	Not Applicable	110
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S14      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV555      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.0025      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.0025      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.05 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/29/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	1
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S15	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 0
Client Sample No.: MV556	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Description:	Grid Openings Analyzed : 10
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.012
Volume Taken: 0.5 ml	Area Analyzed (mm <sup>2</sup> ) : 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ) : 0

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/29/2021	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	5
ASTM Asbestos >=5.0µm	NA	Not Applicable	1
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	6
Chrysotile Structures	NA	Not Applicable	6
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S16	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 0
Client Sample No.: MV557	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Description:	Grid Openings Analyzed : 5
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area : 0.012
Volume Taken: 1 ml	Area Analyzed (mm <sup>2</sup> ) : 0.06
	Analytical Sens. (struc/cm <sup>2</sup> ) : 0

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/29/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
 Client: PBS Engineering + Environmental

Report Number: 210957R03  
 Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S17      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
 Client Sample No.: MV558      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Description:      Grid Openings Analyzed : 10  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
 Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
 Volume Taken: 1.5 ml

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/29/2021	Hitachi 7000FA	20000
SH	9/30/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S18      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
 Client Sample No.: MV559      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Description:      Grid Openings Analyzed : 10  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
 Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
 Volume Taken: 0.25 ml

Analyst(s)	Analysis Date	Microscope	Magnification
HH	9/29/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S19      Sample Area/Mass/Volume (cm<sup>2</sup>): 0  
Client Sample No.: MV560      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 0  
Volume Taken: 1.5 ml

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/29/2021	Hitachi 7000FA	20000
SH	9/30/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S20      Sample Area/Mass/Volume (cm<sup>2</sup>): 0  
Client Sample No.: MV561      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 0  
Volume Taken: 0.25 ml

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/29/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	11
ASTM Asbestos >=5.0µm	NA	Not Applicable	10
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	21
Chrysotile Structures	NA	Not Applicable	21
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S21      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV562      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/29/2021	Hitachi 7000FA	20000
SH	9/30/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S22      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV563      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/29/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S23      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV564      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 5  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.06  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/29/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	1
ASTM Asbestos >=5.0µm	NA	Not Applicable	1
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	2
Chrysotile Structures	NA	Not Applicable	2
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S24      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV565      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.0012      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.0012      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.025 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/30/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	2
ASTM Asbestos >=5.0µm	NA	Not Applicable	11
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	13
Chrysotile Structures	NA	Not Applicable	13
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S25      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV566      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/29/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S26      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV567      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/29/2021      Hitachi 7000FA      20000  
SH      9/30/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S27      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV568      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/30/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	1
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	1
Chrysotile Structures	NA	Not Applicable	1
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S28      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV569      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/30/2021      Hitachi 7000FA      20000  
SB      9/30/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S29      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV570      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.0025      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.0025      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.05 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/30/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S30      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV571      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/30/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S31      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV572      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.0025      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.0025      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.05 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/30/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S32      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV573      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/30/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Report Number: 210957R03  
Date Received: 9/27/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S33      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
Client Sample No.: MV574      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.005      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.005      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 0.1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/30/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S34      Sample Area/Mass/Volume (ml) : 0  
Client Sample No.: MV575      Lab Filter Area (mm<sup>2</sup>) : 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>) : 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      9/30/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0
Chrysotile Structures	NA	Not Applicable	0
Actinolite Structures	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
x  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV542

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G5	1	E42	CDQ	1		Matrix 3-0	2.05	0.47	4.4	Chrysotile	Mg, Si			ASTM_Total, Chrys, ASTM_0.5-5.0
						ItemType						Confirmed		Comment
						Diffraction						SH 9/28/2021		0.53nm ROW SPACING
						Spectra						SH 9/28/2021		
						Brightfield								
G5	1	E42	CM	2		Fiber	0.7	0.1	7	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G5	2	F41	CD	3		Matrix 1-0	2.5	0.25	10	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G5	2	F41	ADQ	4		Fiber	2.5	0.5	5	Actinolite				ASTM_Total, Actin, ASTM_0.5-5.0
						ItemType						Confirmed		Comment
						Diffraction						SH 9/28/2021		0.53nm ROW SPACING
						Spectra						SH 9/28/2021		
						Brightfield								
G5	2	F41	CQ	5		Fiber	4.5	0.08	56.2	Chrysotile	Mg, Si			ASTM_Total, Chrys, ASTM_0.5-5.0
G5	2	F41	CM	6		Fiber	2	0.08	25	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G5	2	F41	CM	7		Fiber	1.3	0.07	18.6	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G6	3	F32	CM	8		Fiber	1.3	0.08	16.2	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G6	3	F32	CQ	9		Fiber	1.3	0.1	13	Chrysotile	Mg, Si			ASTM_Total, Chrys, ASTM_0.5-5.0
G6	3	F32	CM	10		Fiber	1.8	0.07	25.7	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G6	3	F32	CM	11		Matrix 3-0	4.5	3	1.5	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G6	4	G31	CM	12		Matrix 5-0	2.3	2	1.1	Chrysotile				ASTM_Total, Chrys, ASTM_0.5-5.0
G6	4	G31	CM	13		Bundle	6.2	0.3	20.7	Chrysotile				ASTM_>=5.0, ASTM_Total, Chrys
						ItemType						Confirmed		Comment
						Diffraction								F66220DF

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Ref. D5755-09

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S2

Client Sample No: MV543

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F41	CDQ	1	Fiber	7.7	0.09	85.6	Chrysotile	Mg, Si		Chrys, ASTM_>=5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F66221DF			SH 9/28/2021	0.53nm ROW SPACING		
					Spectra	F66221SP			SH 9/28/2021			
					Brightfield	F66221BF						
G3	1	F41	CQ	2	Matrix 2-1	7	2.6	2.7	Chrysotile	Mg, Si		Chrys, ASTM_>=5.0, ASTM_Total
G3	1	F41	CM	3	Fiber	5.5	0.09	61.1	Chrysotile			ASTM_>=5.0, Chrys, ASTM_Total
G3	1	F41	CQ	4	Fiber	0.6	0.06	10	Chrysotile	Mg, Si		Chrys, ASTM_Total, ASTM_0.5-5.0
G3	1	F41	CM	5	Fiber	2.8	0.07	40	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G3	1	F41	CM	6	Fiber	0.8	0.1	8	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G3	1	F41	CQ	7	Matrix 1-0	7	6	1.2	Chrysotile	Mg, Si		ASTM_>=5.0, Chrys, ASTM_Total
G3	1	F41	CM	8	Fiber	2	0.09	22.2	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G3	1	F41	CM	9	Matrix 1-0	9	6	1.5	Chrysotile			ASTM_>=5.0, Chrys, ASTM_Total
G3	2	F42	CM	10	Bundle	6	0.3	20	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G3	2	F42	CM	11	Fiber	2.2	0.06	36.7	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G3	2	F42	CM	12	Matrix 1-1	15	15	1	Chrysotile			ASTM_>=5.0, Chrys, ASTM_Total
G3	2	F42	CM	13	Fiber	2.5	0.06	41.7	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G3	2	F42	CM	14	Fiber	1.3	0.08	16.2	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G3	2	F42	CM	15	Fiber	1	0.07	14.3	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G4	3	C31	CM	16	Matrix 3-1	20	20	1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G4	3	C31	CM	17	Bundle	1.2	0.2	6	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G4	3	C31	CM	18	Matrix 1-0	12	6	2	Chrysotile			ASTM_>=5.0, Chrys, ASTM_Total
G4	3	C31	CM	19	Fiber	1.6	0.07	22.9	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G4	3	C31	CM	20	Fiber	2	0.08	25	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G4	3	C31	CM	21	Matrix 1-0	1.8	0.4	4.5	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G4	3	C31	CM	22	Matrix 2-1	10	10	1	Chrysotile			ASTM_>=5.0, Chrys, ASTM_Total
G4	4	C32	CM	23	Fiber	0.8	0.07	11.4	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S3

Client Sample No: MV544

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	E42			NSD							
G3	2	F41			NSD							
G4	3	G41	CDQ	1	Fiber	1.73	0.08	21.6	Chrysotile	Mg, Si, Ca		Chrys, ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F66222DF			SH 9/28/2021	0.53nm ROW SPACING		
					Spectra	F66222SP			SH 9/28/2021			
					Brightfield	F66222BF						
G4	4	F42			NSD							

Lab/Cor Sample No: S4

Client Sample No: MV545

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	E41			NSD							
G3	2	E42			NSD							
G4	3	F41			NSD							
G4	4	F42			NSD							
G3	5	G41			NSD							
G3	6	H31			NSD							
G3	7	H32			NSD							
G4	8	F51			NSD							
G4	9	F52			NSD							
G4	10	G51			NSD							

Lab/Cor Sample No: S5

Client Sample No: MV546

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	C42			NSD							
G3	2	E41			NSD							
G4	3	G41			NSD							
G4	4	G42			NSD							
G3	5	C43			NSD							
G3	6	C44			NSD							
G3	7	E43			NSD							
G4	8	G44			NSD							
G4	9	H43			NSD							
G4	10	H44			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S6

Client Sample No: MV547

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44	CM	1	Fiber	2	0.1	20	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum				Confirmed	Comment	
					Brightfield	J66230BF						
					Diffraction	J66230DF				SB 9/29/2021	0.53nm ROW SPACING	
					Spectra	J66230SP				SB 9/29/2021		
G1	2	G43	CDQ	2	Bundle	5.5	0.5	11	Chrysotile	Mg, Si		Chrys, ASTM_>=5.0, ASTM_Total
G1	3	H33	CM	3	Fiber	2	0.1	20	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G1	4	H41	CM	4	Bundle	2.5	0.2	12.5	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G1	4	H41	CM	5	Fiber	3	0.1	30	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G1	5	K41	CM	6	Fiber	5.5	0.1	55	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	6	E32			NSD							
G2	7	F31			NSD							
G2	8	F34			NSD							
G2	9	G33	CD	7	Fiber	5	0.2	25	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	10	E51	CM	8	Fiber	2.5	0.1	25	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G2	10	E51	CM	9	Bundle	4.5	0.2	22.5	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0

Lab/Cor Sample No: S7

Client Sample No: MV548

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	E44			NSD							
G3	2	F43			NSD							
G4	3	F44			NSD							
G4	4	G43			NSD							
G3	5	F42			NSD							
G3	6	G41			NSD							
G3	7	G42			NSD							
G4	8	C43			NSD							
G4	9	C44			NSD							
G4	10	E43			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S8

Client Sample No: MV549

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	F42			NSD							
G1	3	F34			NSD							
G1	4	C32			NSD							
G1	5	E31			NSD							
G2	6	E32			NSD							
G2	7	F31			NSD							
G2	8	F24			NSD							
G2	9	G23			NSD							
G2	10	G31			NSD							

Lab/Cor Sample No: S9

Client Sample No: MV550

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F54			NSD							
G1	2	G53			NSD							
G1	3	G62			NSD							
G1	4	E61			NSD							
G1	5	F32			NSD							
G2	6	G44			NSD							
G2	7	H43			NSD							
G2	8	H51			NSD							
G2	9	G34			NSD							
G2	10	H33			NSD							

Lab/Cor Sample No: S10

Client Sample No: MV551

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C52			NSD							
G1	2	E51			NSD							
G1	3	E62			NSD							
G1	4	F61			NSD							
G1	5	F54			NSD							
G2	6	G33			NSD							
G2	7	G41			NSD							
G2	8	H41			NSD							
G2	9	G32			NSD							
G2	10	G24			NSD							



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S11

Client Sample No: MV552

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F32			NSD							
G3	2	G31			NSD							
G3	3	G24			NSD							
G3	4	H23			NSD							
G3	5	K31			NSD							
G4	6	G44			NSD							
G4	7	H43			NSD							
G4	8	H51			NSD							
G4	9	E54			NSD							
G4	10	F53			NSD							

Lab/Cor Sample No: S12

Client Sample No: MV553

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	C42			NSD							
G3	2	E41			NSD							
G3	3	E32			NSD							
G3	4	F31			NSD							
G3	5	F24			NSD							
G4	6	G42			NSD							
G4	7	H41			NSD							
G4	8	H33			NSD							
G4	9	E44			NSD							
G4	10	F43			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA  
Client: PBS Engineering + Environmental

Ref. D5755-09

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S13  
Client Sample No: MV554  
Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B24	CDQ	1	Fiber	1.2	0.07	17.1	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total, Chrys
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F66234DF			SH 9/29/2021	0.53nm ROW SPACING		
					Spectra	F66234SP			SH 9/29/2021			
					Brightfield	F66234BF						
G1	1	B24	CM	2	Matrix 1-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	1	B24	CM	3	Matrix 1-0	2.8	2	1.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	1	B24	CM	4	Fiber	1.5	0.1	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G1	1	B24	CQ	5	Fiber	1	0.08	12.5	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0, Chrys
G1	1	B24	CM	6	Matrix 1-0	1.5	1.5	1	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	1	B24	CM	7	Matrix 1-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	1	B24	CQ	8	Fiber	13	0.08	162.5	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total, Chrys
G1	1	B24	CM	9	Fiber	1.7	0.08	21.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	1	B24	CM	10	Fiber	2	0.07	28.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	1	B24	CM	11	Fiber	2.3	0.08	28.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	2	C23	CM	12	Fiber	1.2	0.08	15	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	2	C23	CM	13	Fiber	6	0.07	85.7	Chrysotile			ASTM_>=5.0, Chrys, ASTM_Total
G1	2	C23	CM	14	Fiber	0.6	0.08	7.5	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	2	C23	CM	15	Fiber	0.8	0.07	11.4	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	2	C23	CM	16	Fiber	4.2	0.1	42	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	2	C23	CM	17	Fiber	3	0.08	37.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	2	C23	CM	18	Matrix 3-2	17	12	1.4	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G1	2	C23	CM	19	Matrix 1-1	13	1	13	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G1	2	C23	CM	20	Matrix 1-0	3	0.6	5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	2	C23	CQ	21	Bundle	1.5	0.45	3.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	2	C23	CM	22	Fiber	1.3	0.08	16.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	2	C23	CM	23	Fiber	3	0.07	42.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	3	C31	CD	24	Fiber	25	0.09	277.8	Chrysotile			ASTM_>=5.0, Chrys, ASTM_Total
G1	3	C31	CM	25	Fiber	3	0.08	37.5	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	3	C31	CM	26	Matrix 2-1	7	7	1	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G1	3	C31	CM	27	Fiber	0.7	0.07	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S13

Client Sample No: MV554

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	3	C31	CM	28	Fiber	2	0.4	5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	3	C31	CM	29	Matrix 1-0	2	1	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	3	C31	CD	30	Fiber	19	0.2	95	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
						ItemType	ItemNum			Confirmed	Comment	
						Diffraction	F66235DF					
G1	3	C31	CM	31	Matrix 6-2	30	15	2	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G1	3	C31	CM	32	Fiber	1	0.08	12.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	3	C31	CM	33	Bundle	7	0.5	14	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G1	3	C31	CM	34	Fiber	3	0.5	6	Chrysotile			Chrys, ASTM_0.5-5.0, ASTM_Total
G1	3	C31	CM	35	Fiber	1	0.07	14.3	Chrysotile			Chrys, ASTM_0.5-5.0, ASTM_Total
G1	4	G34	CM	36	Fiber	1.5	0.07	21.4	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G1	4	G34	CM	37	Matrix 1-0	2.5	2	1.2	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G1	4	G34	CM	38	Fiber	1	0.07	14.3	Chrysotile			Chrys, ASTM_0.5-5.0, ASTM_Total
G1	4	G34	CM	39	Matrix 1-0	5	3	1.7	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G1	4	G34	CM	40	Fiber	0.5	0.07	7.1	Chrysotile			Chrys, ASTM_0.5-5.0, ASTM_Total
G1	4	G34	CM	41	Matrix 3-0	15	15	1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	G34	CM	42	Matrix 1-0	8	7	1.1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	G34	CM	43	Fiber	0.7	0.07	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	4	G34	CM	44	Matrix 1-1	12	5	2.4	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	G34	CM	45	Matrix 1-1	9	4	2.2	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	G34	CM	46	Matrix 3-3	10	10	1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	G34	CQ	47	Matrix 2-0	3	0.8	3.8	Chrysotile	Mg Si		Chrys, ASTM_0.5-5.0, ASTM_Total
G1	4	G34	CM	48	Fiber	1.5	0.08	18.8	Chrysotile			Chrys, ASTM_0.5-5.0, ASTM_Total
G1	4	G34	CM	49	Matrix 1-0	3	0.5	6	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	4	G34	CM	50	Fiber	5.1	0.08	63.8	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	G34	CM	51	Fiber	8	0.09	88.9	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	G34	CM	52	Fiber	1.5	0.08	18.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	4	G34	CM	53	Fiber	3.5	0.08	43.8	Chrysotile			Chrys, ASTM_Total, ASTM_0.5-5.0
G1	4	G34	CM	54	Fiber	2.5	0.09	27.8	Chrysotile			Chrys, ASTM_0.5-5.0, ASTM_Total
G1	4	G34	CM	55	Bundle	2	0.2	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	4	G34	CM	56	Matrix 1-0	9	6	1.5	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S13

Client Sample No: MV554

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	4	G34	CM	57	Bundle	2	0.2	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G1	4	G34	CM	58	Fiber	0.8	0.08	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G1	4	G34	CM	59	Fiber	12	0.07	171.4	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G2	5	G42	CM	60	Matrix 1-0	2.5	2.5	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	61	Matrix 1-0	3	2	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	62	Cluster 3-0	2	2	1	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G2	5	G42	CM	63	Fiber	0.7	0.07	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G2	5	G42	CM	64	Matrix 1-0	2	2	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	65	Bundle	2.6	0.4	6.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	66	Matrix 4-0	3	3	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	67	Matrix 1-1	5.5	2	2.8	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G2	5	G42	CM	68	Fiber	2	0.08	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CQ	69	Matrix 1-1	6.5	5	1.3	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total, Chrys
G2	5	G42	CM	70	Fiber	1.5	0.07	21.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	71	Fiber	1.5	0.07	21.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	72	Fiber	1.5	0.08	18.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	73	Matrix 1-0	1.8	0.6	3	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	74	Matrix 1-1	14	5	2.8	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G2	5	G42	CM	75	Fiber	0.7	0.07	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CQ	76	Fiber	3	0.08	37.5	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	77	Fiber	1	0.09	11.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	78	Fiber	1.2	0.07	17.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	5	G42	CM	79	Fiber	1.6	0.09	17.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	80	Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	81	Fiber	1.2	0.08	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	82	Fiber	2.5	0.07	35.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	83	Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	84	Fiber	1.3	0.07	18.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	85	Fiber	1.4	0.09	15.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	86	Fiber	0.6	0.07	8.6	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S13

Client Sample No: MV554

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G2	6	H41	CM	87	Fiber	3	0.07	42.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	88	Matrix 2-0	3.5	2	1.8	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G2	6	H41	CQ	89	Bundle	4	0.5	8	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0, Chrys
G2	6	H41	CM	90	Fiber	0.7	0.07	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G2	6	H41	CM	91	Fiber	7	0.07	100	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G2	6	H41	CM	92	Fiber	1.3	0.07	18.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	93	Fiber	6.5	0.08	81.2	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G2	6	H41	CM	94	Fiber	2.6	0.08	32.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	95	Fiber	0.7	0.07	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	96	Fiber	0.8	0.07	11.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G2	6	H41	CD	97	Fiber	9	0.08	112.5	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G2	6	H41	CM	98	Fiber	2	0.08	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	99	Fiber	3	0.1	30	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	100	Fiber	2.8	0.1	28	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	101	Bundle	1.3	0.3	4.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CQ	102	Bundle	7	2	3.5	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total, Chrys
G2	6	H41	CM	103	Fiber	0.6	0.07	8.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	104	Fiber	1.3	0.07	18.6	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G2	6	H41	CM	105	Fiber	1	0.06	16.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	106	Fiber	1.3	0.09	14.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0, Chrys
G2	6	H41	CM	107	Fiber	5.2	0.07	74.3	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys
G2	6	H41	CM	108	Matrix 1-0	2.5	2	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	109	Fiber	1	0.07	14.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total, Chrys
G2	6	H41	CM	110	Fiber	7	0.08	87.5	Chrysotile			ASTM_>=5.0, ASTM_Total, Chrys

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S14

Client Sample No: MV555

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E32			NSD							
G1	2	F31			NSD							
G1	3	F32			NSD							
G1	4	G31			NSD							
G1	5	G32	ODQ	1	Bundle	9.12	1.04	8.8	Richterite	Na, Mg, Si, K, Ca, Fe		ASTMD_Other
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	F66236SP						
					Brightfield	F66236BF						
					Diffraction	F66236DF						
G2	6	H44			NSD							
G2	7	K43			NSD							
G2	8	K44			NSD							
G2	9	H54			NSD							
G2	10	K53			NSD							

Lab/Cor Sample No: S15

Client Sample No: MV556

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G1	3	F51			NSD							
G1	4	C34			NSD							
G1	5	E33			NSD							
G2	6	F42	CDQ	1	Fiber	5	0.1	50	Chrysotile	Mg, Si		Chrys, ASTM_>=5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Brightfield	J66232BF						
					Diffraction	J66232DF			SB 9/29/2021	0.53nm ROW SPACING		
					Spectra	J66232SP			SB 9/29/2021			
G2	6	F42	CM	2	Bundle	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	7	G41	CMQ	3	Fiber	2.5	0.1	25	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	7	G41	CM	4	Bundle	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	7	G41	CM	5	Fiber	2	0.1	20	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	8	G34			NSD							
G2	9	H33			NSD							
G2	10	F34	CMQ	6	Fiber	2.5	0.1	25	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S16

Client Sample No: MV557

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	C34			NSD							
G3	2	E33			NSD							
G3	3	E34			NSD							
G4	4	F41			NSD							
G4	5	F42			NSD							

Lab/Cor Sample No: S17

Client Sample No: MV558

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F41			NSD							
G3	2	F42			NSD							
G4	3	E34			NSD							
G4	4	F33			NSD							
G3	5	C32			NSD							
G3	6	E31			NSD							
G3	7	E32			NSD							
G4	8	C33			NSD							
G4	9	E33			NSD							
G4	10	F34			NSD							

Lab/Cor Sample No: S18

Client Sample No: MV559

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C34			NSD							
G1	2	E33			NSD							
G1	3	F42			NSD							
G1	4	F43			NSD							
G1	5	C52			NSD							
G2	6	C33			NSD							
G2	7	E41			NSD							
G2	8	E42			NSD							
G2	9	G43			NSD							
G2	10	G44			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S19

Client Sample No: MV560

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	E41			NSD							
G3	2	E42			NSD							
G4	3	F41			NSD							
G4	4	F42			NSD							
G3	5	F43			NSD							
G3	6	F44			NSD							
G3	7	G43			NSD							
G3	8	G44			NSD							
G4	9	E33			NSD							
G4	10	E34			NSD							



**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S20

Client Sample No: MV561

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E41	CDQ	1	Fiber	2.64	0.09	29.3	Chrysotile	Mg, Si, Ca		ASTM_0.5-5.0, Chrys, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F66237DF			SH 9/29/2021	0.53nm ROW SPACING		
					Spectra	F66237SP			SH 9/29/2021			
					Brightfield	F66237BF						
G1	2	E42	CD	2	Fiber	4	0.09	44.4	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	2	E42	CM	3	Fiber	3	0.08	37.5	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	3	F41	CM	4	Fiber	5.2	0.08	65	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	3	F41	CM	5	Fiber	10	0.1	100	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	4	F42	CD	6	Fiber	2.5	0.1	25	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F66238DF						
G1	4	F42	CM	7	Fiber	2.8	0.1	28	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	5	G41	CM	8	Matrix 1-0	2.8	0.15	18.7	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G1	5	G41	CM	9	Fiber	7	0.09	77.8	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G1	5	G41	CM	10	Fiber	5.5	0.11	50	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	6	C42	CQ	11	Fiber	9	0.08	112.5	Chrysotile	Mg, Si, Ca		Chrys, ASTM_>=5.0, ASTM_Total
G2	6	C42	CM	12	Fiber	6.5	0.08	81.2	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	7	E41	CM	13	Fiber	4.5	0.07	64.3	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	7	E41	CM	14	Fiber	6.5	0.08	81.2	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	8	E42	CM	15	Fiber	2.8	0.1	28	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	8	E42	CM	16	Fiber	5.5	0.08	68.8	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	8	E42	CQ	17	Matrix 3-0	4.5	3	1.5	Chrysotile	Mg, Si		ASTM_0.5-5.0, Chrys, ASTM_Total
G2	8	E42	CM	18	Matrix 2-1	5	5	1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	9	F41	CM	19	Fiber	2.5	0.08	31.2	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	9	F41	CM	20	Fiber	1.3	0.1	13	Chrysotile			ASTM_0.5-5.0, Chrys, ASTM_Total
G2	9	F41	CM	21	Fiber	5.3	0.07	75.7	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G2	10	G43			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA      Ref. D5755-09  
 Client: PBS Engineering + Environmental      Report Number: 210957R03  
 Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 9/27/2021

Lab/Cor Sample No: S21  
 Client Sample No: MV562  
 Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	G41			NSD							
G3	2	G42			NSD							
G4	3	E33			NSD							
G4	4	E34			NSD							
G3	5	G43			NSD							
G3	6	G44			NSD							
G3	7	H43			NSD							
G3	8	H44			NSD							
G4	9	E31			NSD							
G4	10	E32			NSD							

Lab/Cor Sample No: S22  
 Client Sample No: MV563  
 Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	H33			NSD							
G1	2	H34			NSD							
G2	3	F41			NSD							
G2	4	F42			NSD							

Lab/Cor Sample No: S23  
 Client Sample No: MV564  
 Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	C41	CDQ	1	Matrix 1-0	4.8	1.9	2.5	Chrysotile	Mg, Si		ASTM_0.5-5.0, Chrys, ASTM_Total
					ItemType	ItemNum				Confirmed	Comment	
					Diffraction	F66243DF				SH 9/29/2021	0.53nm ROW SPACING	
					Spectra	F66243SP				SH 9/29/2021		
					Brightfield	F66243BF						
G3	2	C44	CM	2	Fiber	8	0.08	100	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G4	3	E44			NSD							
G4	4	F43			NSD							
G4	5	E51			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S24

Client Sample No: MV565

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	C41	CD	1	Matrix 2-0	4.12	7.28	0.6	Chrysotile			ASTM_Total, Chrys, ASTM_0.5-5.0
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F66269DF			SH 9/30/2021	0.53nm ROW SPACING		
					Brightfield	F66269BF						
G7	1	C41	CQ	2	Matrix 1-0	2.5	0.5	5	Chrysotile	Mg, Si		Chrys, ASTM_0.5-5.0, ASTM_Total
G7	2	C42	CD	3	Matrix 2-0	7	5	1.4	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G7	3	E41	CQ	4	Matrix 2-0	6.5	1	6.5	Chrysotile	Mg, Si		Chrys, ASTM_>=5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	F66271SP						
					Brightfield	F66271BF						
G7	4	E42	CM	5	Matrix 5-1	15	15	1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G7	4	E42	CM	6	Matrix 2-1	10	10	1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G7	5	F41	CM	7	Matrix 2-1	13	0.7	18.6	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G8	6	E51			NSD							
G8	7	E52			NSD							
G8	8	F51	CDQ	8	Matrix 1-1	10	5	2	Chrysotile	Mg, Si, Fe		Chrys, ASTM_>=5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Diffraction	F66273DF			SH 9/30/2021	0.53nm ROW SPACING		
					Spectra	F66273SP			SH 9/30/2021			
					Brightfield	F66273BF						
G8	9	F42	CM	9	Matrix 4-1	12	7	1.7	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G8	9	F42	CM	10	Matrix 2-0	9	5	1.8	Chrysotile			ASTM_Total, Chrys, ASTM_>=5.0
G8	10	G41	CQ	11	Matrix 6-0	9	5	1.8	Chrysotile	Mg, Si		Chrys, ASTM_>=5.0, ASTM_Total
G8	10	G41	CM	12	Matrix 10-0	15	15	1	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total
G8	10	G41	CM	13	Matrix 2-1	7	5	1.4	Chrysotile			Chrys, ASTM_>=5.0, ASTM_Total

Lab/Cor Sample No: S25

Client Sample No: MV566

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	E51			NSD							
G3	2	E52			NSD							
G4	3	E41			NSD							
G4	4	E42			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S26

Client Sample No: MV567

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E41			NSD							
G1	2	E42			NSD							
G2	3	C42			NSD							
G2	4	E41			NSD							
G1	5	G44			NSD							
G1	6	H43			NSD							
G1	7	H44			NSD							
G1	8	K43			NSD							
G2	9	E44			NSD							
G2	10	F43			NSD							

Lab/Cor Sample No: S27

Client Sample No: MV568

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F31	CDQ	1	Bundle	3.81	2.96	1.3	Chrysotile	Mg, Al, Si, Ca, Fe		ASTM_Total, Chrys, ASTM_0.5-5.0
					ItemType	ItemNum				Confirmed	Comment	
					Diffraction	F66266DF				SH 9/30/2021	0.53nm ROW SPACING	
					Spectra	F66266SP				SH 9/30/2021		
					Brightfield	F66266BF						
G3	2	H42			NSD							
G4	3	C43			NSD							
G4	4	C51			NSD							

Lab/Cor Sample No: S28

Client Sample No: MV569

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E53			NSD							
G1	2	F61			NSD							
G2	3	G21			NSD							
G2	4	G41			NSD							
G1	5	G32			NSD							
G1	6	H54			NSD							
G2	7	F32			NSD							
G2	8	H41			NSD							
G2	9	E34			NSD							
G2	10	F54			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S29

Client Sample No: MV570

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F31			NSD							
G7	2	F32			NSD							
G7	3	G31			NSD							
G7	4	G33			NSD							
G7	5	G34			NSD							
G8	6	F43			NSD							
G8	7	F44			NSD							
G8	8	G43			NSD							
G8	9	G44			NSD							
G8	10	F42			NSD							

Lab/Cor Sample No: S30

Client Sample No: MV571

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G44			NSD							
G2	3	C42			NSD							
G2	4	E41			NSD							

Lab/Cor Sample No: S31

Client Sample No: MV572

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	C32			NSD							
G7	2	E31			NSD							
G7	3	F31			NSD							
G7	4	F32			NSD							
G8	5	C33			NSD							
G8	6	C34			NSD							
G8	7	E33			NSD							
G8	8	E34			NSD							
G8	9	F33			NSD							
G8	10	F34			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

Lab/Cor Sample No: S32

Client Sample No: MV573

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G34			NSD							
G1	2	H33			NSD							
G1	3	H41			NSD							
G1	4	G52			NSD							
G1	5	H51			NSD							
G2	6	C34			NSD							
G2	7	E33			NSD							
G2	8	E41			NSD							
G2	9	E32			NSD							
G2	10	F31			NSD							

Lab/Cor Sample No: S33

Client Sample No: MV574

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G1	3	F51			NSD							
G1	4	F32			NSD							
G1	5	G31			NSD							
G2	6	E34			NSD							
G2	7	F33			NSD							
G2	8	F41			NSD							
G2	9	F52			NSD							
G2	10	G51			NSD							

Lab/Cor Sample No: S34

Client Sample No: MV575

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F34			NSD							
G1	2	G33			NSD							
G1	3	E44			NSD							
G1	4	F43			NSD							
G1	5	F51			NSD							
G2	6	F34			NSD							
G2	7	G33			NSD							
G2	8	G24			NSD							
G2	9	H23			NSD							
G2	10	F43			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 210957      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210957R03

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/27/2021

**Count Categories**

Actin	Actinolite Structures	ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm
ASTM_Total	ASTM Total Asbestos >=0.5µm	ASTMD_Other	ASTM Libby-Other >0.5µm	Chrys	Chrysotile Structures

**Reviewed by:**

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 9/27/2021

Relinq'd by/Signature: \_\_\_\_\_

Date/Time: 9/27/2021

Received by/Signature: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Brian Stanford            | <input type="checkbox"/> Prudy Stoudt-McRae     | <input checked="" type="checkbox"/> Mike Smith |
| <input type="checkbox"/> Willem Mager              | <input type="checkbox"/> Janet Murphy           | <input type="checkbox"/> Ferman Fletcher       |
| <input checked="" type="checkbox"/> Gregg Middaugh | <input type="checkbox"/> Kaitlin Soukup         | <input type="checkbox"/> Ryan Hunter           |
| <input type="checkbox"/> Mark Hiley                | <input checked="" type="checkbox"/> Claire Tsai | <input type="checkbox"/> Michelle Dodson       |
| <input type="checkbox"/> Tim Ogden                 | <input type="checkbox"/> Holly Tuttle           | <input type="checkbox"/> _____                 |

**TURN AROUND TIME:**

- |                                  |  |                                      |
|----------------------------------|--|--------------------------------------|
| <input type="checkbox"/> 1 Hour  | <input type="checkbox"/> 24 Hours            | <input type="checkbox"/> 3 Days      |
| <input type="checkbox"/> 2 Hours | <input checked="" type="checkbox"/> 48 Hours | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> 4 Hours |  |                                      |

\*\*\*Report as presence or absence\*\*\*

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV542	Surface Dust	Mech 173 Panel F5RA Breaker 1	Labcor
MV543	Surface Dust	Mech 173 Panel F5RA Breaker 39	
MV544	Surface Dust	Mech 173 Fire alarm conduit to J box blank	
MV545	Surface Dust	Mech 173 Conduit to VFD with wires	
MV546	Surface Dust	Room 181A J-box to Mech 173 conduit with wire	
MV547	Surface Dust	Room 168 data/phone box	
MV548	Surface Dust	168 corridor data conduit with wire	
MV549	Surface Dust	Room 181 west light switch box	
MV550	Surface Dust	Room 181 light switch conduit J-box to F5LA #6	
MV551	Surface Dust	Room 169 light switch north wall	
MV552	Surface Dust	Room 169 data box east wall	
MV553	Surface Dust	Room 181 middle room data box	
MV554	Surface Dust	Receptacle box across from Room 184 north wall	
MV555	Surface Dust	Receptacle box room 169 east wall	
MV556	Surface Dust	Receptacle box 181A adjacent to door of 181B	
MV557	Surface Dust	Data box – adjacent to O260 door	
MV558	Surface Dust	Data conduit – adjacent to O260 door	
MV559	Surface Dust	Light switch – O269 – North wall	
MV560	Surface Dust	Light switch conduit – O269 ->H6CA	





## LABORATORY CHAIN OF CUSTODY

MV561	Surface Dust	Receptacle box – 284A – NW wall	
MV562	Surface Dust	Receptacle conduit – 284A – HCRB, breaker 12+26	
MV563	Surface Dust	Receptacle box – 270 – SW wall	
MV564	Surface Dust	Data box – O283 – South wall – by piano	
MV565	Surface Dust	Light switch – Corridor of O269-271 – South wall	
MV566	Surface Dust	Receptacle box – O324	
MV567	Surface Dust	Receptacle conduit – O324 -> H7RB	
MV568	Surface Dust	Light switch – Break/printer room of O330	
MV569	Surface Dust	Light switch conduit – Break/printer room of O330 -> H7LA	
MV570	Surface Dust	Data box – 3 <sup>rd</sup> Fl. student lounge – E. wall	
MV571	Surface Dust	Data box conduit – 3 <sup>rd</sup> Fl. student lounge – E. wall -> floor plenum	
MV572	Surface Dust	Receptacle box – Office room O334/O335	
MV573	Surface Dust	Light switch – 3 <sup>rd</sup> Fl. IDF room -> J-box-> H7LA	
MV574	Surface Dust	Data box – O323 – SE wall.	
MV575	--	Field Blank	

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210967**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 210967R01**  
**Report Date: 10/1/2021**

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:
210967 - S1	MV576 -	ASTM D 5755-09 - Microvac		9/30/2021

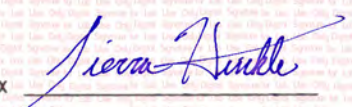
ASTM D 5755-09 - Microvac - Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Sierra Hinkle**  
**Technician/Analyst**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210967      SEA  
 Client: PBS Engineering + Environmental

Report Number: 210967R01  
 Date Received: 9/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Client Sample No.: MV576      Lab Filter Area (mm<sup>2</sup>): 289.38  
 Description:      Grid Openings Analyzed : 4  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area : 0.012  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.048  
 Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 803.833  
 Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH      10/1/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
 X  
 Sierra Hinkle  
 Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 210967      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 210967R01  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 9/30/2021  
**Project No.:** 40535.488

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV576  
**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	C31				NSD							
G5	2	H44				NSD							
G6	3	G44				NSD							
G6	4	H43				NSD							

Count Categories			
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm
ASTMD_Other	ASTM Libby-Other >0.5µm	ASTM_Total	ASTM Total Asbestos >=0.5µm

**Reviewed by:**

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst



# LABORATORY CHAIN OF CUSTODY

210967

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 9/28/2021

Relinqu'd by/Signature: Claire Tsai

Date/Time: 9/28/2021

Received by/Signature: [Signature]

Date/Time: 9/30/21 8:00 AM

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Brian Stanford            | <input type="checkbox"/> Prudy Stoudt-McRae     | <input checked="" type="checkbox"/> Mike Smith |
| <input type="checkbox"/> Willem Mager              | <input type="checkbox"/> Janet Murphy           | <input type="checkbox"/> Ferman Fletcher       |
| <input checked="" type="checkbox"/> Gregg Middaugh | <input type="checkbox"/> Kaitlin Soukup         | <input type="checkbox"/> Ryan Hunter           |
| <input type="checkbox"/> Mark Hiley                | <input checked="" type="checkbox"/> Claire Tsai | <input type="checkbox"/> Michelle Dodson       |
| <input type="checkbox"/> Tim Ogden                 | <input type="checkbox"/> Holly Tuttle           | <input type="checkbox"/> _____                 |

**TURN AROUND TIME:**

- |                                  |  |                                      |
|----------------------------------|--|--------------------------------------|
| <input type="checkbox"/> 1 Hour  | <input type="checkbox"/> 24 Hours            | <input type="checkbox"/> 3 Days      |
| <input type="checkbox"/> 2 Hours | <input checked="" type="checkbox"/> 48 Hours | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> 4 Hours |  |                                      |

LOD<1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV576	Dust - 100cm2 area	Mech 173 Jace unit	Labcor

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 210966**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 210966R01**

**Report Date: 9/30/2021**

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:
210966 - S1	MV577 -	ASTM D 5755-09 - Microvac		9/30/2021

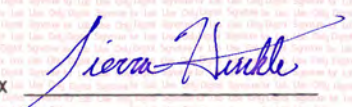
ASTM D 5755-09 - Microvac - Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Sierra Hinkle**  
 Technician/Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 210966      SEA      Report Number: 210966R01  
Client: PBS Engineering + Environmental      Date Received: 9/30/2021  
Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV577      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 12  
Filter Fraction: 1      Aliquot Dilution: 0.0125      Average Grid Opening Area: 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.0125      Area Analyzed (mm<sup>2</sup>): 0.144  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 1607.667  
Volume Taken: 0.25 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      9/30/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 1607.667	0 - 5930.682 - Poisson	0
ASTM Asbestos >=5.0µm	1607.667	40.192 - 8957.919 - Poisson	1
ASTM Libby-Other >0.5µm	< 1607.667	0 - 5930.682 - Poisson	0
ASTM Total Asbestos >=0.5µm	1607.667	40.192 - 8957.919 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
X  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 210966      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 210966R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/30/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV577

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	C52				NSD							
G5	2	E51				NSD							
G5	3	E52				NSD							
G5	4	F51				NSD							
G5	5	F52				NSD							
G5	6	G51				NSD							
G5	7	G52				NSD							
G6	8	E32				NSD							
G6	9	G31				NSD							
G6	10	G32				NSD							
G6	11	H31				NSD							
G6	12	E33	CDQ	1		Fiber	5.59	0.1	55.9	Chrysotile	Mg, Si, Ca		ASTM_>=5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Diffraction	F66312DF			SH 9/30/2021	0.53nm ROW SPACING; Very faint diffraction		
						Spectra	F66312SP			SH 9/30/2021			
						Brightfield	F66312BF						

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Sierra Hinkle*  
X  
Sierra Hinkle  
Technician/Analyst





# LABORATORY CHAIN OF CUSTODY

210966

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 9/28/2021

Relinquish'd by/Signature: *Michelle Tsai*

Date/Time: 9/28/2021

Received by/Signature: *[Signature]*

Date/Time: 9/30/21 8:00 am

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Brian Stanford            | <input type="checkbox"/> Prudy Stoudt-McRae     | <input checked="" type="checkbox"/> Mike Smith |
| <input type="checkbox"/> Willem Mager              | <input type="checkbox"/> Janet Murphy           | <input type="checkbox"/> Ferman Fletcher       |
| <input checked="" type="checkbox"/> Gregg Middaugh | <input type="checkbox"/> Kaitlin Soukup         | <input type="checkbox"/> Ryan Hunter           |
| <input type="checkbox"/> Mark Hiley                | <input checked="" type="checkbox"/> Claire Tsai | <input type="checkbox"/> Michelle Dodson       |
| <input type="checkbox"/> Tim Ogden                 | <input type="checkbox"/> Holly Tuttle           | <input type="checkbox"/> _____                 |

**TURN AROUND TIME:**

- |                                  |  |                                       |
|----------------------------------|--|---------------------------------------|
| <input type="checkbox"/> 1 Hour  | <input checked="" type="checkbox"/> 24 Hours | <input type="checkbox"/> 3 Days       |
| <input type="checkbox"/> 2 Hours | <input type="checkbox"/> 48 Hours            | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> 4 Hours |  |                                       |

LOD<1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV577	Dust - 100cm2 area	3rd Fl. Student lounge sub-floor	Labcor

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax Verbal USPS Email

Invoice Released: \_\_\_\_\_

Fax USPS Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 211001**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 211001R01**

**Report Date: 10/7/2021**

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:
211001 - S1	MV578 -	ASTM D 5755-09 - Microvac		10/5/2021
211001 - S2	MV579 -	ASTM D 5755-09 - Microvac		10/5/2021
211001 - S3	MV580 -	ASTM D 5755-09 - Microvac		10/5/2021
211001 - S4	MV581 -	ASTM D 5755-09 - Microvac		10/5/2021

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Sierra Hinkle**  
**Technician/Analyst**

### ASTM D 5755-09 - Microvac Final Report

Job Number: 211001      SEA  
Client: PBS Engineering + Environmental

Report Number: 211001R01  
Date Received: 10/5/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV578	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed: 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area: 0.012
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SH	10/7/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup>	Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0	
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0	
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0	
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0	

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV579	Lab Filter Area (mm <sup>2</sup> ): 289.38
Description:	Grid Openings Analyzed: 4
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Average Grid Opening Area: 0.012
Volume Taken: 1.5 ml	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SH	10/7/2021	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup>	Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0	
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0	
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0	
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0	

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 211001      SEA  
Client: PBS Engineering + Environmental

Report Number: 211001R01  
Date Received: 10/5/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV580      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 803.833  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      10/7/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV581      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 4  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.048  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 803.833  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SH      10/7/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	803.833	20.096 - 4478.959 - Poisson	1
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	803.833	20.096 - 4478.959 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
x  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 211001      SEA      Ref. D5755-09  
 Client: PBS Engineering + Environmental      Report Number: 211001R01  
 Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 10/5/2021  
 Project No.: 40535.488

Lab/Cor Sample No: S1  
 Client Sample No: MV578  
 Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	F41				NSD							
G5	2	F42				NSD							
G6	3	G31				NSD							
G6	4	G32				NSD							

Lab/Cor Sample No: S2  
 Client Sample No: MV579  
 Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F33				NSD							
G3	2	F34				NSD							
G4	3	E32				NSD							
G4	4	F31				NSD							

Lab/Cor Sample No: S3  
 Client Sample No: MV580  
 Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	E43				NSD							
G3	2	E44				NSD							
G4	3	F52				NSD							
G4	4	G51				NSD							

Lab/Cor Sample No: S4  
 Client Sample No: MV581  
 Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F43				NSD							
G3	2	F44				NSD							
G4	3	E42	ADQ	1		Matrix 1-0	3.47	1.08	3.2	Actinolite	Mg, Al, Si, Ca, Ti, Fe		ASTM_Total, ASTM_0.5-5.0
						ItemType	ItemNum				Confirmed	Comment	
						Diffraction	F66644DF				SH 10/7/2021	0.53nm ROW SPACING	
						Spectra	F66644SP				SH 10/7/2021		
						Brightfield	F66644BF						
G4	4	E41				NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 211001 SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 211001R01

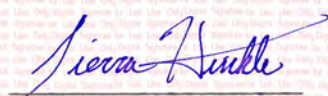
Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 10/5/2021

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=5.0µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

  
X  
Sierra Hinkle  
Technician/Analyst



# LABORATORY CHAIN OF CUSTODY

211001

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 10/5/2021

Relinquished by/Signature: *Claire Tsai*

Date/Time: 10/5/2021

Received by/Signature: *Jessie Dunkle*

Date/Time: 10/5/21 16:07

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Brian Stanford            | <input type="checkbox"/> Prudy Stoudt-McRae     | <input checked="" type="checkbox"/> Mike Smith |
| <input type="checkbox"/> Willem Mager              | <input type="checkbox"/> Janet Murphy           | <input type="checkbox"/> Ferman Fletcher       |
| <input checked="" type="checkbox"/> Gregg Middaugh | <input type="checkbox"/> Kaitlin Soukup         | <input type="checkbox"/> Ryan Hunter           |
| <input type="checkbox"/> Mark Hiley                | <input checked="" type="checkbox"/> Claire Tsai | <input type="checkbox"/> Michelle Dodson       |
| <input type="checkbox"/> Tim Ogden                 | <input type="checkbox"/> Holly Tuttle           | <input type="checkbox"/> _____                 |

**TURN AROUND TIME:**

- |                                  |                                   |  |
|----------------------------------|-----------------------------------|--|
| <input type="checkbox"/> 1 Hour  | <input type="checkbox"/> 24 Hours | <input checked="" type="checkbox"/> 3 Days |
| <input type="checkbox"/> 2 Hours | <input type="checkbox"/> 48 Hours | <input type="checkbox"/> Other _____       |
| <input type="checkbox"/> 4 Hours |                                   |  |

LOD<1000

### SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV578	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11335	Labcor
MV579	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11341	
MV580	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11406	
MV581	Dust - 100cm2 area	Mech Room 173 Johnson Control HVAC control RY11408	

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 211012**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 211012R01**

**Report Date: 10/14/2021**

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:
211012 - S1	MV582 -	ASTM D 5755-09 - Microvac		10/11/2021


ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Sierra Hinkle**  
 Technician/Analyst



**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 211012      **SEA**      **Report Number:** 211012R01  
**Client:** PBS Engineering + Environmental      **Date Received:** 10/11/2021  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S1      **Sample Area/Mass/Volume (cm<sup>2</sup>):** 100  
**Client Sample No.:** MV582      **Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Description:**      **Grid Openings Analyzed :** 4  
**Filter Fraction:** 1      **Aliquot Dilution:** 0.075      **Average Grid Opening Area :** 0.012  
**Residual Ash Vol:** 20 ml      **Final Dilution:** 0.075      **Area Analyzed (mm<sup>2</sup>):** 0.048  
**Begin Volume:** 20 ml      **Analytical Sens. (struc/cm<sup>2</sup>):** 803.833  
**Volume Taken:** 1.5 ml

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SH      10/14/2021      Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 211012      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 211012R01  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 10/11/2021  
**Project No.:** 40535.488

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV582  
**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	F32			NSD							
G5	2	E43			NSD							
G6	3	F34			NSD							
G6	4	E43			NSD							

Count Categories			
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm
ASTMD_Other	ASTM Libby-Other >0.5µm	ASTM_Total	ASTM Total Asbestos >=0.5µm

**Reviewed by:**

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst



LABORATORY CHAIN OF CUSTODY

211012

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 10/8/2021

Relinq'd by/Signature: Peter Stensdod [Signature]

Date/Time: 10/8/2021

Received by/Signature: [Signature]

Date/Time: 10/11/21 0930

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

E-mail results to:

Brian Stanford

Willem Mager

Gregg Middaugh

Mark Hiley

Tim Ogden

Prudy Stoudt-McRae

Janet Murphy

Kaitlin Soukup

Claire Tsai

Holly Tuttle

Mike Smith

Ferman Fletcher

Ryan Hunter

Michelle Dodson

\_\_\_\_\_

TURN AROUND TIME:

1 Hour

2 Hours

4 Hours

24 Hours

48 Hours

3 Days

Other \_\_\_\_\_

LOD<1000

SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV582	Dust - 100cm2 area	Olympic South Room 285A Inside Guitar	Labcor

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 211028**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 211028R01**

**Report Date: 10/21/2021**

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

Lab/Cor Sample #	Client Sample Number	Analysis	Analysis Notes	Date Received:
211028 - S1	MV583 -	ASTM D 5755-09 - Microvac	Sample was ashed and hydrolyzed to reduce background. Some fiberglass/MMVF fibers present in prep, also present in analysis.	10/15/2021
211028 - S2	MV584 -	ASTM D 5755-09 - Microvac	Sample was ashed and hydrolyzed to reduce background.	10/15/2021

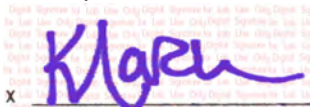
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Kate March**  
**Quality Control Officer**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 211028      SEA      Report Number: 211028R01  
Client: PBS Engineering + Environmental      Date Received: 10/15/2021  
Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV583      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.005      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.005      Area Analyzed (mm<sup>2</sup>): 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 4823  
Volume Taken: 0.1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      10/21/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	9646	1167.166 - 34846.175 - Poisson	2
ASTM Asbestos >=5.0µm	< 4823	0 - 17792.047 - Poisson	0
ASTM Libby-Other >0.5µm	< 4823	0 - 17792.047 - Poisson	0
ASTM Total Asbestos >=0.5µm	9646	1167.166 - 34846.175 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV584      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed : 10  
Filter Fraction: 1      Aliquot Dilution: 0.00125      Average Grid Opening Area : 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.00125      Area Analyzed (mm<sup>2</sup>): 0.12  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 19292  
Volume Taken: 0.025 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      10/21/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	19292	482.3 - 107495.024 - Poisson	1
ASTM Asbestos >=5.0µm	< 19292	0 - 71168.188 - Poisson	0
ASTM Libby-Other >0.5µm	< 19292	0 - 71168.188 - Poisson	0
ASTM Total Asbestos >=0.5µm	19292	482.3 - 107495.024 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
X  
Kate March  
Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 211028      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 211028R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 10/15/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV583

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	C24				NSD							
G5	2	E23				NSD							
G5	3	E24				NSD							
G5	4	F23				NSD							
G5	5	G23	CDQ	1		Fiber	0.56	0.1	5.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J66973BF						
						Diffraction	J66973DF			SB	10/21/2021	0.53nm ROW SPACING	
						Spectra	J66973SP			SB	10/21/2021		
G5	6	G24				NSD							
G5	7	B31				NSD							
G5	8	B32	CD	2		Fiber	0.54	0.1	5.4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J66974BF						
G5	9	C31				NSD							
G5	10	C32				NSD							

Lab/Cor Sample No: S2

Client Sample No: MV584

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	C42				NSD							
G3	2	E41				NSD							
G3	3	E42				NSD							
G3	4	F41				NSD							
G3	5	F42				NSD							
G3	6	G41				NSD							
G3	7	G42				NSD							
G3	8	H41				NSD							
G3	9	H42	CDQ	1		Matrix	3.8	1.9	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J67006BF						
						Diffraction	J67006DF			SB	10/21/2021	0.53nm ROW SPACING, Very Faint DF	
						Spectra	J67006SP			SB	10/21/2021		
G3	10	H43				NSD							

---

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

**Job Number: 211028      SEA**

**Ref. D5755-09**

**Client: PBS Engineering + Environmental**

**Report Number: 211028R01**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Date Received: 10/15/2021**

**Count Categories**

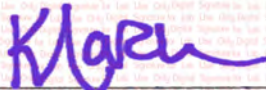
---

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

---

---

**Reviewed by:**

Digitally signed by Kate March, DN: cn=Kate March, o=Lab/Cor, ou=Lab/Cor, email=kate@labcor.net, c=US  
  
**X Kate March**  
**Quality Control Officer**





**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 211080**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 211080R01**

**Report Date: 11/3/2021**

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

Lab/Cor Sample #	Client Sample Number	Analysis	Analysis Notes	Date Received:
211080 - S1	MV585 -	ASTM D 5755-09 - Microvac		11/1/2021
211080 - S2	MV586 -	ASTM D 5755-09 - Microvac		11/1/2021

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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

**Kate March**  
**Quality Control Officer**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 211080      SEA  
Client: PBS Engineering + Environmental

Report Number: 211080R01  
Date Received: 11/1/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV585      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 6  
Filter Fraction: 1      Aliquot Dilution: 0.05      Average Grid Opening Area: 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.05      Area Analyzed (mm<sup>2</sup>): 0.072  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 803.833  
Volume Taken: 1 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      11/3/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

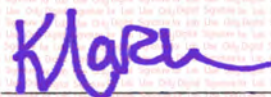
<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2      Sample Area/Mass/Volume (cm<sup>2</sup>): 0  
Client Sample No.: MV586      Lab Filter Area (mm<sup>2</sup>): 289.38  
Description:      Grid Openings Analyzed: 6  
Filter Fraction: 1      Aliquot Dilution: 0.075      Average Grid Opening Area: 0.012  
Residual Ash Vol: 20 ml      Final Dilution: 0.075      Area Analyzed (mm<sup>2</sup>): 0.072  
Begin Volume: 20 ml      Analytical Sens. (struc/cm<sup>2</sup>): 0  
Volume Taken: 1.5 ml

Analyst(s)      Analysis Date      Microscope      Magnification  
SB      11/3/2021      JEOL-Sr 1200      20000  
KM      11/3/2021      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
Kate March  
Quality Control Officer

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 211080      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 211080R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 11/1/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV585

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	E32				NSD							
G5	2	F33				NSD							
G5	3	F42				NSD							
G6	4	F44				NSD							
G6	5	G51				NSD							
G6	6	H62				NSD							

Lab/Cor Sample No: S2

Client Sample No: MV586

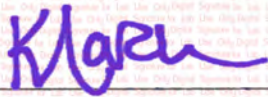
Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B34				NSD							
G1	2	C44				NSD							
G2	3	F44				NSD							
G2	4	G52				NSD							
G1	5	F52				NSD							
G1	6	G51				NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

Reviewed by:



**Kate March**  
 Quality Control Officer

211080



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 11/1//2021

Relinqu'd by/Signature: Peter Stensland *Peter Stensland*

Date/Time: 11/1/2021

Received by/Signature: *[Signature]*

Date/Time: 11/2/21 8am

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Hoily Tuttle
- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Michelle Dodson

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 3 Days
- Other \_\_\_\_\_

LOD<1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV585	Dust - 100cm2 area	Olympic South Room 168 Wooden Clock Inside Case	Labcor
M V586	--	Field Blank	

Reviewed by: \_\_\_\_\_  
 Results Released: \_\_\_\_\_  
 Fax Verbal USPS Email  
 Invoice Released: \_\_\_\_\_  
 Fax USPS Email

~~Reviewed by: \_\_\_\_\_  
 Results Released: \_\_\_\_\_  
 Fax Verbal USPS Email  
 Invoice Released: \_\_\_\_\_  
 Fax USPS Email~~

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220006  
**Client:** PBS Engineering + Environmental  
**Address:** 214 E Galer Street  
 Seattle, WA 98102  
**Project Name:** Pierce College Olympic South Abatement and Repairs  
**Project No.:** 40535.488  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number:** 220006R02  
**Report Date:** 1/10/2022

**Report Note:** REVISED: The 0.5ml Aloquat was used during analysis, but incorrectly entered into the 0.25ml Aloquat in R01.

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220006 - S1	MV587	ASTM D 5755-09 - Microvac		1/5/2022
220006 - S2	MV588	ASTM D 5755-09 - Microvac		1/5/2022
220006 - S3	MV589	ASTM D 5755-09 - Microvac		1/5/2022

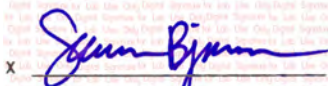
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Shauna Bjornson**  
 Analyst

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220006      SEA  
Client: PBS Engineering + Environmental

Report Number: 220006R02  
Date Received: 1/5/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV587	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.0125
Residual Ash Vol: 20 ml	Final Dilution: 0.0125
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.25 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 1929.2

Analyst(s)	Analysis Date	Microscope	Magnification
SB	1/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	3858.4	466.866 - 13938.47 - Poisson	2
ASTM Asbestos >=5.0µm	< 1929.2	0 - 7116.819 - Poisson	0
ASTM Libby-Other >0.5µm	< 1929.2	0 - 7116.819 - Poisson	0
ASTM Total Asbestos >=0.5µm	3858.4	466.866 - 13938.47 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV588	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	1/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 964.6	0 - 3558.409 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

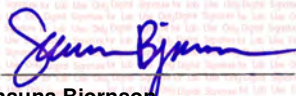
**Job Number:** 220006      **SEA**      **Report Number:** 220006R02  
**Client:** PBS Engineering + Environmental      **Date Received:** 1/5/2022  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S3      **Sample Area/Mass/Volume (cm<sup>2</sup>):** 0  
**Client Sample No.:** MV589      **Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Filter Fraction:** 1      **Aliquot Dilution:** 0.075      **Grid Openings Analyzed:** 10  
**Residual Ash Vol:** 20 ml      **Final Dilution:** 0.075      **Average Grid Opening Area:** 0.012  
**Begin Volume:** 20 ml      **Area Analyzed (mm<sup>2</sup>):** 0.12  
**Volume Taken:** 1.5 ml      **Analytical Sens. (struc/cm<sup>2</sup>):** 0

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SB      1/10/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
 X \_\_\_\_\_  
**Shauna Bjornson**  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220006      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220006R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/5/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV587

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G10	1	F24				NSD								
G10	2	F22				NSD								
G10	3	G31				NSD								
G10	4	E34				NSD								
G10	5	C41				NSD								
G10	6	E41	CDQ	1		Fiber	4	0.1	40	Chrysotile	Mg, Si			ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum		Confirmed		Comment			
						Brightfield	J67398BF							
						Diffraction	J67398DF		SB 1/10/2022		0.53nm ROW SPACING			
						Spectra	J67398SP							
G11	7	F32	CD	2		Matrix 1-0	2.5	2.5	1	Chrysotile		1/0		ASTM_0.5-5.0, ASTM_Total
G11	8	G31				NSD								
G11	9	H34				NSD								
G11	10	H41				NSD								

Lab/Cor Sample No: S2

Client Sample No: MV588

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G13	1	E32				NSD								
G13	2	F31				NSD								
G13	3	F24				NSD								
G13	4	G23				NSD								
G13	5	G32				NSD								
G14	6	F44				NSD								
G14	7	G43				NSD								
G14	8	C34				NSD								
G14	9	E33				NSD								
G14	10	E41				NSD								



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220006      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220006R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/5/2022

Lab/Cor Sample No: S3

Client Sample No: MV589

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C34				NSD							
G4	2	E33				NSD							
G4	3	E41				NSD							
G4	4	H44				NSD							
G4	5	H52				NSD							
G5	6	F42				NSD							
G5	7	G41				NSD							
G5	8	G33				NSD							
G5	9	C44				NSD							
G5	10	E43				NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
 X

**Shauna Bjornson**  
 Analyst

220006



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 1/5/2022

Relinq'd by/Signature: *Uma Tani*

Date/Time: 1/5/2022

Received by/Signature: *[Signature]*

Date/Time: 1/5/22 5pm

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Ryan Hunter
- Prudy Stoudt-McRae

- Janet Murphy
- Kaitlin Soukup
- Allison Welch
- Toan Nguyen
- Peter Stensland
- Claire Tsai

- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Cameron Budnick
- Kameron DeMonnin
- \_\_\_\_\_

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours

- 24 Hours
- 48 Hours

- 3 Days
- Other \_\_\_\_\_

LOD <1000

### SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV587	Dust area 100cm <sup>2</sup>	Olympic South, East Elevation subgrade power vault fire conduit	Labcor
MV588	Dust area 100cm <sup>2</sup>	Olympic South, East Elevation subgrade power vault power conduit	
MV589	--	Field Blank	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbal    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220005**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220005R01**  
**Report Date: 1/6/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220005 - S1	MV590	ASTM D 5755-09 - Microvac	Many Mg-Al-Si fibers present	1/5/2022

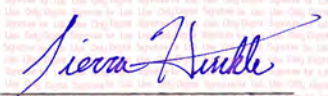
ASTM D 5755-09 - Microvac - Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_  
**Sierra Hinkle**  
**Technician/Analyst**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220005      SEA      Report Number: 220005R01  
Client: PBS Engineering + Environmental      Date Received: 1/5/2022  
Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Client Sample No.: MV590      Lab Filter Area (mm<sup>2</sup>): 289.38  
Filter Fraction: 1      Aliquot Dilution: 0.0025      Grid Openings Analyzed: 10  
Residual Ash Vol: 20 ml      Final Dilution: 0.0025      Average Grid Opening Area: 0.012  
Begin Volume: 20 ml      Area Analyzed (mm<sup>2</sup>): 0.12  
Volume Taken: 0.05 ml      Analytical Sens. (struc/cm<sup>2</sup>): 9646

Analyst(s)	Analysis Date	Microscope	Magnification
SH	1/6/2022	Hitachi 7000FA	20000
SB	1/6/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 9646	0 - 35584.094 - Poisson	0
ASTM Asbestos >=5.0µm	9646	241.15 - 53747.512 - Poisson	1
ASTM Libby-Other >0.5µm	< 9646	0 - 35584.094 - Poisson	0
ASTM Total Asbestos >=0.5µm	9646	241.15 - 53747.512 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 220005      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 220005R01  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 1/5/2022  
**Project No.:** 40535.488

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV590

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G8	1	C24			NSD							
G8	2	E23			NSD							
G8	3	F23			NSD							
G8	4	F24			NSD							
G8	5	G23			NSD							
G8	6	G24			NSD							
G8	7	H23			NSD							
G8	8	H24			NSD							
G7	9	C33	CDQ	1	Bundle	12.4	0.7	17.7	Chrysotile	Mg, Si		ASTM_>=5.0, ASTM_Total
					ItemType	ItemNum			Confirmed		Comment	
					Diffraction	F67391DF			SH 1/6/2022		0.53nm ROW SPACING	
					Spectra	F67391SP			SH 1/6/2022			
					Brightfield	F67391BF						
G7	10	C34			NSD							

Count Categories					
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Sierra Hinkle*  
 X  
**Sierra Hinkle**  
 Technician/Analyst



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220014**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220014R01**  
**Report Date: 1/10/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220014 - S1	MV591	ASTM D 5755-09 - Microvac		1/7/2022
220014 - S2	MV592	ASTM D 5755-09 - Microvac		1/7/2022
220014 - S3	MV593	ASTM D 5755-09 - Microvac		1/7/2022

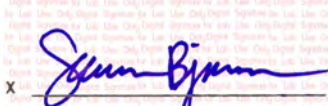
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Shauna Bjornson**  
 Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220014      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220014R01  
 Date Received: 1/7/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV591	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/7/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 964.6	0 - 3558.409 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV592	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/7/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 964.6	0 - 3558.409 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220014      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220014R01  
 Date Received: 1/7/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Client Sample No.: MV593      Lab Filter Area (mm<sup>2</sup>): 289.38  
 Filter Fraction: 1      Aliquot Dilution: 0.005      Grid Openings Analyzed : 49  
 Residual Ash Vol: 20 ml      Final Dilution: 0.005      Average Grid Opening Area : 0.012  
 Begin Volume: 20 ml      Area Analyzed (mm<sup>2</sup>): 0.588  
 Volume Taken: 0.1 ml      Analytical Sens. (struc/cm<sup>2</sup>): 984.286

Analyst(s)	Analysis Date	Microscope	Magnification
SB	1/7/2022	JEOL-Sr 1200	20000
SB	1/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 984.286	0 - 3631.03 - Poisson	0
ASTM Asbestos >=5.0µm	< 984.286	0 - 3631.03 - Poisson	0
ASTM Libby-Other >0.5µm	< 984.286	0 - 3631.03 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 984.286	0 - 3631.03 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Shauna Bjornson*  
 X  
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220014      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220014R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/7/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV591

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	F42			NSD							
G10	2	G41			NSD							
G10	3	G33			NSD							
G10	4	E32			NSD							
G10	5	E24			NSD							
G11	6	F42			NSD							
G11	7	G41			NSD							
G11	8	G33			NSD							
G11	9	H51			NSD							
G11	10	H43			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV592

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	E42			NSD							
G10	2	F41			NSD							
G10	3	F33			NSD							
G10	4	G42			NSD							
G10	5	H41			NSD							
G11	6	F44			NSD							
G11	7	G43			NSD							
G11	8	G51			NSD							
G11	9	E32			NSD							
G11	10	F31			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220014      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220014R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/7/2022

Lab/Cor Sample No: S3

Client Sample No: MV593

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C24				NSD							
G10	2	F24				NSD							
G10	3	G23				NSD							
G10	4	F32				NSD							
G10	5	E32				NSD							
G11	6	K43				NSD							
G11	7	H44				NSD							
G11	8	H43				NSD							
G11	9	G44				NSD							
G11	10	G43				NSD							
G10	11	C34				NSD							
G10	12	E33				NSD							
G10	13	F33				NSD							
G10	14	G34				NSD							
G10	15	H33				NSD							
G10	16	H34				NSD							
G10	17	K33				NSD							
G10	18	K34				NSD							
G10	19	K41				NSD							
G10	20	H41				NSD							
G10	21	F42				NSD							
G10	22	F41				NSD							
G10	23	E42				NSD							
G10	24	E41				NSD							
G10	25	C42				NSD							
G10	26	C41				NSD							
G10	27	B44				NSD							
G10	28	C43				NSD							
G10	29	C44				NSD							
G10	30	E43				NSD							
G10	31	E44				NSD							
G10	32	F44				NSD							
G10	33	G43				NSD							
G10	34	G44				NSD							
G11	35	C33				NSD							
G11	36	C34				NSD							
G11	37	F33				NSD							
G11	38	F34				NSD							
G11	39	G33				NSD							
G11	40	G34				NSD							
G11	41	F42				NSD							
G11	42	G41				NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220014      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220014R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/7/2022

Lab/Cor Sample No: S3

Client Sample No: MV593

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G11	43	G42			NSD							
G11	44	H41			NSD							
G11	45	C51			NSD							
G11	46	C52			NSD							
G11	47	E51			NSD							
G11	48	E52			NSD							
G11	49	G51			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
 X \_\_\_\_\_  
 Shauna Bjornson  
 Analyst



LABORATORY CHAIN OF CUSTODY

220014

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 1/6/2021 22

Relinquished by/Signature: Toan Nguyen

Date/Time: 1/7/2021 22

Received by/Signature: [Signature]

Date/Time: 1/7/22 CBS

Email ALL INVOICES to: seattleap@pbsusa.com

E-mail results to:

- Checkboxes for email recipients: Brian Stanford, Willem Mager, Gregg Middaugh, Mark Hiley, Tim Ogden, Prudy Stoudt-McRae, Janet Murphy, Kaitlin Soukup, Claire Tsai, Holly Tuttle, Mike Smith, Ferman Fletcher, Ryan Hunter, Toan Nguyen.

TURN AROUND TIME:

- Checkboxes for turnaround times: 1 Hour, 2 Hours, 4 Hours, 24 Hours, 48 Hours, 3 Days, Other.

LOD<1000

SAMPLE DATA FORM

Table with columns: Sample #, Material, Location, Lab. Contains rows for samples MV591, MV592, and MV593.

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220024**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220024R01**  
**Report Date: 1/12/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220024 - S1	MV594	ASTM D 5755-09 - Microvac		1/11/2022
220024 - S2	MV595	ASTM D 5755-09 - Microvac		1/11/2022
220024 - S3	MV596	ASTM D 5755-09 - Microvac		1/11/2022

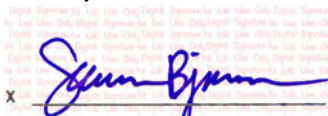
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Shauna Bjornson**  
 Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220024      SEA  
Client: PBS Engineering + Environmental

Report Number: 220024R01  
Date Received: 1/11/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV594	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SB	1/12/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV595	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.0125
Residual Ash Vol: 20 ml	Final Dilution: 0.0125
Begin Volume: 20 ml	Grid Openings Analyzed: 20
Volume Taken: 0.25 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.24
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	1/12/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 964.6	0 - 3558.409 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220024      SEA  
 Client: PBS Engineering + Environmental  
 Project Name: Pierce College Olympic South Abatement and Repairs

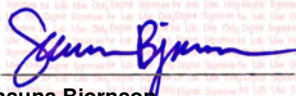
Report Number: 220024R01  
 Date Received: 1/11/2022

Lab/Cor Sample No.: S3      Sample Area/Mass/Volume (cm<sup>2</sup>) : 0  
 Client Sample No.: MV596      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Grid Openings Analyzed : 10  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Average Grid Opening Area : 0.012  
 Begin Volume: 20 ml      Area Analyzed (mm<sup>2</sup>) : 0.12  
 Volume Taken: 1.5 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 0

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB      1/12/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
 X  
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220024      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220024R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/11/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV594

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	G34			NSD							
G4	2	H33			NSD							
G5	3	E44			NSD							
G5	4	F43			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV595

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C31			NSD							
G10	2	C32			NSD							
G10	3	E31			NSD							
G10	4	E32			NSD							
G10	5	F31			NSD							
G10	6	C61			NSD							
G10	7	C62			NSD							
G10	8	E61			NSD							
G10	9	E62			NSD							
G10	10	F61			NSD							
G11	11	F23			NSD							
G11	12	F24			NSD							
G11	13	G23			NSD							
G11	14	G24			NSD							
G11	15	H23			NSD							
G11	16	C33			NSD							
G11	17	C34			NSD							
G11	18	E33			NSD							
G11	19	E34			NSD							
G11	20	F33			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV596

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E34			NSD							
G4	2	F32			NSD							
G4	3	G31			NSD							
G4	4	C33			NSD							
G4	5	E33			NSD							
G5	6	F24			NSD							
G5	7	G23			NSD							
G5	8	G31			NSD							
G5	9	E22			NSD							
G5	10	F21			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220024      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220024R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/11/2022

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
X \_\_\_\_\_  
**Shauna Bjornson**  
Analyst



220024  
LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 1/11/2022

Relinq'd by/Signature: *Chloe Tsai*

Date/Time: 1/11/2022

Received by/Signature: *[Signature]*

Date/Time: 1/11/22 3:30PM

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

E-mail results to:

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden

- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle

- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Toan Nguyen
- \_\_\_\_\_

TURN AROUND TIME:

- 1 Hour
- 2 Hours
- 4 Hours

- 24 Hours
- 48 Hours

- 3 Days
- Other \_\_\_\_\_

LOD<1000

SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV594	Dust - 100cm2 area	Olympic North 106 inside Fire panel	Labcor
MV595	Dust - 100cm2 area	Olympic North 106 SE area top of elevator cart lights panel below Panel 1HN2	
MV596	--	Field Blank	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbals    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220056**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220056R01**  
**Report Date: 1/25/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220056 - S1	MV597	ASTM D 5755-09 - Microvac		1/21/2022
220056 - S2	MV598	ASTM D 5755-09 - Microvac		1/21/2022

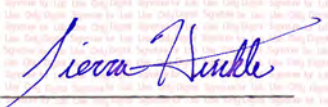
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Sierra Hinkle**  
 Technician/Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220056      SEA  
Client: PBS Engineering + Environmental

Report Number: 220056R01  
Date Received: 1/21/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV597	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SH	1/25/2022	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	7716.8	3331.728 - 15205.954 - Poisson	8
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	7716.8	3331.728 - 15205.954 - Poisson	8

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV598	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SH	1/25/2022	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	2893.8	597.087 - 8456.648 - Poisson	3
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	2893.8	597.087 - 8456.648 - Poisson	3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Sierra Hinkle*  
Sierra Hinkle  
Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220056      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220056R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV597

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C31	ADQ	1		Fiber	2.6	0.51	5.1	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType		ItemNum			Confirmed	Comment	
						Diffraction		F67470DF			SH 1/25/2022	0.53nm ROW SPACING	
						Spectra		F67470SP			SH 1/25/2022		
						Brightfield		F67470BF					
G10	2	C32				NSD							
G10	3	E32	AQ	2		Fiber	1.2	0.18	6.7	Actinolite	Mg, Al, Si, Ca, Mn, Fe		ASTM_0.5-5.0, ASTM_Total
G10	3	E32	CDQ	3		Fiber	2.88	0.12	24	Chrysotile	Mg, Si, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType		ItemNum			Confirmed	Comment	
						Diffraction		F67471DF			SH 1/25/2022	0.53nm ROW SPACING; Faint DF	
						Spectra		F67471SP			SH 1/25/2022		
						Brightfield		F67471BF					
G10	4	E31				NSD							
G10	5	F31				NSD							
G11	6	C31	CQ	4		Matrix 1-0	4.8	4	1.2	Chrysotile	Mg, Si, Fe	Al from matrix particulate	ASTM_0.5-5.0, ASTM_Total
G11	6	C31	ADQ	5		Fiber	2.5	0.4	6.2	Tremolite	Mg, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType		ItemNum			Confirmed	Comment	
						Diffraction		F67472DF			SH 1/25/2022	0.53nm ROW SPACING	
						Spectra		F67472SP			SH 1/25/2022		
						Brightfield		F67472BF					
G11	6	C31	CM	6		Matrix 1-0	3	2.8	1.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	C31	AQ	7		Matrix 1-0	1.6	1	1.6	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
G11	7	C32	AQ	8		Fiber	1.5	0.2	7.5	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
G11	8	E31				NSD							
G11	9	E32				NSD							
G11	10	F31				NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220056      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220056R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No: S2

Client Sample No: MV598

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	E33				NSD							
G7	2	E34				NSD						Actinolite fiber found, 5:1 ratio	
G7	3	F33				NSD							
G7	4	F34				NSD							
G7	5	G42				NSD							
G8	6	C31				NSD							
G8	7	C32				NSD							
G8	8	E31				NSD							
G8	9	C41	ADQ	1		Fiber	2.28	0.4	5.7	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum		Confirmed		Comment		
						Diffraction	F67473DF		SH 1/25/2022		0.53nm ROW SPACING		
						Spectra	F67473SP		SH 1/25/2022				
						Brightfield	F67473BF						
G8	10	C42	AQ	2		Fiber	1.8	0.3	6	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
G8	10	C42	AQ	3		Matrix	3	0.6	5	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Sierra Hinkle*

**Sierra Hinkle**  
 Technician/Analyst



LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: ASTM microvac dust sample

Date: 1/20/2021

Relinquished by/Signature: *Claire Tsai*

Date/Time: 1/21/2021

Received by/Signature: *Jerald Hankler*

Date/Time: 1/21/2022 15:00

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

E-mail results to:

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden

- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle

- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Toan Nguyen
- \_\_\_\_\_

TURN AROUND TIME:

- 1 Hour
- 2 Hours
- 4 Hours

- 24 Hours
- 48 Hours

- 3 Days
- Other \_\_\_\_\_

LOD<1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV597	Dust - 100cm2 area	Olympic South, West Elevation west subgrade power vault cable	Labcor
MV598	Dust - 100cm2 area	Olympic South, West Elevation east subgrade power vault cable	



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220124**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220124R01**  
**Report Date: 2/11/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220124 - S1	MV599	ASTM D 5755-09 - Microvac		2/10/2022
220124 - S2	MV600	ASTM D 5755-09 - Microvac		2/10/2022

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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,



**Kate March**  
**Quality Control Officer**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220124      SEA  
Client: PBS Engineering + Environmental

Report Number: 220124R01  
Date Received: 2/10/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV599	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.005
Residual Ash Vol: 100 ml	Final Dilution: 0.005
Begin Volume: 100 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 4823

Analyst(s)	Analysis Date	Microscope	Magnification
KM	2/11/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	125398	81909.009 - 183741.831 - Poisson	26
ASTM Asbestos >=5.0µm	4823	120.575 - 26873.756 - Poisson	1
ASTM Libby-Other >0.5µm	< 4823	0 - 17792.047 - Poisson	0
ASTM Total Asbestos >=0.5µm	130221	85815.639 - 189466.732 - Poisson	27

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV600	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	803.833	20.096 - 4478.959 - Poisson	1
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	803.833	20.096 - 4478.959 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
X  
Kate March  
Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220124      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220124R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/10/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV599

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	E42	CDQ	1		Bundle	3.5	0.2	17.5	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Spectra	J67580SP			KM	2/11/2022		
						Diffraction	J67580DF			KM	2/11/2022	0.53nm ROW SPACING	
						Brightfield	J67580BF						
G10	1	E42	CM	2		Fiber	0.8	0.08	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	E42	CMQ	3		Fiber	6.5	0.06	108.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	1	E42	CM	4		Matrix 1-0	1.3	0.3	4.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	F41	ADQ	5		Fiber	3	0.45	6.7	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Spectra	J67581SP			KM	2/11/2022		
						Diffraction	J67581DF			KM	2/11/2022	0.53nm ROW SPACING	
						Brightfield	J67581BF						
G10	2	F41	CD	6		Fiber	1.8	0.08	22.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	F41	CD	7		Fiber	1.1	0.08	13.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	F41	CM	8		Matrix 1-0	4.5	4.2	1.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	F41	CM	9		Matrix 2-0	2.5	1.3	1.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	F44	CD	10		Fiber	4.2	0.11	38.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	F44	CD	11		Fiber	1.1	0.11	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	F44	CM	12		Fiber	0.6	0.08	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	F44	CM	13		Cluster 3-0	3.2	1.2	2.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	F44	CM	14		Fiber	1.3	0.08	16.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	F44	CM	15		Fiber	1.5	0.08	18.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	4	G43	CD	16		Fiber	0.9	0.08	11.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	5	G52	ADQ	17		Fiber	3.3	0.38	8.7	Actinolite			ASTM_0.5-5.0, ASTM_Total
G10	5	G52	CD	18		Fiber	1.8	0.08	22.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	6	H51	CD	19		Fiber	0.65	0.08	8.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	6	H51	CM	20		Fiber	0.5	0.06	8.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	6	H51	CD	21		Fiber	0.9	0.08	11.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	H33	CD	22		Fiber	1.8	0.08	22.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	8	H42	CM	23		Matrix 1-0	3.5	1.5	2.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	9	C33	CM	24		Fiber	1.9	0.08	23.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220124      SEA      Ref. D5755-09  
Client: PBS Engineering + Environmental      Report Number: 220124R01  
Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 2/10/2022

Lab/Cor Sample No: S1  
Client Sample No: MV599

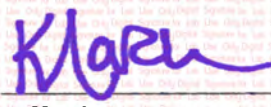
Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G11	10	E24	CM	25	Matrix 1-0	1.3	0.6	2.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	10	E24	CD	26	Fiber	1.8	0.1	18	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	10	E24	CM	27	Fiber	0.9	0.08	11.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total

Lab/Cor Sample No: S2  
Client Sample No: MV600

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	G44			NSD							
G4	2	H43			NSD							
G5	3	G52	CDQ	1	Bundle	3	0.25	12	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum				Confirmed	Comment	
					Brightfield	J67578BF						
					Diffraction	J67578DF				SB 2/10/2022	0.53nm ROW SPACING	
					Spectra	J67578SP				SB 2/10/2022		
G5	4	H51			NSD							

Count Categories			
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm
ASTMD_Other	ASTM Libby-Other >0.5µm	ASTM_Total	ASTM Total Asbestos >=0.5µm

**Reviewed by:**

  
Kate March  
Quality Control Officer



# LABORATORY CHAIN OF CUSTODY

220129

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488 Page 1 of 1

Analysis requested: ASTM microvac dust sample

Date: 2/9/2021

Relinq'd by/Signature: *Claire Tsai*

Date/Time: 2/9/2021

Received by/Signature: *[Signature]*

Date/Time: 2/10/22 0730

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden

- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle

- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Toan Nguyen
- \_\_\_\_\_

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours

- 24 Hours
- 48 Hours

- 3 Days
- Other \_\_\_\_\_

LOD<1000

### SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV599	Dust - 100cm2 area	Olympic South, West Elevation Main Disconnect panel	Labcor
MV600	Dust - 100cm2 area	Olympic South, West Elevation conduit to main disconnect panel	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbals    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220130**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220130R01**  
**Report Date: 2/15/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220130 - S1	MV601	ASTM D 5755-09 - Microvac		2/11/2022
220130 - S2	MV602	ASTM D 5755-09 - Microvac		2/11/2022
220130 - S3	MV603	ASTM D 5755-09 - Microvac	Many Mg, Si Fibers where DF was unattainable	2/11/2022

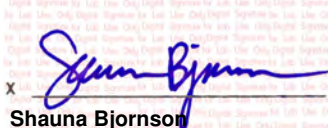
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_  
**Shauna Bjornson**  
 Analyst

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220130      SEA  
Client: PBS Engineering + Environmental

Report Number: 220130R01  
Date Received: 2/11/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV601	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/15/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV602	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/15/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220130      **SEA**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 220130R01  
**Date Received:** 2/11/2022

**Lab/Cor Sample No.:** S3  
**Client Sample No.:** MV603  
**Filter Fraction:** 1  
**Residual Ash Vol:** 20 ml  
**Begin Volume:** 20 ml  
**Volume Taken:** 1 ml

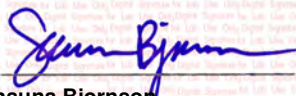
**Aliquot Dilution:** 0.05  
**Final Dilution:** 0.05

**Sample Area/Mass/Volume (cm<sup>2</sup>):** 100  
**Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Grid Openings Analyzed:** 6  
**Average Grid Opening Area:** 0.012  
**Area Analyzed (mm<sup>2</sup>):** 0.072  
**Analytical Sens. (struc/cm<sup>2</sup>):** 803.833

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SB                      2/15/2022              JEOL-Sr 1200              20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	803.833	20.096 - 4478.959 - Poisson	1
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	803.833	20.096 - 4478.959 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
 X  
**Shauna Bjornson**  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220130      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220130R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/11/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV601

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E43			NSD							
G4	2	G44			NSD							
G5	3	F34			NSD							
G5	4	G33			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV602

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	H41			NSD							
G4	2	H34			NSD							
G5	3	F34			NSD							
G5	4	G32			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV603

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	G32	CDQ	1	Bundle	1.85	0.15	12.3	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
						ItemType	ItemNum	Confirmed	Comment			
						Brightfield	J67621BF					
						Diffraction	J67621DF	SB	2/15/2022	0.53nm ROW SPACING		
						Spectra	J67621SP	SB	2/15/2022			
G7	2	G24			NSD							
G7	3	H23			NSD							
G8	4	G42			NSD							
G8	5	G34			NSD							
G8	6	H33			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
 X  
**Shauna Bjornson**  
 Analyst



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220132**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220132R01**  
**Report Date: 2/16/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220132 - S1	MV604	ASTM D 5755-09 - Microvac	Several Mg, Si Fibers with no DF Achievable	2/14/2022
220132 - S2	MV605	ASTM D 5755-09 - Microvac		2/14/2022

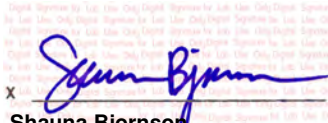
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Shauna Bjornson**  
 Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220132      SEA  
Client: PBS Engineering + Environmental

Report Number: 220132R01  
Date Received: 2/14/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV604	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 11
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.132
	Analytical Sens. (struc/cm <sup>2</sup> ): 876.909

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 876.909	0 - 3234.918 - Poisson	0
ASTM Asbestos >=5.0µm	< 876.909	0 - 3234.918 - Poisson	0
ASTM Libby-Other >0.5µm	< 876.909	0 - 3234.918 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 876.909	0 - 3234.918 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV605	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	803.833	20.096 - 4478.959 - Poisson	1
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	803.833	20.096 - 4478.959 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Shauna Bjornson*  
X  
Shauna Bjornson  
Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220132      SEA      Ref. D5755-09  
 Client: PBS Engineering + Environmental      Report Number: 220132R01  
 Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 2/14/2022  
 Project No.: 40535.488

Lab/Cor Sample No: S1  
 Client Sample No: MV604

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	K54			NSD							
G7	2	G61			NSD							
G7	3	K43			NSD							
G7	4	B52			NSD							
G7	5	E64			NSD							
G8	6	F44			NSD							
G8	7	F33			NSD							
G8	8	B32			NSD							
G8	9	C33			NSD							
G8	10	F34			NSD							
G8	11	G33			NSD							

Lab/Cor Sample No: S2  
 Client Sample No: MV605

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F42			NSD							
G7	2	G41			NSD							
G8	3	F34	ADQ	1	Fiber	1.45	0.2	7.2	Tremolite	Mg, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Brightfield	J67624BF						
					Diffraction	J67624DF			SB	2/16/2022	0.53nm ROW SPACING	
					Spectra	J67624SP			SB	2/16/2022		
G8	4	G33			NSD							

Count Categories		ASTM_0.5-5.0	ASTM Total Asbestos >=0.5µm
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm		

**Reviewed by:**

*Shauna Bjornson*  
 X  
**Shauna Bjornson**  
 Analyst



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220133**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220133R01**  
**Report Date: 2/16/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220133 - S1	MV606	ASTM D 5755-09 - Microvac	This sample includes non-asbestos fibers like Ferro-Actinolite	2/14/2022
220133 - S2	MV607	ASTM D 5755-09 - Microvac		2/14/2022
220133 - S3	MV608	ASTM D 5755-09 - Microvac		2/14/2022
220133 - S4	MV609	ASTM D 5755-09 - Microvac		2/14/2022
220133 - S5	MV610	ASTM D 5755-09 - Microvac		2/14/2022

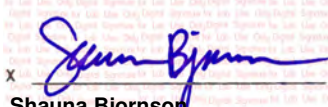
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Shauna Bjornson**  
 Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220133      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220133R01  
 Date Received: 2/14/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV606	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 6
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.072
	Analytical Sens. (struc/cm <sup>2</sup> ): 1607.667

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	1607.667	40.192 - 8957.919 - Poisson	1
ASTM Asbestos >=5.0µm	< 1607.667	0 - 5930.682 - Poisson	0
ASTM Libby-Other >0.5µm	< 1607.667	0 - 5930.682 - Poisson	0
ASTM Total Asbestos >=0.5µm	1607.667	40.192 - 8957.919 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV607	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220133      SEA      Report Number: 220133R01  
 Client: PBS Engineering + Environmental      Date Received: 2/14/2022  
 Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3      Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
 Client Sample No.: MV608      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Grid Openings Analyzed : 4  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Average Grid Opening Area : 0.012  
 Begin Volume: 20 ml      Area Analyzed (mm<sup>2</sup>) : 0.048  
 Volume Taken: 1.5 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 803.833

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB      2/16/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4      Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
 Client Sample No.: MV609      Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Grid Openings Analyzed : 4  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Average Grid Opening Area : 0.012  
 Begin Volume: 20 ml      Area Analyzed (mm<sup>2</sup>) : 0.048  
 Volume Taken: 1.5 ml      Analytical Sens. (struc/cm<sup>2</sup>) : 803.833

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB      2/16/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

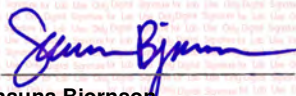
**Job Number:** 220133      **SEA**      **Report Number:** 220133R01  
**Client:** PBS Engineering + Environmental      **Date Received:** 2/14/2022  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S5      **Sample Area/Mass/Volume (cm<sup>2</sup>):** 100  
**Client Sample No.:** MV610      **Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Filter Fraction:** 1      **Aliquot Dilution:** 0.05      **Grid Openings Analyzed :** 6  
**Residual Ash Vol:** 20 ml      **Final Dilution:** 0.05      **Average Grid Opening Area :** 0.012  
**Begin Volume:** 20 ml      **Area Analyzed (mm<sup>2</sup>):** 0.072  
**Volume Taken:** 1 ml      **Analytical Sens. (struc/cm<sup>2</sup>):** 803.833

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SB      2/16/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
 X \_\_\_\_\_  
**Shauna Bjornson**  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220133      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220133R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/14/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV606

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	E44			NSD							
G7	2	F43			NSD							
G7	3	G51			NSD							
G8	4	E44	ADQ	1	Fiber	2.5	0.3	8.3	Actinolite	Mg, Si, Ca, Fe		ASTM_Total, ASTM_0.5-5.0
					ItemType	ItemNum				Confirmed	Comment	
					Brightfield	J67625BF						
					Diffraction	J67625DF				SB 2/16/2022	0.53nm ROW SPACING	
					Spectra	J67625SP				SB 2/16/2022		
G8	5	F43			NSD							
G8	6	C52			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV607

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F42			NSD							
G4	2	G41			NSD							
G5	3	F44			NSD							
G5	4	G44			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV608

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F34			NSD							
G4	2	G33			NSD							
G5	3	E42			NSD							
G5	4	E34			NSD							

Lab/Cor Sample No: S4

Client Sample No: MV609

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C34			NSD							
G4	2	C42			NSD							
G5	3	F54			NSD							
G5	4	G53			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 220133      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 220133R01  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 2/14/2022

**Lab/Cor Sample No:** S5  
**Client Sample No:** MV610

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F52			NSD							
G4	2	G51			NSD							
G4	3	G43			NSD							
G5	4	F42			NSD							
G5	5	G41			NSD							
G5	6	G23			NSD							

Count Categories		ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTM_>=5.0	ASTM Asbestos >=5.0µm				
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
 X  
**Shauna Bjornson**  
 Analyst



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220134**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220134R01**  
**Report Date: 2/16/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220134 - S1	MV611	ASTM D 5755-09 - Microvac		2/14/2022
220134 - S2	MV612	ASTM D 5755-09 - Microvac		2/14/2022
220134 - S3	MV613	ASTM D 5755-09 - Microvac		2/14/2022

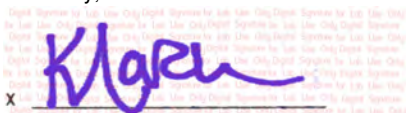
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Kate March**  
**Quality Control Officer**

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220134      SEA  
Client: PBS Engineering + Environmental

Report Number: 220134R01  
Date Received: 2/14/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV611	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
KM	2/16/2022	JEOL-Sr 1200	20000
SB	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	964.6	24.115 - 5374.751 - Poisson	1
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	964.6	24.115 - 5374.751 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV612	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/16/2022	JEOL-Sr 1200	20000
KM	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	18327.4	11035.024 - 28620.647 - Poisson	19
ASTM Asbestos >=5.0µm	2893.8	597.087 - 8456.648 - Poisson	3
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	21221.2	13299.905 - 32129.861 - Poisson	22

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220134      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220134R01  
**Date Received:** 2/14/2022


**Project Name:** Pierce College Olympic South Abatement and Repairs

<b>Lab/Cor Sample No.:</b> S3	<b>Sample Area/Mass/Volume (cm<sup>2</sup>):</b> 100
<b>Client Sample No.:</b> MV613	<b>Lab Filter Area (mm<sup>2</sup>):</b> 289.38
<b>Filter Fraction:</b> 1	<b>Aliquot Dilution:</b> 0.075
<b>Residual Ash Vol:</b> 20 ml	<b>Final Dilution:</b> 0.075
<b>Begin Volume:</b> 20 ml	<b>Grid Openings Analyzed :</b> 4
<b>Volume Taken:</b> 1.5 ml	<b>Average Grid Opening Area :</b> 0.012
	<b>Area Analyzed (mm<sup>2</sup>):</b> 0.048
	<b>Analytical Sens. (struc/cm<sup>2</sup>):</b> 803.833

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	803.833	20.096 - 4478.959 - Poisson	1
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	803.833	20.096 - 4478.959 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
 X  
**Kate March**  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220134      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220134R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/14/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV611

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F42	CDQ		Bundle	2.9	0.11	26.4	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType		ItemNum			Confirmed	Comment	
					Spectra		J67629SP			KM 2/16/2022		
					Diffraction		J67629DF			KM 2/16/2022	0.53nm ROW SPACING	
					Brightfield		J67629BF					
G4	2	G41			NSD							
G4	3	G33			NSD							
G4	4	G44			NSD							
G4	5	H43			NSD							
G5	6	E34			NSD							
G5	7	E42			NSD							
G5	8	F41			NSD							
G5	9	E44			NSD							
G5	10	E52			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220134      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220134R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/14/2022

Lab/Cor Sample No: S2

Client Sample No: MV612

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	E52	CD	1		Matrix 1-0	1.5	1.5	1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	E52	CD	2		Bundle	2.5	0.11	22.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	E52	AQ	3		Matrix 1-0	4.5	3.8	1.2	Actinolite			ASTM_0.5-5.0, ASTM_Total
G10	2	F51	AQ	4		Fiber	1.2	0.12	10	Actinolite			ASTM_0.5-5.0, ASTM_Total
G10	2	F51	CD	5		Fiber	1.3	0.07	18.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	F43	CM	6		Fiber	0.7	0.08	8.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	4	G34	AQ	7		Bundle	5.5	1.1	5	Actinolite			ASTM_>=5.0, ASTM_Total
G10	4	G34	CD	8		Fiber	1.9	0.1	19	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	5	H33	CD	9		Fiber	3	0.1	30	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	E32	CDQ	10		Fiber	1.5	0.1	15	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Brightfield	J67626BF						
						Diffraction Spectra	J67626DF J67626SP			SB 2/16/2022 SB 2/16/2022	0.53nm ROW SPACING		
G11	6	E32	NAS	11		Fiber	2.8	0.18	15.6	Non Asbestos Structure	Mg, Al, Si, Ca, Fe	Mg-Hornblende	
G11	6	E32	CMQ	12		Fiber	0.95	0.08	11.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	G43	NAS	13		Fiber	3.3	0.4	8.2	Non Asbestos Structure	Mg, Si, Fe	Transitional fiber (Antho/Talc)	
G11	7	G43	ADQ	14		Bundle	8.5	1.2	7.1	Actinolite	Mg, Si, Ca, Fe		ASTM_>=5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Spectra	J67627SP			KM 2/16/2022			
						Diffraction Brightfield	J67627DF J67627BF			KM 2/16/2022	0.53nm ROW SPACING		
G11	7	G43	CM	15		Fiber	0.7	0.08	8.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	G43	CD	16		Fiber	4.7	0.08	58.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	G43	CD	17		Fiber	0.6	0.05	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	G43	CM	18		Fiber	1.8	0.1	18	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	G43	CD	19		Fiber	1.6	0.1	16	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	8	E43				NSD							
G11	9	G34	AQ	20		Bundle	4	0.38	10.5	Actinolite			ASTM_0.5-5.0, ASTM_Total
G11	9	G34	CM	21		Matrix 2-0	1.3	0.4	3.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	10	F32	CM	22		Matrix 1-1	7.5	1.5	5	Chrysotile			ASTM_>=5.0, ASTM_Total
G11	10	F32	CD	23		Bundle	1.8	0.16	11.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220134      SEA      Ref. D5755-09  
 Client: PBS Engineering + Environmental      Report Number: 220134R01  
 Project Name: Pierce College Olympic South Abatement and Repairs      Date Received: 2/14/2022

Lab/Cor Sample No: S2  
 Client Sample No: MV612

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G11	10	F32	CM	24	Matrix 1-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total

Lab/Cor Sample No: S3  
 Client Sample No: MV613

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F33			NSD							
G4	2	G41	CDQ	1	Fiber	1.1	0.1	11	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum	Confirmed	Comment			
						Spectra	J67628SP	KM	2/16/2022			
						Diffraction	J67628DF	KM	2/16/2022    0.53nm ROW SPACING			
						Brightfield	J67628BF					
G5	3	F34			NSD							
G5	4	G42			NSD							

Count Categories		ASTM_0.5-5.0	ASTM Total Asbestos >=0.5µm
ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm		

**Reviewed by:**

*Kate March*

**Kate March**  
 Quality Control Officer



**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220146  
**Client:** PBS Engineering + Environmental  
**Address:** 214 E Galer Street  
 Seattle, WA 98102  
**Project Name:** Pierce College Olympic South Abatement and Repairs  
**Project No.:** 40535.488  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number:** 220146R01  
**Report Date:** 2/16/2022

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220146 - S1	MV614	ASTM D 5755-09 - Microvac	Several Mg, Si and Mg, Al, Si fibers present.	2/15/2022

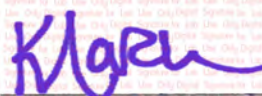
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Kate March**  
 Quality Control Officer

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220146      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220146R01  
**Date Received:** 2/15/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

<b>Lab/Cor Sample No.:</b> S1	<b>Sample Area/Mass/Volume (cm<sup>2</sup>):</b> 100
<b>Client Sample No.:</b> MV614	<b>Lab Filter Area (mm<sup>2</sup>):</b> 289.38
<b>Filter Fraction:</b> 1	<b>Aliquot Dilution:</b> 0.05
<b>Residual Ash Vol:</b> 20 ml	<b>Final Dilution:</b> 0.05
<b>Begin Volume:</b> 20 ml	<b>Grid Openings Analyzed :</b> 5
<b>Volume Taken:</b> 1 ml	<b>Average Grid Opening Area :</b> 0.012
	<b>Area Analyzed (mm<sup>2</sup>):</b> 0.06
	<b>Analytical Sens. (struc/cm<sup>2</sup>):</b> 964.6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	2/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	15433.6	8822.232 - 25063.202 - Poisson	16
ASTM Asbestos >=5.0µm	5787.6	2124.049 - 12597.676 - Poisson	6
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	21221.2	13299.905 - 32129.861 - Poisson	22

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220146      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220146R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/15/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV614

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F44	CMQ	1		Matrix 1-0	3.2	0.9	3.6	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
G7	1	F44	CDQ	2		Fiber	1.5	0.11	13.6	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
						ItemType	ItemNum		Confirmed	Comment			
						Spectra	J67630SP		KM	2/16/2022			
						Diffraction	J67630DF		KM	2/16/2022    0.53nm ROW SPACING			
						Brightfield	J67630BF						
G7	1	F44	CM	3		Matrix 1-0	4.1	1.5	2.7	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	1	F44	CD	4		Fiber	9.6	0.08	120	Chrysotile			ASTM_>=5.0, ASTM_Total
						ItemType	ItemNum		Confirmed	Comment			
						Diffraction	J67632DF		KM	2/16/2022    0.53nm ROW SPACING			
						Brightfield	J67632BF						
G7	1	F44	CM	5		Matrix 1-0	1.3	0.6	2.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	2	G51	CD	6		Fiber	1.2	0.1	12	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	2	G51	CM	7		Bundle	1.85	0.2	9.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	2	G51	CM	8		Matrix 3-0	6.2	5.9	1.1	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	2	G51	CD	9		Fiber	1.6	0.13	12.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	2	G51	CM	10		Fiber	0.8	0.08	10	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	2	G51	CD	11		Bundle	4.1	0.15	27.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	3	F32	CD	12		Fiber	5.8	0.08	72.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	3	F32	CMQ	13		Fiber	1.1	0.05	22	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G7	3	F32	CD	14		Bundle	2.22	0.11	20.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G8	4	G33	CD	15		Matrix 1-0	4.1	3.9	1.1	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G8	4	G33	CD	16		Bundle	7.5	0.16	46.9	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	4	G33	CM	17		Fiber	3.95	0.08	49.4	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G8	5	F44	CD	18		Fiber	13.5	0.1	135	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	F44	CM	19		Matrix 1-1	14.5	9.5	1.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G8	5	F44	CM	20		Bundle	0.95	0.12	7.9	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G8	5	F44	CM	21		Matrix 1-0	1.1	0.9	1.2	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G8	5	F44	CM	22		Fiber	1.5	0.1	15	Chrysotile			ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220146      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220146R01

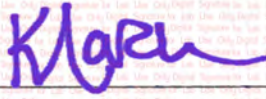
Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/15/2022

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

Digitally signed by Kate March, DN: cn=Kate March, o=Lab/Cor, Inc., ou=Lab/Cor, Inc., email=kate@labcor.net, c=US  
  
X Digitally signed by Kate March, DN: cn=Kate March, o=Lab/Cor, Inc., ou=Lab/Cor, Inc., email=kate@labcor.net, c=US  
**Kate March**  
Quality Control Officer





**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220162  
**Client:** PBS Engineering + Environmental  
**Address:** 214 E Galer Street  
 Seattle, WA 98102  
**Project Name:** Pierce College Olympic South Abatement and Repairs  
**Project No.:** 40535.488  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number:** 220162R01  
**Report Date:** 2/21/2022

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220162 - S1	MV615	ASTM D 5755-09 - Microvac		2/18/2022
220162 - S2	MV616	ASTM D 5755-09 - Microvac	Some Mg, Al, Si Fibers Present	2/18/2022
220162 - S3	MV617	ASTM D 5755-09 - Microvac		2/18/2022
220162 - S4	MV618	ASTM D 5755-09 - Microvac		2/18/2022

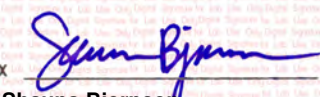
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_  
**Shauna Bjornson**  
 Analyst

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220162      SEA  
Client: PBS Engineering + Environmental

Report Number: 220162R01  
Date Received: 2/18/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV615	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/18/2022	JEOL-Sr 1200	20000
KM	2/18/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	12539.8	6676.961 - 21444.023 - Poisson	13
ASTM Asbestos >=5.0µm	1929.2	233.433 - 6969.235 - Poisson	2
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	14469	8098.782 - 23865.169 - Poisson	15

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV616	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.005
Residual Ash Vol: 20 ml	Final Dilution: 0.005
Begin Volume: 20 ml	Grid Openings Analyzed: 16
Volume Taken: 0.1 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.192
	Analytical Sens. (struc/cm <sup>2</sup> ): 3014.375

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/21/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	6028.75	729.479 - 21778.859 - Poisson	2
ASTM Asbestos >=5.0µm	< 3014.375	0 - 11120.029 - Poisson	0
ASTM Libby-Other >0.5µm	< 3014.375	0 - 11120.029 - Poisson	0
ASTM Total Asbestos >=0.5µm	6028.75	729.479 - 21778.859 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220162      SEA  
Client: PBS Engineering + Environmental

Report Number: 220162R01  
Date Received: 2/18/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV617	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.05
Residual Ash Vol: 20 ml	Final Dilution: 0.05
Begin Volume: 20 ml	Grid Openings Analyzed: 5
Volume Taken: 1 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.06
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/21/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	5787.6	2124.049 - 12597.676 - Poisson	6
ASTM Asbestos >=5.0µm	964.6	24.115 - 5374.751 - Poisson	1
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	6752.2	2714.384 - 13912.426 - Poisson	7

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4	Sample Area/Mass/Volume (cm <sup>2</sup> ): 0
Client Sample No.: MV618	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 0

Analyst(s)	Analysis Date	Microscope	Magnification
SB	2/21/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Shauna Bjornson*  
X  
Shauna Bjornson  
Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220162      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220162R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/18/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV615

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	E52	ADQ	1		Fiber	2.5	0.2	12.5	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J67644BF						
						Diffraction	J67644DF			SB	2/18/2022	0.53nm ROW SPACING	
						Spectra	J67644SP			SB	2/18/2022		
G5	1	E52	CDQ	2		Fiber	5.5	0.15	36.7	Chrysotile	Mg, Si		ASTM_Total, ASTM_>=5.0
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J67645BF						
						Diffraction	J67645DF			SB	2/18/2022	0.53nm ROW SPACING	
						Spectra	J67645SP			SB	2/18/2022		
G5	2	F51	CQ	3		Matrix 1-0	3.5	2	1.8	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	3	F52	CM	4		Fiber	2	0.15	13.3	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	4	G51				NSD							
G5	5	G52	AQ	5		Fiber	3.5	0.5	7	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
G5	5	G52	AM	6		Fiber	4	0.75	5.3	Actinolite			ASTM_0.5-5.0, ASTM_Total
G6	6	H41	CD	7		Bundle	2.7	0.13	20.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	6	H41	CM	8		Matrix 1-0	1.7	0.8	2.1	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	6	H41	CM	9		Fiber	1.3	0.07	18.6	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G6	6	H41	CD	10		Bundle	3.1	0.15	20.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	6	H41	CD	11		Fiber	1.6	0.1	16	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	7	G42				NSD							
G6	8	E52	AQ	12		Fiber	5.1	0.73	7	Actinolite			ASTM_Total, ASTM_>=5.0
G6	9	F51	CD	13		Fiber	1.3	0.1	13	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G6	9	F51	CD	14		Bundle	1.1	0.2	5.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G6	10	C54	CD	15		Fiber	0.7	0.05	14	Chrysotile			ASTM_Total, ASTM_0.5-5.0

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220162      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220162R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/18/2022

Lab/Cor Sample No: S2

Client Sample No: MV616

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	C31	CD	2		Fiber	1.75	0.1	17.5	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G5	2	C32				NSD							
G5	3	E31				NSD							
G5	4	E32				NSD							
G5	5	F31				NSD							
G5	6	F32				NSD							
G5	7	G31				NSD							
G6	8	E24				NSD							
G6	9	F23				NSD							
G6	10	F24				NSD							
G5	11	H31				NSD							
G5	12	H32				NSD							
G5	13	K31				NSD							
G5	14	C33				NSD							
G5	15	C34				NSD							
G5	16	E33	CDQ	1		Fiber	2	0.1	20	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
						ItemType	ItemNum			Confirmed	Comment		
						Brightfield	J67651BF						
						Diffraction	J67651DF			SB 2/21/2022	0.53nm ROW SPACING		
						Spectra	J67651SP			SB 2/21/2022			

Lab/Cor Sample No: S3

Client Sample No: MV617

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	F42	ADQ	1		Fiber	2.55	0.3	8.5	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Brightfield	J67653BF						
						Diffraction	J67653DF			SB 2/21/2022	0.53nm ROW SPACING		
						Spectra	J67653SP			SB 2/21/2022			
G5	2	G41				NSD							
G5	3	G42	AD	2		Matrix 1-0	6	4.5	1.3	Actinolite			ASTM_>=5.0, ASTM_Total
G6	4	C34	AQ	3		Fiber	2	0.2	10	Actinolite	Mg, Al, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
G6	4	C34	AM	4		Fiber	2.55	0.25	10.2	Actinolite			ASTM_0.5-5.0, ASTM_Total
G6	4	C34	CDQ	5		Fiber	1.25	0.15	8.3	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Brightfield	J67654BF						
						Diffraction	J67654DF				0.53nm ROW SPACING		
						Spectra	J67654SP			SB 2/21/2022			
G6	5	E33	CM	6		Fiber	1.25	0.15	8.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G6	5	E33	CM	7		Fiber	0.75	0.1	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220162      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220162R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/18/2022

Lab/Cor Sample No: S4

Client Sample No: MV618

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F42				NSD							
G3	2	G41				NSD							
G3	3	G33				NSD							
G3	4	G52				NSD							
G3	5	H51				NSD							
G4	6	F44				NSD							
G4	7	G43				NSD							
G4	8	G51				NSD							
G4	9	C42				NSD							
G4	10	E41				NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
 X  
**Shauna Bjornson**  
 Analyst





**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220173**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220173R01**  
**Report Date: 3/1/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220173 - S1	MV619	ASTM D 5755-09 - Microvac		2/22/2022
220173 - S2	MV620	ASTM D 5755-09 - Microvac		2/22/2022
220173 - S3	MV621	ASTM D 5755-09 - Microvac		2/22/2022
220173 - S4	MV622	ASTM D 5755-09 - Microvac		2/22/2022
220173 - S5	MV623	ASTM D 5755-09 - Microvac		2/22/2022
220173 - S6	MV624	ASTM D 5755-09 - Microvac		2/22/2022
220173 - S7	MV625	ASTM D 5755-09 - Microvac		2/23/2022

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Kate March**  
**Quality Control Officer**

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220173      SEA  
Client: PBS Engineering + Environmental

Report Number: 220173R01  
Date Received: 2/22/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV619	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
KM	3/1/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV620	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.048
	Analytical Sens. (struc/cm <sup>2</sup> ): 803.833

Analyst(s)	Analysis Date	Microscope	Magnification
KM	3/1/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220173      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220173R01  
 Date Received: 2/22/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3  
 Client Sample No.: MV621  
 Filter Fraction: 1  
 Residual Ash Vol: 20 ml  
 Begin Volume: 20 ml  
 Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
 Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Lab Filter Area (mm<sup>2</sup>): 289.38  
 Grid Openings Analyzed : 4  
 Average Grid Opening Area : 0.012  
 Area Analyzed (mm<sup>2</sup>): 0.048  
 Analytical Sens. (struc/cm<sup>2</sup>): 803.833

Analyst(s)      Analysis Date      Microscope      Magnification  
 KM                      3/1/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4  
 Client Sample No.: MV622  
 Filter Fraction: 1  
 Residual Ash Vol: 20 ml  
 Begin Volume: 20 ml  
 Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
 Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Lab Filter Area (mm<sup>2</sup>): 289.38  
 Grid Openings Analyzed : 4  
 Average Grid Opening Area : 0.012  
 Area Analyzed (mm<sup>2</sup>): 0.048  
 Analytical Sens. (struc/cm<sup>2</sup>): 803.833

Analyst(s)      Analysis Date      Microscope      Magnification  
 KM                      3/1/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220173      SEA  
Client: PBS Engineering + Environmental

Report Number: 220173R01  
Date Received: 2/22/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S5  
Client Sample No.: MV623  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed : 4  
Average Grid Opening Area : 0.012  
Area Analyzed (mm<sup>2</sup>): 0.048  
Analytical Sens. (struc/cm<sup>2</sup>): 803.833

Analyst(s)      Analysis Date      Microscope      Magnification  
KM                      3/1/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 803.833	0 - 2965.341 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6  
Client Sample No.: MV624  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed : 4  
Average Grid Opening Area : 0.012  
Area Analyzed (mm<sup>2</sup>): 0.048  
Analytical Sens. (struc/cm<sup>2</sup>): 803.833

Analyst(s)      Analysis Date      Microscope      Magnification  
KM                      3/1/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	1607.667	194.528 - 5807.696 - Poisson	2
ASTM Asbestos >=5.0µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Libby-Other >0.5µm	< 803.833	0 - 2965.341 - Poisson	0
ASTM Total Asbestos >=0.5µm	1607.667	194.528 - 5807.696 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220173      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220173R01  
**Date Received:** 2/23/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

<b>Lab/Cor Sample No.:</b> S7	<b>Sample Area/Mass/Volume (cm<sup>2</sup>):</b> 0
<b>Client Sample No.:</b> MV625	<b>Lab Filter Area (mm<sup>2</sup>):</b> 289.38
<b>Filter Fraction:</b> 1	<b>Aliquot Dilution:</b> 0.075
<b>Residual Ash Vol:</b> 20 ml	<b>Final Dilution:</b> 0.075
<b>Begin Volume:</b> 20 ml	<b>Grid Openings Analyzed:</b> 10
<b>Volume Taken:</b> 1.5 ml	<b>Average Grid Opening Area:</b> 0.012
	<b>Area Analyzed (mm<sup>2</sup>):</b> 0.12
	<b>Analytical Sens. (struc/cm<sup>2</sup>):</b> 0

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	3/1/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
**Kate March**  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220173      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220173R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/22/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV619

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	H43			NSD							
G4	2	F42			NSD							
G4	3	G41			NSD							
G5	4	F44			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV620

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	G44			NSD							
G4	2	H43			NSD							
G4	3	H52			NSD							
G5	4	F42			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV621

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F33			NSD							
G4	2	F42			NSD							
G4	3	G41			NSD							
G5	4	G41			NSD							

Lab/Cor Sample No: S4

Client Sample No: MV622

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C32			NSD							
G4	2	E33			NSD							
G5	3	E34			NSD							
G5	4	F41			NSD							

Lab/Cor Sample No: S5

Client Sample No: MV623

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E44			NSD							
G4	2	F52			NSD							
G5	3	F44			NSD							
G5	4	G51			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220173      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220173R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/22/2022

Lab/Cor Sample No: S6

Client Sample No: MV624

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	G43	CDQ	1	Bundle	3.3	0.17	19.4	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	J67740SP			KM	3/1/2022		
					Diffraction	J67740DF			KM	3/1/2022	0.53nm ROW SPACING	
					Brightfield	J67740BF						
G4	2	G34	CMQ	2	Fiber	1.2	0.08	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G5	3	F34			NSD							
G5	4	G41			NSD							

Lab/Cor Sample No: S7

Client Sample No: MV625

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C32			NSD							
G4	2	E31			NSD							
G4	3	E32			NSD							
G4	4	F33			NSD							
G4	5	G41			NSD							
G4	6	G44			NSD							
G5	7	C42			NSD							
G5	8	E41			NSD							
G5	9	E52			NSD							
G5	10	F51			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

Reviewed by:

*Kate March*  
X  
Kate March  
Quality Control Officer



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488 Page 1 of 1

Analysis requested: ASTM microvac dust sample

Date: 2/22/2022

Relinq'd by/Signature: Peter Stensland *Peter Stensland*

Date/Time: 2/23/2022

Received by/Signature: *[Signature]*

Date/Time: 2/23/22 3:30pm

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden

- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle

- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Toan Nguyen
- Peter Stensland

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours

- 24 Hours
- 48 Hours

- 5 Days
- Other \_\_\_\_\_

LOD<1000

## SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV619	Dust - 100cm2 area	Skybridge SE	Labcor
MV620	Dust - 100cm2 area	Skybridge S Center	
MV621	Dust - 100cm2 area	Skybridge SW	
MV622	Dust - 100cm2 area	Skybridge W Center	
MV623	Dust - 100cm2 area	Skybridge NE	
MV624	Dust - 100cm2 area	Skybridge NW	
MV625	---	Field Blank	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbal    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email



**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220237**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220237R01**  
**Report Date: 3/10/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220237 - S1	MV626	ASTM D 5755-09 - Microvac	Mg, Al, Si Fibers Present	3/9/2022
220237 - S2	MV627	ASTM D 5755-09 - Microvac		3/9/2022
220237 - S3	MV628	ASTM D 5755-09 - Microvac		3/9/2022


ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Kate March**  
**Quality Control Officer**

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220237      SEA  
Client: PBS Engineering + Environmental

Report Number: 220237R01  
Date Received: 3/9/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV626	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.05
Residual Ash Vol: 20 ml	Final Dilution: 0.05
Begin Volume: 20 ml	Grid Openings Analyzed: 5
Volume Taken: 1 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.06
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	3/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 964.6	0 - 3558.409 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV627	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.0125
Residual Ash Vol: 20 ml	Final Dilution: 0.0125
Begin Volume: 20 ml	Grid Openings Analyzed: 20
Volume Taken: 0.25 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.24
	Analytical Sens. (struc/cm <sup>2</sup> ): 964.6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	3/10/2022	JEOL-Sr 1200	20000
KM	3/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Asbestos >=5.0µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Libby-Other >0.5µm	< 964.6	0 - 3558.409 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 964.6	0 - 3558.409 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220237      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220237R01  
 Date Received: 3/9/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3	Sample Area/Mass/Volume (cm <sup>2</sup> ): 0
Client Sample No.: MV628	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.012
	Area Analyzed (mm <sup>2</sup> ): 0.12
	Analytical Sens. (struc/cm <sup>2</sup> ): 0

Analyst(s)	Analysis Date	Microscope	Magnification
SB	3/10/2022	JEOL-Sr 1200	20000
KM	3/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
 X  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220237      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220237R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 3/9/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV626

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	G42			NSD							
G7	2	H41			NSD							
G7	3	H33			NSD							
G8	4	F44			NSD							
G8	5	G43			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV627

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	C42			NSD							
G7	2	E41			NSD							
G7	3	F42			NSD							
G7	4	G41			NSD							
G7	5	E44			NSD							
G7	6	F43			NSD							
G7	7	F51			NSD							
G7	8	C52			NSD							
G7	9	E51			NSD							
G7	10	C44			NSD							
G8	11	C34			NSD							
G8	12	E33			NSD							
G8	13	F33			NSD							
G8	14	F42			NSD							
G8	15	G41			NSD							
G8	16	G42			NSD							
G8	17	H41			NSD							
G8	18	F51			NSD							
G8	19	E52			NSD							
G8	20	E51			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220237      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220237R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 3/9/2022

Lab/Cor Sample No: S3

Client Sample No: MV628

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C32			NSD							
G4	2	E31			NSD							
G4	3	E34			NSD							
G4	4	F33			NSD							
G4	5	F41			NSD							
G5	6	G44			NSD							
G5	7	H43			NSD							
G5	8	H51			NSD							
G5	9	F34			NSD							
G5	10	G33			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Kate March*

**Kate March**  
 Quality Control Officer



Project: Pierce College Olympic South Abatement and Repairs Project #: 40535.488 Page 1 of 1

Analysis requested: ASTM microvac dust sample Date: 3/9/2022  
 Relinqu'd by/Signature: Peter Stensland / Kay Jensen Date/Time: 3/9/2022 1352  
 Received by/Signature: [Signature] Date/Time: 3/9/22 1400

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Brian Stanford            | <input type="checkbox"/> Prudy Stoudt-McRae     | <input checked="" type="checkbox"/> Mike Smith      |
| <input type="checkbox"/> Willem Mager              | <input type="checkbox"/> Janet Murphy           | <input type="checkbox"/> Ferman Fletcher            |
| <input checked="" type="checkbox"/> Gregg Middaugh | <input type="checkbox"/> Kaitlin Soukup         | <input type="checkbox"/> Ryan Hunter                |
| <input type="checkbox"/> Mark Hiley                | <input checked="" type="checkbox"/> Claire Tsai | <input type="checkbox"/> Toan Nguyen                |
| <input type="checkbox"/> Tim Ogden                 | <input type="checkbox"/> Holly Tuttle           | <input checked="" type="checkbox"/> Peter Stensland |

**TURN AROUND TIME:**

- |                                  |                                   |   |
|----------------------------------|-----------------------------------|---|
| <input type="checkbox"/> 1 Hour  | <input type="checkbox"/> 24 Hours | <input type="checkbox"/> 5 Days                 |
| <input type="checkbox"/> 2 Hours | <input type="checkbox"/> 48 Hours | <input checked="" type="checkbox"/> <u>ASAP</u> |
| <input type="checkbox"/> 4 Hours |                                   |   |

LOD<1000

**SAMPLE DATA FORM**

Sample #	Material	Location	Lab
MV626	Dust - 100cm2 area	Skybridge S Containment NE Corner Layer 2 (2 Layers)	Labcor
MV627	Dust - 100cm2 area	Skybridge S Containment SW Skybridge (1 Layer)	
MV628	--	Field Blank	

Reviewed by: _____
Results Released: _____
Fax    Verbal    USPS    Email
Invoice Released: _____
Fax    USPS    Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220238**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220238R01**  
**Report Date: 3/16/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220238 - S1	MV629	ASTM D 5755-09 - Microvac		3/9/2022	3/9/2022
220238 - S2	MV630	ASTM D 5755-09 - Microvac		3/9/2022	3/9/2022


ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Kate March**  
**Quality Control Officer**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220238      SEA  
Client: PBS Engineering + Environmental

Report Number: 220238R01  
Date Received: 3/9/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV629	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.0125
Residual Ash Vol: 20 ml	Final Dilution: 0.0125
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.25 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.106
	Analytical Sens. (struc/cm <sup>2</sup> ): 2184

Analyst(s)	Analysis Date	Microscope	Magnification
KM	3/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	4368	528.528 - 15779.4 - Poisson	2
ASTM Asbestos >=5.0µm	< 2184	0 - 8056.776 - Poisson	0
ASTM Libby-Other >0.5µm	< 2184	0 - 8056.776 - Poisson	0
ASTM Total Asbestos >=0.5µm	4368	528.528 - 15779.4 - Poisson	2

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV630	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.106
	Analytical Sens. (struc/cm <sup>2</sup> ): 1092

Analyst(s)	Analysis Date	Microscope	Magnification
KM	3/16/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	5460	1773.408 - 12742.548 - Poisson	5
ASTM Asbestos >=5.0µm	< 1092	0 - 4028.388 - Poisson	0
ASTM Libby-Other >0.5µm	< 1092	0 - 4028.388 - Poisson	0
ASTM Total Asbestos >=0.5µm	5460	1773.408 - 12742.548 - Poisson	5

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
X  
Kate March  
Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220238      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220238R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 3/9/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV629

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C32				NSD							
G10	2	E31				NSD							
G10	3	E34				NSD							
G10	4	F33	CDQ	1		Fiber	1.75	0.05	35	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Spectra	J67817SP				KM	3/16/2022	
						Diffraction	J67817DF				KM	3/16/2022	0.53nm ROW SPACING
						Brightfield	J67817BF						
G10	5	F42				NSD							
G10	6	G42	CD	2		Bundle	1.4	0.16	8.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	C32				NSD							
G11	8	E31				NSD							
G11	9	E34				NSD							
G11	10	F34				NSD							

Lab/Cor Sample No: S2

Client Sample No: MV630

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C32	CDQ	1		Fiber	2.2	0.1	22	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Spectra	J67818SP				KM	3/16/2022	
						Diffraction	J67818DF				KM	3/16/2022	0.53nm ROW SPACING
						Brightfield	J67818BF						
G10	2	E31				NSD							
G10	3	E34				NSD							
G10	4	F33				NSD							
G10	5	F42				NSD							
G11	6	C32	CD	2		Fiber	0.95	0.08	11.9	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	7	E31	ADQ	3		Fiber	2.84	0.55	5.2	Actinolite	Mg, Al, Si, Ca, Mn, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Spectra	J67819SP				KM	3/16/2022	
						Diffraction	J67819DF				KM	3/16/2022	0.53nm ROW SPACING
						Brightfield	J67819BF						
G11	8	E34				NSD							
G11	9	F33	CD	4		Fiber	0.98	0.07	14	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	9	F33	CD	5		Bundle	2.2	0.15	14.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	10	F42				NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220238 SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220238R01

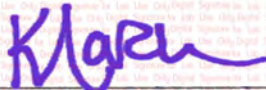
Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 3/9/2022

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

  
X **Kate March**  
Quality Control Officer

220238



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs Project #: 40535.488 Page 1 of 1

Analysis requested: ASTM microvac dust sample Date: 3/9/2022

Relinquished by/Signature: Peter Stensland / *Peter Stensland* Date/Time: 3/9/2022

Received by/Signature: *Sam Byrnes* Date/Time: 3/9/22 5:30pm

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Toan Nguyen
- Peter Stensland

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 5 Days
- \_\_\_\_\_

LOD<1000

### SAMPLE DATA FORM

Sample #	Material	Location	Lab
MV629	Dust - 100cm2 area	Playground Tunnel	Labcor
MV630	Dust - 100cm2 area	Playground Yellow and Orange Equipment	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbals    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Final Report**

**Job Number: 220320**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220320R01**  
**Report Date: 3/31/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220320 - S1	MV631	ASTM D 5755-09 - Microvac		3/29/2022
220320 - S2	MV632	ASTM D 5755-09 - Microvac		3/29/2022
220320 - S3	MV633	ASTM D 5755-09 - Microvac		3/29/2022
220320 - S4	MV634	ASTM D 5755-09 - Microvac		3/29/2022
220320 - S5	MV635	ASTM D 5755-09 - Microvac		3/29/2022

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Kate March**  
**Quality Control Officer**

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220320      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220320R01  
 Date Received: 3/29/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV631	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0424
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	3/30/2022	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV632	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0424
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	3/30/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220320      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220320R01  
 Date Received: 3/29/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3  
 Client Sample No.: MV633  
 Filter Fraction: 1  
 Residual Ash Vol: 20 ml  
 Begin Volume: 20 ml  
 Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
 Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Lab Filter Area (mm<sup>2</sup>): 289.38  
 Grid Openings Analyzed : 4  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>): 0.0424  
 Analytical Sens. (struc/cm<sup>2</sup>): 910

Analyst(s)      Analysis Date      Microscope      Magnification  
 KM              3/31/2022          JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4  
 Client Sample No.: MV634  
 Filter Fraction: 1  
 Residual Ash Vol: 20 ml  
 Begin Volume: 20 ml  
 Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
 Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Lab Filter Area (mm<sup>2</sup>): 289.38  
 Grid Openings Analyzed : 4  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>): 0.0424  
 Analytical Sens. (struc/cm<sup>2</sup>): 910

Analyst(s)      Analysis Date      Microscope      Magnification  
 KM              3/30/2022          Hitachi 7000FA      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220320      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220320R01  
 Date Received: 3/29/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S5	Sample Area/Mass/Volume (cm <sup>2</sup> ): 0
Client Sample No.: MV635	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.106
	Analytical Sens. (struc/cm <sup>2</sup> ): 0

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	3/30/2022	Hitachi 7000FA	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
 X  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220320      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220320R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 3/29/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV631

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	K43			NSD							
G3	2	H43			NSD							
G3	3	G43			NSD							
G4	4	F43			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV632

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	H43			NSD							
G3	2	G52			NSD							
G3	3	F51			NSD							
G4	4	F44			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV633

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	G34			NSD						Lots of Mg, Al, Si fibers present.	
G3	2	H41			NSD							
G4	3	E34			NSD							
G4	4	F41			NSD							

Lab/Cor Sample No: S4

Client Sample No: MV634

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	G43			NSD						Many Mg, Al, Si fibers present	
G3	2	F52			NSD							
G3	3	E54			NSD							
G4	4	E41			NSD							



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220320      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220320R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 3/29/2022

Lab/Cor Sample No: S5

Client Sample No: MV635

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G3	1	F53				NSD							
G3	2	E54				NSD							
G3	3	E53				NSD							
G3	4	C54				NSD							
G3	5	C53				NSD							
G4	6	G43				NSD							
G4	7	F44				NSD							
G4	8	F43				NSD							
G4	9	E44				NSD							
G4	10	E43				NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Kate March*  
 Kate March  
 Quality Control Officer



**ASTM D 5755-09 - Microvac Report**

**Job Number: 220355**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220355R01**  
**Report Date: 4/11/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220355 - S1	MV636	ASTM D 5755-09 - Microvac		4/6/2022
220355 - S2	MV637	ASTM D 5755-09 - Microvac		4/6/2022
220355 - S3	MV638	ASTM D 5755-09 - Microvac		4/6/2022
220355 - S4	MV639	ASTM D 5755-09 - Microvac		4/6/2022

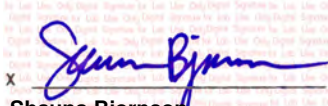
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_  
**Shauna Bjornson**  
 Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220355      SEA      Report Number: 220355R01  
 Client: PBS Engineering + Environmental      Date Received: 4/6/2022  
 Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Client Sample No.: MV636      Lab Filter Area (mm<sup>2</sup>): 289.38  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Grid Openings Analyzed : 4  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Average Grid Opening Area : 0.0106  
 Begin Volume: 20 ml      Area Analyzed (mm<sup>2</sup>): 0.0424  
 Volume Taken: 1.5 ml      Analytical Sens. (struc/cm<sup>2</sup>): 910

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB      4/11/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2      Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Client Sample No.: MV637      Lab Filter Area (mm<sup>2</sup>): 289.38  
 Filter Fraction: 1      Aliquot Dilution: 0.075      Grid Openings Analyzed : 4  
 Residual Ash Vol: 20 ml      Final Dilution: 0.075      Average Grid Opening Area : 0.0106  
 Begin Volume: 20 ml      Area Analyzed (mm<sup>2</sup>): 0.0424  
 Volume Taken: 1.5 ml      Analytical Sens. (struc/cm<sup>2</sup>): 910

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB      4/11/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220355      SEA  
Client: PBS Engineering + Environmental

Report Number: 220355R01  
Date Received: 4/6/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV638	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0424
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/11/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV639	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0424
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/11/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Shauna Bjornson*  
X  
Shauna Bjornson  
Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220355      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220355R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/6/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV636

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F44			NSD							
G4	2	G43			NSD							
G5	3	C42			NSD							
G5	4	E41			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV637

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	F51			NSD							
G4	2	F43			NSD							
G5	3	E42			NSD							
G5	4	F41			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV638

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E44			NSD							
G4	2	F43			NSD							
G5	3	E44			NSD							
G5	4	F43			NSD							

Lab/Cor Sample No: S4

Client Sample No: MV639

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E44			NSD							
G4	2	F43			NSD							
G5	3	F44			NSD							
G5	4	G43			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*

**Shauna Bjornson**  
 Analyst

220355



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs Project #: 40535.488 Page 1 of 1

Analysis requested: ASTM microvac dust sample Date: 4/6/2022

Relinquished by/Signature: Peter Stensland *Peter Stensland* Date/Time: 4/6/2022

Received by/Signature: *[Signature]* Date/Time: 4/6/22 4:30pm

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Willem Mager
- Gregg Middaugh
- Mark Hiley
- Tim Ogden
- Prudy Stoudt-McRae
- Janet Murphy
- Kaitlin Soukup
- Claire Tsai
- Holly Tuttle
- Mike Smith
- Ferman Fletcher
- Ryan Hunter
- Toan Nguyen
- Peter Stensland

**TURN AROUND TIME:**

- 1 Hour
- 2 Hours
- 4 Hours
- 24 Hours
- 48 Hours
- 3 Days
- \_\_\_\_\_

LOD<1000

### SAMPLE DATA FORM

Sample #	Material	Location	Lab
1 MV636	Dust - 100cm2 area	E Skybridge Large Blank N Conduit to Olympic N	Labcor
2 MV637	Dust - 100cm2 area	E Skybridge Large Blank S Conduit to Olympic N	
3 MV638	Dust - 100cm2 area	Olympic North Emergency Power Junction Box S conduit (group of 4)	
4 MV639	Dust - 100cm2 area	Olympic North Radiant Heat Junction Box N Panel Along Construct. Wall	

Reviewed by: \_\_\_\_\_

Results Released:

Fax    Verbals    USPS    Email

Invoice Released:

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Report**

**Job Number: 220372**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220372R01**  
**Report Date: 4/14/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220372 - S1	MV640	ASTM D 5755-09 - Microvac		4/11/2022
220372 - S2	MV641	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers present.	4/11/2022
220372 - S3	MV642	ASTM D 5755-09 - Microvac		4/11/2022

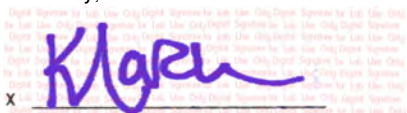
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_

**Kate March**  
**Quality Control Officer**



### ASTM D 5755-09 - Microvac Final Report

Job Number: 220372      SEA  
Client: PBS Engineering + Environmental

Report Number: 220372R01  
Date Received: 4/11/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV640	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0424
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

Analyst(s)	Analysis Date	Microscope	Magnification
KM	4/14/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV641	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.025
Residual Ash Vol: 20 ml	Final Dilution: 0.025
Begin Volume: 20 ml	Grid Openings Analyzed: 11
Volume Taken: 0.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.1166
	Analytical Sens. (struc/cm <sup>2</sup> ): 992.727

Analyst(s)	Analysis Date	Microscope	Magnification
KM	4/14/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Asbestos >=5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Libby-Other >0.5µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 992.727	0 - 3662.171 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220372      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220372R01  
**Date Received:** 4/11/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

<b>Lab/Cor Sample No.:</b> S3	<b>Sample Area/Mass/Volume (cm<sup>2</sup>):</b> 0
<b>Client Sample No.:</b> MV642	<b>Lab Filter Area (mm<sup>2</sup>):</b> 289.38
<b>Filter Fraction:</b> 1	<b>Aliquot Dilution:</b> 0.075
<b>Residual Ash Vol:</b> 20 ml	<b>Final Dilution:</b> 0.075
<b>Begin Volume:</b> 20 ml	<b>Grid Openings Analyzed:</b> 10
<b>Volume Taken:</b> 1.5 ml	<b>Average Grid Opening Area:</b> 0.0106
	<b>Area Analyzed (mm<sup>2</sup>):</b> 0.106
	<b>Analytical Sens. (struc/cm<sup>2</sup>):</b> 0

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	4/14/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
 Kate March  
 Quality Control Officer

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220372      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220372R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/11/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV640

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E34			NSD							
G4	2	F41			NSD							
G5	3	E34			NSD							
G5	4	F41			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV641

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	B42			NSD							
G10	2	C41			NSD							
G10	3	C44			NSD							
G10	4	E43			NSD							
G10	5	E52			NSD							
G10	6	F51			NSD							
G11	7	C34			NSD							
G11	8	E33			NSD							
G11	9	E42			NSD							
G11	10	F41			NSD							
G11	11	F52			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV642

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	C34			NSD							
G4	2	E33			NSD							
G4	3	E42			NSD							
G4	4	F41			NSD							
G4	5	F44			NSD							
G4	6	G43			NSD							
G5	7	C34			NSD							
G5	8	E33			NSD							
G5	9	E42			NSD							
G5	10	F41			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220372 SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220372R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/11/2022

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

  
X **Kate March**  
Quality Control Officer



**ASTM D 5755-09 - Microvac Report**

**Job Number: 220429**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220429R01**  
**Report Date: 4/26/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220429 - S1	MV643	ASTM D 5755-09 - Microvac	Many Al, Si Fibers Present	4/25/2022
220429 - S2	MV644	ASTM D 5755-09 - Microvac	Many Al, Si Fibers Present	4/25/2022
220429 - S3	MV645	ASTM D 5755-09 - Microvac	Many Al, Si Fibers Present	4/25/2022
220429 - S4	MV646	ASTM D 5755-09 - Microvac		4/25/2022

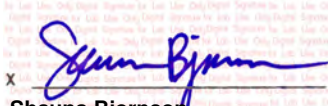
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 **Shauna Bjornson**  
 Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220429      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220429R01  
 Date Received: 4/25/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV643	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.05
Residual Ash Vol: 20 ml	Final Dilution: 0.05
Begin Volume: 20 ml	Grid Openings Analyzed: 6
Volume Taken: 1 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0636
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/26/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV644	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.05
Residual Ash Vol: 20 ml	Final Dilution: 0.05
Begin Volume: 20 ml	Grid Openings Analyzed: 6
Volume Taken: 1 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0636
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/26/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220429      SEA  
Client: PBS Engineering + Environmental

Report Number: 220429R01  
Date Received: 4/25/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3	Sample Area/Mass/Volume (cm <sup>2</sup> ): 100
Client Sample No.: MV645	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 4
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.0424
	Analytical Sens. (struc/cm <sup>2</sup> ): 910

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/26/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4	Sample Area/Mass/Volume (cm <sup>2</sup> ): 0
Client Sample No.: MV646	Lab Filter Area (mm <sup>2</sup> ): 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed: 10
Volume Taken: 1.5 ml	Average Grid Opening Area: 0.0106
	Area Analyzed (mm <sup>2</sup> ): 0.106
	Analytical Sens. (struc/cm <sup>2</sup> ): 0

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/26/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Shauna Bjornson*  
X  
Shauna Bjornson  
Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220429      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220429R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/25/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV643

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	E44			NSD							
G10	2	F43			NSD							
G10	3	F52			NSD							
G11	4	E24			NSD							
G11	5	F23			NSD							
G11	6	F31			NSD							

Lab/Cor Sample No: S2

Client Sample No: MV644

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F34			NSD							
G7	2	G33			NSD							
G7	3	G41			NSD							
G8	4	F31			NSD							
G8	5	F23			NSD							
G8	6	E24			NSD							

Lab/Cor Sample No: S3

Client Sample No: MV645

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F34			NSD							
G7	2	G33			NSD							
G8	3	E42			NSD							
G8	4	F41			NSD							

Lab/Cor Sample No: S4

Client Sample No: MV646

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E52			NSD							
G4	2	F51			NSD							
G4	3	F43			NSD							
G4	4	C42			NSD							
G4	5	E41			NSD							
G5	6	E42			NSD							
G5	7	F41			NSD							
G5	8	F33			NSD							
G5	9	C24			NSD							
G5	10	E23			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220429 SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220429R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/25/2022

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
X Shauna Bjornson  
Shauna Bjornson  
Analyst



**ASTM D 5755-09 - Microvac Report**

**Job Number: 220430**

**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**

**Project Name:** Pierce College Olympic South Abatement and Repairs  
**Project No.:** 40535.488  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220430R01**

**Report Date: 4/27/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220430 - S1	MV647	ASTM D 5755-09 - Microvac		4/25/2022
220430 - S2	MV648	ASTM D 5755-09 - Microvac		4/25/2022
220430 - S3	MV649	ASTM D 5755-09 - Microvac		4/25/2022
220430 - S4	MV650	ASTM D 5755-09 - Microvac		4/25/2022
220430 - S5	MV651	ASTM D 5755-09 - Microvac		4/25/2022

ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_  
**Kate March**  
 Quality Control Officer

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220430      SEA  
Client: PBS Engineering + Environmental

Report Number: 220430R01  
Date Received: 4/25/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1  
Client Sample No.: MV647  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 1 ml

Aliquot Dilution: 0.05  
Final Dilution: 0.05

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 6  
Average Grid Opening Area: 0.0106  
Area Analyzed (mm<sup>2</sup>): 0.0636  
Analytical Sens. (struc/cm<sup>2</sup>): 910

Analyst(s)      Analysis Date      Microscope      Magnification  
SB              4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	910	22.75 - 5070.52 - Poisson	1
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	910	22.75 - 5070.52 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2  
Client Sample No.: MV648  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 0.5 ml

Aliquot Dilution: 0.025  
Final Dilution: 0.025

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 11  
Average Grid Opening Area: 0.0106  
Area Analyzed (mm<sup>2</sup>): 0.1166  
Analytical Sens. (struc/cm<sup>2</sup>): 992.727

Analyst(s)      Analysis Date      Microscope      Magnification  
SB              4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Asbestos >=5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Libby-Other >0.5µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 992.727	0 - 3662.171 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220430      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220430R01  
 Date Received: 4/25/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3  
 Client Sample No.: MV649  
 Filter Fraction: 1  
 Residual Ash Vol: 20 ml  
 Begin Volume: 20 ml  
 Volume Taken: 0.5 ml

Aliquot Dilution: 0.025  
 Final Dilution: 0.025

Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
 Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Grid Openings Analyzed : 11  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.1166  
 Analytical Sens. (struc/cm<sup>2</sup>) : 992.727

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB              4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Asbestos >=5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Libby-Other >0.5µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 992.727	0 - 3662.171 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4  
 Client Sample No.: MV650  
 Filter Fraction: 1  
 Residual Ash Vol: 20 ml  
 Begin Volume: 20 ml  
 Volume Taken: 0.5 ml

Aliquot Dilution: 0.025  
 Final Dilution: 0.025

Sample Area/Mass/Volume (cm<sup>2</sup>) : 100  
 Lab Filter Area (mm<sup>2</sup>) : 289.38  
 Grid Openings Analyzed : 11  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.1166  
 Analytical Sens. (struc/cm<sup>2</sup>) : 992.727

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB              4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Asbestos >=5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Libby-Other >0.5µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 992.727	0 - 3662.171 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220430      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220430R01  
**Date Received:** 4/25/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

<b>Lab/Cor Sample No.:</b> S5	<b>Sample Area/Mass/Volume (cm<sup>3</sup>):</b> 100
<b>Client Sample No.:</b> MV651	<b>Lab Filter Area (mm<sup>2</sup>):</b> 289.38
<b>Filter Fraction:</b> 1	<b>Aliquot Dilution:</b> 0.0125
<b>Residual Ash Vol:</b> 20 ml	<b>Final Dilution:</b> 0.0125
<b>Begin Volume:</b> 20 ml	<b>Grid Openings Analyzed:</b> 22
<b>Volume Taken:</b> 0.25 ml	<b>Average Grid Opening Area:</b> 0.0106
	<b>Area Analyzed (mm<sup>2</sup>):</b> 0.2332
	<b>Analytical Sens. (struc/cm<sup>2</sup>):</b> 992.727

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/27/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Asbestos >=5.0µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Libby-Other >0.5µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 992.727	0 - 3662.171 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
**Kate March**  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220430      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220430R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/25/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV647

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	E42	NAS	1		Matrix	10	5	2	Non Asbestos Structure	Mg, Al, Si, Ca, Fe	Mg-Hornblende	
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J68130BF						
						Diffraction	J68130DF				SB 4/27/2022	0.53nm ROW SPACING	
						Spectra	J68130SP				SB 4/27/2022		
G7	2	F41				NSD							
G7	3	F33				NSD							
G8	4	E43				NSD							
G8	5	C54	ADQ	2		Fiber	3	0.25	12	Actinolite	Mg, Si, Ca, Fe		ASTM_Total, ASTM_0.5-5.0
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J68131BF						
						Diffraction	J68131DF				SB 4/27/2022	0.53nm ROW SPACING	
						Spectra	J68131SP				SB 4/27/2022		
G8	6	C62				NSD							

Lab/Cor Sample No: S2

Client Sample No: MV648

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	E34				NSD							
G10	2	F33				NSD							
G10	3	F41				NSD							
G10	4	G32				NSD							
G10	5	G24				NSD							
G10	6	G23				NSD							
G11	7	F52				NSD							
G11	8	G51				NSD							
G11	9	G43				NSD							
G11	10	H54				NSD							
G11	11	H62				NSD							



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220430      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220430R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/25/2022

Lab/Cor Sample No: S3

Client Sample No: MV649

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G10	1	G42				NSD								
G10	2	H41	NAS	1		Fiber	2	0.3	6.7	Non Asbestos Structure	Mg, Al, Si, Ca, Fe	Mg-Hornblende		
						ItemType	ItemNum				Confirmed	Comment		
						Brightfield	J68133BF							
						Diffraction	J68133DF				SB 4/27/2022	0.53nm ROW SPACING		
						Spectra	J68133SP				SB 4/27/2022			
G10	3	H33				NSD								
G10	4	C52				NSD								
G10	5	C44				NSD								
G10	6	E42				NSD								
G11	7	E42				NSD								
G11	8	F41				NSD								
G11	9	F33				NSD								
G11	10	H31				NSD								
G11	11	H23				NSD								

Lab/Cor Sample No: S4

Client Sample No: MV650

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G10	1	E44				NSD								
G10	2	F43				NSD								
G10	3	F51				NSD								
G10	4	C42				NSD								
G10	5	C34				NSD								
G10	6	E33				NSD								
G11	7	C44				NSD								
G11	8	E43				NSD								
G11	9	E51				NSD								
G11	10	F52				NSD								
G11	11	G51				NSD								

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220430      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220430R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/25/2022

Lab/Cor Sample No: S5

Client Sample No: MV651

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	E33			NSD							
G10	2	E34			NSD							
G10	3	F33			NSD							
G10	4	F34			NSD							
G10	5	G33			NSD							
G10	6	C51			NSD							
G10	7	C52			NSD							
G10	8	E51			NSD							
G10	9	E52			NSD							
G10	10	F51			NSD							
G10	11	B54			NSD							
G11	12	C41			NSD							
G11	13	C42			NSD							
G11	14	E41			NSD							
G11	15	E42			NSD							
G11	16	F41			NSD							
G11	17	F42			NSD							
G11	18	G41			NSD							
G11	19	E44			NSD							
G11	20	F43			NSD							
G11	21	F44			NSD							
G11	22	G43			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Kate March*  
 Kate March  
 Quality Control Officer



**ASTM D 5755-09 - Microvac Report**

**Job Number: 220435**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220435R01**  
**Report Date: 4/28/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220435 - S1	MV652	ASTM D 5755-09 - Microvac		4/26/2022	4/26/2022
220435 - S2	MV653	ASTM D 5755-09 - Microvac		4/26/2022	4/26/2022
220435 - S3	MV654	ASTM D 5755-09 - Microvac	Many Mg, Al, Si Fibers Present	4/26/2022	4/26/2022
220435 - S4	MV655	ASTM D 5755-09 - Microvac	Many Mg, Al, Si Fibers Present	4/26/2022	4/26/2022
220435 - S5	MV656	ASTM D 5755-09 - Microvac	Many Mg, Al, Si Fibers Present	4/26/2022	4/26/2022

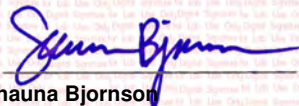
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 **Shauna Bjornson**  
 Analyst

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220435      SEA  
Client: PBS Engineering + Environmental

Report Number: 220435R01  
Date Received: 4/26/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1  
Client Sample No.: MV652  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 0  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 10  
Average Grid Opening Area: 0.0106  
Area Analyzed (mm<sup>2</sup>): 0.106  
Analytical Sens. (struc/cm<sup>2</sup>): 0

Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2  
Client Sample No.: MV653  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 0.5 ml

Aliquot Dilution: 0.025  
Final Dilution: 0.025

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 10  
Average Grid Opening Area: 0.0106  
Area Analyzed (mm<sup>2</sup>): 0.106  
Analytical Sens. (struc/cm<sup>2</sup>): 1092

Analyst(s)      Analysis Date      Microscope      Magnification  
KM                      4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	6552	2404.584 - 14261.52 - Poisson	6
ASTM Asbestos >=5.0µm	< 1092	0 - 4028.388 - Poisson	0
ASTM Libby-Other >0.5µm	< 1092	0 - 4028.388 - Poisson	0
ASTM Total Asbestos >=0.5µm	6552	2404.584 - 14261.52 - Poisson	6

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

### ASTM D 5755-09 - Microvac Final Report

Job Number: 220435      SEA  
Client: PBS Engineering + Environmental

Report Number: 220435R01  
Date Received: 4/26/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S3  
Client Sample No.: MV654  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 0.5 ml

Aliquot Dilution: 0.025  
Final Dilution: 0.025

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 10  
Average Grid Opening Area: 0.0106  
Area Analyzed (mm<sup>2</sup>): 0.106  
Analytical Sens. (struc/cm<sup>2</sup>): 1092

Analyst(s)      Analysis Date      Microscope      Magnification  
KM              4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	5460	1773.408 - 12742.548 - Poisson	5
ASTM Asbestos >=5.0µm	< 1092	0 - 4028.388 - Poisson	0
ASTM Libby-Other >0.5µm	< 1092	0 - 4028.388 - Poisson	0
ASTM Total Asbestos >=0.5µm	5460	1773.408 - 12742.548 - Poisson	5

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4  
Client Sample No.: MV655  
Filter Fraction: 1  
Residual Ash Vol: 20 ml  
Begin Volume: 20 ml  
Volume Taken: 1.5 ml

Aliquot Dilution: 0.075  
Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
Lab Filter Area (mm<sup>2</sup>): 289.38  
Grid Openings Analyzed: 4  
Average Grid Opening Area: 0.0106  
Area Analyzed (mm<sup>2</sup>): 0.0424  
Analytical Sens. (struc/cm<sup>2</sup>): 910

Analyst(s)      Analysis Date      Microscope      Magnification  
SB              4/27/2022      JEOL-Sr 1200      20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220435      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220435R01  
 Date Received: 4/26/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S5  
 Client Sample No.: MV656  
 Filter Fraction: 1  
 Residual Ash Vol: 20 ml  
 Begin Volume: 20 ml  
 Volume Taken: 1.5 ml

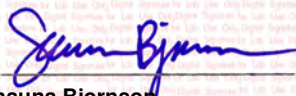
Aliquot Dilution: 0.075  
 Final Dilution: 0.075

Sample Area/Mass/Volume (cm<sup>2</sup>): 100  
 Lab Filter Area (mm<sup>2</sup>): 289.38  
 Grid Openings Analyzed: 4  
 Average Grid Opening Area: 0.0106  
 Area Analyzed (mm<sup>2</sup>): 0.0424  
 Analytical Sens. (struc/cm<sup>2</sup>): 910

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB              4/27/2022              JEOL-Sr 1200              20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	< 910	0 - 3356.99 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
 X  
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220435      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220435R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/26/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV652

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G4	1	F34				NSD								
G4	2	G33				NSD								
G4	3	H41				NSD								
G4	4	F52				NSD								
G4	5	G51				NSD								
G5	6	E34				NSD								
G5	7	F33				NSD								
G5	8	F41				NSD								
G5	9	F44				NSD								
G5	10	G43				NSD								

Lab/Cor Sample No: S2

Client Sample No: MV653

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G10	1	B42				NSD								
G10	2	C41	NAS	1		Fiber	0.95	0.11	8.6	Non Asbestos Structure	Mg, Al, Si, Ca, Fe	Mg-Hornblende		
G10	2	C41	CDQ	2		Fiber	2.2	0.1	22	Chrysotile	Mg, Si			ASTM_Total, ASTM_0.5-5.0
						ItemType	ItemNum			Confirmed	Comment			
						Spectra	J68134SP			KM	4/27/2022			
						Diffraction	J68134DF			KM	4/27/2022 0.53nm ROW SPACING			
						Brightfield	J68134BF							
G10	3	C42	CD	3		Fiber	1.5	0.08	18.8	Chrysotile				ASTM_Total, ASTM_0.5-5.0
G10	4	C44				NSD								
G10	5	E52	CD	4		Fiber	2.6	0.12	21.7	Chrysotile				ASTM_Total, ASTM_0.5-5.0
						ItemType	ItemNum			Confirmed	Comment			
						Brightfield	J68135BF							
G10	6	F51	CD	5		Fiber	3.4	0.08	42.5	Chrysotile				ASTM_Total, ASTM_0.5-5.0
G11	7	E42	CD	6		Fiber	1.6	0.08	20	Chrysotile				ASTM_Total, ASTM_0.5-5.0
G11	8	E44				NSD								
G11	9	F43	CD	7		Fiber	3.1	0.07	44.3	Chrysotile				ASTM_Total, ASTM_0.5-5.0
G11	10	F53				NSD								



**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220435      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220435R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/26/2022

Lab/Cor Sample No: S3

Client Sample No: MV654

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C34				NSD							
G10	2	E33				NSD							
G10	3	E42				NSD							
G10	4	F42	ADQ	1		Fiber	2.3	0.4	5.8	Tremolite	Mg, Al, Si, K, Ca, Ti, Fe		ASTM_Total, ASTM_0.5-5.0
						ItemType					Confirmed	Comment	
						Spectra					KM	4/27/2022	
						Diffraction					KM	4/27/2022	0.53nm ROW SPACING
						Brightfield							
G10	5	G41	CDQ	2		Fiber	1.4	0.11	12.7	Chrysotile	Mg, Si		ASTM_Total, ASTM_0.5-5.0
						ItemType					Confirmed	Comment	
						Spectra					KM	4/27/2022	
						Diffraction					KM	4/27/2022	0.53nm ROW SPACING
						Brightfield							
G10	6	G43	ADQ	3		Fiber	4.1	0.4	10.2	Tremolite	Mg, Al, Si, Ca, Fe		ASTM_Total, ASTM_0.5-5.0
						ItemType					Confirmed	Comment	
						Spectra					KM	4/27/2022	
						Diffraction					KM	4/27/2022	0.53nm ROW SPACING
						Brightfield							
G11	7	E33				NSD							
G11	8	F32	CD	4		Cluster 7-0	4	3	1.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	9	E23	CD	5		Fiber	3.5	0.07	50	Chrysotile			ASTM_Total, ASTM_0.5-5.0
G11	10	F23				NSD							

Lab/Cor Sample No: S4

Client Sample No: MV655

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F42				NSD							
G7	2	G41				NSD							
G8	3	B34				NSD							
G8	4	C33				NSD							

Lab/Cor Sample No: S5

Client Sample No: MV656

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	C44				NSD							
G7	2	E43				NSD							
G8	3	E42				NSD							
G8	4	F41				NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220435 SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220435R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/26/2022

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
X Shauna Bjornson  
Shauna Bjornson  
Analyst

220435



# LABORATORY CHAIN OF CUSTODY

Project: Pierce College Olympic South Abatement and Repairs Project #: 40535.488 Page 1 of 1

Analysis requested: ASTM microvac dust sample Date: 4/26/2022

Relinquished by/Signature: Peter Stensland / *[Signature]* Date/Time: 4/26/2022

Received by/Signature: *[Signature]* Date/Time: 4/26/22 4:00pm

Email ALL INVOICES to: [seattleap@pbsusa.com](mailto:seattleap@pbsusa.com)

**E-mail results to:**

- Brian Stanford
- Prudy Stoudt-McRae
- Mike Smith
- Willem Mager
- Janet Murphy
- Ferman Fletcher
- Gregg Middaugh
- Kaitlin Soukup
- Ryan Hunter
- Mark Hiley
- Claire Tsai
- Toan Nguyen
- Tim Ogden
- Holly Tuttle
- Peter Stensland

**TURN AROUND TIME:**

- 1 Hour
- 24 Hours
- 3 Days
- 2 Hours
- 48 Hours
- \_\_\_\_\_
- 4 Hours

LOD<1000

SAMPLE DATA FORM			
Sample #	Material	Location	Lab
MV652	--	Field Blank	Labcor
MV653	Dust - 100cm2 area	Olympic S emergency power large junction box NE	
MV654	Dust - 100cm2 area	Olympic N emergency power large junction box NE	
MV655	Dust - 100cm2 area	Olympic N emergency power large junction box mechanical room	
MV656	Dust - 100cm2 area	Olympic N emergency power elbow at wall penetration mech. room	

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax    Verbal    USPS    Email

Invoice Released: \_\_\_\_\_

Fax    USPS    Email

**ASTM D 5755-09 - Microvac Report**

**Job Number: 220473**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220473R02**  
**Report Date: 5/9/2022**

**Report Note:** R01 was the Preliminary Report

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220473 - S1	MV657	ASTM D 5755-09 - Microvac		5/5/2022	5/5/2022
220473 - S2	MV658	ASTM D 5755-09 - Microvac		5/5/2022	5/5/2022
220473 - S3	MV659	ASTM D 5755-09 - Microvac	Several Mg, Al, Si Fibers Present	5/5/2022	5/5/2022

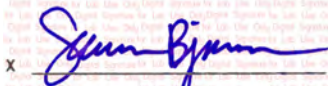
ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Shauna Bjornson**  
 Analyst

**ASTM D 5755-09 - Microvac Final Report**

Job Number: 220473      SEA  
Client: PBS Engineering + Environmental

Report Number: 220473R02  
Date Received: 5/5/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 0
Client Sample No.: MV657	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Filter Fraction: 1	Aliquot Dilution: 0.075
Residual Ash Vol: 20 ml	Final Dilution: 0.075
Begin Volume: 20 ml	Grid Openings Analyzed : 10
Volume Taken: 1.5 ml	Average Grid Opening Area : 0.0106
	Area Analyzed (mm <sup>2</sup> ) : 0.106
	Analytical Sens. (struc/cm <sup>2</sup> ) : 0

Analyst(s)	Analysis Date	Microscope	Magnification
SB	5/6/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	NA	Not Applicable	0
ASTM Asbestos >=5.0µm	NA	Not Applicable	0
ASTM Libby-Other >0.5µm	NA	Not Applicable	0
ASTM Total Asbestos >=0.5µm	NA	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2	Sample Area/Mass/Volume (cm <sup>2</sup> ) : 100
Client Sample No.: MV658	Lab Filter Area (mm <sup>2</sup> ) : 289.38
Filter Fraction: 1	Aliquot Dilution: 0.05
Residual Ash Vol: 20 ml	Final Dilution: 0.05
Begin Volume: 20 ml	Grid Openings Analyzed : 6
Volume Taken: 1 ml	Average Grid Opening Area : 0.0106
	Area Analyzed (mm <sup>2</sup> ) : 0.0636
	Analytical Sens. (struc/cm <sup>2</sup> ) : 910

Analyst(s)	Analysis Date	Microscope	Magnification
SB	5/6/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	60970	47249.02 - 77430.08 - Poisson	67
ASTM Asbestos >=5.0µm	13650	7640.36 - 22514.31 - Poisson	15
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	74620	59349.29 - 92628.9 - Poisson	82

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220473      **SEA**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 220473R02  
**Date Received:** 5/5/2022

**Lab/Cor Sample No.:** S3  
**Client Sample No.:** MV659  
**Filter Fraction:** 1  
**Residual Ash Vol:** 20 ml  
**Begin Volume:** 20 ml  
**Volume Taken:** 0.5 ml

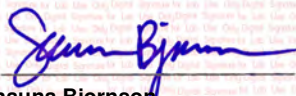
**Aliquot Dilution:** 0.025  
**Final Dilution:** 0.025

**Sample Area/Mass/Volume (cm<sup>2</sup>):** 100  
**Lab Filter Area (mm<sup>2</sup>):** 289.38  
**Grid Openings Analyzed:** 11  
**Average Grid Opening Area:** 0.0106  
**Area Analyzed (mm<sup>2</sup>):** 0.1166  
**Analytical Sens. (struc/cm<sup>2</sup>):** 992.727

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SB                      5/9/2022              JEOL-Sr 1200              20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	11912.727	6155.902 - 20809.549 - Poisson	12
ASTM Asbestos >=5.0µm	2978.182	614.498 - 8703.24 - Poisson	3
ASTM Libby-Other >0.5µm	< 992.727	0 - 3662.171 - Poisson	0
ASTM Total Asbestos >=0.5µm	14890.909	8334.938 - 24561.065 - Poisson	15

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

  
 X \_\_\_\_\_  
**Shauna Bjornson**  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

**Job Number:** 220473      **SEA**      **Ref. D5755-09**  
**Client:** PBS Engineering + Environmental      **Report Number:** 220473R02  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 5/5/2022  
**Project No.:** 40535.488

**Lab/Cor Sample No:** S1  
**Client Sample No:** MV657

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G4	1	E52			NSD							
G4	2	F51			NSD							
G4	3	F43			NSD							
G4	4	F34			NSD							
G4	5	G33			NSD							
G5	6	F34			NSD							
G5	7	G34			NSD							
G5	8	F43			NSD							
G5	9	B43			NSD							
G5	10	B51			NSD							

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220473      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220473R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S2

Client Sample No: MV658

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	1	C34	CDQ	1		Matrix	3.5	1.2	2.9	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum				Confirmed	Comment	
						Brightfield	J68174BF						
						Diffraction Spectra	J68174DF J68174SP				SB 5/6/2022 SB 5/6/2022	0.53nm ROW SPACING	
G10	1	C34	CM	2		Fiber	1.7	0.1	17	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	3		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	4		Matrix 1-0	3	2.5	1.2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	5		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	6		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	7		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	8		Matrix 1-0	2.5	1	2.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	9		Fiber	3	0.1	30	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	10		Matrix 2-0	22.7	9.4	2.4	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	1	C34	CM	11		Fiber	1.2	0.1	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CD	12		Fiber	4.75	0.1	47.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	13		Matrix 1-1	7.5	2	3.8	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	1	C34	CM	14		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	15		Fiber	2	0.1	20	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	16		Matrix 1-0	5	1.5	3.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	1	C34	CM	1		Matrix 2-0	7	4	1.8	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	1	C34	CM	2		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	3		Matrix 1-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	1	C34	CM	4		Bundle	2	0.2	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CD	5		Fiber	0.55	0.1	5.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	6		Fiber	2	0.15	13.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	7		Matrix 1-0	6	4	1.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	2	E33	CM	8		Fiber	1.25	0.1	12.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	9		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	10		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	11		Matrix 1-0	7.5	5	1.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	2	E33	CM	12		Bundle	1	0.5	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total



**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220473      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220473R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S2

Client Sample No: MV658

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G10	2	E33	CM	13		Matrix 4-0	1	0.5	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CMQ	14		Matrix 1-0	3.5	2	1.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	15		Fiber	0.8	0.1	8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	16		Fiber	2.5	0.1	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	17		Matrix 1-0	5	5	1	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	2	E33	CD	18		Bundle	2	0.15	13.3	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	2	E33	CM	19		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	B42	CM	20		Bundle	15	0.15	100	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	3	B42	CM	21		Matrix 1-0	7.5	6	1.2	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	3	B42	CM	22		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	B42	CM	23		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	B42	CD	24		Matrix 1-0	5	2	2.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	3	B42	CM	25		Fiber	4	0.15	26.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	B42	CM	26		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	B42	CM	27		Bundle	3.5	0.5	7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	B42	CM	28		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G10	3	B42	CM	29		Bundle	6.5	0.25	26	Chrysotile			ASTM_>=5.0, ASTM_Total
G10	3	B42	CM	30		Bundle	1	0.25	4	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CD	31		Matrix 1-0	1.5	1	1.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum	Confirmed	Comment				
						Diffraction	J68175DF	SB	5/6/2022				
G11	4	F44	CM	32		Bundle	1.5	0.15	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	33		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	34		Fiber	1	0.15	6.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	35		Fiber	2.5	0.2	12.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	36		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	37		Matrix 1-0	4	2	2	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	38		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	39		Fiber	0.55	0.1	5.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	40		Fiber	0.55	0.1	5.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	41		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220473      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220473R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S2

Client Sample No: MV658

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G11	4	F44	CM	42		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CD	43		Fiber	3.5	0.1	35	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	44		Fiber	1.5	0.08	18.8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	45		Fiber	0.75	0.1	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	46		Matrix 1-0	4	2.5	1.6	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	47		Fiber	2	0.1	20	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	48		Fiber	1.5	0.2	7.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	49		Fiber	3	0.25	12	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	4	F44	CM	50		Fiber	2	0.1	20	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	5	G43	CM	51		Fiber	6.5	0.15	43.3	Chrysotile			ASTM_>=5.0, ASTM_Total
G11	5	G43	CM	52		Fiber	1.5	0.1	15	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	5	G43	CM	53		Fiber	7	0.1	70	Chrysotile			ASTM_>=5.0, ASTM_Total
G11	5	G43	CM	54		Fiber	0.7	0.1	7	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	5	G43	CM	55		Matrix 1-0	7.5	5	1.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G11	5	G43	CD	56		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	5	G43	CM	57		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	5	G43	CM	58		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	G51	CM	59		Fiber	3	0.1	30	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	G51	CM	60		Bundle	6.5	0.3	21.7	Chrysotile			ASTM_>=5.0, ASTM_Total
G11	6	G51	CM	61		Fiber	4.5	0.1	45	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	G51	CD	62		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	G51	CM	63		Fiber	0.85	0.1	8.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	G51	CM	64		Fiber	3	0.1	30	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	G51	CM	65		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G11	6	G51	CM	66		Fiber	1	0.15	6.7	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
Final Report**

Job Number: 220473      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220473R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S3

Client Sample No: MV659

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G7	1	F51				NSD							
G7	2	F44	CDQ	1		Fiber	1.1	0.1	11	Chrysotile	Mg, Si		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Brightfield	J68176BF						
						Diffraction	J68176DF			SB 5/9/2022	0.53nm ROW SPACING		
						Spectra	J68176SP			SB 5/9/2022			
G7	2	F44	CMQ	2		Bundle	0.9	0.2	4.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	F44	CM	3		Fiber	1.6	0.1	16	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	2	F44	ADQ	4		Matrix 1-0	1.25	0.8	1.6	Tremolite	Mg, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Brightfield	J68177BF						
						Diffraction	J68177DF			SB 5/9/2022	0.53nm ROW SPACING		
						Spectra	J68177SP			SB 5/9/2022			
G7	3	F33	AMQ	5		Fiber	1.5	0.2	7.5	Tremolite	Mg, Si, Ca, Fe		ASTM_0.5-5.0, ASTM_Total
G7	4	G33	ADQ	6		Fiber	5.25	0.65	8.1	Tremolite	Mg, Si, Ca, Fe		ASTM_>=5.0, ASTM_Total
G7	5	F24	CD	7		Bundle	5.5	0.2	27.5	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	5	F24	CM	8		Bundle	3	0.15	20	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	5	F24	CM	9		Fiber	5.5	0.1	55	Chrysotile			ASTM_>=5.0, ASTM_Total
G7	5	F24	CM	10		Fiber	4	0.1	40	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G7	6	G23				NSD							
G8	7	B52				NSD							
G8	8	C51	CD	11		Fiber	2.55	0.1	25.5	Chrysotile			ASTM_0.5-5.0, ASTM_Total
						ItemType	ItemNum			Confirmed	Comment		
						Diffraction	J68178DF						
G8	8	C51	CM	12		Fiber	0.8	0.1	8	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	9	C43				NSD							
G8	10	A52	CM	13		Fiber	2.5	0.1	25	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	11	A44	CM	14		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total
G8	11	A44	CM	15		Fiber	1	0.1	10	Chrysotile			ASTM_0.5-5.0, ASTM_Total

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220473      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220473R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Shauna Bjornson*  
 X \_\_\_\_\_  
**Shauna Bjornson**  
 Analyst



**ASTM D 5755-09 - Microvac Report**

**Job Number: 220482**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220482R01**  
**Report Date: 5/10/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220482 - S1	MV660	ASTM D 5755-09 - Microvac	Many Mg, Al, Si fibers present.	5/9/2022	5/9/2022


ASTM D 5755-09 - Microvac Preparation and analysis of the above samples was conducted in accordance with the ASTM # D-5755-09 for the identification of asbestos in dust. Briefly, the samples were sampled by using a microvac technique onto 0.45 µm pore size mixed cellulose ester (MCE) filters. Sample cassettes were rinsed in distilled, particle-free water, sonicated lightly to homogenize and removed particulates. Aliquots were taken and filtered onto 0.22 µm pore size mixed cellulose ester filters, then air-dried. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification between 15,000 - 20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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 \_\_\_\_\_  
**Kate March**  
 Quality Control Officer

**ASTM D 5755-09 - Microvac Final Report**

**Job Number:** 220482      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220482R01  
**Date Received:** 5/9/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

<b>Lab/Cor Sample No.:</b> S1	<b>Sample Area/Mass/Volume (cm<sup>2</sup>):</b> 100
<b>Client Sample No.:</b> MV660	<b>Lab Filter Area (mm<sup>2</sup>):</b> 289.38
<b>Filter Fraction:</b> 1	<b>Aliquot Dilution:</b> 0.05
<b>Residual Ash Vol:</b> 20 ml	<b>Final Dilution:</b> 0.05
<b>Begin Volume:</b> 20 ml	<b>Grid Openings Analyzed :</b> 6
<b>Volume Taken:</b> 1 ml	<b>Average Grid Opening Area :</b> 0.0106
	<b>Area Analyzed (mm<sup>2</sup>):</b> 0.0636
	<b>Analytical Sens. (struc/cm<sup>2</sup>):</b> 910

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	5/10/2022	JEOL-Sr 1200	20000

Structure Type	Concentration (struc/cm <sup>2</sup> )	95% Confidence Interval (struc/cm <sup>2</sup> )	Structure Count <sup>1</sup> Prim/Total
ASTM Asbestos >=0.5µm - <5.0µm	910	22.75 - 5070.52 - Poisson	1
ASTM Asbestos >=5.0µm	< 910	0 - 3356.99 - Poisson	0
ASTM Libby-Other >0.5µm	< 910	0 - 3356.99 - Poisson	0
ASTM Total Asbestos >=0.5µm	910	22.75 - 5070.52 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

*Kate March*  
**Kate March**  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**ASTM D 5755-09 - Microvac Raw Data -  
 Final Report**

Job Number: 220482      SEA

Ref. D5755-09

Client: PBS Engineering + Environmental

Report Number: 220482R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/9/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: MV660

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G5	1	E44			NSD							
G5	2	F51			NSD							
G5	3	G54			NSD							
G5	4	H53	ADQ	1	Fiber	1.65	0.322	5.1	Actinolite	Mg, Al, Si, Ca, Mn, Fe		ASTM_0.5-5.0, ASTM_Total
					ItemType	ItemNum			Confirmed	Comment		
					Spectra	J68194SP			KM	5/10/2022		
					Diffraction	J68194DF			KM	5/10/2022    0.53nm ROW SPACING		
					Brightfield	J68194BF						
G6	5	C33			NSD							
G6	6	C42			NSD							

**Count Categories**

ASTM_>=5.0	ASTM Asbestos >=5.0µm	ASTM_0.5-5.0	ASTM Asbestos >=0.5µm - <5.0µm	ASTM_Total	ASTM Total Asbestos >=0.5µm
ASTMD_Other	ASTM Libby-Other >0.5µm				

**Reviewed by:**

*Kate March*

**Kate March**  
 Quality Control Officer





## **APPENDIX B**

---

### **Reports**

Pierce College Playground Soil Memorandum (April 2022)  
Cascade 432 Air Monitoring Letter Report (June 2022)



## MEMORANDUM

DATE: April 28, 2022

TO: Gus Lim  
Pierce College

FROM: Gregg Middaugh

PROJECT NO: 40535.488  
Pierce College Playground Soils Discussion

RE:

---

Through the process of discovery and testing of asbestos dust in Olympic South the abatement team identified pieces of equipment (i.e., toys, furniture and educational equipment) that had potentially been removed from inside the ECE lab area to the vehicle drive-through and adjacent storage sheds, prior to the start of the ECE renovation work. As part of the investigation, surface dust samples were collected from equipment located outside the building and in storage sheds. Laboratory analysis revealed the presence of elevated asbestos fibers in the surface dust on the equipment and in the sheds and their associated contents.

Out of concern that these pieces of equipment may have migrated between the building and the storage sheds over time, and potentially between play structures the remaining play structures were also tested for asbestos. Laboratory analysis showed elevated asbestos fibers present in the surface dust of the open-air play structures.

With evidence that asbestos dust was present in the play structures the abatement team was directed to gather more data to determine if asbestos was present in the soils and pathways in the playground area. Twelve soil samples were collected and analyzed from the playground area. Asbestos content in the soil from 0 to 12 inches depth ranged from 0.00351% to 0.690%.

The abatement team was directed to remove the impacted storage sheds and play structures along with the aged and compromised wood play structures. All materials were disposed as asbestos containing waste. Most playground structure footings were removed with minimal disturbance to ground surface soils. In instances where footings would have created soil disturbance and therefore potential asbestos release the footings remained in place, marked with safety paint for identification. The abatement team has been directed to cease further operations in the play area until further notice.

PBS conducted ambient air testing in the area during the equipment/ playground demolition activities. Airborne levels of asbestos were found between <.004 and .004 fibers per cubic centimeter (f/cc). The Washington Administrative Code (WAC) Chapter 296-62-077 clearance criteria is 0.1 f/cc. The clearance criteria was not exceeded.

The personnel exposure limit (PEL) for asbestos is based on an 8-hour time-weighted average (TWA) in accordance with WAC Chapter 296-841 and 296-62-077. When the PEL is exceeded, it initiates certain required activities such as housekeeping, routine exposure monitoring, personal protective equipment (PPE), and medical surveillance. The WAC PEL for asbestos is 0.1 f/cc. The abatement contractor performed an initial exposure

assessment to determine if the PEL was exceeded during this activity. Results of that personnel air monitoring revealed less than 0.003 f/cc. The PEL was not exceeded.

WAC 296-62-07 identifies a regulated "asbestos-containing material" as "containing more than 1% asbestos" content by weight. The referenced code also contains rules regarding materials that contain less than 1% asbestos. These include the following:

1. These materials are not regulated by EPA or local Clean Air Agencies. It is not considered a Class I, II, III or IV work. Requirements for handling < 1% asbestos are found in WAC 296-62-07712 (2,4 and 5), WAC 296-62-07722(5) and WAC 296-62-07728.
2. A Competent person must conduct a negative exposure assessment and periodic monitoring.
3. When working with these materials' wet methods, HEPA vacuums and prompt cleanup must be performed.
4. 2-hr Awareness training is required for all workers disturbing this material.
5. Items/activities that are not required for materials that contain less than 1% asbestos include; labeled disposal bags, asbestos worker certification, supervisor or contractor certifications, pre-demolition removal of the materials, and pre-removal notifications to regulatory agencies.

While the asbestos found in the soil is less than regulatory clean up levels there are a number of concerns with leaving it in place:

- Re-establishing the area as a playground without remedial action will leave potential asbestos exposure hazards in place.
- Disturbing the playground soils has the potential to create asbestos exposures to staff and children playing in that area.
- If no soil remediation is performed the college is obligated to manage protocols to ensure the soil and hardscape are not disturbed unless the above WAC regulations are followed.

Please provide direction on how you would like to address the playground soils.



June 7, 2022

Gus Lim  
Director of Facilities and Operations  
Pierce College  
9401 Farwest Dr SW,  
Lakewood, WA 98498

Regarding: Pierce College Olympic South Abatement & Repairs  
Cascade 432 Air Monitoring Letter Report  
9401 Farwest Dr SW,  
Lakewood, WA 98498  
Project 40535.488

Dear Gus Lim,

The purpose of this letter is to provide a summary of the work performed in Pierce College Cascade Room 432 in Lakewood at the above-mentioned address. The following will provide a description of background information, field activities, conclusions and recommendations.

### **Background Information**

In March and April 2021, PBS Engineering and Environmental Inc. (PBS) discovered asbestos contamination present in the surface dust of Olympic South. During the clean up of Olympic South, the college notified PBS that theater items previously stored in Olympic South had been moved to Cascade 432. Out of an abundance of caution PBS collected representative dust samples of Cascade Room 432 and its contents to determine the existence of asbestos contamination. Minor contamination was found on the contents, in the room, and in the supply and return duct work associated with the room.

### **Field Activities**

In September 2021, the Dickson Company, a professional abatement firm, disposed of all contents and cleaned surfaces in the room. PBS industrial hygienists performed visual inspections and clearance testing associated with this cleanup effort in accordance with the Asbestos Hazard Emergency Response Act (AHERA) 40 CFR Part 763.

Laboratory analysis revealed that all clearance air samples meet the criteria established by AHERA.

Once the work was complete the college requested PBS do follow up air sampling to ensure the room was safe to occupy while the HVAC system was running. On February 15, 2022 and May 5, 2022, PBS performed ambient air sampling in Cascade 432 with the HVAC system running. The samples were collected and analyzed in accordance with the National Institute for Occupational Safety and Health (NIOSH) Method 7402.

Airborne levels of asbestos were found to be <0.0002 fibers per cubic centimeter (f/cc) on the days of testing. The Washington Administrative Code (WAC) Chapter 296-62-077 clearance criteria is 0.1 f/cc. The clearance criteria was not exceeded.

### **Conclusions**

Laboratory analysis found that no asbestos structures were present in the ambient air of Cascade 432 during testing even though some asbestos is present in the HVAC ducting. Based on this data, it is PBS' opinion that exposures to

airborne asbestos in Cascade 432 are well below regulatory thresholds and in fact were non-existent at the time of testing.

**Recommendations**

Based on our observations of abatement related activities, visual inspections, and air testing, it is PBS' opinion that the scope of work included in the abatement and cleaning in Cascade Room 432 is complete. The room is considered safe for authorized users to enter.

Given the fact that asbestos structures are present in the ducting, PBS recommends the duct be labeled and that periodic ambient air monitoring be conducted quarterly.

Please feel free to reach out with any questions or comments.

Sincerely,

Claire Tsai  
Industrial Hygienist

Reviewed by: Gregg Middaugh

Attachments:  
NIOSH 7402 Chain of Custody  
NIOSH 7402 Lab Results



**NIOSH 7402 - TEM - Direct Final Report**

**Job Number: 220145**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220145R01**  
**Report Date: 2/18/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220145 - S1	IA-001	NIOSH 7402 - TEM - Direct		2/15/2022	2/15/2022
220145 - S2	IA-002	NIOSH 7402 - TEM - Direct		2/15/2022	2/15/2022
220145 - S3	IA-003	NIOSH 7402 - TEM - Direct		2/15/2022	2/15/2022
220145 - S4	IA-004	NIOSH 7402 - TEM - Direct		2/15/2022	2/15/2022

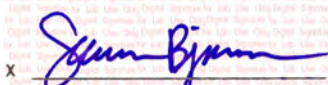
NIOSH 7402 - TEM - Direct Preparation and analysis of the above samples was conducted in accordance with the NIOSH method 7402 for the identification of asbestos. The samples were collapsed with dimethylformamide (DMF) / acetic acid, carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification of 900x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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  
**Shauna Bjornson**  
 Analyst



**NIOSH 7402 - TEM - Direct Rapid Summary - Final Report**


Job Number: 220145 SEA  
 Client: PBS Engineering + Environmental

Report Number: 220145R01  
 Date Received: 2/15/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup>		Analytical Sens. (fiber/cc) :
					Prim	Total	
S1	IA-001	NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0		0.00022
S2	IA-002	NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0		0.00022
S3	IA-003	NIOSH ASBESTOS	Not Applicable	Not Applicable	0		NA
S4	IA-004	NIOSH ASBESTOS	Not Applicable	Not Applicable	0		NA

Reviewed by:

  
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**NIOSH 7402 - TEM - Direct Summary Data -  
 Final Report**

Job Number: 220145      SEA      Report Number: 220145R01  
 Client: PBS Engineering + Environmental      Date Received: 2/15/2022  
 Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.: S1      Volume (L) : 3600  
 Client Sample No.: IA-001      Lab Filter Area (mm2) : 385  
 Analyst(s)      Analysis Date      Microscope      Magnification      Grid Openings Analyzed : 40  
 SB      2/18/2022      JEOL-Sr 1200      1200      Average Grid Opening Area : 0.012  
    Area Analyzed (mm2) : 0.48  
    Analytical Sens. (fiber/cc) : 0.00022

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH NonASBESTOS	0.0016	0.0006 - 0.0032 - Poisson	7
NIOSH Libby-Other Amphibole	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH Total Fibers	0.0016	0.0006 - 0.0032 - Poisson	7

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2      Volume (L) : 3600  
 Client Sample No.: IA-002      Lab Filter Area (mm2) : 385  
 Analyst(s)      Analysis Date      Microscope      Magnification      Grid Openings Analyzed : 40  
 SB      2/18/2022      JEOL-Sr 1200      1200      Average Grid Opening Area : 0.012  
    Area Analyzed (mm2) : 0.48  
    Analytical Sens. (fiber/cc) : 0.00022

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH NonASBESTOS	0.0007	0.0001 - 0.002 - Poisson	3
NIOSH Libby-Other Amphibole	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH Total Fibers	0.0007	0.0001 - 0.002 - Poisson	3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## NIOSH 7402 - TEM - Direct Summary Data - Final Report

Job Number: 220145      SEA  
Client: PBS Engineering + Environmental

Report Number: 220145R01

Lab/Cor Sample No.: S3  
Client Sample No.: IA-003

Volume (L) : 0

Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      2/18/2022      JEOL-Sr 1200      1200

Lab Filter Area (mm<sup>2</sup>) : 385  
Grid Openings Analyzed : 40  
Average Grid Opening Area : 0.012  
Area Analyzed (mm<sup>2</sup>) : 0.48  
Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	1
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4  
Client Sample No.: IA-004

Volume (L) : 0

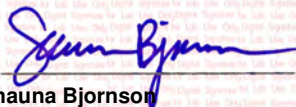
Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      2/18/2022      JEOL-Sr 1200      1200

Lab Filter Area (mm<sup>2</sup>) : 385  
Grid Openings Analyzed : 40  
Average Grid Opening Area : 0.012  
Area Analyzed (mm<sup>2</sup>) : 0.48  
Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	0
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Shauna Bjornson*  
X   
Shauna Bjornson  
Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**NIOSH 7402 - TEM - Direct Raw Data -  
Final Report**

Job Number: 220145      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220145R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/15/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: IA-001

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C24				NSD								
G1	2	E23				NSD								
G1	3	E24	NAS	1		Fiber	18	2.5	7.2	Non Asbestos Structure	Al, Si, P			NIOSH_NAM, NIOSH_Total
G1	3	E24	NAS	2		Fiber	5.5	1.5	3.7	Non Asbestos Structure	None	Possible Organic		NIOSH_NAM, NIOSH_Total
G1	4	F23				NSD								
G1	5	F24	NAS	3		Fiber	5.5	0.8	6.9	Non Asbestos Structure				NIOSH_NAM, NIOSH_Total
G1	6	G23				NSD								
G1	7	G24				NSD								
G1	8	H23				NSD								
G1	9	H24				NSD								
G1	10	K34				NSD								
G1	11	H34				NSD								
G1	12	H33				NSD								
G1	13	G34				NSD								
G1	14	G33				NSD								
G1	15	C34	NAS	4		Fiber	12.5	4	3.1	Non Asbestos Structure	None	Possible Organic		NIOSH_NAM, NIOSH_Total
G1	16	C33	NAS	5		Fiber	11	0.8	13.8	Non Asbestos Structure				NIOSH_NAM, NIOSH_Total
G1	17	B52				NSD								
G1	18	C53				NSD								
G1	19	E53				NSD								
G1	20	E54				NSD								
G2	21	E22				NSD								
G2	22	G21				NSD								
G2	23	G22				NSD								
G2	24	H23				NSD								
G2	25	G23	NAS	6		Fiber	5.2	0.5	10.4	Non Asbestos Structure	None	Possible Organic		NIOSH_NAM, NIOSH_Total
G2	26	F24				NSD								
G2	27	F23				NSD								
G2	28	E24	NAS	7		Fiber	7	1.5	4.7	Non Asbestos Structure				NIOSH_NAM, NIOSH_Total
G2	29	E23				NSD								
G2	30	E32				NSD								
G2	31	F31				NSD								

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220145      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220145R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/15/2022

Lab/Cor Sample No: S1

Client Sample No: IA-001

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G2	32	F32				NSD							
G2	33	G31				NSD							
G2	34	G32				NSD							
G2	35	G42				NSD							
G2	36	G41				NSD							
G2	37	F42				NSD							
G2	38	G44				NSD							
G2	39	H43				NSD							
G2	40	H44				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220145      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220145R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/15/2022

Lab/Cor Sample No: S2

Client Sample No: IA-002

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C32				NSD							
G1	2	E31				NSD							
G1	3	E32				NSD							
G1	4	F32				NSD							
G1	5	G31				NSD							
G1	6	G32				NSD							
G1	7	H31				NSD							
G1	8	H32				NSD							
G1	9	H41				NSD							
G1	10	G42				NSD							
G1	11	G41				NSD							
G1	12	H34				NSD							
G1	13	H44				NSD							
G1	14	H42				NSD							
G1	15	G44				NSD							
G1	16	G43				NSD							
G1	17	F44				NSD							
G1	18	F43				NSD							
G1	19	E44				NSD							
G1	20	E43				NSD							
G1	21	C44	NAS	1		Fiber	9	1	9	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G1	22	C43				NSD							
G1	23	B44				NSD							
G1	24	B43				NSD							
G1	25	B52				NSD							
G1	26	C51				NSD							
G1	27	C52				NSD							
G1	28	E51	NAS	2		Fiber	6	0.8	7.5	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G1	29	E52				NSD							
G1	30	F51				NSD							
G2	31	F44				NSD							
G2	32	G43				NSD							
G2	33	G44				NSD							
G2	34	H43				NSD							
G2	35	H44				NSD							
G2	36	H52	NAS	3		Fiber	8.5	1	8.5	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G2	37	H51				NSD							
G2	38	G52				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

**Job Number:** 220145      **SEA**      **NIOSH 7402**  
**Client:** PBS Engineering + Environmental      **Report Number:** 220145R01  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 2/15/2022

**Lab/Cor Sample No:** S2  
**Client Sample No:** IA-002

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G2	39	G51				NSD								
G2	40	F52				NSD								

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220145      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220145R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/15/2022

Lab/Cor Sample No: S3

Client Sample No: IA-003

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C34				NSD							
G1	2	E33				NSD							
G1	3	E34				NSD							
G1	4	F33				NSD							
G1	5	F34				NSD							
G1	6	G33				NSD							
G1	7	G34				NSD							
G1	8	H34				NSD							
G1	9	K33				NSD							
G1	10	K34				NSD							
G1	11	K44				NSD							
G1	12	K43				NSD							
G1	13	H44				NSD							
G1	14	H43				NSD							
G1	15	G44				NSD							
G1	16	G43				NSD							
G1	17	F44				NSD							
G1	18	F43				NSD							
G1	19	E44				NSD							
G1	20	E43				NSD							
G1	21	C44				NSD							
G1	22	C43				NSD							
G1	23	B44				NSD							
G1	24	B43				NSD							
G1	25	C52				NSD							
G2	26	C24				NSD							
G2	27	E23				NSD							
G2	28	E24				NSD							
G2	29	F23				NSD							
G2	30	F24				NSD							
G2	31	G23	NAS	1		Fiber	12	1.5	8	Non Asbestos Structure	None	Possible Organic, 2X Grid Bar Rule	NIOSH_NAM, NIOSH_Total
G2	32	G24				NSD							
G2	33	H31				NSD							
G2	34	G32				NSD							
G2	35	G31				NSD							
G2	36	F32				NSD							
G2	37	C32				NSD							
G2	38	E33				NSD							
G2	39	E34				NSD							
G2	40	F33				NSD							



**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220145      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220145R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 2/15/2022

Lab/Cor Sample No: S4

Client Sample No: IA-004

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C43				NSD							
G1	2	C44				NSD							
G1	3	F44				NSD							
G1	4	G44				NSD							
G1	5	H43				NSD							
G1	6	H44				NSD							
G1	7	K43				NSD							
G1	8	K52				NSD							
G1	9	H52				NSD							
G1	10	H51				NSD							
G1	11	G52				NSD							
G1	12	G51				NSD							
G1	13	F52				NSD							
G1	14	C52				NSD							
G1	15	C51				NSD							
G1	16	E61				NSD							
G1	17	E62				NSD							
G1	18	F61				NSD							
G1	19	F62				NSD							
G1	20	G61				NSD							
G2	21	G52				NSD							
G2	22	H51				NSD							
G2	23	H52				NSD							
G2	24	K53				NSD							
G2	25	H54				NSD							
G2	26	H53				NSD							
G2	27	G54				NSD							
G2	28	E53				NSD							
G2	29	C53				NSD							
G2	30	B54				NSD							
G2	31	C61				NSD							
G2	32	C62				NSD							
G2	33	B42				NSD							
G2	34	E64				NSD							
G2	35	C44				NSD							
G2	36	E43				NSD							
G2	37	E44				NSD							
G2	38	F44				NSD							
G2	39	G43				NSD							
G2	40	H44				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

**Job Number:** 220145      **SEA**

**NIOSH 7402**

**Client:** PBS Engineering + Environmental

**Report Number:** 220145R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 2/15/2022

**Count Categories**

NIOSH_ASB	NIOSH ASBESTOS	NIOSH_NAM	NIOSH NonASBESTOS	NIOSH_Other	NIOSH Libby-Other Amphibole
NIOSH_Total	NIOSH Total Fibers				

**Reviewed by:**

*Shauna Bjornson*  
 X \_\_\_\_\_  
**Shauna Bjornson**  
**Analyst**



**NIOSH 7402 - TEM - Direct Report**

**Job Number: 220474**  
**Client: PBS Engineering + Environmental**  
**Address: 214 E Galer Street**  
**Seattle, WA 98102**  
**Project Name: Pierce College Olympic South Abatement and Repairs**  
**Project No.: 40535.488**  
**PO Number:**  
**Sub Project:**  
**Reference No.:**

**Report Number: 220474R02**  
**Report Date: 5/9/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220474 - S1	IA-005	NIOSH 7402 - TEM - Direct		5/5/2022	5/5/2022
220474 - S2	IA-006	NIOSH 7402 - TEM - Direct		5/5/2022	5/5/2022
220474 - S3	IA-007	NIOSH 7402 - TEM - Direct		5/5/2022	5/5/2022
220474 - S4	IA-008	NIOSH 7402 - TEM - Direct		5/5/2022	5/5/2022

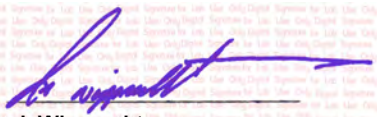
**NIOSH 7402 - TEM - Direct** Preparation and analysis of the above samples was conducted in accordance with the NIOSH method 7402 for the identification of asbestos. The samples were collapsed with dimethylformamide (DMF) / acetic acid, carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification of 900x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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,



**Derk Wipprecht**  
**Laboratory Supervisor**

**NIOSH 7402 - TEM - Direct Rapid Summary - Final Report**

Job Number: 220474 SEA  
 Client: PBS Engineering + Environmental

Report Number: 220474R02  
 Date Received: 5/5/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup>		Analytical Sens. (fiber/cc) :
					Prim	Total	
S1	IA-005	NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0		0.00021
S2	IA-006	NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0		0.00021
S3	IA-007	NIOSH ASBESTOS	Not Applicable	Not Applicable	0		NA
S4	IA-008	NIOSH ASBESTOS	Not Applicable	Not Applicable	0		NA

Reviewed by:

  
 X  
 Derk Wipprecht  
 Laboratory Supervisor

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**NIOSH 7402 - TEM - Direct Summary Data -  
 Final Report**

Job Number: 220474      SEA

Client: PBS Engineering + Environmental

Report Number: 220474R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No.: S1

Volume (L) : 4300

Client Sample No.: IA-005

Lab Filter Area (mm2) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/9/2022              JEOL-Sr 1200              1200

Grid Openings Analyzed : 40

Average Grid Opening Area : 0.0106

Area Analyzed (mm2) : 0.424

Analytical Sens. (fiber/cc) : 0.00021

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH NonASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH Libby-Other Amphibole	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH Total Fibers	< 0.0002	0 - 0.0008 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Volume (L) : 4300

Client Sample No.: IA-006

Lab Filter Area (mm2) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/9/2022              JEOL-Sr 1200              1200

Grid Openings Analyzed : 40

Average Grid Opening Area : 0.0106

Area Analyzed (mm2) : 0.424

Analytical Sens. (fiber/cc) : 0.00021

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH NonASBESTOS	0.0011	0.0003 - 0.0025 - Poisson	5
NIOSH Libby-Other Amphibole	< 0.0002	0 - 0.0008 - Poisson	0
NIOSH Total Fibers	0.0011	0.0003 - 0.0025 - Poisson	5

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**NIOSH 7402 - TEM - Direct Summary Data -  
Final Report**

Job Number: 220474      SEA  
Client: PBS Engineering + Environmental

Report Number: 220474R02

Lab/Cor Sample No.: S3  
Client Sample No.: IA-007

Volume (L) : 0

Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      5/9/2022              JEOL-Sr 1200              1200

Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 40  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.424  
Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	0
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S4  
Client Sample No.: IA-008

Volume (L) : 0

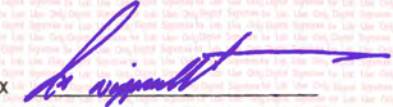
Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      5/9/2022              JEOL-Sr 1200              1200

Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 40  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.424  
Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	0
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

  
X  
Derk Wipprecht  
Laboratory Supervisor

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220474      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220474R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: IA-005

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B41				NSD							
G1	2	B42				NSD							
G1	3	C41				NSD							
G1	4	C42				NSD							
G1	5	E41				NSD							
G1	6	E42				NSD							
G1	7	F41				NSD							
G1	8	F42				NSD							
G1	9	G41				NSD							
G1	10	G42				NSD							
G1	11	H41				NSD							
G1	12	C34				NSD							
G1	13	E33				NSD							
G1	14	E34				NSD							
G1	15	F33				NSD							
G1	16	F34				NSD							
G1	17	G33				NSD							
G1	18	G34				NSD							
G1	19	C32				NSD							
G1	20	E31				NSD							
G2	21	B43				NSD							
G2	22	B44				NSD							
G2	23	C43				NSD							
G2	24	C44				NSD							
G2	25	E43				NSD							
G2	26	E44				NSD							
G2	27	F43				NSD							
G2	28	F44				NSD							
G2	29	H43				NSD							
G2	30	H44				NSD							
G2	31	C31				NSD							
G2	32	C32				NSD							
G2	33	E31				NSD							
G2	34	E32				NSD							
G2	35	F31				NSD							
G2	36	F32				NSD							
G2	37	G31				NSD							
G2	38	G32				NSD							
G2	39	H31				NSD							
G2	40	H32				NSD							



**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220474      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220474R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S2

Client Sample No: IA-006

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C41				NSD							
G1	2	C42				NSD							
G1	3	E41				NSD							
G1	4	E42				NSD							
G1	5	F41				NSD							
G1	6	F42	NAS	1		Fiber	5.5	1	5.5	Non Asbestos Structure	S, Ca	Possible Gypsum	NIOSH_NAM, NIOSH_Total
G1	7	G41				NSD							
G1	8	G42				NSD							
G1	9	H41				NSD							
G1	10	H42				NSD							
G1	11	C51				NSD							
G1	12	C52				NSD							
G1	13	E51				NSD							
G1	14	E52	NAS	2		Fiber	7	1.5	4.7	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G1	14	E52	NAS	3		Fiber	5.5	1.5	3.7	Non Asbestos Structure			NIOSH_NAM, NIOSH_Total
G1	15	F51				NSD							
G1	16	F52				NSD							
G1	17	G51				NSD							
G1	18	G52				NSD							
G1	19	H51				NSD							
G1	20	H52				NSD							
G2	21	B43				NSD							
G2	22	B44				NSD							
G2	23	C43				NSD							
G2	24	C44				NSD							
G2	25	E43				NSD							
G2	26	E44				NSD							
G2	27	F43				NSD							
G2	28	F44				NSD							
G2	29	G43				NSD							
G2	30	G44				NSD							
G2	31	C31				NSD							
G2	32	C32	NAS	4		Fiber	12.5	2.5	5	Non Asbestos Structure	S, Ca	Possible Gypsum	NIOSH_NAM, NIOSH_Total
G2	33	E31				NSD							
G2	34	E32				NSD							
G2	35	F31				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220474      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220474R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S2

Client Sample No: IA-006

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G2	36	F32	NAS	5		Fiber	8.5	1.5	5.7	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G2	37	G31				NSD							
G2	38	H31				NSD							
G2	39	E24				NSD							
G2	40	F23				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220474      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220474R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S3

Client Sample No: IA-007

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B41				NSD							
G1	2	B42				NSD							
G1	3	C41				NSD							
G1	4	C42				NSD							
G1	5	E41				NSD							
G1	6	E42				NSD							
G1	7	F42				NSD							
G1	8	F41				NSD							
G1	9	G41				NSD							
G1	10	G42				NSD							
G1	11	H41				NSD							
G1	12	H42				NSD							
G1	13	C31				NSD							
G1	14	C32				NSD							
G1	15	E31				NSD							
G1	16	E32				NSD							
G1	17	F31				NSD							
G1	18	F32				NSD							
G1	19	G31				NSD							
G1	20	G32				NSD							
G2	21	B52				NSD							
G2	22	C51				NSD							
G2	23	C52				NSD							
G2	24	E51				NSD							
G2	25	E52				NSD							
G2	26	F51				NSD							
G2	27	F52				NSD							
G2	28	G51				NSD							
G2	29	G52				NSD							
G2	30	H51				NSD							
G2	31	E41				NSD							
G2	32	E42				NSD							
G2	33	F41				NSD							
G2	34	F42				NSD							
G2	35	G41				NSD							
G2	36	G42				NSD							
G2	37	H41				NSD							
G2	38	H42				NSD							
G2	39	C34				NSD							
G2	40	E33				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220474      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220474R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No: S4

Client Sample No: IA-008

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B32				NSD							
G1	2	C31				NSD							
G1	3	C32				NSD							
G1	4	E31				NSD							
G1	5	E32				NSD							
G1	6	F31				NSD							
G1	7	F32				NSD							
G1	8	G31				NSD							
G1	9	G32				NSD							
G1	10	H31				NSD							
G1	11	C43				NSD							
G1	12	C44				NSD							
G1	13	E43				NSD							
G1	14	E44				NSD							
G1	15	F43				NSD							
G1	16	F44				NSD							
G1	17	G43				NSD							
G1	18	G44				NSD							
G1	19	H43				NSD							
G1	20	H44				NSD							
G2	21	B24				NSD							
G2	22	E24				NSD							
G2	23	F23				NSD							
G2	24	F24				NSD							
G2	25	G23				NSD							
G2	26	G24				NSD							
G2	27	F31				NSD							
G2	28	F32				NSD							
G2	29	G31				NSD							
G2	30	H31				NSD							
G2	31	C43				NSD							
G2	32	C44				NSD							
G2	33	E43				NSD							
G2	34	E44				NSD							
G2	35	F43				NSD							
G2	36	F44				NSD							
G2	37	G43				NSD							
G2	38	G44				NSD							
G2	39	H43				NSD							
G2	40	H44				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220474      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220474R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

**Count Categories**

NIOSH_ASF	NIOSH ASBESTOS	NIOSH_NAM	NIOSH NonASBESTOS	NIOSH_Other	NIOSH Libby-Other Amphibole
NIOSH_Total	NIOSH Total Fibers				

**Reviewed by:**

*[Signature]*  
 X

**Derk Wipprecht**  
 Laboratory Supervisor

## **APPENDIX C**

---

### **PBS Documentation**

Field Observation Reports, 4/29/2021 to 6/8/2022

Air Sample Data Sheets, 4/30/2021 to 6/6/2022

Air Clearance Sample Inventory

Air Clearance Laboratory Data Sheets and Chain of Custody Documentation

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Gregg Middaugh, Peter Stensland		PBS Project No.: 40535.488	Date: 8/23/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 8 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +5			
Air Monitoring Personnel on site:		Summary Phase Status: Mobilization / negative air swap out	
		Other Personnel on Site:	
		MacDonald Miller	
		Olympic Peninsula Construction (OPC)	

WORK DESCRIPTION: No abatement work, Swap out negative air machines throughout building

WORKER PROTECTION: 1/2 face respirator, Tyvek, hard hats, boots, high visibility vest

METHOD OF REMOVAL: N/A

OBSERVATIONS:

8:10 PBS on site. Dickson on site switching out negative air machines. Corey Foust supervisor for Dickson on site with 5 workers. MacDonald Miller and OPC also on site.

8:30 PBS, Corey, and John (MacDonald Miller) over at campus security, Dickson checkout keys. More keys will be available Thursday.

9:30 PBS run outdoor ambient air samples on all elevations of Olympic South.

9:42 Two workers move fours negative air exhaust tubes from LV2 door to re-lite in hall near office 292.

10:10 Walk site with John from MacDonald Miller.

10:30 Dickson workers on break.

11:30 Dickson workers reinforce plastic barrier on HVAC louvers from Mechanical Room 173.

1:09 Four workers on roof swapping out negative air machines to HVAC units

1:50 PBS collect exterior ambient air samples.

2:30 Dickson leaving site. Corey communicated workers will continue swapping out negative air machines tomorrow morning.

3:00 PBS off site.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South LV 1/2/3/Roof

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 8/23/2021





**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 8/24/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

1:40 One container delivered.

2:00 Two workers building mini enclosure in Room 168 at exterior door for load out to clean room. PBS photo document negative air machines on roof have been swapped out with new machines purchased by the college.

2:20 Two containers dropped off on site, on east Olympic South on near maintenance shed.

2:30 Dickson workers leaving site for the day.

2:45 PBS off site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 8/24/2021

# PBS Environmental Field Observation Report



PAsbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Gregg Middaugh		PBS Project No.: 40535.488	Date: 08/25/21
		DES Project No.: 2021-192	
		Page 1 of 2	Time 8 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +6			
Air Monitoring Personnel on site:			
Summary Phase Status: ECE contents cleaning			
Other Personnel on Site:			
MacDonald Miller			
Olympic Peninsula Construction (OPC)			

WORK DESCRIPTION: Vacuuming and wiping surfaces of cleanable contents from ECE in room 168

WORKER PROTECTION: Tyvek, half-face respirator, boots, hard-hat

METHOD OF REMOVAL: Vacuuming, and using rags to wipe surfaces

OBSERVATIONS:

0800 PBS on site. Dickson on site with 1 supervisor, and 6 workers. Workers finished prepping clean room enclosure outside Room 168 with poly-sheet at around 0745.

0830 Workers begin cleaning ECE contents marked for removal from space. PBS run inside the work area sample.

10:30 Notify Corey negative air machine on roof to main HVAC unit needs to be patched. All negative air machines have been swapped with college purchased machines besides LV2 mechanical mezzanine.

10:40 Workers on break.

10:54 Walk LV1 containment with Corey. Some contents have been loaded out into clean room outside 168. Felt pads on table feet need to be removed.

11:40 Three workers in room 168 cleaning contents. Negative air machine set up in 168 in cleaning area. Three workers in ECE office hallway packing contents into boxes.

12:00 Gregg M. On site.

12:30 Walk third floor with Charlene W. for remaining contents to be moved out.

1:00 One storage container dropped off in parking lot A for Dickson supplies.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South LV1/exterior

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 8/25/2021

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 8/25/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

1:20 Enter LV1 containment. Workers cleaning in room 168. PBS communicate bookshelves with slots in the side will remain in the building.

2:00 Walk maintenance shed with Corey, Chris (Dickson) and John (MacDonald Miller).

2:30 Dickson workers leaving site for the day. Corey still on site.

2:45 Visual contents from ECE stored in clean room. Springs on two tier roll desks need additional cleaning. Office roller chairs will be considered not cleanable. PBS collect inside the work area sample. Communicate items that need further cleaning to Corey.

4:11 PBS lock roof hatch and building. PBS off site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 8/25/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Toan Nguyen, Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 08/26/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time: 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +6			
Air Monitoring Personnel on site: --			
Summary Phase Status: ECE contents cleaning			
Other Personnel on Site:			
MacDonald Miller			

WORK DESCRIPTION: Vacuuming and wiping surfaces, finishing up critical barriers, and taking inventory of materials

WORKER PROTECTION: Tyvek, half-face respirator, boots, hard-hat,

METHOD OF REMOVAL: N/A

OBSERVATIONS:

0600: Dickson on-site, 1 supervisor and 6 workers. PBS on site with 1 technician.

0610: Dickson briefing over the day's work and informing the workers of the new agenda. The workers are briefed on which items are cleanable.

0650: PBS enter the enclosure and have a high-volume pump taking air sample thru a PCM cassette at 8L/min.

0700: Dickson is taking inventory of their equipment and materials (vacuums and any items with a serial number). There was 1 worker in the woodwork classroom setting up visual barriers over windows.

Claire and Peter from PBS are on-site. Andy from PBS-Portland is also on-site to give an asbestos awareness lecture to McDonald-Miller employees.

0800: PBS enters the enclosure to observe what Dickson is currently working on. Dickson is currently using water and rags to wipe the "monster blocks" in room 168.

1030: Dickson is on lunch for 45 minutes. The first-floor critical barriers are now up. Dickson will put up more critical barriers on the second floor after lunch.

1100: PBS and McDonald Miller on lunch for 45 minutes.

1115: Dickson back from lunch.

1145: PBS and McDonald Miller back from lunch.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Room 168 of OLY S building.

The individual signing certifies that the above information is correct and accurate.

Signature: *Toan Nguyen*  
 Name: TOAN NGUYEN Date: 08/26/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 08/26/21

---

Abatement Contractor: Dickson

PBS Observer: TOAN NGUYEN

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

1200: PBS enter the enclosure to check on Dickson's work progress. Dickson is now on the second floor of the Olympic South building putting up visual barriers on windows. There are 3 Dickson workers in room 168 HEPA vacuuming wooden shelves. Corey and Chris (Dickson) are by the connex and using the forklift to place the generator into place.

1300: Two workers hanging poly on the second level sky bridge and art display room windows. Two workers using wet rags and HEPA vacuums to clean off wooden blocks and a wooden shelf in cleaning area of 168.

1330: One worker entering containment to assist with hanging poly for visual barriers on windows.

1400: Dickson off-site.

1500: PBS and McDonald Miller off-site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Toan Nguyen*

---

Name: TOAN NGUYEN

Date: 08/26/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Toan Nguyen, Claire Tsai, Peter Stensland, Gregg Middaugh		PBS Project No.: 40535.488	Date: 08/27/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time: 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +5			
Air Monitoring Personnel on site:			
Summary Phase Status: ECE content cleaning/prep at Maintenance yard			
Other Personnel on Site:			
MacDonald Miller			

WORK DESCRIPTION: Dickson is finishing up vacuuming and wiping surfaces of equipment and material inside of room 168.

WORKER PROTECTION: Tyvek, half-face respirator, boots, hard-hat

METHOD OF REMOVAL: N/A

OBSERVATIONS:

0600 PBS on-site. Dickson on-site with 5 workers. Corey briefed the workers about the day's agenda and expectation.

0630 PBS enter the LV1 enclosure. Run IWA sample in Room 168.

0800 Dickson re-erected the poly-sheet barrier of doorway to Room 168. The poly-sheet fell down some time over the night.

0930 There are 3 workers working outside of the enclosure – getting power for the connex. There are 3 workers inside the enclosure in room 168 wet wiping and HEPA vacuuming the ECE contents.

1030 Dickson's crew is on lunch.

1100 MacDonald-Miller and PBS are attending the 16-Hours Asbestos course.

1115 Dickson back from lunch. Workers return to previous tasks.

1130 MacDonald-Miller and PBS on lunch.

1140 PBS visual ECE contents stored in clean room outside 168. Items look good.

1215 MacDonald-Miller and PBS back from lunch.

1230 Workers begin prep of Maintenance shed.

2:00 PBS microvac representative items from ECE contents stored in clean room.

ITEMS OF CONCERN: N/A

CHANGES IN SCOPE: N/A

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Building – Floor 1 thru 3

The individual signing certifies that the above information is correct and accurate.

Signature: *Toan Nguyen*

Name: Toan Nguyen

Date: 08/27/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No.: 40535.488

Date: 08/27/21

---

Abatement Contractor: Dickson

PBS Observer: Toan Nguyen

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

3:00 Fencing rental company is in the process of setting up the construction barrier fencing. MacDonald-Miller is staying behind until the fence is fully erected.

3:45 PBS off-site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Toan Nguyen*

---

Name: Toan Nguyen

Date: 08/27/21

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland,		PBS Project No.: 40535.488	Date: 8/30/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +7			
Air Monitoring Personnel on site:		Summary Phase Status: Maintenance Yard Theater Contents	
		Other Personnel on Site:	
		MacDonald Miller (MM)	
		Olympic Peninsula Construction	

WORK DESCRIPTION: Wet wipe and HEPA vacuum tools from theater storage at Maintenance Yard

WORKER PROTECTION: 1/2 face respirator, Tyvek, boots, vest, hard hat

METHOD OF REMOVAL: N/A

OBSERVATIONS:

6:00 PBS on site. Dickson, MacDonald Miller and OPC are on site. Two workers checking negative air machines, critical barriers, and mini enclosures, and changing negative air machine pre filters. Two workers and Chris (Dickson) over at Maintenance yard prepping the maintenance building.

6:30 Dickson workers and one supervisor are loading in materials at the maintenance building from their truck. Workers in tool storage area, roll up door to back of maintenance shed is closed. 4 negative air machines and two HEPA vacuums are inside. Negative air machines exhausted out exterior roll up door. Workers prepping area with fencing as a visual barrier between roll up door and dumpster.

7:00 Workers double line dumpster at maintenance building. Dumpster is stationed at the exterior roll up door.

8:30 Five workers at maintenance yard, four inside containment wet wiping and HEPA vacuuming tools, discarding plywood, and vacuuming floor, one worker assisting from outside. Peter (PBS) in work area photo documenting items before disposal. PBS running inside and outside the work area air samples.

8:45 Toan (PBS) collecting microvac samples from contents in storage shed at south exterior of ECE.

9:00-10:30 PBS, Dickson, MM and Charlene W. walk third floor and roof. Current plan is for classroom ceilings to be protected.

9:30 One worker exits containment to get more supplies.

10:00 Two Dickson workers in Room 326 changing negative air machine pre filter.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No bulk removal	Olympic South LV1/2/3/roof, Maintenance yard theater storage,
Asbestos contaminated theater storage contents from Maintenance Yard	Early Childhood Education shed

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 8/30/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 8/30/2021
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

10:05 Another worker enters Maintenance yard containment, begins assisting with tool cleaning. Two workers cleaning tools, one worker vacuuming tools and one worker moving items for disposal in ACM dumpster.

10:30 Dickson workers take lunch.

11:00 One storage connex dropped off in Parking Lot A.

11:30 Two workers, tasked with negative air/mini enclosures, adjusting connex in lot A with forklift.

12:45-1:45 PBS investigate LV3 walls with Corey for wall cavities open to return plenum above. 5 workers continue cleaning tools at maintenance yard.

1:30 3 Dickson workers continue wet wiping and HEPA vacuuming large machinery (detail cleaning) and beginning to prepare the work area for end of day. PBS collect inside and outside work area samples.

2:10 Dickson workers exit containment. Waste dumpster closed and locked, roll up door shut, Maintenance building locked. Workers return to work trailer area.

2:30 Dickson workers leaving site.

2:40 PBS lock Olympic South Building and leave site. Corey still on site. Some MacDonald Miller employees still on site

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 8/30/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 8/31/2021
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

9:45 Workers found a sound board in one of the boxes. It will be set aside for now. Charlene W. determined that this should be disposed of. PBS photo document prior to disposal.

10:00 PBS stops IWA pump. 3 workers still wet wiping down shelves and racks. Two workers moving supplies to allow for poly sheeting application.

10:10 Negative air power shut down for 10 minutes.

10:30 Dickson worker take lunch.

11:15 Workers back from lunch. PBS started a new IWA sample in the mechanical maintenance building.

11:30 Walk third floor with Corey. Workers continue prepping Classrooms 329 and 328. Workers will cover fiberglass insulation above ceiling space in 329 closet and pipe penetrations above drop ceiling to hall.

12:00 Workers cleaning up the floor with HEPA vacuums. Two workers are laying poly sheeting over the cleaned items. And misting down the machinery.

12:10 PBS walks theater contents stored in Cascade Bldg. with John and Corey. Current pad lock cut and replaced with a Dickson padlock.

1:30 PBS meets with two IT employees at LV3 to view equipment in Room 321. Dickson workers continue prep work in Room 327, 328, and 329.

1:55 PBS notifies Corey ECE contents have been passed microvac screening. Items can be moved to their final destination once college has confirmed receiving areas are ready.

2:10 IT employees finished on LV3, communicate one worker will be back around 4 to get racks. Dan T. with Pierce College will retrieve key for LV3 door from PBS to provide IT access later today. Dickson workers exiting Maintenance building work area for the day. Building and waste trailer locked. Workers head back to work trailer area. PBS collect air samples.

2:30 Dickson workers leaving site. PBS collect Ambient air samples from LV3 hallway.

3:00 Dan T. and Patrick C. pick-up key to LV3 construction door.

3:15 PBS off site. Building locked. Corey still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 8/31/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 9/1/2021
Contractor on Site Personnel: Project Manager <b>Yes</b> No   Supervisor <b>Yes</b> No Workers                      Yes   No   Name: Corey Foust How Many? +11 Air Monitoring Personnel on site:	Page 1 of 2                      Time                      6                      am Summary Phase Status: Maintenance Yard Theater Contents Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC)

WORK DESCRIPTION: Wet wipe and HEPA vacuum tools from theater storage at Maintenance Yard. Prep containment in 328 and 329. Deliver ECE cleaned contents

WORKER PROTECTION: 1/2 face respirator, Tyvek, boots, vest, hard hat

METHOD OF REMOVAL: N/A

**OBSERVATIONS:**

6:00 PBS on site. Dickson, MacDonald Miller and OPC are on site. Corey and 8 workers on site. Dickson having a morning meeting.

6:30 5 Dickson workers preparing to enter the Maintenance building work area. Workers removing theater items from back area and loading into ACM waste trailer. Two workers moving cleaned ECE contents from Clean room to Olympic North 112, Cascade 520, and International House 103.

7:00 Two workers setting up 2 negative air machines in the Maintenance building back storage area. 3 workers removing contents and setting up Dickson's air monitoring

7:30 Dickson workers beginning to clean off the framed posters the theater department requested to keep and begin to seal up the waste trailer for removal.

8:00 Four workers on Level 3 Room 328 hanging poly sheeting in room, I-beam penetrations to hall above ceiling have been sealed. Five workers at Maintenance building Chris outside containment operating forklift, 4 workers inside cleaning theater posters. Two workers delivering ECE cleaned contents

8:30 4 Dickson workers HEPA vacuuming framed posters and wiping them down with wet rags.

8:40 One worker leaving maintenance building work area.

9:00 Two workers delivering ECE contents have finished Cascade 520 and Olympic North 112 locations. PBS unlock International House 103 (IH) for remainder of contents. Dickson moved box truck with ECE contents to IH103 two workers begin unloading contents. Two workers move from LV3 to roof to build 15-foot perimeter around edge.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No bulk material	
ACM contaminated theater contents from maintenance building	Olympic South LV3/Roof Maintenance Building

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai                      Date: 9/1/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 9/1/2021
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

9:30 Down to one worker in the maintenance building work area cleaning items. And one supervisor checking in, 3 workers leaving work area.

9:55 One worker returns to maintenance building. Workers are removing items from shelving to make for easier disposal.

10:30 Dickson workers stop for lunch.

11:15 Dickson workers return to previous tasks. Corey communicates to PBS, MM employees will be entering floor supply plenum from Room 329 shortly.

11:20 MM workers in classroom 329 prepare to enter floor supply plenum containment. Dickson and PBS in area. Dickson works delineate area around floor hatch and place drop cloth on floor over poly sheeting. Dickson smoke test floor hatch opening, negative pressure in floor supply plenum. Two MM employees enter floor supply plenum from Room 329 to investigate for safe-off. One Dickson worker present at floor hatch opening available for assistance. PBS run OWA sample in room 329.

12:22 Two MM workers in floor supply plenum exit hatch in room 329. Workers doff PPE. Dickson worker in area for assistance if needed.

12:30 Discuss three week look ahead schedule with Dickson and MM.

1:00 Dickson workers cleaning remaining ECE contents now that Room 168 clean room is empty. Workers continue on LV3 hanging poly sheeting in Room 327.

2:30 Dickson workers leaving site for the day. PBS collect ambient air samples in LV3 Hall and OWA sample in Room 329.

3:15 PBS leaving site. MM shut off generator and leave site. Corey still on site waiting for Le May to drop off and pick up waste trailer at maintenance building.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 9/1/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 9/2/2021
Contractor on Site Personnel: Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No Workers <b>Yes</b> No Name: Corey Foust How Many? +11 Air Monitoring Personnel on site:	Page 1 of 2 Time 6 am Summary Phase Status: Maintenance Yard Theater Contents Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC)

WORK DESCRIPTION: Dispose of wood items from theater storage at Maintenance Yard. Continue prep containment in east classrooms and student Lounge 3<sup>rd</sup> fl, Dispose of contents in 166A

WORKER PROTECTION: 1/2 face respirator, Tyvek, boots, vest, hard hat

METHOD OF REMOVAL: N/A

**OBSERVATIONS:**

6:00 PBS on site. Dickson, MacDonald Miller and OPC are on site. Corey and 8 workers on site. Dickson having a morning meeting.

6:10 Two Dickson workers preparing the container at Maintenance Building for ACM material by lining the inside with poly sheeting and wiring the poly to the container.

6:45 Corey notified about a fridge in the maintenance storage room.

7:00 Three workers inside of the Maintenance work area setting up negative air machines and donning propped PPE.

7:10 Remaining ECE cleaned contents have been moved to clean room outside 168. PBS pass visual, will collect microvac samples today.

7:30 Four workers in LV1 containment. Three workers in 166A disposing contents. Mini decon built outside 166A and sticky mat on floor. One worker in 166 with cart rolling sealed bags to LV1 decon. HEPA vacuum outside of bag. Another worker in clean room receiving bags and transfers to waste trailer.

08:00 2 Dickson workers continue with preparing the 3<sup>rd</sup> Fl. work area. Meet with Corey on the 3<sup>rd</sup> Fl to discuss plan for the floor. Currently rooms 327, 328, and 329 have poly sheeting applied to floors, walls and ceilings. Subsequent efforts will include installing critical barriers on the student lounge construction door and LV3 stairwell access. Workers will also be continuing to prep the student lounge and investigate walls to determine which have closed or open upper sill plate access to interior wall cavities. Good negative present on the 3<sup>rd</sup> floor is indicated by the strong draw on the temporary construction door after opening.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No bulk material	Olympic South LV3 and LV1
ACM contaminated theater contents from Maintenance Building and Room 166A	Maintenance Building

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 9/2/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/2/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

8:00 3 Dickson workers and one supervisor disassembling large materials and disposing of them in the ACM container at Maintenance Building.

08:30 Macdonald-Miller Safety Director on site.

9:00 PBS microvac remaining ECE cleaned contents from 168 exterior clean room.

09:15 Work efforts continues on the Maintenance building by 3 workers and a supervisor. The new disposal container is approximately 90% full. The container is filled with wood items from the theater storage area. All power tools have been cleaned and are protected by poly sheeting wraps. The rolling metal carts to be saved have also been cleaned and protected by poly sheeting wraps. PBS air sampling is in progress inside and outside of the work area. Abatement contractor air sampling in progress includes inside of the work area and personnel.

09:30 Macdonald-Miller Safety Director departs site. The fridge in Maintenance building is set aside for proper disposal.

10:30 Workers in Maintenance Building beginning decon for lunch.

11:00 Meet with Todd Larsen, discuss negative air machines on the 3<sup>rd</sup> floor. Todd will bring a manometer to check the negative air pressure on this floor. Discussions also included potentially adding a clean room to the 2<sup>nd</sup> floor for storage of cleaned items – more discussions will need to follow for this potential action.

11:15 Workers return to work in maintenance building. A new container is coming in.

11:20 Meet with Dickson and Macdonald Miller discuss weekly progress for 2pm meeting.

11:40 Macdonald Miller employee ready for access to LV3 floor supply plenum to start safe off. Two Dickson employees from LV3 come down to unload Abatix delivery.

12:00 Two MacDonald Miller employees on LV3 in 329. Two Dickson employees return to LV3. One worker assisting Macdonald Miller, one worker continues hanging poly sheeting. PBS run OWA sample in 329. 5 workers continue with 166A contents disposal as before. PBS in area to document items prior to disposal.

12:15 Two Dickson workers have finished lining the new dumpster and are moving it into position. Two Dickson workers are inside moving the waste materials closer to the exit off shelves for easy disposal.

2:00 Collect air samples from 166A and LV3.

2:10- 2:30 Dickson workers deconing out of containments for end of day. Head to work trailer area for end of day meeting before leaving site.

2-3 Weekly construction meeting.

3:30 PBS check doors then leaving site. Corey and MacDonald Miller still on site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/2/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	PBS Project No.: 40535.488	Date: 9/3/2021	
	DES Project No.: 2021-192	Page 1 of 2	Time 6 am
Contractor on Site Personnel:	Summary Phase Status: Maintenance Yard Theater Contents		
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	Other Personnel on Site:		
Workers <b>Yes</b> No Name: Corey Foust	MacDonald Miller (MM)		
How Many? +11	Olympic Peninsula Construction (OPC)		
Air Monitoring Personnel on site:			

WORK DESCRIPTION: Dispose of contents from theater storage at Maintenance Building. Continue prep containment in north classrooms and Student Lounge 3<sup>rd</sup> fl, Dispose of contents in 166A. MacDonald-Miller safe-off mechanical systems in the sub-floor supply plenum (3<sup>rd</sup> floor)

WORKER PROTECTION: 1/2 face respirator, Tyvek, boots, vest, hard hat

METHOD OF REMOVAL: Wet wipe and HEPA vacuum

OBSERVATIONS:

6:00 PBS on site. Dickson, MacDonald Miller and OPC are on site. Corey and 10 workers on site. Dickson having a morning meeting.

6:10 2 Dickson workers continue 3<sup>rd</sup> floor preparation applying poly sheeting to windows and walls. 1 of those workers will assist MM worker when he enters the supply plenum to continue safe-off efforts. 4 workers will be in 166A Lvl 1 Containment continuing with disposal of stored items within the space.

6:30 3 Dickson workers putting on PPE to enter into the work zone in the maintenance building. Pbs starts IWA and OWA air pumps.

7:00 1 MM worker preparing to enter the supply plenum on the 3<sup>rd</sup> floor. 1 Dickson worker moves from prep efforts to assist the MM employee, this Dickson worker will not go into the sub-floor space but will in PPE at the hatch entry should he be needed for anything. The other 3<sup>rd</sup> floor Dickson workers continue with applying poly sheeting to windows around the 3<sup>rd</sup> floor perimeter. 3 Dickson workers removing waste and disposing of it in the ACM container at the maintenance building.

7:30 4 workers in LV1 containment. Three workers in 166A disposing contents. Mini decon built outside 166A and sticky mat on floor. One worker in 166 with cart rolling sealed bags to LV1 decon. HEPA vacuum outside of bag. Another worker in clean room receiving bags and transfers to waste trailer. PBS documenting items disposed of.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No bulk material	Olympic South LV3 and LV1
ACM contaminated theater contents from Maintenance Building and Room 166A	Maintenance Building

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 9/3/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/3/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

7:45 4 workers in the maintenance building are using a drill to unscrew the various wooden materials to get them as small as possible for disposal. Water is sprayed periodically throughout the work area in order to keep dust to a minimum.

7:55 Charlene W. confirms casework, shelving, and furniture from 166A will not be saved and crew may demolish.

8:15 Workers in the maintenance building are closing up the ACM bin (it is now full).

09:00 Workers in 166A continue to remove and dispose of stored items within the space. Workers in the maintenance building continue vacuuming off wall ledges and other flat surfaces with HEPA vacuums as well as removing waste for disposal from shelving and staging it for disposal for when the next container is prepped.

10:00 The MM worker in the 3rd floor air supply plenum has exited from the space. PBS air monitoring in progress at the hatch entry and another ambient location on the 3d floor.

10:30 Dickson workers take a 45 min lunch break and resume work.

11:15 Dickson workers are back from lunch in the maintenance building and continuing to clean the walls and shelving with HEPA vacuums and wet wipes. The work area is periodically sprayed with water to help keep the dust down. PBS collects the IWA air sample. Workers in 166A have now completed the disposal of all stored contents in the space, PBS has documented these items. Work efforts in the area will now consist of dismantling the wood and metal cabinetry and wrapping the sections for disposal as ACM-contaminated waste.

12:30 PBS collects the OWA air sample from the maintenance building. Dickson will be continuing with cleaning horizontal surfaces for the remainder of the shift today.

13:30 Analysis of air samples collected to date do not reveal any issues at this point.

14:00 Fire alarm causes all personnel to vacate the Olympic South Building. Alarm testing was in progress by other parties who did not inform personnel associated with the abatement project that testing would occur.

14:30 PBS check doors then leaving site. Corey and MacDonald Miller still on site.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 9/3/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/7/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

9:30 Dickson workers in maintenance building are staging materials for removal and clearing out space for vacuuming.

10:00 PBS walk maintenance building. IWA and OWA air samples are running.

10:20 4 Dickson workers beginning decon for lunch from maintenance building containment.

10:30 Workers take lunch. PBS walk building to check negative air machines and critical barriers. No issues to note.

11:15 Workers return to work areas in Maintenance building, 166A and LV3. MacDonald Miller in LV2 looking above ceiling for safe off.

11:35 Two Dickson workers in maintenance building vacuuming horizontal beams with HEPA vacuums, one on a lift. One supervisor bringing over supplies on a forklift.

12:00 Boom lift delivered to maintenance building.

12:30 Dickson workers at maintenance building are continuing to clean with HEPA vacuums and wet wipes.

1:30 Work in Maintenance Building, 166A LV2 and 3 continue as before.

2:30 Dickson workers off site.

2:45 PBS off site. MacDonald Miller still on site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/7/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 9/8/2021
	Page 1 of 2
	Time 06:00 am
Contractor on Site Personnel:	
Project Manager Yes No Supervisor <b>Yes</b> No	Summary Phase Status: Clean and prep various areas noted below
Workers <b>Yes</b> No Name: Corey Foust	Other Personnel on Site:
How Many? +13	MacDonald Miller
Air Monitoring Personnel on site: PBS	Olympic Peninsula Construction


WORK DESCRIPTION: Dispose theater contents from Maintenance building. Prep LV3 and assist MacDonald Miller with LV3  
Safe off below floor. Assist MacDonald Miller with LV2 safe-off investigations above ceiling  
WORKER PROTECTION: 1/2 face respirator, Tyvek, vest, hard hat, boots  
METHOD OF REMOVAL: Wet wiping and HEPA vacuum contents.

OBSERVATIONS:  
6:00 PBS on site. Dickson and MacDonald Miller are on site. Dickson conducts brief morning meeting and employees go to assigned areas of work for the day.  
07:00 4 Workers in the maintenance building enclosure (+1 Supervisor) continue to clean surfaces through the space, 1 of those workers is cutting larger wood items into smaller sections for loading into the container when it arrives. 4 workers in 166A are finishing wrapping casework/shelving for disposal. The waste container is currently full and will be transported. 4 workers on the 3<sup>rd</sup> floor continue to poly sheeting prep throughout the space  
08:30 The full container in the maintenance yard was picked-up, however: the wrong type of container has been delivered. The delivered container does not have a closable top. The container will be taken away and the correct type will be delivered.  
08:00 Workers in 166A have completed loading wrapped contaminated items into the disposal container. The workers will now move to assisting MacDonald-Miller with exploratory investigations involving moving ceiling tiles to view above ceiling on LV1 and 2.  
09:00 Dickson investigating potentially locating a disposal container closer to the Cascade theater storage area so as not to have to move potentially contaminated materials so far to a disposal.  
09:35 The correct type of container has been delivered to the maintenance yard now. Truck hauls full container from 166A contents off site.

ITEMS OF CONCERN: None  
CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
1 sink with ACM undercoat from 166A	Maintenance Building
Asbestos contaminated materials from theater storage in	LV1 - LV3
Maintenance building and 166A	Cascade theater storage

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date 9/8/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:9/8/2021
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

10:15 In the maintenance yard, the container is finished being lined and a drop cloth has been put in place between the indoor space and the container. 2 workers throwing away ACM materials 2 workers 1 on a lift are cleaning the storage area with HEPA vacuums and wet rags.

10:30 Dickson takes a 45-minute lunch break and resumes work.

11:20 Dickson moving remaining ECE items to the International House 103 and Cascade 520. MacDonald-Miller continues HVAC investigation throughout the 2<sup>nd</sup> floor with Dickson assisting. Workers on the 3<sup>rd</sup> floor continue with preparations. 1 MacDonald-Miller worker is in the supply plenum and will complete safe-off efforts today for mechanical items associated with the 3<sup>rd</sup> floor supply plenum.

11:30 Claire T. has discussions with MacDonald Miller and Dickson related to investigations above the 1<sup>st</sup> and 2<sup>nd</sup> floor ceilings. Care should be exercised to not break ceiling tiles and furnishings (desks) below areas being investigated should be protected by poly sheeting drops prior to work occurring above.

12:00 MacDonald Miller on roof to safe-off AHU. Area was demarcated with asbestos warning tape; employee wore proper PPE. PBS check following work did not reveal any issues.

12:15 Corey F discussing potential procedures for removal of roof AHU with PBS.

12:36 John F. advises fire systems throughout Olympic South have been approved for shut-down with out needing a fire watch person.

13:00 PBS has received results for the brown mastic associated with the corkboard located in 166A. No asbestos was found in this mastic.

13:15 Workers are shutting down the work area in the maintenance building. Work has paused so that they can pick up the residual dust on the ground with HEPA vacuums and brooms. The waste container is about 80% full

13:40 MacDonald Miller out of the 3<sup>rd</sup> floor supply plenum, the 3<sup>rd</sup> floor plenum space is now entirely safed-off.

14:15 Workers beginning final clean-up for the day and preparing to decon.

14:30 PBS and Dickson departing the site. Doors have locked and double checked.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 9/8/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/9/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +11			
Air Monitoring Personnel on site:			
		Summary Phase Status: Maintenance yard theater contents, Cascade theater storage 432, LV3 prep,	
		Other Personnel on Site MacDonald Miller, Olympic Peninsula Construction	

WORK DESCRIPTION: Dispose theater contents from Maintenance building and Cascade storage 432. Prep LV3.

WORKER PROTECTION: 1/2 face respirator, Tyvek, vest, hard hat, boots

METHOD OF REMOVAL: Wet wiping and HEPA vacuum

OBSERVATIONS:

0600 PBS on site. Dickson and MacDonald Miller are on site.

0615 3 Dickson workers and 1 supervisor putting on PPE to enter the maintenance building. Workers are filling up the past few feet of space in the waste container and are beginning to load the remaining waste from the rear storage room into the front so that they can begin final cleaning.

0630 Dickson workers secure ECE south shed contents with banner tape inside roll door. Doors are padlocked and sealed closed with tape.

0730 Two workers cutting up and moving the remaining debris into the front room of maintenance building. Two workers wiping down surfaces with wet rags and steel wool is being used for residual material adhered to shelving.

0830 Dickson sent 3 workers over to the Theatre storage 432 in Cascade building. One worker sealing penetrations into HVAC and ceiling with duct tape. Two workers setting up decon/ criticals with poly sheeting. PBS running air sample in the area.

0845 Workers in maintenance building are all wiping down surfaces in the rear storage room. Workers in Cascade 432 started to erect critical barriers with poly-sheet.

0900 MM and Corey moving PBS trailer back in place now that dumpster is in place.

0930 Three workers in Room 323 hanging poly sheeting. One worker assisting one MM employee with access to ceiling. MM needs access above hard lid for safe off of exhaust fans to roof. MM will wait until LV3 containment is built before accessing above the ceiling.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: Room 323, 325 and 326 ceiling space are connected to the return plenum and will need to be cleaned.

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No Bulk Material	Maintenance building, Cascade 432
Asbestos contaminated materials from theater storage in Maintenance building and Cascade storage 432.	LV3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 9/9/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/9/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

1000 Discuss three-week schedule updates with Dickson and MM. MM is finished with LV1 safe off and LV3 sub floor supply plenum safe off.

1010 Dickson maintenance building workers are vacuuming and wiping down rack and metal support structure.

1020 Workers are decon out of work areas for lunch.

1030 Corey notifies PBS Room 323, 325, and 326 classroom ceiling space does connect to LV3 return plenum. PBS confirms, Ceiling space above 323, 325 and 326 is open to the return plenum and will need to be cleaned. Workers take lunch.

1100 Todd L on site. PBS, Dickson, and MM walk third floor mechanical room and discuss options to protect active transformer and electrical panels during abatement.

1115 Dickson back from lunch and is detailing their Cascade 432 enclosure with more tape and spray glue.

1146 One worker unload delivery with forklift.

1200 3 Dickson workers in maintenance building using wet rags to wipe down the walls, beams and racks. They are switching to new wet rags periodically and have HEPA vacuums near them for bulk cleaning prior to wiping

1220 Dickson is vacuuming the floor of the theatre storage room 432. 1 Dickson worker brought a 12ft ladder into the enclosure in order to patch the remaining wall and ceiling penetrations as well as duct vents.

1225 Four workers on level 3 laying poly sheeting on floors. Working in 337 and 336.

1300 Dickson lay poly-sheeting on floor of 432 and began bagging contents into ACM waste bags. PBS in area to document items prior to disposal.

1330 PBS walk roof. Poly sheeting on roof hoof above student lounge has holes. Four workers on level 3 continue laying sticky poly sheeting on floor. Currently working in 322.

1345 PBS notify Corey poly sheeting needs to be patched on roof hood above student lounge. And piping into air handler unit on roof should be sealed. Corey redirect one worker from LV3 to roof to cover roof hood with another layer of poly and seal cut pipes on roof unit.

1345 Dickson workers continuing to wipe down various surfaces in the maintenance building. PBS collects IWA and OWA air samples.

1400 Weekly construction meeting with project team.

1430 Workers decon out of work areas for the day and leave site.

1500 PBS check doors and leave site. Corey still on site will shut off generator and lock fence.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/9/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 9/10/2021
Contractor on Site Personnel:	Page 1 of 2
Project Manager Yes <b>No</b> Supervisor Yes No	Time 6 am
Workers <b>Yes</b> No Name: Corey Foust	Summary Phase Status: Maintenance yard theater contents, Cascade theater storage 432, LV3 prep, LV2 safe off
How Many? +12	Other Personnel on Site
Air Monitoring Personnel on site:	MacDonald Miller (MM), Olympic Peninsula Construction (OPC)

WORK DESCRIPTION: Dispose theater contents from Maintenance building and Cascade storage 432. Prep LV3. Assist MacDonald Miller with LV2 Mechanical Mezzanine safe off.

WORKER PROTECTION: 1/2 face respirator, Tyvek, vest, hard hat, boots

METHOD OF REMOVAL: Wet wiping and HEPA vacuum

OBSERVATIONS:

0600 PBS on site. Dickson and MacDonald Miller are on site. Dickson workers are having their morning meeting to discuss the scope of work for the day. MM point out ground level door opening with mini enclosure did not get covered last night, another door closed but no lock.

0620 Three workers in Cascade 432 work area. Workers add wall of poly sheeting to separate clean room and a load out area.

0630 Three workers and one supervisor are at the Maintenance yard. Le May swapping out ACM dumpster and replacing it with a new one. Workers double line the inside of the dumpster and move it into position.

0700 Two workers in Maintenance building are removing contents and placing them in the lined dumpster. One worker is on a lift wiping down the ceiling in the back of the storage area. A few cushions remaining in storage area, most items have been loaded out.

0730 One worker from Cascade 432 leaving site for the day. Two workers remaining are inside containment bagging contaminated contents and vacuuming the outside of the bags. PBS in area photos documenting items prior to disposal.

0800 Workers in Maintenance building continue as before.

0845 Bulk removal of contents in maintenance building complete.

0900 Two workers in Cascade 432 continue to bag contents into ACM waste bags.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No Bulk Material, Asbestos contaminated materials from theater storage	Maintenance building, Cascade 432
In Maintenance building and Cascade 432.	LV3. LV2 Mechanical Mezzanine
Asbestos contaminated pipe insulation from LV2 Mechanical Mezzanine	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 9/10/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/10/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

0930 Workers stacking waste bags in Cascade 432 containment for now until receiving approval from college to place waste trailer near Cascade building.

0942 Four workers on LV3 continue to prep containment, workers laying poly sheeting on floor.

1000 Workers in maintenance building wet wiping and HEPA vacuuming building and components.

1030 Workers break for lunch. John communicating with college for approval to place waste trailer near Cascade for disposal of theater storage 432 contents. Crane activity planned for 15th, still need confirmation of container from Le May that will fit the roof AHU.

1115 Two Dickson workers and one MM worker in LV2 mechanical mezzanine. Dickson workers stripping asbestos contaminated non-ACM pipe insulation so MM can perform safe off.

1130 Three workers in maintenance building continue cleaning surfaces along walls and metal racks.

1200 Cascade 432 two workers are bagging up contents, wetting down the inside of the bag, vacuuming out the excess air with a HEPA vacuums and then sealing the neck of the bag shut with duct tape. PBS continue photo documenting contents prior to disposal.

1210 PBS walk roof, items pointed out 9/9 have been taken care of.

1245 Chris loading out waste bags from LV2 mechanical mezzanine into container near Olympic South level 1 entry.

1320 Le May on site to drop of container liners. Brian with MM will continue with safe off Monday in LV2 Mechanical Mezzanine.

1320 Two workers from Cascade 432 decon out to get supplies to bag up the larger furniture.

1330 Three workers in Maintenance building continue wet wiping and HEPA vacuuming surfaces. PBS stop OWA sample.

1400 Workers return to Cascade 432 with mega bags for removal of larger contents (furniture).

1415 Worker decon out of work areas for the day.

1420 Dickson workers at end of day meeting. No safety issues of the day to discuss. Corey will be off site next week, Chris will be filling in.

1430 Dickson workers leaving site.

1445 MM leaving site.

1500 PBS check doors and leave site. Corey still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/10/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/13/2021
		DES Project No.: 2021-192	
		Page 1 of 2	Time 6 am
Contractor on Site Personnel:			
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Chris Drea	
How Many? +11			
Air Monitoring Personnel on site:			
Summary Phase Status: Maintenance building final clean, Cascade theater storage 432 contents disposal, LV3 prep, Other Personnel on Site MacDonald Miller (MM), Olympic Peninsula Construction (OPC)			

WORK DESCRIPTION: Surface clean Maintenance building. Dispose theater contents from Cascade storage 432. Prep LV3.

WORKER PROTECTION: 1/2 face respirator, Tyvek, vest, hard hat, boots

METHOD OF REMOVAL: manual, Wet wiping and HEPA vacuum

OBSERVATIONS:

6:00 Dickson workers are having their morning meeting discussions the scope of work for the day and going over general site information.

0630 PBS set-up HEPA exhaust and OWA sample samples for Cascade 432 containment. Maintenance building three workers sealing up waste trailer for Le May pick up. PBS sets up IWA and OWA air samples for Maintenance building work area. One lift brought in to work area through roll up door. The workers then reestablish the negative air exhausts within a new poly wall at the base of the exhaust garage door. Fence with visual barrier remains in place.

0700 Three workers in Cascade 432 work area. One worker with fall protection in order to load out sealed bags with contents to the forklift with bin on the roof. The other two workers are moving waste bags to the load out room as well as bagging contents.

0800 Dickson has a forklift with a bin attached that reaches the roof area for waste load out for Cascade 432 work area. Olympic South LV3 two workers tape ram board to the floor in high traffic areas. PBS start LV3 ambient sample and a roof HEPA exhaust sample.

0830 Two workers organizing and inventory supplies from connex in parking Lot A.

0900 Workers in Cascade 432 take apart wooden furniture with saw and drill and then wrap items in mega bags for disposal.

0915 Dickson fuel truck on site filling generator then leaving site.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No Bulk Material,	Maintenance building, Cascade 432
Asbestos contaminated materials from theater storage Cascade 432.	LV3.

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 9/13/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/13/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

0950 4 workers continue containment prep on Level 3. Workers hanging poly sheeting over walls and place ram board in high traffics areas on floor. PBS walk roof, all negative air machines running. PBS HEPA exhaust sample still running.

1000 Two MM workers in LV1 Mechanical room.

1010 Waste trailer in place near Cascade loading dock. Chris and two workers in area. One worker on forklift opening container lid. John with MM in area.

1020 Three workers in maintenance building cleaning building surfaces and components.

1030 Workers break for lunch.

1100 Todd L on site.

1115 Workers return from lunch. Dickson safety meeting near job trailers.

1120 Chris D, Todd L, and John discuss crane operation to lift AHUs off the roof.

1130-45 Chris, Todd, and MM employees meet with Dan T and IT/ Pierce HVAC staff. Walk mechanical Room 173.

1145-1215 Dickson and MM discuss crane operations for the 15th.

1230 Two workers inside Cascade 432 containment bagging contents. Workers seal and wipe down bags before loading out bags from Cascade 432. Two workers on ground, one operating forklift with tip bin, one directing. One worker on roof loading bags into bin then lowered to lined dumpster near Cascade loading dock.

1250 Worker lifts bin up to cascade roof. One worker on ground one worker with fall protection on roof.

1300 PBS collect IWA and OWA samples from maintenance building. Three workers in maintenance building. One worker wet wiping internal roll up garage door, two workers in back room wet wiping and HEPA vacuuming surfaces and components.

1340 MM ask about removal of large roof hoods. PBS walk roof with Daryl (MM). PBS communicate all roof HVAC components are considered contaminated and need to be removed properly. MM will communicate with Todd L at Dickson to coordinate removal if crane is needed or if they can be lowered with a forklift.

1400 Four workers continue laying ram board on floor and poly sheeting on walls of LV3.

1415 Dickson workers decon out and meet at job trailer for end of day meeting. No safety issues from today.

1430 Dickson and MM off site. MM shut off generator. PBS collect remaining air samples.

1515 PBS check doors and lock parking lot gate before leaving site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/13/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/14/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Chris Drea	
How Many? +13			
Air Monitoring Personnel on site: PBS and Dickson			
Summary Phase Status: Clean Maintenance Building, Cascade theater storage 432 contents, LV3 prep, Other Personnel on Site MacDonald Miller (MM), Olympic Peninsula Construction (OPC)			

WORK DESCRIPTION: Clean Maintenance Building and dispose of Cascade Storage 432 contents. Continue to prep LV3.

WORKER PROTECTION: 1/2 face respirator, Tyvek, vest, hard hat, boots

METHOD OF REMOVAL: manual, wet wiping, and HEPA vacuuming

OBSERVATIONS:

0600 Dickson workers are having their morning meeting discussing scope of work for the day and going over general site information. Workers go to assigned tasks for the day

0630 Dickson workers are at assigned work areas. 2 are on the roof cleaning and prepping for the crane lift of the AHU unit tomorrow. 3 workers in Cascade 432 work area. The workers are using hand tools to dismantle or break down potential asbestos-contaminated shelving and similar items in the space. PBS air monitoring the Cascade 432 currently with air sampling being collected within the work area and at the negative air exhaust. 3 workers continue to clean surfaces in the maintenance building work area. PBS air monitoring in the maintenance building work area includes: inside work area, outside of work area, and at the negative air exhaust. 3 workers are on the 3<sup>rd</sup> floor continuing with poly sheeting applications and applying protective cardboard (Ramboard) to flooring areas below hard lid ceilings that will be demolished.

0800 Work efforts continue as noted.

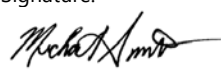
0930 Two MM workers in Rooms 320 and 321 working on setting up temporary power. Workers in the Cascade 432 area are closing labeled disposal bags, wet wiping them, and staging them for loading out following lunch.

0950 4 workers continue containment prep on Level 3. Workers hanging poly sheeting over walls and place ram board in areas on floor below ceiling hard lid demo locations. MM (Eugenio) notifies PBS 3<sup>rd</sup> floor electrical conduit runs from ceiling space and opens into back of electrical panel. PBS will oversee Eugenio collect surface dust sample from electrical panel.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Completion of removing contaminated materials from Cascade 432.	Maintenance building, Cascade 432
	LV3. LV2 Mechanical Mezzanine

Signature:  
  
 Name: Mike Smith Date 9/14/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 9/14/2021
Abatement Contractor: Dickson	PBS Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

1030 Workers take a 45-minute lunch and resume work efforts.

1130 MM (Eugenio) collect microvac sample from base of electrical panel in the 3<sup>rd</sup> floor mechanical room. PBS is directing and observing sampling but is not permitted to touch the inside of the electric because of the temporary power connections and other electric hazards. 1 Dickson worker is now assisting OPC with moving their construction trailer to make room for the crane tomorrow. Everybody on the job site will need to attend a safety meeting tomorrow focused on being around a crane operation in progress.

1215 1 PBS worker departs the site for delivery of microvac samples to Lab/Cor Seattle.

1230 One worker operating forklift load out contents from CAS 432 into forklift bin on roof then dump into lined dumpster. Lined dumpster lid closed in between loads. Chris communicates, all CAS 432 contents should be loaded out by the end of the day. MM escorted by Dickson are exploring the 2<sup>nd</sup> and 1<sup>st</sup> floors for potential pathways to route temporary power from the 3<sup>rd</sup> floor.

1300 All furniture/contents has been removed from the Cascade 432 work area. The room was thoroughly sprayed down with water and the workers are sweeping up the remaining debris from the ground. Workers change the prefilter on the negative air machine.

1350 Waste trailer for Cascade 432 closed for end of day. All contents have been loaded out. LeMay scheduled to pick up tomorrow. PBS collect remaining air samples for the day.

1420 Workers at job trailer for end of day meeting.

1430 Dickson workers leave site.

1445-1500 PBS, Dickson and MM walk to check doors. MM shut off generator and lock gate. Everyone off site.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith Date 9/14/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland, Gregg Middaugh		PBS Project No.: 40535.488	Date: 9/15/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Chris Drea	
How Many? +13			
Air Monitoring Personnel on site:			
Summary Phase Status: Clean Maintenance Building and Cascade theater storage 432, LV3 prep, remove AHUs from roof			
Other Personnel on Site			
MacDonald Miller (MM), Olympic Peninsula Construction (OPC)			

WORK DESCRIPTION: Clean Maintenance Building and Cascade Storage 432. Continue to prep LV3. Remove AHU units from roof

WORKER PROTECTION: 1/2 face respirator, Tyvek, vest, hard hat, boots

METHOD OF REMOVAL: manual, wet wiping, and HEPA vacuuming

OBSERVATIONS:

0600 Dickson workers are having their morning safety meeting, PBS attends meeting. Discussions also include the scope of work for the day and going over general site information. Workers go to assigned tasks.

0630 6 workers are on the roof disconnecting the negative air machines from the AHU scheduled for removal this morning. 3 workers are in the maintenance yard storage continuing with wet wiping surfaces. Dickson is anticipating being ready for a PBS visual inspection in this area tomorrow at some point. 2 workers are in the Cascade 432 storage area wiping down surfaces. PBS set up ambient air samples to run all day on all elevations and roof of Olympic South Building during removal of AHUs.

0750 The crane arrives to the job site and will be staged between the Olympic South Building and the Cascade Building.

0800 PBS rep Gregg Middaugh is on site.

0830 All personnel on site including OPC attend a site-specific crane safety meeting. All personnel in and on the Olympic South Building have been evacuated with the exception of workers associated with removing the small and large AHU from the roof.

0900 PBS on roof of Olympic North Building observing removal of units. The small and large AHU scheduled for removal have been demarcated with asbestos danger tape. Dickson has 4 workers and a superintendent at the location of the smaller AHU unit, this will be removed first. The negative air machines have been disconnected from the AHU units that will be removed. Two MM employees on roof for rigging and assistance of disconnecting units from roof.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Small and Large AHU units removed from Olympic South roof	Maintenance building, Cascade 432
	LV3. LV2 Mechanical Mezzanine

Signature: 

Name: Mike Smith Date 9/15/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/15/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

1000 The small AHU is slightly suspended by the crane. Dickson workers are applying a double layer of poly sheeting on the AHU and a single layer of poly sheeting on the opening of the roof. PBS checks the Cascade 432 space at the supervisor's request. Excessive dust was still identified on horizontal surfaces and the area is not ready for a final clean inspection.

1030 The smaller AHU has been lowered to ground level. Small unit moved with forklift to fenced parking lot for storage until Le May drops off waste trailer. The metal roof cap has been lifted and placed on the roof location of the AHU. Dickson is reattaching the negative air machines to the custom roof cap. The large AHU unit is now being rigged similar to the smaller unit. Dickson crews working in Cascade 432 and the Maintenance Bldg. storage are going to lunch.

1100 The larger AHU Unit has been suspended and prepped for lowering in the same manner as the smaller unit.

1115 The larger AHU is lowered from the roof and placed on a flatbed trailer. This AHU will be wrapped and labeled and taken to Murray's Disposal Co.'s fenced, secured yard until further disposition is determined.

1130 The Dickson workers who previously went to lunch, have returned and traded out with the workers involved in the roof activities so that they may now take their lunch break.

1200 The truck with the larger AHU departs the site. The AHU has been wrapped and labeled.

1230 The crane is being prepped to be removed from the site.

1300 PBS receives lab data report. Dust sample collected from electrical panel in Room 320 came back above project established threshold of 1,000 struc/cm2. PBS communicate with MM about assistance needed to sample representative electrical panels from LV3 and LV1. MM with assist PBS with sampling tomorrow.

1330 Workers continue to clean the Cascade 432 space and the maintenance yard storage space. Dickson anticipates being ready for an inspection tomorrow in both areas.

1420 Workers at job trailer for end of day meeting.

1430 Dickson workers leave site.

1500 MM shut off generator, MM workers leave site. Small air handling unit is wrapped sealed and labeled. Unit will be stored in secure fence area in parking lot until dumpster is delivered tomorrow.

1530 PBS check doors and lock gate. PBS departs site including Gregg Middaugh.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 9/15/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/16/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Chris Drea	
How Many? +11			
Air Monitoring Personnel on site:			
		Summary Phase Status: Final clean Maintenance Building and CAS 432, Prep LV3	
		Other Personnel on Site:	
		MacDonald Miller (MM)	
		Olympic Peninsula Construction	

**WORK DESCRIPTION:** Clean Maintenance Building and Cascade Storage 432. Continue to prep LV3. Remove AHU units from roof

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, vest, hard hat, boots

**METHOD OF REMOVAL:** manual, wet wiping, and HEPA vacuuming

**OBSERVATIONS:**

0630 Two workers in the maintenance building, doing a final touch up clean. The excess cleaning materials were loaded out this morning. All that remains behind is the fridge wrapped in poly on a pallet and cleaned contents wrapped in poly sheeting. Wrapped fridge will be transported to Olympic South building for storage until coolant can be drained. Three workers in Cascade 432, additional worker shows up with bucket of water for Hudson sprayer. Cascade 432 workers performing final clean of work area.

0645 LV3 six workers and 4 MM workers. One plumber is shutting off the water in the bathroom. Dickson is continuing to tape up poly sheeting. Workers setting up a critical barrier to the electrical room 320.

0700 PBS run air samples for Cascade 432 work area. Four workers in CAS 432 containment performing final clean of area.

0830 Eugenio (MM) assist PBS with sampling representative electrical panels in 320 and 321 and 173 of Olympic South. PBS collecting samples, Eugenio supervising to make sure panel is safe. Three workers on LV3 covering fire system components with poly. PBS visually inspect maintenance building work area. Visual inspection unsatisfactory, various horizontal surfaces have dust/debris on them. Workers will continue to clean area.

1010 Three workers cleaning the maintenance building from top to bottom. Workers wet wipe and HEPA vacuum surfaces. Two workers are in a lift and one is on a ladder cleaning the rear storage room. Work continues in Cascade 432 as before.

1030 Workers take lunch.

1115 Workers return from lunch. PBS sample last electrical panel in Mechanical room 173. Two MM workers in area will then set up temporary power from one of the boxes. MM employees notified that there is a potential for some asbestos

**ITEMS OF CONCERN:** None

**CHANGES IN SCOPE:** None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
None	Maintenance Building
	Cascade 432
	LV3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 9/16/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/16/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

contaminated dust to be inside the panel. Workers will exercise caution to minimally disturbed the dust. PBS running air sample in area.

1120 Daryl (MM) and one worker in LV2 mechanical mezzanine to finish disconnecting hydronic piping to air handler units.

1130 Three Dickson workers fixing poly sheeting on the 3rd floor. PBS starts an ambient air sample on LV3.

1200 Three week look ahead meeting with Dickson and MM.

1220-1340 PBS walk third floor with Todd L and Chris and MM. Three workers continue preping walls with poly sheeting. Dickson will remove doors label with room number and store in connex for duration of abatement.

1345 MM electrician will be on site 5:45 to shut off power to transformer in level one mechanical room 173 for PBS to collect a microvac sample. Dickson will put the fire system in test for the day. Waste container previously dropped near cascade loading dock is being moved to fenced area in parking lot. Dickson will put small air handling unit in dumpster.

1400 Weekly construction meeting with project team.

1430 Dickson workers leave site for the day.

1500 PBS check doors and leave site. MM shut off generator and leave site. Small air handling unit has been moved to lined dumpster.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/16/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/17/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Chris Drea	
How Many? +12			
Air Monitoring Personnel on site:		Summary Phase Status: Inspect Maintenance Building and Cascade theater storage 432, LV3 prep	
		Other Personnel on Site	
		MacDonald Miller (MM), Olympic Peninsula Construction (OPC)	

WORK DESCRIPTION: Inspect Maintenance Building and Cascade Storage 432. Continue to prep LV3.

WORKER PROTECTION: 1/2 face respirator, Tyvek, vest, hard hat, boots

METHOD OF REMOVAL: manual, wet wiping, and HEPA vacuuming

OBSERVATIONS:

0600 Dickson workers are having their morning meeting, discussions include the scope of work for the day and going over general site information. Workers go to assigned tasks.

0630 2 workers are in the maintenance building continuing with final cleaning of surfaces. Dickson anticipates being ready for a PBS visual inspection approx. 0800. 4 workers are in Cascade 432 performing final cleaning of surfaces. Dickson anticipates being ready for a PBS visual inspection at approximately lunch time in this area.

0800 PBS inspects the maintenance building storage area as requested by Dickson.

0930 PBS completes the inspection of the maintenance storage area; some areas needed some additional attention – these areas were corrected as PBS identified them. PBS passes the inspection and will now microvac sample surfaces. Small, cleaned bagged items will be transported to a storage Conex for later sampling. Following contractor encapsulation, PBS will aggressively collect TEM clearance samples in the spaces. Clearance air sampling may occur Monday morning.

1030 Dickson workers break for lunch and resume work efforts. The workers from the maintenance building move to the 3<sup>rd</sup> floor prep area. Dickson has requested a clearance inspection following their lunch in Cascade 432.

1115 PBS inspects Cascade 432 at Dickson’s request. After some touch-up of a few spots, the area is passed. PBS is also collecting microvac surface samples in the maintenance building at this time. Microvac sampling in Cascade 432 will also include the return and supply ducting from the work area.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No abatement this shift	Maintenance building, Cascade 432, Olympic S - Level 3

Signature:   
 Name: Mike Smith Date 9/17/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/17/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

1230 PBS will also now microvac surface samples in Cascade 432 which will be then followed by contractor encapsulation. Workers from this area will also move to the prep of the Olympic S LV3. Following contractor encapsulation, PBS will aggressively collect TEM clearance samples in the spaces. Clearance air sampling will occur Monday morning.

1330 PBS walks the LV3 work area. The area is nearly prepped to begin abatement on this level. Dickson needs to finish loading out doors, sealing some floor areas better, and some other smaller items prior to starting abatement. Dickson has completed encapsulation of the maintenance yard space and will now encapsulate Cascade 432.

1415 Dickson has completed the encapsulation of the Cascade 432 space.

1420 Workers at job trailer for end of day meeting.

1430 Dickson workers leave site.

1500 MM shut off generator, MM workers leave site. PBS check doors and lock gate. PBS departs site. Air clearance samples for Maintenance Building and Cascade 432 will be collected Monday morning.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 9/17/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/20/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +12			
Air Monitoring Personnel on site:			
Summary Phase Status: PBS Air clearances in Maintenance Building and CAS 432, Prep LV3 and Mech 173			
Other Personnel on Site:			
MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC)			

WORK DESCRIPTION: Prep Level 3 containment for abatement. Prep Mechanical room 173. Swap pre filters on negative air machines.

WORKER PROTECTION: Hard hat, boots, vest,

METHOD OF REMOVAL: N/A

OBSERVATIONS:

0600 PBS on site. Dickson and MM are on site. Workers are on LV 3 and Mechanical 173 preping space for abatement. PBS email college for approval of disposal of some items in Mech 173. PBS setting up equipment for air clearance samples in Cascade 432. Two workers change negative air machine pre filters on roof.

0700 Daryl (MM) will be working on first floor, Dickson worker will be available to assist.

0715 One worker enter CAS 432 to wrap cart and load out box of rags, HEPA vacuum and some water pumps.

0725 PBS run aggressive TEM air clearance samples for CAS 432 work area.

0745 3 Dickson workers disassembling the wooden shelving in the first floor mechanical room and loading it out to a dumpster by the conexs. Two workers from the reclad project removing the door frame to the mechanical room.

0800 Two Dickson workers inside the Level 1 containment changing filters on negative air machines and checking on critical barriers and resealing as needed. One of the workers ready to assist MM in Level 1 containment as needed.

0830 6 Dickson workers on the 3rd floor. One fixing poly. Two replacing filters on negative air machines. 3 in the men's restroom removing fixtures and one MM plumber.

0900 Five workers on LV3 hanging extension cords, removing general debris, and restroom partitions. Plumbing fixtures from 338A have been removed by MM plumber. Will be stored in connex for now.

Daryl enter LV1 one worker in containment ready to assist MM.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
None	Olympic South1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 9/20/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/20/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

0910 PBS collect clearance samples from CAS 432.

1015 PBS setting up equipment in Maintenance building for aggressive TEM air clearances.

1200 Dickson fuel truck is here to fill generators then leaving site.

1220 One operator and one spotter take forklift bin of contents from level 3 and mechanical room 173 to lined dumpster in parking lot. 6 workers on LV3 continue prep, hanging poly walls and floors, removing poly ceiling in room 325. Three workers in Mech 173 hanging poly sheeting on walls. Two brown shelves requested by college to keep stored in connex 3.

1415 workers at trailer for end of day meeting.

1430 Workers off site.

1430-1500 PBS walk LV3 with Corey to check containment. Plumbing fixtures and light fixtures in 338A need additional poly sheeting as protection during abatement.

1545 Dickson shut off generator and leave site.

1600 PBS check doors and leave site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/20/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland, Gregg Middaugh	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 9/21/2021
	Page 1 of 2
	Time 6:00 am
Contractor on Site Personnel:	
Project Manager Yes <b>No</b> Supervisor Yes No	Summary Phase Status: Start abatement on LV3
Workers <b>Yes</b> No Name: Corey Foust	Other Personnel on Site:
How Many? +17	MacDonald Miller (MM)
Air Monitoring Personnel on site:	Olympic Peninsula Construction (OPC)

WORK DESCRIPTION: Remove lay-in-ceiling tiles and ceiling grid from LV3 contaminated return plenum.

WORKER PROTECTION: 1/2 face respirator, Tyvek, hard hat, boots

METHOD OF REMOVAL: Manual

OBSERVATIONS:

- 0600 PBS on site. Dickson is having their morning meeting to go over the scope of work for the day.
- 0645 Two Dickson workers in the first-floor mechanical room vacuuming and hanging up poly sheeting.
- 0745 PBS and Macdonald Miller mark off the electrical wiring that will be saved in the server room 321. The ends are taped with painters' tape to ensure no contamination inside the wire.
- 0805 PBS has visually inspected the containment on LV3 and gives ok for abatement to begin. The fixtures in the women's restroom have been covered and all of the poly sheeting looks properly attached.
- 0815 IWA and OWA air samples are started for the 3rd floor Olympic South.
- 0850 One worker drills 1/4 inch hole in Olympic North LV3 construction door for PBS tubing to collect air samples from Olympic North level three with pump inside construction door. PBS run ambient air sample in occupied hallway of Olympic North.
- 0920 Discuss electrical panels in Mechanical -7: with PBS Dickson and MM. PBS receives results for bulk samples of tan mastic located behind mirrors in Olympic South Room 338B. No asbestos was detected in these samples.
- 1030 Workers decon out of area for lunch.
- 1115 Worker return to work on LV3.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials (ceiling tiles/insulation/wallboard) Approximately 200 bags	Olympic South LV3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 9/21/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/21/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

12:40 13 Dickson workers removing ceiling tiles and suspended grid. Approximately 85% of the ceiling tiles have been removed and approximately 35% of the metal lay in ceiling structure have been removed and bagged. Approximately 200 waste bags on LV3.

1241 PBS discuss conduit to sample with MM employee in Mechanical 173. Two workers setting up plywood framing for poly sheeting entrance to fire panel. One worker from reclassified project MM worker marks blank conduits from panels that have testers positive.

2:30 Workers off site after end of day meeting.

2:45 MM off site.

15:30 PBS check doors then leave site. Corey shut off generator and leaving site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

---

Name: Claire Tsai

Date 9/21/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland, Gregg Middaugh.		PBS Project No.: 40535.488	Date: 9/22/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +13			
Air Monitoring Personnel on site:			
		Summary Phase Status: LV3 abatement	
		Other Personnel on Site:	
		MacDonald Miller (MM)	
		Olympic Peninsula Construction (OPC)	

WORK DESCRIPTION: Workers remove wallboard, wall insulation, ceiling grid, sub floor duct work – Olympic South, Level 3.

WORKER PROTECTION: 1/2 face respirator, Tyvek, boots, hard hat

METHOD OF REMOVAL: Removal of wallboard and ceiling grid manual and with Sawzall.

**OBSERVATIONS:**

0600 PBS on site. Dickson workers having their morning meeting to go over the scope of work for the day.

0615 Two Dickson workers in the first-floor mechanical room removing tools and supplies. Poly sheeting has been established at the doorway to allow for access to the fire panel. No work has begun in this room just prep of containment.

0630 MM notify PBS and Dickson not to use scaffolding around Olympic South until it has been inspected and certified.

0730 Level 3 containment 12 Dickson workers and 2 MM workers. Dickson workers are beginning to remove walls and fiberglass insulation with Sawzall. Metal frame ceiling grids are still being demoed in one room. No ceiling tile remains. The negative air machines are pulling air into the space critical barriers to stairwell and Olympic north level 3 have strong negative pressure, poly is being pulled toward containment.

0900 10 Dickson workers removing the one remaining metal ceiling grid and cutting open the walls on level 3. The walls were cut open with a Sawzall and attached HEPA vacuum. The surfaces were periodically sprayed down with water before being removed in large chunks with a breaker bar, wetted again and bagged. Visible dust was present in the air (seen with a flashlight) throughout the space likely due to the wall demo and fiberglass insulation removal air was moving in the direction of negative air machines.

0915 Two MM employees and one Dickson worker in Mech room 173 to sample breaker and conduit from electrical panels.

1000 Cut section of pipe and cables from conduits to Rm 173. Dickson hold pipe cutter, MM employee hold HEPA vacuum next to area being cut. Once conduit is cut both sides tapped closed and next cut is made with same process.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
No bulk material	
Asbestos contaminated, wallboard, wall insulation, ceiling grid	Olympic South Level 3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 9/22/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/22/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

1121 One MM employee load up caps to roof hoods and exhaust fans. Removal of roof exhaust fans and roof hoods scheduled for tomorrow.

1130 Two MM employees assist PBS collecting microvac samples from conduit and electrical boxes in walls of LV1 and 2. One Dickson worker assisting as needed.

1300 Level 3 containment 10 Dickson workers, three inside the sub floor space removing ducting. 7 workers removing wall sections with hack saws to cut the walls into sections, a HEPA vacuum is used next to the blade to suck in as much debris as possible and pry bars to remove the cut wall sections. The surfaces and the debris are periodically sprayed with water.

1400 MM leaving 1st floor containment in Olympic South.

1415 Workers decon out of containment and meet at trailer for end of day meeting.

1430 Workers leaving site.

1515 MM off site.

1530 PBS off site. Corey still on site will shut off generator. Doors are locked

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/22/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/23/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +15			
Air Monitoring Personnel on site:			
		Summary Phase Status: LV3 abatement, Remove LV3 roof exhaust fans and hoods	
		Other Personnel on Site:	
		MacDonald Miller (MM)	
		Olympic Peninsula Construction (OPC)	

**WORK DESCRIPTION:** Demo wallboard, wall insulation, floor supply duct work. Housekeeping of work area with water mist and HEPA vacuums.  
 Remove LV3 roof exhaust fans and hoods

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots

**METHOD OF REMOVAL:** Manual removal and mechanical with saws (wet methods)

**OBSERVATIONS:**

0600 PBS on site. Dickson and MM workers are having their morning meeting going over the scope of work for the day.

0630 Campus security states they have disabled the fire system and are all clear to proceed with the smoke test on Level 3.

0645 PBS begins smoke testing throughout the 3rd floor containment of the Olympic South Building. PBS initiates the smoke test rooms: 329, 331, 333, 321 and student lounge. The east side of the building around rooms 329, 331 and 333 were lacking in air movement although the air was still being pulled towards negative air machines. The smoke took over 20 minutes for these areas to clear of smoke. Dickson added two additional negative air machines, one outside of room 335 and one inside room 329 with exhausts pointing towards the roof negative air machines located in 324. The air flow along the east side of the floor improved from the addition of these negative air units. The smoke dissipated at a rapid rate from 321 (approximately 6 minutes) and the student lounge (approximately 10 minutes). The smoke from the student lounge moved E away from the Olympic North building critical and construction door.

0800 13 Dickson workers removing wall sections from LV3.

0820 Three MM workers and two Dickson workers on the roof removing exhaust fans and roof hoods. MM workers safe off a unit, Dickson wraps unit and puts a critical barrier on the roof opening. MM places cap on penetration and secures with screws. Last hood removed on LV3 roof. Two large roof hoods on LV2 roof remain in place. Exhaust fans and roof hoods wrapped sealed and stacked on Olympic South roof until there is roof access to load down units with a forklift.

0926 Corey and Three workers go to maintenance building.

**ITEMS OF CONCERN:** None

**CHANGES IN SCOPE:** None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
All drop ceilings have been removed.	
95% of scheduled wallboard has been removed – Olympic South, LV3	Olympic South Level 3 and roof

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 9/23/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/23/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

0945 3 Dickson workers at the maintenance yard picking up the remaining poly and machinery loading out remaining of Dickson's contents.

1000 United rentals drop off boom lift on site for window removal Monday.

1115-1200 Todd L on site. PBS, Dickson and MM discuss preschedule meeting/ 3 week look ahead schedule items.

1210 13 Dickson workers on LV3, 4 are below the floor removing the HVAC system. 9 Dickson workers removing walls, fiberglass insulation and excess screws.

1400-1500 PBS collect air samples for the day. Weekly schedule meeting with project team.

1410 PBS off site. MM and Dickson still on site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai

Date 9/23/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/24/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

1100 fire alarm triggered during conduit sampling. MM contacted campus safety to shut alarm and strobe off. Dickson and MM walk building to check for issues. MM will notify project team of incident with fire alarm.

1115 Workers return from lunch. Corey and one worker enter LV1 containment to look at pianos.

1130 MM and Dickson employee decon out of level 1 containment following conduit sampling.

1200 PBS walk through LV2 with Corey and one worker look at pianos that will be cleaned and moved out.

1330 Workers continue demoing out of level 3 duct work from supply plenum and housekeeping with HEPA vacuums.

1400 MM off site for the day.

1415 Workers decon out of LV3 for the day and meet at job trailer for end of day meeting.

1430 Workers off site. PBS off site. Corey on site will shut off generator. All doors are secured.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 9/24/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/27/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +14			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV3 abatement, Remove window from skybridge for load out.			
Other Personnel on Site:			
MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Demo wallboard, wall insulation, floor supply duct work. Housekeeping of work area with water mist and HEPA vacuums.  
 Remove skybridge window

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots

**METHOD OF REMOVAL:** Manual removal and mechanical with saws (wet methods)

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson is continuing cleaning on the 3rd floor and removing the window on the skybridge to the Cascade Building for load out of waste bags from Level 3. Sounds Glass company on site with two workers to remove glass pane from window. Glass stored in skybridge. MM is going to be aiding in sample collection on the 3rd floor (conduits, and other powered devices).

**0700** PBS along with an electrician from MM and 1 supervisor from Dickson on the 3rd floor of Olympic South Building in order to collect microvac samples of light switch, receptacle, and data boxes. As well as conduit that corresponds to said electrical boxes.

**0730** Dickson spoke to PBS about having workers above the hard lid ceiling and cleaning from on top rather than demolishing the ceiling. PBS has no objection as long as there is safe access for all building components to be cleaned and ductwork removed.

**0800** 2 Sound Glass workers, assisted by Dickson, are removing a window on the skybridge between the Olympic South Building and the Cascade building. Access below the skybridge has been restricted for safety reasons until the window removal is complete.

**0900** 2 additional walls will be removed on level 3 of the Olympic South work area. These walls are located on the east side of the Student Lounge. Walls need to be opened for additional cleaning. Dan (MM) has been notified of the additional wall removal activities. The skybridge window removal is complete. Dickson is in the process of covering the

**ITEMS OF CONCERN:** None

**CHANGES IN SCOPE:** Two walls added for removal in student lounge. MM send out marked up drawing to project team.

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Demolished wall system materials and metal HVAC ductwork from Olympic South, Level 3	Olympic South Level 3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date 9/27/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/27/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

opening with poly sheeting (raining) and installing a wood safety barrier spanning the opening. Workers have fall protection secured to metal beam above drop ceiling.

**0945** 3 Dickson workers below the floor in the supply plenum on the west side of the Olympic South Building removing the HVAC system. 1 Dickson worker assisting a MM worker and PBS with glove bag method removal and sampling of conduit sections throughout level 3. 3 Dickson workers demolishing walls from the level 3 Men's Restroom, 3 Dickson workers cleaning the level 3 space and preparing for load out.

**1030** Dickson workers take a lunch break and then resume work efforts as noted.

**1200** Dickson workers load out waste bags from level three. The waste bags are wet wiped prior to removing from the work area. The labeled ACM bags are loaded out via the Cascade skybridge window into a forklift bin followed by transport and dumping into the container in the construction parking lot.

**1300** PBS conducts a staff safety meeting. Items discussed in the meeting were consistent with the Job Hazard Analysis (JHA) prepared specifically for this project site and included subjects such as slips/trips/falls, electric hazards, PPE and associated challenges, and roof safety.

**1330** The disposal container in the construction parking lot is now full. LeMay is scheduled for a pick-up and container replacement tomorrow

**1400** PBS collects remaining air samples for the day.

**1430** Workers depart the project site

**1530** PBS off site, microvac samples collected today will be dropped off at Lab/Cor. Corey still on site will shut of generator. Doors are locked.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 9/27/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 9/28/2021
Contractor on Site Personnel:	Page 1 of 2
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	Time 6:00 am
Workers <b>Yes</b> No Name: Corey Foust	Summary Phase Status: LV3 abatement
How Many? +14	Other Personnel on Site:
Air Monitoring Personnel on site: PBS/Dickson	MacDonald Miller (MM)
	Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.

**WORK DESCRIPTION:** Demo floor supply duct work. Housekeeping of work area with water mist and HEPA vacuums.  
Load exhaust fans and hoods down from LV3 roof

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots

**METHOD OF REMOVAL:** Manual removal and mechanical with saws (wet methods)

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks which include continued cleaning on the 3rd floor.

**0800** 3 workers on level 3 continue to remove the HVAC supply ductwork below the floor. The ductwork is removed via taking out screws or using sawzalls. The ductwork is taken out of the plenum through the floor hatches and collapsed if applicable prior to bagging. 1 worker is removing gypsum ceiling framing in student lounge for demolition access of duct work above ceiling, 2 workers are HEPA vacuuming demolition debris in the south side of the work area, and 1 worker is bagging up demolished material including metal ductwork and metal ceiling framing.

**0900** Two workers in 166A extending mini enclosure for access to washer dryer valve and hose bib for reclad contractor. Mini enclosure in hall near 172 has been altered to include section of wall cavity for access to hose bib. PBS initiates PCM clearance for mini enclosure in hall near 172.

**1030** Workers break for lunch.

**1100** PBS microvac sampling on Olympic South, Level 3 at hallway/Student Lounge intersection below student lounge floor.

**1115** Workers return to work on level 3 and 166A mini enclosure.

**1215** PBS notify Dickson and MM that mini enclosure clearance for hall near 172 pass, workers may use this space for hose bib access.

**ITEMS OF CONCERN:** None

**CHANGES IN SCOPE:** None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated ceiling framework materials and metal HVAC ductwork from Olympic South, Level 3	Olympic South Level 3

Signature:

Name: Mike Smith

Date 9/28/2021

The individual signing certifies that the above information is correct and accurate.



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 9/28/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1225** 1 worker load one waste bag with tyvek suits and wallboard into lined dumpster near level 1 entry from 166A mini enclosure work.

**1230** 1 worker from 166A mini enclosure move to parking lot connex to assist PBS with Maintenance building contents sampling. PBS visual contents, Dickson worker in area if additional cleaning is needed. PBS collect microvac samples from representative set of items.

**1330** 2 workers enter LV1 containment to view Room 270 and 271. Workers will hang poly sheeting as visual screen from windows. PBS does a visual inspection in 166A of the preparation of the hose bib plumbing access for plumbing contractor work. The plumbing is exposed, and poly sheeting is sealed around the wall isolating the pipe. PBS observes the exposed plumbing is dripping into the wall cavity. No fungal growth is observed where the plumbing contractor will access, however: a PCM asbestos clearance will be required in the space prior to access by others.

**1415** Workers decon out of containment for end of day. Meet at job trailer for end of day meeting. No safety issues for the day. Windows in Rooms 270 and 271 have poly sheeting visual barrier.

**1430** Workers off site for the day. Corey confirmed with Patrick with OPC sufficient access provided with mini enclosure from 166A. PBS will run air clearance in the morning. Le May dumpster not swapped today. Should be swapping dumpster tomorrow.

**1430** Workers depart the project site.

**1530** PBS off site, microvac samples collected today will be dropped off at Lab/Cor. Corey still on site will shut of generator. Doors are locked.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 9/28/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland, Gregg Middaugh, Cameron Budnick		PBS Project No.: 40535.488	Date: 9/29/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +14			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: LV3 abatement and load out	
		Other Personnel on Site:	
		MacDonald Miller (MM)	
		Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.	

WORK DESCRIPTION: Demo floor supply duct work. Housekeeping of work area with water mist and HEPA vacuums.

Load out waste bags from LV3

WORKER PROTECTION: 1/2 face respirator, Tyvek, hard hat, boots

METHOD OF REMOVAL: Manual removal and mechanical with saws (wet methods)

OBSERVATIONS:

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. Dickson will be continuing to remove the HVAC system on the 3rd floor.

**0745** 4 Dickson workers below the floor removing the HVAC system. One Dickson worker above using a drill to remove metal framework to access the HVAC system in the student lounge. One worker using a HEPA vacuum to clean the ram boards 2 workers bagging up HVAC systems into poly bags and wetting them down before sealing them. One worker is removing excess wiring that ran above the ceiling. Two Dickson workers moving maintenance contents from connex to Room 168 for further cleaning before PBS sampling.

**0800** Discuss piano storage with Corey. Need a confirmed count and weight for pianos to confirm storage plan temporary in skybridge to cascade and cascade 531 based on structural weight capacity of building provided by architect. PBS set up clearance samples in Room 166A mini enclosure.

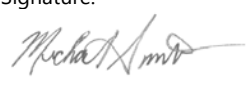
**0830** PBS started TEM ambient air samples for all four of the exterior elevations of the Olympic South Building to run for full shift.

**1000** Two Dickson workers are inside of Rm. 168 cleaning Maintenance building contents with HEPA vacuums and rags. PBS air sampling during cleaning activities. PBS in area for visual inspection of tools once cleaned and surface sampling of representative items after passing visual.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated ceiling framework materials and metal HVAC ductwork from Olympic South, Level 3	Olympic South Level 3, Room 168

Signature: 

Name: Mike Smith Date 9/29/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 9/29/2021
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1030** Workers break for lunch.

**1115** Workers return to work.

**1130** Dickson continues to clean maintenance building contents in Room 168. All contents that are cleaned are then visually inspected for any remaining dust workers touch up cleaning as needed.

**1145** Dickson workers are loading out ACM waste from level 3. Bags are checked for holes, if there is one, they have a second bag placed over top. The outsides of the bags are wiped with clean wet rags before they are loaded out. One worker spot checks and wipes down the bags before they are taken down. Small holes are duct taped shut. 4 workers are in the load out area. Workers load out bags from Cascade to Olympic South Skybridge window into forklift bin. Forklift operator drives bin to parking lot to be emptied in to waste trailer. Worker in skybridge using fall protection secured to metal beam above ceiling. Pedestrian access restricted during load out process.

**1353** Worker zipping up load out window for the day and securing skybridge loadout.

**1400** Dan T with Pierce college drops off rat traps for Olympic South Building. PBS provide traps to Dan (MM) to coordinate setting traps in building with Dickson.

**1415** Workers prep site for end of day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1530** PBS leaving site. Doors locked. Corey still on site will shut of generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 9/29/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 9/30/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +14			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV3 abatement and load out Maintenance building contents cleaning			
Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.			

WORK DESCRIPTION: Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials from level 3, Olympic South Building. Maintenance building contents being cleaned and inspected in Room 168 Olympic South Building and stored in clean room. Load out waste bags from LV3, clean stairwell

WORKER PROTECTION: 1/2 face respirator, Tyvek, hard hat, boots

METHOD OF REMOVAL: Manual (wet methods)

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. Dickson will be continuing to remove labeled waste bags from the 3rd floor in the Olympic South Building.

**0640** 3 Dickson workers are on the roof repairing the eastern roof hood on the lower roof of the Olympic South Building. They removed the cap and poly sheeting, then attached and resealed a new section of poly sheeting that would give a better seal followed by replacing the cap.

**0700** 2 Dickson workers are transferring stored maintenance building contents from the parking lot A Conex to Olympic South, Room 168 for further cleaning and visual inspection.

**0730** While checking the level 3 work areas, PBS discovers white wallboard particles outside of containment. Dickson was advised of PBS' observation and HEPA vacuumed them up promptly. They are also going to HEPA vacuum their cleaning room. The first bag PBS looked at outside of the containment had a puncture hole from metal ceiling grid in it. PBS also observed some debris being tracked into the stairwell.

**0800** 3 Dickson workers are off loading the asbestos contaminated waste into the ACM dumpster. PBS advised Corey F of the issues with debris being tracked out during the load out process.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated waste bags loaded out via the skybridge Olympic South, Level 3	Olympic South Level 3, Room 168

Signature:   
 Name: Mike Smith Date 9/30/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 9/30/2021
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0810** Corey F investigated and observed the tracking of wallboard debris in the stairwell that stretched from containment to the 2nd level load out zone. White wallboard particles were lying loose on the floor with some being crunched into the grip strips on the stairs and on the ram boards. Corey F stopped all load out work to meet with crew and fix load out procedures. Dickson workers are now cleaning up the debris with HEPA vacuums and wet wiping. PBS was performing air sampling in the area during these activities. PBS will analyze these samples to determine if further action is required.

**0900** 2 Dickson workers are now cleaning the maintenance building contents moved into Room 168 this morning. All items that have been cleaned are inspected by PBS. If the items are found to be clean, they are segregated in a separate area for cleaned items. These items will eventually be microvac sampled to confirm cleanliness. PBS air sampling is in progress during the cleaning process.

**0930** To correct the above issue for the remainder of the project Dickson workers are now double bagging every bag that comes out in a new clean bag. All workers are wearing booties to limit track in and out from the work area. The decon area has been recleaned with a wet rag and a HEPA vacuum. PBS inspected the stairwell and clean room, post cleaning, no issues remain.

**1030** Workers break for lunch.

**1115** Workers resume to work.

**1120** PBS attends weekly 3-week look ahead schedule meeting with MM and Dickson.

**1210** Dickson workers are now using the decon chamber to place filled bags into new clean bags. 4 workers inside containment are transporting the bags to the decon, they are then loaded out down the stairs to the LV2 skybridge to be loaded out the window to the forklift bin and transferred to the container in the parking lot.

**1330** Dickson workers on level 3 continue to load out labeled waste bags via the skybridge. This activity will continue throughout the rest of the shift and into tomorrow. Dickson workers continue to wet wipe and HEPA vacuum maintenance building contents now stored in Room 168 (Olympic South).

**1400 – 1500** PBS attends weekly progress meeting with the project team.

**1410** Skybridge load-out window closed and secured for the day.

**1415** Workers prep site for end of day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1530** PBS leaving site. Doors locked. Corey still on site will shut of generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 9/30/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland, Gregg Middaugh		PBS Project No.: 40535.488	Date: 10/1/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +14			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV3 abatement and load out Maintenance building contents cleaning			
Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials from level 3, Olympic South Building. Maintenance building contents being cleaned and inspected in Room 168 Olympic South Building and stored in clean room.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots

**METHOD OF REMOVAL:** Manual (wet methods)

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. Dickson will be continuing to remove labeled waste bags from the 3rd floor in the Olympic South Building.

**0700** 3 Dickson workers inside containment, one is loading the bagged asbestos-contaminated material into a cart to bring to two workers in the decon zone. Before the bags are loaded into the cart the worker checks each bag for holes, if one is found, it is placed into another bag. The two workers in the decon area place the bags into new clean clear bags before loading them out. They have a HEPA vacuum, duct tape, wet cloths, and sealant spray to address any issues that might have been missed. The re-bagging process is done on a clean poly sheeting drop layer placed over the clean poly sheeting floor. A chain of 4 workers transports the bags down one level to the load out area on the skybridge where it is loaded into a metal waste container raised by a forklift (one Dickson operator). Once full it is lowered and driven back to the parking lot to be disposed of in a lined asbestos-contaminated materials disposal container. Dickson has an outside work area air sample running on the landing between the 2nd and 3rd floors.

**0710** 2 Dickson workers are cleaning the maintenance building contents moved into Room 168. All items that have been cleaned are inspected by PBS. If the items are found to be clean, they are segregated in a separate area for cleaned items. These items will eventually be microvac sampled to confirm cleanliness. PBS air sampling is in progress during the cleaning

**ITEMS OF CONCERN:** None

**CHANGES IN SCOPE:** None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated waste bags loaded out via the LV2 skybridge to Cascade from Olympic South, Level 3	Olympic South Level 3, Room 168

Signature:   
 Name: Mike Smith Date 10/1/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/1/2021
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

process.

**0725** Dickson begins loading out, they had to wait for adequate light before beginning. Dickson has also now hung poly sheets along the windows of the 2nd level skybridge between Olympic South and the Cascade building in order to create a visual barrier. The load out area is demarcated and taped off to dissuade people from entering the work zone.

**0800** PBS analysis of air sampling collected yesterday did not yield results of concern. This includes sampling conducted during cleaning and load-out in the Olympic South Building stairwell.

**0800-0930** Meeting in CAS 531 with Gregg M and Claire (PBS), Todd and Corey (Dickson), John (MM) and Charlene W. (Pierce) Review inventory process and documentation.

**0930** 3 Dickson workers inside LV3 containment loading out ACM bags using the same process as described above. 5 Dickson workers are loading the bags down the stairs and into the metal waste container on the forklift. Two Dickson workers are outside of the building, one is operating the forklift and one is spotting.

**1000** Dickson workers continue cleaning the maintenance building contents that have been moved into Room 168. Following cleaning and inspection by PBS, items found visually clean are stored in a clean room until lab results confirmation.

**1030** Workers break for lunch.

**1115** Workers return to work tasks.

**1300** 3 workers inside LV3 containment are spraying down the inside of the clean outer bag with water, taping it shut then passing it down the 5-worker chain to the waste container on the forklift. When full the container is wheeled back to the Parking lot and dumped into the lined container located in the construction area - Parking Lot A. 2 Dickson workers continue cleaning the maintenance building contents that have been moved into Room 168. PBS enters the Level 1 containment to add photos to Smartsheet to confirm contents marked for disposal.

**1410** Skybridge load-out window closed and secured for the day.

**1415** Workers prep site for end of day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1515** MM workers depart the site

**1540** PBS leaving site. Doors locked. Corey still on site will shut of generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 10/1/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 10/4/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 Am
Project Manager	<b>Yes</b> No	Summary Phase Status: LV3 abatement and load out Maintenance building contents cleaning, LV2 prep	
Supervisor	<b>Yes</b> No	Other Personnel on Site:	
Workers	<b>Yes</b> No	MacDonald Miller (MM)	
Name:	Corey Foust	Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.	
How Many? +22			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials from level 3, Olympic South Building. Maintenance building contents being cleaned and inspected in Room 168 Olympic South Building and stored in clean room. Level 2 prep work for fireproofing removal and Piano cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots

**METHOD OF REMOVAL:** Manual (wet methods)

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. Dickson workers will be prepping HVAC ducting for loading out and will be continuing to remove labeled waste bags from the 3rd floor in the Olympic South Building.

**0630** 2 Dickson workers are cleaning the maintenance building stored contents in Room 168. All items that have been cleaned are inspected by PBS. Cleaned and inspected items are segregated in a clean room for PBS microvac sampling of representative items. PBS air sampling is in progress during the cleaning process.

**0700** 13 Dickson workers continue with work efforts related Olympic South Level 3. 3 of those workers are disassembling HVAC ducting for bagging and load out. 1 worker along the south side of the building is cutting up the HVAC with a Sawzall. 3 workers bagging ACM debris into a clean bag in the load out zone. 5 workers outside of containment on the stairs loading out ACM bags. 2 workers below, one operating the forklift with the ACM waste container and the other spotting.

**0800** 2 Dickson workers are replacing the prefilters in the negative air machines. They also fixed one of the negative air exhausts coming out of the ECE.

**0900** 2 Dickson workers continue cleaning maintenance building contents in Room 168. Work on Level 3 continues as noted. 2 workers are on LV2 prepping area for piano cleaning and fireproofing abatement.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated waste bags loaded out via the skybridge Olympic South, Level 2 from Level 3 containment	Olympic South Level 2/3, Room 168

Signature:

Name: Mike Smith

Date 10/4/2021

The individual signing certifies that the above information is correct and accurate.



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/4/2021
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1000** LeMay is on site picking up 2 full ACM dumpsters from Parking Lot A and trading them for 2 empty containers. 2 Dickson workers continue cleaning maintenance building contents in Room 168.

**1030 – 1115** Dickson workers break for lunch and resume work.

**1130** PBS walks through LV2 with Corey and 2 Dickson workers. Discuss logistics and protocols for piano cleaning and storage while waiting for lab results. Discuss area of fireproofing abatement and contents that need to be moved prior to removal of fireproofing. All contents that area moved need to be labeled with original location for reference during inventory process. PBS email college for confirmation of wood risers in room 284 if they will be demolished and if LED lighting from Rooms 283 and 284 need to be saved. Workers begin prep work of poly clean room and cleaning area for piano cleaning and storage before being removed. LV3 containment 4 rooms still contain bagged asbestos-contaminated material or ductwork waiting on load out. PBS collects inside the work area air sample.

**1200** Workers in Room 168 are in the process of cleaning 2 chop saws.

**1300** 3 workers inside containment on LV3 are spraying down the inside of the clean outer bag with water, taping it shut then passing it down the 5-worker chain to the waste container on the forklift. When full, the container is wheeled back to the Parking lot and dumped into the lined container located in the construction area - Parking Lot A. 2 Dickson workers continue cleaning maintenance building contents in Room 168.

**1340** Corey F and PBS exit the Level 2 containment.

**1400** Skybridge load-out window closed and secured for the day.

**1415** Workers prep site for end of day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1500** PBS and MM workers depart the site. Doors are locked. Corey still on site will shut of generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 10/4/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland, Gregg Middaugh		PBS Project No.: 40535.488	Date: 10/5/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 Am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +25			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV3 abatement and load out Maintenance building contents cleaning, LV2 prep			
Other Personnel on Site:			
MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials from level 3, Olympic South Building. Maintenance building contents being cleaned, inspected, and sampled in Room 168 and associated clean room. Begin preparation in Level 2 for fireproofing removal and piano/drum cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots

**METHOD OF REMOVAL:** Manual (wet methods) and Sawzalls

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers will also continue to clean the items from the maintenance building in Room 168 and doing preparations for piano cleaning and fireproofing removal on level 2.

**0700** 9 Dickson workers will be continuing work efforts in the Level 3 enclosure. 2 workers removing HVAC metal ducting from the student lounge above ceiling space using Sawzalls. 1 worker is removing the GWB ceiling in the north hallway, and 2 workers are in the decontamination chamber cleaning loaded bags and then placing into a second clean bag (double bagging). 4 workers are loading the double-bagged materials from Level 3 to the Level 2 skybridge. 2 workers are involved with transporting bags from the level 2 skybridge to parking lot A waste trailer, 1 is operating the forklift and 1 is spotting.

2 Dickson workers are cleaning the maintenance building contents in Room 168. All items that have been cleaned are inspected by PBS. Cleaned and inspected items are segregated in a clean room for PBS microvac sampling of representative items. PBS air sampling is in progress during the cleaning process.

5 Dickson workers are working in Level 2 HEPA vacuuming the corridor and preparing the northeast portion of the building for piano cleaning and storage.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated waste bags loaded out via the east skybridge of Olympic South, Level 2 from Level 3 containment	Olympic South Level 2/3, Room 168

Signature:

Name: Mike Smith

Date 10/5/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/5/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0830** PBS Project Manager Gregg Middaugh on site.

**0900** Dickson workers continue cleaning maintenance building contents in Room 168, PBS is microvac sampling items that have been determined visually clean. Work on Level 3 continues as noted. 6 workers are on Level 2 prepping area for piano and drum cleaning and fireproofing abatement. Air monitoring is being conducted in all affected areas.

**1030 – 1115** Dickson workers break for lunch and resume work.

**1120** Fuel is delivered to job site generators. Dickson workers moving more negative air machines to the Level 2 work area.

**1245** Gregg Middaugh departs the site

**1300** 6 Dickson workers on the 2nd level of the Olympic South building hanging poly containment for south end of level 2 where fireproofing removal will occur, clean room built near exit to skybride to cascade for eventual piano and drum storage while waiting for test results, cleaning area built in art gallery on LV2. 2 Dickson workers below on the first floor doing detail cleaning on the last few contents from the maintenance building. The items are then loaded out into a clean area where PBS takes a micro vac sample from each bag of items. 9 workers continue on Level 3 continuing work efforts as previously noted

**1400** Skybride load-out window closed and secured for the day.

**1415** Workers prep site for end of day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1500** PBS and MM workers depart the site. Doors are locked. Corey still on site will shut of generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Mike Smith

Date 10/5/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 10/6/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6:00 Am
Project Manager	<b>Yes</b> <b>No</b>	Supervisor	<b>Yes</b> <b>No</b>
Workers	<b>Yes</b> <b>No</b>	Name: Corey Foust	
How Many? +23			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: LV3 abatement and load out LV2 fireproofing removal prep and piano cleaning	
		Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.	

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials from level 3, Olympic South Building. Continue preparation in Level 2 for fireproofing removal, move and clean baby grand pianos and drums.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and Sawzalls

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers complete cleaning content from the maintenance building in Room 168, PBS will complete surface sampling of representative contents and get the samples to lab. Workers continue prep for fireproofing removal and piano cleaning on Level 2.

**0730** Two Dickson workers have finished cleaning maintenance building contents and are now moving to the 2nd floor to assist with prep work. 5 workers on the 2nd floor, two removing speakers from the wall in Room 283, two taping up poly sheeting on the walls and one vacuuming the carpet with a HEPA vacuum (south side of the 2nd floor).

**0800** 5 workers on level 3 removing north hallway gypsum ceiling and HVAC system above. One worker bagging debris. Two workers placing the ACM bags into clean bags for loadout and spraying the inside with water. Dickson workers on level 2 move two negative air machines from hallway into room 284 along with additional machines.

**0810** One worker on level 3 HEPA vacuuming decon/load out area in containment.

**0900** Discuss tracking contaminated areas to remain on as-builts that MM is developing during the project.

**1030** Workers break for lunch.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated waste bags loaded out via the east skybridge of Olympic South, Level 2 from Level 3 containment	Olympic South Level 2/3, Room 168

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 10/6/2021

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/6/2021
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

- 1100** PBS internal safety meeting items discussed include: Rat traps placed in building, use of adequate height ladders, using handrail on stairs-specifically stairs to roof hatch with rain, trip hazards with extension cords and spider boxes.
- 1115** Workers return to work.
- 1140** LV3 9 workers inside containment meeting in the decon area, fire alarm triggered in Olympic North Corey communicating with workers, MM following up on alarm College notified. Workers are continuing demo on hallway ceiling.
- 1200** Discuss neg air flow with Corey associated with clean room and cleaning room for piano and drum cleaning on LV2.
- 1200-1330** Meeting with Todd and Corey (Dickson) and John and Dan (MM). Discuss cost associated with cleaning vs disposal of building furniture and project schedule.
- 1345** 3 workers cleaning on the drums on the 2nd floor of the Olympic building. 2 workers on the south side of the building setting up poly sheeting outside room 284A.
- 1350** Clean room for piano storage while awaiting test results on LV2 is set up. PBS will run PCM clearance.
- 1400** Skybridge load-out window closed and secured for the day.
- 1415** Workers prep site for end of day and meet at job trailer for end of day meeting.
- 1430** Workers leave site for the day.
- 1500** PBS and MM workers depart the site. Doors are locked. Corey still on site will shut of generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 10/6/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 10/7/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 6 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 16			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV3 abatement and load out LV2 fireproofing removal prep and piano cleaning			
Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials from level 3, Olympic South Building. Continue preparation in Level 2 for fireproofing removal, move and clean baby grand pianos and drums.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and Sawzalls

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue prep for fireproofing removal and continue cleaning baby grand pianos and drums. Dickson has 18 workers on site plus Corey.

**0640** 5 workers inside the Olympic building level 2 preparing additional negative air machines and preparing the space to move the pianos. Sticky poly is laid on the ground to roll pianos to cleaning area set up in the art gallery.

**0730** Workers finish setting up 7 additional negative air machines, three in Room 283 and four in Room 284. 10 workers in level 3 containment. Workers on level 3 are using power tools to remove sections of the HVAC systems and cut out ceiling materials. 1 Dickson worker is not feeling well and left site for the day. Another worker also left site for the day. Crew of 16 workers plus Corey remaining.

**0800** Workers begin moving baby grand pianos on Level 2. One baby grand piano in Room 283, two in Room 284. Six workers involved in piano moving process. Workers unscrew foot pedals, label and remove. Six workers lift piano off of the rolling stand and remove the stand. Then the leg closest to the side that will be laying down on the sheet rock cart is removed. From there the piano is tipped on it's side onto the cart and the remaining two legs are removed. The moving blanket is taped up on the piano and it is rolled down the hall.

To lay down the piano in the cleaning room set up in the art gallery the top two legs are reattached, the piano is tipped down off of the cart, and then the 3rd leg is reattached leaving the piano standing on the ground.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South LV 2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 10/7/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/7/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0830** 6 workers in 284 disassembling last baby grand piano for transport to cleaning area. 6 workers lift piano and tip onto sheet rock cart protected with blanket. PBS inventory all keyboards in MIDI lab Room 275. Keyboards in Room 270 are uncleanable and will be disposed.

**0900** Two workers in art gallery cleaning room cleaning baby grand pianos. LV2 cleaning and clean room set up. Clean room for piano storage is in corridor near exit to cascade skybridge.

**0930** 8 workers in level 3 containment are removing ductwork from the ceiling with Sawzall and drills. 2 workers outside bringing up supplies. Two workers on level 2 are using Sawzall to cut duct work in corridor near 284 and 283 above ceiling in order to hang poly sheeting and make an enclosure for the fireproofing removal and keep it isolated from the rest of the building.

**1000** 2 Dickson workers placing sheet music from rolling shelves in Room 285A into bags and taping the bags close. PBS has general photo documentation of the sheet music disposed of.

**1030** Workers break for lunch.

**1115** Workers return to work.

**1120** Three week look ahead schedule meeting with Todd, Corey (Dickson) and Dan (MM).

**1200** Two Dickson workers are putting up poly-sheeting as critical in the corridor of room 283 and 284.

**1220** 6 workers inside level 3 containment removing the ceiling ductwork with a Sawzall and two lifts. The lifts are placed underneath of the larger pieces of ductwork to help with safely lowering them. The sections are then cut up into smaller portions and bagged for load out.

**1230** Two Dickson workers on level 2 using soft brushes and vacuums to clean the 3 grand pianos. Air is moving from skybridge through clean room into cleaning room and then into containment area, observed by the poly sheeting being pulled in the correct direction.

**1330** Four workers observed on Level 2, cleaning pianos and prepping critical near fire proofing removal area.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decon out of containment and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1515** MM and PBS leaving site. Doors are locked. Corey still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Claire Tsai

Date 10/7/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 10/8/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 17			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV3 abatement and load out LV2 fireproofing removal prep and piano cleaning, MM safe off LV2 risers in 284 and add temp power on LV2			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials from level 3, Olympic South Building. Continue preparation in Level 2 for fireproofing removal and conducting cleaning of pianos. MM safe off for Wood riser demo in Room 284 and run additional temporary power for negative air machines.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and Sawzalls

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue prep for fireproofing removal and continue cleaning pianos and drums. Dickson has 17 workers on site plus Corey.

**0700** All 9 workers inside the level 3 enclosure are currently involved with removing asbestos-contaminated debris from the work area. 4 workers are double bagging the debris and passing them off via the decontamination chamber to 5 workers who are transporting the bags to the 2<sup>nd</sup> FL skybridge to the forklift, where an operator and spotter will then take the bags to the disposal containers. The poly sheeting lined disposal containers are located Parking Lot A.

7 workers continue in the Level 2 enclosure. 3 of those workers continue with piano cleaning. 4 workers continue with preparation of 0284 with poly sheeting and also disposing of sheet music in 285.

**1000** Work efforts continue as noted. Workers (4) on Level 2 are continuing to clean pianos and (3) conducting demolition in the south section of the building such as removing ceiling tiles, ceiling metal framing and ductwork for access above the ceiling. The sections are removed with Sawzalls, bagged, sprayed down with a Hudson sprayer then re-bagged into a second clean bag in decon area before being moved in a lined pushcart to the load out zone. Once the ceiling space was

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2 and 3	Olympic South LV 2/3

Signature:   
 Name: Mike Smith Date 10/8/2021

The individual signing certifies that the above information is correct and accurate.



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/8/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

exposed a worker began vacuuming up excess dust along the ceiling line. Good negative air pressure is indicated in both Level 2 and 3 work areas.

**1030 – 1115** Dickson workers take a lunch break and resume work efforts.

**1200** PBS walks through the Level 2 work area with Corey F to identify and mark items ok for disposal. Desks and chairs from Room 278 can be cleaned. Metal stools in Room 270 and 271 can be disposed. Red chairs with black framing pointed out for disposal, many chair cushions have tears to the foam seat and or the bottom carboard is damaged as well. PBS has documented these items pointed out for disposal.

**1300** 8 Dickson workers are conducting housekeeping of Level 3 in preparation for the weekend. The hallways and rooms are being vacuumed up, supplies are being organized and the remaining debris is being bagged.

**1330** Four workers observed on Level 2, cleaning pianos and prepping critical near fire proofing removal area.

**1340** 2 Dickson workers on the second level are using HEPA vacuums to do detail cleaning on drums. The ACM waste in the clean room has been loaded out. 2 Dickson workers in room 284 picking up supplies and tidying the work area (MM has performed safe off for demolition of wood risers in 284).

**1415** Workers are deconning out of containments and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1515** PBS communicated to Corey F that all cleanable building furniture needs to be labeled with original locations before being moved for cleaning.

**1520** MM and PBS leaving site. Doors are locked. Corey still on site will shut off generator.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/8/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 10/11/2021
Contractor on Site Personnel:  Project Manager                      Yes <b>No</b> Supervisor <b>Yes</b> No Workers <b>Yes</b> No    Name: Corey Foust How Many? + 31	Page 1 of 2                                      Time                                      0600                      am  Summary Phase Status: LV3 abatement and load out LV2 fireproofing removal prep and piano/drum cleaning, wood riser demo and load out  Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) re clad contractor working on Olympic South Exterior. Separate project and job site.
Air Monitoring Personnel on site: PBS/Dickson	

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials, and demolish HVAC ductwork and framing from level 3, Olympic South Building. Demolish wood riser stairs and conduct cleaning of drums and pianos in Level 2

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and Sawzalls

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson addresses the site-specific policies for the numerous new people here today. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue prep for fireproofing removal including wood riser demolition and continue cleaning pianos and drums. Dickson has 31 workers on site plus Corey.

**0700** 7 workers inside the level 3 enclosure are currently involved with removing the metal HVAC ductwork from the return plenum. 3 workers are double bagging the debris and preparing it for loading out. 2 workers are engaged in activities associated with loading out at the Level 2 skybridge, 1 of those workers is in the enclosure handing out bags, 1 worker in full fall protection gear is loading into the forklift container via the skybridge, and 1 is the forklift operator.

15 workers continue in the Level 2 enclosure. 4 of those workers are cleaning 9 drums in the cleaning room set up in art gallery 265 with HEPA vacuums, brushes, and dampened wipes. 7 workers are removing the wood risers in 284, 1 worker is cutting up chairs marked for disposal in 284 using power tools, and 1 worker is HEPA vacuuming the poly sheeting floor in 284A. PBS conducting daily air monitoring in level 2 and 3 inside and outside work areas and on HEPA exhaust from negative air machines.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2 and 3	Olympic South LV 2/3

Signature:

The individual signing certifies that the above information is correct and accurate.

Name: Mike Smith

Date 10/11/2021

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/11/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1000** Work efforts continue as noted before for piano/drum cleaning, chair disposal and wood riser demolition on level 2. Workers in Level 3 are cleaning up for lunch, they are checking the enclosure, organizing tools, and stock piling new material to load out after lunch.

**1030 – 1115** Dickson workers take a lunch break and resume work efforts.

**1145** PBS and a Dickson worker are photo documenting artwork from Rooms 264, 266, 269, 270 and 271 in need of review by occupants and college for instruction on disposal or cleaning.

**1240** 9 Dickson workers are removing wiring and metal framing from the student lounge and adjacent hallway on Level 3. 1 worker is going around taping up holes in the poly floor and picking up extra screws that are laying around. 5 Dickson workers cleaning up the area outside the work zone and doing loadout (this includes one forklift operator). Negative pressure remained good at both entrances to the 3rd floor throughout the day.

3 workers in Level 2 cleaning room cleaning drum stands. 1 worker using tip bin loading waste bags to cleaning room. Two workers in level 2 west skybridge to Olympic north HEPA vacuuming carpet. Two workers in Room 270 cutting metal stools marked for disposal into smaller size for load out.

**1300** Dickson requests final visual of Taiko drums. 7 of 9 passed and have been microvac sampled. 2 drums require additional cleaning.

**1350** 6 workers in 284 demolishing wood risers and concealed duct work below.

**1415** Workers are deconning out of containments and meet at job trailer for end of day meeting. PBS collecting remaining air samples for the day.

**1430** Dickson and MM workers leave site for the day.

**1520** Kim Allen with Pierce College picks up 5 Cisco WiFi nodes from PBS. WiFi nodes were recovered from level 3 prior to abatement.

**1545** PBS leaving site. Doors are locked. Corey still on site will shut off generator.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/11/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 10/12/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Summary Phase Status: LV3 abatement and load out LV2 fireproofing removal prep and piano/drum cleaning, wood riser demo and load out			
Project Manager Yes <b>No</b> Supervisor <b>Yes</b> No		Other Personnel on Site: MacDonald Miller (MM)	
Workers <b>Yes</b> No Name: Corey Foust		Olympic Peninsula Construction (OPC) re clad contractor working on Olympic South Exterior. Separate project and job site.	
How Many? + 30			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials, on level 3, Olympic South Building. Continue demolishing wood risers, finish cleaning of drums, and continue pianos in Level 2. Extend clean room Level 1.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and electric tools

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue prep for fireproofing removal including wood riser demolition and continue cleaning pianos and 2 remaining drums. Dickson has 30 workers on site plus Corey F.

**0700** 2 workers inside the level 3 enclosure are currently laying a poly sheeting drop cloth to floor in the Student Lounge for the purpose of cleaning the ceiling components of the now exposed opened ceiling. 2 workers near the load out area are wiping down bags with wet cloths and a Hudson style sprayer. They are also vacuuming up debris on the ground with a HEPA vacuum. 2 workers in a south side classroom are removing a projector screen with drills, prybars and 2 lifts. 2 workers are engaged in activities associated with loading out at the Level 2 skybridge (load out will also involve items from the Level 2 enclosure), 1 of those workers is in the enclosure handing out bags, 1 worker in full fall protection gear is loading into the forklift container via the skybridge, and 1 is the forklift operator.

11 workers continue in the Level 2 enclosure. 4 of those workers are cleaning the remaining 2 drums and 3 Baby Grand Pianos in the cleaning room set up in art gallery 265 with HEPA vacuums, brushes, and dampened wipes. 2 workers are wiping down metal chairs and tables in Room 278. 1 worker transporting bagged asbestos-contaminated debris down the hallway in a lined plastic cart. 5 Dickson workers disassembling the stage and associated ductwork with hammers, prybars and sawzaws. 1 worker in the hallway bagging debris.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2 and 3	Olympic South Level 1, 2 and 3

Signature:

The individual signing certifies that the above information is correct and accurate.

Name: Mike Smith

Date 10/12/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/12/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

PBS is conducting air sampling within work areas, outside of work areas and in HEPA exhausts.

**0730** PBS setting-up ambient air sampling around the building exterior at all 4 elevations.

**0830** PBS continue inventory of contents to be disposed of in MIDI Lab Room 275

**1000** PBS enter level 1 containment. Two workers extending level one clean room entry to accommodate more people suiting up. PBS will run a PCM clearance when finished.

Poly storage room (90% clean room) constructed on west level 2 skybridge between Olympic north and south used for storing pre-cleaned furniture until the final detail clean in the cleaning room. After the final clean items will be loaded into the final clean room for sample collection and storage while waiting for lab results before being loaded out. Currently the pre cleaned storage room has tables and chairs from room 278 and music stands, piano benches and a few tables from other various locations on level 2. All contents have label of original location.

3 workers in cleaning room detain cleaning interior of baby grand pianos, supervisor for area communicated they should be ready for PBS visual after lunch. One worker in room 271 labeling contents with room number for when items get moved. Most items in rooms 285A, 285, 288, and 290 have been labeled with location. One worker in room 278 wet wiping and HEPA vacuuming tables and chairs that are then transported to the 90% clean room storage before final detail clean. 1 worker in load out area of fire proofing removal area double bagging waste before loading into tip bin and rolling to main load out to skybridge to cascade. 7 workers in room 284 continue demolition of wood risers and ductwork underneath. Workers use sawzalls and spud bars for removal before placing in bags.

7 Dickson workers inside the 3rd floor cleaning the work areas with HEPA vacuums and laying down drop cloths to prepare for cleaning the southern classrooms and student lounge. The drop cloths are secured to the ground with adhesive glue and duct tape.

**1027** Workers decontaminate out of Level 2 and 3 containments for lunch. PBS collect level 2 IWA sample in hall near 264 before exiting containment.

**1030 – 1115** Dickson workers take a lunch break and resume work efforts.

**1120** Worker communicates clean room extension into Level 1 will be ready at noon for clearance. Le May swapping out one ACM waste trailer in parking lot A.

**1200** PBS initiates a clearance air sample in the Level 1 clean room extension. PBS enters the Level 2 enclosure in order to conduct a visual inspection on the 2 remaining Taiko drums (from the group of 9) and the 3 baby grand pianos. All drums have passed the inspection. All baby grand pianos need a little more detail cleaning.

The negative air pressure in all work areas continues to be satisfactory.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/12/2021

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/12/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1230** Two workers in 278 continue HEPA vacuuming and wet wiping tables and chairs before moving them to the 90% clean room. 8 Dickson workers in Room 284 are working on cleaning up the demolished risers.

**1300** PBS conduct a visual inspection on the taiko drums stands (5) all passed.

**1310** PBS conduct a visual inspection on baby grand piano foot pedals, all 3 passed.

**1320** PBS is conducting micro vacuum clearances on contents that had passed the visual inspection.

**1530** Communicate to Corey clearance sample for clean room extension on level 1 entry passed.

**1540** MM leaving site.

**1545** Corey receives Abatix delivery dropped off. PBS finish smartsheet upload of artwork for review. Notify Charlene W. art photos are ready for review.

**1615** PBS off site. Doors locked, Corey still on site will shut off generator.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/12/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 10/13/2021
Contractor on Site Personnel:	Page 1 of 2
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	Time 0600 am
Workers <b>Yes</b> No Name: Corey Foust	Summary Phase Status: LV3 abatement and load out
How Many? + 30	LV2 Piano/contents cleaning and finish wood rise demolition
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM)
	Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.

**WORK DESCRIPTION:** Housekeeping of work area with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials, on level 3. Level 2 - Complete demolishing wood risers in 284, finish cleaning of Baby Grand pianos, initiate cleaning of upright pianos. Load out of waste bags from Level 2 is transported and loaded out of LV1 today.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and electric tools

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue piano cleaning and complete demolition of elevated flooring sections. Dickson has 30 workers on site plus Corey F.

**0700** 3 workers are outside of the Level 2 and 3 enclosure conducting activities associated with loading out bags from the work areas. These workers are also performing housekeeping of the stairway and ground around the forklift.

Work efforts continue in the Level 3 enclosure, 3 workers in room 331 are removing gypsum wallboard and fiberglass insulation from the north wall with a prybar water misting for dust control. A poly sheeting drop cloth has been placed on the floor to catch demolition debris and make cleanup easier. 3 Dickson workers are removing the remaining gypsum wallboard around the exterior of the restrooms and adjacent archway. 2 Dickson workers are setting up a drop cloth in the north hallway.

Work efforts continue in the Level 2 enclosure, 4 workers are bagging-up debris associated with the demolition of the wood risers in Room 284, demolition of the risers will continue following the cleaning in progress. 4 workers are in Room 278 continuing with dismantling of student desks and tables. 4 workers are in the cleaning room finishing detail cleaning of the 3 Baby Grand pianos.

Material being loaded-out from the work areas is being transported to the lockable containers located Parking Lot A.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2 and 3	Olympic South Level 1, 2 and 3

Signature:

The individual signing certifies that the above information is correct and accurate.

Name: Mike Smith

Date 10/13/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/13/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

PBS is conducting air monitoring in all affected areas.

**0800** PBS is conducting a visual inspection of the 3 Baby Grand pianos inside of the cleaning room. The pianos are deemed to be adequately cleaned and PBS will now follow up with microvac sampling.

**0845** PBS has completed the microvac sampling of the pianos and Dickson has wrapped the pianos in new blankets and are moving them to clean room by 7 workers.

**0900** 7 Dickson workers are involved with moving 6 upright pianos into the cleaning room from various locations of LV2.

**0930** 2 workers are loading out asbestos-contaminated material bagged from wood riser demo through first floor of Olympic South. 3 workers inside room 284 remove the final sections of the stage with a sawzall and pry-bars, 1 of the workers is cleaning up the remaining material with a shovel. 3 workers are performing load out. One worker carries the bag to a decon room 1 worker places the bag into a clean bag and sprays down the inside with water and then seals the bag. The final worker wheels a cart of ACM bags downstairs. 3 workers inside 278 wiping down chairs and desks for a primary cleaning before they are moved to the 90% clean room. 2 workers cleaning upright pianos with HEPA vacuums. 1 worker and supervisor are rolling sticky plastic from the cleaning room to the temp clean room on the carpet to prevent fiber release when transported. Workers on Level 3 continue with wallboard demolition and subsequent cleaning.

**1030** 3rd floor Olympic south: 4 workers below the floor picking up general garbage and taking the insulation off of pipes. 6 workers are deconing out for lunch. Negative pressure is good throughout, all entryways are drawing outside air in. 1 worker outside on the stairs between floor 3 and 2 spraying down the stairs with a Hudson and wiping them off for general housekeeping. PBS communicate Yamaha keyboards in Room 275 have been inventoried and may be disposed.

**1030 – 1115** Dickson workers take a lunch break and resume work efforts.

**1130** Workers in Room 284 have completed the demolition of the entire elevated floor and are bagging up the debris.

**1430** PBS rep Gregg Middaugh departs the site. Dickson workers are departing the site.

**1510** MM leaving site.

**1600** PBS off site. Doors locked, Corey still on site will shut off generator.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/13/2021



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 10/14/2021
Contractor on Site Personnel: Project Manager <b>Yes</b> No   Supervisor <b>Yes</b> No Workers <b>Yes</b> No   Name: Corey Foust How Many? + 31 Air Monitoring Personnel on site: PBS/Dickson	Page 1 of 3                      Time                      0600      am Summary Phase Status: LV3 abatement and load out LV2 Piano/contents cleaning & bag wood riser/platform demolition material Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.

**WORK DESCRIPTION:** Housekeeping of work areas with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials, removal of mechanical components in the supply plenum on level 3. Level 2 – Bagging of demolished wood risers and platforms from Rooms 283/284. Load out of waste bags from Level 2 is transported out via Level 1 today.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and electric tools

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue upright piano cleaning and dismantling of demolished riser and platform floor sections in Room 0284. Dickson has 31 workers on site plus Corey F.

**0700** 1 worker is stationed in the stairwell wiping down the stairs with clean dampened cloths.

10 workers are on Level 3. 3 workers are in the Student Lounge wiping down exposed ceiling components. Dampened rags are being used for wiping the ceiling areas and the spent rags are routinely changed out for clean rags. 1 worker is adjusting the poly sheeting walls and floors in the north corridor. 5 workers are the north side of the building in the below-floor air supply plenum wet wiping and HEPA vacuuming floors, walls, beams, and other surfaces. An approximate 3-foot by 3-foot section of carpet has been removed in room 325 so that the workers can do a trial run on cleaning the mastic off the mechanical floor. PBS initiates inside and outside of work area air sampling in affected areas.

12 workers are on Level 2. 1 worker is dismantling the counter from the south side of Room 0283 for access to duct work. 5 workers are Room 0284 dismantling and bagging materials from the demolished risers and platforms. 3 workers inside of 271 are removing Wi-Fi routers and acoustic ceiling panels that are suspended below the squares of the waffle ceiling. There are 3 workers inside of the cleaning room HEPA vacuuming and wet wiping 6 upright pianos. PBS initiates inside and outside air sampling in affected areas.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2 and 3	Olympic South Level 1, 2 and 3

Signature:   
 Name: Mike Smith                      Date 10/14/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/14/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Material being loaded-out from the work areas is being transported to the lockable containers located Parking Lot A.

**0815** PBS is going through Level 2 identifying chairs and stools for disposal. Dickson moves items marked for disposal to Room 275 to dismantle and wrap. Also in Room 275, 1 Dickson worker is wrapping acoustic ceiling panels that have been removed from below the waffle style concrete ceiling.

**0900** On level 3, 1 worker is at the top of the stairs carrying bagged ACM material to the load out area. 2 Dickson workers in room 329 bagging fiberglass pipe insulation. 3 workers inside the student lounge wiping off metal beams and metal supports with wet wipes and HEPA vacuums with the brush attachment in the ceiling. 6 workers in the supply plenum below the floor removing pipe insulation and vacuuming the area.

In Room 284, 3 Dickson workers bagging the final portion of the stage and associated insulation. 2 workers are inside of Room 271 using scrapers and wet cloths to clean off the adjustable art tables.

**1030 – 1115** Dickson workers take a lunch break and resume work efforts.

**1130-1230** PBS attends zoom meeting with Charlene W and John (MM) to review smartsheet inventory process.

**1200** One worker operating forklift transporting waste bags from cascade skybridge loadout window to parking Lot A dumpster. 1 worker is on the stairs between the 2nd and 3rd level HEPA vacuuming of the stairs and removing the top layer on the sticky board.

On Level 3, 2 Dickson workers in the student lounge continuing to HEPA vacuum and wipe down the ceiling metal support structure. 4 Dickson workers continue in the supply plenum vacuuming the space. 2 Dickson workers bagging removed asbestos-contaminated material. There is good negative pressure in the site. Both entryways are pulling air into the containment.

On level 2, supervisor communicates they are ready for visual of 3 upright pianos from 286, 277 and 276. All 3 pianos were found to need some more attention; the exteriors are generally clean, however the inside - brass, wood, and strings needs more work. 3 workers going for a second round of cleaning using rags, brushes, water and a HEPA vacuum.

**1330** Work continues Level 2 and 3 as noted. Fungal growth was observed on the south perimeter wall of Room 284 where the metal ductwork had previously been. Cleaning of the standing art tables in Room 271 is taking approximately 1.5 to 2 hrs. EA. Workers in the Level 3 supply plenum are now removing wiring there are still 2 runs of insulated pipe in this space to be removed.

**1330-1450** PBS attends weekly construction meeting with project team.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/14/2021

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/14/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1415** Dickson workers deconning out of work areas.

**1430** Dickson workers depart the site

**1510** MM leaving site.

**1500-1700** PBS imputing comments on smartsheet. PBS off site. Doors are locked.

On-site analysis of air samples collected so far by Phase Contrast Microscopy have not indicated concentrations of concern.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/14/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland		PBS Project No.: 40535.488	Date: 10/15/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 31			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV3 abatement and load out			
LV2 Piano/contents cleaning and prep work areas			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Housekeeping of work areas with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials, removal of mechanical components and cleaning in the supply plenum on level 3. Level 2 – Cleaning and preparation of floors in Rooms 283/284, continued piano cleaning. Load out of waste bags from Level 2 is transported out via Level 1 today

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and electric tools

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue upright piano cleaning and prep with poly sheeting Rooms 0284/0283. Dickson has 31 workers on site plus Corey F.

**0700** On Level 3, 2 workers are in the supply plenum (below floor) removing wiring and pipe insulation along the south side of the building 3 Dickson workers are inside the student lounge wiping down ceiling support beams with wet rags and HEPA vacuums. 4 Dickson workers are in the supply plenum (below floor) on the north side of the building HEPA vacuuming and wet wiping the surfaces. 2 Dickson workers, and 1 supervisor managing supplies throughout the floor, removing asbestos contaminated material. PBS conducts air sampling in affected areas.

12 workers are on Levels 1 and 2. 1 worker is dismantling the chairs and stools marked for disposal in corridor near 0181. There are 3 workers inside of the LV2 cleaning room HEPA vacuuming and wet wiping 6 upright pianos. 2 workers are prepping Rooms 0283 and 0284 for fireproofing removal. 4 workers are in 271 using adhesive remover, water, and rags to clean adjustable art tables. PBS initiates inside and outside air sampling in affected areas.

**0715** PBS communicated to Corey F that the maintenance building contents in the exterior clean room near 168 have passed microvac sampling and may be returned.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2 and 3	Olympic South Level 1, 2 and 3

Signature: 

Name: Mike Smith Date 10/15/2021

The individual signing certifies that the above information is correct and accurate.

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/15/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0730** 2 workers loading out asbestos contaminated debris from the first floor load out area into the forklift waste container, one worker is operating the forklift. Material being loaded-out from the work areas is being transported to the lockable containers located in Parking Lot A.

**0815** On Level 2, Dickson detached all the synthesizers and mixers from the tables in the MIDI lab. PBS is documenting all the contents in the Smartsheet Inventory.

**0845** On level 2, PBS is conducting a visual inspection for the upright pianos from 276, 277, and 286. All needed a little extra detailing.

**0915** PBS reinspects the previously noted pianos. The cleaning is found to be satisfactory. PBS is collecting microvac clearance samples for each of the pianos - 1 interior and 1 exterior for each piano. Pianos stored in Level 2 clean room while waiting for sample results.

**0940** PBS and 3 MM workers inside Level 3 reviewing the fire system wiring throughout the floor and identifying disposable sections. 3 Dickson workers in the student lounge wiping down walls with wet wipes.

**1030 – 1115** Dickson workers take a lunch break and resume work efforts. PBS document contents in 168 cabinets and Kitchen cabinets for disposal.

**1130** 3 workers on level 1 move desks and chairs PBS marked for disposal to Room 181 for breakdown and bagging.

**1200** PBS enters the level 2 enclosure. Dickson workers continue to prep 0283/0284. Workers in 271 continue with using adhesive remover, water, and rags to clean adjustable art tables. Workers in the cleaning room cleaning 3 upright pianos from 273, 274, and 287.

On Level 3, PBS and MM are entering the work area to mark off the fire system. Conduits and wires spray painted red will be hot and staying in place, green wires are going to be removed (mainly lighting). 1 Dickson worker continues in the supply plenum on the north side. Workers in the student lounge continuing to wipe down the flat surfaces.

There is good negative pressure indicated in the Olympic South Building. All entryways are pulling air into the enclosures.

**1245** 2 Dickson workers, 1 MM worker and PBS continuing to mark off conduits for removal on Level 3.

**1345** PBS confirms that the maintenance building contents have been returned in boxes to the maintenance building.

**1415** Dickson workers deconning out of work areas.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/15/2021

**PBS Environmental Field Observation Report  
Additional Page**

---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/15/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1430** Workers leaving site. Corey and MM leaving site. Generator shut off and doors locked.

**1445** PBS leaving site.

---

Signature:



The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/15//2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland	PBS Project No.: 40535.488	Date: 10/18/2021	
	DES Project No.: 2021-192	Page 1 of 2	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status: LV3 abatement and load out		
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	LV2 Piano/contents cleaning, Level 1 contents disposal		
Workers <b>Yes</b> No Name: Corey Foust	Other Personnel on Site: MacDonald Miller (MM)		
How Many? + 28	Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.		
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Housekeeping of work areas with water mist and HEPA vacuums, load-out of asbestos-contaminated bagged waste materials, cleaning of ceiling areas and cleaning in the supply plenum on level 3. Level 2 – Cleaning pianos/contents  
 Load out of waste bags from Level 2 is transported out via Level 1 today. Level 1, disposal of kitchen contents.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, hard hat, boots.

**METHOD OF REMOVAL:** Manual (wet methods) and electric tools

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. Dickson workers will be continuing work efforts in the Level 3 enclosure. Workers on level 2 continue piano and contents cleaning. Dickson has 28 workers on site plus Corey F.

**0630** 2 workers are on the roof replacing prefilters on the negative air machines.

**0700** Level 1: 3 workers are outside of the decontamination chamber loading disposal bags into the metal container on the forklift. 2 workers are inside the work area transporting bags to the three outside workers. 2 workers are cutting up and bagging the chairs and stools marked for disposal in Room 0181. 1 worker is in Room 168 bagging up contents from built-in casework approved for disposal.

Level 2: 3 workers continue to detail clean upright pianos. 2 workers in 271 are using paint scrapers and adhesive remover to continue to clean adjustable art tables.

Level 3: One MM and 3 Dickson workers tagging conduits (green is for demo, red stays) throughout the floor above the ceiling, and in the walls. 3 Dickson workers inside 326 cleaning off ceiling steel beams and wall cavities with HEPA vacuums and wet rags. One Dickson worker in the student lounge using a HEPA vacuum and wet wipes to clean the hard ceiling cavities. Two workers in the supply plenum using HEPA room vacuums to clean off the steel beams. 2 workers on the stairs between the floors bringing up supplies.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 1, 2, and 3 - Olympic South Building	Olympic South Level 1, 2 and 3

Signature:

The individual signing certifies that the above information is correct and accurate.

Name: Mike Smith

Date 10/18/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/18/2021

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

PBS conducts air sampling in affected areas.

**0830** PBS is on Levels 1 and 2 conducting activities associated with inventory and designating items for disposal.

**0945** On level 3, 3 workers in the below floor supply plenum HEPA vacuum the steel beams. 2 workers in the student lounge are using wet rags and HEPA vacuums to wipe down the room. 2 Dickson workers are inside the Men's Restroom using HEPA vacuums with brush attachments to clean the walls and ceiling. 2 workers are in Room 326 using wet rags and HEPA vacuums to clean the ceiling. Workers are preparing for test cleaning of the floor square in room 325.

**1030 – 1115** Dickson workers take a lunch break and resume work efforts.

**1200** Work on Level 1 continues as noted. 2 additional workers disposing of kitchen contents.

Workers in the level 2 enclosure continue as noted. Additionally, 1 worker is now Room 270 prepping the space for cleaning of easels. PBS communicates the glass top tables (39) in this room are approved for disposal. Dickson requests an inspection of the remaining pianos, 2 of the 3 pianos are found to be clean, 1 needs a little more attention.

Work on Level 3 continues as noted.

PBS continues to go through Levels 1 and 2 conducting activities associated inventory and designating items for disposal.

All entryways are visibly pulling air into the enclosures.

**1215** PBS reinspects the 3<sup>rd</sup> piano. Visual satisfactory.

**1300** PBS microvac samples the 3 cleaned upright pianos on Level 2.

**1400** The 2 workers in the Level 1 kitchen have completed bagging of contents for disposal.

**1415** Dickson workers deconning out of work areas.

**1430** Workers leaving site.

**1445** Corey and MM leaving site. Generator shut off and doors locked.

**1515** PBS leaving site.

---

Signature:

The individual signing certifies that the above information is correct and accurate.

---

Name: Mike Smith

Date 10/18/2021



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 10/19/21
Contractor on Site Personnel:		DES Project No.: 2021-192	Page 1 of 2
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	Time 0600 am
How Many? +27	Summary Phase Status: Level 3 Demo and cleaning of asbestos-contaminated materials in Olympic South, Level 1 and 2 contents cleaning		
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM)		
	Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.		

**WORK DESCRIPTION:** Morning training regarding scaffolding. Level 1: Continued bagging-up contents approved for disposal. Level 2: Continued piano cleaning, contents disposal, begin scaffold set-up. Level 3: GWB ceiling demolition, cleaning of supply plenum

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and electric hand tools

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson has 27 workers on site plus Corey F.

**0630** Dickson is offloading the scaffolding with their forklift from a flatbed truck for use on the second floor. 1 worker is operating the machinery and 2 workers are spotting.

**0645 -0840** 11 Dickson workers are attending a scaffolding safety orientation provided by one PCI employee.

**0700** On level 2: Workers are loading in scaffolding to Rooms 0283 and 0284 which will be erected and utilized for removing the suspended ceiling, and abating fireproofing and overspray from the metal corrugated ceiling, steel beams, mechanical, electrical, and plumbing items in the spaces. The suspended ceiling tiles and associated grid have been removed from Room 284A and the south corridor, outside 283 and 284.

Level 3: 8 workers are in the enclosure - 3 workers remove flap from decon chamber to access remaining gypsum wallboard (GWB) ceiling in north corridor for demolition. 2 workers going below floor in the supply plenum accessed from room 328 for cleaning of the space via wet wiping and HEPA vacuuming. 3 workers are demolishing the GWB ceiling in the northeast corridor.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos-contaminated building materials from Levels 1/2/3	Pierce College, Fort Steilacoom. Olympic South Building - Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 10/19/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/19/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** Level 1: 2 workers loading out asbestos-contaminated debris. 1 worker is inside room 181 sweeping the floor and cleaning the general work area. 2 workers in room 168 bagging various contents marked for disposal.

Level 2: 2 workers in 284 assembling scaffolds. There are 3 workers in the cleaning room moving the piano designated for disposal from 277 back into the enclosure. Piano from room 277 has damaged strings and has been approved for disposal from the college. These workers are also cleaning the next 3 upright pianos. There is 1 worker in 271 continuing with the dismantling of the 39 glass-top tables approved for disposal.

Level 3: Demolition continues as noted of the GWB ceiling in the north corridor. Demolished ceiling materials are being bagged-up and staged for disposal. Work continues as noted cleaning in the supply plenum accessed from Room 328.

**1030-1115** Workers break for lunch and return to work.

**1150** 2 electricians entered Level 3 to check and verify safe off of the tagged conduit. 3 workers are laying down new poly sheeting floor to reestablish the decontamination chamber after removing the GWB ceiling. 2 Dickson workers are in the Men's Restroom wet wiping and HEPA vacuuming out wall cavities. 4 workers are in 325 wet wiping and HEPA vacuuming above ceiling.

**1200** PBS enter the Level 2 enclosure. There are 2 Dickson workers in 270 dismantling and bagging glass top tables. PBS labeled all 18 easels to be disposed, as well as the 20 adjustable easel table hybrids (in 271) to be disposed.

**1300** There are now 4 Dickson workers in Room 168 disposing of contents labeled to be disposed of.

**1330** 2 MM workers walking through Level 1 & 2, taking notes about the area and electrical makeup of each floor. There is 1 semi-completed mobile scaffold in Room 283 and 2 semi-completed scaffolds in Room 284. There is good negative air pressure indicated from the south music rooms containment to keep the fireproofing removal area contained from the rest of level 2.

**1400** 2 workers inside Room 270 continue disposing contents. PBS notified Dickson of additional contents approved for disposal in 270.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.


**1430** Dickson and MM workers off site for the day.

**1600** PBS departs the site; all areas are secured.

On-site air samples by PBS collected yesterday did not indicate levels of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith Date: 10/19/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 10/20/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 26			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 3 Demo and cleaning of asbestos-contaminated materials in Olympic South, Level 1 and 2 contents cleaning.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) re clad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 1: continued dismantling of furniture and casework and contents disposal. Level 2: Continued scaffold set-up in 0283/0284, contents disposal and piano cleaning. Level 3: cleaning in supply plenum Continued bagging up removed materials, removal of conduits.

**WORKER PROTECTION:** ½ face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson has 26 workers on site plus Corey F.

**0700** Level 1: 6 workers are in room 168 dismantling, bagging, and disposing of furniture and contents approved for disposal.

Level 2: 5 workers continue to erect scaffolding towers in Rooms 0283 and 0284. Two towers in room 284 and one in 283 for removing the ceiling tiles, grid, fireproofing, and cleaning the spaces above. 1 worker is in Room 271 dismantling adjustable tables and 2 workers are in 270 dismantling and bagging wooden shelves and cabinets. 3 workers continue cleaning upright pianos in cleaning room.

Level 3: 1 worker wiping up dust in hallway near entry. 1 worker is in the student lounge removing conduit demarcated for removal. 1 worker is cleaning and wiping down plastic floor sheeting in student lounge. 2 workers are HEPA vacuuming and wet wiping ceiling cavity in rm 325. 4 workers HEPA vacuuming and wet wiping in the supply plenum (below floor) accessed from Room 323. 1 worker is removing tagged conduit in the Men’s Restroom.


**0930** Level 2: PBS conducts a visual inspection on 3 (of 6) upright pianos. All 3 needed more detail cleaning. Dickson anticipates being ready for another inspection after lunch.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Building - Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 10/20/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/20/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0945** PBS Project Manager Gregg Middaugh on site.

**1000** 1 worker is loading out bagged debris from Rooms 270 & 271 through the first floor to forklift bin to be transported to container in parking lot A.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: 5 workers are in Room 168 removing bagged materials for load out.

Level 2: Work efforts continue as noted. PBS reinspects the 3 (of 6) pianos at Dickson's request, all are determined to be sufficiently clean. PBS collect microvac samples for these 3 pianos, 3 pianos still remain to be cleaned. Scaffolding erection continues in Rooms 283 and 284. Dickson anticipates beginning ceiling tile removal in these areas tomorrow morning.

Level 3: 2 workers in entry hallway collecting conduit and bending to fit in ACM bags for disposal. 2 workers in Room 326 are removing tagged conduit from ceiling. Removal is being done with Sawzalls, drills, and clippers. In Room 325 there are 2 workers HEPA vacuuming server floor. Room 324 has 3 workers, 1 removing tagged conduit from ceiling, 1 HEPA vacuuming and wet wiping the ceiling, and the last is HEPA vacuuming and wet wiping the server floor. Room 323 has 2 workers HEPA vacuuming server floor underneath. Room 334 has 1 worker removing tagged conduit from ceiling.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Dickson and MM workers off site for the day.

**1500** Corey leaving site.

**1600** PBS shuts off generator and departs site; all areas are secured.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 10/20/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Mike Smith, Cameron Budnick		PBS Project No.: 40535.488	Date: 10/21/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes No	Supervisor	Yes No
Workers	Yes No	Name: Corey Foust	
How Many? +29			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: contents disposal and load out of materials from level 2. Level 2: Removal of ceiling tile and framework from Rooms 0283 and 0284. Level 3: Removal of tagged conduit and general area cleanup.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson has 29 workers on site plus Corey F.

**0700** Level 1: 2 workers are in Room 168 double-bagging materials brought down (via the elevator) from level 2. 1 worker is transporting bagged suspended ceiling materials from 283/284 to Level 1 with a rolling tipcart. The single-bagged asbestos-contaminated materials are placed on a clean poly sheeting drop cloth, double-bagged, then staged in the Clean Room for loading out.


Level 2: 2 Dickson workers continue inside the cleaning room (0265) wet wiping and HEPA vacuuming the remaining 3 upright pianos. 1 worker is in Room 271 using a Sawzall to cut wood art stands for bagging and disposal. 2 MM workers are going through both floors, workers replace some cover plates that had been removed from light switches to assure no hot wiring was exposed. 7 workers are in room 284 and 4 workers are in 283 removing ceiling tiles. Workers on top of the mobile scaffolding are removing the ceiling tiles and grid and placing them into a bag, handing the bag down to a worker midway on the scaffolding, then handed down to a worker on the floor who seals the bag shut with duct tape. 1 worker in the hallway by room 278 placing the ACM bags into a second bag, wetting down the inside and then sealing it shut with tape. The clean bag is loaded into a poly lined cart and rolled out to the loadout area.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: Full interior gut of nonstructural building materials in order to most efficiently remove contaminated electrical system.

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Building - Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 10/21/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/21/21

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 3: 1 worker is in Room 330 removing tagged conduit from ceiling. 1 worker loading filled ACM waste bags into entry hallway for later removal. Immediately across from, Room 326, 1 worker is cutting tagged conduit from wall cavity. 2 workers in Room 324 are both HEPA vacuuming and wet wiping the ceiling cavity. Conduit needing to be altered to fit in bags is being placed in Rm 329 for now.

**0920** 1 MM inside the Level 1 enclosure closing electrical cover plates from previous sampling locations. 2 Dickson workers are inside the Room 168 loadout area securing poly sheeting. 2 Dickson workers bringing a cart filled with asbestos-contaminated bagged material down from the 2nd floor. One worker in Room 271 is disposing of student artwork approved for disposal into poly bags and spraying the inside down with a Hudson style sprayer before disposal. 8 workers are in Room 284 removing the metal ceiling grid.

**1000** Hall near Room 323, 1 worker is removing tagged conduit. 1 worker is inside Room 323 HEPA vacuuming and wet wiping ceiling cavity. 1 worker Room 324 removing tagged conduit from ceiling cavity. 2 workers are bagging removed conduit and placing it in entry hallway.

**1030-1115** Workers break for lunch and return to work.

**1320** 1 worker removing tagged conduit outside 328. 1 worker sweeping up debris throughout Level 3. Rm 323 has 4 workers, 2 are HEPA vacuuming and wet wiping, 2 are removing tagged conduit

**1400** 3 workers are inside the cleaning room wiping the baby grand piano moving stands with wet wipes. 6 workers are on the south side of Level 2 floor deconning for the end of the day after removing the remaining bagged asbestos-contaminated material from room 283 and 284. In Room 284. The workers are using the mobile scaffolding to hang poly along the walls up to the old ceiling line, all ceiling tiles and metal support structure have been removed from 284. In Room 283 approximately 20% of the ceiling tiles and metal lay in structure have been removed.

**1400-1500** PBS attends weekly construction meeting with project team.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Dickson and MM workers off site for the day.

**1600** PBS departs site; all doors locked. Corey still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 10/21/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Mike Smith, Cameron Budnick		PBS Project No.: 40535.488	Date: 10/22/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +28			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1 and 2 contents cleaning and inventory. Level 3 demo and abatement.			
Other Personnel on Site:			
MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 1: Contents disposal and continued double-bagging materials from Level 2. Level 2; Cleanup of removed fireproofing, contents cleaning/disposal, and casework demo in 285A. Level 3: removing poly sheeting exposing whiteboards and walls with electric conduits

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson has 28 workers on site plus Corey F.

**0700** Level 1: Two workers are in Room 168 double-bagging materials brought down (via the elevator) from level 2 for disposal. The bags have waste generator labeling attached prior to loading out to the forklift metal bin. After the forklift bin is full, 2 workers (operator and spotter) transport the bags to the lined ACM container in Parking Lot A.

Level 2: Four workers are inside of the cleaning room wiping down and HEPA vacuuming the piano stands and engraved metal art pieces. 2 workers are in room 271 breaking down wooden shelving with a Sawzall and hammer for disposal. 5 workers are in room 284, 1 worker is vacuuming off the top level of the scaffolding, 1 worker is spraying the floor with a Hudson style sprayer, the other 3 workers are using squeegees with clean rags to clean up the dust and debris on the floor. Workers conducting housekeeping of area since work will be shifting to focus on the third floor. There is good negative pressure in room 283 and 284 as seen on poly sheeting hanging in hallway pulling toward the work area. 1 worker in 285A is bagging cabinet contents for disposal.


Level 3: Three workers are in 329 taping new poly sheeting visual barrier on windows after removing poly sheeting from walls to access to electrical components behind it for demo. 2 workers removing poly sheeting from walls to

ITEMS OF CONCERN: None

CHANGES IN SCOPE: Full interior gut of nonstructural building materials in order to most efficiently remove contaminated electrical system.

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Building - Levels 1/2/3
1 Sink with ACM undercoating, Room 285A	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 10/22/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/22/21
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

gain access to electrical components underneath 327. 2 workers are in Room 323 HEPA vacuuming below floor panels.

**1000** Level 1: Three Dickson workers are in room 168, 1 is wiping down Dickson tools for loadout to be stored in a conex. 2 are placing ACM bags into second clean poly bags and spraying down the inside for loadout. Two workers are bringing down the material via the elevator in poly sheeting lined carts.

Level 2: One worker in Room 264 bagging contents approved for disposal. 2 workers in room 271 dismantling and disposing of metal cabinets with Sawzalls. 1 worker is in Room 285A disposing of casework contents. 3 workers are just outside of 284 wiping down surfaces with wet rags. PBS conduct visual inspection of (3) Roland XV2020 2x SRX Expansion components one worker in clean room available to spot clean as necessary.

Level 3: 4 workers removing poly sheeting off walls to reach conduit within in Room 329. All whiteboards from level 3 will be cleaned and returned to the college. Room 327 poly sheeting has been taken down to access walls for demo, 2 workers removing the doorframe. 2 workers are in Room 323 continuing with HEPA vacuuming below floor panels.

**1015** The (3) Roland XV2020 2x SRX Expansion components have passed the visual inspection. PBS collect microvac samples.

**1030-1115** Workers break for lunch and return to work.

**1300** Level 2: 2 workers in room 285A dismantling the built-in casework. 4 workers are inside room 181 disassembling chairs with Sawzalls and bagging them for disposal. 1 worker is inside of Room 168 wiping down bags before loadout. 2 workers loading out bags to forklift through 168 exterior clean room. The casework including one ACM sink undercoating had been removed from 285A.

Level 3: 2 workers are in Room 325 taping poly sheeting to the floor after removal of wall poly. Outside of Room 326, 1 worker is taping down flooring. 1 worker is HEPA vacuuming up plastic throughout the floor. 3 workers resecure edge of floor poly with tape after wall poly sheeting has been removed. 1 worker is HEPA vacuuming floors throughout the space.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Dickson and MM workers off site for the day.

**1500** Corey leaving site. PBS shuts off generator and departs site; all areas are secured.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 10/22/21





**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/25/21

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1130** Level 3: 15 workers observed throughout. Two workers are removing whiteboards with Sawzall in Room 323. 1 worker demolishing southeast wall in Room 330 with 4 more assisting in bagging associated material (drywall, conduit, insulation). In same room, 2 workers piling up wall supports and wrapping in poly sheeting. At the entrance to Room 330, 1 worker is cutting drywall off door frame. In Room 329 and 330 glass partitions in door frame are being removed. 4 workers are bagging, wetting, and double bagging waste to be removed.

**1230** Dickson fuel truck onsite to refuel generators.

**1300** Level 1: One worker attaching packing info to acm waste bags in Room 168 before stacking them for future loadout.  
Level 2: Two workers are in Room 270 dismantling and bagging storage drawers for disposal. 2 workers are inside cleaning room wet wiping and HEPA vacuuming tables and chairs.

Level 3: One worker is cutting and removing whiteboards section in Room 329. 2 workers are wrapping whiteboards in poly sheeting for removal. 3 workers are bagging, wetting, and double bagging waste in 330. 1 worker in room 326 is cutting whiteboard for removal. 2 workers are pulling off and piling up whiteboard sections in Room 323. 2 workers are HEPA vacuuming up floor debris in Room 330.

**1415** Workers decon out of work areas and meet at job trailer for end of day meeting.

**1430** Dickson workers off site.

**1445** Corey off site.

**1505** PBS off site, doors are locked. Dan (MM) still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 10/25/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/26/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0745** Rooms 285A, 285, 288, 290, 270, 271, and 272 have had all contents inventoried. PBS set aside items that need to be cleaned and put them into the MIDI Lab. PBS communicated to Dickson all remaining contents in those rooms may be disposed of.

**1030-1115** Workers break for lunch and return to work.

**1215** Level 2: Two workers in Room 270 disposing of general room contents and pouring out paint onto a poly drop cloth. 2 workers in the cleaning room wiping down chairs with wet rags and vacuuming them with HEPA vacuums. 1 worker is bringing down ACM bags to Room 168 to be staged for load out.

Level 3: Two workers bagging fiberglass wall insulation and bringing it to staging area to be prepped for load out. 4 workers are in Room 324 removing metal wall studs and bagging associated material (drywall, conduit, insulation). 1 worker is in Room 327 removing the metal ceiling grid. Room 329 2 workers bagging the glass from door frame. 1 worker in 330 area bagging sections of whiteboard. 3 workers at decon entrance who are wetting bags and double bagging waste before loadout. 3 workers in Room 325 bagging drywall that had been removed from all 4 walls. 4 workers assist with load out from third floor to forklift bin at skybridge. 2 Macdonald Miller workers walk through level 3 to look at conduit.

**1230** PBS on Level 2 recovering hard drives from technology prior to disposal. PBS is tracking all hard drives to be destroyed. One worker disposing of contents from 285 all contents have been removed from 285A for either cleaning or disposal. 2 MM employees walk through LV1 and 2. 1 worker bringing large contents to room 270 where two workers break down contents to be bagged.

**1300** One worker is bringing down ACM bags staging them in room 168 for load out.

**1400** Two workers outside of the building bringing supplies from the conexs to Olympic South.

**1415** Workers decon out of work areas and meet at job trailer for end of day meeting.

**1430** Dickson workers off site.

**1445** MM off site

**1500** Corey off site.

**1615** PBS off site, doors are locked. Generator is shut down.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 10/26/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/27/21
Abatement Contractor: Dickson	PBS Observers: Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

15 workers observed in the Level 3 work area, with 4 assisting outside containment moving bags down to level 2 for transport to container in parking lot A.

**1000** Level 2: One worker in cleaning room HEPA vacuuming the sheet music shelving. One worker is in room 271 unscrewing a rolling cart with a drill for disposal. One worker is in Room 270 wrapping white boards for disposal. One worker in the midi lab 275 bagging computer and other electronic devices (approximately 50% have been disposed of).

Level 3: Four workers are in Room 327 pulling conduit from ceiling and cutting drywall. 5 workers are in Room 326 pulling studs and conduit and cleaning up drywall debris from demo of the Men's restroom demising wall. 4 workers are in the open floor area bagging studs and whiteboards. 4 workers are in Room 329 collecting conduit and metal ceiling grid. 17 workers observed.

**1030-1115** Workers break for lunch and return to work.

**1330** Level 2: Two workers are in the cleaning room wiping down the sheet music shelving. 1 worker is in the midi lab 275 dismantling tables for disposal, all other contents have been disposed of. 1 worker is in Room 270 dismantling metal cabinets and then wrapping them in poly sheeting for disposal.

Level 3: Six workers are in Room 327; 3 sweeping drywall debris from removed south wall, 2 wrapping drywall in poly sheeting, 1 securing poly sheeting to windows. 2 workers are the in Men's restroom HEPA vacuuming drywall debris and picking up drywall debris. 2 workers are packing and organizing extension cords, vacuums, and work materials in the section that was previously offices 331-335. 4 workers are sweeping the east half of the open floor. The Men's restroom wall (shared with 326) is now demolished and open to the whole floor. The entry wall (south) to Room 327 had drywall and studs removed. 14 workers observed.

**1345** Four workers loading out ACM bags from 168 (one of the workers outside is from Room 271 earlier in the day and is operating the forklift). One worker is on the inside of the 168 exterior clean room handing out the ACM bags.

**1415** Workers decon out of work areas and meet at job trailer for end of day meeting.

**1430** Dickson workers off site.

**1500** Corey off site. MM off site

**1600** PBS off site, doors are locked. Generator is shut down.

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 10/27/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 10/28/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +30			
Air Monitoring Personnel on site: PBS/Dickson		Summary Phase Status: Level 2 contents cleaning and disposal.	
		Level 3: Demo and abatement.	
		Other Personnel on Site: MacDonald Miller (MM)	
		Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.	

**WORK DESCRIPTION:** Level 2: Contents cleaning and disposal. Level 3: continue demolition of wall, removal of conduit, bagging up of demolished materials, loading out bagged materials

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** Level 2: Two Dickson workers in the clean room wet wiping and HEPA vacuuming the rolling sheet music shelving. 1 worker is in room 271 cutting the wooden chair rails from the hallways and offices and other areas throughout the space using a Sawzall. One worker in the midi lab 275 HEPA vacuuming the floor to pick up all the little screws and pieces of disassembled furniture. 1 worker carrying wooden pieces down the hallway from the classrooms for cutting and bagging/wrapping.

Level 3: 18 workers observed. 2 workers piling up studs from wall demolition in Room 331. Removed studs will be wrapped in poly sheeting. 1 worker is cutting apart the doorframe of 331. 2 workers are removing drywall from Rm 328 south wall. 3 workers removing drywall and wall studs from Room 327. 5 workers are bagging associated drywall, insulation, conduit, studs, and staging for disposal. In Student Lounge. 3 workers are removing wire from ceiling grid. 2 workers are bagging all waste materials noted above for disposal. The demising wall separating Room 327 & 328 has been demolished. Approximately 50% of the south wall of Room 328 has been removed.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 2/3	Olympic South Levels 2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 10/28/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 10/28/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

4 workers are outside containment transporting bags down the stairs to sky bridge for disposal.

**0830** PBS conducted final visual inspection and microvac sampling for jazz plagues from the music department - O288.

**1000** Level 2: Work efforts continue as noted.

Level 3: Four workers are in Room 327 pulling conduit from ceiling and cutting drywall. 5 workers are in Room 326 pulling studs and conduit and cleaning up drywall debris from demo of shared wall with Men's Restroom. 4 workers are in the central open area bagging studs and whiteboards. 4 workers are in Room 329 collecting conduit from metal ceiling grid. 17 workers observed.

Three workers are outside of containment loading out asbestos contaminated waste from room 168 into a waste bin on a forklift. One worker inside containment passing them the bags.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 2: one worker is in the clean room wet wiping the rolling sheet music shelves. 1 worker is outside Room 278 removing cove base by hand. 1 worker is in the midi lab wrapping the disassembled tables in poly sheeting and loading them into a tip-bin for transportation.

Level 3: Three workers are in the decontamination chamber spraying down bags, double bagging, and sealing bags for disposal. 3 workers are continuing removal of wire from ceiling grid and are breaking down and bagging studs and conduit in the Student Lounge. 3 workers are bagging insulation, drywall, and studs that have been pulled down from the walls prior to going to the decontamination chamber. 2 workers are removing the studs and an HVAC vent in the demising wall between Rooms 327/328. 12 workers observed.

**1330** Level 2: PBS visually clears three sections of the rolling sheet music shelving and all the blue plastic and metal chairs. There are four Wi-Fi routers that still need cleaning before they pass clearance, 6 Wi-Fi routers have passed visual clearances. Once items pass visual, they are moved to the clean room for PBS to collect representative microvac samples.

Level 3: Three workers are in the Student Lounge bagging studs and drywall for disposal and sweeping up drywall dust. 3 workers are spraying down bags and double bagging waste to be disposed of. 10 workers are in the main floor doing housekeeping and general cleanup of dust and debris (drywall, drywall dust, conduit, studs). 2 workers have broken off to begin demolition activities on the Women's Restroom; fixtures like hand dryers and paper towel dispensers are being removed. Larger debris like wall studs are being wrapped in poly sheeting, glued shut and sealed with tape. 16 crew observed in containment.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 10/28/21

---



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/28/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

4 workers are outside containment to move bags to sky bridge for disposal.

PBS head in CAS 531 at the cleaned pianos storage area to locate any state tags on the pianos. Cannot locate the state tags on pianos from Rooms 286, 274, 292, and 279. All other state tags noted in smartsheet.

**1400** Two workers in the Level 2 cleaning room are beginning housekeeping activities, there is 1 worker in Room 271 and 1 worker in the midi lab doing housekeeping activities.

**1430** Dickson workers off site.

**1500** Corey off site. MM off site

**1600** PBS off site, doors are locked. Generator is shut down.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 10/28/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 10/29/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +26			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV2 Contents cleaning and disposal LV3 demo and abatement.			
Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 1: Load out of staged bags from Level 2. Level 2: Cleaning rolling sheet music shelving, contents disposal.  
Level 3: Demolition of walls and ceilings in Men's and Women's Restrooms, demolish walls in Student Lounge, General housekeeping.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson has 26 workers on site plus Corey F.

**0700** Level 2: One worker is inside the cleaning room wet wiping and HEPA vacuuming off the rolling sheet music shelving. 1 worker in the midi lab 275 wrapping disassembled table pieces in poly sheeting. 1 worker in the main north to south corridor removing peg boards from the wall. Negative pressure is good in rooms 284 and 283, and throughout the Level 2 enclosure poly barriers are being pulled into the containment area. PBS conducting air monitoring inside and outside of affected areas.

Level 3: Two workers are demolishing the gypsum wallboard ceiling and walls in the Men's Restroom. 2 workers are breaking down wall studs to fit in ACM bags for disposal in the main area (formerly 329). In the same area, 2 workers are demolishing the south and west walls, with 3 workers bagging the demolished materials. 3 workers are in the student lounge removing studs from the south wall. 14 workers observed. 3 workers are carrying waste bags to sky bridge for loading into forklift bin for disposal in container from parking lot A.

**0800** One worker in the Level 2 cleaning room wet wiping and HEPA vacuuming the rolling sheet music stands.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
2 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 10/29/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/29/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1000** Level 2: One worker in room 289 removing the wall board panels with a hammer. 1 worker is in room 288 doing the same activity. 1 worker in the midi lab 275 disposing of the last remaining sections of tables and the 2 keyboards.

Level 3: Three workers are in the student lounge continuing demolition of studs and drywall. 1 worker is demolishing the Women's Restroom. 1 worker is spot checking the poly sheeting on floor to ensure coverage over carpeting. 1 worker is bagging fixtures from Women's Restroom. 3 workers are removing drywall and insulation from the south and west walls of Room 329. 3 workers are double bagging materials for disposal after spraying down inside bag. 12 workers observed.

Four workers are outside containment and are moving bags to skybridge for load out.

**1100** Three workers are outside of containment loading out ACM bags from Room 168 into a waste bin on the forklift. ACM bags located in Room 168 have brought down from Level 2 and staged for loading out. 1 worker is inside containment passing out the bags. After the bin is loaded, the ACM bags are transported to the container in Parking Lot A.

**1030-1115** Workers break for lunch and return to work.

**1130** PBS is currently in the clean room conducting visual inspections on the rolling sheet music shelving (from 285A), Wi-Fi nodes, and stackable chairs (from 275). The cabinets needed a little more detailing. Everything else in the clean room passed visual inspection.

**1230** PBS collects representative microvac samples for contents that have passed the previously noted visual inspection.

**1330** Level 2: Two workers are in the 2nd floor cleaning room are beginning housekeeping activities, there is 1 worker in Room 271 and 1 worker in the midi lab 275 doing housekeeping activities.

Level 3: Two workers are HEPA vacuuming along the east walls. 3 workers are HEPA vacuuming south walls in student lounge after removal of wall studs. Workers are beginning general housekeeping for end of day cleanup -> 3 workers are sweeping up the east central floor area, 2 workers are packing up ladders and extension cords. 2 workers are wrapping the final sections of drywall from the day in poly sheeting for removal tomorrow. Poly sheeting has been laid over the staged bags of waste material to be removed on Monday. 12 workers observed

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 10/29/21

---

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 10/29/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---


OBSERVATIONS:

---

**1500** MM off site. PBS off site, doors are locked. Corey still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 10/29/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland, Cameron Budnick, Janet Murphy		PBS Project No.: 40535.488	Date: 11/1/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +21			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV2 Contents cleaning and disposal			
LV3 demo and abatement.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 1: Load out of staged bags from Level 2. Level 2: Contents cleaning and disposal.

Level 3: Demolition of walls of Room 329 and wall studs., General housekeeping.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** One worker inside the 2nd level cleaning room wet wiping and HEPA vacuuming the rolling sheet music shelving. One worker inside Room 168 staging ACM bags from the 2nd level (sound insulation and various pieces of general furniture that has been disassembled) for load out. One worker in Room 264 disposing of contents. Fire proofing in rooms 283 and 284 is dropping off the ceiling in large chunks, workers are periodically wetting and bagging them for disposal.

**0740** Level 3: PBS started IWA pump on third floor. 3 workers in southwest corner of floor are removing studs remaining from server floor. 2 workers removing studs from women's bathroom with 1 assisting to carry the materials to where they will be wrapped in poly sheeting. 2 workers in what was formerly 329 removing the last of the insulation from below windows. 1 worker wrapping removed studs. 9 workers observed in containment. 3 workers outside of containment assisting with load out through the second level skybridge window.

**0745** Two workers going throughout the first and second floors changing out the pre filters on the negative air machines.

**1030-1115** Workers break for lunch and return to work.

**1140** Dickson fuel truck on site to fill generators.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 11/1/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 11/1/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1145** PBS is visually inspecting the remaining rolling music sheet shelving, worker spot cleaning as necessary. Visual Satisfactory, PBS collect microvac samples of the shelves and other contents in the clean room.

**1200** Workers on third floor double bag waste in north area near decon. Bags are wiped as they come out the load out. South area of containment workers place gypsum wallboard into ACM bags for disposal. Holes into floor supply plenum are marked and have a perimeter set up with danger tape. Smoke detectors are covered. Workers in floor supply plenum are bagging gypsum wallboard debris.

**1215** One worker inside the 2nd floor cleaning room wet wiping and HEPA vacuuming the drum stand. One worker in room 275 wrapping cabinets and other large contents in poly sheeting for disposal. One worker using a tip bin to move the bagged contents from the 2nd floor to the first floor load out in room 168.

**1300** LV3 workers continue bagging gypsum wallboard for disposal. Water is sprayed in the area to control dust. Workers are loading out ACM bags, four workers assist from outside containment transporting bags to second floor skybridge, three workers inside containment placing waste bag into second clean bag and spraying water before sealing bag.

**1345** Level 3 removed metal wall studs are wrapped in poly sheeting and labeled as asbestos waste. The drops cloths in the restroom area have been removed. The ceramic tile under has been wet wiped. Crew continues to load out waste.

**1400** Three workers outside of containment ground level exterior loading out ACM bags into a forklift waste container. One worker is inside Room 168 passing the bags out of containment.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS and Corey leaving site. Doors locked; generator shut off.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 11/1/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick, Janet Murphy		PBS Project No.: 40535.488	Date: 11/2/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 21			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV2 Contents cleaning and disposal. LV3 demo and abatement.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 1: Load out of staged bags from Level 2. Level 2: Contents cleaning and disposal.  
 Level 3: Demolition of north perimeter walls, carpet removal Rooms 328/329, General housekeeping.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.

**0700** Level 2: One worker is inside of Room 264 disassembling wooden tables with a drill. 1 worker is inside the 2nd floor cleaning room wet wiping and scraping off the residue on the rolling sheet music shelves. 1 worker is in the MIDI lab 275 wrapping wooden crates in poly sheeting before loading them out with a hand cart. 1 negative air machine has been moved into the MIDI lab 275 and is exhausting out of the 2nd floor west staircase.

Level 3: Nine workers are demolishing the north perimeter wall at windows. Water usage was observed during the demolition process as a dust control measure. 1 worker is bagging debris and 1 worker is wrapping wall studs in poly sheeting. 1 worker is removing the remaining upper sill plates from the wall demolition on the west side. 3 workers are outside of containment assisting with load out through the second level skybridge window.

PBS is conducting air sampling inside, outside of the work areas, and at negative air machine exhaust vents.

**0815** Level 2: One worker inside the 2nd floor cleaning room continuing to wet wipe the rolling sheet music shelves and scrape them with a paint scraper. 1 worker is in room 264 bagging the disassembled desk pieces into ACM bags, the contents are then sprayed with a Hudson and taped/adhesive sprayed shut. 1 worker is in the midi lab 275 wrapping wooden crates in poly sheeting before taping the wrap closed and spraying with adhesive. 1 worker is

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date 11/2/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 11/2/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

entering the work zone to help bring rolling sheet rock carts up (4 carts loaded in). 2 workers are bringing the carts to the containment.

**0855** Two worker sealing dumpster liner in parking lot A.

**1030-1115** Workers break for lunch and return to work.

**1035** Dickson is getting another waste bin exchanged in the parking lot by DM disposal.

**1200** Level 2: Two workers are in the midi lab 275 wrapping filing cabinet drawers in poly sheeting for disposal. 1 worker is cleaning metal frame in clean room. 1 worker from load out is in the work area periodically to help bring rolling sheet rock carts up.

Level 3: 6 workers removing carpet sections in what was Rm 328 and 327. 5 workers are completing General housekeeping cleanup. Workers are double-bagging waste in north area near the decontamination chamber. Bags are wiped as they come out the load out. 2 workers are covering hole left over from removed wall in Women's Restroom. 13 workers observed.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.


**1430** Workers off site for the day.

**1440** Corey and MM off site for the day. Doors are locked.

**1500** PBS shut off generator and leave site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 11/2/21



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick, Janet Murphy, Gregg Middaugh		PBS Project No.: 40535.488	Date: 11/3/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: LV1: Load-out LV2: Contents cleaning and disposal. LV3: Carpet removal and load-out.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 1: Load out of staged bags from Level 2. Level 2: Contents cleaning and disposal/transport bags to Level 1. Level 3: Carpet removal and load out of asbestos-contaminated materials to LV2 skybridge

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Wet methods manual and electric tools (Sawzall, Demolition Hammer, Drill, etc..)

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.

**0700** Level 1: Two new workers are entering the containment and meeting Eric (the floor lead) to go over the scope of work and get more detailed information.

Level 2: Two workers in the cleaning room doing detail cleaning on paintings and metal roller press. 1 worker is in the MIDI lab 275 wrapping paintings in poly sheeting for disposal.

Level 3: Two workers are removing carpet in the Student Lounge. 3 workers are clearing equipment and other materials from carpet on the north wall, west of Restroom. 2 workers are removing equipment and pulling plastic sheeting off carpet to prep for removal in 323. No workers outside containment observed. 7 workers observed.

PBS is conducting air sampling inside, outside of the work areas, and at negative air machine exhaust vents.

**0900** Level 3: Three workers are in the material decontamination chamber double-bagging ACM bags and passing them out to workers in the stairway. 4 workers are handing the waste from floor 3 down the stairs to floor 2 and out via the skybridge to the forklift mounted waste bin.

**1130** Level 2: One worker inside the MIDI lab 275 cutting up metal furniture pieces for disposal with a Sawzall. 2 workers inside the cleaning room HEPA vacuuming art pieces with soft bristle brush attachments.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date 11/3/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/3/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

One united rentals repairman outside fixing the forklift used for loading out ACM waste.

**1200** Level 3: Carpet removal in progress in the Student Lounge and on the south server floor of Rooms 323 – 325. Workers are using a demolition hammer with a chisel bit for carpeting removal.

Workers are cleaning the east stairwell from LV3 to LV2.

**1300** Level 1: One worker loading ACM bags from the 2nd floor into room 168. Room 168 has been emptied of all previously bagged materials from earlier in the day.

Level 2: Two workers in the 2nd floor cleaning room continuing to clean various art pieces. One worker in the MIDI lab doing general housekeeping.

**1345** Level 3: Workers are adjusting the and resealing the poly sheeting at the skybridge door to the Olympic North Building following carpeting removal in the Student Lounge. General housekeeping is in progress in other portions of this level.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS and Corey leaving site. Doors locked; generator shut off.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 11/3/21

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 11/4/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes No	Supervisor	Yes No
Workers	Yes No	Name: Corey Foust	
How Many? +22		Summary Phase Status: Level 2: Clean art and shelving. Level 3:	
Air Monitoring Personnel on site: PBS/Dickson		Continued carpet removal and load-out	
		Other Personnel on Site: MacDonald Miller (MM)	
		Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.	

**WORK DESCRIPTION:** level 2: Continued cleaning of art, disassembling contents for disposal. Level 3: Continued drywall demolition and carpet removal.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** Level 2: One Dickson worker is in Room 275 disassembling a technology rack before wrapping it in sheet poly for disposal. 2 workers are in the cleaning room using HEPA vacuums with soft brush attachments to clean canvas paintings. 1 worker is using an encapsulant on the inside of the metal rail system for the rolling sheet music shelves. The purpose of the encapsulant is to seal the inside of the metal tubes to adhere loose rust from dislodging. 1 worker in room 264 cutting the wooden tables into smaller pieces with a Sawzall to make for easier disposal. Several patches of fireproofing have fallen from the ceiling in room 283 and are sitting on the floor. Workers are cleaning up the fireproofing prior to the end of the shift daily.

Level 3: Three workers are at entrance to the containment to pass out bags for disposal via the sky bridge. Workers were observed spraying water in bags as double bagging was in progress. 3 workers are removing carpeting along north wall. 2 workers removing remaining drywall and insulation from northwest corner. 1 worker is removing remaining drywall and insulation from north wall of the student lounge.

9 workers observed in containment with 4 additional for moving ACM bags to sky bridge.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 11/4/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/4/21
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0900** Level 1: One worker is in Room 168 attaching generator tags and asbestos labels to the poly bags with adhesive spray glue.

Level 2: One worker in Room 275 wrapping the metal bathroom partitions in poly sheeting then sealing with adhesive spray and tape. 2 workers are in the 2nd floor cleaning room, one worker is HEPA vacuuming (with soft brush attachments) various art pieces. The other is spraying encapsulate down the inside of the metal rolling sheet music guide pieces. The metal section is propped up against a wall and the worker sprays the encapsulate down the length of the tube with a spray bottle and funnel. Prior to doing this step the holes down the length had been taped shut and a HEPA vacuum was taped to the end to create suction to remove as much rust particulate from the inside as possible.

Level 3: Six workers observed in containment. 3 workers engaging in cleanup activities prior to lunch with the other 3 removing more sections of carpet. Of those 3, 1 is sweeping, and two are HEPA vacuuming residual dust from carpet removal. 1 worker is outside containment wiping down east stairs.

**1015** PBS departs site for the day to attend a corporate meeting. MM and Dickson still on site.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 11/4/21

---



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/5/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 3: Two workers cutting and removing carpet on the west side. 2 workers are vacuuming the floor on the west and east side. 2 workers are bagging up waste generated by carpet removal activities.

**1000** Four workers in Level 3 continue carpet removal in Rooms 0333 and 0334 The carpeting is being bagged-up as removal occurs. 1 worker is HEPA vacuuming behind them as they go

**1030-1115** Workers break for lunch and return to work.

**1200** Level 3: Workers are bagging up removed carpeting in the enclosure. Four workers are removing waste bags from the 3rd floor containment and passing them to the second floor skybridge for disposal.

**1300** PBS noticed observed water inside room 266 which originated from a sink. Water has moved from the sink further into the room and out into the general hallway. Some of the art pieces are wet from the water on the floor but no damage is immediately evident. PBS moves all art pieces out of the impacted area. No additional water is coming from the sink, all artwork in room is elevated off the floor.

**1330** Level 2: Five workers in room 284 doing general house cleaning. The workers have begun cutting open the north wall in 284 utilizing the mobile scaffolding and Sawzall. Currently the workers are using an airless sprayer to bring the airborne dust levels down. 2 workers are sweeping up bulk debris on the ground. 2 workers are in the cleaning room HEPA vacuuming artwork. One worker is in Room 270 wrapping bulk material for loadout. PBS sort all art that has been approved for disposal from room 266 and place into hallway. Workers move art approved for disposal to room 264 to be wrapped/bagged for disposal.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Dickson workers and MM off site.

**1500** Corey and PBS off site. Doors are locked, generator shut off.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 11/5/21

---



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/8/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0900** Level 2: Workers continue HEPA vacuuming and wet wiping contents from Room 281 in the cleaning room. Workers in Room 284 continue gypsum wallboard demolition as previously noted.

Level 3: Two workers continue sealing waste bags of asbestos-contaminated carpet for later disposal. 1 worker is removing the last sections of carpeting from the hallway near Rooms 320 and 321.

Three workers are loading out sealed ACM bags from Level 1 & 2 through the 168 to the forklift bin to the storage containers in Parking Lot A.

**1030-1115** Workers break for lunch and return to work.

**1130** PBS noted a couple of slow dripping leaks in the remaining restroom plumbing on Level 3. Dickson was notified and placed buckets below the dripping plumbing.

**1200** Level 2: Two workers are in Room 264 bagging shelving and other general debris for disposal. 5 workers are in Room 284 picking up debris for bagging and doing general housekeeping activities. The power is out on the spider boxes, workers rearrange their power situation. MM will be running additional power to third floor for demo activities. 2 workers in the cleaning room are cleaning the rolling press with wire brushes, wet wipes, and HEPA vacuums.

Level 3: Two workers are removing the remaining carpeting from level 3. 1 worker is bagging carpeting as removal progresses.

**1220** Two additional negative air machines are in Room 284 scrubbing the air.

**1320** Level 3: Workers have finished for the day. Waste bags have been removed but equipment remains. Crew is waiting for delivery of grinder to remove remaining yellow carpet mastic. Previously noted slow leak in the restroom fixtures is being contained with buckets until permanent fix can be applied. All carpet has been removed from third floor.

**1340** Level 2: Two workers are inside the 2nd floor cleaning room HEPA vacuuming and wet wiping the rolling press. 6 workers inside room 284 doing housekeeping in preparation for the end of the day. 3 workers loading out bagged asbestos contaminated material from 284 downstairs to room 168.


**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Dickson workers off site.

**1500** Corey and PBS off site. Doors are locked. Dan still on site will shut generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 11/8/21

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 11/9/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 21			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 2 contents cleaning and disposal, wall demo in various locations. Loading out via Room 168.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 2: Cleaning Room 264 contents, gypsum wallboard (GWB) demolition in various locations. Load out via level 1 Room 168.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0645** PBS is setting up ambient air samples around the 4 elevations of the Olympic South Building.

**0715** Level 2: Two workers are in the 2nd floor cleaning room wet wiping the disassembled print press. 1 worker is wiping down the chain to the lower roller and 1 worker is wiping down the raising/lowering mechanism on the larger upper roller. One worker is in room 264 disassembling the wooden art pedestals with a pry bar and hammer. One worker is in 271 removing the last section of the overhead art storage shelves with a Sawzall. 9 workers are in room 284 doing general housekeeping and bagging removed GWB. Power lost to the 283/284 work area, two negative air machines still running. PBS notified Corey of power issue. Corey will be in contact with MM to address the outages.

Level 3: No work occurring.

**0745** One MM electrician enters 1st floor containment to run additional power to level 2 work area.

**0840** Four workers by the conexs sorting through back-stocked materials and grabbing supplies


**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2	Olympic South Level 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 11/9/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/9/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

- 1115** MM has solved the previously noted power issue by adding a second spider box to Room 283. All negative air machines up and running. PBS work on inventory of contents on level 1.
- 1130** Level 2: Five workers are in Room 284 bagging up removed wallboard and framing and HEPA vacuuming the area. Approximately 50% of the north wall between room 284 and 284A has been removed. 3 workers are on the exterior of Room 168 loading out waste bags into a forklift waste bin, 2 workers are inside containment bringing down carts and passing bags out of containment.
- 1300** Level 2: Three workers inside the cleaning room wet wiping and HEPA vacuuming the print press. Two workers are in Room 264 bagging up dismantled wood furniture pieces in poly sheeting for disposal. 8 workers are in Room 284, 2 on the mobile scaffolding removing GWB wall with a Sawzall and pry bar. 1 worker is spraying down the area with an airless sprayer. 6 workers wrapping and bagging the debris in poly sheeting and/or poly bags for disposal
- 1410** 6 workers inside room 284 doing general housekeeping, 3 workers deconing out of the first floor.
- 1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.
- 1430** Dickson workers off site.
- 1500** Corey and PBS off site. Doors are locked. Dan still on site will shut generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 11/9/21

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson <hr/> PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick <hr/> Contractor on Site Personnel: Project Manager                      Yes <b>No</b> Supervisor <b>Yes</b> No Workers <b>Yes</b> No    Name: Corey Foust How Many? + 20 <hr/> Air Monitoring Personnel on site: PBS/Dickson	Project Name: Olympic South Abatement & Repairs <hr/> PBS Project No.: 40535.488                      Date: 11/10/21 DES Project No.: 2021-192 <hr/> Page 1 of 2                                      Time                      0600    am <hr/> Summary Phase Status: Level 1: Contents disposal. Level 2: Contents cleaning and disposal, Room 284 wall demolition. <hr/> Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.
--	---

**WORK DESCRIPTION:** Level 1: Disassemble desks from Room 181 for disposal. Level 2: Cut up wood cabinets, clean printing press components, clean art, Room 284 gypsum wallboard (GWB) demolition. Level 3: No work occurring today

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** Level 2: Two workers are in Room 264, 1 is cutting up wooden cabinet pieces with a Sawzall the other is demolishing the photo sink with a hammer (to the extent of leaving plumbing). 3 workers inside the 2nd floor cleaning room cleaning of rollers for print press, art pieces, and drums by wet wiping and HEPA vacuuming. 3 workers are inside of Room 275 wrapping furniture pieces in poly sheeting and labeling them for disposal before putting them into a cart, then transporting them to Room 168 for load out. 4 workers are in Room 284, 2 are removing gypsum wallboard and bagging it on the top level of the scaffolding before lowering it to a worker on the ground, 1 worker is misting water with an airless sprayer. 2 workers in the hallway containment before rooms 283 and 284 laying down new poly sheeting and doing general housekeeping.

Level 3: No work occurring. Dickson in the process of procuring a grinder for floor mastic removal.

**0745** PBS checks the Level 3 fixtures in the restrooms previously noted as leaking. The floor appears dry, and buckets are below the leaking fixtures capturing drips as they occur. Dickson is monitoring and emptying buckets.


**0800** PBS on level 1 continues to inventory contents.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Load out of asbestos contaminated building materials from Level 1/2	Olympic South Levels 1/2

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith                                      Date 11/10/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/10/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1215** Level 2: Seven workers are in Room 284 applying a new layer of poly sheeting to the floor and doing general housekeeping. The wall separating room 284 and 284A has been completely removed. Waste bags are staged near the hallway entrance waiting for load out. 3 workers are inside the cleaning room wet wiping and HEPA vacuuming the rolling printing press and doing final detail cleaning before visual clearance. 1 worker passing out asbestos contaminated materials out of room 168, 2 workers carrying the material to the forklift waste container (which has one operator).

**1320** Level 1: One worker has moved and is disassembling a table in Room 181 for disposal.

Level 2: Three workers in cleaning room continuing to clean art equipment for eventual return to college. 2 workers are in Room 278 bagging disassembled desk components. PBS observed workers are spraying down materials in bag as they work (284). 7 workers observed in room 284 who appeared to be finished with work for the afternoon. Waste bags are staged for disposal in hallway immediately outside 284. PBS visuals contents including art, portions of print and etching press. Items that pass visual inspection are moved to clean room for PBS to collect microvac samples. Items that need additional cleaning stay in cleaning room and get touched up by the crew. Items that will be returned with an assumption of risk from PBS conducts a visual inspection and then samples in the cleaning room. Those items are then sealed in a labeled bag before being removed from containment.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Dickson workers off site.

**1500** PBS off site. Doors are locked. Dan and Corey still on site will shut generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date 11/10/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland, Cameron Budnick	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 11/11/21
Contractor on Site Personnel: Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No Workers <b>Yes</b> No Name: Corey Foust How Many? +20	Page 1 of 2 Time 0600 am
Air Monitoring Personnel on site: PBS/Dickson	Summary Phase Status: Level 1: Load out. Level 2: Demo HVAC and bag-up debris Level 3: Prepare for grinding Other Personnel on Site: MacDonald Miller (MM) Olympic Peninsula Construction (OPC) reclud contractor working on Olympic South Exterior. Separate project and job site.

**WORK DESCRIPTION:** Level 1: Bagging asbestos-contaminated materials. Level 2: Removing HVAC, bagging or wrapping asbestos-contaminated Materials. Level 3: Deliver grinder to floor and prepare for grinding.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods, saws, and other electric tools

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** Two workers are loading out waste bags from Room 168. 2 workers are bringing down carts loaded with ACM bags and then passing the bags to workers outside the containment area. 2 workers are inside the 2nd floor cleaning room doing detail cleaning on the print press. 9 workers are in room 284 demolishing HVAC ductwork and wrapping in poly sheeting for disposal. The previously demolished gypsum wallboard and associated fiberglass insulation are also being bagged into labeled ACM bags.

**0800** Four workers are involved with activities associated with transporting ACM bags and wraps to the containers in Parking Lot A. Currently 1 container is full scheduled for pickup, 1 container is approximately half full, and 2 containers are empty. 1 worker is on his way to Kent to pick up the grinder for Level 3 floor mastic removal.

**0830** PBS Project Manager Gregg Middaugh arrives to the job site

**0915** Level 1: One worker is in Room 181 bagging dismantled standing desk components. 2 workers are in Room 168 bagging and labeling ACM bags into a second clean bag for load out.

Level 2: Seven workers are inside of room 284, 3 are disassembling a mobile scaffolding platform. 4 workers are bagging bulk debris and wrapping larger pieces of HVAC with poly sheeting.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 11/11/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 11/11/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1010** The grinder for use on Level 3 floor mastic removal has arrived at the job site.

**1030-1115** Workers break for lunch and return to work.

**1140** Two workers and 1 MM electrician have transported the grinder to the Level 3 work area and are beginning to prep the machine and wire it in.

**1200** PBS enter level 3 with Dan (MM) Corey and Todd (Dickson) to look at electrical and server rooms 320 and 321 remaining. One MM electrician in area setting up power for grinder.

**1240** Level 1: Two workers are in Room 168 bagging materials for disposal. 1 worker is in Room 181 wrapping the top of a table for disposal.

Level 2: One worker is in the clean room vacuuming/housekeeping. 10 workers are in Room 284 removing HVAC duct work and drywall to access to ceiling fireproofing. Of that crew, 4 are sealing bags of drywall and ductwork as the other 6 remove drywall and ductwork. Waste bags are being staged in the hallway outside 284. PBS to collect microvac samples from art. Items that will be returned with an assumption of risk form PBS conducts a visual inspection and then samples in the cleaning room. Those items are then sealed in a labeled bag before being removed from containment.

**1250** Level 3: Dickson will remove gypsum wallboard from 320 and 321 and leave conduit in place to hold up electrical panels that have power (marked by MM electrician). Some HVAC ducting found below floor still needs to be removed and wall insulation below raised floor. One worker loading out materials not in use.

**1320** Level 1: Two workers are inside Room 168 bagging asbestos contaminated materials (furniture pieces from room 168 and double bagging waste bags brought down from the 2nd floor before loadout). 1 worker is inside of Room 181 wrapping white boards in poly sheeting.

Level 2: Three workers are inside of Room 275 offloading ACM bags from Room 284 to be stored until ready for load out. 6 workers are inside room 284 doing general housekeeping and bagging up the remaining materials around the room. The HVAC ductwork has been completely removed from room 284A. Approximately 60% of the east facing wall in room 284 has had the GWB removed, leaving CMU exposed.

Level 3: 4 workers are currently in the space. Corey and Silima (supervisor for the area) are discussing plans for demolition, 1 worker is organizing equipment, and 1 worker is familiarizing themselves with the grinder operation.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Dickson workers off site.

**1500** Corey and PBS off site. Doors are locked, generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 11/11/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson				
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland, Cameron Budnick				
Contractor on Site Personnel:				
Project Manager	Yes	No	Supervisor	Yes No
Workers	Yes	No	Name: Corey Foust	
How Many? +20				
Air Monitoring Personnel on site: PBS/Dickson				

Project Name: Olympic South Abatement & Repairs			
PBS Project No.: 40535.488		Date: 11/12/21	
DES Project No.: 2021-192			
Page 1 of 2	Time	0600	am
Summary Phase Status: Level 3 Mastic removal. Level 2 contents cleaning and disposal.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 3 removing carpet mastic with grinder wall demo of 320 and 321. Level 2 contents cleaning, disposal, and hallway locker demolition.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat, COVID masks.

**METHOD OF REMOVAL:** Wet methods manual and saws. For mastic removal SASE PDG 6000 grinder and HEPA vacuum system.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0715** One worker in room 168 wrapping the lockers from the 2nd floor hallway in poly sheeting for disposal. One worker rolling in more lockers on a wheeled cart. One MM worker going through doing an inspection on the first and second floors. One worker inside the 2nd floor cleaning room wiping down framed pictures with goo gone. Two workers in the decon area one is suiting up to go inside containment, one is doing general housekeeping.

**0815** Level 3: Two workers along south wall wrapping the removed door from the electrical room (320) in poly sheeting for disposal. 3 workers removing drywall and will remove the studs once drywall is completed. 1 worker along the former 330 hallway is cutting out remaining portion of roof exhaust fan ducting. 2 workers are removing the mini enclosure to the construction door to Olympic North, for access to remove the carpeting and mastic below; a critical barrier remains over the door. 1 worker is screwing in boards over the holes in the floor. 9 workers observed in containment. 1 is outside containment in the stairwell.

**1000** One worker in room 168 wrapping lockers from the 2nd floor in poly sheeting and labeling them with appropriate tags. One worker in room 264 cutting the wooden countertop from the lockers with a Sawzall. One worker dismantling the wooden base across from the elevator with a Sawzall and pry bar.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 11/12/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/12/21
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1015** Level 3: Six workers are in the electrical room 320, 2 of which are sweeping up drywall debris, 3 are removing the drywall, and 1 is removing the studs. 1 is still working on securing the temporary flooring over the holes in the floor, and 2 are operating the grinder and a HEPA vac. 1 worker is removing roof exhaust fan ductwork. 10 workers observed in containment and no workers are assisting from the outside. Roughly 50 SF has been ground out and had the mastic removed next to room 320 Electrical panels have been covered with poly sheeting to prevent mastic dust from accumulating. Carpet mastic temporarily stopped, due to issue with dust collection system. A service technician was called and fixed the problem. Grinding will resume after lunch. 9 workers observed.

**1030-1115** Workers break for lunch and return to work.

**1130** Level 3 Workers suit up. 5 workers observed. 3 are wet wiping and HEPA vacuuming dust from the electrical room and 2 are working on the grinder.

**1230** One worker in room 168 wrapping wooden locker pieces with poly sheeting and labeling them with appropriate labeling. One worker across from the elevator cutting down the last bits of the wooden platform that supported the lockers. One worker in 264 cutting down the locker wooden base pieces and bagging them for disposal.

**1330** Level 3: One worker is on the grinder in the student lounge. 1 worker is removing remaining roof exhaust ductwork. The other 7 workers are housekeeping and general cleanup for the weekend.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers and Corey off site for the day.

**1445** MM off site.

**1500** PBS off site. Doors locked, generator shut off.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 11/12/21





**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/15/21
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

291 and loading them into a rolling cart to be moved downstairs. Two workers in room 284, one is on top of the mobile scaffolding doing general housekeeping, the other is on the ground wetting down the inside of ACM bags. Negative pressure looks good pulling into the containment at all observed areas.

**0940** One worker in Parking lot A leaf blowing. Two workers are walking back towards the conexs to get supplies.

\*The siding company is leveling the ground on the west side of the building with a small excavator which could potentially impact air morning results.

**1000** Level 3: Ten workers observed in containment. No active crew in immediate area. 1 worker is sweeping up debris from the grinding. 3 are removing floor vents in order to continue grinding in 327. 1 worker is HEPA vacuuming wall cavities on east wall. 4 workers are removing the server floor in the SW corner of the third floor.

**1030-1115** Workers break for lunch and return to work.

**1200** One worker inside room 168 continuing to wrap lockers from the second floor in sheet poly. One worker deconning out of the first floor. One worker in room 284 bagging wood framing from the east wall. One worker with a sheet rock cart bringing down wrapped materials for load out. One worker in the second-floor cleaning room wet wiping and HEPA vacuuming artwork.

**1215** Dickson fuel truck on site to fill generators.

**1245** Workers have begun removing the doors and glass windows from offices on the 2nd floor.

**1250** Level 3: Five workers removing mastic from server floor tiles. 45 were removed from floor for cleaning with 4 completed at time of inspection. 1 worker spot sweeping and one removing floor vents on north wall. 1 worker on east wall removing fiberglass and HEPA vacuuming remaining materials. 2 workers are grinding mastic in the student lounge.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS and MM off site. Corey still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 11/15/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/16/21
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0855** Johnson controls on site to take fire system offline. PBS, Dan and electrician (MM) and Johnson controls employee look at fire panel in Olympic south, Olympic North and Cascade Level 2.

**0930** Two workers in room 283, one is on top of the mobile scaffolding removing the metal framing and lay in ceiling tiles and placing them into a poly bag. The other is on the ground bagging old pieces of poly into ACM bags. One worker in room 288 bagging the removed office glass windows and wrapping them in poly sheeting. One worker in room 264 wrapping removed office doors in poly sheeting. One worker in the second floor cleaning room using a razor to scrape off adhesive and stuck on backing off of framed artwork.

**0945** MM electrician, Johnson controls employee and PBS in Olympic South mechanical room at fire panel. MM employee is performing all work contacting panel Johnson controls instructs work from a distance. PBS observing work.

**1000** Nine workers observed, 7 are working on stripping the server floor panels. All 45 pieces from initial sections removed have been cleaned. 2 workers are cleaning out the grinder after finishing the student lounge.

**1000** Johnson controls, MM electrician, and PBS revisit panels in Olympic North and Cascade.

**1020** Johnson controls off site. Fire system for Olympic south has been taken out of the loop from the main campus.

**1030-1115** Workers break for lunch and return to work.

**1200** Return 3 Roland units to Jim butler in C247.

**1240** One worker in 271 corridor removing glass from door relite. One worker in 288 office wrapping removed glass panels in ACM bags for disposal. One worker in 264 wrapping doors from level 2 in poly sheeting for disposal. One worker in cleaning room HEPA vacuuming artwork. Two workers in 283 removing ceiling tiles and grid system and wrapping for disposal.

**1345** Ten workers observed. 2 are grinding the mastic off the floor in the old 331 corridor. 6 workers are removing mastic from the last 5 server floor tiles. Tiles are being temporarily replaced in-floor to make room for additional tile removal. 1 worker is HEPA vacuuming remaining debris from wall cavity on the SE wall.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS, MM, and Corey off site. Doors locked, generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 11/16/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Janet Murphy, Peter Stensland, Cameron Budnick, Gregg Middaugh		PBS Project No.: 40535.488	Date: 11/17/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 3 mastic removal and load out. Level 2 demo and contents cleaning. Level 1 load out.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Level 3 mastic removal on third floor and cleaning server panels. On the first floor loading out waste. Second floor removing Lay in ceiling tiles and contents cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat, COVID masks outside the containment.

**METHOD OF REMOVAL:** wet methods manual and saws, Grinder with HEPA attachment(Level 3 floor), chemical (Level 3 server panels).

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Levels 1 and 2: Two workers unloading ACM bags from the 2nd floor into room 168 and applying generator tags to the bags (two carts, one per person). Three workers in the hallway by the music rooms placing bagged waste into a clean second bag and loading them into push carts for load out. One worker in the 2nd floor cleaning room wet wiping and HEPA vacuuming a mat cutter and artwork.

**0715** PBS and Corey check on the contents in Cascade 532. The room is approximately 80% full. Some of the contents have been used by the college and returned to the room for storage.

**0720.** Level 3: Eight workers observed in containment, with 2 runners who remain outside to carry waste to the loadout. 2 are working on grinding more of the carpet mastic from the 331-hallway area. 2 workers are removing 42 server floor tiles and will be cleaning them today. 3 workers are loading out waste bags. Bags are being placed in a second bag and wetted before being loaded out.

**0900** Levels 1 and 2: One worker in room 168 disassembling the desk and various electrical components for disposal. The paint in the ECE is still drying on a poly sheet before it can be disposed of. 2 MM workers testing the breakers against electrical components on the Room 266 server rack. 2 workers in 283 bagging up wooden pieces from the wall. One worker in 289 bagging up door hinge and components.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 11/17/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/17/21
Abatement Contractor: Dickson	PBS Observer Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0945** Level 3: Three workers removing mastic from server floor tiles in what was formerly 323. 1 worker HEPA vacuuming room 326 after grinding. 1 is securing plywood over an in-floor cavity.

**1010** Fire System West employee on site to drain fire system.

**1030-1115** Workers break for lunch and return to work.

**1200** PBS continue to document Level 1 contents for inventory. One worker assists PBS in moving cleaned contents from the Level 2 clean room to a connex for storage until it can be returned to an occupant or the college.

**1310** Level 1 and 2: One worker constructing a decon room on the first floor. Two workers inside room 168 discussing load out procedures. One worker in the 2nd floor cleaning room doing detail cleaning on artwork. One worker picking up various screws, window frames and door components in the hallway across from room 275. Two workers in room 283 bagging dismantled wooden wall components for disposal.

**1320** Level 3: Seven workers observed in containment. 3 are working on finishing removing the mastic on the server flooring. 2 workers are grinding the mastic off the floor in what was 326. 1 worker is securing plywood over a different in-floor cavity. 24 panels have been cleaned.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 11/17/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Janet Murphy, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 11/18/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +23			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 3 mastic removal and load out. Level 2 demo and contents cleaning. Level 1 load out and inventory.			
Other Personnel on Site: MacDonald Miller (MM)			
Olympic Peninsula Construction (OPC) reclad contractor working on Olympic South Exterior. Separate project and job site.			

**WORK DESCRIPTION:** Removing carpet mastic on third floor. Second floor removing interior doors and windows, contents cleaning, prep work on scaffolding (Rm 283). First floor wet wiping and loading out waste.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat, COVID masks outside the containment.

**METHOD OF REMOVAL:** wet methods manual and saws, Grinder with HEPA attachment.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0645** Level 1 and 2: One worker inside room 168 bagging general contents from the room for disposal. One worker across from room 266 taking down ceiling tiles and bagging them, a second worker is spraying down the ceiling tiles with a Hudson, excess debris is being vacuumed with a HEPA vacuum. One worker in the 2nd floor cleaning room HEPA vacuuming papers and books to be returned. 3 workers in room 283, two are on top of the mobile scaffolding removing sections of the wooden slats on the wall. One is on the ground cutting the pieces so that they can fit into a bag for disposal.

**0720** Level 3: Nine workers observed in containment with 1 sweeping in the dressing room (outside containment). 1 is removing roof exhaust vents inside the student lounge. 2 are grinding mastic from what used to be the hallway leading to the student lounge. 5 workers are finishing the last 4 server floor tiles from the previous workday. Workers plan to pull more panels today and continue removing mastic.

**0835** Two workers leaving the east stairwell after bringing in supplies for the 3rd floor. One worker is deconning out of the first level containment. Corey and one worker on the stairs discussing ideas for removing the large fish painting in the northwest stairwell. One worker outside the clean room cleaning off the filter in the HEPA vacuum with another HEPA vacuum. One worker in the hallway outside room 275 removing ceiling tiles. One worker in room 284 doing general housekeeping. Two workers in room 283, one is cutting wooden pieces with a Sawzall for disposal, and one is getting into

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 11/18/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/18/21
Abatement Contractor: Dickson	PBS Observer	Page of

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

a harness for work on the mobile scaffolding. One worker in the second-floor cleaning remove removing excess paper from the back of the artwork frames.

**1000** Level 3: Grinding has been completed in room next to bathrooms with touchup needed to be completed in a few areas. Grinding activities have moved to room 327. 1 worker is breaking down conduit to place into waste bags. 1 worker is pulling conduit down from the ceiling in the former server room. 6 workers cleaning the next set of 45 server panels. Workers have completed 19 panels.

**1030-1115** Workers break for lunch and return to work.

**1200** Levels 1 and 2: One worker in the 2nd floor cleaning room wet wiping the inside of the frame on a picture. Two workers in the main hallway by room 264 and room 275 bagging ceiling tiles and metal frames into poly bags for disposal. Two workers in 283 doing general housekeeping.

**1220** PBS is conducting a smoke test to assess the buildings negative pressure with smoke tube. Negative pressure observed at all entries/ exits and observed penetrations of containment.

**1330** Levels 1 and 2: One worker in room 168 unloading ACM bags filled with ceiling tiles and ceiling grid. One worker in the second-floor cleaning room HEPA vacuuming sheet music and books. One worker by 289 bagging ceiling tiles. One worker in room 285 doing general housekeeping. Two workers in the rear hallway near rooms 283/284 doing general housekeeping.

**1340** Level 3: Eight workers observed. 1 is HEPA vacuum the hallway outside the electrical room. 4 workers are finishing removing the carpet mastic from the final two server floor panels for the day. 2 workers are finishing grinding in 328 as the final section for the day. 1 worker is removing conduits from ceiling.

**1430** Workers off site for the day.

**1500** Corey and MM off site.

**1530** PBS off site. Doors locked, generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Clavie T. Smith*

Name:

Date 11/18/21





**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 11/19/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1145** Levels 1 and 2: One worker bagging contents for disposal in room 171. One worker in the second-floor cleaning room HEPA vacuuming sheet music and books. One worker in 264 wrapping doors in poly sheeting for disposal. One worker outside the restrooms bagging metal ceiling grid system for disposal. Two workers in room 283 one is on top of the mobile scaffolding cutting out HVAC ductwork with a sawzall the other is on the ground spotting and helping to plug in power tools as needed.

**1200** Level 3: There are six workers loading out double bagged ACM waste bags, two in the clean room on the 3rd floor, two on the staircase, and two at the load out window on skybridge to the Cascade building. Each bag is wet wiped and the inside is sprayed with water before being loaded out. There are three workers by the west wall of the 3rd floor removing yellow mastic from metal floor hatches. Two workers are using a grinder with a HEPA vacuum to remove yellow mastic on concrete.

**1330** Levels 1 and 2: Two workers in room 283 cutting up and bagging HVAC ductwork. Two workers in room 264 wrapping doors in poly sheeting for disposal. One worker tracking down and altering the negative air machines inside containment to improve air flow. There is now a 3rd negative air machine blowing out of the ECE. The negative air exhausts have now been taped on the inside of the containment (to reduce makeup air and improve draw throughout the containment); overall negative pressure appears to be improved from this (doorways are drawing in even more than usual).

Level 3: There are 7 workers on the 3rd floor doing general housekeeping in preparation for the end of the day.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. MM and Corey are still on site and will lock the doors and shut off the generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 11/19/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland, Janet Murphy		PBS Project No.: 40535.488	Date: 11/22/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes No Supervisor <b>Yes</b> No	Summary Phase Status: Level 3 mastic removal. Level 2 demo and contents cleaning. Level 1 load out.	
Workers	<b>Yes</b> No Name: Corey Foust	Other Personnel on Site:	
How Many? +26		MacDonald Miller (MM)	
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Continued load-out of asbestos-contaminated materials. Level 2: removal of light fixtures and whiteboards. Bagging/wrapping demolished materials. Level 3: Mastic removal via grinders or chemical.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat, boots, ear plugs, and protective eye wear

**METHOD OF REMOVAL:** Manual wet methods, chemicals, and grinders

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** Waste load-out continues from level 1 via room 168 and from Level 3 via the Level 2 skybridge between Olympic South and the Cascade Building. Bagged and labeled materials are being transported to the Parking Lot A construction area storage containers with forklift bin.

**0800** Level 2: Workers continue to cut-up and bag or wrap sheet metal HVAC sections and wrap removed door for disposal.

Level 3: Twelve workers are currently this level. 2 workers are using hand grinders throughout the floor to detail/remove mastic in hard-to-reach spots. 1 worker is prepping equipment and materials. 2 workers are using the large HEPA-filtered walk-behind grinder for floor mastic removal on concrete floor surfaces. 7 workers are using hand scrapers and chemical to manually remove mastic on removed server panels.


**0925** Corey and one worker move 8 tables (recovered from Room 278) from clean room to hall near C512 for college to pick up. These tables have passed PBS visual inspection and representative microvac sampling used as a screening tool. College notified tables have been returned and are ready for use.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date 11/22/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 11/22/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0950** Level 2: One worker going through the floor documenting work progress. 1 worker is in the cleaning room HEPA vacuuming papers. 2 workers are in Room 270 removing tube lights from the fixtures. 1 worker is in the hallway outside of Room 275 removing light coverings. 2 workers are in Room 283 bagging removed GWB and insulation from the west wall. 2 workers are in Room 284 removing excess wood from the wall and bagging it in poly sheeting.

**1030-1115** Workers break for lunch and return to work.

**1130** Level 2: One worker is removing light fixtures from the hallway offices. 1 worker is in the 2nd floor cleaning room HEPA vacuuming papers and sheet music from room 281.

The majority of workers are not in containment, they are moving the previously cleared pianos from room 531 to room 533 in the Cascade building as requested by the college.

**1245** Level 3: Ten workers on this level. 2 continue to use hand grinders and chemical to remove mastic in hard-to-reach spots. 6 workers are using hand scrapers and chemical to remove mastic on server floor panels. 4 workers are using brooms and HEPA vacuums to keep the work area clean.

**1330** PBS Collects microvac samples of Room 264 contents in the level 2 clean room.

**1414** One worker in the cleaning room HEPA vacuuming files from Room 281. 2 workers in hallway housekeeping, 1 worker is bagging light fixtures for disposal. 1 worker is in Room 275 removing whiteboards from wall to be disposed. 5 workers exiting Rooms 283/284 work area for the day. Room 283, approximately 30% of the west wall gypsum wallboard has been removed. Room 283 lights are fluorescent and will be disposed. PBS still investigating LED light fixtures from Room 284 to determine if they are cleanable.

**1420** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1445** Corey F. off site

**1500** MM off site

**1530** PBS off site. Doors locked, generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 11/22/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 11/23/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes No	Supervisor	Yes No
Workers	Yes No	Name: Corey Foust	
How Many? +26			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 3 mastic removal. Level 2 demo and contents cleaning. Level 1 load out.	
		Other Personnel on Site:	
		MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued load-out of asbestos-contaminated materials. Level 2: Demolish GWB and wrap/bag demolished HVAC ductwork. Level 3: Mastic removal via grinders or chemical.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0640** Level 1: Four workers in room 168, three are bringing down bagged/wrapped materials from Level 2 and unloading them. 1 worker is attaching generator tags with spray adhesive to the bags.

Level 2: One worker is removing GWB adjacent to the stairs, the debris is immediately bagged after removal and the area is HEPA vacuumed. 1 worker in the cleaning room HEPA vacuuming music sheets. 7 workers are in the south corridor and Rooms 283/284 work area. 5 of those workers are helping to double bag wallboard and materials for load out. 1 is doing an inspection on the scaffolding in Room 283, and the other is using a prybar to remove GWB in the same room.

**0710** Three workers loading out asbestos bags. 1 worker is inside of Room 168 passing out ACM bags to 2 workers outside which are then loading the bagged materials into the forklift bin. The forklift is transporting the bags to the storage containers in parking Lot A.

**0715** Level 3: Two workers are grinding (hand-held grinders) and HEPA vacuuming floor on southwest wall of third floor. 4 workers are removing the mastic from the metal server floor panels. 40 metal floor panels have been removed from the floor. 7 panels have been cleaned. They have finished Room 323 and are now working on Room

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date 11/23/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/23/2021
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

324. 1 worker is grinding hard-to-reach spots with a hand grinder that the large grinder could not reach. 1 worker is using the airless sprayer to keep dust down during mastic removal. 1 worker removing mastic from floor hatch in Room 329. 8 workers observed in containment. No crew seen assisting from outside.

**0750** One worker is in the Level 1 Mechanical Room setting up additional temporary power for the building.

**0825** One worker is deconing out of the Level 1 containment. Additional negative air machines have been added, 1 by room 171, 1 going out of the ECE, and 1 going out of the ECE kitchen.

Level 2: Two workers in Room 264 wrapping the HVAC ductwork in poly sheeting. 1 worker is in the cleaning room HEPA vacuuming and wet wiping music sheets, 1 worker is in Room 270 cutting a hole through the wall to allow for better air flow. 1 worker is emptying out locker contents and disassembling lockers (All locker contents documented in the inventory). 4 workers are in room 283, two on the mobile scaffolding removing GWB from the north wall, 2 on the ground cutting apart with a Sawzall and bagging metal studs.

**0900** Level 3: One worker is continuing to mastic removal from the floor panels in Room 329. Progress continues grinding the above noted section with same 2 workers. 4 workers continue to work on server floor panels. 1 worker is grinding around floor vents and paneling that can't be reached by the push grinder. 21 of 40 tiles have had the mastic removed.

**1030-1115** Workers break for lunch and return to work.

**1045** PBS is conducting a smoke test on the 2nd floor of Olympic South. The purpose of the testing is to confirm adequate air movement is occurring throughout the floor and that the negative air machines are cycling all of the air in the space at least every 15 minutes.


**1130** Three workers in Room 284 are changing out prefilters for the negative air machines. 5 workers are in 283 doing general housekeeping. 3 workers are inside of Room 264 wrapping demolished sheet metal ductwork in poly sheeting.

**1210** Level 2: Work efforts continue as noted, however, all the contents and sheet music cleaning has been completed in the cleaning room.

Level 3: One worker is spraying down dust with airless sprayer. 4 workers have finished removing mastic from the 40 panels pulled and are replacing them on the server floor. Dickson is planning on starting removal of the next grid of panels today. 2 workers are grinding the mastic in Room 322. 1 worker is removing mastic from floor hatch in previous room 327.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 11/23/2021

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/23/2021
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1350** One worker continues working removing mastic from the floor panels in previous Room 327. Mastic grinding is almost complete on the third floor. Roughly 10-foot by 7-foot SF of mastic on concrete remains to be ground out. General housekeeping: 1 worker is sweeping up dust from around the floor and another is HEPA vacuuming behind the grinder. Roughly 30 panels have been removed from the floor and are being cleaned. 9 panels have been cleaned at time of observation. 5 workers are scraping mastic off server floor panels.

**1420** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1500** Corey F. off site. MM off site. PBS off site. Doors locked, generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 11/23/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 11/24/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +25			
Air Monitoring Personnel on site: PBS/Dickson		Summary Phase Status: Level 3 mastic removal. Level 2 Gypsum wallboard disposal. Levels 1 and 3 load out.	
		Other Personnel on Site:	
		MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 3 mastic removal with grinding and chemical, cleaning server floor panels. Level 2 wallboard and light fixture demo Level 1 load out and contents inventory.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0650** Levels 1 and 2: Two workers inside room 264 wrapping HVAC ductwork in poly sheeting for disposal. Two workers are running bagged waste from the music rooms down to room 168 for loadout later in the day. Seven workers in the 283/284 work area loading out wooden boards wrapped in poly sheeting and bagged GWB / insulation from room 283.

**0705** Level 3: Seven workers observed in containment. 2 are grinding the mastic from the last section of flooring in the server room. 3 workers are cleaning server floor panels. 20 of the 30 pulled panels have had the mastic removed. 2 workers are grinding mastic in small spots where the grinder couldn't reach.

**0920** Levels 1 and 2: Two workers in room 264 wrapping HVAC ductwork in poly sheeting for disposal. One worker removing light fixtures from the hallway outside room 290. One worker in the main hallway wrapping light fixtures in poly sheeting for disposal. 6 workers are in room 283 picking up general debris from the GWB removal. One worker is going around spraying down the area with a Hudson, 3 are bagging materials, two are sweeping. One worker in room 283A removing the foam sound dampening from the walls and bagging it for disposal.

**0945** Level 3: Two workers are removing the coverings over a gap in the floor where the student lounge started met the 331 hallway to remove the mastic on the margins underneath the covering. 1 worker is grinding the mastic around floor panels where the grinder couldn't reach with a handheld grinder connected to a HEPA vacuum. 4 workers are replacing

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 11/24/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 11/24/2021

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

the completed panels and will begin removal of the next set. 1 worker is cleaning the last panel and one more laying new plastic drop cloth to store tools.

PBS continues to inventory contents on the first floor (rooms 166, and 185).

**1025** Two workers in the parking lot assisting Le May remove one of the waste containers from the lot.

**1030-1115** Workers break for lunch and return to work.

**1100** Level 2: PBS is conducting micro vac clearances of contents in the 2nd floor clean room.

**1150** Level 3: Six workers in containment. 3 are double bagging waste and passing it out to an additional 3 workers who are outside containment. 2 are doing touch-ups with the grinder in the student lounge. 1 is grinding down left over mastic around the floor grate in 327

**1215** PBS off site for the day. MM and Dickson still on site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai

Name: Claire Tsai

Date 11/24/2021



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 11/29/2021

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0915** Level 2: One worker is bringing ACM bags down to room 168 for loadout. 1 worker is removing the ductwork from the hallway across from Room 288. 4 workers are in Room 283, 2 are on mobile scaffolding removing GWB and metal framing and 2 on the ground, of which, 1 is spraying water with a Hudson the other is bagging waste for disposal. 2 workers in Room 283A continue removing ceiling panels. 3 workers in Room 269 removing and bagging GWB that separates the art storage room from the office.

**0940** Level 3: Workers continue removal of mastic from server floor tiles. The 32 tiles have been cleaned and replaced in the floor with another 40 tiles undergoing mastic removal. 17 of those have been completed.

**1015** Dickson fuel truck on site to refill generators.

**1030-1115** Workers break for lunch and return to work.

**1140** Level 2: Two workers bringing down ACM bags to Room 168 in rolling carts for later loadout. 5 workers double-bagging ACM bags outside of Room 283. 2 workers are inside of Room 283 removing GWB along the north wall. 4 workers are in Room 269 and the corridor outside, 2 are demolishing GWB and 1 is bagging the contents and wetting the inside with a Hudson sprayer. The other worker is sealing the bag shut with tape and loading it into a cart for disposal.

**1210** Level 3: Four workers observed in the containment. The only observed activity is cleaning of the server floor tiles. As of now 28 tiles have been completed from room

**1330** Level 1: Two workers are deconning out of the enclosure.

Level 2: Three workers near Room 269 bagging materials cut out from walls to improve air flow. 5 workers are in Room 283, 1 on the mobile scaffolding removing GWB and 4 on the ground bagging contents for disposal.

**1350** Level 3: Seven workers observed. The above-mentioned section of tiles has been completed and the next 40 panels have been pulled and are being cleaned. 13 have been completed today.

**1420** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1445** PBS off site. MM and Corey still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 11/29/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland, Kaitlin Soukup		PBS Project No.: 40535.488	Date: 11/30/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust/ Chris Drea	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Load-out.	
		Level 2: GWB/HVAC demolition. Level 3: Floor mastic removal.	
		Waller Pit Site: Roof Air Handling Unit demolition	
		Other Personnel on Site:	
		MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued load-out via Room 168. Level 2: Continued GWB and HVAC demolition, bagging and loading-out. Level 3: Continued mastic removal on concrete and server floor panels. Waller Pit Site: Demolish large Air Handling unit previously removed from Olympic South roof.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building unless otherwise noted. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Corey F is walking around the perimeter of the building checking on the negative air exhausts and general worksite conditions.

**0730** Levels 1 & 2: Two Dickson workers going throughout the first and second floor changing out the pre filters on the negative air machines. 3 workers are inside Room 269 removing GWB walls, fiberglass insulation, and door framing. The contents are then bagged for disposal. 6 workers are in Room 283, 1 is on the mobile scaffolding doing general housekeeping, 3 are on the ground picking up debris, 1 worker is using a hose to spray down materials, and 1 worker is loading bagged materials into a rolling cart for loadout.

**0800** Level 3: Five workers are inside the enclosure. 1 worker in the process of leaving the closure. The other 4 are using chemicals along with hand scrapers to remove yellow mastic on metal floor tiles.

**0940** Level 1: One worker inside room 168 dismantling a lateral storage shelf with a drill and wrapping the pieces in poly sheeting for load out.

Level 2: Six workers are in Room 283, 2 are on mobile scaffolding removing GWB, fiberglass insulation, and metal studs from the wall with prybars and Sawzalls, the 4 workers on the ground are bagging the debris and doing

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	Waller Pit Site

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 11/30/2021

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/30/2021
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

general housekeeping. 1 worker is directing two workers in the hallway outside, one is grabbing a hose to spray some water in the air. The other is grabbing additional PPE. One MM worker is doing a general site walkthrough in the containment.

**0940** Level 3: One worker is leaving the containment. 4 workers in the SW corner scraping mastic off of server floor panels. 20 tiles are clean stacked sitting off to the side. 4 workers currently have 6 tiles on work benches and 2 additional tiles off to the side.

**1030-1115** Workers break for lunch and return to work.

**1130** Level 1: Three workers are inside of Room 168, 1 is wrapping lockers in poly sheeting, the other 2 are cleaning the space and laying down poly in preparation for establishing a Level 1 cleaning room.

Level 2: Six workers are inside of Room 283, 3 are on the mobile scaffolding (two are removing GWB/metal studs/fiberglass insulation, 1 is helping to pass down the materials), 3 workers on the ground are wrapping the metal studs in poly, and bagging GWB sections.

**1200** Three Dickson workers adjusting fuel tank for heater (500-Gal Diesel). 1 forklift operator, 2 spotters, and Corey in the area. Heater and fuel tank are placed in the north area on the west side of Olympic South. Heated air will enter through the Level 1 west double doors and flow through Levels 1 and 2.

Level 3: Four workers are in the southwest corner scraping mastic off of server floor panels; 6 tiles at a time are placed on work benches. Tiles from the morning have been replaced and 30 more have been removed for cleaning. Bulk of carpet mastic has been removed with grinder, aside from some tight spaces.

**1320** Level 1: Two workers inside room 168 hanging poly vertically to create a cleaning room.

Level 2: Six workers are in room 283 doing general housekeeping (HEPA vacuuming, putting away tools, etc). 2 workers are building a new separation zone between 283, 284 and the rest of the hallway to reduce track out of fireproofing into the rest of the work area. 1 worker is wet wiping the steps from Level 1 to Level 2. 1 worker is retrieving supplies from the Level 2 cleaning room to bring down to the new level 1 cleaning room.

**1420** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1445** PBS off site. MM and Corey still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 11/30/2021

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 11/30/2021
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 3 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**Dickson Waller Pit Site: Roof Air Handling Unit Disposal**

**0940** PBS has arrived at Dickson's Waller Pit site. There are 3 workers on site. 1 supervisor, Chris D. and 2 workers are in high vis gear and half face respirators. Workers using Sawzalls to cut the HVAC fan unit, previously removed from the roof of Olympic South into smaller sections. Once a smaller section is removed a forklift is used to place it into a lined (poly-sheeting) waste container. 1 worker is collecting personal air samples. There's water truck on site to provide water for dust control while cutting the HVAC fan unit. Work is occurring outside with a regulated area set up with banner tape.

**1045** Waller Site: Dickson crew of 3 is on lunch.

**1130** Waller Site: Dickson has resumed work and is unwrapping the HVAC fan unit to continue cutting it into smaller sections to load into the lined container. Poly sheeting drop cloths are on the ground around the unit.

**1230** Waller Site: Chris suited up in a Tyvek and is, assisting with cutting the HVAC fan unit.

**1330** Waller Site: The HVAC fan unit is roughly 50% cut and placed into the lined waste container.

**1415** PBS returns from the Waller Site to Pierce College - Fort Steilacoom

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 11/30/2021

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick, Gregg Middaugh		PBS Project No.: 40535.488	Date: 12/1/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes No	Supervisor	Yes No
Workers	Yes No	Name: Corey Foust /Chris Drea	
How Many? +20			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Load-out	
		Level 2: GWB/HVAC demolition. Level 3: Floor mastic removal.	
		Waller Pit Site: Completion of Roof Air Handling Unit demolition	
		Other Personnel on Site:	
		MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued load-out via Room 168. Level 2: Continued GWB and HVAC demolition, bagging and loading-out. Level 3: Continued mastic removal on concrete and server floor panels. Waller Pit Site: Complete demolition of large Air Handling unit previously removed from Olympic South roof.

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building until otherwise noted. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0640** Level 1: Three workers are in Room 168, 1 is bringing down bagged GWB / fiberglass insulation from the second floor for load out. Two workers are staging the ACM bags for load out.

Level 2: Six workers are in the 283/284 work area corridor double bagging GWB / fiberglass / framing debris. Workers are spraying down the inside of the bags with Hudson sprayers before sealing the top. The bags are then loaded into a clean rolling tip bin.

**0700** Level 3: Two workers observed in containment. All grinding activities with the large machine are completed and it has been removed. 2 workers are removing the mastic from server floor panels in room 325. 31 panels are completed with 12 to be finished from the current section.

**0830** Level 1: One worker outside containment bringing in supplies to the first-floor clean room. Two workers inside room 168. One is preparing materials for loadout the other is bringing supplies into the cleaning room.

Level 2: Five workers in 283. The Level 2 mechanical mezzanine is now open to Room 283, accessible by scaffolding. Workers in this space are now beginning to remove the metal HVAC ductwork and setup lights / other equipment needed for worker safety. 2 workers are moving in and out of Room 283 carrying poly sheeting wrapped metal framing / HVAC metal ductwork to Room 275. Walls in 281 and 282/283A are beginning to be removed with prybars and Sawzalls.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	Dickson Waller Pit Site

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 12/1/21

**PBS Environmental Field Observation Report**  
**Additional Page**

---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/1/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0845** Level 3: Two workers inside on the southwest corner continue cleaning the server floor panels.

**0905** Two workers in Parking Lot A are closing an ACM dumpster; the liner is closed and marked with asbestos labels and waste generator tags. PBS Project Manager Gregg M. on site.

**0950** Level 1: One worker putting on PPE to enter the first-floor containment.

Level 2: Two workers are removing the poly sheeting that made up the Level 2 cleaning in room 265. 2 workers in the LV2 Mechanical Mezzanine removing electrical conduit and other wiring with a Sawzall. 1 worker in Room 283A HEPA vacuuming the floor. Three workers are in Room 281 removing GWB / fiberglass insulation with a Sawzall and pry bar before bagging into ACM bags.

**1030-1115** Workers break for lunch and return to work.

**1230** Level 3: Four workers in containment. All panels being cleaned from the last observation have been cleaned and placed back in the floor. 2 workers are beginning to remove the last 50 panels from the floor. The other 2 workers are disposing of rags and are prepping the workstation for the next set of panels.

**1340** Level 2: One worker is in Room 265 bagging GWB from the wall section that was removed to gain access to the Room 263. 2 workers in the mechanical mezzanine doing general housekeeping in preparation for the end of the day. 4 workers are in Room 283 doing general housekeeping.

**1410** Three workers doing general housekeeping from Level 3 down to Level 1 along the stairs. 4 workers rearranging the fencing along the conexes in Parking lot A.

**1420** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers leave site for the day.

**1445** PBS off site. MM and Corey still on site will lock doors and shut off generator.

**Dickson Waller Pit Site: Roof Air Handling Unit Disposal**

**0815** PBS on-site at Waller Pit Site. 2 workers on site in full PPE for the required work. Both workers are in Tyvek and half face respirators using water to mitigate dust and particulates in the air. They are using reciprocating saws to demolish the HVAC unit. 1 of the workers is using the forklift to remove the cut sections and place them in a poly-lined dumpster.

All sections have been placed in the dumpster. Crew is beginning to clean up and is loading pallets and balling up the remaining poly sheeting. Poly has been disposed of and workers are spot cleaning the ground with a HEPA vacuum. PBS visually inspected regulated area and deems it satisfactory. Crew is removing the banner tape regulated area. PBS is collecting air sampling pumps.

**0945** PBS departs site to return to Olympic South Site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 12/1/21

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick, Mike Smith		PBS Project No.: 40535.488	Date: 12/2/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +19			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Load-out, contents cleaning	
		Level 2: GWB/HVAC demolition. Level 3: Floor mastic removal.	
		Other Personnel on Site:	
		MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued load-out via Room 168, contents cleaning in Room 168. Level 2: Continued GWB and HVAC demolition, bagging and loading-out. Level 3: Continued mastic detailing on concrete and completion of mastic removal from server floor panels

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Level 1: Two workers unloading ACM bags in Room 168 from rolling tip bins. One worker outside containment in the clean room talking with the workers inside containment about equipment needs.

Level 2: One worker bagging GWB / fiberglass insulation in Room 269 from the hole cut through the wall. 3 workers are in Room 271 assembling a fall protection barrier out of 2x4s and plywood for the Mechanical Room in 283. 2 workers in are the Mechanical Room removing insulation and HVAC metal ductwork. 1 worker is in Room 283 wrapping ductwork in sheet poly for disposal. 1 worker is in Room 282 removing ceiling insulation. 4 workers are double bagging ACM bags, the inside of the bags is being sprayed with a Hudson type sprayer before being sealed and loaded into a cart to be brought down to Room 168.

**0650** One worker carrying 2x4s to build a structure for the new building heater to secure the doorway into containment.


**0700** Level 3: Four workers observed on this floor. 3 are cleaning server floor panels and the 4th is replacing cleaned floor panels. 28 panels remaining to be cleaned until all are completed. Negative air pressure appears strong evidenced by poly sheeting being drawn in.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	
2 full 40 CY containers removed from the Waller Pit site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 12/2/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/2/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0840** Level 1: One worker in the 168-cleaning room HEPA vacuuming quilts. 1 worker is loading in ACM bagged room contents from the first floor for disposal. 1 worker is disassembling wooden furniture with a drill for disposal. 1 worker is taking site notes and pictures for daily logs.

Level 2: Two workers are in Room 281 removing metal studs with pry bars. 1 worker is in Room 283A removing wires in the ceiling. 3 workers are above in Mechanical Room finishing setting up a wooden guard rail for fall protection. 2 workers are bagging HVAC metal ductwork in poly sheeting on the floor in 283. 1 worker is in Room 164 removing white boards for disposal.

**0930** Level 3: Four workers continue stripping mastic off the final 11 server floor panels.

**0955** Three Dickson workers are cutting plywood with a Sawzall to create a barrier to secure over the west side double doors (where the heating hoses will attach).

**10:15** PBS collects microvac samples of artwork from room 266 of visually cleared contents.

**1030-1115** Workers break for lunch and return to work.

**1125** PBS walks the Olympic South Building site with Corey, Todd (Dickson) and Dan (MM). Two roof vents from level 2 roof still in place. MM will measure and build roof caps for temporary weather proofing similar to the caps on the level 3 roof.

Level 3: Workers continue mastic removal from server floor panels. A few additional items found for bulk removal during walk through are noted.

**1140** Level 3: The final five panels are being cleaned before removal. No change in work activity.

**1155** One worker on a ladder on the E side exterior of the building (along the stairwell) applying patch to assist stopping water intrusion issues.

**1230** Level 1: One worker in Room 168 cleaning room HEPA vacuuming contents, 1 worker in 168 breaking down contents marked for disposal.

Dan returns to the trailer to update 3 weeks look ahead. Todd, Corey, and PBS enter level 1 and 2 containment to continue walk through.

**1300** Todd and Corey exit containment.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 12/2/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/2/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 3 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1335** Level 1: PBS mark additional contents on level 1 for disposal. One worker is bagging contents from the hallway for disposal outside Room 168. 2 workers are in Room 168, 1 is in the cleaning room wiping down animals encapsulated in epoxy. The other is wrapping fixtures and other furniture from Level 1 in poly sheeting for disposal.

Level 2: One worker is in room 284 removing lights and conduit from the ceiling. Two workers are in Level 2 Mechanical Room disassembling metal ductwork with a drill and Sawzall. Four workers on the ground in 283 two are cutting metal ductwork in half with a Sawzall, 1 is wrapping ductwork in poly sheeting and the other is HEPA vacuuming the floor.

Two heat tubes are now entering the building from the west side, one goes to Level 1 and one to Level 2. The heater is currently running.

**1345** Level 3: All panels have been cleaned and the crew is now cleaning all screws that are used to secure server floor panels to the under structure. No change in work activity.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** Corey off site. Doors locked.

**1530** PBS off site. MM still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 12/2/21

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland, Cameron Budnick, Mike Smith		PBS Project No.: 40535.488	Date: 12/3/2021
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes No	Supervisor	Yes No
Workers	Yes No	Name: Corey Foust	
How Many? +20			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Load-out, contents cleaning	
		Level 2: GWB/HVAC demolition. Level 3: Final Detail of floor mastic	
		Other Personnel on Site:	
		MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued load-out via Room 168, contents cleaning in Room 168, bagging office contents Room 172. bagging and loading-out. Level 3: Continued floor mastic detailing cleaning

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Level 1: One worker is in Room 168 passing out ACM bags for loadout. Two workers are outside containment loading them into the forklift bin. 1 worker is in the cleaning room wet wiping and HEPA vacuuming content to be returned from Room 168. 1 worker is in Room 172 bagging general office contents for disposal and bringing the bagged materials to Room 168 for loadout.

Level 2: Five workers are double bagging materials for loadout in the hallway of the 283/284 work area. The inside of the bags is sprayed with a Hudson before being sealed shut and loaded into a rolling tip bin lined with poly. 2 workers in Room 284, 1 on top of the mobile scaffolding removing light fixtures and lowering them to the ground. The other is on the ground untying them and stacking them in room 283A under a poly sheet. 2 workers pushing wheeled carts from the 283/284 work area down to Room 168 to drop off ACM bags for loadout.


**0700** Level 3: One worker is grinding remaining mastic off the edge of where the concrete floor meets the server floor panels. 2 workers are bringing up fan boxes from the floor plenum pointed out on the walk through. 5 negative air machines running on this floor additional machines on roof.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 12/3/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/3/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0815** Levels 1 and 2: One worker is in Room 166 bagging contents for disposal. 1 worker is in Room 168 organizing supplies and wrapping larger white boards in poly sheeting. 1 worker is in the cleaning room HEPA vacuuming and wet wiping science animals to be returned from Room 168. 3 workers are in Room 270 wrapping large sections of HVAC ductwork in poly sheeting. 2 workers are in Room 284, 1 is on the mobile scaffolding cutting down conduit with bolt cutters. The other is on the ground doing general housekeeping and bagging debris. 1 worker is in the Level 2 mechanical mezzanine, cutting out ductwork for disposal. 1 worker is in Room 283 wrapping ductwork and metal studs in poly sheeting for disposal.

**0945** Two workers in the parking lot closing the lid to an ACM dumpster to be taken off site.

**0950** Level 3: Three workers in containment. 1 worker is cleaning out a HEPA vacuum putting in a new bag, 1 worker is using a hand scraper to remove mastic off a small electrical penetration in Room 326. The third worker is cleaning up the station where the crew was cleaning the server floor panels.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: One worker is in the cleaning room wiping down contents from 171. 1 worker is in the ECE kitchen dismantling the casework for disposal then bringing the contents to Room 168 followed by 1 worker bags the items.

Level 2: One worker is in Room 270 wrapping light fixtures in poly sheeting for disposal. 4 workers are in mechanical mezzanine demolishing HVAC ductwork then passing it down the mobile scaffolding to 3 workers on the ground who wrap them in poly sheeting.

Level 3: Three workers observed. 1 worker is doing General housekeeping and wiping down negative air machines, worktables, etc. 2 workers are moving materials out of the student lounge and securing the covering over an open hole.

**1300** Work efforts continue as noted on all 3 levels.


**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS and Corey off site. Doors locked. MM still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith Date: 12/3/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/6/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

Level 2: Workers are rewrapping the burrito wraps stored in 275 in an additional layer of poly before loadout to ensure they are clean and have no punctures. 6 workers are moving the burrito wraps between room 275 to the Art Gallery (265) where they are rewrapped and then loaded out through the skybridge window to the forklift bin and taken to the waste container in Parking lot A. 1 worker is coming up the stairs to aid in wrapping.

**0950** Level 1: One worker is in Room 181 bagging pieces of a disassembled wood shelf in a bag for disposal. 4 workers are in Room 168, one is wet wiping office contents in the cleaning room, 3 workers helping to load out materials. 2 workers are outside of Room 168 loading the ACM bags into the forklift dumpster.

Level 2: Four workers wrapping demolished HVAC components in burrito style wraps with an additional layer of poly sheeting for loadout, two workers in 265, two workers in 275.

Level 3: Seven workers are in containment. All are scraping mastic from hard-to-reach areas. 3 are in the southeast corner and the other 3 are in room 325 And the hallway immediately outside scraping mastic from structural beams. The crew is sweeping up and HEPA vacuuming debris from mastic removal. 5 negative airs running on the floor. 1 worker is securing covers over the floor penetrations in room 329.

**1030-1115** Workers break for lunch and return to work.

**1045** Dickson's fuel truck on site to refill generators and forklift.

**1230** Level 1: Two workers are in Room 168, 1 is in the cleaning room wet wiping and HEPA vacuuming contents, the other is wrapping cabinet pieces from the ECE kitchen in poly sheeting for disposal. One worker in the ECE kitchen bagging general contents from the kitchen casework for disposal. 6 negative air machines are current running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: Two workers are on the second floor skybridge loading out burrito wrapped materials into the forklift bin. 2 workers are in Art Gallery wrapping an additional layer on burrito wraps and labeling them with asbestos tags for loadout. 2 workers are in Room 275 wrapping an additional layer on burrito wraps. 1 worker is bringing the finished wraps from Room 275 and the Music Room to the edge of containment for loadout on the skybridge. 12 negative air machines are current running providing negative air pressure to the workspace. 3 negative air machines are running within the space being utilized as scrubbers.

Level 3: Eight workers are in the containment. 5 workers are grinding mastic after spraying the areas with mastic remover. HEPA vacuums are in use to control dust. 1 worker is sweeping up materials to be vacuumed up. 2 workers are securing covers over penetrations in the floor.

**1240** Three workers move two bookshelves and door hardware from a conex in Parking Lot A to CAS533 for college's use.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/6/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/6/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1345** Level 3: One worker is bagging metal framing for disposal. 1 worker is sweeping dust from Room 327. 3 workers are grinding mastic from hard-to-reach areas. 1 worker HEPA vacuuming General floor area (housekeeping).

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS off site. Corey and MM still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 12/6/21





**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/7/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

decontamination entrance, removing small pieces of drywall and any screws left in the studs. 1 worker is sweeping up general dust from floor.

**0930** Level 1: Three workers are in Room 168, 1 is in the cleaning room wet wiping and HEPA vacuuming a wooden clock. 1 is wrapping casework from the ECE kitchen in poly sheeting and the other is rolling in casework pieces from the ECE kitchen in a rolling tip bin.

Level 2: Three workers are in Room 264, 1 is cutting the office doors into smaller pieces for loadout, 2 are double bagging the pieces. 4 workers are inside of Room 275, 3 workers are cutting and rewrapping contents that were stored in the room, 1 worker is rolling the newly wrapped materials down the hall for loadout. All of the stored contents from room 270 have been loaded out and approximately 15% remains to be loaded out from Rooms 264 and 275.

**1030** Corey F has wrapped the exterior portable heater ducting in an insulation blanket for added efficiency in heat delivery to the west side of the Olympic South Building. Per Corey, the heat is being distributed well throughout the building.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 3: Five workers are in the containment. 1 worker is bagging materials from the removed section of drywall. 1 worker is spot-grinding mastic at Room 327. 1 other worker is spot grinding outside of previous Men's Restroom. 1 worker is removing fixtures from around south wall windows.

**1230** PBS moves Room 266 cleaned artwork into Conex 3 for storage.

**1330** Two workers are inside Room 168 dismantling casework and other furniture pieces before bagging them for loadout. 1 worker is finishing the removal of the last section of kitchen casework in the ECE and bagging them for loadout. The kitchen sink with ACM undercoating has been removed, bagged, and awaiting loadout. 6 negative air machines are current running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: Two workers are in the Art Gallery adding as additional layer of poly sheeting to burrito wraps and applying ACM stickers in preparation for loadout. 2 workers are in Room 264 burrito wrapping metal ceiling grid pieces and attaching an ACM label for loadout. Rooms 275 and 264 is now completely emptied out of all stored ACM bags and wraps. 12 negative air machines are current running providing negative air pressure to the workspace. 3 negative air machines are running within the space being utilized as scrubbers.

**1345** Level 3: Six workers are in the containment. 1 worker is moving bags towards the entrance to prep for loadout. PBS noted workers spraying down bags as they are sealed and staged. 1 worker is bagging insulation pulled from the drywall.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 12/7/21

---

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/7/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

1 worker is removing mastic from Room 327. 1 worker is HEPA vacuuming leftover dust from the east corner of student lounge. 1 worker is doing general housekeeping, coiling up extension cables, and changing HEPA vacuum bags.

**1400** Corey advises that the portable heater unit is dripping fuel at approximately 1 drip every couple of hours, he has placed an absorption pad to assure no fuel is making it to the ground.

Good negative air pressure on all Olympic South building levels. The poly sheeting flaps from exits are being drawn in and air flow is moving towards the negative air machines where it is filtered and exhausted to the exterior.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS off site. Corey and MM still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 12/7/21

---



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/8/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 2: Three workers are in Room 264 removing fiberglass pipe insulation and ductwork hangers with drills and razor knives. 2 workers are in the Mechanical Mezzanine demolishing HVAC ductwork with Sawzalls.

**0920** Level 3: Eight workers observed. 1 worker is below the floor in Room 329 sealing the sub-floor off from the wall cavity. 2 working below server floor. 1 worker is spot grinding mastic off the floor in Student Lounge. 2 workers are in the north previous Men's Restroom and are removing insulation and remaining drywall. PBS Notes crew using airless sprayer to keep dust down and wet outgoing waste bags before sealing them.

**1030-1115** Workers break for lunch and return to work.

**1150** Level 1: One worker is outside of Room 168 demolishing the previous clean room. 2 workers are inside of Room 168, 1 is rolling in tables on a wheeled cart from Room 164, the other is bagging up old poly sheeting from the ground. 1 worker is in the ECE wrapping wooden shelf pieces in poly sheeting.

Level 2: Three workers are inside of Room 283 dismantling HVAC ductwork into smaller pieces and wrapping the sections in poly sheeting.

Level 3: Ten workers observed in containment. Workers are under rooms 327-329 removing and bagging conduit and wiring and removing leftover insulation from the southwest wall cavity.

**1330** Level 1: One worker in the cleaning room HEPA vacuuming the floor. The room has been extended to allow for more cleaning space to accommodate larger office furniture. 1 worker is in the ECE wrapping doors in poly sheeting for disposal. 1 worker is in the hallway by Room 166 dismantling doors for disposal. The ACM sink from the kitchen was loaded out for disposal earlier in the day and is no longer in containment.

Level 2: Three workers are in room 283 spraying ductwork with encapsulate and cutting it down into smaller pieces before wrapping them in poly sheeting.

Level 3: Ten workers on this level. 8 are conducting housekeeping, sweeping, HEPA vac, organizing equipment, and covering the removed server panels with 6mm poly sheeting. 2 are still underneath the floor in 327, picking up their equipment and lights.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS off site. Corey and MM still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/8/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Peter Stensland,		PBS Project No.: 40535.488	Date: 12/9/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Load out and contents cleaning/ disposal. Level 2: Load out & add fall protection to Mech Rm. Level 3: Cut conduits, clean below floor			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued load out via room ECE. Level 2: Continued Load out and adding fall protection to Mechanical Mezzanine. Level 3: Remove conduit and clean spaces below raised server floor.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Level 1: One worker is operating the forklift back and forth to Parking Lot A lot to dump the ACM bags into the storage container. 1 worker is erecting the new clean room outside room 168.

**0715** Three workers loading out from the skybridge, 2 are carrying down ACM bags, one is loading the bags into the forklift bin while strapped into a fall harness. 1 worker is the forklift operator.

**0725** Level 1: One worker is inside cleaning room HEPA vacuuming art from the 2nd floor Art Gallery. 1 worker is in the ECE bagging office desks and tables labeled for disposal. 1 worker dismantling the doors throughout the first floor with a drill.

Level 2: One worker is in Room 284 changing out negative air pre filters. 1 worker is in Room 283 laying down a new poly sheeting drop cloth. 1 worker is in Room 271 cutting wood for additional safety barriers.

**0745** Level 3: Three workers are outside of the containment carrying down ACM bags to the skybridge for loadout. 1 worker is just inside containment passing out full ACM bags. 7 workers are removing the server panel floors and stacking the pieces on poly sheets.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 12/9/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/9/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0900** Level 1: Two workers are in the cleaning room. 1 worker is wet wiping a Sony DVD player, the other worker is expanding the cleaning room so it connects to the 168 exterior door. 1 worker is in the ECE finishing tidying up after loading out ACM bags. 1 worker is operating the forklift.

Level 2: Two workers are in Room 283, 1 is attaching the new section of wooden fall protection to the Mechanical mezzanine with a hammer and drill. The other worker is securing the new poly drop cloth to the walls with duct tape and doing general housekeeping. 3 workers are in the Art Gallery carrying ACM bags to the edge of containment for load out. 2 workers are outside of the containment on the skybridge loading the bags into a forklift waste bin.

Level 3: Workers have dismantled a portion of the raised server floor grid and supports. Corey up on Level 3 investigating. PBS and Corey communicate about methods of cleaning the server floor were not intended to dismantle the supports. All work removing server floor grid structure and supports has been stopped. Workers return to detail cleaning and removing any remaining conduit under the floor.

**0930** Level 3: All workers on the 3rd have stopped removing floor grids and is now using vacuums and shovels and other cleaning tools to remove visible dust and debris from the beneath floor grid space.

**0949** MM is on Level 3 determining which conduit at the electrical panels could be removed without cutting the power to the 2nd floor.

**1050** A Dickson fuel truck is on site and is pumping diesel into the fuel storage for the buildings temporary heat system.

**1030-1115** Workers break for lunch and return to work.

**1200** Corey, Todd (Dickson), Dan, Rick (MM) and PBS discuss server floor on level 3. No additional parts of the support structure will be removed until discussion with the project team.

**1300** Level 1: One worker in the cleaning room wet wiping and HEPA vacuuming the frame of art from the art gallery. 3 workers are in the ECE, 1 is removing the old poly sheeting wall along the west side of the room. 1 worker is carrying in white boards to the ECE, and 1 worker is wrapping them in poly sheeting for disposal. 6 negative air machines are current running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: Four workers are in Room 278 bagging removed ceiling tiles and doing general housekeeping. 1 worker is in Room 283 doing general housekeeping. 12 negative air machines are current running providing negative air pressure to the workspace. 3 negative air machines are running within the space being utilized as scrubbers.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/9/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/9/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 3 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

Level 3: Six workers on this level. 2 are using vacuums and hand cleaning tools for detail cleaning of the sub floor space. 1 worker is pulling wires out of the conduits that were cut earlier today. 2 workers are using Sawzall to cut large conduit into smaller pieces to be wrapped in poly sheeting and sealed with duct tape. 1 worker is in the sub-floor area (via hatch in the floor) with a Sawzall to cut conduits.

Good negative pressure is indicated on all floors of the Olympic South Building.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1530** PBS, Corey and MM off site. Doors locked, generator off.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/9/21



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 12/10/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Contents cleaning/disposal, load out			
Level 2: Demolish and load out HVAC in Mech Mezz.			
Level 3: Remove mastic, clean up.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued load out via room 168. Clean Art Gallery components. Level 2: Demolish HVAC components in Mechanical Mezzanine, bag material, and Loadout. Level 3: Mastic removal and general housekeeping.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Level 1: One worker is building a clean room outside of Room 168 (exterior of building). Exterior clean room will be used to store furniture after PBS visual while waiting for microvac confirmation sampling results. 1 worker is driving the forklift back from storage in Parking Lot A to the skybridge with supplies in the bucket to be loaded into the work areas.

**0715** Level 1: One worker is inside cleaning room HEPA vacuuming and wet wiping art from the level 2 Art Gallery. 1 worker is in the ECE wrapping dismantled door pieces in poly sheeting. 1 worker is in Room 166A removing ceiling tiles and bagging them for disposal, the inside of the bags is sprayed with a Hudson before being sealed.

Level 2: Four workers are in Mechanical Mezzanine using Sawzalls to cut out HVAC ductwork into smaller pieces. Workers spray down the surfaces with a garden hose before cutting.

**0810** Level 3: Eleven workers observed in the containment. 2 workers are bagging used equipment (knee pads) for disposal. 6 workers are bagging used materials and cardboard from equipment. 1 worker HEPA is vacuuming wall cavity to ensure removal of all drywall and insulation debris. 1 worker is removing conduit from sub floor area. Most materials being bagged now are work waste that is no longer needed.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 12/10/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/10/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0940** Level 1: One worker is inside of the cleaning room HEPA vacuuming and wet wiping the artwork from the Art Gallery. 1 worker is in the ECE wrapping door pieces in poly sheeting for disposal.

Level 2: Three workers are in the Mechanical Mezzanine cutting apart the HVAC ductwork with Sawzalls. 1 worker is in Room 283 bagging HVAC ductwork for disposal.

Level 3: Nine workers observed in containment. 2 workers are grinding underneath the decon room, removing the remaining mastic. Both grinders being used are connected to HEPA vacuums. 2 are working along the southwest windows removing the remaining drywall and insulation along where the windows meet the floor. 2 workers are preparing waste bags with used machinery. 2 are moving dirty equipment to be cleaned and kept on a drop sheet. General cleanup of materials used for earlier tasks is being organized and prepared for future removal from the containment.

**1030-1115** Workers break for lunch and return to work.

**1240** Level 1: One worker is inside of the cleaning room doing detail cleaning on the blue print press before visual inspection. 1 worker is in the ECE wrapping door pieces in sheet poly. 1 worker is going throughout the first floor doing general housekeeping. 6 negative air machines are currently running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: Workers are removing remaining Office 262 contents with a hand truck. 4 workers are in Room 283 doing general housekeeping and laying a new poly sheeting drop cloth on the floor. 12 negative air machines are current running providing negative air pressure to the workspace. 3 negative air machines are running within the space being utilized as scrubbers.

**1330** Level 1: PBS is conducting visual inspections on artwork in the cleaning room.

**1345** Level 3: Six workers observed in containment. Plastic sheeting has been laid over removed server floor tiles and stands. Mastic grinding under the decon room finished for today. 1 worker is cleaning up the grinding materials and 1 more is inside the decon hanging a critical barrier flap back more so they can reach farther. 3 workers are doing housekeeping and picking up this floor. 1 worker is HEPA vacuuming and wiping down I-beams and general ceilings in the student lounge. PBS noted the use of wet methods to keep dust down.

Good negative pressure is indicated on all floors of the Olympic South Building.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 12/10/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/10/21

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---


OBSERVATIONS:

---

**1445** PBS off site. Corey and MM still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 12/10/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 12/13/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 29			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Contents cleaning/disposal, load out			
Level 2: Demolish and load out HVAC in Mech Mezz.			
Level 3: Begin cleaning, replace floor panels/grid, remove conduit.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued load out via ECE. Clean Art Gallery contents. Level 2: Demolish HVAC components in Mechanical Mezzanine, bag material, and Loadout. Level 3 Replace floor panels, remove conduit, and general housekeeping.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat.

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0640** Level 1: Two workers loading in supplies from the ECE loadout area and loading out poly wrapped furniture pieces. 1 worker in Room 166A removing ductwork from the ceiling.

Level 2: Two workers are in the Mechanical Mezzanine cutting up an HVAC air handler with Sawzalls. 2 workers are in Room 284. 1 worker is cutting down water supply lines for the sprinkler system with a Sawzall for scaffolding access to remove fireproofing. The other worker is below spotting and helping to lower the pieces off the mobile scaffolding. 1 worker is in the Art Gallery organizing tools that were loaded in from the sky bridge.

**0720** One worker donning PPE to enter the Level 1 containment. 3 workers are refueling the generator and fuel pod.

Level 3: Six workers are in Room 325 replacing server floor grids and panels now they have been cleaned. 80% of panels and grid have been replaced. 3 workers are underneath the main floor cutting out conduit. 1 worker is working underneath the decon room to grind down remaining mastic with a hand grinder attached to a HEPA vacuum. 1 worker is removing debris from the east window bank. 2 workers in the Student Lounge are wet wiping and HEPA vacuuming the ceiling to ensure they are clean for clearance. 13 workers observed in containment. 7 negative airs running on floor. In Room 327, the minor leak still appears to be active. Corey and MM is aware of the leak and working on investigation.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 12/13/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/13/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0850** Level 1: One worker is in the hallway outside Room 168 dismantling the metal drop in ceiling grid and putting the removed metal sections into a rolling bin. 1 worker is in the cleaning room HEPA vacuuming artwork from the 2nd floor Art Gallery. 1 worker is in the ECE wrapping custodial equipment in poly sheeting for disposal. 1 worker is in room 166A removing the ceiling tiles and bagging them for disposal.

Level 2: Two workers are in Room 284, 1 is on the mobile scaffolding cutting out HVAC ductwork with a Sawzall, 1 worker is on the ground wrapping the ductwork sections in poly sheeting. 2 workers are in Room 283 wrapping HVAC ductwork in poly sheeting. 2 workers are in the Mechanical Mezzanine cutting ductwork with a Sawzall. One MM employee going throughout the first and second floors to check on general work safety.

**0930** Level 3: Thirteen workers observed. 1 worker is burrito wrapping conduit cut from the subfloor in poly sheeting. 1 worker is wiping and HEPA vacuuming the ceilings in the student lounge. 4 workers are under the floor cutting conduit for disposal. 5 workers are replacing the grid for the server floor. 1 worker is bagging waste materials and the other is reorganizing cables and spider boxes to mitigate the frequency of circuits. MM on 3rd floor and noted light coming from gap across ceiling (of 284A). Dickson will seal gap before final detail cleaning.

**1030-1115** Workers break for lunch and return to work.

**1215** Level 1: Two workers are in Room 166A wrapping ceiling tiles in poly sheeting for disposal. 1 worker in the ECE wrapping HVAC ductwork in poly sheeting. 6 negative air machines are currently running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: Two workers are in the Mechanical Mezzanine cutting down HVAC ductwork and lowering the pieces into 283. 3 workers are in Room 283. 1 worker is cutting the pieces into smaller chunks for disposal, 2 are wrapping the pieces in poly sheeting. 1 worker is in the hallway between Rooms 284 and 283 on mobile scaffolding cutting down HVAC ductwork. 1 worker is in Room 266 fixing holes in the wraps before they are taken to the Art Gallery for loadout. 12 negative air machines are current running providing negative air pressure to the workspace. 3 negative air machines are running within the space being utilized as scrubbers.

Level 3: Twelve workers observed in containment. 2 workers are in the Student Lounge wiping and vacuuming the ceiling paneling to remove any remaining dust/debris. 1 worker is HEPA vacuuming up general dust and debris in the former restroom. 1 worker is burrito wrapping removed conduit from the subfloor. 2 workers are cutting removed conduit to a suitable size for removal and disposal. 3 workers are replacing the grid and floor panels of the server floor. 3 workers in the subfloor HEPA vacuuming dust and removing any remaining conduit.

**1350** Level 3: Four workers are HEPA vacuuming and wiping ceiling in 329 to remove any leftover dust/debris and material. 2 workers are in the Student Lounge cleaning the walls and ceiling. 4 workers are underneath the subfloor

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/13/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/13/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

continuing cleaning. 1 worker is covering a penetration in floor. 2 workers completing general housekeeping and organization of tools.

**1400** Level 1: Three workers on the first floor are doing general housekeeping in preparation for the end of the day.

Level 2: Eight workers are in Room 284 wrapping HVAC ductwork in poly sheeting and doing general housekeeping.

Good negative pressure is indicated on all floors of the Olympic South Building.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Most Workers off site for the day.

**1445** Three workers are loading supplies out from a pickup into the connex. PBS off site. Corey and MM still on site will lock doors and shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 12/13/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Mike Smith, Peter Stensland, Cameron Budnick	PBS Project No.: 40535.488	Date: 12/14/21	
	DES Project No.: 2021-192	Page 1 of 3	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 29			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Contents cleaning/disposal, load out			
Level 2: Demolish and load out HVAC in Mech Mezz			
Level 3: Continued cleaning throughout the level			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued load out via ECE. Level 2: Continued demolishing and load out of HVAC components in Mechanical Mezzanine also bag material and loadout in the Art Gallery. Level 3: Continue cleaning throughout the space.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0640** Level 1: One worker in the cleaning room wet wiping and HEPA vacuuming artwork. One worker is in the ECE wrapping office contents in poly sheeting for disposal.

Level 2: Two workers are inside of Room 283 doing general housekeeping and tidying up the area. 4 workers are in Room 284. 1 worker is going up the mobile scaffolding to begin removing HVAC ductwork, 1 worker is checking and swapping out the prefilters, 1 is spotting for the person on the mobile scaffolding, and the last worker is doing general housekeeping. 2 workers are in the Art Gallery spraying the insides of bags with a Hudson sprayer and sealing them for disposal.

**0710** Level 3: Two workers on the east wall wet wiping ceiling surfaces. 2 workers are wiping down and HEPA vacuuming the walls and ceilings in the Student Lounge. PBS noted use of airless sprayer to mitigate dust during loadout activities. 4 workers are under the subfloor HEPA vacuuming cleaning up dust and debris. 1 worker is taping and spraying down bags before they are removed from the containment. 9 workers observed in containment. 3 workers are outside of the containment assisting with loadout.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 12/14/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/14/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0820** Level 1: One worker operating the forklift to load out materials from the second floor skybridge. 1 worker inside of the cleaning room HEPA vacuuming and wet wiping artwork. 1 worker is in the ECE wrapping custodial equipment in poly sheeting for disposal. The equipment is wet before it is wrapped and then marked with an asbestos label.

Level 2: Three workers are in the Art Gallery doing loadout. 2 workers are in the Mechanical Mezzanine cutting down HVAC ductwork and lowering them down to Room 283 for bagging and disposal. 2 workers in Room 283 are being handed HVAC ductwork pieces and are stacking them to later be wrapped in poly sheeting. 3 workers in the hallway. 1 worker is spraying water with an airless sprayer, 1 worker is spotting /aiding in the lowering of cut HVAC ductwork, and 1 worker is on top of the mobile scaffolding cutting out the ductwork with a Sawzall.

**0930** Level 3: Three workers are wet wiping the ceiling in Rooms 328 & 329. 2 workers are wiping and HEPA vacuuming the ceilings in the Student Lounge. 4 workers are under the subfloor vacuuming up dust and debris. 1 worker is dusting poly sheeting over windows. 10 workers in containment + 1 MM employee doing walk through.

**0950** Level 1: One worker in the cleaning room wet wiping and HEPA vacuuming artwork. 1 worker is in the ECE wrapping custodial equipment in poly sheeting for disposal. 1 worker is in Room 181 laying down poly to begin the disposal of contents from Rooms 181-A and 181-A-2.

Level 2: One worker is in Room 266 dismantling plywood storage pieces; 3 workers are in the Art Gallery wrapping the furniture pieces and moving them to the skybridge loadout. 2 workers are in Room 284 stacking removed HVAC ductwork and wrapping it in poly sheeting. 3 workers are in the hallway between Rooms 283 and 284. 2 workers are on the mobile scaffolding cutting HVAC ductwork with a Sawzall, 1 worker is on the ground spotting to make sure nobody walks underneath or through the area, and 1 worker in Room 283 is spraying down the ductwork as it is being removed. 2 workers in the Mechanical Room cutting out sections of the HVAC ductwork with a Sawzall.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 3: One worker is laying poly sheeting over stored equipment for intermittent use on the floor. 2 workers in the Student Lounge are covering a neg air machine and wobble light in plastic. 1 worker is bagging assorted garbage and waste to be loaded out. 3 workers are working to cover all exposed equipment with poly to ensure minimal dust migration. 4 workers under the subfloor are vacuuming up dust and debris. 10 workers observed in containment.

**1220** Level 1: Two workers are bringing in more supplies into the clean room and are removing garbage. 1 worker is in the cleaning room wet wiping and HEPA vacuuming artwork. 2 workers are in the ECE bagging contents from Rooms 181-A and 181-A-2 for disposal (stools and various furniture pieces).

Level 2: One worker is in the Art Gallery wrapping wooden pieces in poly sheeting for disposal. 3 workers are in Room 283. 1 worker continues cutting the HVAC ductwork into smaller pieces, 1 worker is wrapping the pieces in poly sheeting, and

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 12/14/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/14/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

the other is spraying things down with an airless sprayer. 3 workers in the Mechanical Mezzanine are removing HVAC ductwork with Sawzalls. 2 workers are in the hallway doing general housekeeping.

**1330** PBS departs the site for a group meeting in Seattle. Dickson and MM remain on site and will secure the building and shut down the generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 12/14/21

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 12/15/21
		DES Project No.: 2021-192	
		Page 1 of 3	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 26			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Contents cleaning/disposal, load out			
Level 2: Demolish and load out HVAC in Mech Mezz.			
Level 3: Continued cleaning throughout the level.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued contents cleaning, disposal and load out via ECE. Level 2: Continued demolishing and load out of HVAC components in Mechanical Mezzanine also bag material and loadout in the Art Gallery. Level 3: Continue cleaning throughout the space.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Level 1: One worker is in the cleaning room wet wiping and HEPA vacuuming tables. 1 worker is in the ECE wrapping office furniture in poly sheeting and applying asbestos tags with adhesive spray.

Level 2: One worker is inside of the Art Gallery wiping down wrapped HVAC ductwork and attaching asbestos stickers. 1 worker is using a rolling tip bin to transport wrapped HVAC ductwork pieces to the Art Gallery and wheeling more poly rolls back into Rooms 283 and 284. 2 workers are in the Mechanical Mezzanine removing HVAC ductwork with Sawzalls. 2 workers are on mobile scaffolding outside of Room 283 removing fiberglass pipe insulation with razor knives. 1 worker is in Room 283 spraying down the work area with an airless sprayer.

**0700** Level 3: Two workers are organizing equipment and prepping materials for today's work. 2 workers are underneath the subfloor HEPA vacuuming dust and debris. 2 workers are staging scaffolding to reach the ceiling for wiping and HEPA vacuuming. 1 worker is in the Student Lounge HEPA vacuuming the west ceiling. 2 workers have started removing the plastic sheeting over the north windows to begin cleaning. Workers will remove plastic sheeting from one window bay at a time to clean behind dispose of blinds and then replace poly sheeting over window for visual barrier and to protect from encapsulant after final visual. 9 workers observed in containment.

**0720** Work area loadout continues with ACM bags/wraps being transported via the forklift bin to the Parking Lot A storage container.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/15/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/15/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0915** Level 1: One worker in the cleaning room is wet wiping and HEPA vacuuming desks. 1 worker is in Room 166 bagging art components from Room 266 for disposal.

Level 2: Two workers continue as noted in the Mechanical Mezzanine. 1 worker in Room 283 wrapping HVAC ductwork in Poly sheeting for disposal. 2 workers are in the hallway outside of Room 283 doing general housekeeping.

Level 3: Three workers are under the subfloor HEPA vacuuming dust/debris. 2 workers are in Room 327 picking up remaining garbage. 1 worker is in Room 329 wet wiping the ceiling/window intersection. 1 worker is placing a covering over a penetration in the floor in Room 328. 2 workers are at the entrance to the Student Lounge wet wiping and HEPA vacuuming the ceilings. 1 worker is doing the same on the northwest corner of the Student Lounge.

13 workers observed in third floor containment.

**1030-1115** Workers break for lunch and return to work.

**1300** Level 1: One worker is inside of the cleaning room wet wiping, HEPA vacuuming, and scraping off negative air cowling. 1 worker is in Room 181 removing contents from room 181-A-2. 6 negative air machines are currently running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: One worker is in the Mechanical Mezzanine doing housekeeping. One worker is in Room 283 stacking removed studs in the demolition pile. 2 workers are in the hallway outside of Room 283 – 1 worker is on the mobile scaffolding removing GWB walls and metal studs and 1 worker is on the ground spraying water with an airless sprayer. 1 supervisor is going throughout the area directing work efforts. 12 negative air machines are current running providing negative air pressure to the workspace. 4 negative air machines are running within the space being utilized as scrubbers.

Level 3: One worker is HEPA vacuuming the floor in Room 327 along the wall. 1 worker is bagging up Dickson waste and setting it aside for loadout. 1 worker is moving a small scaffold set to reach the ceiling pan to wipe the ceiling down. 2 workers are cleaning, section by section the west windows in the Student Lounge with HEPA vacuums and rags. 5 blinds have been removed. 1 worker is HEPA vacuuming the main floor of the Student Lounge. 3 workers are underneath the floor cleaning with wet rags and HEPA vacuums. PBS noted water spray underneath the floor to mitigate dust. 2 workers are prepping a poly sheeting wall in front of the Student Lounge in prep for a clearance in the future. 10 workers in containment.

**1345** Level 3: One worker is removing blinds from the north window in the Student Lounge and 1 worker is wiping and HEPA vacuuming windowsills on the south lounge window. 1 worker is cleaning ceiling just outside the student lounge poly sheeting barrier. 5 workers are wiping down the I-beams and structure under the subfloor in the southeast section of the level. 2 workers are organizing water supply hoses. 1 worker is laying out poly sheeting to be hung at the Student Lounge. 1 worker is doing housekeeping and organizing all gear.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/15/21



**PBS Environmental Field Observation Report  
Additional Page**

---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/15/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Good negative pressure is indicated on all floors of the Olympic South Building.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS off site. Doors locked. Corey and MM still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 12/15/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/16/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

4 workers are below in the supply plenum wet wiping and HEPA vacuuming the space. 1 worker is entering the containment as PBS is deconning out.

**0950** Level 1: One worker is in Room 182 drilling (destroying) hard drives. One worker in the cleaning room wet wiping and HEPA vacuuming tables. 1 worker in the ECE bringing in materials for disposal. 3 workers are in Room 284 wrapping demolished HVAC ductwork in poly sheeting.

**1010** Level 1: PBS is conducting visual inspections of contents in the cleaning room.

**1030-1115** Workers break for lunch and return to work.

**1202** Level 3: Five workers on ladders and scaffolding wet wiping and using HEPA vacuums to clean overhead beams and the underside of the metal roof deck on the north side of the building. 4 workers cleaning the southern portion (former Student Lounge) 2 workers are on scaffolding wet wiping and HEPA vacuuming overhead beams and the underside of the roof deck. 4 workers are below in the supply plenum wet wiping and HEPA vacuuming the space.

**1245** Level 1: Two workers are inside of Room 181 bagging contents for disposal from Room 181-A. 1 worker is in the cleaning room wet wiping and HEPA vacuuming wooden tables. 6 negative air machines are currently running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: Three workers are in Room 283 doing general housekeeping. 2 workers are in Room 284 wrapping conduit and HVAC ductwork for disposal. 2 workers are in Room 276 bagging conduit for disposal. 12 negative air machines are current running providing negative air pressure to the workspace. 4 negative air machines are running within the space being utilized as scrubbers.

**1330** Level 1: Two PBS workers are performing visual inspections and taking microvac samples from the cleaning room and adjacent clean room.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS off site. Doors locked. Corey and MM still on site will shut off generator.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 12/16/21

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Mike Smith, Peter Stensland, Cameron Budnick, Ferman Fletcher	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 12/17/21
Contractor on Site Personnel: Project Manager: Yes <b>No</b> Supervisor: Yes <b>No</b> Workers: <b>Yes</b> No Name: Corey Foust How Many? + 29 Air Monitoring Personnel on site: PBS/Dickson	Page 1 of 3 Time 0600 am Summary Phase Status: Prep backup power for shut off on 12/20/21 Contents cleaning/disposal, load out Level 2: Load out of staged wrapped materials Level 3: Continued cleaning throughout the level. Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Level 1: Continued contents cleaning, disposal and load out via ECE. Level 2: Continued loading out of previously bagged or wrapped demolished materials. Level 3: Continue final cleaning throughout the space. Exterior: prep backup power for negative air machines for power shut down 12/20/21

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0640** Three Dickson workers are loading supplies from a box truck on the southeast corner of the building into a forklift bin to load into the skybridge.

**0720** Level 1: From the demo of room 181A and 181A-2 yesterday, only the fume hood and a door remain. The rest of the contents has been brought to the ECE for bagging and loadout. 2 workers are in Room 168, 1 is planning out the schedule for the floor and the other is in the cleaning room wet wiping and HEPA vacuuming wooden tables. Most work has now shifted to the 3rd floor for detail cleaning.

Level 2: Three workers placing ACM bags into a clean bag and sealing them for loadout from the skybridge. All work on this level is focused on loading out.

Level 3: Three workers are in the main area wiping down pipe fixtures, ceiling paneling, and I-beams. 1 worker is assisting the ceiling crew. 1 worker with the assistance of a worker outside the work area are bringing scaffolding into containment. 5 workers are underneath the subfloor wiping down all surfaces. Workers in sub floor are working their way south and west as they progress. 3 workers are inside the Student Lounge enclosure preparing for a visual inspection. 2 workers are

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 12/17/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:12/17/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

on scaffolding on the east side of the lounge cleaning the ceiling. 1 worker is HEPA vacuuming along the edge of the room to remove dust.

**0815** Three workers carrying up additional scaffolding pieces from the forklift container to the level 3 containment. One worker setting up OWA air sampling on the sky bridge.

**0930** Level 1: Workers are switching off the main power connection to ensure the temp power connection will work for the scheduled outing next week. All building lights are turned off, Dickson's mobile lights and negative air machines are all still functioning as intended. 1 worker is going throughout the floor to inspect machinery and light distribution. 1 worker in the cleaning room wrapping artwork in poly sheeting to maintain its clean condition until testing.

Level 2: Two workers are in the art gallery checking burrito wraps for holes / cleanliness and fixing / cleaning them as needed before loading them out of the work area. 2 workers are outside containment brining the bagged ACM materials to the forklift bin through the skybridge window. All lights and negative air machines are functioning normally (while the secondary power to the building is running).

Level 3: PBS noted and advised the contractor re-clean small sections of I-beams underneath the subfloor. 5 workers are wiping underneath the main floor. 6 workers are wiping down the ceilings in the corner entrance hallway. 3 workers are in the Student Lounge - 2 are cleaning above the I-beam that used to separate the lounge from the rest of the floor. 1 worker is removing paneling along an HVAC duct. 1 worker is bagging removed conduit for loadout. 18 workers observed in containment. Contractor notified PBS of suspect black asphaltic material on old roof curbing underneath the subfloor that runs along the perimeter of the entire floor. PBS collected 3 samples of this material.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: One worker in the ECE removing light tubes from overhead fixtures. 1 worker is in Room 168 doing general housekeeping. 6 negative air machines are currently running providing negative air pressure to the workspace. 2 negative air machines are running within the space being utilized as scrubbers (air machines that are exhausted within the space to recycle the air instead of being exhausted outside the containment).

Level 2: Three workers are in Room 283. 1 is cutting the HVAC ductwork into smaller pieces with a Sawzall and 2 workers are wrapping the pieces in poly sheeting and attaching asbestos tags to the outsides of the burrito wraps. 1 worker is in the hallway near the rear Music Rooms brining in additional supplies. All staged ACM bags in the art gallery have been loaded out. 12 negative air machines are current running providing negative air pressure to the workspace. 4 negative air machines are running within the space being utilized as scrubbers.

**1215** Level 3: Four workers are outside containment running loadout. 1 worker is wetting the outside of waste bags Inside containment staged for removal and disposal. 3 workers are in the main section continue wiping down ceiling pans and I

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 12/17/21



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 12/17/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

beams. 3 workers are in the Student Lounge - 2 are pulling insulation from the boundary between the lounge and the rest of the level. The other worker is removing a duct from the west end of the lounge. 4 workers in the subfloor wiping down I beams and pan decking. 12 workers in containment.


**1245** PBS departs the site for a corporate meeting in the Seattle office. Dickson and MM remain on site and will secure building and shut down generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 12/17/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson <hr/> PBS Site Observer(s): Peter Stensland <hr/> Contractor on Site Personnel: Project Manager      Yes <b>No</b> Supervisor <b>Yes</b> No Workers <b>Yes</b> No    Name: Corey Foust How Many? +3 Air Monitoring Personnel on site: PBS/Dickson	Project Name: Olympic South Abatement & Repairs <hr/> PBS Project No.: 40535.488                              Date: 12/20/21 DES Project No.: 2021-192 <hr/> Page 1 of 2                              Time                              0615    am <hr/> Summary Phase Status: Activities associated with power shut down today. <hr/> Other Personnel on Site: MacDonald Miller (MM)
--	--

**WORK DESCRIPTION:** No abatement occurring today. Contractor on site for power shut down. Negative air machines switched to generator power for duration of shut down the put back on building power.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

**0615** Dickson workers are having their morning meeting to go over the plan for the day. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring outside of work areas including HEPA exhausted air.

**0700** Three workers and 1 MM worker setting up the temporary power for the building in the first-floor mechanical room. The workers are shortening one of the baloney cords to cut out the damaged section from the initial tests last Friday.

**0730** PBS sets up OWA air samples at exit points from the Olympic South containment (east side floors 1, 2, and 3, west side floors 2, and 3, and two roof exhaust HEPA samples.

**0800** Power to the Olympic South building is down. The building is successfully running off generator power.

**0830** PBS checks negative air machines on roof, all machines are running properly.

**0930** Level 1: Five exhausting negative air machines are running (machines not running still plugged into house power). Level 2: Six exhausting negative air machines are running; one negative air machine is scrubbing the air. All critical barriers at entry/exits pulling correct direction. Building is under negative pressure on backup power. All building exterior criticals are sealed.

**1030-1115** Workers break for lunch and return to work.

**1045** Dickson is getting a fuel delivery, one additional worker is on site to refuel.

**1130** The campus power has been restored. Dickson is going to wait thirty minutes until the time slot has fully passed to be on the safe side before switching back to house power.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
1 full 40 CY container (ACM bags and wraps) removed from site today	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland                              Date: 12/20/21

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date:12/20/21

---

Abatement Contractor: Dickson

PBS Observer: Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1155** One ACM waste trailer removed from site. One worker assisted the truck driver with the loading and paperwork.

**1200** Dickson is switching the power back to house power, there is one worker on the first and second floor, one worker on the third floor, one worker on the roof, and one worker at the generator to make sure everything gets switched over properly.

**1230** All negative air machines are running off building power.


**1245** Dickson off site.

**1320** PBS collects the air samples and leaves site. Doors locked, generator off.

Air samples collected 12/17/21 (indoor, outdoor and exhausted air) did not show concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date:12/20/2021

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland,		PBS Project No.: 40535.488	Date: 12/21/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 21			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Clean/Organize equipment.			
Level 2: Clean and prep for fireproofing removal.			
Level 3: Continued final cleaning.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Cleaning and organizing equipment in Room 168. Level 2: Clean and prep for fireproofing removal. Level 3: Continued final cleaning throughout the space.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0645** Level 3: Corey communicating with floor lead about work procedures occurring on the floor. 11 workers are continuing with detail cleaning working north to south toward the negative air machines.

**0700** Dickson is changing out the prefilters on the negative air machines located on the roof. 1 additional worker on site goes to Level 3 to continue with cleaning efforts in progress.

**0720** Level 2: PBS initiates work area air sampling while checking the negative air machines and observing the work practices in progress. 2 workers near Room 283A are organizing tools and doing general housekeeping. 1 worker is in the art gallery unloading ACM bags. 2 workers are in Room 284 - 1 is bagging poly sheet drop cloths and the other is doing general housekeeping.

**0830** Level 3: PBS enter level 3 containment. Fourteen workers in containment. 6 workers are in second grid line wet wiping and HEPA vacuuming ceiling components. 2 workers are in the Student Lounge HEPA vacuuming and wet wiping east ceiling beam. Six workers are in the floor plenum wet wiping, HEPA vacuuming and using a wax-based floor sweeping compound that attracts and adheres dust for cleaning and collection.

**0845** One worker outside containment assisting by bringing supplies to containments as needed. Worker drops off handheld brushes to Level 3.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 12/21/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/21/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 3: Two workers in Student Lounge cover upper portion of windows with poly sheeting to serve as visual barriers.

**0915** Level 3: Two workers gather scaffolding equipment not in use and stack to be cleaned for load out. Floor lead wetting ladders with the airless sprayer then wiping them to be loaded out. PBS checks ladders and determines cleaning satisfactory. 4 workers continue in second grid line. 2 workers continue as previously noted in the Student Lounge. 4 workers continue cleaning efforts in the floor plenum. Corey and Todd enter the containment to check work progress. Poly sheeting separating student lounge from the rest of the work area will be replaced to isolate the floor gap (leading to the space below the skybridge) to the main containment.

**0945** Level 1: One worker inside of Room 168 getting equipment / organizing.

Level 2: Four workers are inside of Room 284 – 1 worker is changing out the prefilters on the negative air machines and 3 workers are laying poly sheeting down on the floor and on the walls in preparation for fireproofing removal.

**1000** PBS exits the Level 3 containment.

**1030-1115** Workers break for lunch and return to work.

**1245** Level 2: One worker in the Art gallery doing general housekeeping tasks.

**1300** One worker assisting from exterior of containment loading equipment off Level 3 to Levels 1 and 2. One worker on Level 3 exits containment to help.

Level 3: Five workers around the student lounge area wet wiping and HEPA vacuuming the fire system piping. 5 workers are along the north side of the building moving mobile scaffolding and wet wiping and HEPA vacuuming the I-beams. 2 workers are erecting scaffolding on the southeast corner of the building, 2 more workers enter containment and assist with cleaning in progress.

**1330** Level 3: Two workers east of Student Lounge on scaffolding. Two workers are in the previous northwest classroom area. 2 workers are in the previous north center classroom. 2 workers are in the previous northeast classroom area. Corey + 1 worker are setting up scaffolding in southeast area. 2 leads are assisting crew from floor.

**1350** One worker exits first/second floor containment.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS off site. Corey and MM still on site will lock doors and shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 12/21/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date:12/22/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1230** One worker is bringing extension cords and supplies from the storage connex in Parking Lot A to level 3. Dickson fuel truck on site to fill generators and tank for heater.

**1315** Level 3: One worker is HEPA vacuuming the previous restroom location piping. 1 worker is organizing materials throughout the floor. 3 workers are on the northeast corner of the building HEPA vacuuming and wet wiping the wall studs. 6 workers are along the north side of the building wet wiping and HEPA vacuuming the I beams / metal studs. 1 worker is along the east side of the building wet wiping I beams on mobile scaffolding. 5 workers below in the supply plenum wet wiping and HEPA vacuuming concentrated on the north side of the building.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

---

Name: Claire Tsai

Date: 12/22/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 12/23/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Levels 1 and 2: No work occurring.			
Level 3: Continue final cleaning, PBS visual inspection of Student Lounge.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continued final cleaning, PBS inspection of Student Lounge.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0715** Level 3: Three workers are loading out. 1 worker outside containment carrying ACM bags to a worker on the stairs who puts the ACM bag into the forklift bin. 1 worker is operating the forklift and drives it to the parking lot.

**0740** Level 3: Three workers are wet wiping and HEPA vacuuming the I beams / pan decking along the northwest side of the building. 4 workers along the north side of the building, three are wet wiping and HEPA vacuuming wall studs and I beams. 1 worker is wrapping conduit for disposal in poly sheeting. 5 workers centrally located, 2 are hanging additional lighting, 1 is managing the load out, and 2 are on mobile scaffolds wet wiping and HEPA vacuuming I beams / pan decking. 5 workers below in the supply plenum wet wiping and HEPA vacuuming the I beams and floor on the north side of the building. Dickson has now placed sticky mats at the entrances to the supply plenum to reduce dust transfer between the work areas. PBS sets up an IWA air sample and confirms that both negative air machines exhausting out of the west facing window are functioning properly.

**1030-1115** Workers break for lunch and return to work.

**1145** Level 3: Three workers are vacuuming along the divider between the student lounge and rest of the work area. 1 worker is inside the Student Lounge installing access zippers. 5 workers are along the north side of the building wiping down I beams and HEPA vacuuming the floor. 6 workers below the floor in the supply plenum HEPA vacuuming PBS collects the IWA air sample.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Levels 3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 12/23/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/23/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1230** Workers finish the construction of the poly barrier between the Student Lounge and the rest of the floor. Poly barrier in place to isolate the student lounge from the remainder of the work area to be cleared separately. PBS conducts visual inspection of student lounge with Corey and floor lead.

**1330** Level 3: Five workers in the Student Lounge are doing final detail cleaning. 9 workers are on the north half of the building wiping down I beams and pan decking on mobile scaffolding. 6 workers are below the floor in the supply plenum HEPA vacuuming. PBS continues with the visual inspection of the student lounge.

**1345** PBS note areas in need of additional cleaning some including window framing, floor mastic near base of mini enclosure to Olympic North, fire sprinkler heads, metal wall framing. PBS visual inspection complete. Workers start cleaning items pointed out during visual. Corey will let PBS know when lounge is ready for second visual inspection.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS off site. Doors locked. Corey still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 12/23/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland,		PBS Project No.: 40535.488	Date: 12/28/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +16			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Levels 1 and 2: No work occurring.			
Level 3: Continue final cleaning, PBS visual inspection of Student Lounge.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continue final cleaning, PBS inspection of Student Lounge (Satisfactory).

Reroute heat to heat Level 3 more efficiently.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods, manual removal, saws, HEPA vacuuming

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Fourteen workers and 1 MM worker are clearing the snow off pathways with shovels around the site and salting them.

**0745** Level 3: Three workers are in the Student Lounge. 1 worker is wet wiping down water drainage pipes, 1 worker is cleaning out a wall cavity with goo off and a wet rag, and the third worker is wet wiping the tops of metal framing. 4 workers on mobile scaffolding are wet wiping and HEPA vacuuming the I beams and pan decking on the north side of the building. 2 workers are wet wiping and HEPA vacuuming metal wall studs along the north end of the building. 2 workers are wet wiping and HEPA vacuuming along the top of the eastern wall. 5 workers are below in the supply plenum wet wiping and HEPA vacuuming the floor and I beams along the north side of the building. 2 negative air machines are running in the space (exhausted to the exterior) and 9 negative air machines are on the roof drawing from Level 3, also exhausted to the exterior.

**0845** PBS conducts an onsite staff safety meeting. Items discussed included but were not limited to the abundance of snow/ice – using care when walking/driving and being careful while accessing and moving around the roof.


**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 3	Olympic South Levels 2/3

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 12/28/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 12/28/21

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1130** One worker enters the Level 1 and 2 containments to vent heated air to level 3.

**1200** Level 3: PBS conducts second visual inspection with Corey and floor lead in the Student Lounge. Workers available to spot clean as needed.

**1245** Level 3: Four workers, Corey, Dan (MM) and PBS are in the Student Lounge continuing visual inspection. 1 worker is scraping residual mastic along the wall by the Olympic N exit, 1 worker is HEPA vacuuming the I beams on a ladder. 1 worker is on mobile scaffolding wet wiping and HEPA vacuuming the I beams along the north windows. In the main work area, 8 workers are on the north half of the floor - 5 are on mobile scaffolding wet wiping and HEPA vacuuming the I beams, pans decking, and sprinkler system. The 3 workers not on mobile scaffolding are wet wiping and stacking the server floor panels onto pallets.

**1345** PBS collects the air samples from inside and outside of the work areas in preparation for the end of the day. Dan (MM) exits level 3 containment.

**1350** Student lounge visual inspection for cleaning satisfactory. PBS will walk through once more to confirm finishes (window frames, sprinkler heads, etc.) are protected before encapsulant is applied.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. 1 Sunbelt rentals worker on site to do maintenance on the generator.

**1500** PBS departs the site. Corey and MM will shut down generators and secure building.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 12/28/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 12/29/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Levels 1 and 2: No work occurring.			
Level 3: Continue final cleaning, Dickson encapsulation of Student Lounge.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continue final cleaning, Dickson encapsulation of Student Lounge.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods, manual, saws, HEPA vacuuming

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0730** Level 3: Three workers are in the Student Lounge - 2 are taping poly sheeting over the windows in preparation for encapsulating and 1 worker is preparing the encapsulant bucket for spraying. 1 worker is along the north wall HEPA vacuuming the metal wall studs. 2 workers are along the east wall on mobile scaffolding HEPA vacuuming and wet wiping I beams and pan decking. 4 workers are in the center of the floor wet wiping between the I beams and pan decking. 3 workers are along the west wall on mobile scaffolding - 2 are removing GWB ceiling from along the window with a Sawzall and 1 worker is grabbing more rags and tools for cleaning. 5 workers below in the supply plenum continue with wet wiping and HEPA vacuuming I beams on the north half of the building. Two worker assisting from outside containment bringing rags and material to Level 3.

**0810** The encapsulate is too cold and is not the right consistency to be sprayed yet, the workers are heating it up with a portable heating unit.

**0900** Level 3: One worker is in the Student Lounge preparing the airless sprayer to encapsulate the area. 3 workers are on the north side of the building organizing tools and doing general housekeeping. 2 workers are stacking server panels onto pallets. 5 workers are in the center of the building wet wiping the pans decking / I beams / water lines. 5 workers below in the supply plenum continue wet wiping and HEPA vacuuming I beams on the north half of the building. Both negative air machines exhausting out of the west side are functioning properly. The one scrubbing negative air is sealed and not

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Building Level 3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 12/29/21

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:12/29/21
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

running. One worker outside containment general housekeeping of stairwell, one worker bringing materials to level 3 as needed.

**0940** Floor lead in student lounge spraying encapsulant with airless sprayer. PBS has confirmed finishes to be protected have been covered.

**1000** Two workers enter student lounge to assist with encapsulation. One worker takes over spraying encapsulant one worker available to assist with ladder. Floor lead in area documenting work with photos.

**1030-1115** Workers break for lunch and return to work.

**1157** Two workers in Parking lot A area spreading salt for de-icing.

**1220** Three workers are bringing in supplies to the Level 3 containment.

**1245** Level 3: One worker in the Student Lounge spraying encapsulant on the western wall. In the main containment 5 workers are in the center of the floor wet wiping and HEPA vacuuming the pan decking and I beams. 2 workers are along the north side of the building wrapping demolished metal studs in poly sheeting for disposal (the studs are sprayed with water before being bagged / wrapped). 6 workers below in the supply plenum on the north half of the building continue wet wiping and HEPA vacuuming the I beams. 2 negative air machines are running in the space (exhausted to the exterior) and 9 negative air machines are on the roof drawing from Level 3, also exhausted to the exterior.

**1400** PBS collects inside and outside air samples throughout the work site.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS departs the site. Doors locked. Corey will shut down generators.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 12/29/21



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date:12/30/21

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1225** PBS collects clearance samples associated with student lounge.

**1245** One PBS worker moves contents from sampled materials to connex for storage. Then PBS continues inventory work on level 1 contents.

**1340** Level 3: Nine workers observed in 3rd floor. 4 workers are spread across the floor cleaning the ceiling by wetting, wiping with rags, and HEPA vacuuming. 1 worker is HEPA vacuuming the floor around the north walls, 1 worker is spraying down sections of the ceiling to mitigate dust. 1 worker continues cleaning under the east wall with rags and HEPA vacuums. 2 workers are doing housekeeping and organizing and moving equipment. One worker outside containment loading supplies in as needed.

**1400** PBS collects inside and outside air samples throughout the work site.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS departs the site. Doors locked. Dan MM shutting down generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai

Date: 12/30/21

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland		PBS Project No.: 40535.488	Date: 12/31/21
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 18		Summary Phase Status: Levels 1 and 2: No work occurring.	
Air Monitoring Personnel on site: PBS/Dickson		Level 3: Continue final cleaning, Student Lounge is separated by poly sheeting from other work areas.	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continue final cleaning. The Student Lounge remains isolated and closed from the rest of the level 3 work area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual, saws, HEPA vacuuming

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** Level 3: One worker is on the north wall wet wiping and HEPA vacuuming the wall cavity between metal studs. 5 workers in the middle of the floor wet wiping and HEPA vacuuming pan decking and I beams, workers are also utilizing wire brushes and steel wool to scrape off adhesives and other residues. 1 worker is going throughout the floor bagging insulation and other general debris for disposal. 2 workers are in the southeast corner of the room fixing the hanging poly sheeting along the windows. 5 workers are below in the supply plenum wet wiping and HEPA vacuuming throughout the northwest side of the building. 1 worker assisting with supplies outside containment.

**0930** Level 3: One worker is wet wiping and HEPA vacuuming the wall cavity between metal studs along the north wall. 5 workers along the east wall, 3 are on mobile scaffolding, all are wet wiping and HEPA vacuuming the metal studs, I beams, and pan decking. The workers are also utilizing wire brushes to remove adhesives from the surface. 3 workers are on the south side of the building are on mobile scaffolding wet wiping and HEPA vacuuming the water pipes, pan decking and I beams. 2 workers are in the southeast corner securing poly sheeting to the window after removing remaining GWB wall and fiberglass insulation. 1 worker is bringing in supplies from outside of the containment. Five workers in the supply plenum around the center of the floor wet wiping and HEPA vacuuming the space. Both negative air machines exhausting

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Level 3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 12/31/21



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:12/31/21
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

out of the west side of the building are running properly. The student lounge remains isolated with strong negative air pressure.

**1030-1115** Workers break for lunch and return to work.

**1155** Two workers refilling the fuel tanks for the generator and heater.

**1230** Level 3: One worker is removing the poly sheet covering and wiping down the outside of the old electrical panels. 3 workers are along the eastern wall wet wiping and HEPA vacuuming the I beams and pan decking. 2 workers are going throughout the floor collecting dirty rag bags, spraying them with water and sealing them for disposal. 1 worker on the west side of the containment on mobile scaffolding wet wiping between the I beams and the pan decking. 4 workers are below in the supply plenum wet wiping and HEPA vacuuming the I beams.

**1330** Work efforts continue as noted.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** PBS and the workers off site for the day. Corey still on site and will shut down generators and secure building.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date:12/31/21

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson

PBS Site Observer(s): Claire Tsai, Kaitlin Soukup

Contractor on Site Personnel:

Project Manager	Yes	No	Supervisor	Yes	No
Workers	Yes	No	Name: Corey Foust		
How Many? + 22					

Air Monitoring Personnel on site: PBS/Dickson

Project Name: Olympic South Abatement & Repairs

PBS Project No.: 40535.488  
DES Project No.: 2021-192

Date: 1/3/22

Page 1 of 2                      Time                      0600                      am

Summary Phase Status: Levels 1 and 2: No work occurring.  
Level 3: Continue final cleaning, Student Lounge is separated by poly sheeting from other work areas.

Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continue final cleaning. The Student Lounge remains isolated and closed from the rest of the level 3 work area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0715** PBS on site. Corey F not on site yet due to snow. Other Dickson supervisors are present on site. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0720** Dickson is using their Forklift in parking lot A to transfer waste bags to the storage/disposal container. 1 operator and one spotter. Three workers in stairwell outside of containment loading out waste bags via skybridge to forklift.

**0800** PBS set up daily air samples around site.

**0830** Level 3: Two workers are suiting up to enter containment one worker is exiting the containment. 13 workers observed in the main floor of containment and six workers observed below the floor. 1 worker is documenting work in area. 1 worker doing preliminary visual inspection of areas cleaned - worker marks areas in need of further cleaning with duct tape. One worker is wet wiping remaining restroom framing associated with plumbing. 5 workers wet wiping and HEPA vacuuming ceiling components in south area of containment. 1 worker is building fall protection railing with 2" x 4"s in the south area near server floor ledge. 1 worker is assisting from outside of the containment with worker personal pumps and bring supplies to containment as needed. Gypsum and insulation near east and west windows in the south containment area has been removed.

**0900** Dickson fuel truck on site filling up generators.

**0910** Rick MM enter Level 3 containment for a walk-through.

**1015** Two Dickson workers clean up small fuel spill near generator from refill.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Level 3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai                      Date: 1/3/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/3/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1115** Corey on site.

**1200** Level 3: PBS enters containment. 1 worker on scaffolding cleaning roof decking and beams at north area above windows (previously had tape marking areas needing additional cleaning), 1 worker is at the southwest side of the floor above windows, 2 workers are at the south area above server room floor, 2 workers are at the southeast side of the floor. 2 workers are cleaning the southeast windows (under poly). 2 workers at plumbing connections at west center (south of student lounge entrance). 1 worker exits space under floor.

PBS enters Level 3 student lounge to collect surface dust samples as part of final clearance in addition to the aggressive air samples collected.

**1210** Level 3: Floor lead in containment shuffling workers around. One worker re-entering space under floor.

**1215** Level 3: Currently three total workers in space under floor.

**1350** Level 3: PBS enters containment. 1 worker is dressing to re-enter containment. 1 worker cleaning plumbing using a HEPA vacuum south of student lounge entrance. 2 workers are on scaffolding at the southwest side of the floor above server room floor wiping roof decking and components at ceiling. 2 workers are on scaffolding on the southeast side of the floor wiping roof decking and components at ceiling height. 1 worker is on the southeast side of the floor cleaning the floor and wall cavities that were previously below server floor. 5 workers observed in the space below the floor.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1450** PBS off site. Doors locked. Dan and Corey still on site will shut off generator

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/3/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s) Mike Smith, Cameron Budnick		PBS Project No.: 40535.488	Date: 1/4/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 19			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Levels 1 and 2: No work occurring.			
Level 3: Continue final cleaning, Student Lounge has passed clearance and is separated by poly sheeting from other work areas.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continue final cleaning. Having passed air clearance sampling, The Student Lounge has passed clearance and remains isolated and closed from the rest of the level 3 work area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** Level 3: One worker is HEPA vacuuming along cracks and the studs in the former electrical room. 1 worker is inspecting the electrical paneling. 2 workers along the west wall are cleaning with wet rags and HEPA vacuums along the edge of the windows and the ceiling, as well as nearby I-beams. 2 workers are moving equipment to clean the ceiling in the SW section of the floor. 4 workers are setting up scaffolding along the SE corner of the floor with one worker just to the west wet wiping the ceiling pan decking. 1 worker replacing small section of server floor paneling. 1 worker is under the server floor in the north-central portion. 4 more workers are further south and East, wet wiping and HEPA vacuuming. 17 workers observed in containment.

**0830** Corey F advised that north grid line (Level 3) sub-floor are ready for inspection. He anticipates several more to be complete by the end of the day.

**0930** Level 3: One worker HEPA vacuuming general work area to keep down dust. 2 workers are wiping down the south most I-beam running east-west. 2 workers are wet wiping and HEPA vacuuming the windowsills along the east wall after pulling back the poly sheeting. 1 worker against the south wall is wet wiping the I beams and fire systems plumbing. 2 workers on scaffolding against the west wall wiping along the top of the windows with wet wiping and HEPA vacuums. 2 workers on the floor wiping the lower section of the same windows. 5 workers are underneath the floor continuing

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 3	Olympic South Level 3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 1/4/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/4/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

cleaning efforts. 4 workers are on the west portion of the subfloor and 1 cleaning along the perimeter of the east side. 1 additional worker entered containment while PBS was inside. 1 worker entered subfloor west area. 17 workers observed.

**1030-1115** Workers break for lunch and return to work.

**1140** Level 3: Three workers are HEPA vacuuming/wet wiping windowsills along the west wall of the third floor, 1 worker is on scaffolding cleaning the upper portions. 1 worker is along the south wall cleaning the roof pan decking. 2 workers remain in the middle of the server floor cleaning the ceiling pan decking. 2 workers are on the east window wall removing drywall and any remaining insulation. 8 workers are cleaning the same areas underneath the floor. 17 workers observed.

**1250** Level 3: Two workers discussing window cleaning plans. 2 workers are cleaning the upper windowsill on the east window bank. 3 workers are on scaffolding in the central server floor cleaning the studs and roof decking. 2 workers are behind the poly sheeting on the west window bank cleaning the sills and removing any fugitive dust and debris. 1 worker is on scaffolding along the west window bank cleaning the upper sills. 6 workers are underneath the floor cleaning the primarily west side of the subfloor. 16 workers observed on the floor.

**1345** Level 3: Sixteen workers observed. 6 workers are working under the floor, primarily on the west side of the floor. 2 workers are behind poly sheeting along the West Bank of windows, cleaning sills. 1 worker is on scaffolding on the same side, cleaning the upper sills. 3 workers are in the central server floor wiping down ceiling pans and I beams. 2 workers are on scaffolding along the east window bank, cleaning sills. 2 workers are HEPA vacuuming General floor areas and along the former electrical room. Work is generally continuing as noted from the last observation.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1450** PBS off site. Doors locked. Dan and Corey still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 1/4/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Gregg Middaugh		PBS Project No.: 40535.488	Date: 1/5/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +20			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Levels 1 and 2: No work occurring.			
Level 3: Continue final cleaning, Student Lounge remains separated by poly sheeting from other work areas.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continue final cleaning. Having passed air clearance sampling, the Student Lounge remains isolated and closed from the rest of the level 3 work area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat.

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0830** Level 3: PBS walks through the floor with Corey. Corey has noted areas in need of touching up in the north grid section. 12 workers plus Cory are on the main floor, 9 workers are in the south grid section. 3 workers are in the north section touching up areas noted by Corey during his visual. 9 workers are in sub floor - spread out wet wiping and HEPA vacuuming components. PBS walks with Corey through north grid section and note areas in need of more cleaning. Corey will notify PBS when items have been addressed and area is ready for visual inspection.

**0949** Level 3: Five workers are on mobile scaffolding using HEPA vacuums and wet wiping to remove dust. 2 workers are moving and handling equipment. 3 workers are at the hatch opening to the plenum to lower down equipment. Work below sub floor continues as before.

**1000** PBS project manager Gregg M on site for walk through.

**1030-1115** Workers break for lunch and return to work.

**1215** Level 3: PBS walks through student lounge with Dan (MM) – The area remains isolated from active work areas.

Level 3 main containment: Four workers are using the mobile scaffolding on server floor wet wiping and HEPA vacuuming to remove dust from ceiling components. There are 5 workers on the northeast side of the floor using HEPA vacuums to remove dust from aluminum window frames.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Level 3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 1/5/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/5/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1253** Level 3: Five workers are on the west side of the floor, on scaffolds or ladders, along with damp rags and HEPA vacuums cleaning hard to reach horizontal surfaces. There are 6 workers at various locations on the floor detail cleaning sidings, floor vents, and hatch. Other workers continue wet wiping and HEPA vacuuming inside the supply plenum.

**1300** Level 3: PBS walk through north grid section with Corey and floor lead, two workers available to clean items as noted during visual inspection. PBS inspect below floor and workers touch up as needed. Gypsum wallboard found at east wall near stairwell area. PBS requests worker to remove wallboard to view behind. Wall cavity is open to the west wall cavity of the stairwell. PBS collect microvac sample from I-beam in cavity.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1520** PBS, Corey and MM off site. Doors locked, generator is off.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/5/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Gregg Middaugh	PBS Project No.: 40535.488 DES Project No.: 2021-192
Contractor on Site Personnel:	Date: 1/6/22
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	Page 1 of 2 Time 0600 am
Workers <b>Yes</b> No Name: Corey Foust	Summary Phase Status: Levels 1 and 2: No work occurring.
How Many? + 22	Level 3: Continue final cleaning, Student Lounge remains separated and areas that had server floor panels will be isolated.
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Levels 1 and 2: No work occurring. Level 3: Continue final cleaning. Dickson isolating areas that have server floor panels. Having passed air clearance sampling, The Student Lounge remains isolated and closed from the rest of the level 3 work area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0800** PBS on site. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas.

**0900** Level 3: Two workers HEPA vacuuming and wet wiping the wall studs on the north wall (north grid). 6 workers are in the sub floor work area continuing with final cleaning. 6 workers in south area are on the mobile scaffolding, cleaning horizontal surfaces on structural I-Beams. 2 workers are detailing floor vents and metal server floor panels.

**0900-1040** Meeting on site with John, Dan (MM), Todd, Corey (Dickson), Gregg and Claire (PBS) to review overall project schedule.

**1030-1115** Workers break for lunch and return to work.

**1115** Dickson crew is back from lunch break and are gathered on Level 3.

**1130** PBS enters level 3 for visual inspection of north grid sections. Corey and Todd in containment. 12 workers are dismantling scaffolding and doing general housekeeping - cords are being wound up and, equipment and materials are being gathered into one area. Remaining workers touch up punch list items pointed out by PBS during visual inspection. Completion of noted deficiencies will likely occur tomorrow at some point. PBS will recheck the area when Dickson has indicated that the requested items have been completed. Two Dickson workers are using a Sawzall to make an opening for PBS to take microvac samples of gypsum wallboard at the north perimeter wall at corrugated metal pan decking between windows and I-beam.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Level 3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 1/6/22



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/6/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1240** Level 3: PBS collects 3 microvac samples in the previously noted area. 6 workers are doing general housekeeping and hanging poly sheeting on the southeast side of the floor to isolate the portions of the level that had raised metal floor paneling.

**1300** Level 3: Two workers are using poly sheeting as a drop sheet to lay dismantled scaffolding pieces on top. 1 worker is installing filters for the poly sheet wall that separates the work area from the student lounge for more make up air into the space. There are 5 workers doing general housekeeping. 2 workers are using HEPA vacuums and damp rags to detail hard to reach surfaces.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1400-1500** PBS attends the weekly construction meeting with the project team.

**1520** PBS off site. Doors locked. Dan and Corey still on site will shut off generator

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/6/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen		PBS Project No.: 40535.488	Date: 1/7/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0800 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +21			
Air Monitoring Personnel on site: PBS/Dickson		Summary Phase Status: Level 1: Load in Equipment.	
		Level 2: Cut GWB. Level 3: final cleaning continues	
		MM capping water systems LV 1-3	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level: 1 MM capping water systems. Level 2: Cutting GWB, MM capping water systems. Level 3: Continue final cleaning. Areas that have server floor panels now isolated. The Student Lounge remains isolated. MM capping water systems

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0800** PBS arrives on site and walks the building exteriors and notes a couple of negative air machines that don't look like they are running. Discuss machines with Corey, Corey will investigate – potential for breakers to have tripped. Dickson workers outside containment are loading ACM bags/wraps from level 3 into the forklift bin (via the Level 2 skybridge) to be transported to the waste container in Parking Lot A. Dickson is also removing cleaned scaffolding from Level 3 and staging it to be used in other areas. Corey advises no ACM container is scheduled for pick up today. Prior to PBS' arrival this morning, an MM employee was on Levels 1-3 capping plumbing lines for sinks and restrooms. 3 sinks on Level 2 remain active for Dickson's water usage.

**0900** Level 3: There are approximately 12 workers inside the work area. 7 of 12 workers are doing general housekeeping to move equipment out not in use. 2 workers are in the clean room loading out ACM waste bags. 3 workers are using tape to isolate space below the student lounge from the rest of the plenum crawlspace.

**0945** Level 3: Five workers observed in the plenum crawlspace on the 3rd floor. All workers are using HEPA vacuums and wet wiping to remove dust from horizontal surfaces, such as I-beams, water lines.

**0930** Dickson continues loading out ACM bags/wraps one operator, one spotter being used enroute as safety measures. MM resecuring visual fence with zip ties in parking lot A.

**1030-1115** Workers break for lunch and return to work. One worker off site for the day.


**1115** Level 1: Two workers are on the level, loading in equipment and demarcating work areas.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 1/7/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/7/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

Level 2: Two workers on the level. 2 of the workers are using Sawzalls and HEPA vacuums to cut gypsum walls to create doorways across room O369 and O370. Workers are also precutting the gypsum wallboard for removal.

**1215** Corey communicated workers on level 3 are still working on items pointed out during PBS visual from 1/6. Dickson anticipates being ready for another visual Monday 1/10.

**1245** Level 3: One worker housekeeping in clean room. PBS enter level 3 containment; 4 workers are in the southwest floor plenum. 2 workers are in the east plenum section, 6 workers are above floor, 1 in south section sealing gaps in pan decking above I beams, 2 vacuuming floor, and 3 workers are cleaning gap in floor near student lounge. Dickson has added three negative air machines (NA16 and NA24) at the south end of the floor plenum pulling from the floor space. The exhaust of these negative air machines are leading toward the main negative air at the roof.

**1330** One worker housekeeping in level 3 clean room continuing into stairwell.

**1340** Two workers and Corey go to roof to investigate negative air machine covers and touch up as needed. Workers secure negative air machine shelters to AHU caps with rope due to strong wind on roof.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1420** PBS communicate to Corey that floor grills on level 3 need to be protected while Dickson is encapsulating work area.

**1440** Corey and MM off site. Doors are locked.


**1520** PBS shut off generator and leave site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith Date: 1/7/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/10/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0700 am
Contractor on Site Personnel:		Summary Phase Status: Level 1: Water cleanup. Level 2: GWB	
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	Demolition, prep for fireproofing removal. Level 3: Continued
How Many? +24			final cleaning.
Air Monitoring Personnel on site: PBS/Dickson			Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Level 1: Cleanup water near ECE. Level 2: Gypsum wallboard demolition, prep for fireproofing removal. MM plumber cap water pipe. Level 3: Continued Final cleaning throughout level and subfloor areas.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0730** One worker by ECE clean room, moving equipment around.

**0800** One worker in the Level 1 clean room, suiting up in Tyvek and half face respirator to enter the enclosure.

**0830** Level 3: Two workers are suiting-up to enter the enclosure. 2 workers are the using tape to double bag ACM wastes. 2 workers at the server floor where Room O323 was previously located, cleaning with HEPA vacuums. 5 workers are in the plenum crawlspace, using wet rags and HEPA vacuums for dust removal. Negative air machines #14, 26 and 28 are turned on and in use for the plenum crawl space. These machines are being exhausted to the exterior through the roof.

**0835** Level 1: PBS enters the containment. One worker cleaning up water from pipe cut on Level 2 during wall demo. Water has been shut off and MM Plumber will be capping the pipe. The water is in ECE hallway. This area has had contents removed previously.

**0900** Level 3: PBS observers on site are visually inspecting surfaces for any remaining dust or debris in the upper floor work area. PBS note areas in need of additional cleaning with tape. Dickson workers in area spot clean items marked by PBS as visual continues.

Level 2: Five workers are performing gypsum wallboard demolition in Room 271. 5 workers are performing gypsum wallboard demolition in Rooms 281 and 282.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 1/10/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/10/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

- 1030-1115** Workers break for lunch and return to work.
- 1047** PBS enter Level 1 containment with Corey F. Meet Rick and MM plumber on Level 2. Water has been shut off. Plumber on site to cap plumbing line that was cut during wall demo. Impacted pipe is between Rooms 270 and 271 where sinks used to be. 1 straight run of pipe removed; each end point capped. PBS walk through Levels 1 and 2 marking additional contents approved for disposal.
- 1150** Level 2: One worker loads up shower to fireproofing removal area Rooms 283/284. 1 worker is rolling tip bin to Art Gallery from Room 270 staging waste bags for load out. 4 workers in Rooms 270 load tip bin with bagged gypsum wallboard and wall insulation. 3 workers are in south hallway bagging wallboard debris and insulation. 4 workers are in Room 283 prepping area for fireproofing removal. 2 workers are on ladders hanging poly sheeting on the north wall, 2 workers are hanging poly sheeting on east wall one on top scaffolding 1 assisting from the ground. 1 MM plumber in area to cap plumbing line. 12 observed in level plus MM plumber.
- 1210** Forklift driver moving supplies from connex to ECE drive through. 1 worker in parking lot. Le May on site swapping dumpster for empty container.
- 1223** Level 3: PBS observers continue to visually inspect surfaces – now checking sprinkler systems and overhead pipes.
- 1300** Level 3: One worker exits containment for the day. 5 workers are under the floor, 3 workers are wrapping floor grills to protect from encapsulant. 1 worker is removing insulation found above south windows on east and west walls. PBS finds sprinkler systems are clean. Level 3 visual generally satisfactory, workers have small punch list of items to touch up above the floor.
- 1330** One worker is collecting worker personal air samples and bringing them to Dickson trailer.
- 1354** Level 2: Ten workers continue with gypsum wallboard demolition as previously noted and cleaning up demolition debris. All demolition is being put into ACM bags.
- 1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.
- 1430** Workers off site for the day. PBS leaving site. Doors locked Corey and MM still on site will shut off generator.
- Good negative pressure is indicated on all floors of the Olympic South Building.
- PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/10/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/11/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0700 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 23 (One left early)			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: No work occurring. Level 2: GWB Demolition, prep for fireproofing removal. Level 3: Continued final cleaning. PBS inspect select subfloor areas.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: No work Occurring. Level 2: Gypsum wallboard demolition, prep for fireproofing removal. Level 3: Continued final cleaning throughout level and subfloor areas. PBS inspects select subfloor areas.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS on site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0730** Dickson is loading out ACM bags from level 2 via the skybridge. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0830** Level 3: Three negative air machines with intake hose pointing down to the plenum crawlspace, NA14, 28, and 26 are exhausting towards the roof. All other negative air machines on this level are running and functioning normally. 2 workers are using scaffolding and ladders to wet wipe horizontal surfaces marked by PBS. 2 workers are wet wiping the cut-out where the air grills used to be in the floor. 1 worker at is the plenum crawlspace hatch using a HEPA vacuum to remove dust. 6 workers are continuing cleaning efforts in the plenum crawlspace. All are using HEPA vacuums and wet wiping to remove any dust and debris present.

**0850** Loadout continues from level 2 via skybridge. 1 worker outside the containment loading ACM bags into forklift bin. Waste bags are double wrapped. Outer bag appears clean, and water observed inside. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0852** One additional worker is suiting up to enter the Level 3 containment.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 1/11/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 1/11/2022

---

Abatement Contractor: Dickson

PBS Observer Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0900** Level 2: Four workers are loading out ACM bags and wraps of demo debris. 2 workers on scaffolding in Room 283 hanging poly sheeting prepping area for fireproofing removal.

**945** One worker off site for the day. Corey advises PBS that workers on level 3 are finishing up on punch list items and bagging floor grills. PBS will continue visual after lunch in floor plenum.

**1030-1115** Workers break for lunch and return to work.

**1115** Level 3: Two workers are using ladders and scaffolding to cover sprinkler heads with latex gloves to protect them from the encapsulation application process. 2 workers are cleaning and wrapping the circular air vent grills in the floor. 4 workers in the plenum crawl space continue with HEPA vacuuming and wet wiping to clean and remove dust.

**1200** PBS inspectors and 2 Dickson workers are conducting a visual inspection of the plenum crawl space.

**1219** Level 2: Three workers loading out remaining ACM bagged demolition debris. One worker misting the air with water using an airless sprayer. 3 workers are performing gypsum wallboard wall demolition in Room O275 using hand tools. 2 workers are prepping Room O283 for fireproofing removal by putting poly sheeting on the South wall using scaffolding.

**1240** PBS inspecting the north three grid sections on the east side of the floor plenum. Floor lead and one worker with PBS to touch up areas as needed.

**1330** PBS exits the Level 3 containment. The floor plenum area looked at today is satisfactory. PBS will visual the remaining floor plenum area tomorrow.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaving site. Doors locked Corey and MM still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 1/11/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Gregg Middaugh		PBS Project No.: 40535.488	Date: 1/12/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0700 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 24			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: No work occurring. Level 2: GWB Demolition, begin fireproofing removal. Level 3: Continued final cleaning. PBS visual inspection continues.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** : Level 1: No work Occurring. Level 2: Gypsum wallboard demolition, begin fireproofing removal. Level 3: Continued final cleaning throughout level and subfloor areas. PBS continues visual inspection.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and electric tools

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0730** One worker is inside the forklift on standby by as worker(s) load out ACM waste through the skybridge. PBS is calibrating pumps to collect air samples at various locations on site.

**0800** Level 3: One worker is loading ACM waste bags down to the 2nd floor skybridge. 3 workers are on top of ladders and scaffold, using water and rags to wipe pipes above the decon enclosure. 1 worker is using rags and a pick tool, to detail clean pipes at the removed server floor. 4 workers are in the plenum crawlspace using wet wiping and HEPA vacuums to remove any settled dust. Total of 7 workers observe this level.

**0845** Level 2: One worker with a water hose wetting walls and debris. 2 workers are using a Sawzall and HEPA vacuum to make cuts into the wall while controlling dust. 4 workers using pry tools and airless sprayer to keep mitigate suspended dust as they remove wall studs. 1 worker is bagging demolition debris. There is a total of 12 workers observed on the 2nd floor.

**0900** One worker (forklift spotter) outside containment housekeeping grounds, emptying garbage cans. PBS project manager Gregg M on site.

**1008** One worker on Level 3 with a tall ladder protecting sprinkler heads with rubber gloves used as covers during encapsulation. One worker on Level 3 is cleaning tools and equipment to be loaded out and used in other work areas.

**1000-1130** PBS continue visual inspection on Level 3 in remaining floor plenum areas.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 1/12/22



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/12/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1140** PBS provide Corey with punch list of items from PBS visual to complete prior to encapsulating. PBS will walk through to confirm items have been completed.

**1250** Level 2: Four workers with scraping tools are on scaffolding working on removing fireproofing. Water observed in use for abatement and dust control. A shower set up has been constructed for when the workers leave the fire proofing abatement area. 7 workers are using water and various tools to demolish walls, wall studs, and ceiling panels. They are also pulling out batting insulation from the walls. All demolition debris are bagged and taped.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1600** PBS leaving site. MM still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/12/22

**PBS Environmental Field Observation Report**



Asbestos Contractor: Dickson <hr/> PBS Site Observer(s): Mike Smith, Toan Nguyen, Ferman Fletcher <hr/> Contractor on Site Personnel: Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No Workers <b>Yes</b> No Name: Corey Foust How Many? +23 Air Monitoring Personnel on site: PBS/Dickson	Project Name: Olympic South Abatement & Repairs <hr/> PBS Project No.: 40535.488 Date: 1/13/22 DES Project No.: 2021-192 <hr/> Page 1 of 2 Time 0630 am <hr/> Summary Phase Status: Level 1: No work occurring. Level 2: Demolition and bagging GWB. Level 3: PBS inspect and Dickson encapsulation <hr/> Other Personnel on Site: MacDonald Miller (MM)
--	---

**WORK DESCRIPTION:** Level 1: No work occurring. Level 2: Continued gypsum wallboard demolition – bag and stage demolished materials. Level 3: Final punch-list inspection followed by Dickson encapsulation.

**WORKER PROTECTION:** ½ face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0630** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0830** Dickson workers outside containment are loading ACM bags/wraps from level 2 into the forklift bin (via the Level 2 skybridge) to be transported to the waste container in Parking Lot A.

Level 2: Ten workers at the loadout near the skybridge. This is Dickson’s new staging area to enter and exit the 2nd floor work area.

Level 3: Four workers are dismantling poly-sheet walls and drop sheet in the work area and the loadout/decon chamber.

Corey F advises that Level 3 is nearly ready for a clearance inspection. Go over punch list with Corey to assure that all items identified yesterday have been addressed.

**0910** Level 3: All floor grills are wrapped in poly sheeting. PBS observers are conducting one final visual inspection to ensure the poly-sheet walls do not have any gaps before encapsulation. PBS is also confirming that the punch-list items have been addressed

**1015** Level 2: Two workers are demolishing wall framing in the southeast corner of the level. 1 worker is filling and staging ACM bags filled with demo debris at the south end of the floor. 3 more workers are performing demolition of walls and wall framing using Sawzalls on the west side of the north south corridor.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 2 & 3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 1/13/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/13/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 3: PBS finished with final visual inspection. Area satisfactory. Dickson has the "go-ahead" to start encapsulation of the work area. 5 workers are on the level. Workers are going to begin the encapsulation after lunch. Workers are doing one final walk through, loading out all equipment & materials, before heading to lunch.

**1030** PBS conducts a staff job site safety meeting - items discussed include: Pinch points and sharp metal edges (wear gloves), water hazards (electrical and slipping), holes in floors throughout work areas, high winds on roof, cleaning respirators, and PBS covid protocols.

**1040 – 1130** Dickson safety rep Grant Baker on site – Safety inspection of job site except for inside of containments.

**1030-1115** Workers break for lunch and return to work.

**1130** Level 3: Eight workers on the level. 4 workers are lowering the airless sprayer hose into the plenum crawlspace. 4 workers are in the plenum crawlspace applying encapsulation, they are divided into 2 teams, each team has a spotter and sprayer. Starting for the furthest point of the hatch opening and working back. PBS is in the area to observe encapsulation process.

**1215** Level 3: Four workers above the plenum crawlspace. 3 workers are doing general housekeeping, wiping HEPA vacuums, vacuuming the concrete floor, ensuring wires and hoses are not tangled as the other are applying encapsulation. 1 worker is mixing encapsulate solution and exchanging a new bucket whenever the bucket (in use) of encapsulate is almost empty.

**1300** Level 2: Two workers demolishing wall framing in the southeast corner of the level. One worker is staging ACM bags filled with demo debris at the north end of the floor. 3 more workers are performing demolition of walls and wall framing using Sawzalls on the west side of the north south corridor

Level 3: Dickson continue with applying encapsulation, workers have encapsulated approximately a third for the floor plenum space. Encapsulation will continue tomorrow.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaving site. Corey F and MM still on site will shut off generator.

**1400 – 1500** PBS attends weekly site construction meeting.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/14/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0700 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 24			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Inventory. Level 2: GWB demo and Fireproofing removal. Level 3: Continue with encapsulation main Floor and sub-floor plenum.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: PBS conducting Inventory. Level 2: Continued gypsum wallboard demolition – bag and stage demolished materials. Removal of fireproofing. Level 3: Encapsulation

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives on site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0830** Level 2: Two workers wrapping demolished gypsum wallboard on south end of floor. 4 workers are demolishing gypsum wallboard walls on the east end of the hall. 2 workers are cutting down ductwork in the hallway. 3 workers are removing fireproofing on scaffolding in Room 284.

**0930** PBS conducting inventory activities in Room 261. Process includes sorting contents for cleaning or disposal. 1 worker assisting PBS.

**1030** MM (Rick) in level 2 tracking demo progress.

**1030-1115** Workers break for lunch and return to work.

**1100-1150** PBS continues inventory documentation on level 1 hallway and room 185

**1150** Level 2: Fifteen workers observed in containment. 3 workers are in Room 284 removing fire proofing - 2 workers are on top of scaffolding and 1 worker is on the ground managing water and bagging debris. 4 workers are on the east half of main floor removing ceiling framing, bagging/wrapping debris. 2 workers are in the practice rooms precutting gypsum wallboard (1 with saw and 1 with HEPA vacuum) 3 workers are in the southwest area bagging precut gypsum wallboard and insulation loading into tip bin. 2 workers are in the Art Gallery housekeeping load out area. One worker with tip bin transporting waste bags to load out area.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 1/14/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 1/14/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1323** Level 3: Two workers are encapsulating the corrugated ceiling while 4 workers are spraying encapsulation fluid on items on the sub floor

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** Corey F departs site – doors are locked.

**1500** PBS departs the site – Generator off.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai

Name: Claire Tsai

Date: 1/14/22

# PBS Environmental Field Observation Report



Asbestos Contractor: NA		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Ferman Fletcher, Kaitlin Soukup		PBS Project No.: 40535.488	Date: 1/17/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0900 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	Yes <b>No</b>	Name: NA	
How Many?			
Air Monitoring Personnel on site: NA		Summary Phase Status: PBS continue inventory effort	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** PBS continue inventory process of Level 1 contents.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

**0900** PBS on site. No abatement work occurring today due to union holiday.  
Rick (MM) stops by site to check site security. PBS will secure site before leaving for the day.  
PBS visually inspect contents previously cleaned by Dickson workers. Contents have been stored in sealed plastic pouches to prevent dust settling on contents until PBS visual inspection and confirmation microvac sampling.  
PBS visually inspect contents from Rooms 171 and 172 for visible dust. Items passed visual inspection.  
**1200-1230** PBS take lunch break.  
PBS collect microvac samples from Room 171 contents and move items to connex 5 for storage. Items remain in their sealed pouches in connex. Room 172 items moved back in building will be samples at a later date.  
**1430** PBS lock doors and shut off generator before leaving site.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Level 1

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 1/17/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/18/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0700 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: No work occurring. Level 2: Continued GWB demo and fireproofing removal. Level 3: Continued encapsulation			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: No work occurring. Level 2: Continued gypsum wallboard demolition/bagging and loadout. Removal of fireproofing With a pressure washer. Level 3: Finish encapsulating area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0715** Dickson is using their Forklift in parking lot A to transfer waste bags to the storage/disposal container. 1 operator and one spotter. Two workers in stairwell outside of containment loading out waste bags via skybridge to forklift.

**0730** PBS setting up daily air sampling.

**0820** Level 2: Four workers are loading out ACM bags and 4 workers are loading demolished gypsum wallboard into ACM bags. 3 workers are removing the fireproofing (from beams) in Room 284 using a pressure washer. The water being used for removal is absorbing into the fireproofing debris and not migrating to other areas.

Level 3: Five workers observed on the level. 1 worker is in the plenum crawlspace continuing to encapsulate hard to get spots and 4 workers are on the main floor applying encapsulation.

**1030-1115** Workers break for lunch and return to work.

**1045** Dickson fuel truck on site, generators and heater are refilled.


**1115** Level 3: There are 5 workers continuing the encapsulation process of the above the plenum crawlspace. They are using 3 airless sprayers - each at a different end of the space: south, west, and north. There are 2 spotters helping manage hoses.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 2/3	Olympic South Levels 2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 1/18/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/18/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1145** Level 2: Eight workers continue with gypsum wallboard and HVAC demolition throughout Rooms 285 & 292. Workers are bagging/wrapping demolished materials as it occurs. 2 workers with high pressure power washer removing the fireproofing on beams inside of Room O284 with 1 worker on the ground moving abated fireproofing into individual piles on the floor. 13 negative air machines are running on this level being exhausted to the exterior.

Seven negative air machines are running on the first level being exhausted to the exterior.

**1300** Four outside workers are suiting-up to join the crew on Level 2

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaving site. Corey F and MM still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 1/18/22

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Ferman Fletcher, Gregg Middaugh	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 1/19/22
Contractor on Site Personnel:	Page 1 of 2
Project Manager	Time
Workers	0700 am
How Many? + 19	Summary Phase Status: Level 1: No work occurring. Level 2: Continued GWB demo and fireproofing removal. Level 3: Continued encapsulation
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Level 1: No work occurring. Level 2: Continued gypsum wallboard demolition/bagging and loadout. Removal of fireproofing With a pressure washer. Level 3: Finish encapsulating area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0715** PBS setting up air sampling throughout the site.

**0900-1030** PBS collects microvac samples from Room 172 contents visually inspected on Monday 1/17

**0915** Level 3: Three workers observed. 1 worker in floor plenum encapsulating any missed areas. 2 workers above floor visually inspecting areas throughout and applying encapsulation to any areas missed. Encapsulation will be done by lunch break today. PBS will visual encapsulant to make sure full coverage is visible.

**0943** Level 2: Three workers are demolishing the walls and ceilings of the Men's and Women's Restrooms. 1 worker in Room O275 is wrapping demolished debris in poly sheeting. 4 workers are in the music department office (Room O285) removing duct work, ceiling, and walls. There are 3 workers in Room O283, 2 of which are assembling scaffolds. Dickson has completed the fireproofing removal in Room O284 and 2 workers are bagging up removed material into ACM bags.

**1000** Forklift operator transporting supplies from parking lot connex to ECE drive through area.

**1030-1115** Workers break for lunch and return to work.

**1130** PBS Project Manager Gregg Middaugh on site walks through level 2. No issues noted.

**1245** PBS collects air samples set up around site.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 2/3	Olympic South Levels 2/3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/19/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/19/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1330** Gregg Middaugh departs the site. PBS walk through level 3 to visual encapsulant. PBS note areas in need of white encapsulant for visibility. Clear encapsulant was used in certain areas due to short supply of white encapsulant. Dickson will get a white pigment to mix into clear encapsulant. Pigment is needed for visual confirmation areas have been encapsulated.

**1340** Level 2: Three workers in the Men's and Women's Restrooms bagging fiberglass batting insulation and wallboard. 2 workers in Room O264 are bagging and wetting the inside of ACM waste bags. 2 workers in music department offices are using Sawzalls dismantling bulk wall and ceiling pieces. 1 worker is coiling hoses and cords to keep space tidy. There is 1 worker using a squeegee to keep fireproofing in Rooms 283 & 284.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS transport Room 172 contents to connex in parking lot for storage. Items remain sealed in plastic.

**1500** PBS off site. Doors locked. Dan on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/19/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/20/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0700 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 19			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: No work occurring. Level 2: Continued GWB demo and fireproofing removal. Level 3: Complete encapsulation			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: No work occurring. Level 2: Continued gypsum wallboard demolition/bagging and loadout. Removal of fireproofing with a pressure washer. Level 3: Finish encapsulating area.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0730** PBS setting up daily air sampling.

**0830** Level 2: Six workers are in the load out area, double bagging and using duct tape to seal the bags before 2 other workers hoist the ACM waste bags into the bin attached to the forklift through the skybridge window. The bulk removal of fireproofing on structural beams in Room O284 is done. There needs to be additional detailing work to completely remove all traces of fireproofing. 3 workers are in Room O283, they are currently manually removing the fireproofing, the pressure washer is malfunctioning. 1 worker is putting up red danger tape around the men's and Women's restrooms since plumbing is still live. 2 other workers are moving equipment and materials to a new section of the 2nd floor work area.

**0900** Level 3: Two workers are continuing with encapsulation above the floor locations on this level in areas pointed out by PBS yesterday.

**0930** Level 2: Seven workers at the load out area, double bagging and using duct tape to seal the bags before being hoisted out by 2 other workers on the other side. 3 workers are in Room O283 - 2 workers are using a pressure washer to remove bulk fireproofing (pressure washer working again) on structural beams. 2 workers with a Sawzall and HEPA vacuum precutting the wall adjacent to Room O266 for demo. 1 worker is using Hudson to wet the floor and control dust.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 2/3	Olympic South Levels 2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 1/20/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/20/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** PBS, Corey, Dan, Rick in level 1/2 containment. PBS collect bulk sample of elevator hydronic oil for PCB analysis.

**1030-1115** Workers break for lunch and return to work.

**1155** Level 2: Two workers are in Room O283, using pry bars and wet methods to scrape and remove hardened fireproofing on structural beams. 1 worker is in Room O283 using squeegee to clean up fallen fireproofing. 4 workers are cleaning up the loadout area with brooms and exchanging the drop sheeting for a new clean one. 2 workers are precutting the wall inside of O266 (art storage room) for demo. 1 worker in skybridge continues loading ACM bags into forklift bin.

Level 3: Two workers are finishing up the encapsulation process. PBS in work area confirming surfaces pointed out have been encapsulated.

**1250** Two workers from level 2 exit containment and assist with load out of materials from Level 3 so area is clear of equipment for PBS air clearance tomorrow.

**1400** Level 3: Two workers continue loading out equipment and materials.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaving site. Corey F and MM still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/20/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/21/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0700 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 19			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: No work occurring. Level 2: Continued GWB demo and fireproofing removal. Level 3: PBS collect AHERA clearance sampling	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: No work occurring. Level 2: Continued gypsum wallboard demolition/bagging and loadout. Removal of fireproofing with a pressure washer. Level 3: PBS collect AHERA clearance samples.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat.

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

Level 3: Four workers loading out the last remaining equipment and materials and uncovering finishes protected from the encapsulation with poly sheeting (windows, floor grills, sprinkler heads) prior to PBS initiation of aggressive air clearance sampling in the space.

**0730** PBS setting up daily air sampling.

**0800** Level 2: Workers continue with gypsum wallboard demolition, demolished materials are bagged or wrapped as work occurs. Fireproofing removal continues in Room 0283 from scaffolding. A pressure washer is being utilized for this removal.

**0945** Level 3: Four workers are finished with loading out the remaining equipment and materials. PBS is entering the containment to set up pumps and begin AHERA air clearance sampling.


**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 2/3	Olympic South Levels 2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 1/21/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/21/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1050** Level 3: PBS has completed setting up clearance sampling and started the interior pumps – 5 above floor and 5 below floor.

**1110** PBS sets up and starts exterior clearance samples at Level 3 and roof locations.

**1250** Level 3: PBS collects interior clearance samples followed by exterior clearance samples.

**1300** Level 2: Workers continue with gypsum wallboard and HVAC demolition, demolished materials are bagged or wrapped as work occurs. Fireproofing removal continues in Room 0283 from scaffolding. A pressure washer is being utilized for this removal.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaving site, clearance samples will be transported to Lab/Cor today. Corey F and MM still on site will lock doors and shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith Date: 1/21/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/24/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time: 0700 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: GWB scoring. Level 2:	
		Continued GWB, HVAC demo and fireproofing removal. Level 3: PBS	
		collect clearance surface dust samples	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Scoring GWB walls. Level 2: Continued gypsum wallboard and HVAC demolition/bagging and loadout. Removal of fireproofing with a pressure washer. Level 3: Awaiting results for AHERA clearance samples. PBS collect clearance surface dust samples

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. The forklift operator and a spotter transport waste from skybridge window to the waste container located in Parking Lot A.

**0730** PBS setting up daily air sampling.

**0815** Level 2: Seven workers bagging demolition waste and sealing ACM bags with duct tape at the 2nd floor load out. 1 worker is standing on the other side of the load out carry the bags to the forklift, waiting at the skybridge opening. 2 workers are using a Sawzall to cut and demolish air ducts at Room O280. 4 other workers are moving the HVAC debris to another area to be cut down to smaller pieces and wrapped in poly sheeting. 1 worker is in Room O284 using hand tools for detail cleaning of the fireproofing on structural beams. 2 workers are in Room O283 using scrape and pry tools, along with power washer to remove bulk fireproofing. PBS observed 19 workers inside/nearby Level 2 work area.

**0840** Forklift operator and spotter in parking lot A loading ACM bags into waste trailer.

**0930** PBS communicate to Corey and MM large trout painting in stairwell has been approved for disposal. PBS will need documentation of proper disposal involving breaking down of artwork and separating into multiple waste bags for disposal.

**0950** Level 1: Two workers are using a Sawzall and HEPA vacuum to precut gypsum wallboard for demolition near Restroom 165.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 1/24/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/24/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** Level 2: Two workers are using a Sawzall and vacuum to precut the wall by the offices near Room O261 to prep for demo. 1 worker is loading metal wall studs into cart to be cut into smaller pieces before wrapping with poly sheeting for disposal. 2 workers are cutting metal wall studs into 4ft pieces and wrapping in poly sheeting. 4 workers are using wire cutters and other hand tools to remove metal braces that was used to hold air ducts. 2 workers in Room O283 are using a power washer for bulk removal of fireproofing, 1 is on the ground supervising. 2 workers on mobile scaffolding are using hand tools for manual detail cleaning of the structural beams in Room O284.

**1030-1115** Workers break for lunch and return to work.

**1050** Dickson fuel truck on site to fill generators.

**1140-1230** PBS enter level 2 containment with Corey, Dan and MM electrician to walk perimeter walls for conduit that needs to be removed. PBS and MM mark up drawings as Corey marks walls with spray paint to designate demolition or to remain in place.

**1200** Level 1: Two workers with a Sawzall and HEPA vacuum precut wallboard in Room O164 for demo.

Level 2: Two workers with a Sawzall and HEPA vacuum precut wallboard in offices across from Room O161 for demo. 1 worker is using water to wet debris and mitigate suspended dust. 4 workers are cutting poly sheeting to wrap demolition debris and using duct tape to seal. 4 workers are using hand tools to pry and remove metal wall studs and air ducts overhead by Room O280. 2 workers are bagging fireproofing waste with shovels. 2 workers in Room O283 are using hand tools and water hoses to detail clean structural beams.

**1300** Level 1: Two workers with a Sawzall and HEPA vacuum precutting wallboard in Room 166A for demo.

Level 2: Four workers are wrapping demolition debris in poly sheeting. 2 workers are using a Sawzall to cut and disassemble air ducts overhead. 3 other workers are breaking down wallboard and ceiling tiles into smaller pieces with hand tools. 2 workers are in Room O283 using power washer for bulk removal of fireproofing, 1 is on the ground supervising. 2 workers are using hand tools for manual detail cleaning of the structural beams in Room O284.

**1350** PBS observed Le May truck on site hauling filled ACM dumpster away.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

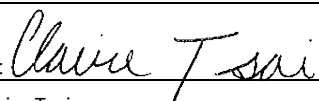
**1500** PBS leaving site, Corey F and MM still on site will lock doors and shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Claire Tsai Date: 1/24/22

---





**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/25/2022
Abatement Contractor: Dickson	PBS Observer Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** Level 2: Corey enters the containment. 2 workers near O280 wrapping conduits in poly sheeting. 2 workers near O275 and O270 wrapping HVAC air ducts in poly sheeting for disposal. 2 workers near O264 are precutting the wall for demolition with Sawzall and HEPA vacuum. 2 workers are in O283 using scrape tools and power washer for bulk removal of fireproofing. 2 workers are in O284 using hand tools for detail cleaning of surfaces with residual fireproofing.

**1030-1115** Workers break for lunch and return to work.

**1140** PBS observer enter Level 1 and 2 containments. Walls have been precut at rooms O164, 165 and 166 on Level 1.

**1145** Level 2: Thirteen workers performing demolition of walls and ceilings throughout using Sawzall to cut, then immediately cut the debris into smaller pieces, then wrap in poly-sheeting. 2 workers are detail cleaning in Room O284 with hand tools, rags, and water. 2 workers are using pressure washer on scaffolding in Room 284, while 1 worker is supervising and managing fireproofing and water on ground.

**1215** PBS observed 75% of all wall-framing and ceiling grid has been removed on Level 2.

**1245** Level 2: Two workers are demolishing wall framing at the northeast corner using a Sawzall, pry tool, and ladder. 1 worker performing demolition around the northwest corner using hammer and pry tool. 1 worker is exchanging old prefilters for new ones on HEPA negative air machines at Level 1 and 2. Two workers are scoring the east perimeter wall using a Sawzall and a HEPA vacuum. 4 workers are wrapping ductwork with poly-sheeting and duct tape. 1 worker is pressure washing fireproofing in room O283, 1 worker is sweeping the bulk fireproofing debris, and 2 workers are detail cleaning the corrugated pan decking in room O284 with hand tools and water.

**1300** Worker that was changing HEPA filters is now misting the demo area with water.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith Date 1/25/2022



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 1/26/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: Two workers precutting gypsum wallboard for demolition.

Level 2: Eleven workers performing demolition. 5 workers working in Rooms 0283 and 0284 removing fireproofing. Bulk removal appears to be complete workers are detailing ceiling components.

PBS opens exploratory holes in east stairwell to assess extent of water intrusion. Corey and one worker assisting PBS in stairwell.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1500** PBS off site. Doors locked. Corey still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

---

Name: Claire Tsai

Date: 1/26/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 1/27/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0700 am
Contractor on Site Personnel:			
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +24			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Precut GWB. Level 2: demolish GWB and final clean fireproofing. Level 3: No work occurring. Surface dust Samples of area isolated for clearance pass.			
Other Personnel on Site: MacDonald Miller (MM), PCI			

**WORK DESCRIPTION:** Level 1: Continued scoring of gypsum wallboard for demolition throughout the area. Level 2: Continued gypsum wallboard, demolition and final detail cleaning in Rooms 0283 & 0284. Level 3: No work occurring.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0730** PBS setting up daily PCM air samplings.

**0915** Level 1: Two workers precutting gypsum wallboard for demolition. One worker in Room 168 cleaning room detailing server floor components for manufacturer to look at on a later date.

Level 2: Twelve workers are demolishing perimeter gypsum wallboard walls using Sawzalls and HEPA vacuums. Wet methods are being used during the demolition. The workers are also bagging demolished materials into ACM bags and staging them for loading out. 6 workers continue to detail clean beams in Rooms 0283 and 0284. Electric grinders and hand tools are being used for the cleaning process. One worker assisting PBS with moving Room 261 contents to Room 168 for safe storage until items are approved for cleaning or disposal.

**0957** PBS notices water dripping from the ceiling on the 1st floor that is in a similar location to where the bathroom piping is located on the 2nd floor. Dickson is notified and investigating. PBS collects samples of previously concealed materials uncovered during demolition activities to submit for analysis. Four samples collected of various materials (mastics, vapor barrier, debris).

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 1/27/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 1/27/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1130** Todd L on site.

**1200** Level 1: Two workers continue precutting gypsum wallboard for demolition HEPA vacuums are being used during the precutting process.

Level 2: Twelve workers continue with demolition of perimeter gypsum wallboard walls using Sawzalls and HEPA vacuums. Wet methods are being used during the demolition. The workers are also bagging demolished materials into ACM bags and staging them for loading out. 6 workers continue to detail clean beams in Rooms 0283 and 0284. Electric grinders and hand tools are being for the cleaning process.

**1300** PBS vacates the site to attend a staff meeting in the Seattle office. Dickson and MM remain on site and will secure site/building and shut-down generators.

**1400-1500** Weekly construction meeting with project team.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 1/27/22

---



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:1/28/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

security gate. 4 workers are bagging and wrapping demolition debris in poly sheeting. 1 worker is using a water hose to control dust. 2 workers in Rooms O283 and O284 using water, powered hand grinders, and rags to detail clean fireproofing on pans decking and beams, 1 worker is sweeping fireproofing debris for both rooms

**1030-1115** Workers break for lunch and return to work.

**1300** Level 1: Two workers continue precutting gypsum wallboard walls throughout the level.

Level 2: Sixteen workers currently observed on this level. Workers who are not in the fireproofing areas (Rooms 0283 and 0284) are cleaning up wall and ceiling debris from demolition. 3 workers observed in the northwest corner gathering wall framing. Dickson has a large pile of bags in the former Art Gallery that are staged for loading out. Dickson is in the process of wetting items down with a Hudson type sprayer for dust control measures. Carpet removal has not started yet on this level.

**1400** Level 2: Workers are HEPA vacuuming carpeting in preparation for its removal throughout the level. Three workers are in Room O284 - 2 workers are on scaffolding using water and multiple scraping tools to manually detail clean fireproofing on pan decking and beams, 1 worker sweeping debris. 2 workers are in Room O283 on scaffolding with a pressure washer and scraping tools to manually detail clean the pan decking and beams.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.


**1430** Workers off site for the day. PBS leaving site. Corey F and MM still on site will lock doors and shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 1/28/22



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Toan Nguyen Ferman Fletcher	PBS Project No.: 40535.488 <span style="float:right;">Date: 1/31/22</span>
	DES Project No.: 2021-192
	Page 1 of 2 <span style="float:right;">Time 700 am</span>
Contractor on Site Personnel:	Summary Phase Status: Level 1: GWB removal/demo.
Project Manager <span style="float:right;">Yes <b>No</b></span> Supervisor <span style="float:right;"><b>Yes</b> No</span>	Level 2: Continued GWB and carpet removal, fireproofing detail.
Workers <span style="float:right;"><b>Yes</b> No</span> Name: Corey Foust	Level 3: Prep containment for server flooring company to look at.
How Many? +16 (+1 arrived after lunch)	Other Personnel on Site: MacDonald Miller (MM)
Air Monitoring Personnel on site: PBS/Dickson	

**WORK DESCRIPTION:** Level 1: Gypsum wallboard removal, boxing removed carpeting. Level 2: Continued gypsum wallboard and carpet removal, fireproofing detail. Level 3: Prep server floor components and containment (viewing window) for server floor manufacturer to look inside

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0730** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0815** Level 1: One worker is in Room O181 loading carpets and rugs into mega boxes (mega boxes are large cardboard boxes that are double lined with poly sheeting so a larger amount of waste can be wrapped and loaded out at a time. Boxes sit on a pallet and are transported using a pallet jack or forklift).

Level 2: One worker is using a hammer and chisel to remove metal brackets on ceiling throughout the space. 2 workers are using a Sawzall to cut metal wall studs and conduits into smaller pieces to be wrapped in poly sheeting. 1 worker is using ACM stickers to label poly sheeting wraps for loadout. 1 worker is using a Commander floor scraper to remove carpet and mastic by Room O276. 3 workers by room O280 using pry tools to remove carpet flooring.

**0900** Level 2: Two workers are using brushes, rags, and water to detail clean pan decking and beams in Room O284. 2 workers are using scrape tools to detail clean fireproofing from pan decking and beams in Room O283.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date: 1/31/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 1/31/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

PBS observed 12 workers in the level 2 work area. 2 workers on the forklift team. 2 workers on skybridge. Total of 16 workers.

**1000** Level 1: One worker is prepping Megabox's to be used for loading of demolished gypsum wallboard and wall insulation.

**1030-1115** Workers break for lunch and return to work.

**1230** Dickson fuel truck on site filling generators and heater tank.

**1330** Level 1: One worker is removing pre-cut gypsum wallboard in the ECE.

Level 2: Two workers are using a Commander floor scraper to remove carpet. 2 workers are extending the poly sheet loadout tunnel further into the work area. 2 workers are using duct tape and spray adhesive to wrap light fixture housing. 2 workers are removing light fixtures by Room O264. 2 workers are using brushes, rags, and water to detail clean pan decking and beams in Room O284. 2 workers are using scrape tools to detail clean fireproofing from pan decking and beams in Room O283.

**1345** Level 1: PBS visually inspects the server floor components in 168 cleaning room. Items pass visual inspection. PBS communicate to Corey items can be removed from containment for viewing by the manufacturer. One worker shoveling demo debris into mega box placed just south of 164.

Level 2: Three workers near load out, one wrapping waste, one adjusting load out chamber, one bringing rolls of carpet to be wrapped. 2 workers removing lights from ceiling and stacking in a pile, once removed workers will separate ballasts. 2 workers cleaning up demo debris and one supervisor in area. Work continues as before in fireproofing area.

**1415** One worker moving cleaned server floor components to level 3 for manufacturer to view tomorrow. Viewing window has been installed in containment on level 3 for manufacturer to look inside. Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS leaving site. Doors locked. Corey and MM still on site will shut off generator

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 1/31/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 2/1/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0700 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 25 (2 arrived at 12:30)			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Demo GWB & load Mega-boxes	
		Level 2: Remove carpet, GWB, and detail clean fireproofing.	
		Level 3: manufacturer evaluate server floor components.	
		Other Personnel on Site: MacDonald Miller (MM) & ATG Inc	

**WORK DESCRIPTION:** Level 1: Remove pre-cut gypsum wallboard & load Mega-boxes. Level 2: Continued carpet removal, gypsum wallboard removal and fireproofing detail cleaning. Level 3: Manufacturer evaluate server floor components.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A. 1 worker is prepping a new storage container with a poly sheeting liner.

**0730** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0815** PBS, MM, and ATG Inc. (Advanced Technology Group, Inc.) look at elevated server floor areas of Level 3 to evaluate future construction plans for the space.

**0830** PBS observed 18 workers throughout Levels 1 and 2.

Level 1: Four workers inside near ECE drive thru area removing and dismantling pre-cut gypsum wallboard and disposing all waste into Mega-boxes, wetting debris, and then sealing with duct tape.

**0845** Level 2: Six workers doubling bagging ACM waste bags and sealing with duct tape, then loading out to the 1 worker on the skybridge. 1 worker using hand tools to remove metal brackets and conduits at ceiling throughout level. 1 worker is removing carpet with commander floor scraper by elevator. 1 worker is using rags, water and hand scrapers to detail clean structural beams and pan decking in Room O284. 2 workers are on scaffolding using hand grinders, rags, and water to detail clean fireproofing in Room O283. 2 workers are bagging fireproofing and sealing with duct tape.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/1/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/1/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0945** Level1: Five workers are removing pre-cut wallboard with pry tools, and Sawzalls then placing waste into poly sheeting lined Mega-boxes.

Level 2: Two workers are using rags, water and hand scrapers to detail clean structural beams and pan decking in Room O284. 2 workers are on scaffolding using hand grinders, rags, and water to detail clean fireproofing in Room O283. 1 worker by O264 is removing metal wall studs. 6 workers are double bagging demolition debris and sealing with duct tape before passing to 1 worker on skybridge. 1 worker removing carpet with Commander floor scraper.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: Nine full mega boxes are staged in Room 181 for loadout. 5 workers performing demo on the 1st floor using Sawzalls and hand tools. 1 additional full mega box is being moved to Room 181 during PBS' walkthrough.

**1220** Level 2: Seven workers are loading out ACM bags filled with demo debris at the east skybridge. 1 worker is performing demolition of the southeast upper wall using hand tools and a ladder. 6 workers are detail cleaning fireproofing in 283 and 284.

**1230** Two additional Dickson workers arrive to the site and are assigned to Level 2 to assist with work efforts occurring on that level.

**1300** Le May on site to swap a full waste container for an empty one in Parking Lot A.

**1315** Dickson is loading out ACM bags via the skybridge loadout. 1 worker is on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaving site. Corey and MM still on site will shut off generator and secure site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 2/1/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Ferman Fletcher, Gregg Middaugh		PBS Project No.: 40535.488	Date: 2/2/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0700 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 23			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Demo GWB & load Mega-boxes.	
		Level 2: Remove carpet, GWB, and detail clean fireproofing.	
		Level 3: No work occurring.	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Remove pre-cut gypsum wallboard & load Mega-boxes. Level 2: Continued carpet removal, gypsum wallboard removal and fireproofing detail cleaning. Level 3: No work occurring.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0730** PBS is calibrating various pumps to collect daily PCM air samples throughout site. Currently 4 negative air machines are running on the roof for maintaining negative air pressure for the area on Level 3 not yet cleared.

**0830** Level 1: Four workers are removing pre-cut gypsum wallboard with pry tools and various other hand tools, by Room O169. Demolished gypsum wallboard is being placed in mega boxes lined with poly sheeting.

Level 2: Three workers by load out area are bagging insulation and metal wall studs. 1 worker is using a Sawzall while on scaffolding to remove metal brackets. 3 workers are wrapping lighting fixture housings in poly sheeting by Room O264. 1 worker is doing general housekeeping - sweeping, keeping the floor clear of trip hazards. 1 worker is using a PDG 3000 floor grinder, to remove carpet mastic. 2 workers are on the side with HEPA vacuum to pick up any stray dust that the grinder did not pick up (by Room O280). 2 workers are on scaffolding with rags, water, and hand tools to manually detail clean fire proofing from beams and pan decking in Room O284. 1 worker is on the ground sweeping any fallen debris. 2 workers are on scaffolding with rags, water, and hand tools to manually detail clean fire proofing from beams in Room O283.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2	Olympic South Levels 1/2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date: 2/2/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/2/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** Level 1: Four workers are removing pre-cut wallboard with pry tools and various other hand tools, by Room O169, breaking down all debris with mallet and placing all debris in mega boxes lined with poly sheeting.

Level 2: One worker continues using a PDG 3000 floor grinder to remove carpet mastic, 1 worker is on the side with HEPA vacuum to pick up any stray dust that the grinder did not (by Room O280). 2 workers are wrapping lighting fixture housings in poly sheeting by Room O275. 2 workers are removing pre-cut gypsum wallboard with pry tools and various other hand tools, by Room O261. 2 workers are on scaffolding with rags, water, and hand tools to manually detail clean fire proofing from beams and pan decking in Room O284. 1 worker is on the ground sweeping any fallen debris. 2 workers are on scaffolding with rags, water, and hand tools to manually detail clean fire proofing from beams in Room O283.

Eighteen workers observed in Levels 1 & 2.

**1030-1115** Workers break for lunch and return to work.

**1152** Level 1: Five workers performing gypsum wallboard demolition using Sawzalls and hand tools. PBS observed 21 Mega-boxes stored in Room 0181 ready for load out.

**1220** Level 2: Eight workers continue with walls and ceilings demolition using Sawzalls and hand tools throughout the level. Enter Rooms 0283 and 0284, 5 workers continue cleaning ceilings. PBS note areas in need of further cleaning (ie gaps in corrugated metal ceiling).

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS leaving site. MM leaving site. Doors locked. Corey still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 2/2/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 2/3/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0700 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 25			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: GWB & wall frame demolition.			
Level 2: GWB & carpet mastic removal. Detail clean fireproofing.			
Level 3: No work occurring.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued gypsum wallboard and metal wall framing demolition. Level 2: Continued gypsum wallboard removal, carpet mastic removal, and fireproofing detail cleaning. Level 3: No work occurring

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0730** PBS is calibrating various pumps to collect daily PCM air samples throughout site. Currently 4 negative air machines are running on the roof for maintaining negative air pressure for the area on Level 3 not yet cleared.

**0830** Level 1: Four workers are removing precut gypsum wallboard manually with hand tools and Sawzall. 2 workers are wrapping wallboard and wall framing in poly sheeting.

Level 2: Four workers are wrapping metal wall framing and light fixture housings in poly sheeting. 1 worker is using a knife to remove pipe instillation from the Men's and Women's Restroom. 1 worker is on terminator to scrape residual carpet and mastic before grinding. 2 workers are using grinders with HEPA vacuum attachments to remove residual mastic on concrete floor. 2 workers are on scaffolding, using water, rags, powered hand grinders, and scrape tools to detail clean fireproofing from pan decking and beams in Room O284. 1 worker is on the ground supervising. 3 workers are on scaffolding using powered pressure washer, rags, powered hand grinders and scrape tools to detail clean fireproofing from pan decking and beams in Room O283.

**0900** Level 1: Four workers are removing precut gypsum wallboard manually with hand tools, and Sawzalls. 1 worker is wrapping gypsum wallboard and wall framing in poly sheeting. 1 worker is using duct tape to assemble Mega-boxes. PBS

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 2/3/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/3/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

counts 18 workers inside Level 1 & 2 containment. Magnetic ballasts are separated from light fixtures and are currently being stored in a pile in Room 181.

**0930** PBS continue inventory documentation. All contents have been moved to Room 168 for cleaning or until approved for disposal.

**0945** Level 2: Two workers continue wrapping metal wall framing, light fixture housings, fiberglass insulation and metal security gate in poly sheeting. 1 worker is using a Sawzall to breakdown metal debris into smaller pieces. 3 workers are using hand grinders to remove metal brackets and Sawzall to remove conduit on ceiling throughout. 2 workers are using grinder with HEPA vacuum attachments to remove carpet mastic by O275. 2 workers are on scaffolding, using water, rags, powered hand grinders, and scrape tools to detail clean fireproofing from pan decking and beams in Room O284. 4 workers are on scaffolding using powered pressure washer, rags, powered hand grinders and scraper tools to detail clean fire proofing from pan decking and beams in Room O283.

**1030-1115** Workers break for lunch and return to work.

**1246** Level 1: Twenty-three Mega-boxes being stored in Room 0181. 6 workers are performing demolition of walls and ceilings using Sawzalls and hand tools. PBS observed workers using Hudson type sprayers to keep materials wet.

**1315** Level 2: Five workers are demolishing the drop ceiling on the skybridge to Olympic North and are trying to determine the path of two large conduit. 10 workers observed throughout the level (except Music Rooms) demolishing gypsum wallboard and wall framing and grinding concrete to remove non-ACM floor mastic. 5 other workers continue with detail cleaning fireproofing from Rooms 0283 & 0284 ceilings on scaffolding.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1400-1500** Weekly construction meeting with project team.

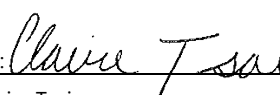
**1515** PBS leaving site. Corey and MM still on site will shut off generator and secure site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Claire Tsai

Date: 2/3/22



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Toan Nguyen, Ferman Fletcher		PBS Project No.: 40535.488	Date: 2/4/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0700 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 29			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: GWB demolition/ load Mega-boxes.			
Level 2: Remove poly sheeting music rooms, demo GWB, remove cpt			
Level 3: no work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Gypsum wallboard demolition, load Mega-boxes, clean artwork. Level 2: Gypsum wallboard demolition, remove carpeting, clean up debris and remove poly sheeting 283/284. Level 3: No work occurring.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0700** PBS arrives to the site. Dickson workers have gone to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Dickson is loading out ACM bags via the skybridge loadout. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0730** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0830** Level 1: Two workers are lining Mega-boxes with poly sheeting and loading all demolition debris inside, then sealing with duct tape. 4 workers are using Sawzalls to remove pre-cut gypsum wallboard. 1 worker is using a Sawzall to remove air ducts overheads. 1 worker is in the O168 clean room to detail clean artwork from Level 2.


Level 2: One worker using Commander floor scraper to remove carpet by the Art Gallery and 1 worker by skybridge connecting to OLY N. 1 worker is hammering nails to 2" x 4" lumber at exposed columns as fall protection. 2 workers are using PDG 6000 floor grinder to remove carpet mastic at Room O280. 3 workers are bagging fireproofing into ACM waste bags and sealing with duct tape in Room O284, and 1 worker is removing poly drop sheet. 1 worker on scaffolding removing metal wall studs at O284A. 2 workers are removing the poly drop sheeting in Room O284. Dickson cleaning up all water, debris and plastic sheeting in rooms 283/284 by end of day. PBS will investigate rooms on 2/7 to follow up on comment from construction meeting on 2/3 about water use in fireproofing work area.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/4/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/4/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0930** Level 2: Two workers are sweeping fireproofing and water mixture in Room O284. 1 worker on mezzanine doing housekeeping. 5 workers are removing poly sheeting drop cloth. 2 worker using Commander floor scraper to remove carpet by the art gallery. 1 worker is drilling pilot holes to 2" x 4" lumber to be attached to exposed columns as fall protection. 2 workers are using a PDG 6000 floor grinder to remove carpet mastic at Room O280. Currently, 12 negative air machined are running and exhausted to the exterior this level.

**1000** Level 1: Two workers are loading metal wall studs and gypsum wallboard into mega boxes and sealing with duct tape. 4 workers are manually removing air ducts and wallboard with hand tools. 1 worker is cleaning artwork in O168. 1 worker is lining Mega-boxes with poly sheeting. Currently, 9 negative air machined are running and exhausted to the exterior this level.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: One worker is housekeeping in the clean room area. 6 workers performing demolition using hand tools. Demolished materials are being loaded into Mega-boxes.

Level 2: Ten workers are performing demolition in areas north of 283 and 284. 6 workers are removing carpeting and cleaning flooring in Rooms 283 and 284. Poly sheeting has been removed from the walls. 1 of 6 workers in music area is using Terminator machine to remove carpet squares. Crew using grinding machines to remove non-ACM mastic.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS leaving site. Corey still on site will shut off generator and secure site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 2/4/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Gregg Middaugh		PBS Project No.: 40535.488	Date: 2/7/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 31			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: GWB/HVAC demo. Load out Mega-boxes. Level 2: GWB/HVAC demo. Grind residual floor mastic.			
Level 3: No work occurring.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued demolition and loading Mega-boxes in east parking area. Level 2: Continued gypsum wallboard, fiberglass insulation, and HVAC demolition. Grinding residual floor mastic. Level 3: No work occurring.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet manual methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0645** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0730** Level 1: Two workers cutting gypsum wallboard with Sawzalls by the clean room. 1 worker is HEPA vacuuming next to the cut, the removed wallboard sections are placed in a poly sheeting lined mega box. 2 workers are wiping down filled mega boxes near the level 1 load out area and attaching asbestos and generator tags. 1 worker is cutting HVAC ductwork out from the Mechanical Room with a Sawzall. 6 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

Level 2: Three workers inside containment are double bagging demolition waste for loadout. Two workers outside containment carrying the ACM bags to the forklift for loadout through the skybridge. 1 worker is using a grinder on the concrete floor along the east side of the building. The grinder is fitted with a HEPA vacuum attachment. 1 worker is following behind the grinder HEPA vacuuming the remaining dust. 3 workers are in Room 284 - 1 is on the mobile scaffolding removing fiberglass insulation from the north wall and 2 workers are on the ground bagging the waste and loading it into a rolling bin for loadout. 4 workers are in Room 283 bagging removed tile pieces. 1 worker is swapping out the prefilters in the negative air machines. 2 workers by the west stairs one is on mobile scaffolding using a grinder to

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
2 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 2/7/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/7/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

remove ductwork, one is attaching wooden safety rails near holes in the floor. 11 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

**0945** Level 1: Two workers in Room 181 using a Sawzall with a HEPA vacuum to cut the gypsum wallboard into segments in preparation for removal. 2 workers in the Mechanical Room are using Sawzalls to dismantle the HVAC ductwork. 3 workers in the middle of the floor loading the cut metal studs into mega boxes.

Level 2: Four workers inside the restroom area, 1 is using a jack hammer to remove ceramic floor tile, 1 worker is on a ladder removing metal studs with a drill, 1 worker is shoveling the floor sections into a poly lined wheel barrel, and 1 worker is misting down the area with water. 1 worker is using a HEPA vacuum and grinder along the eastern side of the building. 5 workers are in the music rooms - 1 is removing metal studs and insulation that separate Room 284 from the rest of the floor space. 3 are bagging the metal studs and fiberglass insulation, and 1 worker is sweeping up the fiberglass insulation by Room 283. 4 workers in the hallway between the music rooms - 2 are on mobile scaffolding removing gypsum wallboard and fiberglass insulation with Sawzalls. 1 worker is on the ground bagging the debris.

**1030-1115** Workers break for lunch and return to work.

**1110** PBS project manager Gregg M on site.

**1115** Three workers are outside in the ECE drive thru load out area prepping the mega boxes that are outside containment for loading into ACM dumpsters. Mega boxes are set on pallets to be moved with the forklift.

**1130** PBS enter containment with Corey to assess Rooms 283 and 284. On 2/3 PBS observed water dripping from the drip edge on the southwest elevation of room 284. PBS mark areas for Dickson to open wall cavity in rooms 283 and 284. Workers cut holes with Sawzall. PBS observed elevated moisture readings (approximately .8 to .9%) on the interior side of the exterior gypsum wallboard in both rooms 283 and 284. Insulation in south wall cavities does not appear to be wet, no evidence of water intrusion from the interior or exterior observed. PBS observed fireproofing over spray in wall cavities in both rooms 283 and 284. Wall cavities will need to be opened for access to abate fireproofing overspray.

**1300** Three workers outside containment prepping mega boxes for disposal. 1 Dickson worker arriving on site in a fuel truck to refill the generator and heater. Work efforts in Levels 1 & 2 continue as previously noted.

**1400** PBS collect microvac sample from Room 265 contents. There are 3 Dickson workers in the parking lot. 1 worker is operating the forklift, the other two workers are spotting and assisting in the dumping of the labeled ACM bags and wraps.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1515** PBS leaving site. Corey leaving site. Doors locked; generator shut off.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Claire Tsai

Date: 2/7/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland		PBS Project No.: 40535.488	Date: 2/8/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 27			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: GWB/HVAC demo. Load out Mega-boxes. Level 2: GWB/HVAC demo. Grind carpet mastic.			
Level 3: No work occurring.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued demolition and loadout of Mega-boxes to east parking area. Level 2: Continued gypsum wallboard, fiberglass insulation, and HVAC demolition. Grinding carpet mastic. Level 3: No work occurring.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0645** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0730** Level 1: One worker just inside the containment removing gypsum wallboard and fiberglass insulation from the Room 181 wall. The worker periodically spraying down the area with water. 2 workers are in the Mechanical Room demolishing HVAC ductwork with a Sawzall. 2 workers are in Room 168 precutting gypsum wallboard for removal. 3 workers are in the southern half of the level loading metal studs and demo debris into Mega-boxes, attaching generator labels and asbestos tags, and wiping down the outsides of the containers in preparation for removal from containment.


Level 2: Two workers are inside Room 284 using a Sawzall to remove and bag gypsum wallboard and fiberglass insulation. 2 workers are in Room 283 removing gypsum wallboard fiberglass insulation and metal studs with a Sawzall and drill. 3 workers are in the restroom area - 1 is HEPA vacuuming the floor the other is using a grinder to cut suspension straps for piping, one is using the large grinder on the concrete floor. One worker is establishing wooden railing around the SE column cavity as fall protection barrier. 3 workers are doing load out to the level 2 skybridge, one worker is outside the

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2	Olympic South Levels 1/2
2 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/8/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/8/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

containment loading the bags into the forklift waste container. 1 worker is using a terminator to remove mastic from the concrete by the skybridge leading to Olympic North.

**0930** Level 1: One MM worker entering containment to do a general safety inspection. 3 workers by the load out area preparing the Mega-boxes for loadout. 2 workers are in Room 181 picking up gypsum wallboard debris and insulation and shoveling the debris into mega boxes for disposal. Two workers in the Mechanical Room removing HVAC ductwork with Sawzalls. 2 workers are prying out wall sections of Room 168, workers were observed periodical spraying the walls and ground with water. 6 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

Level 2: Two workers are using a grinder on the concrete floor along the north side of the building - 1 is operating the grinder the other is using a HEPA vacuum to pick up the residual dust. 1 worker is by the restrooms cutting out metal hangers from the concrete roof with an angle grinder. 3 workers are staging bags near the skybridge loadout. 5 workers in Room 284 removing gypsum wallboard and fiberglass insulation from the southern wall. Two workers in room 283 removing GWB and fiberglass insulation from the south wall. 11 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

32 Mega-boxes have been staged in the east parking/drive-through lot. Of those 32, 16 have been loaded into a waste container. Dickson anticipates having the remaining 16 Mega-boxes loaded into a storage container by the end of the day today.

**1030-1115** Workers break for lunch and return to work.

**1130** One worker in the parking lot bringing Mega-boxes out from the building and stacking them on pallets with a forklift. Negative air observed (poly sheeting pulling in toward building) during loadout.

**1230** Level 1: One worker is in Room 185 putting cut gypsum wallboard into a poly sheeting lined Mega-box for disposal. 2 workers in the Mechanical Room are disassembling the ductwork over the top of the main air handler. 2 workers are breaking down the gypsum wallboard demising wall between Room 168 and Office 185. Debris is loaded into a Mega-box. 3 workers near the load-out area, are sealing, marking, and cleaning Mega-boxes in preparation for removal from containment. The Mega-boxes are on pallets and are wheeled outside to the ECE drive through via pallet jack.

Level 2: One worker is using a HEPA vacuum equipped grinder to remove the remaining mastic off the concrete floor along the north wall. 1 worker is using a razor scraper to clean off the piping within the vertical central columns. 2 workers are bringing loaded carts from the music rooms to the skybridge loadout area and staging them for removal. Five workers are in Room 284 - 4 are removing gypsum wallboard and fiberglass insulation. 1 worker is misting down the area and ACM bags with a garden hose. Approximately 70% of the gypsum wallboard has been removed, approximately 60% of the insulation has been removed. 6 workers are in Room 283 Three are removing and three are bagging the GWB and

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 2/8/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/8/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

fiberglass insulation. Approximately 40% of the GWB has been removed and approximately 30% of the fiberglass insulation has been removed. Workers sprayed the air and floor with a garden hose to reduce airborne particulates periodically.

**1330** Workers continue to load out ACM bag/wraps from the east skybridge. The 16 Mega-boxes previously noted in the ECE drive thru have been loaded into a waste container in Parking Lot A.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.


**1430** Workers off site for the day. PBS leaving site. Corey still on site. Dickson and MM will secure site and shut-down generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 2/8/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Gregg Middaugh, Peter Stensland		PBS Project No.: 40535.488	Date: 2/9/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +27 (1 onsite for the last 2 hrs. only)			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: GWB/HVAC demo. Load out Mega-boxes. Level 2: GWB/HVAC demo. Grind residual floor mastic.			
Level 3: No work occurring.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued demolition and loading Mega-boxes in east parking area. Level 2: Continued gypsum wallboard, fiberglass insulation, and HVAC demolition. Grinding residual floor mastic. Level 3: No work occurring.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** manual wet methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building unless otherwise noted. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** Olympic South, west elevation main disconnect panel shut off for PBS to collect microvac samples of panel and conduit. MM electrician assisting PBS. Dickson workers in containment ready to reset breakers once power is switched back on.

**0640** PBS finished collecting microvac samples. Main disconnect panel switched back on. Power to Olympic South is back on. Corey notifies workers inside to reset brakers and make sure all negative air machines are back up and running.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. One worker is outside the level 1 loadout area using a pallet jack to wheel out filled mega boxes. The boxes are organized in the ECE Drive thru until they are ready to be loaded into an ACM waste container.

**0800** Level 1: Two workers removing gypsum wallboard and fiberglass insulation from Room 185 with a prybar and putting the debris in a Mega-box for disposal. The workers spray down the surfaces with a Hudson type sprayer prior to removal. 2 workers are doing general housekeeping of the main hallway. 1 worker is swapping out fully loaded Mega-boxes for new Mega-boxes. 1 worker is in the Mechanical Room cutting HVAC ductwork into smaller pieces for disposable with a Sawzall. 6 negative air machines are running and exhausted to the exterior. 1 additional negative air machines are running and being utilized as a scrubber on this level.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 2/9/22



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/9/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 2: Three workers in Room 284 removing and bagging fiberglass insulation. Approximately 20% of the insulation and GWB remains to be removed. 2 workers in Room 283 removing and bagging fiberglass insulation approximately 90% of the insulation has been removed and 95% of the gypsum wallboard has been removed. 1 worker using a buffer around the central pillars to do detail cleaning. 1 worker HEPA vacuuming the eastern wall cavity. 1 worker using an electric chipping gun to remove the asphaltic material from the restroom floor. 1 worker operating a large grinder along the north side of the level removing floor mastic. 1 worker is bagging removed fiberglass pipe insulation in Room 266. 6 workers are loadout waste, ACM bags are double bagged and promptly loaded outside of containment. There is one worker outside containment loading the ACM bags into the forklift bin. 11 negative air machines are running and exhausted to the exterior. 3 additional negative air machines are running and being utilized as scrubbers on this level.

**0945** Level 1: Two workers are removing gypsum wallboard and fiberglass insulation from the Room 181 and Wood Shop demising wall. One worker using a small push terminator to remove carpeting just inside of the decontamination chamber door. 1 worker is cutting apart the main air handler in the Mechanical Room. 2 workers are managing and swapping out the Mega-boxes.

Level 2: Two workers in Room 284 - 1 worker is bagging fiberglass insulation the other is cutting wooden pieces in half with a Sawzall for easier disposal. Approximately 10% of the gypsum wallboard / insulation remains to be removed. 4 workers in Room 283 bagging fiberglass insulation. Approximately 5% of the gypsum wallboard / insulation is left to be removed. 4 workers are double bagging and assisting in the load out of ACM bags. 1 worker is running a tip bin between Room 284 and the load out area bringing the ACM bags to the double bagging area. 1 worker is doing general housekeeping in the restroom. 2 workers are along the north wall - 1 is removing fiberglass insulation from the wall, the other is using a grinder to remove mastic from the concrete floor. 1 worker is organizing tools along the west wall.

**1030-1115** Workers break for lunch and return to work.

**1100** PBS project manager Gregg M on site for walk through.

**1245** Level 1: Three workers disassembling HVAC ductwork in the Mechanical Room. 3 workers are cutting metal studs with Sawzalls and putting them in Mega-boxes for loadout.

Level 2: One worker is using a HEPA vacuum equipped grinder to remove mastic on the north side of the building. 4 workers are double bagging demolished materials on top of a poly sheeting drop cloth by the skybridge loadout. 1 worker along the west wall doing general housekeeping. 1 worker along the east wall HEPA vacuuming the wall cavity between the metal studs. 5 workers in Room 284 - 2 on mobile scaffolding removing remaining gypsum wallboard and fiberglass insulation and 3 workers on the ground bagging the contents and moving them in poly sheeting lined tip bins to the load out area. The debris is periodically misted with a water hose. Three workers in Room 283 one is fixing the negative air exhaust poly tubing; 2 workers are on mobile scaffolding removing the last section of gypsum wallboard and fiberglass insulation.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 2/9/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/9/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1330** One worker inside the level one loadout area rolling mega boxes on pallets to one worker outside of containment who organizes them in the ECE drive thru in preparation for loading into an ACM waste container.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS leaving site. Corey still on site. Dickson and MM will secure site and shut-down generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 2/9/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Peter Stensland	PBS Project No.: 40535.488 DES Project No.: 2021-192
Contractor on Site Personnel:	Date: 2/10/22
Project Manager      Yes <b>No</b> Supervisor <b>Yes</b> No Workers <b>Yes</b> No    Name: Corey Foust	Page 1 of 2                      Time                      0600    am
How Many? + 23	Summary Phase Status: GWB/HVAC demo. Load out Mega-boxes. Level 2: GWB/HVAC demo. Grind residual floor mastic.
Air Monitoring Personnel on site: PBS/Dickson	Level 3: No work occurring.
	Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Level 1: Continued demolition and load out of Mega-boxes via ECE drive thru. Level 2: Continued gypsum wallboard, fiberglass insulation, and HVAC demolition. Grinding residual floor mastic. Level 3: No work occurring.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A. Two MM electricians on site building framing on west elevation for temporary power.

**0645** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0745** Level 1: Three workers loading HVAC ductwork and conduit into Mega-boxes. 3 workers inside Mechanical Room removing HVAC ductwork and conduit. 1 worker bringing down fiberglass insulation from Level 2 and loading it into a Mega-box. 6 negative air machines are running and exhausted to the exterior. 1 additional negative air machine is running and being utilized as scrubbers on this level.

Level 2: Four workers in Room 284 - 2 on mobile scaffolding using buffers and steel brushes to remove fireproofing from the central pan decking and above beams. 1 worker is bagging debris remaining in south wall cavity. 1 worker bagging used negative air pre filters. 2 workers in Room 283 removing screws from metal studs with drills and residual pieces of gypsum wallboard and insulation. 3 workers along the north wall of 265, 1 using a HEPA vacuum equipped grinder to remove mastic from the concrete floor, 1 HEPA vacuuming the residual dust and debris from the grinder, the other worker is using a Sawzall to cut up the removed wooden wall panels. 1 worker in the skybridge between Olympic North and Olympic South removing gypsum wallboard and fiberglass insulation from above the windows. 2 workers along the east wall are gathering cleaning equipment in tip bins. 11 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2	Olympic South Levels 1/2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai                      Date: 2/10/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/10/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0930** Level 1: Three workers cutting metal studs and conduit for disposal into Meg-boxes. 2 workers in the Mechanical Room using a Sawzall to cut out metal hangers, conduit and the air handler. 2 workers using pry bars and Sawzalls to breakdown HVAC ductwork for disposal. 2 workers in northwest stair landing remove WA Art Trout painting from wall. One worker cut apart trout painting as requested by college for disposal. One worker loads sections of art into separate bags for disposal. PBS photo document destruction of artwork for record keeping.

Level 2: Two workers are in the west skybridge removing gypsum wallboard and fiberglass insulation above the expansion joint between the skybridge and building. Workers using hand tools to ensure building seal is not impacted. 2 workers are along the west wall cleaning between the metal studs. 2 workers are along the north wall, 1 worker removing debris from base of wall cavity, the other worker is using a HEPA vacuum equipped grinder to remove the mastic off of the concrete. 3 workers in Room 284 - 2 on mobile scaffolding using buffers to clean fireproofing off of the pan decking, one worker is using a screwdriver to pry off the remaining gypsum wallboard and fiberglass insulation along the exterior walls. 2 workers in Room 283 removing screws from studs and cleaning leftover debris from wall cavity.

**1030** One MM electrician assist PBS sampling junction box in Level 2 east skybridge of conduit running from Olympic South to light fixture in skybridge.

**1030-1115** Workers break for lunch and return to work.

**1300** Level 1: Two workers cutting HVAC ductwork in the Mechanical Room with Sawzalls, approximately 15% remains to be removed. 3 workers sealing up Mega-boxes just inside of the containment entrance. 2 workers along the western wall cutting up HVAC sections into smaller pieces to make disposal easier.

Level 2: Six workers near west skybridge. 2 workers on ladders removing screws from the metal studs near the expansion joint, 2 workers are bagging the fiberglass insulation and conduit debris from the removal. 1 worker is grinding the mastic off of the concrete floor and one worker is HEPA vacuuming behind the grinder to pick up any remaining debris. 3 workers in Room 284 - 1 on a ladder removing screws from the metal studs, two on mobile scaffolding doing detail cleaning of the pan decking and metal beams. 2 workers in Room 283 on mobile scaffolding removing gypsum wallboard & wet wiping water pipes. 1 worker is moving throughout the space doing general housekeeping.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1400-1500** Weekly construction meeting with project team.

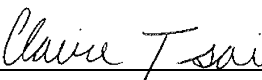
**1515** PBS leaving site. Corey still on site will shut off generator and secure site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Claire Tsai Date: 2/10/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland		PBS Project No.: 40535.488	Date: 2/11/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 3	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 27			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Demo/abatement/loadout			
Level 2: Demo/abatement			
Level 3: No work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued HVAC & conduit demolition and loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing in the music rooms, grinding residual floor mastic, wiring removal, HEPA vacuuming, and loading Mega-boxes. Level 3: No work occurring

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. 2 workers are on the skybridge loading the bags into the forklift metal bin. The forklift operator and a spotter then transport the bags to the storage container located in Parking Lot A.

**0700** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0740** Level 1: Two workers in Mechanical Room 173 removing conduit above the electrical panels. 1 worker is spraying down the work area with water. 2 workers are doing general housekeeping by the east loadout. 6 negative air machines are running and exhausted to the exterior. 1 additional negative air machine is running and being utilized as scrubbers on this level.

Level 2: Three workers in Room 284 on mobile scaffolding - 2 workers detail cleaning pan decking and pipes to remove remaining fire proofing, 1 worker HEPA vacuuming south wall metal studs. 3 workers in Room 283 - 2 on mobile scaffolding using wire brushes to clean pipes and metal beams, 1 worker cleaning base of wall cavity with HEPA vacuum near the negative air machines. 1 worker HEPA vacuuming near the west stairs along the ledge. 4 workers loading out ACM bags to 1 worker outside containment. 2 workers along the north wall HEPA vacuuming wall cavity. 1 worker grinding residual floor mastic by the elevator. 1 worker HEPA vacuuming west wall cavity. 1 worker on mobile scaffolding

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
2 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/11/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/11/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 3

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

along the west wall cutting out wires from ceiling conduits. 11 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

**0800** Two workers in scissor lift are cutting 3 holes into the underdeck of the Student Lounge skybridge to provide access for PBS to collect microvac samples.

**0940** Level 1: One worker in Room 173 removing conduit from the ceiling. 1 worker loading conduit into Mega-boxes just south of the Mechanical Room. 4 workers sealing, cleaning and marking Mega-boxes with appropriate tags by the loadout area.

Level 2: Three workers in Room 284 on mobile scaffolding – 2 removing fireproofing with buffers and steel wool, 1 HEPA vacuuming the wall cavity between the metal studs. 4 workers in Room 283 – 2 on mobile scaffolding removing ACM fireproofing with wire brushes and 2 workers on ground moving around water supply lines and power lines. 3 workers in east area HEPA vacuuming dust from floor. 1 worker on mobile scaffolding in west area using pliers to remove wires from ceiling conduit and junction boxes embedded in concrete. 2 workers loading out ACM bags to the second floor skybridge. 1 worker HEPA vacuuming along the border of the restroom. 1 worker using a handheld grinder to do detail work along the north wall. 1 worker is using the HEPA vacuum grinder on the west skybridge.

**1030-1115** Workers break for lunch and return to work.

**1200** Corey assist PBS to collect microvac samples from the bottom side of the student lounge/skybridge. Inside of the space there are metal beams with what appears to be foil-backed fiberglass insulation attached to the floor with metal insulation anchors.

**1320** Level 1: Two workers in Room 173 cutting out HVAC ductwork from the ceiling with a Sawzall. 1 worker just south of Room 173 cutting the ductwork into smaller pieces with a Sawzall for disposal. Workers have now created a poly sheeting barrier between the kitchen and the rest of the containment for sheet vinyl flooring removal.

Level 2: Six workers doing general housekeeping by the restroom / loadout area (cleaning out HEPA vacuum, vacuuming up the floor and picking up general debris). 1 worker is HEPA vacuuming the floor around the west stair negative air machines. 3 workers in Room 284 - 2 on mobile scaffolding removing fireproofing from pan decking and steel beams with wire brushes and wet cloths and one worker HEPA vacuuming out between the metal studs on the south wall. 4 workers in Room 283 doing general housekeeping in preparation for the end of the day.

**1400** PBS collects consultant air samples running throughout the site

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 2/11/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/11/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---


**1500** PBS departs the site for the shift. Microvac samples collected today will be taken to Lab/Cor for analysis. Corey securing building and shutting down generators.

Good negative pressure indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 2/11/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Peter Stensland	PBS Project No.: 40535.488 <span style="float:right;">Date: 2/14/22</span>
	DES Project No.: 2021-192
	Page 1 of 2 <span style="float:right;">Time 0600 am</span>
Contractor on Site Personnel:	Summary Phase Status: Level 1: Demo/Abatement/Loadout
Project Manager <span style="float:right;">Yes <b>No</b></span> Supervisor <span style="float:right;"><b>Yes</b> No</span>	Level 2: Demo/Abatement/Loadout
Workers <span style="float:right;"><b>Yes</b> No</span> Name: Corey Foust	Level 3: No work occurring
How Many? + 23	Other Personnel on Site: MacDonald Miller (MM)
Air Monitoring Personnel on site: PBS/Dickson	

**WORK DESCRIPTION:** Level 1: Continued HVAC & conduit demolition and loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing in the music rooms, grinding residual floor mastic, wiring removal, HEPA vacuuming, and loading Mega-boxes. Level 3: No work occurring

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** One worker moving ACM Mega-boxes on pallets from the ECE east loadout to the ACM dumpster in Parking Lot A. 1 additional worker is in Parking Lot A lining new containers with poly sheeting.

**0700** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0745** Level 1: One worker in Mechanical Room 173 cutting up HVAC sections into smaller pieces for disposal. 4 workers loading debris into mega boxes and loading out boxes once full. 1 worker in the south area cutting out HVAC ductwork. The area is periodically wetted to control dust. 2 workers removing floor mastic off concrete in ECE kitchen, ACM sheet vinyl flooring has been removed (one negative air machine located in the kitchen exhausting outside has this activity under negative pressure from the rest of the work area). 6 negative air machines are running and exhausted to the exterior. 1 additional negative air machine is running and being utilized as scrubbers on this level.

Level 2: One worker in Room 284 using steel wool to clean fireproofing overspray from metal studs along the perimeter walls. 1 worker wetting the area to control dust. 1 worker wet wiping settled dust from negative air machines. 2 workers in Room 283 - 1 on mobile scaffolding wet wiping I-beams and water pipes, 1 on a ladder scrubbing metal studs with a wire brush after wetting it with a Hudson sprayer. 2 workers picking up debris and organizing water lines by the restroom. 2 workers along the north wall, one using a HEPA vacuum equipped grinder to remove mastic from the concrete floor, 1 picking up remaining dust with a handheld HEPA vacuum. 1 worker detail grinding with a HEPA vacuum attachment by

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
ACM sheet vinyl flooring – ECE Kitchen ~350SF	
2 full 40 CY containers (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 2/14/22



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/14/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

the elevator entrance. 11 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

**0945** Level 1: One worker cutting out HVAC ductwork outside the 168 cleaning room. 1 worker and one MM electrician are looking at the electrical panels that still have power in 173. 4 workers loading metal and debris into Mega-boxes for loadout. 2 workers cutting metal ceiling grid with a Sawzall for disposal.

Level 2: One worker grinding the floor around the east skybridge doors, 2 workers HEPA vacuuming around the grinding area. 1 worker in the restrooms using a jack hammer to remove the black asphaltic material (below the mortar bed) on top of the concrete. 1 worker is pressure washing the pipes in the restroom. 3 workers in Room 284 on mobile scaffolding - 2 detail cleaning fireproofing from ceiling components, 1 detail cleaning fireproofing overspray from metal studs using brushes, a HEPA vacuum and wet rags. 2 workers in Room 283 - 1 on mobile scaffolding wet wiping I-beams and water pipes, 1 on a ladder scrubbing metal studs with a wire brush after wetting it with a Hudson sprayer. 1 worker mopping the floor in the west area of the level. 1 worker on a ladder near 283/284 removing remaining metal hangers / mounting points with a socket wrench and drill and bagging the debris.

**1030-1115** Workers break for lunch and return to work. One MM electrician in the level 1 Mechanical Room marking conduit ready for demo.

**1300** PBS in Room 168 cleaning room visually inspecting cleaned artwork from Room 266.

**1330** Level 1: One worker in Room 173 demolishing conduit marked by MM electrician for removal. 2 workers construct Mega-boxes with tape and prep with poly sheeting to be filled with demolition debris. 1 worker on terminator scraping floor mastic near Room 168. One worker with pallet jack staging Mega-boxes to be loaded out. 2 workers near Room 166A load demolition debris into Mega-boxes.

Level 2: One worker in west skybridge with hand grinder removing floor mastic. 2 workers at west windows tape poly sheeting over windows. 1 worker with a chipping gun removing mortar bed and black asphaltic material below in restroom area. 1 worker detailing floor mastic around structural beams with hand grinder. 1 worker adding framing to east door frame. 1 worker in the north Art Gallery area bagging demolition debris. 2 workers detail cleaning ceiling components in Room 284. 1 worker wet wiping fireproofing overspray off wall studs in Room 284 south wall cavity. 2 workers in Room 283 - 1 on scaffolding detailing ceiling components, 1 wet wiping fireproofing overspray from south wall cavity.

**1345** Items pass PBS visual inspection. PBS collecting microvac samples from the previously noted Room 266 artwork. One worker loads PCB ballasts into metal drum. Lid marked with quantity of 63.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1515** PBS and MM leaving site. Doors locked. Corey still on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building. PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 2/14/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Mike Smith, Peter Stensland	PBS Project No.: 40535.488 <span style="float:right;">Date: 2/15/22</span>
	DES Project No.: 2021-192
	Page 1 of 2 <span style="float:right;">Time 0600 am</span>
Contractor on Site Personnel:	Summary Phase Status: Level 1: Demo/Abatement/Loadout
Project Manager <span style="float:right;">Yes <b>No</b></span> Supervisor <span style="float:right;"><b>Yes</b> No</span>	Level 2: Demo/Abatement/Loadout
Workers <span style="float:right;"><b>Yes</b> No</span> Name: Corey Foust	Level 3: No work occurring
How Many? + 28	Other Personnel on Site: MacDonald Miller (MM)
Air Monitoring Personnel on site: PBS/Dickson	

**WORK DESCRIPTION:** Level 1: Continued HVAC & conduit demolition and loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing in Rooms 283/284, grinding residual floor mastic via Terminator or grinder, HEPA vacuuming, and loading Mega-boxes. Level 3: No work occurring

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. One worker moving ACM Mega-boxes on pallets from the ECE east loadout to the ACM dumpster in Parking Lot A. 1 additional worker is in Parking Lot A lining new containers with poly sheeting.

**0740** Level 1: PBS photo document one worker destroying Washington art piece "Hidden Blue" as requested. Art cut into pieces and placed in ACM bag before loading into a Mega-box. Photos kept for recordkeeping of disposal. 1 worker adjacent to the decontamination room closing a Mega-box for loadout, 2 workers in the Mechanical Room cutting out conduit and HVAC ductwork. 3 workers setting up a new poly sheet drop cloth by the loadout area. 2 workers cutting metal studs and putting them into a Mega-box along the west well.


Level 2: Four workers in Room 284 – 1 on terminator removing carpet mastic from the floor and 3 workers on mobile scaffolding detail cleaning wall studs and pan decking. 2 workers are hanging poly sheeting to separate fireproofing area (Rooms 283/284) from the rest of the floor. 1 worker is using a HEPA vacuum equipped grinder to clean the residual mastic from the concrete floor between Rooms 283 and 284. 5 workers are in Room 283 - 4 are on the ground HEPA vacuuming and 1 is on mobile scaffolding doing detail cleaning of the ceiling. 2 workers along the north wall are assembling more mobile scaffolding.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith Date: 2/15/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/15/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0900** PBS collects a bulk field sample of caulking along the pan decking above the CMU wall which separates rooms 283 and 284 for analysis.

**1030** Pierce College employee (Bill Spur) looks at stored sheet music cabinets in Conex 4 for evaluating needs to transport to storage at the Puyallup Campus. Bill will follow up with PBS for transport scheduling.

**1030-1115** Workers break for lunch and return to work.

**1100** Level 1: PBS collects microvac sample from Room 181 sink after visual inspection satisfactory for visible dust. 1 MM worker inside containment looking at the electrical panels and conduits.

**1245** Level 1: Work efforts continue as previously noted. Dickson workers are demolishing HVAC components and wall framing members. Demolished materials are being placed into lined Mega-boxes and staged for removal. 6 negative air machines are running and exhausted to the exterior. 1 additional negative air machine is running and being utilized as a scrubber on this level.

Level 2: Work efforts continue as previously noted. Dickson workers are cleaning pipes and concrete ceiling throughout the space. Other workers continue to remove residual fireproofing from the ceilings of the music rooms. Workers are also continuing to remove residual floor mastic from concrete floors using grinders with HEPA vacuum attachments. 11 negative air machines are running and exhausted to the exterior. 2 additional negative air machines are running and being utilized as scrubbers on this level.

**1300** PBS is collecting microvac samples from Room 266 artwork (previously inspected for surface dust).

**1400** PBS is collecting consultant air samples throughout the site that were initiated this morning.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS prepares samples and COCs for drop off at Lab/Cor.

**1530** PBS leaves for the day and shuts off the generator. Corey has secured the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 2/15/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai, Gregg Middaugh, Peter Stensland	PBS Project No.: 40535.488	Date: 2/16/22	
	DES Project No.: 2021-192	Page 1 of 2	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status: Level 1: Demo/Abatement/Loadout		
Project Manager Yes <b>No</b> Supervisor Yes No	Level 2: Demo/Abatement/Loadout		
Workers <b>Yes</b> No Name: Corey Foust	Level 3: No work occurring		
How Many? + 27	Other Personnel on Site: MacDonald Miller (MM)		
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Continued HVAC & conduit demolition and loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing in Rooms 283/284, grinding residual floor mastic via Terminator, HEPA vacuuming, and loading Mega-boxes. Level 3: No work occurring

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0730** Level 1: One worker setting up Super-Lifts in preparation for HVAC removal outside of room 168. 1 worker misting down automotive creepers with water and then wet wiping them. 5 workers cutting apart HVAC ductwork in the center of the floor and loading them into Mega-boxes where they are then staged for loadout. The work area is periodically misted down with water.

Level 2: Six workers in Room 284. 2 workers on mobile scaffolding detail cleaning pan decking and metal beams. 1 worker using a razor scraper to remove mastic and tape along the CMU wall. 2 workers securing poly dividing wall with tape and adhesive between fireproofing area (Room 283/284) and the rest of the floor. 1 worker HEPA vacuuming between the metal studs along the perimeter of the building. 3 workers in Room 283, two on mobile scaffolding wiping down pan decking and beams and the other worker on a ladder detail cleaning the metal studs. 2 workers below the mechanical mezzanine, 1 wet wiping the ceiling and the other is using a razor blade to scrape the columns. 1 worker HEPA vacuuming the floor along the west wall. 1 worker HEPA vacuuming the pipes in the restroom with a brush attachment. 1 worker is securing a new poly sheeting wall along the stairs (separating LV2 detail cleaning area from LV1 and future elevator demo area. 1 worker erecting mobile scaffolding in Room 266.

**0930** PBS project manager Gregg M on site for walk through.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 2/16/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/16/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0945** Two workers in Parking Lot A managing the waste containers. 1 worker is wheeling supplies back to the containment with a hand cart.

**0955** Level 2: Four workers in Room 284 - 1 on mobile scaffolding wiping down the top of the CMU wall, 1 worker HEPA vacuuming the floor but the doorway, 1 worker mopping the floor, and 1 worker wet wiping metal studs. 4 workers in Room 283 - 2 on mobile scaffolding using buffers to clean the pan decking, 1 worker doing general housekeeping, and 1 worker attaching a ladder with wire to secure access to the mechanical mezzanine. Corey and PBS inspecting the columns along the perimeter of the room. 1 worker in Room 284A pulling wire out of the wall. 5 workers along the east wall, 1 securing new safety rails to the concrete columns, 4 wet wiping pipes and concrete ceiling on mobile scaffolding and ladders.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: Two workers cutting out HVAC ductwork from the ceiling of the main N to S hallway. Water is sprayed on the ductwork prior to cutting. 1 worker doing general housekeeping by the loadout area, 3 workers removing lights in the ECE. 3 workers cutting and putting removed metal components into Mega-boxes for disposal. 1 worker in room 168 wet wiping the inside of a HEPA vacuum.

**1245** Level 1: Two workers loading in a wooden forklift bin/crate and lining it with poly sheeting. 1 worker doing general housekeeping along the southern elevation. 1 worker cutting up HVAC ductwork south of the Mechanical Room, 1 worker misting it with a hose. 1 worker in the Mechanical Room cutting out conduit and 1 worker cutting out HVAC ductwork coming from the Mechanical Room into the main north to south hallway.

Level 2: Four workers wet wiping metal studs and pipes along the east side of the floor. 5 workers in Room 284 - 1 on mobile scaffolding cleaning the top of the metal studs along the south wall, 2 workers wet wiping and cleaning studs along the west wall, 1 worker removing fiberglass insulation from around the doorway frame, and 1 worker moving the power cables around to move the mobile scaffolding. 7 workers in Room 283 - 1 worker on the terminator removing floor mastic, 1 worker moves the cords and negative air exhausts out of the path for the terminator, 2 workers on mobile scaffolding HEPA vacuuming and wet wiping the metal beams, 1 worker HEPA vacuuming the penetration to the roof hood above the mechanical mezzanine, and 1 worker doing general housekeeping.

**1400** PBS collects consultant air samples throughout the site that were initiated this morning.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1530** PBS leaves for the day. Corey will shut down generator secure the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 2/16/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 2/17/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes	No	Supervisor <b>Yes</b> No
Workers	<b>Yes</b>	No	Name: Corey Foust
How Many? + 29			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Demo/Abatement/Loadout	
		Level 2: Demo/Abatement/Loadout	
		Level 3: No work occurring	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued HVAC & conduit demolition and loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing and wall framing in Rooms 283/284, grinding residual floor mastic via Terminator, HEPA vacuuming, and loading Mega-boxes. Level 3: No work.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside work areas including HEPA exhausted air.

**0700** PBS is calibrating various pumps to collect daily PCM air samples throughout site.

**0745** Level 1: Three workers along the south side of the floor, 1 is using an angle grinder to cut out small sections of metal from the ceiling, 1 is assembling new Mega-boxes, and 1 is going through tools looking for drill bits. 1 worker is doing general housekeeping throughout the floor. 1 worker is assembling a Mega-box near the Mechanical Room. 1 worker in the Mechanical Room is demolishing conduit. 1 worker just inside of containment is removing fiberglass insulation from pipes. The insulation is misted with a Hudson sprayer before each section is removed.

level 2: Three workers in Room 284 on mobile scaffolding - 2 are detail cleaning the metal studs along the exterior wall, 1 worker is wiping down the pan decking and steel beams by the CMU wall. 5 workers in Room 283 - 3 are on mobile scaffolding doing detail cleaning of the pan decking, 1 worker is bringing in equipment, 1 worker is operating the HEPA vacuum grinder. 2 workers on the other side of the 283A wall wet wiping steel beams and metal studs. 4 workers wet wiping studs along the east wall. 1 worker using an electric chisel to remove mastic from the bathroom concrete floor. 1 worker is on mobile scaffolding wet wiping and HEPA vacuuming the ceiling.

**0930** PBS microvac samples the electrical conduits next to the main transformer between Olympic South and Olympic North.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: \_\_\_\_\_  
 Name: Claire Tsai Date: 2/17/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:2/17/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1145** Level 1: One worker on a scissor lift removing pipe insulation in the main N to S hallway. 1 worker using a Super Lift to support pipe section. 1 worker is misting the work area with a water hose throughout the floor. 1 worker is breaking apart HVAC ductwork with a hammer to make for easier disposal. 3 workers bagging contents in Mega-boxes. 1 worker is on a scissor lift in the ECE removing fiberglass pipe insulation with a razor blade.

Level 2: Three workers in Room 283 on mobile scaffolding wet wiping and HEPA vacuuming the metal wall studs. 6 workers in Room 283 – 2 on mobile scaffolding wet wiping and HEPA vacuuming the metal exterior wall studs, 1 is on a terminator scraping residual mastic off the floor, 1 bagging the mastic, and two assisting in cleaning of the general work area / passing tools to the workers on the scaffolding. 4 workers along the west wall wet wiping and HEPA vacuuming the wall studs. 1 worker is doing detail scraping around the edges of concrete columns with a razor. 1 worker is doing detail removal of the mastic on the bathroom concrete floor. 2 workers cutting out wires and metal hangers from the Room 266 ceiling.

**1300** PBS collects additional microvac samples from the robin’s nest and storage bins south of the ECE.

**1400** PBS is collecting consultant air samples throughout the site that were initiated this morning.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1530** PBS leaves for the day. Corey will shut down generator secure the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

---

Signature: \_\_\_\_\_  
Name: Claire Tsai Date: 2/17/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland		PBS Project No.: 40535.488	Date: 2/18/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes	No	Supervisor <b>Yes</b> No
Workers	<b>Yes</b>	No	Name: Corey Foust
How Many? + 29			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Continued HVAC & conduit demolition and loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing and wall framing in Rooms 283/284, grinding residual floor mastic via Terminator, HEPA vacuuming, and loading Mega-boxes. Level 3: No work.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** manual wet methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0645** PBS calibrating various pumps to collect daily PCM air samples throughout site. One worker observed moving ACM Mega-boxes on pallets from the ECE east loadout to the ACM dumpster in Parking Lot A with a forklift. 2 additional workers are in Parking Lot A lining new containers with poly sheeting and assisting with loading Mega-boxes into storage container. Corey and 1 worker are laying out locations of 6 additional investigation holes on the exterior base of the skybridge between Olympic South and Olympic North.

**0815** Level 1: One worker just inside containment on a scissor lift removing light hangers with a Sawzall. 1 worker in the middle of the floor on a scissor lift removing wires from the ceiling. 1 worker in the Mechanical Room pulling off gypsum wallboard and fiberglass insulation from the west exterior wall. 3 workers on the east side of the building ECE removing gypsum wallboard, fiberglass insulation and wood and loading it into Mega-boxes. 2 workers assembling and moving new Mega-boxes for the demolition debris.


Level 2: Three workers on mobile scaffolding in Room 284 - 1 detail cleaning the pan decking and steel beams, two HEPA vacuuming and wet wiping the metal studs. 4 workers in Room 283 - 3 wet wiping / HEPA vacuuming the metal studs, 1 worker is grinding the floor with a HEPA vacuum equipped grinder. 7 workers along the west wall doing detail cleaning on the metal studs and pipes. 1 worker along the top of the stairs doing grinding around the edges of the safety rail.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1/2/3	Olympic South Levels 1/2/3
2 full 40 CY containers (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/18/22



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/18/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0900** PBS is microvac sampling contents from room 261

**1030** Level 1: One worker demolishing ceiling mounted air filtration systems in 181. 4 workers along the west wall removing gypsum wallboard and fiberglass insulation. 2 workers bagging insulation in Mega-boxes / ACM bags.

Level 2: Four workers in Room 284 - 1 is securing the poly sheeting barrier that separates the music rooms from the rest of the floor, 1 is wet wiping and HEPA vacuuming above the negative air machines, 2 workers are on the mobile scaffolding doing detail cleaning on the metal studs. 3 workers in Room 283 - 2 are moving the mobile scaffolding one is using a wooden handle to try and pry out insulation from the corner between the metal studs. 8 workers along the west wall doing detail cleaning.

**1100-1145** Workers break for lunch and return to work.

**1200** PBS is microvac sampling the 266 contents in the 168-cleaning room.

**1330** Four holes have been cut (from the exterior) into the base of the skybridge between Olympic South and Olympic North. The remaining 2 holes will be cut Monday (2/21) morning.

Level 1: Twelve workers continue with gypsum wallboard removal, floor grinding, wall cavity cleaning, and loading Mega-boxes throughout the floor.

Level 2: Eight workers continue to detail clean wall cavities and framing, and flooring in the enclosure. 6 workers on mobile scaffolding continue to clean the wall cavities in the music rooms (283/284).

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS meets with MM (Dan) – Look at exterior transformer between Olympic South and Olympic North discuss potential impacts if microvac samples of unit are positive.

**1530** PBS and MM depart the site – building is secure, and generators are shut down.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 2/18/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Toan Nguyen		PBS Project No.: 40535.488	Date: 2/21/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes	No	Supervisor <b>Yes</b> No
Workers	<b>Yes</b>	No	Name: Corey Foust
How Many? + 27			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Demo/Abatement/Loadout	
		Level 2: Demo/Abatement/Loadout	
		Level 3: No work occurring	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued GWB & conduit demolition and loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing and wall framing in Rooms 283/284, grinding residual floor mastic via Terminator, HEPA vacuuming, and loading Mega-boxes. Level 3: No work.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS verifies that the sink from room 168 has been moved to Cascade 533.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0830** Level 1: One worker is removing fiberglass insulation pipes in the ECE kitchen. 2 workers are preparing to line poly sheeting in Mega-boxes. 2 workers are removing fiberglass insulation and wall finishes from walls in Room O180. 1 worker is on a lift removing conduits overhead throughout the level.

Level 2: Two workers on scaffolding, using water, rags and HEPA vacuums to detail clean metal wall studs. 2 workers on the ground with HEPA vacuum cleaning dust from concrete floor. 1 worker on the ground with water and rags to detail cleaning wall studs in Room O284. 2 workers on scaffolding using water, rags and HEPA vacuums to detail clean structural beams. 1 worker on a ladder using water and rags to clean metal wall studs in Room O283. 2 workers by Room O275, using water, rags and a HEPA vacuum to clean metal wall studs. 3 workers by Room O261 office spaces using water, scrape tools, and rags to detail clean metal wall studs and sprinkler lines.

**0900** PBS visually inspects and microvac samples artwork from Room 261 in the 168-cleaning room.


**0930** Dickson has completed cutting the 6 additional investigation holes in the skybridge floor underdeck between the Olympic North and Olympic South Buildings.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/21/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/21/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** Level 1 - Two workers by O169 office space using floor grinder (PDG 6000) to remove mastic from concrete floor. 2 workers are wrapping debris in poly sheeting and placing it in a plywood box. 1 worker is on a lift to cut fire alarm conduit

Level 2 - Three workers are using rags, water and a HEPA vacuum to detail clean walls studs, structural beams and sprinkler lines. 2 of the 3 are on scaffolding cleaning hard to reach surfaces in Room O284. 3 workers are using rags, water and a HEPA vacuum to clean metal wall studs and structural beams. 1 of 3 is on a ladder, 1 on the ground, and 1 on scaffolding in Room O283. 2 workers by Room O264 using rags, water and a HEPA vacuum to clean metal wall studs. 1 worker is using a HEPA vacuum to remove dust from concrete floor. 3 workers are by O261 office spaces, 1 is on mobile scaffolding and cleaning sprinkler lines with rags and water, 1 worker on a ladder cleaning metal wall studs with rags and water, 1 worker using scrape tool to remove sticky residuals from window frames.

**1030-1115** Workers break for lunch and return to work.

**1120** Corey F. questions status of 2 hot water tanks in Level 1

**1200** PBS collects 5/6 microvac samples from the underside of the skybridge with Corey.

**1320** Level 1: One worker using Sawzall to cut demolition debris into smaller pieces by O168. 1 worker on lift remaking conduits. 1 worker by elevator room removing gypsum wallboard. 1 worker using drill to remove some concrete. 2 workers using PDG6000 to remove mastic on concrete. 1 worker on terminator to remove carpet residuals. 2 workers lining Mega-boxes with poly sheeting. 8 workers were observed in the space. 7 negative air machines are currently running on the level.

Level 2: Three workers are using rags, water and a HEPA vacuum to clean metal wall studs and structural beams. 2 workers are on scaffolding and 1 is on a ladder in Room O283. 3 workers are on scaffolding using rags, water and a HEPA vacuum to clean metal wall studs and structural beams. 1 worker is building wooden safety rails around the elevator shaft. 2 workers cleaning metal wall studs by Room O264. 13 workers were observed in the space. 13 negative air machines are currently running on the level.

**1350** PBS Project Manager Gregg M advises OK for Dickson to demolish 2 hot water tanks on Level 1.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.


**1515** PBS departs the site for the day. Building secure, Generator's shutdown.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith

Date: 2/21/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Toan Nguyen, Gregg Middaugh		PBS Project No.: 40535.488	Date: 2/22/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 29		Summary Phase Status: Demo/Abatement/Loadout	
Air Monitoring Personnel on site: PBS/Dickson		Level 2: Demo/Abatement/Loadout	
		Level 3: No work occurring	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued GWB & conduit demo & loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing and wall framing in Rm's 283/284, grinding residual floor mastic via Terminator /and Grinder, HEPA vacuuming, and loading Mega-boxes.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0740** Level 1: Eight workers observed. 2 workers are by the former office spaces using the PDG6000 floor grinder and HEPA vacuum to remove yellow carpet mastic. 1 worker in ECE restroom using electric chisel to remove mortar bed associated with ceramic tile. 2 workers by Room O168 lining Mega-boxes with poly sheeting. 1 worker on scissor lift removing wires and conduits throughout. 1 worker by the elevator removing gypsum wallboard manually with hand tools, wet methods were observed during the wallboard demolition. 7 negative air machines are running on this level.

Level 2: One worker by Room O275 using a HEPA vacuum to clean and remove dust from metal wall studs. 2 workers on mobile scaffolding using scrape tools to remove adhesive residuals from ceiling. 2 workers on mobile scaffolding with HEPA vacuums, rags, and water to clean metal wall studs by Music department offices. 2 workers on scaffolding with rags and pressure washer to detail clean structural beams and pan decking in Room O283. 1 worker by mechanical mezzanine using scrape tools to detail clean piping. 4 workers on scaffolding with rags, water, and HEPA vacuums to detail clean metal wall studs, structural beams, and pan decking in Room O284. 13 negative air machines are running on this level.

**1010** Level 1: Eight workers continue work as previously noted.


Level 2: One worker by the elevator building safety railings at elevator shaft. 3 workers are using HEPA vacuums to clean concrete floor throughout. 3 workers on scaffolding and ladders with rags and water to clean metal wall studs. 3 workers

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/22/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/22/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

on scaffolding with rags, water, and HEPA vacuums detail clean metal wall studs, structural beams and pan decking in Room O283. 3 workers on scaffolding with rags, water and, vacuum to detail clean metal wall studs, structural beams and pan decking in room O284.

Skybridge to Olympic North Building: 3 workers on ladders with rags, water and, vacuum to detail clean metal wall studs.

**1030** PBS project manager, Gregg Middaugh on site.

**1030-1115** Workers break for lunch and return to work.

**1240** Level 1: Two workers are by the former office spaces using the PDG6000 floor grinder and HEPA vacuum to remove yellow mastic. 1 worker by the ECE drive thru using an electric chisel continues to remove mortar bed. 2 workers are by Room O168 lining Mega-boxes with poly sheeting. 1 worker on scissor lift removing wires, air ducts, and conduits throughout.

Level 2: One worker continues installing fall protection barrier around the elevator shaft. 6 workers using rags, water and HEPA vacuums to detail clean concrete wall.

**1340** Level 2: Six workers split between Room 283 and 284 continue detail cleaning ceiling components. 1 worker on the ground supervising in Room 0283.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS departs the site. Corey will secure building and shut down generators.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 2/22/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Toan Nguyen		PBS Project No.: 40535.488	Date: 2/23/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes No	Summary Phase Status: Level 1: Demo/Abatement/Loadout	
Supervisor	Yes No	Level 2: Demo/Abatement/Loadout	
Workers	Yes No	Level 3: No work occurring	
Name: Corey Foust		Other Personnel on Site: MacDonald Miller (MM)	
How Many? + 29			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Continued GWB & conduit demo, demo elevator shaft, & loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing and wall framing in Rm's 283/284, grinding floor mastic, HEPA vacuuming, and loading Mega-boxes.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. One worker moving ACM Mega-boxes on pallets from the ECE east loadout to the ACM dumpster in Parking Lot A. 1 additional worker is in Parking Lot A lining new containers with poly sheeting.

**0730** Level 1: Eight workers observed. 2 workers are using the PDG6000 floor grinder, hand grinder and HEPA vacuum to remove residual mastic near the containment entrance in the northeast area. 1 worker with a Sawzall removing 2 water heaters from Mechanical Room. 1 worker on a scissor lift removing metal brackets and conduits throughout. 1 worker using Sawzall to cut and remove elevator wallboard (wet methods observed). 2 workers lining Mega-boxes with poly sheeting and loading demolition debris into the boxes. Floor supervisor in the area. 6 negative air machines are running on this level.


**0800** Level 2: Thirteen workers observed. 1 worker at elevator shoveling wallboard for disposal. 1 worker using hand tools to detail clean floor mastics in the restrooms. 3 workers with hand tools, rags, and water to remove residual mastic at base of columns throughout. 2 workers removing foam at the perimeter of the room, removing all debris trapped at the perimeter, using HEPA vacuums and hand tools in Room O284. 1 worker on scaffolding detail cleaning metal wall studs with HEPA vacuum, rags, and water. 2 workers on scaffolding in between O283 and O284, with HEPA vacuum, rags, and water to detail clean structural beams and pan decking. 2 workers are removing Styrofoam at the perimeter of the room,

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 2/23/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/23/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

removing all debris trapped at the perimeter, using HEPA vacuums and hand tools. 1 worker on scaffolding with a HEPA vacuum, rags, and water to detail clean structural beams and pan decking Room O283. 13 negative air machines running on this level.

**1030-1115** Workers break for lunch and return to work.

**1100** PBS verifies that the school has picked up a portion of the rolling sheet music shelves stored in a Connex in Parking lot A. Three shelves remain in connex 4.

**1200** Dickson moves two tables previously from Room 168 from the connex to the skybridge doorway for pickup as requested by the College.

Level 2: Three workers with rags, water and hand tools removing residual non-acm cove base mastic at columns throughout the space. 1 worker at the restrooms detail cleaning mastic on plumbing. 1 worker on scaffolding removing residual adhesive at ceiling throughout. 5 workers are on scaffolding with rags, water, and HEPA vacuums to detail clean metal wall studs, structural beams and pan decking. 3 workers on the ground with rags, water, and vacuum to detail clean metal wall studs and crevices at the perimeter of the space Room O283. 1 worker at the in between space of O283 and 284 with a grinder to remove metal brackets on the wall. 2 workers are bagging foam and debris within the crevices at the perimeter of the room into ACM waste bags in Room O284.

**1215** Level 1: Three workers are shoveling elevator debris into mega box, 1 worker with a Sawzall dismantling the elevator. 2 workers are building a "clean room" with poly sheeting at Room O180. 2 workers using PDG6000 and HEPA vac to remove residual mastic on concrete floor. 3 workers are bagging demolition debris into ACM waste bags.

**1300** Dickson drops off the Rm 264 blue printing press from connex to the maintenance building as requested by college. PBS photo documents item returned in parts as requested.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS departs the site. Corey still on site and will secure site and shut down generators.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 2/23/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Peter Stensland, Cameron Budnick	PBS Project No.: 40535.488 DES Project No.: 2021-192
Contractor on Site Personnel:	Date: 2/24/22
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	Page 1 of 2 Time 0600 am
Workers <b>Yes</b> No Name: Corey Foust	Summary Phase Status: Level 1: Demo/Abatement/Loadout
How Many? + 28	Level 2: Demo/Abatement/Loadout
Air Monitoring Personnel on site: PBS/Dickson	Level 3: No work occurring
	Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Level 1: Continued grinding of floor mastic, load Mega-boxes, detail clean throughout. Level 2: Continue detail cleaning in Music rooms 283/284, HVAC demolition, and loading Mega-boxes.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. One worker moving Mega-boxes on pallets from the ECE east loadout to the ACM dumpster in Parking Lot A. 1 additional worker is in Parking Lot A lining new containers with poly sheeting.

**0820** Level 1: One worker grinding mastic off stairs by former kitchen. The grinding is being done with a grinder equipped with a HEPA vacuum attachment. 3 workers helping load waste into bins which are then being bagged and taped. 1 worker cleaning steel column. 2 workers scraping caulking off 2 concrete columns on the west wall. 1 worker is grinding mastic off the floor in the central area. 1 worker is misting down surfaces.

**0830** Level 2: Three workers in Room 283 vacuuming and wiping down the ceilings and walls. 1 worker in Room 284 is HEPA vacuuming dust from floor, 1 worker is sweeping debris on floor and the 3rd worker is cutting studs for removal. 1 worker is scraping cove base mastic from the east wall in the main floor area. 1 worker is loading materials onto the second floor.

**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: Name: Peter Stensland Date: 2/24/22



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/24/22
Abatement Contractor: Dickson	PBS Observer: Peter Stensland	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1130** Level 2: One worker scraping cove base mastic on the west wall. 3 workers in Room 284 cleaning out the cavity between the wall and floor and wet wiping the ceiling. 4 workers in Room 283 readjusting the scaffolding and removing a portion of the ducting at the ceiling.

**1140** Level 1: Three workers cleaning up drywall and stud debris from the base of the stairs. 2 workers in the cleaning room getting ready for load out- final vacuum and clean. 1 worker grinding mastic off floor. 1 worker removing caulk off west wall. 3 workers bringing in additional negative air machines. 1 worker continues grinding stairs adjacent to kitchen.

**1300** PBS confirms that the remaining music shelves and jazz plaques have been picked up by the college from connex 4.

**1330** Dickson moves the 16 tables from 168 from the connex to the hall near C512 in Cascade as requested by college. La Mae is picking up a waste container from parking lot A.

PBS vacates the site for a mandatory meeting in the Seattle office. Corey/MM will be responsible for site security and generator shutdown.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date: 2/24/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson <hr/> PBS Site Observer(s): Mike Smith, Peter Stensland, Cameron Budnick <hr/> Contractor on Site Personnel: Project Manager      Yes <b>No</b> Supervisor <b>Yes</b> No Workers <b>Yes</b> No    Name: Corey Foust How Many? + 30 Air Monitoring Personnel on site: PBS/Dickson	Project Name: Olympic South Abatement & Repairs <hr/> PBS Project No.: 40535.488                              Date: 2/25/22 DES Project No.: 2021-192 <hr/> Page 1 of 3                              Time                              0600      am <hr/> Summary Phase Status: Level 1: Demo/Abatement/Loadout Level 2: Demo/Abatement/Loadout Level 3: No work occurring Other Personnel on Site: MacDonald Miller (MM)
---	--

**WORK DESCRIPTION:** Level 1: Continued grinding of floor mastic, load Mega-boxes, detail clean throughout. Level 2: Continue detail cleaning in Music Rooms 283/284, caulking/sealing removal, and loading Mega-boxes.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. One worker moving ACM Mega-boxes on pallets and labeled ACM bags from the ECE east loadout to the ACM dumpster in Parking Lot A. 1 additional worker is in Parking Lot A lining new containers with poly sheeting.

**0730** Level 2: Two workers in the main floor area HEPA vacuuming around the wall cavities and at the base of metal structural columns. 2 workers in Room 284; 1 wet wiping the ceiling and the other is removing caulking from concrete floor. In Room 283 1 worker is removing caulk from between a CMU wall and flooring. 2 workers are removing caulking on the concrete columns. 3 workers wet wiping the ceiling above the mechanical mezzanine. 10 workers observed on this level.


**0800** Level 1: Two workers cleaning up debris around the elevator shaft. 1 worker cleaning debris off the stairs going down to Level 1, wet methods observed. 1 worker is misting down debris. 2 workers are removing the HVAC duct on the west wall and 1 worker is removing drywall on the adjacent south wall. 1 worker is assisting drywall demolition. 1 worker HEPA vacuuming wall cavities on the east wall. 1 worker is removing mastic from a column just outside the former Electrical Room. 1 worker is sweeping floor for dust and debris wet methods observed. 1 worker scraping residual mastic by hand from the floor by loadout. 1 worker is moving bagged (ACM bags) and (ACM labeled) taped mega boxes to

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 and 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith                              Date: 2/25/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/25/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

loadout. 1 worker is grinding mastic off the stairs adjacent to the kitchen. 1 worker is using the grinder in the NW section of the floor. 15 workers observed on this level.

**1000** Two workers in the cleaning room bagging and doing final detail cleaning of contents before they are loaded out into a Conex for storage. Dickson is going to demo the cleaning room, the large printer and documents waiting to be scanned have been moved into a newly created poly bubble by the old 181 doorway. All contents to be returned are being moved to connexs in Parking lot A for storage until they are returned.

**1030** PBS conducts a smoke test of the second floor, placing the smoke candles on the north side of the building and observing. Some smoke lingering in second floor area. Dickson brought in two additional negative air machines after lunch to improve air circulation within containment.

**1030-1115** Workers break for lunch and return to work.

**1130** Level 1: One worker continues using a powered hand grinder (w/HEPA vacuum attachment) to remove mastic from the short flight of stairs adjacent to the kitchen. 1 worker is removing the lighting fixtures just off the SE wall. 1 worker is cutting studs on the S wall. 2 workers are using the terminator to remove carpeting and expose mastic. 1 worker is spraying the general area to mitigate dust and debris from drywall removal. 1 worker is HEPA vacuuming debris out of the wall cavity along the S wall. 1 worker is HEPA vacuuming dust left over from the push-grinder in the S corner of the floor. 3 workers are wrapping the vending machine in poly sheeting. Floor lead walking through area. 12 crew observed on this level.

**1155** Level 2: Two workers are cutting apart the frame for the elevator at the top of the Level 1 elevator shaft. 1 worker is wiping down the fire sprinkler lines near the W wall. 1 worker wiping down the fire sprinkler lines in the SW corner of the level. 1 worker is wiping down the fire sprinkler pipes in the former art room by the remaining sink. 1 worker continues removing caulking from the concrete floor in 284 and another continues removing caulking on concrete columns against the S wall. 1 more worker is removing studs on the W wall. 3 workers are wet wiping the ceiling in Room 283. 1 is running the extension cables for the crew on scaffolding and another worker is hanging lights on the S wall.

**1330** Level 2: One worker is HEPA vacuuming mastic debris from around the metal structural column closest to the east containment entrance. 1 worker is readjusting the barriers around the open elevator shaft. In Room 284, 1 worker is using a reciprocating saw to remove caulking from the concrete floor. 1 worker is HEPA vacuuming debris from the removed caulking. 1 worker is bagging dirty pre filters from the negative air machines. In Room 283, 2 workers are HEPA vacuuming and scooping up wet debris removed from the ceiling. 1 worker is wet wiping the ceiling to remove dust. 1 worker is continuing removal of the sealing on a concrete piling against the east wall. 1 worker is on the mezzanine and is removing leftover insulation.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 2/25/22

---

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 2/25/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 3 of 3

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 1: One worker is cutting structure at the base of the open elevator shaft. 1 worker vacuuming dust and debris from the S wall. 1 worker hand scraping mastic from E wall at the loadout. 1 worker is W of loadout using the push-grinder. 1 worker cleaning up debris from the drywall removal. 1 worker spraying water on drywall debris. 3 workers loading up a plywood box with debris for removal. 2 workers are floating around, generally assisting. 1 more worker is cleaning up dust behind the push-grinder.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.


**1430** PBS and Workers off site for the day. Dickson/MM will secure site and shutdown generators.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 2/25/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 2/28/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Demo/Abatement/Loadout			
Level 2: Demo/Abatement/Loadout			
Level 3: No work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continue floor mastic removal, clean wall framing, & remove elevator hydraulic fluid. Level 2: Continued detail cleaning on walls/floors, remove GWB and associated fiberglass insulation from stairwell, & load out.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0740** Level 1: One worker along the southern ECE wall doing detail residual floor mastic grinding below the windows (worker sprayed down the area periodically during grinding). 3 workers wrapping and loading out metal debris from the elevator by the loadout area. 1 worker on a scissor lift removing wires from the Room168 ceiling. 1 worker on a terminator removing carpet and carpet mastic, one worker is wrapping up the bulk mastic. 1 worker cutting metal sections from the elevator with a Sawzall.

Level 2: One worker is wet wiping concrete columns. 1 worker covering holes in the wall with poly sheeting by the decon door. 1 worker in Room 283A doing general housekeeping. 4 workers in Room 284; 2 on mobile scaffolding wetting down the beams and cleaning the metal studs along the wall. 1 worker is using a Sawzall to remove the foam from between the concrete floor sections. 1 worker is using a squeegee to move the water away from the cracks in the floor (which are stuffed with rags). 1 worker is going throughout the floor changing out the negative air prefilters.

**1000** Level 2: Five workers in Room 284; 3 on mobiles scaffolding HEPA vacuuming between the wall studs, 1 is cleaning out the foam from between concrete slab sections, 1 worker is attaching fresh razor blades to paint scrapers. 1 worker in the mechanical mezzanine on mobile scaffolding HEPA vacuuming the steel beams, one worker in Room 283A is HEPA vacuuming between the metal studs in the east wall. 1 worker is using a broom and dustpan collecting "Clean Sweep" to

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 2/28/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 2/28/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

fine clean the concrete floor along the east wall. 1 worker is HEPA vacuuming the concrete floor along the west wall. 3 workers are by and/on the stairs removing GWB and fiberglass insulation with a prybar. The area is periodically misted down with water.

Level 1: One worker measuring out poly sheeting to line the wooden loadout box with. 1 worker using a large HEPA equipped grinder to clean the concrete floor by the loadout area. 1 worker using a handheld grinder (W/HEPA vacuum attachment) to do grinding along the ECE stairs. 1 worker in the southeast corner on a scissor lift razor scraping the ceiling metal studs. 1 worker is draining the hydronic fluid from the elevator machinery into a 55-gallon metal drum. 1 worker is placing poly sheeting underneath the grate in the bottom of the elevator shaft.

**1030-1115** Workers break for lunch and return to work.

**1130** One fuel truck operator refueling the diesel generator and fuel cube.

**1200** Three PCI workers assembling scaffolding between Olympic South and Olympic North underneath the sky bridge.

**1300** PBS collects microvac samples from items stored in the Conex.

**1400** PBS collects consultant air sampling started earlier in the day.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS departs the site. Corey/MM will secure building and shutdown generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 2/28/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland		PBS Project No.: 40535.488	Date: 3/1/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 18			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Demo/Abatement/Loadout			
Level 2: Abatement/Loadout			
Level 3: No work occurring			
Other Personnel on Site: MacDonald Miller (MM), PCI			

**WORK DESCRIPTION:** Level 1: Continue floor mastic removal, clean wall framing, & elevator shaft demolition. Level 2: Continued detail cleaning on walls/floors, cleaning the elevator shaft, & load out.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0740** Level 1: Two workers wiping down tools and supplies for loadout. 1 worker outside containment receiving the equipment. 1 worker grinding mastic on the concrete floor in Room 168. 2 workers in the old elevator shaft area removing conduit and excess metal from the roof.

Level 2: One worker at the top of the elevator shaft scraping caulking off the ceiling with a razor blade. 5 workers in Room 284; 3 are on mobile scaffolding cleaning between the metal studs, 1 is on the ground using "Clean Sweep" to pick up dust, and 1 worker is using a razor blade and HEPA vacuum to clean out the cavity between concrete slabs. 2 workers in Room 283 squeegeeing and scooping water / debris into an ACM bag. 1 worker bagging contents on the north side of the floor for disposal.

**0930** 3 contractors along with Pierce College personnel are reviewing the new metal cladding and removing some panels from the east side of the building.

**0950** Level 2: Three workers in Room 284; 2 on mobile scaffolding wet wiping and HEPA vacuuming the steel beams and 1 worker is HEPA vacuuming the crack along the CMU wall. 4 workers in the mechanical mezzanine wet wiping and HEPA

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 3/1/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/1/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

vacuuming between the studs. 1 worker HEPA vacuuming out the bottom of the columns (on top of the poly sheeting dividing the first and second level). 2 workers in the skybridge wet wiping the windows and recovering them with poly.

**1030-1115** Workers break for lunch and return to work.

**1130** Four PCI workers are assembling scaffolding underneath the skybridge between Olympic North and Olympic South.

**1230** Level 1: 4 workers on the south side of the floor; 1 is using a HEPA equipped grinder to remove floor mastic, 1 is using a terminator to remove bulk floor mastic in the loadout area, 1 is helping to pull poly sheeting out of the way of the terminator, and one is doing general housekeeping. 1 worker under the stairs removing GWB and fiberglass insulation.

Level 2: One worker at the top of the elevator shaft on mobile scaffolding using a wire brush to clean between the studs. 4 workers in Room 284; 2 on mobile scaffolding wet wiping and HEPA vacuuming the metal ceiling beams and 2 workers scraping and HEPA vacuuming the metal studs. 3 workers in the mechanical mezzanine wet wiping and HEPA vacuuming the metal wall studs. 2 workers doing detail cleaning on the restrooms.

**1400** PBS collects the consultant air samples outside of the containments.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS departs the site. Corey still on site and will secure site and shut down generators

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 3/1/22

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Gregg Middaugh		PBS Project No.: 40535.488	Date: 3/2/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 20			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Demo/Abatement/Loadout			
Level 2: Detail cleaning/Loadout			
Level 3: No work occurring			
Other Personnel on Site: MacDonald Miller (MM), PCI			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor & loading Mega-boxes. Level 2: Continued detail cleaning of fireproofing and wall framing in Rm's 283/284, grinding floor mastic, HEPA vacuuming, and loading Mega-boxes.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. One worker moving ACM Mega-boxes on pallets from the ECE east loadout to the ACM dumpster in Parking Lot A with forklift. 1 additional worker is in Parking Lot A lining new containers with poly sheeting.

**0800** Level 1: One worker on a scissor lift wet wiping piping. 2 workers HEPA vacuuming the bottom of the elevator shaft. 4 workers on the south side of the floor wet wiping pipes and metal studs.

Level 2: Four workers in Room 284; 1 is sweeping the floor and 3 are detail cleaning on the steel roofing beams and metal wall studs (wet wiping and HEPA vacuuming). 4 workers in Room 283 wet wiping and HEPA vacuuming between the studs. 1 worker doing detail cleaning underneath the poly sheeting separating level 1 and level 2 in the shaft. 1 worker wet wiping and HEPA vacuuming the restroom metal studs. 1 worker in Room 266 wet wiping the metal studs on mobile scaffolding.

**0830** PBS project manager Gregg M on site.

**0900** Five PCI workers setting up the scaffolding underneath the skybridge between Olympic north and Olympic south.

**1000** PBS is doing a walkthrough of Level 1 and Level 2.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 and 2.	Olympic South Levels 1 and 2.
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 3/2/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/2/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

**1300** Level 1: One worker misting down the work area with water. 1 worker scraping concrete columns with a razor scraper. 1 worker on a scissor lift wet wiping the ceiling. 2 workers doing general housekeeping. 1 worker wet wiping the piping on a scissor lift across from the elevator. 1 worker HEPA vacuum the floor in Room 168.

Level 2: Three workers inside Room 284; 2 on mobile scaffolding wet wiping and HEPA vacuuming the pan decking and 1 worker is HEPA vacuuming along the cracks in the floor. 2 workers in Room 283; 1 is doing general housekeeping and 1 is razor scraping the concrete pillar. 1 worker cutting out foam from the floor along the west wall. 2 workers HEPA vacuuming the metal studs along the north wall. 1 worker HEPA vacuuming between the metal studs on the stairs.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS departs the site. Corey/MM will secure building and shutdown generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 3/2/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter, Stensland, Toan Nguyen		PBS Project No.: 40535.488	Date: 3/3/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 23			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Demo/Abatement/Loadout	
		Level 2: Detail cleaning/Loadout	
		Level 3: No work occurring	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. Level 2: Continued detail cleaning throughout the floor.  
 Exterior: Construct scaffolding/enclosure below skybridge between Olympic South and Olympic North

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building or the adjacent north skybridge. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS observing scaffolding containment underneath the skybridge. Corey discussing plan for the containment. 5 workers are loading supplies onto the mobile scaffolding. 2 workers are managing equipment outside of the building containment managing equipment and bringing supplies to other workers.

**0715** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0745** Level 1: One worker HEPA vacuuming around the column in the SW corner. 1 worker on a scissor lift razor scraping caulking on the ceiling in Room 168. 3 workers inside the elevator shaft drilling a hole through the lifting piston to remove it with their makeshift crane (a large beam over the shaft with a chain pulley system).

Level 2: One worker razor scraping leveling compound from the concrete floor on the hallway ramp. 2 workers HEPA vacuuming and wet wiping along the top of the HVAC system in the skybridge. 1 worker removing the poly sheeting wall between the music rooms and the rest of the floor. 1 worker using a razor blade scraper on the mechanical mezzanine floor. 4 workers in Room 284; 2 are on mobile scaffolding wet wiping pipes and 2 are on the ground doing detail cleaning along the pipes and metal wall studs. 1 worker in Room 283 is moving around lighting.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 3/3/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/3/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0900** PBS visually performs visual inspection requested by Corey of Level 2 and makes a punch list of items that needs to be cleaned. PBS mark areas in need of additional cleaning with sharpie notes on tape at locations identified.

**1030-1115** Workers break for lunch and return to work.

**1100** Dickson Project Manager Todd Larson on site.

**1130-1200** PBS walks though level 2 to review punch list items with Dan (MM), Corey and Todd (Dickson).

**1345** Level 1: One worker doing general housekeeping on the south side of the building. 1 worker cutting out metal hangers in the Mechanical Room. 2 workers misting down and HEPA vacuuming the floor around the elevator.

Level 2: Five workers inside Room 284; 2 are on mobile scaffolding wet wiping the steel beams and three are on the ground wet wiping and HEPA vacuuming between the studs. 2 workers in the mechanical mezzanine wet wiping between the studs. 1 worker cutting out foam in the concrete floor with a Sawzall and chisel. 2 workers in the west skybridge wet wiping above the windows.

**1400** PBS is collecting consultant air samples throughout the site that were initiated this morning.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS leaves for the day. Corey and Dan will shut down generator secure the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 3/3/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Toan Nguyen		PBS Project No.: 40535.488	Date: 3/4/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 21			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Demo/Abatement/Loadout			
Level 2: Detail Clean/Loadout			
Level 3: No work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. Level 2: Continued detail cleaning throughout the floor.

Complete construction of scaffolding/enclosure below skybridge between Olympic South and Olympic North

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0730** Level 1: Two workers wet wiping supplies and tools for loadout. 1 worker in the Mechanical Room grinding off hangers from the ceiling. 1 worker in a scissor lift wet wiping the water pipes.

Level 2: Two workers wet wiping and sealing conduit in the concrete ceiling with fireproof caulking. 1 worker is loading out equipment from this level to the top of the stairway (behind the poly separation of the elevator demo area). 1 worker is HEPA vacuuming the wall studs on the northeast corner. 1 worker is on mobile scaffolding wet wiping the inside of the ceiling junction boxes. 1 worker is using a Sawzall to remove foam from between the floor concrete slabs. 3 workers in Room 284 are wet wiping the ducts and metal beams. 2 workers in Room 283; 1 is removing nails from the CMU wall and 1 is wet wiping the concrete floor of the mechanical mezzanine.


**0830** Exterior: Three workers setting up containment on top of the southern scaffolding platform under the student lounge skybridge.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 1 & 2	Olympic South Levels 1 & 2

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 3/4/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:3/4/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0945** Level 2: Three workers on scaffolding with HEPA vacuums, rags, and water to detail clean structural beams and pan decking. 1 worker is using an airless sprayer on mist setting to mitigate dust in Room O284. 2 workers on the ground using vacuums, rags, and water to detail clean metal wall studs in Room O283. 1 worker with Sawzall and other hand tools to remove foam at cracks on the floor throughout, then using HEPA vacuums to remove all debris. 3 workers are using scrape tools, rags, and vacuum to clean residual mastic and dust throughout.

**1015** Level 1: Three workers on the level. 2 workers are shoveling debris and dust into ACM waste bags by elevator. 1 worker is using a broom to clean up dust and debris throughout the floor.

**1015** Level 2: PBS observers are visually inspecting and labeling areas/ spaces where additional cleaning need to occur.

**1030-1115** Workers break for lunch and return to work.

**1200** PBS is collecting microvac samples from contents that have passed visual inspection.

**1300** Level 2: Two workers are on ladders and scaffolding to clean sprinkler heads at Room O275. 1 worker below them cleaning the floor. 1 worker at music department offices scraping residual mastic with hand tools. 3 workers on scaffolding detail cleaning CMU walls with water, rags, and HEPA vacuums. 1 worker on the ground sweeping in Room O284. 2 workers on scaffolding detail cleaning piping and 1 worker on the ground detail cleaning in Room O283. Wet methods observed.

**1315** Level 1: One worker on scissor lift with brush, rags, water, and vacuum to clean sprinklers and piping adjacent to Mechanical Room. 1 worker in Mechanical Room misting water to mitigate dust. 1 worker sweeping the floor throughout. Wet methods observed.

**1345** Containment at Olympic North Skybridge is complete. 5 workers in the area. 3 workers on south containment and 2 in the north.

Two workers in the parking lot demobilizing gear onto a flatbread truck.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaves for the day. Corey will shut down generator secure the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date:3/4/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai, Peter Stensland	PBS Project No.: 40535.488	Date: 3/7/22	
	DES Project No.: 2021-192	Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 25			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail clean/Loadout			
Level 2: Detail Clean/Loadout			
Level 3: No work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. Level 2: Continued detail cleaning throughout the floor.  
Complete construction of scaffolding/enclosure below skybridge between Olympic South and Olympic North -power and neg air machines installed

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**  
**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0745** Level 1: Three workers wet wiping the water pipes on the south side of the building. 1 worker loading in supplies from outside containment. 2 workers on a scissor lift on the north side of the floor doing cable management for the electrical cords.

Level 2: Two workers at the top of the elevator shaft wet wiping the electrical boxes in the ceiling before filling the conduit with fire caulking. 2 workers are wet wiping the metal studs in the restroom area. 1 worker is wet wiping water pipes throughout the floor. 1 worker is wet wiping HEPA vacuums and equipment. 1 worker is removing the foam from the floor with a razor blade and HEPA vacuum. 3 workers in Room 284: 2 are HEPA vacuuming along the base of the studs and CMU wall and 1 is on mobile scaffolding removing screws from the wall. 2 workers in Room 283 HEPA vacuuming along the CMU wall that separates Rooms 283 and 283A. 1 worker in the hallway between the music rooms on mobile scaffolding using a razor scraper and HEPA vacuum to clean the wall. The music rooms are periodically misted down with an airless sprayer.

**0945** Level 1: Four workers wet wiping the water pipes and metal studs on the south side of the building.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1 & 2

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date: 3/7/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/7/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

Level 2: Two workers inside Room 283 are removing caulking along the edge of the mechanical mezzanine. 2 workers HEPA vacuuming around the walls between the music rooms. 4 workers in Room 284 wet wiping and HEPA vacuuming along the base of the wall and between the metal studs. 1 worker HEPA vacuuming the floor around the negative air machines. 4 workers to the west of the bathroom wiping down junction boxes, removing old tape, and filling the conduit with fire caulking. 1 worker using a wire brush to clean residue off the concrete floor at the top of the elevator shaft.

**1030-1115** Workers break for lunch and return to work.

**1330** PBS visually inspects the pan decking and steel beams in the music rooms to provide Dickson with observations regarding how cleaning is progressing, and which areas are in need of more attention. PBS communicates minor bulk debris present where the pan decking panels connect to each other and the crack where the pan decking meets the metal I-beams as well as settled dust on the ceiling components.

**1355** Level 1: One worker refilling Hudson sprayers. 2 workers in scissor lifts wet wiping the water pipes and ceiling. 2 workers sweeping and squeegeeing the floor and doing general housekeeping in preparation for the end of the day.

Level 2: Work in 283/284 two workers change tasks (one in 283 one in 284 have shifted to detail cleaning the pan decking where it meets the top of the CMU wall) other work continues as before. One worker is wet wiping columns by the music rooms. 4 workers along the west side of the building; 2 are wet wiping the pipes and steel columns, 1 is putting fireproof caulking in conduits, and 1 is HEPA vacuuming the floor.

**1410** Three workers finishing the setup of the containment underneath the skybridge between Olympic South and Olympic North (south side containment). Workers are running power cords inside and testing out negative air machines.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1420** PBS collecting consultant air sampling throughout the site started earlier today.

**1430** Workers off site for the day.

PBS communicates with Corey the findings of PBS visual inspection of ceiling components in Rooms 283/284 and discussed general cleaning procedures throughout level 2 to maximize efficiency.

**1445** PBS leaving site. Corey on site will secure building and shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 3/7/22

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 3/8/220.
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 23			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail clean/Loadout			
Level 2: Detail Clean/Loadout Level 3: No work occurring			
Exterior: Skybridge soffit demo/abatement			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. Level 2: Continued detail cleaning throughout the floor.

South Skybridge Containment: Soffit panels removed

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** manual wet methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0730** Two workers in east stairwell, one on the second floor skybridge and one on the first-floor landing HEPA vacuuming the floor and doing general housekeeping.

**0745** Level 1: Two workers HEPA vacuuming between the metal wall studs in the southwest corner. 1 worker organizing tools throughout the floor. 1 worker elevating electrical cords throughout the floor (draping them over pipes with a scissor lift). Workers have established a new entryway into the containment through the 168 clean room.

Level 2: Four workers in Room 283; 1 is wet wiping / HEPA vacuuming the base of the CMU wall that separates Rooms 283 and 283a and 3 are on mobile scaffolding wet wiping the pan decking and steel beams. 1 worker in Room 284 wet wiping the steel beams and pan decking. 1 worker wet wiping columns on the south side of the floor. 2 workers wet wiping pipes in the middle of the floor. 1 worker filling conduits with fire caulking and attaching asbestos stickers in ceiling boxes in the north area of the floor.


South Skybridge Containment: Three workers begin soffit panel removal. The containment is under negative pressure observed by flaps being pulled in. Wet methods are being used during panel removal.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Contaminated soffit panels: South Skybridge Containment	Olympic South Levels 1, 2, & South Skybridge Containment

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland Date: 3/8/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:3/8/22
Abatement Contractor: Dickson	PBS Observer: Peter Stensland	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** Level 1: Three workers HEPA vacuuming between the studs and detail cleaning with razor scrapers on the south side of the building. 1 worker on a scissor lift wet wiping water pipes along the west wall.

Level 2: One worker at the top of the stairs cleaning out the junction box with a razor blade and then wet wiping. 1 worker is organizing the electrical cords between spider boxes, 1 worker is bringing a fresh bag of rags to the worker at the top of the stairs on mobile scaffolding. 2 workers along the west wall wiping down water pipes and cords. 3 workers in Room 284; 1 is using an airless sprayer to reduce air-born particulate in the work area and 2 workers are doing general housekeeping. Three workers in 283; 2 on mobile scaffolding wet wiping and HEPA vacuuming the ceiling beams/pan decking and 1 worker is HEPA vacuuming along the CMU wall between Rooms 283 and 283a.

**1030-1115** Workers break for lunch and return to work.

**1200** PBS collecting the remaining art microvac samples from Room 261 contents in a connex in Parking lot A.

**1300** Level 1: Workers continue wet wiping and razor scraping wall framing studs and water pipes along the south side of the level.

Level 2: Workers continue wet wiping and HEPA vacuuming ceiling, beams, and walls throughout the level.

**1415** Three workers deconning out of the scaffolding containment on the south side of the skybridge. All of the panels have been removed and covered in poly. The remaining sections will be cut and loaded out tomorrow. All workers on the other levels begin to decon out for the day.

**1430** Workers off site for the day.


**1500** PBS vacates the site. Corey will secure doors and shut down generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland

Date: 3/8/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland, Kaitlin Soukup, Gregg Middaugh		PBS Project No.: 40535.488	Date: 3/9/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 24			
Air Monitoring Personnel on site: PBS/Dickson		Summary Phase Status: Level 1: Detail Cleaning/Loadout	
		Level 2: Detail Clean/Loadout	
		Level 3: No work occurring	
		Other Personnel on Site: MacDonald Miller (MM), Total Reclaim	

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. PBS scanning contents for document recovery. Level 2: Continued detail cleaning throughout the floor. South Skybridge Containment: Soffit panels removed and are being and loaded out.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** manual wet methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building and associated south skybridge. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. Dickson moving 4 refrigerators and 1 vending machine to Parking Lot A for the purpose of removing refrigerant gas prior to disposal (items are building contents that have been approved for disposal, one refrigerator from maintenance building contents). 2 of the refrigerators are medium sized and the other 2 are smaller units. Total Reclaim is on site in the parking lot to do the gas removal. The refrigerators and vending machine are wrapped in poly sheeting except for the compressor units. PBS visualize refrigerators and the vending machine compressors – 4 units free of visible dust, one unit has some visible dust remaining. To remove the gas from this unit, Dickson will demarcate it with asbestos warning tape, don PPE, and attach the gas evacuation tool at the direction of Total Reclaim who is outside of the work area. Total Reclaim will evacuate the refrigerant gas from the other 4 units. PBS in area observing work.

**0730** Four workers inside the south skybridge containment wrapping the soffit panels in poly sheeting for loadout, two negative air machines are exhausting out of the work area. Negative pressure observed on the poly sheeting of the containment.

**0750** Level 1: One worker inside at the SW Column wet wiping and HEPA vacuuming the studs. 2 workers moving a large wood push bin filled with wrapped demolition debris (with ACM labeling) to the loadout area. 1 worker is gathering cleaning supplies. 2 workers on mobile scaffolding razor scraping the junction boxes and wet wiping them before sealing the conduits with fire caulking in Room 168. 1 worker HEPA vacuuming the floor in Room 181.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Contaminated soffit panels: South Skybridge Containment	Olympic South Levels 1, 2, & South Skybridge Containment

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 3/9/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:3/9/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

Level 2: Two workers on ladders around the restrooms wet wiping the water pipes and sprinkler heads. 1 worker is using "Clean Sweep" material to sweep the west side of the floor. 1 worker is moving around electrical cords and organizing the spider boxes. 1 worker in Room 284 using "Clean Sweep" material to do a detail sweep of the floor. 3 workers in Room 283; 1 is loading the power washer onto the mobile scaffolding for use on the ceiling, 1 worker is scraping off residual mastic with a mastic remover and steel wool in the SW corner, and 1 worker is cutting sections of poly to put overtop the negative air machines.

**0800** PBS Project Manager Gregg Middaugh arrives to the job site. PBS continues scanning contents in Poly sheeting scan room constructed on level 1. PBS communicated with Corey in Parking lot A some contents in Connex that need additional cleaning.

**0900** The refrigerant gas removal is complete from the 4 refrigerators and the vending machine. Total Reclaim has labeled the units with "Certified CFC Free" labeling and is leaving the site. Dickson is sealing the exposed compressor units with poly sheeting prior to disposal.

**0930** PBS collects microvac samples from underneath the skybridge between the insulation and the pan decking.

**1030-1115** Workers break for lunch and return to work.

**1300** PBS collects microvac samples from the play equipment and concrete tunnel SW of the building.

**1330** Level 1: Workers continue wet wiping, pressure washing, and razor scraping wall framing studs, ceilings, and water pipes along the south side of the level. Workers are also using "Clean Sweep" on other floor areas of the level as final cleaning measure.

Level 2: Workers continue wet wiping and HEPA vacuuming ceiling, beams, and walls throughout the level.

**1400** PBS visually inspects the refrigerator and vending machine refrigerant gas removal site, no residual suspect material remains, banner tape bagged and removed. 1 worker inside the Conex containment wet wiping items to be transferred by another worker into the neighboring connex for storage until PBS visual. Work area set up in connex not visible from outside construction fence.

**1415** Workers are deconning out of all work areas for the day.

**1430** Workers off site for the day.

**1530** PBS leaving site. MM leaving site. Doors locked, generator shut down.

Good negative pressure is indicated on all floors of the Olympic South Building to include the south skybridge containment. The server area of Level 3 remains under negative pressure with the containment walls still intact.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 3/9/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Peter Stensland	PBS Project No.: 40535.488 <span style="float:right;">Date: 3/10/22</span>
	DES Project No.: 2021-192
	Page 1 of 2 <span style="float:right;">Time 0600 am</span>
Contractor on Site Personnel:	Summary Phase Status: Level 1: Detail Clean/Loadout
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	Level 2: Detail Clean/Loadout Level 3: No work occurring
Workers <b>Yes</b> No Name: Corey Foust	North skybridge containment: Soffit demo
How Many? + 22	Other Personnel on Site: MacDonald Miller (MM), PCI
Air Monitoring Personnel on site: PBS/Dickson	

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. Level 2: Continued detail cleaning throughout the floor.

North Skybridge Containment: Removal and loadout of soffit panels.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0745** Level 1: One worker in the ECE filling conduits in the ceiling with fire caulking. 1 worker shoveling out loose rocks and debris from the demolished ECE stairs, water misted is in progress as work occurs. 1 worker is wet wiping metal studs along the west wall. 2 workers wet wiping metal studs on the east wall. 3 workers in the middle of the floor, 2 are wet wiping the ceiling and water pipes and 1 is using a pressure washer to spray down the ceiling.

Level 2: One worker HEPA vacuuming the railing along the top of the stairs. 1 worker wet wiping the poly sheeting in the columns that separate the first and second floor. 5 workers in 283; 2 on mobile scaffolding power washing the pan decking and CMU wall and 3 are below bagging contents and squeegeeing the floor.

**1000** Level 1: One worker is resealing poly sheeting around the stairway windows. 6 workers along the west wall, wet wiping, scraping caulking with razors and HEPA vacuuming the ceiling and studs. 1 worker along the south wall using fire caulking to seal conduits in the ceiling. Corey and Dan are doing a walkthrough of the work area.

Level 2: One worker in Room 284 adjusting lights to gain better visibility of the ceiling and wet wiping the surface of the light. 1 worker just outside the music rooms HEPA vacuuming along the cracks in the floor and metal wall studs. 3 workers in Room 283; 2 are on the ground HEPA vacuuming water and stuffing the cracks with rags and one is organizing tools at

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Contaminated soffit panels: North Skybridge Containment	Olympic South Levels 1, 2, & North Skybridge Containment

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 3/10/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 3/10/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

the top of the scaffolding. 1 worker by the containment entryway picking up "Clean Sweep" with a shovel and putting it into an ACM bag.

**1030-1115** Workers break for lunch and return to work.

**1230** Level 2: Three workers in the mechanical mezzanine wet wiping down the ceiling and metal studs. 3 workers just outside the music rooms; 1 is HEPA vacuuming cracks in the floor, 1 is sweeping "Clean Sweep" and one is HEPA vacuuming the floor.

**1300** PBS walks through Level 2 containment with Todd and Corey. Todd and Corey discussing work procedures.

\*Level 2 stairwell and elevator shaft penetration area has been sealed off from Level 1.

**1330** Level 1: Two workers in the mechanical room hanging poly from the ceiling making a temporary wall to separate it from the main work area. 3 workers in the NW section of the building; 1 is sealing a 55-gallon drum (containing hydraulic fluid) and 1 is wet wiping the concrete ceilings and one is HEPA vacuuming between the studs. 1 worker underneath the stairs removing cove base and mastic from the columns. 2 workers are on mobile scaffolding on the stairs resealing poly sheeting to the windows one on the landing and resealing poly sheeting to the window framing.

**1400** PBS is collecting consultant air samples throughout the site that were initiated this morning. Soffit panels in North skybridge containment have been removed.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1550** PBS leaving site. Generators shut off, doors locked

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 3/10/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland		PBS Project No.: 40535.488	Date: 3/11/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0500 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail Clean/Loadout			
Level 2: Detail Clean/Loadout Level 3: No work occurring			
Skybridge containments: no work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. Level 2: Continued detail cleaning throughout the floor.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

- 0500** PBS sets up exterior ambient samples on the east, south, and west side of Olympic South.
- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.
- 0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.
- 0730** Level 1: Four workers on the north side of the floor, two are hanging poly sheeting around the mechanical room separating it from the remainder of the floor.
- 0830** Level 2: Four workers in the west skybridge HEPA vacuuming and wet wiping the metal studs above the windows. 2 workers along the west wall wet wiping the ceiling on mobile scaffolding. 7 workers along the north wall wet wiping and HEPA vacuuming the metal wall studs and GWB. Corey in area directing work.
- 1030-1115** Workers break for lunch and return to work.
- 1200** PBS enters the first floor with MM to look at potential areas to set up temporary power inside the building.
- 1330** Level 1: Four workers wiping down ceiling components around the mechanical room, 1 worker is hanging poly to create a tunnel inside the mechanical room for access to panel that will be tied into for temporary power.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
2 full 40 CY containers (ACM bags and wraps) removed from site today	Olympic South Levels 1 & 2

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 3/11/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 3/11/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 2: Nine workers on the north side of the building doing detail cleaning around the restrooms and decon area. Workers are wet wiping from top down on ladders and mobile scaffolding while workers below bag used cloths and position new ladders. 2 workers in the skybridge; 1 is on the ladder wet wiping the tops of the studs, the other worker is holding the ladder and passing up equipment. Corey in containment directing work making sure workers stay in their assigned areas detail cleaning north to south toward the negative air.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1400** Claire T on site.

**1430** Workers off site for the day. PBS collects the air samples outside of containment, the ambient air samples are still running properly.

**1500-1800** Dickson and MM off site. PBS continue scanning effort as part of inventory documentation recovery.


**1830** PBS collect ambient air samples and leave site. Generator shut off, doors locked.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date: 3/11/22



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 3/14/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 22			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail Clean/Loadout			
Level 2: Detail Clean/Loadout Level 3: Disposal of server area floor panels, remove stanchions.			
Skybridge containments: no work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the floor. Level 2: Continued detail cleaning throughout the floor.  
 Level 3: Dispose of server floor panels and begin removal of associated stanchions.

**WORKER PROTECTION:** ½ face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site. Two workers donning PPE to enter the Level 3 containment for loadout of the server floor panels.

**0800** Level 1: One worker loading in equipment from the loadout area, 1 worker outside containment passing in equipment.

Level 2: Three workers in the restroom area wet wiping and HEPA vacuuming the metal studs and plumbing. 4 workers along the east side of the floor wet wiping and HEPA vacuuming the pipes and clips hanging from the ceiling. 4 workers along the west wall wet wiping the columns, and ceiling junction boxes. 2 workers by the music rooms unloading server floor panels from the third floor for loadout. Two workers in level 3 containment pass server floor panels to worker on top of scaffolding in Room 284. Panels get passed down scaffolding and down northwest stairwell to level 1 where panels are loaded into mega box for disposal.

Level 3: Two workers passing down server floor panels to the worker on the mobile scaffolding on Level 2 through a hole in the GWB wall on the south side of the floor. Workers on Level 3 will exit through the level 2 skybridge. PBS, Dan and Corey on Level 3. MM will be setting up temporary power panel in level 3 in the area that has previously been cleared.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 3/14/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date:3/14/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

PBS, Dan and Corey view air handler unit caps from below. Corey communicates potential to clean the caps from below if worker can access that area to clean between the pan decking and the roof cap.

**1030-1115** Workers break for lunch and return to work.

**1215** Dickson fuel truck on site to refill the generator and fuel cube.

**1245** Level 1: One worker changing out the prefilters for the negative air machines throughout the floor.

Level 2: Two workers moving the stacked server floor panels (from Level 3). 3 workers on the west side of the floor wet wiping and HEPA vacuuming around the base of the columns and steel poles. 1 worker in the restroom area wet wiping pipes. 2 workers in the skybridge wet wiping the metal studs above the windows. 3 workers along the east wall wet wiping the metal studs. Corey and Dan (MM) are going through the floor inspecting progress.

**1320** Dickson fuel truck is draining the hydraulic fluid out of the 2, 55-gallon drums. The hydraulic fluid was from the elevator equipment room and each drum was approximately half full. 1 worker is sweeping out the main access road on the east side of the building.

**1335** Level 3: Two workers dismantling the server floor stanchions with drills and staging them to load them out through the Level 2 scaffolding.

**1400-1430** PBS, Dan, and Corey enter level 1 containment to assess set up for access to temporary power in mechanical room. Dickson will be reconstructing a mini enclosure from the west double doors straight into the mechanical room for the clean temporary power panel to sit. The junction box will be accessed through containment by the MM electrician with the 16 hour training.

**1400** Two workers in the parking lot closing the waste containers for the day.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting. PBS collects the air samples running outside of the containments.

**1430** Workers off site for the day.

**1500** Dickson and MM off site. Doors locked.

**1530** PBS shut down generator and leave site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 3/14/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland	PBS Project No.: 40535.488	Date: 3/15/22	
	DES Project No.: 2021-192	Page 1 of 2	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status: Level 1: Detail Clean/Loadout		
Project Manager Yes <b>No</b> Supervisor Yes No	Level 2: Detail Clean/Loadout. Level 3: Demo server floor structure		
Workers <b>Yes</b> No Name: Corey Foust	Skybridge Containments: No work Occurring		
How Many? + 16	Other Personnel on Site: MacDonald Miller (MM)		
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Detail cleaning to include HEPA vacuuming and wet wiping throughout the level. Level 2: Final detail cleaning to include HEPA vacuuming and wet wiping throughout the level. Level 3: Demolition of server floor stanchions and continued loadout.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** manual wet methods – HEPA vacuuming and wet wiping

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0645** Level 3: Two workers inside the containment; 1 is loading server floor stands to a worker on the scaffolding in Level 2 Rm 284 and 1 worker is disassembling the server floor stands to aid in loadout.

**0700** Dickson transporting Mega-boxes with demolished raised server floor components with forklift from level 1 loadout to Parking Lot A waste containers.

**0745** Level 1: Two workers sealing up a poly sheeting wrap inside a wooden box filled with server floor components for loadout. 1 worker removing the previously constructed poly sheeting tunnel in the Mechanical Room. 1 worker organizing equipment along the east wall.

Level 2: Two workers along the west wall previously Room 275 wet wiping the base of the metal studs and the concrete ceiling. 4 workers on the west side of the floor; 1 worker is wet wiping the concrete floor, 1 worker is wet wiping the concrete ceiling, 1 worker is building the poly sheeting mini enclosure for the temporary power panel, and 1 worker is HEPA vacuuming the floor around the negative air machines (west stairs)

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 3/15/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 3/15/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0845** Level 2: PBS visually inspects the temporary power mini enclosure; 1 worker is responding to cleaning on any issues found.

**0900** Level 2: PBS visually inspects the temporary power clean room passes visual inspection and the worker begins preparing it for encapsulation.

**0945** Corey requests PBS visual inspection of the area of the floor on Level 1 in the Mechanical Room where the mini enclosure for the Level 1 temporary power mini enclosure will sit.

**1000** Level 1: PBS visually inspects the floor for the tunnel to access the new temporary power clean room in the Mechanical Room. 2 workers are responding to items needing more cleaning as PBS identifies them.

**1020** Level 1: The Mechanical Room floor section passes visual inspection; the workers are going to spray the floor down with a Hudson sprayer filled with encapsulate then erect a wooden / poly frame around the area to separate it from the containment.

**1030-1115** Workers break for lunch and return to work.

**1150** One Lifting Equipment Rental worker is picking up the I-beam crane from Dickson.

**1230** Level 3: Three workers dismantling the server floor panels (unscrewing the panels and disassembling the stands) before passing them down to Level 2 through the hole in the south wall.

**1315** Level 1: Two workers loading out the lined wooden box. 2 workers assembling the wooden frame around the clean room tunnel in the Mechanical Room.

Level 2: Seven workers spread out W to E across the W stair line; 2 are on mobile scaffolding wet wiping the ceiling, 3 are on ladders wet wiping the ceiling and the tops of pipes and 2 are on the ground HEPA vacuuming the floor.

**1400** Claire T on site for meeting with Charlene W, Dan, and IT department employee.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1545** PBS off site. Dan still on site will shut off generator and secure site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Mike Smith

Date: 3/15/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Mae Reilly, Gregg Middaugh		PBS Project No.: 40535.488	Date: 3/16/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 20			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail Clean/Loadout			
Level 2: Detail Clean/Loadout. Level 3: Demo server floor structure			
Skybridge Containments: No work occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Final detail cleaning to include HEPA vacuuming and wet wiping throughout the level. Level 2: Final detail cleaning to include HEPA vacuuming and wet wiping throughout the level. Level 3: Demolition of server floor stanchions and continued loadout.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming and wet wiping

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0700** Level 3: Three workers disassembling the remaining portion approx. 10% of the server floor and passing it down to Level 2 for loading out.

**0800** Level 1: One worker inside the Mechanical Room securing Dura Skrim (reinforced poly sheeting) to a wooden frame to seal off the mini-enclosure and tunnel from the rest of the containment (for the temporary power panel). PBS observed the poly sheeting critical barrier on the mini enclosure are being drawn towards the containment.

Level 2: One worker configuring the negative air machine in the mini enclosure (for the temporary power) to keep it under positive pressure from the containment. 8 workers along the D grid line, 4 are wet wiping the ceiling and pipes, 1 worker is loading ACM bags onto a pallet for loadout, 3 are along the west wall, 1 is wiping down the pipes along Room 284, 2 by the negative air machines wet wiping the metal studs. PBS initiate clearance sample in temporary power mini enclosure.

**0900** PBS project manager Gregg M on site. PBS continues document recovery in scanning room on Level 1.

**1000** Level 2: PBS collects the clearance sample for the mini enclosure. 4 workers along the east wall; 3 are HEPA vacuuming the floor and 1 is wet wiping pipes. 2 workers wet wiping metal studs along the west wall. 2 workers on the mechanical mezzanine; 1 is wet wiping the pan decking and 1 is HEPA vacuuming the floor. 1 worker is wet wiping the

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Level 3	Olympic South Levels 1/2/3
1 full 40 CY container (ACM bags and wraps) removed from site today	

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 3/16/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/16/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

water pipes coming out of Room 284 towards the north. 1 worker is going through the floor with a flashlight inspecting the cleaning process.

**1025** PBS initiates clearance sample in level 1 mini enclosure.

**1030-1115** Workers break for lunch and return to work.

**1200** PBS continues document recovery in scanning room on Level 1. PBS analysis of the clearance sample in the Level 2 mini-enclosure yields passing results by on-site microscopic analysis. PBS notifies Dan and Corey of Level 2 mini enclosure clearance.

**1225** PBS collect Level 1 mini enclosure clearance sample. PBS analysis of the clearance sample in the Level 1 mini-enclosure yields passing results by on-site microscopic analysis. PBS notifies Dan and Corey of Level 1 mini enclosure clearance.

**1300** One full 40 CY container (ACM bags and wraps) and 1 full 40 CY container General Debris removed from site today removed from Parking Lot A.

**1330** Level 1: Two workers on the stairs passing down server floor panels into a mega box for disposal.

Level 2: Two workers in Room 284 wet wiping the ceiling beams and pan decking. 3 workers along the west wall wet wiping and HEPA vacuuming the metal studs. 4 workers in Room 283 loading out ACM bags filled with rags and other used cleaning supplies.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS departs the site. Corey will shutdown the generators and secure the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai

Date: 3/16/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Mae Reilly		PBS Project No.: 40535.488	Date: 3/17/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +19			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail Clean/Loadout			
Level 2: Detail Clean/Loadout. Level 3: Demo server floor adhesive			
Skybridge Containments: No work Occurring			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Final detail cleaning to include HEPA vacuuming and wet wiping throughout the level. Level 2: Final detail cleaning to include HEPA vacuuming and wet wiping throughout the level. Level 3: Demolition of server floor stanchion adhesive.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming and wet wiping

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0700** Level 3: Two workers removing the adhesive that held the server floor stanchions to the concrete floor.

Two workers assisting from outside containment (Forklift driver and spotter)

**0830** PBS continues document recovery in scanning room on Level 1.

**0850** Level 1: Two workers using "Clean Sweep" to pick up remainder of dust from the concrete floor.

Level 2: Four workers in Room 284 on mobile scaffolding misting the CMU wall with an airless sprayer then scraping off the fireproofing overspray that was concealed beneath the paint. 2 workers in the mechanical mezzanine wet wiping the ceiling beams and pan decking. 4 workers in Room 284 wet wiping the pan decking, metal studs and ceiling beams on top of mobile scaffolding. 1 worker HEPA vacuuming the floor along the west wall.

Floor supervisor assisting between containments as needed.

**0950** PBS and Dan walk through containments. Visual workers in band rooms scraping fireproofing over spray from CMU walls of 283 and 284. Walkthrough Level 1 mechanical room to see which cables can be removed based on

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated building materials from Levels 3	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai

Date: 3/17/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/17/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

communication with college IT department. Some boxes and cables will need to stay in place and be cleaned and cleared with the space.

**1030-1115** Workers break for lunch and return to work.

**1230** PBS continues document recovery in scanning room on Level 1.

**1320** PBS walk through level 2 north area and note components that need additional cleaning with duct tape.

**1330** Level 2: Four workers in Room 284; 2 on mobile scaffolding scrapping the painted fireproofing overspray on the CMU wall and 2 workers below on the ground scraping the CMU wall. 2 workers in Room 283 wet wiping the ceiling beams. 1 worker on the mechanical mezzanine HEPA vacuuming the bottom of the metal studs. 1 worker is HEPA vacuuming the cracks by the D grid line.

**1400** PBS is collecting consultant air samples throughout the site that were initiated this morning.

**1400-1500** Weekly construction meeting with project team.

**1410** Level 1: One worker doing general housekeeping throughout the floor.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1530** PBS leaves for the day. Corey will shut down generator secure the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 3/17/22



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Claire Tsai, Mike Smith, Peter Stensland, Gregg Middaugh, Mae Reilly	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 3/18/22
Contractor on Site Personnel: Project Manager      Yes <b>No</b> Supervisor <b>Yes</b> No Workers <b>Yes</b> No    Name: Corey Foust How Many? + 18 Air Monitoring Personnel on site: PBS/Dickson	Page 1 of 2                              Time                              0600      am Summary Phase Status: Level 1: Change negative air pre filters. Level 2: Detail clean/smoke test/Loadout. Level 3: Detail clean server containment. Skybridge Containments: No work occurring Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Level 1: Change negative air machine prefilters and adjust locations of those machines. Level 2: Final detail cleaning to include HEPA vacuuming and wet wiping throughout the level. PBS smoke test level. Level 3: Detail clean server floor area containment.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming and wet wiping

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS calibrating various pumps to collect daily PCM air samples throughout site.  
 Level 1: Two workers on the level changing negative air machine prefilters and adjusting machine locations. No other work occurring on this level today.

**0700** Level 3: Three workers inside containment; 1 is on mobile scaffolding wet wiping the ceiling components, 1 is wet wiping metal studs around the electrical components, and 1 is wet wiping / HEPA vacuuming between the wall studs on the SW corner.


**0830** PBS project manager Gregg M on site.  
 Level 2: Three workers in Room 283; 2 are on mobile scaffolding wet wiping and HEPA vacuuming the steel beams and pan decking and scraping off the fireproofing overspray under paint on the CMU wall, and 1 worker is below HEPA vacuuming the crack along the CMU wall peeling back the poly that previously covered it. 1 worker in the mechanical mezzanine wet wiping and HEPA vacuuming the metal studs. 1 worker going throughout the floor spraying the air with an airless sprayer. 1 worker in Room 284 scraping / HEPA vacuuming the fireproofing overspray under paint on the CMU wall. 2 workers along the north wall wet wiping and HEPA vacuuming the metal studs.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

  
 Signature: \_\_\_\_\_  
 Name: Mike Smith                              Date: 3/18/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/18/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 1 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**0900-1000** Claire T on site for smoke test. PBS is conducting a smoke test of the second floor. All workers vacate the workspace, Corey remains to inspect the airflow on the floor. Corey communicates after lunch break workers will adjust negative air machines based on air flow patterns observed during smoke test. Additional air scrubbers will be added to the space to help with air circulation inside Level 2.

**1030-1115** Workers break for lunch and return to work.

**1245** One worker operating a forklift lifting negative air machines on pallets into the skybridge. 1 worker in the skybridge loading the negative air machines off the pallets.

**1300** Level 2: PBS is measuring the dimensions of the floor to assess negative air circulation requirements. 2 workers in Room 284 spraying down the CMU wall with an airless sprayer before scraping off fireproofing over spray under paint. 1 worker on the mechanical mezzanine wet wiping the metal studs. 1 worker in Room 283 spraying down the walls with an airless sprayer before scraping off the fireproofing over spray. 4 workers on the north side of the floor, 1 is HEPA vacuuming the floor, 2 are wet wiping metal studs and one is filling conduit holes with fire caulking.

**1330** Level 3: Workers continue wet wiping the ceiling components, metal studs around the electrical components, and wet wiping / HEPA vacuuming between the wall studs on the southwest side of the level.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaves the site, Corey will shut down generators and secure site  
Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 3/18/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick, Mae Reilly	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 3/21/22
Contractor on Site Personnel: Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No Workers <b>Yes</b> No Name: Corey Foust How Many? + 17 Air Monitoring Personnel on site: PBS/Dickson	Page 1 of 2 Time 0600 am Summary Phase Status: Level 1: Scan doc's/extend mini enclosure room. Level 2: Continued detail cleaning. Level 3: No work occurring. South Skybridge Containment: Detail cleaning Other Personnel on Site: MacDonald Miller (MM), BCE

**WORK DESCRIPTION:** Level 1: PBS scanning school documents. Extend mini enclosure for temp power. Level 2: Continued detailed cleaning throughout the space to include HEPA vacuuming and wet wiping throughout the level. South Skybridge Containment: Detailed cleaning

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming and wet wiping

**OBSERVATIONS:**

- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.
- 0645** Two workers on the south skybridge scaffolding pushing off pooled water from the top of the poly sheeting and ensuring there is no leaks in the containment.
- 0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.
- 0715** Level 2: Four workers in Room 284; 2 are on mobile scaffolding wet wiping the metal studs, 1 is HEPA vacuuming / wet wiping the base of the metal studs and 1 worker is HEPA vacuuming the cracks in the concrete slab. 2 workers in the hallway outside the music rooms scraping off fireproofing overspray from the CMU wall with razor blade scrapers. The wall is periodically misted down with an airless sprayer. 1 worker in Room 283 on mobile scaffolding scraping off fireproofing overspray. 3 workers by the decon area bagging dirty rags and cleaning supplies for loadout. 1 worker on the north wall wet wiping the metal studs. 1 worker is covering sprinkler heads with gloves along the north side of the building. 1 worker is wet wiping the pipes by the restrooms.
- 0830** PBS continue document recovery in scanning room on level 1.
- 0940** South Skybridge Containment: 2 workers observed; 1 sealing up the load out flap and the second is loading encapsulation into the work area.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/South Skybridge containment

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai  
 Date 3/21/22

**PBS Environmental Field Observation Report**  
**Additional Page**

---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 3/21/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

Level 2: Five workers are wiping down exposed surfaces- fire sprinkler pipes, fire-sprinkler heads, studs, and walls on the level. PBS has communicated sprinkler heads need some additional cleaning. In Rooms 283 and 284, 3 workers are wiping down studs on the SE walls. 3 workers are scraping fireproofing overspray off the CMU walls. 1 is taping off an expansion joint in the floor to keep water from entering the floor.

**1030-1115** Workers break for lunch and return to work.

**1050** Todd Larson on site.

**1100** Construction team and BCE on site for walk through related to potential power shut down of campus.

**1200** Level 1: Two workers assembling a wooden structure to extend the mini enclosure in the mechanical room (for temp power assembly). PBS visually inspects the floor and gives the okay for Dickson to encapsulate. Workers use a Hudson sprayer to apply the encapsulate to the floor before spreading it around with a brush to ensure an equal coat. 1 PBS worker is scanning documents from various area as part of inventory document recovery process.

Level 2: One worker wet wiping pipework associated with restrooms. 1 continues wiping down studs on the east wall. 2 workers are wiping down sprinkler pipe heads. 1 is HEPA vacuuming the poly sheeting critical barrier separating the first and second floor column cavities. In Rooms 283 and 284 - 2 workers are on scaffolding wiping the fireproofing off the CMU walls. 1 worker is HEPA vacuuming out studs. 4 workers are on the other side of the CMU walls with an airless, HEPA vac, and razor scrapers to remove fireproofing from the CMU.

**1300** PBS visually inspects and collects microvac samples from contents in a Conex. 3 workers exit level 2 containment to work on south skybridge containment.

**1345** Level 2: Three workers in Room 284 cleaning fireproofing off the CMU walls. In Room 283, 3 workers are on scaffolding razor scraping the fireproofing off the CMU wall shared with Room 284. 2 workers are on the 1/2 floor wet wiping the wall studs.

**1350** South Skybridge Containment: Three workers wet wiping ceiling components on the east side of containment.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS leaves the site, Corey will shut down generators and secure site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 3/21/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Cameron Budnick, Mae Reilly		PBS Project No.: 40535.488	Date: 3/22/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 16			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Scan doc's/clear mini enclosure extension. Level 2: Detail cleaning. Level 3: No work.			
South Skybridge: Detail clean. North Skybridge: Begin cleaning.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: PBS scanning school documents. PBS run clearance sample in mini enclosure extension for temp power. Level 2: Rm 283/284 detail cleaning throughout. Razor scrape, HEPA vacuum, and wet wiping. South Skybridge Containment: Detailed cleaning. North Skybridge Containment: Begin detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0730** Level 2: All workers on this level are in Rooms 283/284. 2 workers in Room 284; 1 spraying and wiping down the studs on the south wall, the other is preparing an airless sprayer. In Room 283, 3 workers are spraying and scraping the CMU wall to remove fireproofing overspray. Floor supervisor and another worker are on the mechanical mezzanine spraying and wiping down studs on the north wall. 7 workers observed.

**0730** Level 1: PBS sets up a clearance sample for the expanded mini enclosure in the Mechanical Room for the temporary power.

**0800** South Skybridge Containment: Seven workers observed in area, 6 are using rags to wet wipe dust and material off the girders and studs. 1 is wiping down the floor. Crew is working from the west end to the east end. Progress appears to be roughly more than 20% complete.

**0850** Level 1: One PBS worker is scanning documents from various area as part of inventory document recovery process.

South Skybridge Containment: Six workers inside the south skybridge wet wiping / HEPA vacuuming the metal beams and covering on the insulation on the west side of the containment. Both negative air machines are functioning properly.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/skybridge containments

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 3/22/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/22/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**0930** Level 1: PBS collects the clearance sample from the Mechanical Room mini enclosure. On site microscopic analysis yields satisfactory results on the sample. Dickson and MM are advised of the passing result.

**0945** Level 2: Two workers in Room 283 razor scraping fireproofing (under paint) off the CMU wall. 4 workers are in Room 284; 2 are using an airless sprayer and wiping down the studs and pipes and 2 workers are on the south scaffolding doing the same.

**1015** Level 2: Seven workers observed. Crew continues using rags to wipe dust and debris from the exposed surfaces. Per Corey, 2 workers may be moved to the North Skybridge Containment if progress allows for it.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 2: All workers on this level are in rooms 283/284. 3 workers in Room 284; 1 is wiping down the ceiling with wet rags and the other 2 are cleaning debris off the north wall studs. In Room 283 there are 3 workers razor scraping (with HEPA vacuum for dust) fireproofing and drywall off the studs on the south wall. PBS noted 2 airless sprayers in use. 6 crew observed. + 1 entering as PBS exits containment.

**1240** South Skybridge Containment: 5 workers in the north half of the containment doing a final wipe of the area. 2 workers have moved to North Skybridge Containment

North Skybridge Containment: Two workers in the south half of the containment. Cleaning up bird droppings and wiping down I-beams.

**1300** Level 1: 1 PBS worker continues scanning documents from various area as part of inventory document recovery process.

PBS collects microvac samples of the remaining building contents stored in the Connex's.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.


**1430** Workers off site for the day. PBS departs the site with samples to be delivered to Lab/Cor Seattle and SAT Lynnwood. Corey will shut down generators and secure site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith Date: 3/22/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Cameron Budnick, Peter Stensland, Gregg Middaugh, Mae Reilly		PBS Project No.: 40535.488	Date: 3/23/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 17			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Scan documents			
Level 2: Detail cleaning. Level 3: No work.			
South Skybridge: Detail clean. North Skybridge: Detail cleaning.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: PBS scanning school documents. Level 2: Rm 283/284 detail cleaning throughout - Razor scrape, HEPA vacuum, wet wiping, and wire brushing. South Skybridge Containment: Detailed cleaning. Skybridge Containments: Continued cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.
  - 0700** PBS calibrating various pumps to collect daily PCM air samples throughout site.
  - 0730** Level 2: One worker deconstructing scaffolding. 4 workers are in Room 284 continuing the work of scraping fireproofing off the studs. 2 workers in Room 283 wet wiping and HEPA vacuuming up debris along the SE wall. 7 workers observed.
  - 0800** South Skybridge Containment: Three workers observed. 1 is HEPA vacuuming beams, 1 is HEPA vacuuming the floor, and the 3rd is misting with a Hudson sprayer and wiping down beams.
  - 0900** PBS organizes school contents in the Connex's in preparation for their return to occupants.
  - Level 1: One PBS worker is scanning documents from various areas as part of inventory document recovery process.
  - 1000** Level 2: Three workers in Room 283 loading bagged waste into a wheel barrel. 4 workers in Room 284 breaking down a set of scaffolding and cleaning. The floor supervisor was exiting area upon PBS' entry.
  - 1015** North Skybridge Containment: Two workers inside containment wet wiping and HEPA vacuuming along metal beams and on the rigid insulation.
- South Skybridge Containment: PBS perform preliminary visual inspection and note areas that need additional cleaning.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1 & 2, and skybridge containments

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 3/23/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/23/22
Abatement Contractor: Dickson	PBS Observer: Claire Tsai	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work. PBS project manager Gregg M on site.

**1230** Level 2: Four workers in Room 284 spraying down and cleaning all parts of the scaffolding as it's taken apart. 3 workers in 283 continuing the removal of fireproofing and remaining materials from the studs with wire bristle brushes. The supervisor entered as PBS was leaving containment.

North Skybridge Containment: PBS visually inspects the containment and collects some additional PLM samples of suspect materials. Dickson is going to clean up some exposed mastic on the Olympic South building and do some more detail cleaning along screws and on ledges.

**1300** Level 1: One PBS worker continues scanning documents from various area as part of inventory document recovery process.

**1400-1420** North Skybridge Containment: PBS visually inspects the containment Dickson does detail cleaning of the few remaining portions along the beams. PBS visual inspection satisfactory with worker's additional work. Area will be encapsulated with clear encapsulant.

South Skybridge Containment: PBS visually inspects containment. Areas previously noted by PBS have been cleaned, visual inspection satisfactory.

**1420** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

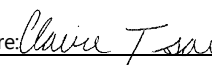
**1500** MM still on site will shut down generators. Doors are locked.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Claire Tsai Date: 3/23/22

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson <hr/> PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick <hr/> Contractor on Site Personnel: Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No Workers <b>Yes</b> No Name: Corey Foust How Many? + 17 Air Monitoring Personnel on site: PBS/Dickson	Project Name: Olympic South Abatement & Repairs PBS Project No.: 40535.488 DES Project No.: 2021-192 Date: 3/24/22 <hr/> Page 1 of 2 Time 0600 am <hr/> Summary Phase Status: Level 1: Scan documents Level 2: Detail cleaning. Level 3: Detail cleaning South Skybridge: Air clearance. North Skybridge: Air clearance. Other Personnel on Site: MacDonald Miller (MM)
--	--

**WORK DESCRIPTION:** Level 1: PBS scanning school documents. Level 2: Rm 283/284 detail cleaning throughout - Razor scrape, HEPA vacuum, wet Wiping, and wire brushing. Level 3: Cleaning server containment areas. North & South Skybridge Containments: Air Clearances pass.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0730** Level 2: All work is being done in Rooms 283/284. 17 negative air machines are currently running on this level; 11 of those machines are exhausted to the exterior and the other 6 are being utilized as scrubbers. In Room 284, 1 worker is wet wiping the steel ceiling joists. Fall protection is in use. Eric is moving a section of scaffolding to reach another section of ceiling and the 3<sup>rd</sup> worker is scraping off the studs. In Room 283, 3 workers are cleaning studs- 1 is HEPA vacuuming the bottom of the wall and the other 2 are on scaffolding along the south wall scraping and wiping the studs. Corey entered as PBS left. 6 other crew observed.

**0745** Level 3: Six workers in the containment. 4 workers are wiping down ceiling components and 2 are wiping down the walls and ledges.

**0830** Workers have finished encapsulating the North Skybridge containment. Two workers move from north containment to south skybridge containment to encapsulate. PBS view north skybridge containment, encapsulant coverage satisfactory.

**1000** PBS initiates air clearance sampling in the North Skybridge Containment.

**1030-1115** Workers break for lunch and return to work.

**1200** PBS initiates air clearance sampling in the South Skybridge Containment.

ITEMS OF CONCERN: None

---

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/3/ Sky bridge north and south

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai  
 Date: 3/24/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 3/24/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1230** On site PCM analysis of North Skybridge air clearance yields passing result. PBS notified Corey area has passed clearance.

**1245** Level 2: Room 284, 3 workers wet wiping the ceiling and pan decking. Room 283, 2 workers wet wiping and HEPA vacuuming the pan decking and ceiling beams. 2 workers in the mechanical mezzanine wire brushing and wet wiping the tops of the metal studs along the east wall. 1 worker by the decon is doing general housekeeping.

**1300** Level 1: One PBS worker continues scanning documents from various areas as part of inventory document recovery process.

**1400-1500** Weekly construction meeting with project team.

**1415** On site PCM analysis of South Skybridge air clearance yields passing result. PBS notified Corey area has passed clearance.

Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1530** PBS leaves for the day. Corey will shut down generator secure the site.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai

Date: 3/24/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 3/25/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 18		Summary Phase Status: Level 1: Scan documents	
Air Monitoring Personnel on site: PBS/Dickson		Level 2: Detail cleaning. Level 3: Detail cleaning	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: PBS scanning school documents. Level 2: detail cleaning throughout - Razor scrape, HEPA vacuum, wet wiping, and wire brushing. Level 3: Cleaning server containment areas. North & South Skybridge Containments: Remove contractor equipment after clearance.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0650** Level 3: Five workers observed in containment. 1 worker is wiping down the columns along the north side of containment. 1 worker is cleaning the edge of the server floor, and 2 workers are cleaning the roof joists with wet rags. 1 worker is moving bags of used rags to the edge of containment for future loadout.

**0730** Level 2: Nine workers observed in containment. 2 workers are in Room 283 on scaffolding cleaning the ceiling joists with wet rags. 2 workers are in Room 284 cleaning the ceiling joists as well. 1 worker in Room 283 is pressure washing the CMU wall to remove leftover fireproofing. 2 workers are on the mechanical mezzanine wiping down the top of the wall and roof joists. Floor lead and another worker are moving work equipment around. Crew loading out waste bags.

**0830** Level 1: One PBS worker is scanning documents from various areas as part of inventory document recovery process.


**1000** Level 2: Three workers attaching a new layer of poly sheeting to seal the crack at the base of the CMU wall in preparation for removing the fireproofing overspray on the bottom 1/3 of the wall. 3 workers in Room 283; 2 are doing general housekeeping and 1 is on mobile scaffolding wet wiping the ceiling components. 3 workers in the mechanical

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 3/25/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 3/25/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

mezzanine wet wiping ceiling components and water pipes. Corey is walking throughout the floor doing inspections of the cleaning process.

**1030-1115** Workers break for lunch and return to work.

**1300** Level 1: One PBS worker continues scanning documents from various areas as part of inventory document recovery process.

**1330** Level 3: Five workers observed; 4 on ladders and mobile scaffolding wet wiping the ceiling components throughout the area and 1 worker is wet wiping down the outside of the electrical boxes and conduit.

**1340** Level 2: Two workers in Room 283 HEPA vacuuming the floor and organizing equipment. 5 workers in Room 283 mechanical mezzanine on mobile scaffolding wet wiping and HEPA vacuuming the metal wall studs, pipes, and ceiling components. 2 workers in Room 283A wet wiping and HEPA vacuuming the metal wall studs. 1 supervisor is going throughout the floor checking on progress and bringing ACM bags to the loadout area.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS off site for the day, Corey will secure site and shutdown generators.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Mike Smith Date: 3/25/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Gregg Middaugh, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 3/28/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +19			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: No work occurring.			
Level 2: Detail cleaning assoc. with PBS visual inspection.			
Level 3: Detail Cleaning			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** level 2: PBS inspecting throughout the level. Dickson workers accompany and respond to areas in need of additional cleaning as identified. Level 3: Continued detail cleaning

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.
- 0630** PBS calibrating various pumps to collect daily PCM air samples throughout site.
- 0700** One worker inside the level 3 containment loading in equipment through the decon chambers.
- 0730** One PBS person begins inspecting the ceiling throughout level 2.
- 0945** Level 2: Eleven workers in Room 284 doing detail cleaning throughout the space. PBS is visually inspecting ceiling components in Room 284 and the mechanical mezzanine. 2 workers are going through with the PBS employees and addressing things as they are found.
- 1030** PBS Project Manager Gregg Middaugh arrives to the site.
- 1030-1115** Workers break for lunch and return to work.
- 1130** Level 2: All PBS staff in area begin visual inspection starting from the north side of the building. 4 workers are following PBS and spot cleaning the punch list items. 8 workers are in 283 doing detail cleaning throughout the space. PBS visual inspection includes but not limited to inspecting fire system, ceiling components, wall studs and surfaces for visible dust ; checking junction boxes and conduit into slab has been sealed.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 2 & 3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date: 3/28/22

**PBS Environmental Field Observation Report**  
**Additional Page**

---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 3/28/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1300** PBS begins visually inspecting the mechanical mezzanine and the music rooms. A punch list has been made for the space north of the D line.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1545** PBS leaving site. Doors locked, PBS shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 3/28/22



**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date:3/29/22

---

Abatement Contractor: Dickson

PBS Observer: Mike Smith

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1130** PBS reviewing itemized list, generated from PBS visual inspection performed on Monday (3/28), with Corey to confirm understanding of noted deficiencies.

**1150** Level 2: Four workers are razor scraping smooth the base of each column cavity on the main floor. 2 workers are in Room 284 re-cleaning the second from the left ceiling joist. 2 workers are bagging and prepping waste for disposal. 2 workers are cleaning joists in Room 283.

**1200** Level 3: PBS continues to visually inspect the containment. Two Dickson workers continue spot cleaning.

**1230** Dickson transporting ACM bags with used cleaning supplies via forklift to the waste container in Parking Lot A

**1300** PBS meet Karen Doten in Parking Lot A to return occupant contents. Dan Timmons (Pierce Coll.) present as witness.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.


**1430** Workers off site for the day.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith

Date:3/29/22





**PBS Environmental Field Observation Report**  
**Additional Page**

---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 3/30/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1300** Level 2: All PBS staff on level continues visually inspecting roof components in 284, 284 and confirming remaining punch list items have been completed.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1530** PBS provide Corey revised punch list items needing completion prior to encapsulation of Level 2.

**1545** PBS departs the site. Doors locked. Dan on site will shut off generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 3/30/22

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 4/1/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 19			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Detail cleaning	
		Level 2: Dickson complete encapsulation of level	
		Level 3: Clearance sampling server area containment	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Continued detail cleaning throughout the level. Level 2: Contractor completes encapsulation of the level. Level 3: PBS collects aggressive TEM clearance samples associated with the server area containment.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Two workers (forklift spotter and operator) assisting with work efforts from exterior of containments.

**0630** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0700** Level 2: Eight workers continue with encapsulating Level 2. 4 airless sprayers are being used throughout the level for encapsulant application. The encapsulation process was initiated 3/31 after lunch following Dickson’s completion of punch list items generated by PBS.

**0730** Level 1: Five workers observed in the containment. 2 workers are wiping down scaffolding by loadout. 1 is wiping down fire sprinkler line by the elevator. 1 worker in north area cleaning windowsills. The 5<sup>th</sup> is pulling remaining insulation from the studs along the south wall. PBS continue document recovery in scanning room.

**0900** Level 3: PBS staging clearance samples inside and outside of the containment.

**1000** Level 3: Two Dickson workers removing insulation from a metal stud along the west windows. After the insulation has been removed the workers will spray down the cavity with encapsulant.

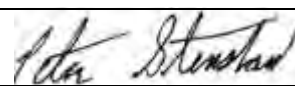
**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland Date: 4/1/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/1/22

---

Abatement Contractor: Dickson

PBS Observer: Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1145** Level 1: Six workers observed in the containment. 1 worker is cleaning along the window frames, 1 worker is touching up around the fire mains, 2 workers are on a lift cleaning windows near the elevator shaft. 1 worker is wiping down equipment to be loaded out. 1 worker is doing general housekeeping.

**1200** Level 3: The previously noted insulation has been removed from the metal studs along the windows and the cavities encapsulated. PBS initiates aggressive air clearance samples for southwest server area containment.

**1300** Level 1: Seven workers observed in the containment. Work efforts consist of tasks previously noted.

Level 2: Seven workers on this level have finished the encapsulation process.

**1400** Level 3: PBS begins collecting the clearance samples for the server area containment.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS departs the site. Corey will lock doors and shut down generator.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date: 4/1/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai, Cameron Budnick, Peter Stensland	PBS Project No.: 40535.488	Date: 4/4/22	
	DES Project No.: 2021-192	Page 1 of 2	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status: Level 1: Detail cleaning		
Project Manager Yes <b>No</b> Supervisor Yes No	Level 2: Stage air clearance sample pumps		
Workers <b>Yes</b> No Name: Corey Foust	Level 3: Awaiting clearance results		
How Many? + 19	Other Personnel on Site: MacDonald Miller (MM)		
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning north to south. Level 2: touch-up encapsulant, stage air pumps for TEM clearance Sampling.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Two workers (forklift operator and spotter) assisting work efforts from exterior of containment.

**0630** PBS continues document recovery process in the scanning room on Level 1.

**0700** Level 2: Four workers going throughout the level to ensure encapsulant coverage. Areas are being touched-up, as needed, currently at the edge of Room 284.

**0800** Level 1: Workers within the containment are focusing cleaning efforts from the north side of the containment methodically moving south. Cleaning includes razor scraping mastic and caulking off column bases, removing insulation at wall studs and wet wiping them, cleaning plumbing lines.

**0900** Level 2: PBS inspects the encapsulant coverage throughout the level. PBS communicate to Corey metal structural bracing needs additional encapsulant inside. Workers in area will touch up encapsulant in metal bracing. 4 workers are removing the covers on the sprinkler heads and windows.

**1030-1115** Workers break for lunch and return to work.

**1130** Level 2: PBS begins setting up pumps and power cords for the air clearance. 2 workers assisting with setting up the equipment. All the windows and sprinkler heads are now uncovered.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1 & 2

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date: 4/4/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/4/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1200** Level 2: PBS pre calibrates the 12 pumps inside containment to 10 L/min.

**1230** Level 1: Two workers razor scraping mastic off column near scanning room and wiping down pipes from water lines. 2 workers are on lifts cleaning fire lines with wet rags near the mechanical room containment. 6 workers are in the same location wiping down piping and razor scraping the concrete columns. 1 worker is by the loadout, adding fire stop to penetrations in the floor. 2 workers are along the wall north of the loadout, wiping down and removing insulation from the studs. 1 worker is adjusting the negative air and making sure the vent is properly sealed at the exhaust.

**1300** PBS begins setting up the pumps outside of the containment for air clearance.

**1410** Level 1: Thirteen workers in containment. All workers are at the west end of the floor. Workers tasks include wiping down piping and removing insulation from the studs.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1515** PBS shut down generator and leaving site. Doors locked.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai

Name: Claire Tsai

Date: 4/4/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Mike Smith, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 4/5/22
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 21			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Continued detail cleaning north to south. Level 2: Initiate TEM clearance sampling inside and outside of the Containment. Level 3: Remove server area containment

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0620** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0630** Level 3 server area containment air clearance passed. Dickson advised of passing result. PBS continues document recovery process in the scanning room on Level 1.

**0700** Level 3: Three workers are removing the containment poly and loading out supplies. Containment around electrical panels still in place.

**0730** Level 1: Six workers are in the western portion of the floor wiping down the I-beams and sprinkler pipes with wet rags. 1 worker is scraping mastic from the bottom of a concrete column. 1 worker is wet wiping the remaining plumbing fixtures in front of the Mechanical Room containment. 1 worker is filling in penetrations in the floor with fire stop by the main (currently blocked off) east entrance. 2 workers are cleaning the fire sprinkler assemblies from scissor lifts. 11 workers observed in containment.

Level 2: PBS initiates aggressive TEM air clearance samples.

**0930** Level 2: PBS begins collecting the TEM air clearance samples.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Mike Smith Date: 4/5/22

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 4/5/22
Abatement Contractor: Dickson	PBS Observer: Mike Smith	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1000** Level 1: Six workers on ladders and scissor lifts wiping down plumbing and fire lines with wet rags. 1 worker along the west wall is brushing remaining insulation off the wall. 2 workers are cleaning the plumbing and fixtures outside the Mechanical Room containment. 1 worker cleaning mastic off the base of the stairs. 1 worker HEPA vacuuming dust across the floor. 11 workers observed in containment.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 3: PBS collects microvac dust samples in the southwest portion of the level.

**1230** Roof: Two workers are loading negative air machines, extension cords, spider boxes and temporary structures associated with Level 3 work into a forklift bin. 1 worker below is operating the forklift.

**1300** One worker in Parking Lot A loading non-contaminated construction debris into the general waste container with the forklift.

**1400** Level 1: Three workers are discussing scaffolding setup for the stairs to Level 2. 1 worker is HEPA vacuuming next to the Mechanical Room containment. 1 worker is checking the west wall for any remaining insulation in the studs. 1 worker is cleaning up equipment from today. 1 worker is scraping debris off a stretch of plumbing. 2 workers are removing insulation from the east wall in the kitchen area. 3 workers are packing bags of dirty rags to be loaded out.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS leaves site. Corey will shut down generators and lock doors

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

---

Name: Mike Smith Date: 4/5/22



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick, Gregg Middaugh		PBS Project No.: 40535.488	Date: 4/6/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 18			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: Detail cleaning, prep stair tower	
		Level 2: Microvac surface clearance sampling	
		Level 3: No work occurring	
		Other Personnel on Site: MacDonald Miller (MM), Charlene Wilson	

**WORK DESCRIPTION:** Level 1: Continued detail cleaning. Remove in stairway carpet and prep stairway tower. Level 2: Continued detail cleaning

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0620** PBS calibrating various pumps to collect daily PCM air samples throughout site.

**0700** Three workers at the top of the east stairwell removing carpet, light fixtures and doors in preparation for the stairwell abatement.

**0715** Level 1: One worker is cleaning insulation off the studs from scaffolding on the stairs to Level 2. 1 worker is on a lift at the Mechanical Room enclosure cleaning the conduit. 1 worker is across from the loadout on a lift, wiping and scrubbing down a section of fire line. 4 workers are along the west wall removing insulation from the studs. 1 worker is organizing equipment for future removal.

**0830** Three workers prep cleaning area in connex to reclean contents and 6 tricycles from shed in playground.

**0840** PBS Project Manager Gregg Middaugh on site.

**0900** PBS prepares Versa Vac for return to the school and checks in on contents in the Connex's.

Todd L and Charlene W on site to walk playground and discuss scope of work with PBS and Dan.

**1000** Walk east stairwell with Todd, Charlene, Dan, and PBS to clarify questions on scope of work.

**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1 & 2

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 4/6/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date:4/6/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1200** Level 2: PBS collects representative microvac surface dust samples throughout the level.

**1310** Level 1: One worker is wiping down fire lines in front of the scanning room in the north area. 1 worker is scraping mastic from columns in the north area. 3 workers are removing insulation from the southeast corner of the level. 4 workers are removing mastic from the edge of the elevator shaft.

**1330** Stairwell: Two workers at the bottom of the stair tower removing the remaining portions of the carpet. Bagging them and loading them into the forklift bin for transport to waste container in parking lot A.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1530** PBS shut down generator and leaving site. Doors locked.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date: 4/6/22

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Cameron Budnick		PBS Project No.: 40535.488	Date: 4/7/22
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +18			
Air Monitoring Personnel on site: PBS/Dickson		Summary Phase Status: Level 1: Continued Detail Cleaning.	
		Stairwell: Begin Carpet/ Mastic Removal	
		Levels 2 & 3: No work occurring	
		Other Personnel on Site: MacDonald Miller (MM). Wayne's Roofing	

**WORK DESCRIPTION:** Level 1: Continued detail cleaning. East stairwell: Begin pre abatement demo, remove carpeting and associated mastic

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Manual wet methods – HEPA vacuuming, razor scraping, and wet wiping.

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air.

**0630** PBS calibrating various pumps to collect daily PCM air samples.

**0730** Stairwell: PBS documents the Level 1 closet contents and uploads the photos to Smartsheet before Dickson disposes of the items.

PBS continues document recovery process in scanning room on LV1.

**0715** Level 1: One worker is organizing equipment. 6 workers are on the east end of the floor wet wiping studs. 1 worker is wet wiping fire lines at the 1st floor northeast entrance. 1 worker is HEPA vacuuming the bottom of the elevator shaft and 1 worker entered containment and is scraping out insulation. 10 workers observed in containment.

**0800** Stairwell: Dickson sets up two negative air machines that exhaust out of the Level 1 doorway.

**0930** Stairwell: Two workers on the Level 2 landing, 1 is using a grinder to remove the carpet mastic from the floor. The other worker is using a HEPA vacuum to pick up the dust from the floor. The containments on the second and third floors are segregated and sealed off.

**1000** Level 1: One worker on the scissor lift wiping down conduit and fire sprinkler lines. 2 workers are HEPA vacuuming dust from around columns that have been scraped free of mastic. 1 worker is removing insulation from the studs along

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Level 1 and stairwell

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date: 4/7/22

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/7/22

---

Abatement Contractor: Dickson

PBS Observer: Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

the north wall. 1 worker is cleaning the fire sprinkler lines with a wet rag at the Mechanical Room. 1 worker is bagging debris for removal. 2 workers are cleaning the bottom of the elevator shaft. 1 is under the stairs scraping mastic.

**1030-1115** Workers break for lunch and return to work.

**1300** PBS collect bulk samples from exterior column gypsum on Level 1 exterior.

Two Dickson workers are loading remaining negative air machines and temporary wood shelters down from the roof via forklift. Forklift operator and Corey are on the ground in the area. Wayne's Roofing is on site on the roof inspecting for potential leaks.

**1320** Level 1: One worker in the east corner of the floor on a lift cleaning the sprinkler pipe runs. 3 workers along the wall, cleaning insulation from the studs. 1 worker is at the scanning room on a lift, wet wiping down the fire lines. 3 workers are cleaning the elevator shaft and removing mastic from the edges. PBS walk through level 1 with Corey to note a few additional items that need to be removed (junction boxes, unsecure framing, door stop, etc.)

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decontaminate out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1600** PBS leaving site. Shut Generator off. Doors locked.

Good negative pressure is indicated on all floors of the Olympic South Building.

PBS inside and outside work area air monitoring conducted thus far have not yielded concentrations of concern.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Claire Tsai

Date: 4/7/22

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 4/11/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 15			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail cleaning Level 2: No work			
Level 3: No work			
East Stairwell: pre abatement prep.			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Workers continue detail cleaning (wet wipe and HEPA vacuuming) Level 3: Remove remaining poly sheeting from server floor containment previously cleared.

East Stairwell: pre abatement prep

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** N/A (manual tools and HEPA vacuums used for detail cleaning)

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting air monitoring inside and outside of work areas including HEPA exhausted air. Three workers assisting with operations from outside containment (forklift spotter and operator one bring supplies to containment as needed)

**0730** Level 1: One worker at the top of the stairs HEPA vacuuming the landing. Four workers along the north wall wet wiping and HEPA vacuuming the metal studs. One worker is scraping mastic off the base of the concrete columns NE of the mechanical room. Two workers loading metal studs from the mechanical room into a mega box for loadout.

**0830** Two workers remove remaining poly sheeting from previously cleared level 3 containment in southwest server floor area.

**0930** Level 1: Two workers along the east wall wet wiping the metal studs and water pipes. One worker removing mastic from the concrete wall line south of the scan room. Three workers east of the mechanical room removing excess wires and metal screws from the ceiling. Two workers along the north wall wiping and HEPA vacuuming the metal studs.

**1000** PBS walk Level 1 south and east elevations with Corey. PBS communicate which columns have ACM joint compound that Dickson will be removing.

**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 4/11/2022

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/11/2022

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1215** Dickson fuel truck on site refilling the fuel cube and generator, one united rentals worker servicing the portable restrooms.

**1300** PBS meet Charlene W in Parking Lot A to return contents to Room 281 occupant.

**1345** Level 1: Six workers on the north half of the floor. Three are wet wiping the ceiling components and metal wall studs, two are scrapping mastic off of the concrete and pipes, one worker is breaking school keys in half before they are disposed of. PBS photo document destruction of keys prior to disposal. One worker on the south side of the floor removing bulk material from the demolished stairway.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1440** MM leaving site for the day.

**1500** PBS leaving site for the day. Corey still on site will shut generators off and secure site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai

Date 4/11/2022





**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/12/2022

---

Abatement Contractor: Dickson

PBS Observer Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1200** Level 3: Two workers in the supply plenum removing large blank conduit that runs from previous server room to Olympic North skybridge, each section is uncoupled taped over and removed to prevent contamination. Workers have HEPA vacuum in use.

**1330** South Exterior: 5 workers continue playground demo, one worker is operating the excavator demoing the hanging rope play structure, one worker operating the forklift with waste container. Three workers on the ground spotting and spraying down the area with water.

**1400** Level 1: One worker HEPA vacuuming the HEPA vacuums in order to change out the filters. Three workers along the west wall south of the mechanical room wet wiping and HEPA vacuuming the metal studs. Four workers in the middle of the floor wet wiping pipes and hangers. One worker along the north wall doing spot checks on cleaning.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS off site. Corey still on site will shut off generator and secure site.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

---

Name: Peter Stensland

Date 4/12/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Peter Stensland	PBS Project No.: 40535.488 <span style="float:right;">Date: 4/13/2022</span>
	DES Project No.: 2021-192
Contractor on Site Personnel:	Page 1 of 2 <span style="float:right;">Time 0600 am</span>
Project Manager <span style="float:right;">Yes <b>No</b></span> Supervisor <span style="float:right;">Yes <b>No</b></span>	Summary Phase Status: Level 1: Continue detail cleaning. Level 2:
Workers <span style="float:right;"><b>Yes</b> No</span> Name: Corey Foust	Reclean mechanical mezzanine studs Level 3: Remove conduit
How Many? + 17	Playground: Demo. Stairwell: PCI set up scaffolding.
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM), PCI, Retriever

**WORK DESCRIPTION:** Level 1: Continue detail cleaning south of mechanical room. Level 2: Wet wipe and HEPA vacuum mechanical mezzanine studs. Level 3: Remove electrical conduit. Playground: Demolish structures

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** South Exterior: Five workers, one is operating an excavator demolishing the central play shed, two workers are helping to spot / pick up small debris, one worker is spraying down the area with a hose, one worker is operating the forklift with tip bin to load the debris into the general debris waste container.

**0745** Level 1: Three workers on the south side of the floor wet wiping the metal studs and I beams. One worker wet wiping the pipes and concrete floor east of the mechanical room. One worker is going throughout the floor directing workers and inspecting progress.

**0910** Retriever on site dropping off equipment for playground demo/maintenance.

**0920** PBS Mike Bagley on site to collect samples from unknown liquid in barrel found in playground.

**0930** Level 3: PBS performs visual inspection of electrical containment, visual inspection unsatisfactory. Areas communicated for additional cleaning.

**1030-1115** Workers break for lunch and return to work.

**1210** Level 1: PBS scans last set of documents associated with document recovery process in scanning area. Six workers observed in containment. One worker assembling scaffolding at top of stairs to level 2. Five workers detail cleaning south

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
N/A	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 4/13/2022

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 4/13/2022
Abatement Contractor: Dickson	PBS Observer Claire Tsai/ Peter Stensland	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

of mechanical room, 1 worker HEPA vacuuming the floor, 1 wet wiping wall studs, 1 scraping cove base mastic from base of concrete columns, 1 detail cleaning pipes with wire brush, 1 detail cleaning piping associated with fire sprinkler system.

**1215** Level 2: Two workers in the mechanical mezzanine wet wiping and HEPA vacuuming along the base of the metal wall studs.

**1225** Skybridge: Two workers creating a new wooden entryway doorway from the scaffolding through the removed window onto the skybridge.

**1240** Level 3: Two workers preparing to remove the conduit associated with electrical panels on level 3.

**1300** Level 2: Two workers on the mechanical mezzanine vacuuming out a wall cavity and doing final detail cleaning.

**1330** Level 3: Two workers in the supply plenum removing additional conduit pieces that are now deenergized. Each section has its clamps unscrewed, cable cut, and the ends are taped over, and the area is HEPA vacuumed.

**1340** PBS visual inspection of mechanical mezzanine wall studs satisfactory. Workers will encapsulate tomorrow morning.

**1400** South Elevation: Two workers, one is operating the excavator one is spotting / picking up small debris from the demolition of the playground slide.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1540** PBS shut down generator and leave site. Doors locked.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 4/13/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 4/14/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 17			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail cleaning. Level 2: Encapsulate mechanical mezzanine. Level 3: remove electrical conduit.			
Stairwell: PCI scaffolding set up. Playground: structure demo			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. MM mark electrical equipment for Dickson to demo. Level 2: Dickson encapsulate mechanical mezzanine studs. Level 3: Dickson remove electrical conduit in supply plenum. Stairwell PCI finish scaffolding set up. Exterior Playground demo/landscaping maintenance.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** Level 2: One worker at 284 doorway removing old tape and residual spray adhesive from previous negative air machine set up. One worker is on the mezzanine spraying encapsulant. PBS notes a few additional spots that need additional coverage.

**0745** Level 2: One worker continues 284 removing old tape and residual spray adhesive. One worker is on the mezzanine spraying encapsulant on the areas that needed additional coverage.

**0815** Level 3: Two workers removing electrical conduit from the supply plenum by uncoupling the segments, taping over the ends and HEPA vacuuming the area.

**0830** Le May is dropping off a new general waste container to be used for the playground demolition.

**0900** Level 1: PBS removes the hard drive from the printer/scanner and gives Dickson the okay to demolish the scanning room and dispose of all the contents within. One worker is loading the papers / filing cabinets from the scanning room into a mega box for disposal. Two workers along the west wall wet wiping and HEPA vacuuming the base of the studs. Five workers along the south side of the floor wet wiping and HEPA vacuuming the metal studs and water lines.

South Exterior: One operator and one worker continue playground demo. Water in use for dust control.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Electrical conduit from Level 3	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 4/14/2022

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/14/2022

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai/ Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1030-1115** Workers break for lunch and return to work.

PBS enter Level 1 mechanical room with Corey. Dan and MM electrician in area. MM electrician marking electrical equipment in mechanical room safe for Dickson to demolish with green spray paint. Conduit remaining with power flagged with red danger tape.

**1145** Level 2: PBS starts a PCM air sample for the mezzanine. Four workers are disassembling and loading out the scaffolding from Room 283/284.

**1230** MM employee on site to measure roof hoods to build sheet metal caps.

**1245** South Exterior: Two workers doing yard keeping around the demolished play area, picking up scrap pieces of wood and using a weed wacker to cut back the overgrown vegetation. One worker is loading out ladders, HEPA vacuums, and extension cords from the first-floor loadout area.

**1310** PBS walks level 1 columns with Todd L and Corey.

**1315** Level 2: PBS begins moving the pumps from level 2 to level 3 in preparation for running an AHERA clearance in the level 3 electrical room containment. PBS collects the PCM air sample from the mezzanine.

**1400-1500** Weekly construction meeting with project team.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1535** PBS leaving site. Corey still on site will shut off generator and secure site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai

Date 4/14/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 4/15/2022
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 16			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Detail cleaning/electrical demo.			
Level 2: No work. Level 3: Final detail clean/encapsulate			
Stairwell: Continue prep. Playground: landscaping/maintenance			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning throughout and begin demo of electrical equipment in mechanical room.  
 Level 3: Dickson final detail clean of space. Exterior Playground landscaping maintenance.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** South Exterior: Three workers doing a final cleanup of the playground area, flattening out dug up areas, trimming back the grass / bushes and filling in track marks in the dirt.

**0830** Level 2: PBS visually inspects the encapsulant on the mezzanine and collects microvac dust samples from recleaned area.

**0900** PBS visually inspects and collects microvac samples from cleaned tricycles in the conex, recovered from a playground shed as requested by the college.

**1000** Level 3 Electrical Room: PBS visually inspects the containment and communicates punch list of items in need of additional cleaning.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 3: Three workers detail cleaning in the electrical room, wet wiping the inside of conduits, scraping residual mastic off of the floor and resealing some of the conduits from underneath in the supply plenum.

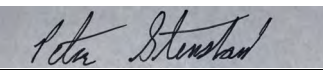
**1300** Level 3: PBS visually inspection satisfactory. One worker begins spraying encapsulant with an airless sprayer.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
1 full 40 CY container (ACM bags and wraps) removed from site today	Olympic South Levels 1/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland Date 4/15/2022

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/15/2022

---

Abatement Contractor: Dickson

PBS Observer Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1330** South Exterior: Two workers, one is using the excavator to lift up one track at a time off the ground, the other worker is cleaning off the tracks with water.

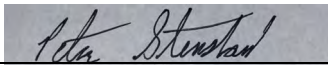
**1400** Level 1: Three workers bagging debris from the electrical wall demo in the mechanical room. One worker going throughout the floor organizing equipment and inspecting cleaning process. Four workers on the south side of the floor wet wiping and HEPA vacuuming pipes and metal wall studs.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS off site, Corey still on site, will shut off generator and secure site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date 4/15/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 4/18/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 16			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status:	
		Level 1: Detail cleaning/begin exterior column gypsum removal.	
		Level 2: No work. Level 3: Electrical containment PBS clearance	
		Stairwell: Continue prep Playground: No work.	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. Level 3: PBS run clearance for electrical room containment.  
 Exterior Playground landscaping maintenance. Stairwell: continue prep for abatement

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** Level 3: PBS begins setting up the air samples for the electrical room AHERA clearance, the covers on the sprinkler heads are removed and all excess equipment is loaded out.

**0830** South Elevation: One worker setting up drop cloths and visual barriers around exterior columns in need of gypsum wallboard removal.

Workers loading out scaffolding equipment from Level 2 via east skybridge window into forklift bin.

**0900** PBS sort contents in connex and prep items to be returned to owner.

**0915** Level 3: PBS begins the AHERA air clearance.

**0945** Exterior: One worker on the SW corner of the building HEPA vacuuming column cavity, gypsum wallboard has already been removed. Area regulated with banner tape and visual barrier surrounds area. Interior of building isolated with poly sheeting from the inside. One worker wrapping conduit in poly sheeting for loadout.

**1000** Level 1: Three workers along the south side of the floor wet wiping the bathroom pipes and securing new visual barriers to the windows. One worker to the south of the loadout wet wiping the window frames. One worker spraying

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai Date 4/18/2022



**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 4/18/2022
Abatement Contractor: Dickson	PBS Observer Claire Tsai/ Peter Stensland	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

down the mega box contents with an airless sprayer as well as misting the air around the wallboard removal near the deacon area. One worker removing gypsum wallboard from the column just south of the deacon area.

**1030-1115** Workers break for lunch and return to work.

**1130-1230** Two workers return general contents from connex in parking lot A to Cascade Room 533 PBS continue sorting occupant contents in preparation for their return to owner.

PBS begins collecting Level 3 air clearance samples.

**1330** Level 3: PBS collects micovac samples of third floor electrical room containment.

**1400** Stairwell: Two workers taping the joints of the scaffolding to ensure that no debris falls inside of the openings during the demolition.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day. PBS leaving site. Corey and MM still on site will shut down generator and secure site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 4/18/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 4/19/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +13			
Air Monitoring Personnel on site: PBS/Dickson		Summary Phase Status:	
		Level 1: Detail cleaning/continue exterior column gypsum removal.	
		Level 2: Misc. encap. touchup. Level 3: No work	
		Stairwell: Continue prep Playground: No work.	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. PBS preliminary visual inspection. Exterior column gyp removal.  
 Stairwell: continue prep for abatement Level 3: fall protection installation

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** South Exterior: One worker inside the regulated area along the S side of the building removing GWB from an exterior column. Area regulated with banner tape, poly sheeting in use as visual barrier.

**0800** Level 2: One worker applying encapsulant at the entryway and decon floor (which were previously covered with poly).

**0815** Level 3: Two workers installing safety railings along the edge of the old server floor, drilling the wood frames into the floor. Additionally, a more permanent fall protection barrier is being installed along the hole in the GWB / Marble Crete between LVL 2 and LVL 3.

**0830** Level 1: One worker removing the automatic door opening mechanism and conduit from the NE doorway. One worker wrapping the old loadout doorway with new poly (the loadout enclosure has now been removed). Three workers along the south wall wiping out the insides of the columns. Two workers inside the mechanical room removing GWB and fiberglass insulation from the western wall. One worker going throughout the floor HEPA vacuuming the area. PBS begins visually inspecting the first floor on the north side and finds dust resettling on the tops of the pipes and some mastic that needs to be scraped off the floor.

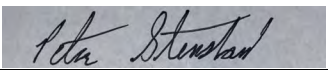
**0930** Level 1: Two workers begin cleaning the areas that PBS has noted on the punch list.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland Date 4/19/2022

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/19/2022

---

Abatement Contractor: Dickson

PBS Observer Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1015** Level 1: PBS begins a smoke test, it took approximately 30 minutes for the smoke to clear out, airflow showed the smoke moving towards the exhausting negative air machines, but there were a few dead spots along the walls and in corners. Dickson is adding two more exhausting negative air machines to the first floor and air scrubbers to increase air flow and circulation.

**1030-1115** Workers break for lunch and return to work.

**1130** Level 1: PBS continues visual inspection on the first floor and marking items for detail cleaning.

**1300** South Exterior: PBS visually inspects the column where gypsum was removed on the SW corner of the building. Visual inspection unsatisfactory, areas in need of additional cleaning communicated to Dickson.

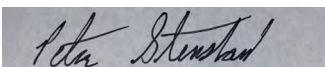
**1400** Stairwell: Two workers in the stairwell taping up the seams of the scaffolding, laying poly on the floor and preparing the space for abatement.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date 4/19/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 4/20/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? + 12			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status:	
		Level 1: Detail cleaning/continue exterior column gypsum removal.	
		Level 2: No work. Level 3: No work	
		Stairwell: Continue prep Playground: No work.	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. PBS continues preliminary visual inspection. Exterior column gyp removal.  
Stairwell: continue prep for abatement

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.
- 0730** Cascade: PBS photo documents contents (tables and printing presses) previously moved to Cascade 533 available to college pick up/storage.
- 0800** PBS visually inspects the column regulated areas on the SW and SE corners of the building. Both areas pass PBS visual inspection.
- 1000** Parking lot: One worker in the parking lot using a forklift to load ACM bags into a waste container.
- 1030-1115** Workers break for lunch and return to work.
- 1100** South Exterior: Two Dickson workers are cutting plywood and boarding up the column openings on the SW and SE corners of the building.
- 1215** Scaffolding: MM has finished installing the bird netting underneath of the skybridge.
- 1245** Level 1: Three workers inside of the mechanical room, one is scraping off the mastic on the concrete columns, two workers HEPA vacuuming the floor and doing general house keeping. Three workers throughout the rest of the floor doing detail cleaning. PBS is doing a visual inspection on the North side of the floor in order to create a punch list for Dickson.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 4/20/2022

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/20/2022

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai/Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1300** Exterior: One worker going around the site vacuuming up loose Styrofoam pieces that have fallen due to birds burrowing into the EFIS.

**1315** Exterior: PBS visually clears the remaining exterior column abatement areas, two Dickson workers begin to deregulate the area and cover with plywood.

**1330** Level 1: PBS begins process of visually inspects the ceiling junction boxes to ensure all inaccessible conduits are sealed with fire caulking.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** PBS leaving site. Corey still on site will shut down generators and secure site.

---

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*

Name: Claire Tsai

Date 4/20/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 4/21/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	<b>Yes</b> No	Summary Phase Status:	
Supervisor	<b>Yes</b> No	Level 1: Detail cleaning	
Workers	<b>Yes</b> No	Level 2: No work. Level 3: Load out / containment breakdown, glass replacement.	
How Many? + 15	Name: Corey Foust	Stairwell: Continue prep Playground: No work Scaffolding: Loadout	
Air Monitoring Personnel on site: PBS/Dickson		Other Personnel on Site: MacDonald Miller (MM), United Rentals	

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. PBS continues preliminary visual inspection. Level 3: Removal of containment and Loadout of equipment. Scaffolding: Loading out equipment. Stairwell: continue prep for abatement.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

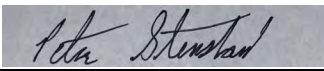
- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building and Sunrise.
- 0700** Level 3: Three worker taking down the electrical room containment and loading out equipment.
- 0900** Level 1: PBS continues to create a punch list for Dickson throughout the first floor. Four workers are inside the mechanical room, one is scraping mastic off the columns, two are HEPA vacuuming the ceiling components. One is checking in on progress and directing workers. Two workers on the north side of the floor, one is doing detail cleaning in small access points to floor wiring channels, one worker is scraping mastic off the floor with a razor blade.
- 1030-1115** Workers break for lunch and return to work.
- 1130** Level 3: One worker installing plywood over the gap between the student lounge and the rest of the floor.
- 1145** Scaffolding: Three workers are removing the poly from the southern scaffolding in preparation for its removal from the site.
- 1200** Sunrise: PBS takes microvac samples of the conduits coming from Olympic South into the Sunrise maintenance closet, fire server room, and electrical room.
- 1330** N Scaffolding: Two workers are removing the poly and other equipment in preparation for the removal of the scaffolding.
- 1400** Outside: One united rentals worker servicing the restrooms.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland Date 4/21/2022

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs	Project No. 40535.488	Date: 4/21/2022
Abatement Contractor: Dickson	PBS Observer Claire Tsai/Peter Stensland	Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1405** Level 1: Three workers inside the mechanical room, two workers are using HEPA vacuums to clean off the tops of pipes and along the floor, one worker is removing conduit from the W wall. Two workers doing detail cleaning along the E side of the floor, one worker is removing junction boxes that connect to exterior outlets along the N wall.

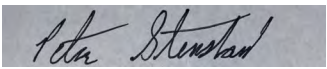
**1420** Stairwell: Three workers organizing equipment in the stairwell. Four negative air machines have been moved onto the first-floor landing.

**1425** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 4/21/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Gregg Middaugh, Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 4/22/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	<b>Yes</b> No	Summary Phase Status:	
Supervisor	Yes <b>No</b>	Level 1: Detail cleaning	
Workers	<b>Yes</b> No	Level 2: Detail touchups Level 3: Detail touchups	
Name: Corey Foust		Stairwell: Continue prep Playground: No work Scaffolding: No work	
How Many? + 14		Other Personnel on Site: MacDonald Miller (MM), Metro Glass	
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. PBS continues preliminary visual inspection. Level 2: Securing column holes / detail items. Level 3: encapsulating missed areas / removing abatement supplies. Scaffolding: Loading out equipment. Stairwell: continue prep for abatement.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building and Sunrise.

**0700** Level 2: Two workers replacing the poly separating the 2<sup>nd</sup> floor and 1<sup>st</sup> floor columns with plywood pieces. Workers HEPA vacuum up any debris that may be remaining under the tape.

**0800** Level 3: Two Metro glass workers resealing the windows along the south side of the skybridge.

**0845** Level 1: Two workers by the E loadout double doors removing gypsum wall board and joint compound from between the columns on a scissor lift. One worker is wet wiping tools in the storage area and organizing them. Five workers in the mechanical room, two are wet wiping / HEPA vacuuming the water pipes, two are doing detail cleaning on the W wall studs, one worker is scraping mastic off the columns to the south of the clean electrical tunnel.

**0930** Gregg Middaugh on site. Two by the loadout area, one worker is passing in equipment, one worker cutting wood pieces for the 2<sup>nd</sup> level column holes with a Sawzall.

**1000** PBS does a general walkthrough of the site (playground, level 2, and level 3).

**1030-1115** Workers break for lunch and return to work.

**1200** Level 2: Two workers going throughout the floor covering up the gaps between the 2<sup>nd</sup> and 1<sup>st</sup> floor in the columns with plywood.

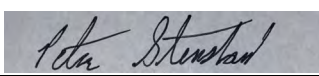
**1210** Stairwell: One worker HEPA vacuuming the floor throughout the stairwell.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
1 full 40 CY container (ACM bags and wraps) removed from site today	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature:  Name: Peter Stensland Date 4/22/2022



**PBS Environmental Field Observation Report**  
**Additional Page**

---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/22/2022

---

Abatement Contractor: Dickson

PBS Observer Claire Tsai/Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1300** Level 3: One worker going throughout the floor removing teal duct tape and doing spot encapsulating on areas that were previously covered.

**1330** Rooftop: PBS takes three microvan samples from inside of the exhaust vents through the holes for the negative air machines.

**1400** Level 1: Five workers in the mechanical room continuing to detail clean throughout the space. One worker removing junction boxes and wires along the north wall that lead to the exterior of the building. One worker detail cleaning the items marked out by PBS throughout the floor.

**1425** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date 4/22/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Ferman Fletcher, Peter Stensland		PBS Project No.: 40535.488	Date: 4/25/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0600 am
Project Manager	<b>Yes</b> No	Summary Phase Status:	
Supervisor	Yes <b>No</b>	Level 1: Detail cleaning	
Workers	<b>Yes</b> No	Level 2: Detail touchups Level 3: Detail touchups	
How Many? + 15	Name: Corey Foust	Stairwell: Continue prep Playground: No work Scaffolding: No work	
Air Monitoring Personnel on site: PBS/Dickson		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. PBS continues preliminary visual inspection. Level 2: Securing column holes / detail items. Level 3: encapsulating missed areas / removing abatement supplies. Stairwell: continue prep for abatement.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet manual methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building and Sunrise.

**0830** Level 1: One worker HEPA vacuuming the window ledges by the stairwell. Five workers inside the mechanical room, one worker is scarping the mastic off the concrete floor, one worker is taking down the poly barrier that separated the mechanical room, one worker is wet wiping the top of the ceiling pipes, two workers are HEPA vacuuming the floor.

**1030-1115** Workers break for lunch and return to work.

**1300** Level 1: Six workers in the mechanical room, one is removing a small section of residual conduit on the ceiling, two workers are wet wiping down the inside of an electrical box. One worker is gathering supplies, one worker is scraping down the columns to the south of the electrical tunnel, one worker is wet wiping / HEPA vacuuming the tops of the water pipes.

**1400** Level 2: Two workers, one worker is removing tape from the ceiling by the music rooms, the other is loading out equipment and organizing spider boxes on the floor. Two workers on the skybridge loading in supplies.

**1415** Level 3: Two workers, one is spot applying encapsulant to a penetration beneath an I beam bellow the old server floor, the other is loading out equipment.

**1425** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

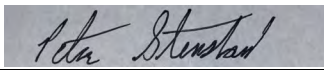
**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature:  Name: Peter Stensland Date 4/25/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Ferman Fletcher, Gregg Middaugh, Peter Stensland		PBS Project No.: 40535.488	Date: 4/26/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	<b>Yes</b> No	Summary Phase Status:	
Supervisor	Yes <b>No</b>	Level 1: Detail cleaning	
Workers	<b>Yes</b> No	Level 2: Detail touchups Level 3: Detail touchups	
Name: Corey Foust		Stairwell: Continue prep Playground: No work Scaffolding: No work	
How Many? + 18		Other Personnel on Site: MacDonald Miller (MM)	
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning. PBS continues visual inspection. Level 2: NA  
 Level 3: NA Stairwell: continue prep for abatement / setting up equipment

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet manual methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.

**0630** Parking lot: Two workers in a conex cleaning off the negative air machines that have been loaded out of containment in preparation for demobilization.

**0650** Level 2: One worker attaching a new poly sheet over the consecution door into the skybridge to help prevent dust from entering the floor during the demolition of the stairwell. Dickson has removed poly from the construction doors that separate Olympic N and Olympic S now that the spaces have passed air and microvac clearance.

**0900** Outside: One worker is hanging poly outside the ECE to create a visual barrier in preparation for the abatement of the inside of the exterior columns.

**0915** Level 1: Six workers doing detail cleaning on the punch list items created by PBS. Gregg Middaugh arrives on site.

**1030-1115** Workers break for lunch and return to work.

**1300** Level 1: MM has safe offed the power to the backup emergency power lines running from cascade to Olympic South and Olympic North. PBS takes micro vac samples from the junction boxes on the ceiling as well as the elbow where the wires leave the building and exit to Olympic North.

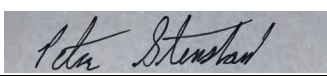
**1330** Level 1: PBS continues visualling the floor and marking items for detail cleaning. Six workers are going throughout the floor cleaning areas marked for recleaning. One worker is going through and wiping down the inside of the junction

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland Date 4/26/2022

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/26/2022

---

Abatement Contractor: Dickson

PBS Observer: Ferman Fletcher, Gregg  
Middaugh, Peter Stensland

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

boxes that will remain in the building to provide emergency backup power, once PBS visually inspects the boxes they are closed and taped shut to prevent air exchange.

**1400** Stairwell: Four workers securing the negative air machines to the new consecution door at the base of the stairs and finalizing the layout inside of the stairwell in preparation for the start of general demolition tomorrow.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date 4/26/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Gregg Middaugh, Ferman Fletcher, Peter Stensland		PBS Project No.: 40535.488	Date: 4/27/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	<b>Yes</b> No	Summary Phase Status:	
Supervisor	Yes <b>No</b>	Level 1: Detail cleaning Level 2: NA Level 3: NA	
Workers	<b>Yes</b> No	Stairwell: Bulk Non-ACM removal	
How Many? + 21	Name: Corey Foust	Playground: NA Scaffolding: Removal	
Air Monitoring Personnel on site: PBS/Dickson		Other Personnel on Site: MacDonald Miller (MM), PCI	

**WORK DESCRIPTION:** Level 1: Detail cleaning, PBS continues visual inspection. Level 2: NA Level 3: NA  
 Scaffolding: Removal of scaffolding by PCI Stairwell: Bulk removal of wallboard and insulation.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet manual methods and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.

**0700** Level 1: PBS continues visually inspecting the floor and creating a punch list. Two workers are wiping down equipment so that it can be loaded out of containment. Two workers are going throughout the floor recleaning areas marked by PBS.

**0830** Stairwell: Seven workers between the second and third floor removing gypsum wall board and fiberglass insulation with sawzalls and prybars. MM and PBS look at the secondary cap on the third-floor landing and agree to remove it. Debris is being loaded out in bags through the skybridge scaffolding, one forklift operator puts the tip bin up to the top of the railing and then drives the debris over to the general waste container in the parking lot.

**0930** Scaffolding: Four PCI workers are dismantling the scaffolding underneath of the skybridge between Olympic South and Olympic North.

**1000** Roof: PBS visually inspects the exhaust vent openings in the music room ceiling, the opening above the mechanical room passes visual inspection. The opening above the hallway entrance to 283 will need additional cleaning before it is ready to be encapsulated (the cap made for this opening is too small to fit properly).

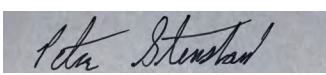
**1030-1115** Workers break for lunch and return to work.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature:   
 Name: Peter Stensland Date 4/27/2022

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 4/27/2022

---

Abatement Contractor: Dickson

PBS Observer: Ferman Fletcher, Gregg  
Middaugh, Peter Stensland

Page 2 of 2

---

---

WORK DESCRIPTION: See page 1 above

---

---

OBSERVATIONS:

---

**1130** Level 1: PBS visually inspects the floor and point out areas that need additional cleaning. Four workers are going throughout the space doing detail cleaning, one worker is using a Sawzall to cut off excess metal clips and other pieces that could be potential trip or safety hazards.

**1300** Parking lot: Three workers loading negative air machines into a freight truck to be loaded off site.

**1330** Level 1: PBS continues to visually inspect the floor and point out areas that need additional cleaning. Four workers are going throughout the space wet wiping / HEPA vacuuming the space, one worker is using a Sawzall to cut off excess metal clips and other pieces that could be potential trip or safety hazards.

**1400** Stairwell: Six workers between the second and third floor removing gypsum wall board / joint compound and fiberglass insulation. The contents are bagged and loaded out through the skybridge (non-ACM demo).

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date 4/27/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Ferman Fletcher, Peter Stensland	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 4/28/2022
	Page 1 of 1
	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status:
Project Manager <b>Yes</b> No Supervisor Yes <b>No</b>	Level 1: Detail cleaning, spraying anti-fungal coating
Workers <b>Yes</b> No Name: Corey Foust	Level 2: NA Level 3: NA Stairwell: Bulk Non-ACM removal
How Many? + 20	Playground: NA Scaffolding: Removal
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM), PCI

**WORK DESCRIPTION:** Level 1: Dickson continue detail cleaning and applies the anti-fungal coating to the walls. PBS continues visual inspection.  
Level 2: NA Level 3: NA Scaffolding: Removal of scaffolding by PCI Stairwell: Bulk removal of wallboard and insulation.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet manual methods and saws

**OBSERVATIONS:**

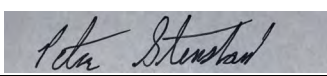
- 1030-1115** Workers break for lunch and return to work.
- 1120** PBS is on site. All following notes will be in reference to the Olympic South Building.
- 1145** Level 1: Two workers spraying the anti-fungal coating along the north wall with an airless sprayer. Three workers are going throughout the floor addressing final punch list items. PBS continues to visual the floor and point out areas that need additional cleaning.
- 1200** Parking lot: Four PCI workers loading equipment onto trucks. All the scaffolding from underneath of the skybridge between Olympic S and Olympic N has been removed.
- 1300** Level 1: The floor passes visual clearance. Two workers continue to spray the anti-fungal coating on the north side of the building. Four workers are going throughout the space and are cleaning equipment for loadout and doing a final once over of the space in preparation for encapsulating the space tomorrow morning.
- 1400** Stairwell: Six workers in the stairwell removing gypsum wall board / joint compound and fiberglass insulation from the exterior walls. Debris is bagged and loaded out through the skybridge scaffolding into the forklift tip bin. One worker is outside operating the forklift and driving the general debris to the waste container in the parking lot for disposal.
- 1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.
- 1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 4/28/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Ferman Fletcher, Peter Stensland	PBS Project No.: 40535.488	Date: 4/29/2022	
	DES Project No.: 2021-192	Page 1 of 1	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status:		
Project Manager <b>Yes</b> No Supervisor Yes <b>No</b>	Level 1: Encapsulating throughout the floor		
Workers <b>Yes</b> No Name: Corey Foust	Level 2: NA Level 3: NA Stairwell: Bulk Non-ACM removal		
How Many? + 18	Parking lot: Equipment loadout		
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM)		

**WORK DESCRIPTION:** Level 1: Encapsulating throughout the floor starting on the N side. Stairwell: Bulk removal of wallboard and insulation.

Parking lot: Equipment loadout Level 2: NA Level 3: NA

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet manual methods and saws

**OBSERVATIONS:**

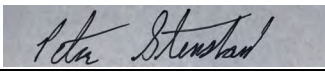
- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.
- 0630** Level 1: Four workers beginning to encapsulate the floor along the north side of the building. The stairs, railing, phone panel, and active junction boxes are wrapped in poly to protect them from encapsulant.
- 0730** Parking lot: Two workers cleaning off equipment to taken off site.
- 0800** Stairwell: Six workers doing non-ACM gypsum / joint compound demolition. Workers are cutting the walls into sections and prying them out with a metal bar. The debris is then bagged and loaded out through the first-floor doorway into the forklift tip bin. One worker is operating the tip bin.
- 1030-1115** Workers break for lunch and return to work.
- 1245** Level 1: Two workers continuing to encapsulate the floor. Approximately 50% of the floor has been encapsulated (from south line of the mechanical room north).
- 1330** Stairwell: Seven workers removing the remaining portions of the wall board and insulation on the first floor. One worker is HEPA vacuuming the floors throughout the stairwell in preparation for abatement to begin Monday morning.
- 1400:** Two workers are outside of the containment bringing in supplies and doing general house keeping throughout site.
- 1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.
- 1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Exterior/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 4/29/2022



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson <hr/> PBS Site Observer(s): Peter Stensland <hr/> Contractor on Site Personnel: Project Manager <b>Yes</b> No   Supervisor <b>Yes</b> No Workers <b>Yes</b> No   Name: Corey Foust How Many? +12 Air Monitoring Personnel on site: PBS/Dickson	Project Name: Olympic South Abatement & Repairs <hr/> PBS Project No.: 40535.488                      Date: 5/2/2022 DES Project No.: 2021-192 <hr/> Page 1 of 2                      Time                      0600      am <hr/> Summary Phase Status: Level 1: Encapsulant in progress. Level 2: Cover ceiling junction boxes. Level 3: No Work. Stairwell: Abatement/demo Other Personnel on Site: MacDonald Miller (MM)
---	---

**WORK DESCRIPTION:** Level 1: Workers encapsulate area with airless sprayers. Level 2: MM attaching cover plates to ceiling junction boxes.  
 Stairwell: Continue demo of stairwell gypsum wallboard and insulation.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0730** Level 1: Two workers spraying encapsulant on the southern portion of the floor.

**0830** Level 2: One MM worker is attaching cover plates to the ceiling junction boxes.

**0900** Skybridge between Cascade and Olympic S: Two workers loading out ACM bags and doing general housekeeping of the space. One worker is operating the forklift to loadout the debris from the scaffolding and dumps the tip bin into the ACM waste container in the parking lot.

**0930** Stairwell: Six workers removing gypsum wall board / joint compound and fiberglass insulation from the west side of the stairwell (2nd and 3rd floor). Workers have now opened up the contaminated cavity between the stairwell and the building, the doors have been demarked with asbestos banner tape and signage.

**1000** Outside: One united rentals worker servicing the restrooms.

**1030-1115** Workers break for lunch and return to work.

**1230** Stairwell: Four workers removing gypsum wall board / joint compound and fiberglass insulation from the west side of the stairwell (1st floor). Two workers are on the 2nd level landing doing general housekeeping.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature: \_\_\_\_\_  
 Name: Peter Stensland                      Date 5/2/2022

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 5/2/2022

---

Abatement Contractor: Dickson

PBS Observer Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1330** Skybridge: Two workers in the skybridge loading out ACM bags and doing general housekeeping. One worker operating the forklift taking the ACM bags to the waste container in the parking lot.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

Name: Peter Stensland

Date 5/2/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 5/3/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +13			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Workers are preparing the floor for clearance. Level 2: MM attaching cover plates to ceiling junction boxes.  
Stairwell: Workers are beginning cleaning and removing remaining conduit sections.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0800** Level 2: PBS inspects the poly barrier isolating the stairwell from the main floor to ensure that none of the poly has been damaged or fallen. One MM worker is attaching cover plates and signage to the ceiling junction boxes.

**0900** Level 1: Four workers inside the first floor removing poly from the windows and fixtures.

**1030-1115** Workers break for lunch and return to work.

**1200** Stairwell: five workers throughout the stairwell doing detail cleaning (HEPA vacuuming and wet wiping) the metal wall studs. One worker is outside of the containment doing general housekeeping, loading out ACM bags, and gathering equipment for the workers inside of the containment. One worker is using the forklift to bring ACM bags to the parking lot waste containers.

**1300** Outside / level 1: PBS is setting and calibrating pumps in preparation for the AHERA clearance of Level 1 tomorrow morning. One worker gathers extension cords and splitters to help with the pump setup.

**1330** Level 1: Workers have finished preparing the floor for clearance.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

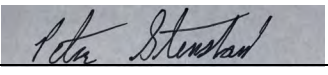
**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 5/3/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Gregg Middaugh Peter Stensland		PBS Project No.: 40535.488	Date: 5/4/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +10			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: Preparing for clearance			
Level 2: Cover ceiling junction boxes.			
Level 3: Selective demo Stairwell: Abatement/demo			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Workers are preparing the floor for clearance. Level 2: MM attaching cover plates to ceiling junction boxes.

Stairwell: Workers are beginning cleaning and removing remaining conduit sections.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** Stairwell: Five workers cutting out excess conduit and HEPA vacuuming / wet wiping the metal wall studs throughout the 2<sup>nd</sup> and 3<sup>rd</sup> levels. One worker outside of the containment doing general house keeping and organizing supplies.

**0730** Level 1: PBS calibrates the pumps in preparation for the clearance of the floor.

**0830** Level 1: PBS starts the AHERA clearance after aggressively blowing the entire floor with a leaf blower.

**0930** Level 2: One MM worker attaching tags and cover plates to the ceiling junction boxes. Gregg Middaugh arrives on site.

**1000** PBS walks the site to see what final items will need to be finished before the completion of the project.

**1030** Level 1: PBS collects the clearance air samples.

**1030-1115** Workers break for lunch and return to work.

**1100** Parking lot: PBS meets Olga Webstad and Charlene Wilson to return the non AOR items from room 185. All items were returned.

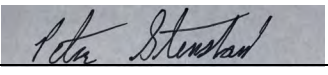
**1200** Stairwell: Five workers cutting out conduit, HEPA vacuuming and wet wiping the metal studs, and doing general housekeeping throughout the 2<sup>nd</sup> and 3<sup>rd</sup> levels.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature:  Name: Peter Stensland Date 5/4/2022

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 5/4/2022

---

Abatement Contractor: Dickson

PBS Observer: Gregg Middaugh, Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1300** Level 3: Five workers removing remaining gypsum ceiling / excess metal from above the construction door and rehangng the visual barrier poly.

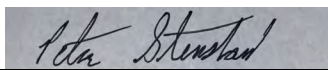
**1330** Level 1: PBS collects representative microvac clearance samples.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date 5/4/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 5/5/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +11			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: NA	
		Level 2: Cover ceiling junction boxes.	
		Level 3: NA Stairwell: Abatement/demo	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: NA. Level 2: MM attaching cover plates to ceiling junction boxes.

Stairwell: Workers are cleaning and removing remaining conduit sections.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** Outside. One worker is using the forklift to move ACM waste bags the waste containers in the parking lot.

**0800** Stairwell: Six workers inside of the stairwell wet wiping / HEPA vacuuming metal wall studs and the marble crete wall. One worker is outside the containment doing general housekeeping and passing in equipment to the workers inside.

**0900** Outside: Two workers are demoing out the underside of the NE exterior soffit in order to gain access for cleaning. One worker is cutting the plaster / gypsum with a Sawzall the other worker is picking up debris and HEPA vacuuming.

**1030-1115** Workers break for lunch and return to work.

**1300** Stairwell: Six workers doing detail cleaning in the stairwell, work is concentrated around the 2<sup>nd</sup> and 3<sup>rd</sup> levels. One worker outside the containment passing in supplies and loading out ACM bags, one worker operating the forklift to bring the ACM bags to the parking lot waste container.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

**1500** Outside: PBS takes microvac samples from inside the soffit along the N stairwell exterior and in the soffit gap underneath of the skybridge between Olympic S and Cascade.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature:  Name: Peter Stensland Date 5/5/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 5/6/2022
		DES Project No.: 2021-192	
		Page 1 of 2	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +10			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status: Level 1: NA			
Level 2: Cover ceiling junction boxes.			
Level 3: NA Stairwell: Abatement/demo			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Level 1: Workers recleaning / encapsulating. Level 2: MM attaching cover plates to ceiling junction boxes.

Stairwell: Workers continue detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** One worker using a forklift to dispose of the broken glass leftover from the recladding project. Two workers demoing out the insulation around the pipes in the NE soffit.

**0900** Stairwell: Five workers doing detail cleaning on the 2<sup>nd</sup> floor, two workers are double bagging ACM waste for loadout. Three workers are wet wiping / HEPAV vacuuming the metal wall studs and marble crete wall. Two workers are outside of the containment. One loading ACM bags into the tip bin, one is operating the forklift.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: Two workers are recleaning the raised floor in the ECE with HEPA vacuums. After they have finished vacuuming the floor it will be encapsulated.

**1230** Level 3: PBS is taking bulk TEM samples of the marble crete. One worker is HEPA vacuuming up the excess material that is broken off as a result of the sampling.

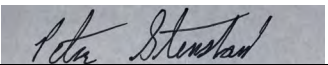
**1330** Stairwell: Four workers in the stair well HEPA vacuuming the metal wall studs and scraping off residual caulking from along the pan decking seams. One worker outside of the containment doing general housekeeping and passing in equipment.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
1 full 40 CY container (ACM bags and wraps) removed from site today	Olympic South Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature:  Name: Peter Stensland Date 5/6/2022

**PBS Environmental Field Observation Report**  
**Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 5/6/2022

---

Abatement Contractor: Dickson

PBS Observer: Gregg Middaugh, Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature:

Name: Peter Stensland

Date 5/6/2022

---



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Peter Stensland	PBS Project No.: 40535.488	Date: 5/9/2022	
	DES Project No.: 2021-192	Page 1 of 1	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status: Level 1: Recleaning / resampling		
Project Manager Yes <b>No</b> Supervisor Yes <b>No</b>	Level 2: NA.		
Workers <b>Yes</b> No Name: Corey Foust	Level 3: NA Stairwell: Abatement/demo		
How Many? +10	Other Personnel on Site: MacDonald Miller (MM)		
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Workers recleaning / encapsulating. Level 2: NA. Stairwell: Workers continue detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0700** Outside: Two workers are seeding the dirt around the playground and covering the seeds with peat moss before watering the area in order to promote growth and reduce soil erosion.

**0900** Level 1: PBS recollects a microvac clearance sample from the southwest portion of the floor. One worker is squeegeeing away the excess water from the floor to the drain and will encapsulate the area that has been impacted by the sitting water leaking out of the pipe. Two workers loading out negative air machines with the forklift tip bin.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 1: Two workers are recleaning the raised floor in the ECE with HEPA vacuums. After they have finished vacuuming the floor it will be encapsulated.

**1300** Stairwell: Five workers inside the stairwell doing detail cleaning throughout the 1<sup>st</sup> and 2<sup>nd</sup> levels. Workers have inserted two more negative air machines into the stairwell on the 3<sup>rd</sup> floor. These negative air machines are exhausting from the clean level 3 area into the containment and will help air circulation throughout the space.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

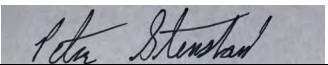
**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	

The individual signing certifies that the above information is correct and accurate.

Signature:  Name: Peter Stensland Date 5/9/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 5/10/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +10			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: Workers recleaning / encapsulating. Level 2: Removing containment poly.  
Outside: Demoing soffit Stairwell: Workers continue detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0730** Level 2: Two workers taking down the poly that separates the top of the stairwell from second floor. The poly is bagged and sealed, the floor is vacuumed and then encapsulated.

**0830** Rooftop: Two workers on the roof taking of tape and doing general cleanup around the roof.

**0930** Outside: Two workers taking down the level 1 clean room and loading the waste bags into the forklift tip bin.

**1030-1115** Workers break for lunch and return to work.

**1300** Stairwell: Five workers inside of the containment doing detail cleaning. PBS generally inspects the area and begins to create some punch list items for the workers.

**1330** Outside: Two workers demoing out the soffit on the exterior of the stairwell. One worker is cutting out the bottom with a Sawzall, one worker is HEPA vacuuming and bagging the debris.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

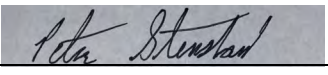
**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 5/10/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Gregg Middaugh, Peter Stensland		PBS Project No.: 40535.488	Date: 5/11/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 2	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many? +17		Summary Phase Status: Level 1: NA	
Air Monitoring Personnel on site: PBS/Dickson		Level 2: NA. Outside: Demoing soffit	
		Level 3: NA Stairwell: Abatement/demo	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: NA . Level 2: NA. Outside: Demoing & cleaning up soffit area Stairwell: Workers continue detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0800** Level 2: Three workers outside of the skybridge decon area loading in equipment and carrying out ACM bags to load into the tip bin.

**0900** Outside: one worker is cutting out the soffit from underneath of the skybridge and has separated the section intact. One worker is below HEPA vacuuming up fallen debris and helping to lower down the soffit.

**0915** Two workers in the parking lot wet wiping / HEPA vacuuming equipment before it is loaded off site in a box truck.

**0930** Gregg Middaugh arrives on site.

**1000** Outside: PBS walks the site to work on developing a punch list for the completion of the project.

**1030-1115** Workers break for lunch and return to work.

**1200** Outside: Two workers are demoing the entire remaining portions of the soffits from underneath of the skybridge from Olympic South to Cascade.

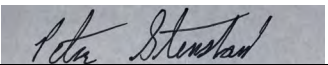
**1300** Stairwell: Eight works doing detail cleaning throughout the first and second floors. PBS walks through the floor and creates some punch list items for the crew to work on (level 2 and 3). Two workers are outside the containment doing

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	

The individual signing certifies that the above information is correct and accurate.

Signature:  Name: Peter Stensland Date 5/11/2022

**PBS Environmental Field Observation Report  
Additional Page**



---

Project Name: Olympic South Abatement & Repairs

Project No. 40535.488

Date: 5/11/2022

---

Abatement Contractor: Dickson

PBS Observer: Gregg Middaugh, Peter Stensland

Page 2 of 2

---

WORK DESCRIPTION: See page 1 above

---

OBSERVATIONS:

---

general house keeping and loading out ACM bags to the forklift tip bin. One worker is operating the forklift to bring the waste the parking lot.

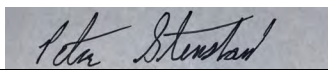
**1330** Outside: Two workers cleaning up the soffit area; HEPA vacuuming the drop and wet wiping the tops of the pipes.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

---

The individual signing certifies that the above information is correct and accurate.

Signature: 

Name: Peter Stensland

Date 5/11/2022

---

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Peter Stensland	PBS Project No.: 40535.488	Date: 5/12/2022	
	DES Project No.: 2021-192	Page 1 of 1	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status: Level 1: NA		
Project Manager Yes <b>No</b> Supervisor Yes No	Level 2: NA. Outside: Cleaning soffit		
Workers <b>Yes</b> No Name: Randy Scott	Level 3: NA Stairwell: Cleaning		
How Many? +12	Other Personnel on Site: MacDonald Miller (MM)		
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Level 1: NA . Level 2: NA. Outside: Cleaning up soffit area Stairwell: Workers continue detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0730** Outside: Three workers loading out ACM bags form the soffit demo into the forklift tip bin.

**0800** Level 1: One worker has cut the conduits in the mechanical room flush with the floor and has sealed the holes with fire caulking. There are still some remaining conduits remaining that may be cut at a later point but MM has to determine their uses first.

**0900** Stairwell: Six workers inside the stairwell doing detail cleaning on the first floor.

**1030-1115** Workers break for lunch and return to work.

**1330** Stairwell: Five workers in the stairwell doing detail cleaning. PBS goes into visually inspect the area, Dickson will need to wipe down the scaffolding and remove all poly / tape prior to encapsulation. There is a substantial amount of concealed dust / debris underneath and will take time to clean. Two workers outside of the containment loading out bags and managing the equipment.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

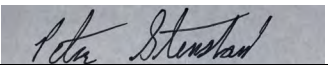
**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 5/12/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Ferman Fletcher, Peter Stensland	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 5/13/2022
	Page 1 of 1
	Time 0600 am
Contractor on Site Personnel:	
Project Manager Yes <b>No</b> Supervisor Yes No	Summary Phase Status: Level 1: NA
Workers <b>Yes</b> No Name: Randy Scott	Level 2: NA. Outside: Cleaning soffit
How Many? +5	Level 3: NA Stairwell: Cleaning
Air Monitoring Personnel on site: PBS/Dickson	Other Personnel on Site: MacDonald Miller (MM)

**WORK DESCRIPTION:** Level 1: NA . Level 2: NA. Outside: Cleaning up soffit area Stairwell: Workers continue detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0630 – 0800** One worker assisting PBS with bulk TEM sampling.

**0900** Stairwell: Three workers inside the stairwell removing poly and tape from the scaffolding. Workers HEPA vacuum and wet wipe the surface of the scaffolding to ensure that no excess demo debris remains.

**1030-1115** Workers break for lunch and return to work.

**1200** Level 2: PBS collects TEM bulk samples.

**1230** Outside: Two workers finish detail cleaning the soffit area and are ready for a visual inspection.

**1300** PBS collecting bulk TEM samples.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

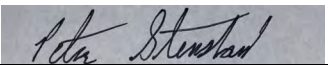
**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 5/13/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Peter Stensland		PBS Project No.: 40535.488	Date: 5/16/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many? +5			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status: Level 1: NA	
		Level 2: NA. Outside: Cleaning soffit	
		Level 3: NA Stairwell: Detail cleaning	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Level 1: NA . Level 2: NA. Outside: Cleaning up soffit area Stairwell: Workers continue detail cleaning.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring.

**0730** Outside: PBS visually inspects the soffit area and creates a punch list for the worker to touchup before taking down the containment.

**0800** Outside: The soffit area passes visual inspection, and one worker begins taking down the poly and picking up the drop cloth.

**0930** Stairwell: Three workers HEPA vacuuming and wet wiping the scaffolding on the third floor.

**1030-1115** Workers break for lunch and return to work.

**1230** Stairwell: Three workers wet wiping and HEPA vacuuming the scaffolding on levels 2 and 3.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

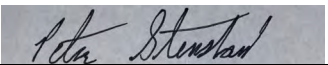
**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South stairwell and exterior

The individual signing certifies that the above information is correct and accurate.

Signature:   
Name: Peter Stensland Date 5/16/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 5/17/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Corey Foust	
How Many? +8		Summary Phase Status:	
Air Monitoring Personnel on site: PBS/Dickson		Stairwell: PBS visual inspection	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Stairwell: PBS perform visual inspection; Dickson continue detail cleaning associated with PBS visual inspection.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** Wet wipe and HEPA vacuum

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building. PBS conducting daily PCM air monitoring. One worker (forklift operator) assisting with operations outside of containment.

**0950** PBS enter Stairwell containment with Corey to perform visual inspection. PBS note areas in need of additional cleaning. Dickson workers in area to address items as noted.

**1030** PBS visual inspection satisfactory in stairwell. Items noted for additional cleaning have been addressed.

**1030-1115** Workers break for lunch and return to work.

**1130** Workers begin encapsulation of stairwell containment. Finishes in need of protection have been covered with poly sheeting.

**1230** PBS walk levels 1/2/3 with Corey and Randy Scott to communicate current punch list of items for Dickon to address as the project is finishing up. Corey communicates it will be his last day on site, new supervisor will be Randy starting tomorrow (5/18).

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 5/17/2022



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland, Gregg Middaugh		PBS Project No.: 40535.488	Date: 5/18/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many? +7			
Air Monitoring Personnel on site: PBS/Dickson			
Summary Phase Status:			
Stairwell: Continue Encapsulation			
Level 1/2/3: Misc. punch list items			
Other Personnel on Site: MacDonald Miller (MM)			

**WORK DESCRIPTION:** Exterior: Minor gypsum wallboard removal on south exterior. Stairwell: Continue encapsulation process.  
 Level 2: Misc. encapsulant touch ups.  
**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

**0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.

**0845** PBS project manager Gregg M on site.

**0930** PBS meet Charlene W in Parking lot A to return occupant contents.

**0950** PBS communicate with Randy additional minor gypsum wallboard removal needed on south elevation exterior.

**1000** MM electricians observed working on temp power panels and misc items throughout the building floors

**1030-1115** Workers break for lunch and return to work.

**1200** PBS visual stairwell containment for application of encapsulant. Note areas in need of additional encapsulant coverage. Dickson workers in area touching up as needed.

**1320** Two workers on level 2 spraying additional encapsulant in areas noted for touch ups. (Column cavity penetrations previously covered by critical barriers to separate floors 1 and 2)

**1330** Gypsum wallboard removal needed on south elevation exterior is complete. Area has been covered with plywood for building security.

**1415** Workers decon out of work areas for the day and meet at job trailer for end of day meeting.

**1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/Stairwell/Exterior

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 5/18/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Peter Stensland		PBS Project No.: 40535.488	Date: 5/19/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0600 am
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many? +5			
Air Monitoring Personnel on site: PBS/Dickson			
		Summary Phase Status:	
		PBS stairwell clearance sampling.	
		Misc. punch list items throughout building.	
		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** PBS conduct clearance sampling in stairwell area. Dickson continue with punch list items.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

- 0600** Dickson and MM workers are having their morning meeting to go over the scope of work for the day. Dickson workers go to assigned tasks. All following notes will be in reference to the Olympic South Building.
- 0915** PBS set up air clearance samples for stairwell area.
- 0930** One worker loading supplies and equipment into box truck in ECE drive through area. United site services on site to remove Sani cans.
- 0940** Three workers in 283 reenforcing critical barriers on column penetrations to exterior columns.
- 1000** Pacific Mobile structures removing break trailer from parking lot A.
- 1030-1115** Workers break for lunch and return to work.
- 1155** Todd L on site for walk through.
- 1200** PBS walk site with Randy and two workers to look at punch list items.
- 1326** Two workers cleaning exterior light boxes. One worker in connex in parking lot cleaning equipment for demobilization. Pacific mobile mini on site to remove one office trailer. Sunbelt on site picking up generator from parking lot A one worker assisting.
- 1400** Weekly construction meeting with project team
- 1430** Workers leaving site for the day.
- 1450** PBS leaving site. MM still onsite will secure building.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 5/19/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai, Peter Stensland	PBS Project No.: 40535.488	Date: 5/20/2022	
	DES Project No.: 2021-192	Page 1 of 1	Time 0600 am
Contractor on Site Personnel:	Summary Phase Status: Punch list walk through.		
Project Manager Yes <b>No</b> Supervisor Yes No	Stairwell passes clearance.		
Workers <b>Yes</b> No Name: Randy Scott	Misc. Punch list items around site.		
How Many? +5	Other Personnel on Site: MacDonald Miller (MM)		
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Walk site with Architect, College rep, MM, and PBS for punch list items.  
Dickson continue punch list items around site.

**WORKER PROTECTION:** Tyvek, 1/2 face respirator, hard hat, safety boots, high-vis vest

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

- 0700** PBS on site. Dickson on site after unloading materials at shop.
- 0845** One worker assist PBS with returning contents to International House. PBS photo document return of items for smart sheet.
- 0850** One worker in connex in parking lot A cleaning equipment for demobilization from site.
- 0900** Two workers cleaning exterior light/junction boxes. PBS visually inspect exterior light/ junction box on south elevation west area. Cleaning satisfactory, workers may encapsulate.
- 0950** One worker cleaning up broken glass and construction debris from landscaping area around building.
- 1030-1115** Workers break for lunch and return to work.
- 1130-1300** Andy H and Charlene W on-site for punch list walk through with MM and PBS.  
Three workers continue cleaning exterior junction boxes. PBS following along visually inspecting each junction box as it is completed. One worker still cleaning equipment in connex. One worker assisting efforts and continuing with demobilization.
- 1400** MM off site. PBS leaving site. Randy still on site will secure building.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 5/20/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai		PBS Project No.: 40535.488	Date: 5/23/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0600 am
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many? + 3			
Air Monitoring Personnel on site: PBS/Dickson		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Dickson and MM continue misc. punch list items around site.  
 Set up containment for additional duct work found in east stairwell.

**WORKER PROTECTION:** General construction safety

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

**0820** PBS on site. Dickson and MM are on site. Dan, two carpenters, and one electrician on site completing punch list items. Randy and three workers are on site completing punch list items. One worker loading materials into forklift bin and transporting them to parking lot A for demobilization from the site.

**1030-1115** Workers break for lunch and return to work.

**1130** PBS walk level 3 with Randy and two workers. Additional section of ductwork found coming from level 2 to level 3 via stairwell. Duct work encased in gypsum previously concealed from stairwell. Workers have sealed end of duct and will work on setting up mini containment around area for duct work to be removed in.

**1140** One worker on level 3 fire caulking conduit from previous roof penetration that has been capped.

**1230** PBS meet Pierce College employee at Parking Lot A to view artwork that will be picked up at a later scheduled date.

**1240** One worker setting up containment for duct removal in stairwell.

**1415** Workers meet for end of day meeting.

**1430** Workers off site for the day.

**1445** PBS leaving site. MM still on site will secure site.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
 Name: Claire Tsai Date 5/23/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai		PBS Project No.: 40535.488	Date: 5/24/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0600 am
Contractor on Site Personnel:			
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many? +3			
Air Monitoring Personnel on site: PBS/Dickson		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Dickson and MM on site completing punch list items.

**WORKER PROTECTION:** 1/2 face respirator, Tyvek, safety boots, hard hat

**METHOD OF REMOVAL:** wet methods manual and saws

**OBSERVATIONS:**

- 0600** PBS on site. Dickson and MM on site completing punch list items.
- 0621** Two workers bring negative air machine from connex in parking lot up to stairwell containment between second and third floor. Workers continue sealing stairwell containment for additional duct removal.
- 0645** One worker taking box truck back to shop to continue demobilization.
- 0807** PBS set up HEPA air sample from stairwell containment. One worker in stairwell containment removing gypsum and section of duct work. One worker cleaning equipment in connex for demobilization. One worker still off-site bringing materials back to shop. Randy on site supervising activities.
- 0845** One worker back on site with box truck to load up more materials for demobilization.
- 1030-1115** Workers break for lunch and return to work.
- 1145-1200** PBS visually inspect stairwell containment. One worker in area touches up cleaning as needed. PBS visual inspection satisfactory. One worker begins encapsulation of stairwell containment.
- 1300** Randy and workers in parking lot loading materials from connex into box truck for demobilization. PBS provide Randy with written punch list items remaining and communicate we will not be on site tomorrow (5/25).
- 1315** PBS set up clearance air sample in stairwell mini containment. Workers continue with demobilization.
- 1430** Workers off site for the day.
- 1520** PBS collect Clearance air sample from stairwell containment and leave site. Doors locked.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
Asbestos contaminated duct work from stairwell	Olympic South Levels 1/2/3/Stairwell

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 5/24/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs
PBS Site Observer(s): Claire Tsai, Gregg Middaugh	PBS Project No.: 40535.488 DES Project No.: 2021-192
	Date: 5/26/2022
	Page 1 of 1
	Time 0800 am
Contractor on Site Personnel:	
Project Manager <b>Yes</b> No Supervisor <b>Yes</b> No	Summary Phase Status: Misc. Punch list items
Workers <b>Yes</b> No Name: Randy Scott	
How Many? +1	Other Personnel on Site: MacDonald Miller (MM)
Air Monitoring Personnel on site: PBS/Dickson	United Site Services

**WORK DESCRIPTION:** Dickson and MM are on site completing punch list items.

**WORKER PROTECTION:** NA

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

- 0815** PBS on site. Dickson and MM are on site completing punch list items.
- 0845** PBS project manager Gregg M on site for walk through.
- 0900** Randy and one worker on site demobilizing equipment from around the site. Stairwell containment has passed air clearance. Containment has been taken down.
- 1030-1115** Workers break for lunch and return to work.
- 1200** United Site Services on site picking up sandbags. Site fencing has been removed.
- 1230** Todd L on site for walk through. PBS and Dickson walk exterior looking at places with construction debris that needs to be picked up.
- 1300** MM carpenter has sealed the hole to the skybridge soffit above the east elevation door at the base of the stairwell. Worker has been through the 16-hour asbestos training. Bird holes in building envelope have also been sealed.
- 1430** Workers off site for the day.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 5/26/2022

**PBS Environmental Field Observation Report**



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai		PBS Project No.: 40535.488	Date: 5/27/2022
		DES Project No.: 2021-192	
Contractor on Site Personnel:		Page 1 of 1	Time 0800 am
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many?		Summary Phase Status: Misc. Punch list items	
Air Monitoring Personnel on site: PBS/Dickson		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Dickson and MM are on site completing punch list items.

**WORKER PROTECTION:** NA

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

- 0900** PBS on site. Dickson and MM on site completing punch list items.
- Dickson cleaning up land scaping from construction debris on south, east and west elevations.
- 1000** PBS meet occupant in Parking lot A for contents return.
- 1015** Two maintenance employees transport college art from connex to Cascade 513.
- One art piece glass broken in process. PBS document and notify college, art is not damaged.
- 1230** PBS leaving site. Dickson and MM still on site will secure building.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
 Name: Claire Tsai      Date 5/27/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	
PBS Site Observer(s): Claire Tsai	
Contractor on Site Personnel:	
Project Manager	Yes <b>No</b> Supervisor <b>Yes</b> No
Workers	<b>Yes</b> No Name: Randy Scott
How Many? +1	
Air Monitoring Personnel on site: PBS/Dickson	

Project Name: Olympic South Abatement & Repairs	
PBS Project No.: 40535.488	Date: 5/31/2022
DES Project No.: 2021-192	
Page 1 of 1	Time 0800 am
Summary Phase Status: Misc. Punch list items	
Other Personnel on Site: MacDonald Miller (MM)	
PCI	

**WORK DESCRIPTION:** Dickson and MM are on site completing punch list items.

**WORKER PROTECTION:** NA

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

- 0830** PBS on site. Dickson and MM on site completing punch list items.
- 0845** PCI on site removing scaffolding access to Skybridge window between Olympic South and Cascade.
- 0850** One Dickson worker in skybridge vacuuming carpet. Poly sheeting has been removed from carpet. Visual barriers are still up on windows.
- 1400** PBS review with MM Misc. areas/items that need asbestos labels. Verbiage of sign language sent out to project team for review.
- 1520** PBS leaving site.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 5/31/2022



# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai		PBS Project No.: 40535.488	Date: 6/2/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0800 am
Contractor on Site Personnel:		Summary Phase Status: Misc. Punch list items	
Project Manager	<b>Yes</b> No	Supervisor	<b>Yes</b> No
Workers	<b>Yes</b> No	Name: Randy Scott/ Corey Foust	
How Many? +3		Other Personnel on Site: MacDonald Miller (MM)	
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Dickson and MM are on site completing punch list items.

**WORKER PROTECTION:** NA

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

**1140** Corey, Todd, Randy and three workers are on site. MM and K Fox insulators are on site. PBS on site. One worker in connex cleaning contents to be returned. One worker vacuuming floor throughout level 2. One worker assisting K fox insulation with sealing brace framing.

**1300** PBS and Dickson looking at previously concealed column cavity in need of additional cleaning. PBS photo document. Dickson workers seal cavity with poly sheeting and duct tape. Dickson will continue with column prep and cleaning in the morning.

**1230** PBS meet Charlene W. on site in parking lot A to return occupant contents.

**1430** Workers off site. Building has been secured.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 6/2/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai, Gregg Middaugh		PBS Project No.: 40535.488	Date: 6/3/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0800 am
Contractor on Site Personnel:		Summary Phase Status: Misc. Punch list items	
Project Manager	Yes <b>No</b>	Supervisor	Yes <b>No</b>
Workers	<b>Yes</b> No	Name: Randy Scott/ Corey Foust	
How Many? +3		Other Personnel on Site: MacDonald Miller (MM)	
Air Monitoring Personnel on site: PBS/Dickson		K Fox Insulators	

**WORK DESCRIPTION:** Clean column cavity. Dickson and MM are on site completing punch list items.

**WORKER PROTECTION:** 1/2 face respirator, tyvek

**METHOD OF REMOVAL:** use of saws and manual removal, wet wipe and HEPA vacuuming

**OBSERVATIONS:**

**0830** PBS on site. Containment is set up around level 2 column cavity discovered 6/2.

Two workers in level 2 column containment removing gypsum and framing for access to cavity for cleaning. One worker on level 1 vacuuming the floor. One worker on level 2 vacuuming floor. One worker assisting K Fox insulation with sealing brace framing throughout levels 1-3.

**1030** PBS (Gregg and Claire) walk all levels with Corey developing final punch list of items to be completed. List includes removing residual tape, sealing openings in building envelope, sealing penetrations in CMU, etc.

**1256** PBS visually inspect column cavity. Visual inspection satisfactory, workers may continue with encapsulation.

**1400** PBS develop written list of final punch list items and communicate to Dickson and MM.

**1430** PBS leaving site. PBS will return 6/6 to run clearance sample from column cavity once encapsulant has settled.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: Claire Tsai  
Name: Claire Tsai Date 6/3/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson		Project Name: Olympic South Abatement & Repairs	
PBS Site Observer(s): Claire Tsai		PBS Project No.: 40535.488	Date: 6/6/2022
		DES Project No.: 2021-192	
		Page 1 of 1	Time 0800 am
Contractor on Site Personnel:		Summary Phase Status: Misc. Punch list items	
Project Manager	Yes <b>No</b>	Supervisor	Yes No
Workers	<b>Yes</b> No	Name: Randy Scott	
How Many? +1			
Air Monitoring Personnel on site: PBS/Dickson		Other Personnel on Site: MacDonald Miller (MM)	

**WORK DESCRIPTION:** Clean column cavity. Dickson and MM are on site completing punch list items.

**WORKER PROTECTION:** NA

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

- 0900** PBS on site to run level 2 column clearance. Randy and Dan are on site.
- 0915** PBS set up clearance air sample for level 2 column containment.
- 0930** PBS walk all floors with Randy to review final punch list of items.
- 0945** One Dickson worker on site dropping off materials before returning to shop to unload truck and continue demobilization.
- 1142** PBS leaving site to drop of clearance sample at Labcor for analysis.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 6/6/2022

# PBS Environmental Field Observation Report



Asbestos Contractor: Dickson	Project Name: Olympic South Abatement & Repairs		
PBS Site Observer(s): Claire Tsai	PBS Project No.: 40535.488	Date: 6/8/2022	
	DES Project No.: 2021-192	Page 1 of 1	Time 0800 am
Contractor on Site Personnel:	Summary Phase Status: Misc. Punch list items		
Project Manager Yes <b>No</b> Supervisor Yes No	Other Personnel on Site: MacDonald Miller (MM)		
Workers <b>Yes</b> No Name: Randy Scott			
How Many? + 1			
Air Monitoring Personnel on site: PBS/Dickson			

**WORK DESCRIPTION:** Dickson and MM are on site completing punch list items.

**WORKER PROTECTION:** NA

**METHOD OF REMOVAL:** NA

**OBSERVATIONS:**

**0845** PBS on site. PBS walk through site with Randy confirming punch list items have been completed. Level 2 column cavity containment has passed clearance, containment has been taken down.

**1150** PBS return cart to maintenance building with paint cans and maintenance contents previously cleaned but not yet returned.

**1130** Dickson and MM leaving site. All Dickson punch list items complete. MM will be making a return trip to finish asbestos labeling and with pipe shrouds for level 1 east exterior pipe penetrations.

**1200** PBS return Dickson's key set to Officer Nathan at campus security office.

Parking lot A clear except two connexs and one general dumpster. PBS confirmed with Dan T (facilities) that dumpster is from the college, and they will remove. One connex from lot is still being used for contents storage until occupant pick up is complete.

**1215** PBS leaving site.

ITEMS OF CONCERN: None

CHANGES IN SCOPE: None

QUANTITY AND TYPE ACM REMOVED THIS SHIFT/ PHASE:	BUILDING/AREA/LOCATION
NA	Olympic South Levels 1/2/3

The individual signing certifies that the above information is correct and accurate.

Signature: *Claire Tsai*  
Name: Claire Tsai Date 6/8/2022







PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9399  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: <b>Pierce College Olympic South Emergency Cleanup</b>	I.H. <i>Claire Tsai</i>	WEATHER: <i>—</i>	Conditions:  <i>Mini enclosures</i>
Project No.: 40535.488	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH METHOD 7400	TEMP:	
Location: Olympic South Building		R.H.	
Contractor: Dickson		FIELD COUNT: 100	
Client: DES			

RELINQUISHED BY (SIGN.):	ANALYZED BY: <i>Claire Tsai</i>	DATE/TIME: <i>5/14/12</i>	REMARKS:
RECEIVED BY (SIGN.):	ANALYZED BY:	DATE/TIME:	TWA:

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
<i>5/14/12</i>	<i>09</i>	<i>C</i>	<i>-</i>	<i>Rm 172 w windows</i>	<i>0/100</i>	<i>835</i>	<i>1044</i>	<i>129</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>1290</i>	<i>1.5/100</i>	<i>4.002</i>
	<i>10</i>	<i>C</i>	<i>-</i>	<i>Rm 166A w door</i>		<i>841</i>	<i>1044</i>	<i>123</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>1230</i>	<i>4.5/100</i>	<i>4.002</i>
	<i>11</i>	<i>C</i>	<i>-</i>	<i>FL2 Mechanical Mezz</i>		<i>906</i>	<i>1106</i>	<i>120</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>1200</i>	<i>3.5/100</i>	<i>4.002</i>
	<i>12</i>	<i>C</i>	<i>-</i>	<i>Kitchen w door</i>		<i>1051</i>	<i>1253</i>	<i>122</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>1220</i>	<i>2/100</i>	<i>4.002</i>
	<i>13</i>	<i>C</i>	<i>-</i>	<i>Hall near 172</i>		<i>1056</i>	<i>1257</i>	<i>121</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>1210</i>	<i>4/100</i>	<i>4.002</i>
	<i>14</i>	<i>C</i>	<i>-</i>	<i>Rm 272 w wall</i>		<i>1123</i>	<i>132</i>	<i>129</i>	<i>10</i>	<i>10</i>	<i>10</i>	<i>1290</i>	<i>4.5/100</i>	<i>4.002</i>
	<i>15</i>	<i>C</i>	<i>-</i>	<i>ECE w window</i>		<i>234</i>	<i>414</i>	<i>100</i>	<i>12</i>	<i>12</i>	<i>12</i>	<i>1200</i>	<i>4/100</i>	<i>4.002</i>
	<i>16</i>	<i>B</i>	<i>-</i>	<i>Field Blank</i>									<i>0/100</i>	<i>—</i>
	<i>17</i>	<i>B</i>	<i>-</i>	<i>Field Blank</i>									<i>0/100</i>	<i>—</i>





210495

RUSH - 6 HR



PBS Engineering and Environmental Inc.  
214 E GALER STREET, SUITE 300  
SEATTLE, WA 98102  
206.233.9399  
pbsusa.com

6/8/21 sam

### LABORATORY DATA SHEET

Project Name: Pierce College Olympic South  
Emergency Cleanup

I.H. C. TSAI

WEATHER:

Conditions:

Project No.: 40535.488

SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH  
METHOD   
5402

TEMP:       

R.H.       

Location: Olympic South Building

Contractor: Dickson

FIELD COUNT: 100

Client: DES

REVIEWED BY (SIGN.):

GREGG MIDDAUGH

ANALYZED BY:

DATE/TIME:

REMARKS:

RECEIVED BY (SIGN.):

DATE/TIME:

6/9/21 sam

ANALYZED BY:

DATE/TIME:

TWA:

CODES: P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
6/4	22	C	—	SKYBRIDGE		11:18	13:18	120	10	10	10	1200		
6/4	23	C	—	CASCADE Rm 512		11:25	13:25	120	10	10	10	1200		
6/4	24	B	—	FIELD BLANK										
6/4	25	B	—	FIELD BLANK										
	<del>26</del>													

Reviewed by: \_\_\_\_\_  
 Results Released:  
 Fax    Verbals    USPS    Email  
 Invoice Released:  
 Fax    USPS    Email













PBS Engineering and Environmental Inc.  
214 E GALER STREET, SUITE 300  
SEATTLE, WA 98102  
206.235.9599  
pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP: 60's	Comments:
Project No.: 40535.488	I.H. Peter Stensland		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.): <i>Peter Stensland</i>	DATE/TIME: 8/30/21	ANALYZED BY: <i>Nike Smith</i>	DATE/TIME: 8/30/21	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

CODES: P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
          IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
          OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
8/30/21	C10	IWA	IC9C	IWA NW Corner		8:27	1:57	330	8	8	8	2640	OVER	LOAD
8/30/21	C11	OWA	HM9-9	OWA S Door		8:26	2:01	335	8	8	8	2680	1/100	<0.001
8/30/21	C12	B	/	Blank		/	/	/	/	/	/	/	0/100	
8/30/21	C13	B	/	Blank		/	/	/	/	/	/	/	0/100	
8/30/21	C10A	A		CORRIDOR 329										
Recount Sample #			Recount											
Recount Sample #			Recount											
Recount Sample #			Count											

Inherence  
 201/2019



PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.239.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs  
 WEATHER/TEMP: 60's  
 Comments:  
 Project No.: 40535.488  
 I.H. Peter Stensland  
 Location: Lakewood, WA  
 SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400  
 Contractor: Dickson  
 Client: DES

RELINQUISHED BY (SIGN.): *Peter Stensland* DATE/TIME: 8/31/21 ANALYZED BY: *Touhngun* DATE/TIME: 09/01/21 TWA:  
 RECEIVED BY (SIGN.): DATE/TIME: ANALYZED BY: DATE/TIME:

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
8/31/21	C14	A	059	CORRIDOR e 329	0/100	0750	1435	405	2.3	2.7	2.0	810	7/100	0.004
8/31/21	C15	IWA	1696	Inside of maintenance shed	}	700	1000	180	8	8	8	1440	13/100	0.004
8/31/21	C16	IWA	1696	Inside of maintenance shed		1110	1405	175	8	8	8	1400	10/100	0.005
8/31/21	C17	OWA	HV19-9	Outside of maintenance shed		0630	1400	450	5	5	5	2750	15/100	0.002
8/31/21	C18	B	/	BLANK 1	/	/	/	/	/	/	/	/	/	/
8/31/21	C19	B	/	BLANK 2	/	/	/	/	/	/	/	/	/	/

Recount Sample # Recount  
 Recount Sample # Recount  
 Recount Sample # Count













PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9399  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:  70's	Comments:
Project No.: 40535.488	I.H. PETER STENSLAND		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD:		
Contractor: Dickson	NIOSH 7400		
Client: DES			

RELINQUISHED BY (SIGN.): <i>[Signature]</i>	DATE/TIME: 9/8/2021	ANALYZED BY: <i>[Signature]</i>	DATE/TIME: 9/9/21	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
9/8/21	C47	B	-	FIELD BLANK									0/100	-
	C48	B	-	FIELD BLANK									0/100	-
	C49	IWA	1696	MAINTENANCE SHED S.	0/100	0655	1415	440	4	4	4	1760	10/100	0.063
	C50	OWA	HV19-9	OUTSIDE OF MAINT SHED	0/100	0720	1416	416	4	4	4	1664	2/100	40.005
	C51	A	90	3 <sup>rd</sup> FL N CORR	0/100	0822	1345	323	2.1	2.1	2.1	678	6.5/100	0.005
Recount Sample #		C49	Recount	9/100										
Recount Sample #			Recount											
Recount Sample #			Count											























PBS Engineering and Environmental Inc.  
 214 F. GAUER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9399  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South  
 Abatement and Repairs

I.H. T. NGUYEN

WEATHER:

Conditions:

Project No.: 40535.488

SAMPLE MEDIA/ANALYTICAL METHOD:

Location: Olympic South Building

NIOSH 7460

TEMP:

Contractor: Dickson

R.H.

Client: DES

FIELD COUNT: 100

RELINQUISHED BY (SIGN.):

ANALYZED BY: *T. Nguyen*

DATE/TIME: 09/23/21

REMARKS:

RECEIVED BY (SIGN.):

DATE/TIME:

ANALYZED BY:

DATE/TIME:

TWA:

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
09/22/21	C117	B	/	BLANK 1	0.5/100	/	/	/	/	/	/	/	1/100	/
	C118	B	/	BLANK 2		/	/	/	/	/	/	/	6/100	/
	C119	OWA	1696	OLY N. Corridor		0842	1417	335	6	6	6	2010	6/100	<0.002
	C120	IWA	211667	IWA 3rd Fl. Corridor		0728	1400	392	4	4	4	1563	19.5/100	0.006
	C121	OWA	8297	OWA - Staircase of 2nd & 3rd Fl.		0720	1250	330	4	4	4	1320	8.5/100	0.002
	C122	H	6109	HEPA exhaust on west Staircase (2nd Fl.)		0646	1421	495	2	2	2	910	9/100	0.004
	C123	H	HV135	HEPA exhaust #1 ECE - 1st Fl.		0730	1410	400	3	3	3	1200	1.3/100	<0.002
	C124	H	6113	HEPA exhaust - Roof - NA-09		0635	1425	470	2	2	2	840	0/100	<0.002









PBS Engineering and Environmental Inc.  
 2147 GAFFER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9339  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		I.H. Peter Stensland		WEATHER: 60's		Conditions:	
Project No.: 40535.488		SAMPLE MEDIA/ANALYTICAL METHOD: MIOSH 2400		TEMP:			
Location: Olympic South Building				R.H.:			
Contractor: Dickson				FIELD COUNT: 100			
Client: DES							

RELINQUISHED BY (SIGN.): <i>Peter Stensland</i>	DATE/TIME: 9/27/21	ANALYZED BY:	DATE/TIME:	REMARKS:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	TWA:

**CODES:** P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
9/27/21	C142	B	/	Blank	1/100	/	/	/	/	/	/	/	1/100	-
	C143	B	/	Blank		/	/	/	/	/	/	/	1/100	-
	C144	H	1690	Roof HEPA exhaust -		0700	1350	410	4	4	4	1640	2/100	<0.002
	C145	OWA	1696	3rd Fl. corridor OLY N.		0653	1345	402	5	5	5	2010	4/100	<0.001
	C146	OWA	8297	2nd/3rd Fl. staircase		0708	1404	416	5	5	5	2080	22/100	0.005
	C147	H	089	2nd Fl. staircase - West		0643	1355	406	2.3	2.2	2.25	918	1/100	<0.004
	C148	IWA	211607	3rd Fl. Corridor of 0328		0800	1415	375	5	5	5	1875	26/100	0.005
	C149	H	4U-30A	Roof HEPA exhaust -		0700	1350	410	4	4	4	1640	5/100	<0.002
	C150	H	HU-135	ECE - 1st Fl. exhaust - S.		0640	1358	402	5	5	5	2010	2/100	<0.001



PBS Engineering and Environmental Inc.  
 314 F GAFFER STREET, SUITE 500  
 SEATTLE, WA 98102  
 206.233.5339  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs	I.H. PETER STENSLAND	WEATHER:	Conditions:
Project No.: 40535.488	SAMPLE MEDIA/ANALYTICAL METHOD:	TEMP:	
Location: Olympic South Building	NIOSH 7400	R.H.:	
Contractor: Dickson		FIELD COUNT: 100	
Client: DES			

RELINQUISHED BY (SIGN.): <i>Peter Stensland</i>	DATE/TIME: 9/28/21	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: 9/29/21	REMARKS:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	TWA:

**CODES:** P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
9/28/21	C151	B	-	Field Blank									1/100	-
	C152	B	-	Field Blank									0/100	-
	C153	C		Hall near 172 mini enclosure	.5/100	9:15	11:15	120	10	10	10	1200	45/100	0.018
	C154	H	HV30A	Roof HEPA exhaust - NA06	.5/100	0632	1355	443	4	4	4	1772	1/100	<0.002
	C155	OWA	1696	OLY N. Corridor - student lounge	.5/100	0645	1350	425	5	5	5	2125	7/100	
	C156	H	1698	Roof HEPA exhaust - NA05	.5/100	0657	1355	418	4	4	4	1672	2/100	<0.002
	C157	H	HV135	EOE HEPA exhaust - #2	.5/100	0700	1402	422	5	5	5	2110	0/100	<0.001
	C158	H	3655	2nd floor w/ stairs 2	.5/100	0702	1405	423	2	2	2	846	2/100	<0.004
	C159	IWA	211607	3rd Fl. Corridor of 0328	.5/100	0735	1025	170	4	4	4	680	4/100	<0.005
	C160	OWA	8297	Oly. S Bottom of stairs	.5/100	0727	1347	380	4	4	4	1520	2/100	<0.003



PBS Engineering and Environmental Inc.  
 214 F CHAIR STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		I.H. Peter Steynslad	WEATHER: Rainy	Conditions:
Project No.: 40535.488		SAMPLE MEDIA/ANALYTICAL METHOD:  NIOSH 7400	TEMP: 60's/50's	
Location: Olympic South Building			R.H.	
Contractor: Dickson			FIELD COUNT: 100	
Client: DES				

RELINQUISHED BY (SIGN.): <i>[Signature]</i>	DATE/TIME: 9/29/21	ANALYZED BY: <i>[Signature]</i>	DATE/TIME: 9/30/21	REMARKS:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
9/29/21	C161	B	/	Blank	-	/	/	/	/	/	/	/	1/100	-
	C162	B	/	Blank	-	/	/	/	/	/	/	/	0/100	-
	C163	H	090	2nd floor W stairs 3	.5/100	2:12	2:10	4:18	3	2.6	2.8	1170	0/100	<0.004
	C164	OWA	1696	Oly. N Corridor	.5/100	7:20	1:50	3:90	5	5	5	1950	25/100	0.006
	C165	H	1698	Roof Exhaust NA07	.5/100	7:30	1:55	3:90	4	4	4	1560	2/100	<0.003
	C166	H	HV30A	Roof Exhaust NA08	.5/100	7:30	1:55	3:90	4	4	4	1560	0/100	<0.003
	C167	H	HV-135	ECE Exhaust 1	.5/100	7:35	2:15	4:00	5	5	5	2000	0/100	<0.001
	C168	OWA	8297	Oly. S Bottom Stairs	.5/100	7:45	2:15	3:90	4	4	4	1560	7/100	<0.003
	C169	IWA	211607	3rd floor Corridor	.5/100	7:50	2:30	4:00	4	4	4	1600	16/100	0.005
	C170	IWA		Room 168	.5/100	10:12	2:10	2:38	5	5	5	1190	22.5/100	0.009



PBS Engineering and Environmental Inc.  
 214 F GAFFER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9339  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		I.H. PETER STENSLAND		WEATHER: T. SUN		Conditions:	
Project No.: 40535.488		SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		TEMP: 63°f +/-			
Location: Olympic South Building				R.H.			
Contractor: Dickson				FIELD COUNT: 100			
Client: DES							

RELINQUISHED BY (SIGN.):	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: 10/1/21	REMARKS:
RECEIVED BY (SIGN.):	ANALYZED BY:	DATE/TIME:	
TWA:			

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
9/30/21	C171	B	/	Blank	-	/	/	/	/	/	/	/	2/100	-
	C172	B	/	Blank	-	/	/	/	/	/	/	/	0/100	-
	C173	OWA	1696	Oly. N Corridor	1/100	6:37	2:07	450	5	5	5	2250	15/100	0.004
	C174	H	1698	Roof Exhaust MA01	1/100	6:50	2:10	440	4	4	4	1760	2/100	<0.002
	C175	H	HV30A	Roof Exhaust MA02	1/100	6:50	2:10	440	4	4	4	1760	1/100	<0.002
	C176	H	G113	2nd Floor W Stairs 4	1/100	7:15	2:17	422	2	2	2	844	1/100	<0.004
	C177	OWA	8297	Oly. S Bottom of Stairs	1/100	7:30	1:55	385	4	4	4	1540	24/100	0.007
	C178	IWA	HV-106	Room 168	1/100	7:35	2:10	395	5	5	5	1975	55/100	<0.001
	C179	IWA	211607	3rd Floor N Corridor	1/100	7:37	1:50	373	4	4	4	1492	30/100	0.011



PBS Engineering and Environmental Inc.  
 214 F GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: <b>Pierce College Olympic South</b>		I.H. <b>PETER STENSLAND</b>	WEATHER:	Conditions:
Abatement and Repairs			Rain	
Project No.: 40535.488			TEMP: 60 +/- F	
Location: Olympic South Building			R.H.	
Contractor: Dickson		SAMPLE MEDIA/ANALYTICAL METHOD: <b>NIOSH 7400</b>	FIELD COUNT:	100
Client: DES				

RELINQUISHED BY (SIGN.):	ANALYZED BY:	DATE/TIME:	REMARKS:
RECEIVED BY (SIGN.):	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/1/21	C180	B	/	Blank	-	/	/	/	/	/	/	/	0/100	-
	C181	B	/	Blank	-	/	/	/	/	/	/	/	0/100	-
	C182	GWA	1696	Oly. N Corridor	0/100	6:38	1:38	420	4	4	4	1680	3/100	<0.002
	C183	H	HV30A	Roof Exhaust NACH	0/100	6:45	1:45	420	4	4	4	1680	0/100	<0.002
	C184	H	1698	Roof Exhaust MAG3	0/100	6:45	1:45	420	4	4	4	1680	1/100	<0.002
	C185	H	HV-135	ECE Exhaust 1	0/100	6:53	1:51	418	4	4	4	1672	2/100	<0.002
	C186	OWA	8297	Oly. S Bottom of Stairs	0/100	6:58	1:56	418	4	4	4	1672	6.5/100	0.002
	C187	IWA	211607	3rd Floor N. Corridor	0/100	7:05	2:05	420	4	4	4	1680	3.7/100	0.01
	C188	IWA	HV106	Room 168 Oly. S	0/100	8:00	2:10	370	5	5	5	1850	1/100	<0.002
	C189	H	090	2nd Floor W Stairs 1	0/100	8:00	1:48	348	2.8	2.6	2.7	940	1.5/100	<0.004



PBS Engineering and Environmental Inc.  
 714 F GALFR STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9359  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: **Pierce College Olympic South Abatement and Repairs**  
 Project No.: 40535.488  
 Location: Olympic South Building  
 Contractor: Dickson  
 Client: DES

I.H. **PETER STENSLAND**  
 SAMPLE MEDIA/ANALYTICAL METHOD:  
**NIOSH 7400**

WEATHER: **PARTLY Sunny**  
 TEMP: **60 +/- °F**  
 R.H.  
 FIELD COUNT: 100

Conditions:  
 REMARKS:  
 TWA:

RELINQUISHED BY (SIGN.):

RECEIVED BY (SIGN.):

DATE/TIME:

ANALYZED BY:  
*Mike Smith / [Signature]*  
 ANALYZED BY:

DATE/TIME:  
**10/5/21**

DATE/TIME:

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/4/21	C190	B	-	FIELD BLANK										
	C191	B	-	FIELD BLANK									1/100	-
	C192	H	1698	ROOF HEPA EXHAUST NAOS	.5/100	0707	1407	420	4	4	4	1680	0/100	-
	C193	H	HV30A	ROOF HEPA EXHAUST NAOS	.5/100	0709	1407	418	4	4	4	1672	.5/100	<0.002
	C194	OWA	1696	OLYMPIC N. CORRIDOR	.5/100	0702	1402	420	4	4	4	1680	0/100	<0.002
	C195	H	HV135	ECE HEPA EXHAUST I	.5/100	0713	1354	401	4	4	4	1664	0/100	<0.003
	C196	OWA	8247	OLYMPIC S. BOTTOM STAIRS	.5/100	0725	1348	383	4	4	4	1532	.5/100	<0.003
	C197	IWA	211607	OLYMPIC S. 3 <sup>rd</sup> FL N	.5/100	0732	1117	225	A	A	A	900	25/100	.013
	C198	IWA	106	OLYMPIC S. Rm 16B	.5/100	0735	1216	395	5	5	5	1975	8/100	0.002
	C199	H	006	OLY. STAIRS HEPA HI	.5/100	0750	1357	367	2.9	2.6	2.75	1009	0/100	<0.004



PBS Engineering and Environmental Inc.  
 714 F GALFR STRFTT, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs	I.H. Peter Sterslad	WEATHER: RAIN	Conditions:
Project No.: 40535.488	SAMPLE MEDIA/ANALYTICAL METHOD:  NIOSH 7400	TEMP: 50's	
Location: Olympic South Building		R.H.	
Contractor: Dickson		FIELD COUNT: 100	
Client: DES			

RELINQUISHED BY (SIGN.): <i>Mike Smith</i>	DATE/TIME: 10/5/21	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: 10/20/21	REMARKS:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/5/21	C200	B	/	Blank	-	/	/	/	/	/	/	/	0/100	-
	C201	B	/	Blank	-	/	/	/	/	/	/	/	0/100	-
	C202	H	089	W Stairs Exhaust 2	0/100	6:48	2:12	444	2.2	2.2	2.2	977	0/100	<0.004
	C203	OWA	1696	Olympic N Corridor	0/100	6:57	1:53	416	4	4	4	1664	10/100	0.003
	C204	H	HV30A	Roof Exhaust NAO6	0/100	7:05	2:00	415	4	4	4	1660	4/100	<0.003
	C205	H	1698	Roof Exhaust NAO7	0/100	7:05	2:00	415	4	4	4	1660	2/100	<0.003
	C206	H	HV135	ECE Exhaust 2	0/100	7:13	2:10	417	4	4	4	1668	1.5/100	<0.003
	C207	OWA	8297	Oly. S Bottom Stairs	0/100	7:25	1:50	385	4	4	4	1540	6.5/100	<0.003
	C208	IWA	HV-106	Oly. S Room 168	0/100	7:30	2:15	405	5	5	5	2025	16.5/100	0.004
	C209	IWA	211607	Oly S 3rd Floor N	0/100	7:31	11:20	229	4	4	4	916	OVERLOADED	
	C210	IWA	8504	Oly S 2nd Floor Eas	0/100	9:06	1:20	260	4	4	4	1040	9/100	0.004





PBS Engineering and Environmental Inc.  
 2147 GAFFR STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South  
 Abatement and Repairs

I.H. Peter Stensland

WEATHER:

Conditions:

Project No.: 40535.488

SAMPLE MEDIA/ANALYTICAL METHOD:

Rain

Location: Olympic South Building

TEMP: 50's

Contractor: Dickson

R.H.

Client: DES

FIELD COUNT: 100

MIGSH 7400

RELINQUISHED BY (SIGN.):

10/6/21

ANALYZED BY:

DATE/TIME:

REMARKS:

RECEIVED BY (SIGN.):

DATE/TIME:

ANALYZED BY:

DATE/TIME:

TWA:

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/6/21	C211	B	/	Blank	-	/	/	/	/	/	/	/	1/100	-
	C212	B	/	Blank	-	/	/	/	/	/	/	/	0/100	-
	C213	H	089	Oly. S W Stairs H3	.5/100	6:41	1:35	414	2	1.8	1.9	787	1/100	<0.005
	C214	OWA	1696	Oly. N. Corridor	.5/100	6:47	1:40	413	4	4	4	1652	5/100	<0.003
	C215	H	HV304	Roof Exhaust MA01	.5/100	6:55	1:45	410	4	4	4	1640	0/100	<0.003
	C216	H	1698	Roof Exhaust MA08	.5/100	6:55	1:45	410	4	4	4	1640	2.5/100	<0.003
	C217	H	HV-135	EGE Exhaust 1	.5/100	7:01	2:25	444	4	4	4	1776	7/100	<0.002
	C218	OWA	8297	Oly. S Bottom Stairs	.5/100	7:07	2:17	430	4	4	4	1720	2/100	<0.002
	C219	TWA	8504	Oly. S Hall near 264	.5/100	7:39	1:44	365	4	4	4	OVERLOADED		
	C220	TWA	211607	Oly. S. 3rd Floor N/H	.5/100	8:03	11:43	280	4	4	4	1120	6/100	<0.004



PBS Engineering and Environmental Inc.  
 714 F GAFFNEY STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs	I.H. PETER STEVENSAND	WEATHER: PARTLY CLOUDY	Conditions:
Project No.: 40535.488	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400	TEMP: 50's-60	
Location: Olympic South Building		R.H.	
Contractor: Dickson		FIELD COUNT: 100	
Client: DES			

RELINQUISHED BY (SIGN.):	ANALYZED BY: MIKE SMITH / [Signature]	DATE/TIME: 10/8/21	REMARKS:
RECEIVED BY (SIGN.):	ANALYZED BY:	DATE/TIME:	TWA:

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/7/21	C221	B	-	FIELD BLANK									0/100	-
	C222	B	-	FIELD BLANK									0/100	-
	C223	IWA	8901	OLY.S. 2 <sup>ND</sup> FL NEAR 264	0/100	0639	1315	396	4	4	4	1584	7/100	<0.003
	C224	H	HV135	1 <sup>ST</sup> FL, ECE, EXHAUST 2	0/100	0650	1400	430	5	5	5	2150	2/100	<0.001
	C225	H	6113	OLY S - 2 <sup>ND</sup> FL W STAIR	0/100	0657	1505	488	2	2	2	976	2/100	<0.004
	C226	OWA	1696	OLY N CORRIDOR	0/100	0705	1400	415	4	4	4	1660	6 <sup>S</sup> /100	<0.003
	C227	H	HV30A	ROOF EXHAUST NA-02	0/100	0717	1405	408	4	4	4	1632	0/100	<0.003
	C228	H	11698	ROOF EXHAUST NA-03	0/100	0715	1405	410	4	4	4	1640	2/100	<0.003
	C229	OWA	8297	OLY S. BOTTOM OF STAIRWAY	0/100	0725	1355	385	5	5	5	1540	6/100	<0.003
	C230	IWA	211607	OLY.S., NORTH CORRIDOR	0/100	0740	1230	290	5	5	5	1450	OVERLOADED	
	C223A	C	13	2 <sup>ND</sup> FL, NE CORR. CLEAN Rm	0/100	0637	0837	120	10	10	10	1200	1/100	<0.003
	RECOUNT #224												5/100	



PBS Engineering and Environmental Inc.  
214 E GALER STREET, SUITE 300  
SEATTLE, WA 98102  
206.233.939  
pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP: <b>50'S RAIN</b>	Comments:
Project No.: 40535.488	I.H. <b>PETER STEUSLAND</b>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: <b>NIOSH 7400</b>		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <b>MIKE SMITH</b>	DATE/TIME: <b>10/13/21</b>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/8/21	C231	B	-	FIELD BLANK									1/100	
	C232	B	-	FIELD BLANK									1/100	
	C233	H	089	04 S. W. STAIRS HI	1/100	0650	1401	431	2.4	2.2	2.1	905	0/100	<0.004
	C234	OWA	1696	04 N. → CORRIDOR	1/100	0656	1406	430	4	4	4	1720	2/100	<0.002
	C235	H	HV139	1 <sup>ST</sup> FL ECE HI	1/100	0701	1358	417	4	4	4	1668	1/100	<0.002
	C236	H	1698	ROOF NA05	1/100	0703	1408	425	4	4	4	1700	4/100	<0.002
	C237	H	HV30A	ROOF NA04	1/100	0703	1408	425	4	4	4	1700	1/100	<0.002
	C238	OWA	8297	04 S - STAIRWAY	1/100	0715	1355	400	4	4	4	1600	6/100	<0.003
	C239	IWA	21167	04 S. 3 <sup>RD</sup> FL E	1/100	0728	1136	248	4	4	4	992	16/100	0.007
	C240	IWA	8961	04 S. 2 <sup>ND</sup> FL B4 264	1/100	0752	1340	348	4	4	4	1392	14/100	0.005
	C241	H	LV19.9	2 <sup>ND</sup> FL HI in 283	1/100	0810	1345	335	4	4	4	1340	1/100	<0.003
	C242	H	56	2 <sup>ND</sup> FL HI in 284	1/100	0820	1321	301	4	4	4	1204	1/100	<0.004

Recount Sample #	241	Recount	0/100
------------------	-----	---------	-------







PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP: CPR 50'S	Comments: PARTLY CLOUDY
Project No.: 40535.488	I.H. PETER STENSLAND		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smith / M. J. ...</i>	DATE/TIME: 10/14/21	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/13/21	C266	B	/	Field BLANK 1	-	/	/	/	/	/	/	/	0/100	/
	C267	B	/	Field BLANK 2	-	/	/	/	/	/	/	/	0/100	/
	C268	IWA	8504	Corridor of 2063/2084	0/100	0730	1020	170	4	4	4	1690	4/100	<0.005
	C269	OWA	1696	No. Corridor 3rd Fl.	0/100	0658	1422	444	4	4	4	1776	4/100	0.004
	C270	IWA	211607	3rd Fl. by 0331	0/100	0748	1030	162	4	4	4	648	2/100	0.02
	C271	H	HV135	ECE, HEPA exhaust #1	0/100	0721	1411	420	4	4	4	1690	3/100	<0.003
	C272	OWA	9207	2nd Fl. loadout @ skybridge	0/100	0723	1406	398	4	4	4	1592	4.5/100	<0.003
	C273	H	HV30A	HEPA exhaust - Roof - N408	0/100	0705	1425	440	4	4	4	1760	0/100	<0.003
	C274	H	1698	HEPA exhaust - Roof - N401	0/100	0705	1425	440	4	4	4	1760	2/100	<0.003
	C275	H	0809	HEPA exhaust - No exterior Staircase #4	0/100	0645	1413	446	2.4	2.3	2.35	1053	2/100	<0.004
Recount Sample #														
Recount														























PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9399  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. T. NGUYEN		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME: 10/29/21	ANALYZED BY: <i>[Signature]</i>	DATE/TIME:	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/27	C384	B	-	FIELD BLANK	1/100								1/100	-
	C385	B	-	FIELD BLANK									1/100	-
	C386	H	090	HEPA #3 No. -		0725	1359	384	2.0	2.0	2.0	736	0/100	<0.002
	C387	H	089	HEPA #2 S. -		0730	1400	390	2.2	2.2	2.2	858	2/100	<0.002
	C388	OWA	8297	2 <sup>nd</sup> Fl. - Lead-out @ <sup>skybridge</sup> 175		0745	1348	363	4	4	4	1452	5/100	<0.002
	C389	IWA	211607	3 <sup>rd</sup> Fl. - OLY S. @ 331		0750	1104	184	4	4	4	736	13/100	0.008
	C390	I.H.	097	2 <sup>nd</sup> Fl. - E. staircase - HEPA #2 @ 0283		0741	1409	387	2.2	2.2	2.2	851	1/100	<0.002
	C391	OWA	1696	3 <sup>rd</sup> Fl. - OLY N. corridor		0712	1351	399	4	4	4	1596	6/100	<0.002
	C392	IWA	8504	2 <sup>nd</sup> Fl. - OLY S.		0755	1350	355	4	4	4	1420	6/100	0.002

Recount Sample #	Recount
------------------	---------





PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488			
Location: Lakewood, WA			
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
10/26	C393	B	/	Field blank 1	1/100	/	/	/	/	/	/	/	0/100	/
	C394	B	/	Field blank 2		/	/	/	/	/	/	/	2/100	/
	C395	H	0910	2nd Fl. - ext. staircase - #2		0710	1354	404	2.0	2.0	2.0	808	4/100	0.0024
	C396	H	1698	Roof - OLYS - NA03		0702	1465	423	4	4	4	1692	1.5/100	<0.002
	C397	OWA	8297	2nd Fl. - skybridge → CAS		0726	1412	434	4	4	4	1736	15/100	0.004
	C398	OWA	1696	3rd Fl. - OLY N. corridor		0656	1403	427	4	4	4	1703	12/100	0.003
	C399	IWA	211607	3rd Fl. - OLYS corridor @ 0331		0732	1054	202	4	4	4	808	OVERLOADED	
	C400	H	30A	Roof - OLYS - NA07		0700	1465	425	4	4	4	1700	8/100	0.0023
	C401	H	097	2nd Fl. - ext. of 0293		0718	1351	393	2.2	2.2	2.2	865	1.5/100	<0.002
	C402	IWA	8504	2nd Fl. - OLYS.		0705	1250	345	4	4	4	1360	10.5/100	0.0037
	C403	H	089	2nd Fl. - OLYS - 0284		0713	1356	403	2.4	2.4	2.4	967	0/100	<0.002
Recount Sample #			Recount											

































PBS Engineering and Environmental Inc.  
 214 E. GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9399  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:  Cloud - Rain 50's	Comments:
Project No.: 40535.488	I.H. T. NGUYEN		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD:		
Contractor: Dickson	NIOSH 7400		
Client: DES			

RELINQUISHED BY (SIGN.): <i>Sean Sawyer</i>	DATE/TIME: 11/19/21	ANALYZED BY: <i>Janet Murphy</i>	DATE/TIME: 11/19/21	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
11/19/21	C579	#	089	Ext. - 0284 - HEPA	0/100	0701	1403	422	2.4	2.4	2.4	1012.82	1.5/100	<0.004
	C580	IWA	3504	2 <sup>nd</sup> Fl. - 264 Corridor	0/100	0652	1202	310	4	4	4	1240L	27/100	0.01
	C581	OWA	8297	2 <sup>nd</sup> Fl. - OLYS. - landing	0/100	0717	1350	393	4	4	4	1572L	6/100	0.002
	C582	OWA	1696	3 <sup>rd</sup> Fl. - OLY N. -	0/100	0707	1407	420	4	4	4	1660L	55/100	0.001
	C583	IWA	211607	3 <sup>rd</sup> Fl. - OLY S. - SBOX07	0/100	0722	1100	302	4	4	4	1208L	7/100	0.003
	C584	H	090	W. Staircase - HEPA exh. #1	0/100	0656	1401	425	2.4	2.4	2.4	1020L	2/100	<0.004
	C585	#	6109	Exterior - 0285 - HEPA exh. #3	0/100	0650	1356	426	2.4	2.4	2.4	1022.4L	2.5/100	<0.004
	C586	H	1698	HEPA - NA02	0/100	0712	1411	419	4	4	4	1676L	4/100	<0.002
	C587	OWA	HV18-30	OLYS. - Fl. 1	0/100	0645	1342	417	4	4	4	1668L	8/100	0.002
	C588	#	HV30A	HEPA - NA04	0/100	0711	1410	421	4	4	4	1684L	5/100	0.001
	C589	#	HV-135	ECE HEPA exh. # 2	0/100	0654	1359	425	4	4	4	1700L	6/100	0.002
	C590	B	/	Field blank 1		/	/	/	/	/	/	/	0/100	/
	C591	B	/	Field blank 2		/	/	/	/	/	/	/	0/100	/

Recount Sample #		Recount	
------------------	--	---------	--











PBS Engineering and Environmental Inc.  
214 E GALER STREET, SUITE 300  
SEATTLE, WA 98102  
206.233.939  
pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. Peter Stensland		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.): <i>Peter Stensland</i>	ANALYZED BY: <i>Mike Smith / M.L.A.</i>	DATE/TIME: 11/30/2021	TWA:
RECEIVED BY (SIGN.):	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
11/24	C631	B	/	Blank	—	/	/	/	/	/	/	/	0/100	—
	C632	B	/	Blank	—	/	/	/	/	/	/	/	0/100	—
	C633	OWA	1696	Oly N Corridor	0/100	6:35	11:41	306	5	5	5	1530	2/100	<0.003
	C634	H	1698	Roof - NA02	0/100	6:41	11:44	303	5	5	5	1515	0.5/100	<0.003
	C635	H	HV30A	Roof - NA03	0/100	6:42	11:44	302	5	5	5	1510	0/100	<0.003
	C636	OWA	HV18-38	1st 1 Elec Room	0/100	6:47	12:03	316	5	5	5	1580	1/100	0.003
	C637	H	097	284 Exhaust #1	0/100	6:56	11:38	282	3.2	3.2	3.2	902	0/100	<0.004
	C638	H	090	W Staircase #1	0/100	6:57	11:37	280	3	3	3	840	1/100	<0.004
	C639	IWA	8504	283 Deckway	0/100	6:57	9:34	157	4	4	4	628	OVERLOAD	
	C640	H	HV135	ECE #1	0/100	6:58	11:36	278	5	5	5	1390	1/100	<0.004
	C641	H	3055	283 Exhaust #1	0/100	7:00	11:33	273	3	3	3	819	0/100	<0.004
	C642	OWA	8297	2nd Floor stair landing	0/100	7:05	11:47	282	5	5	5	1416	2/100	<0.003
	C643	IWA	211607	3rd Floor	0/100	7:10	10:38	268	5	5	5	1040	2/100	0.004

Recount Sample # C636 Recount 12.5/100

































PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98107  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <b>PETER STENSLAND</b>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH		
Contractor: Dickson	7400		
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: 12/17/21	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
12/16/21	C804	B	-	FIELD BLANK									0/100	-
	C805	B	-	FIELD BLANK									0/100	-
	C806	H	090	(EXT) EXHAUST 1 @ 283	0/100	6651	1331	400	2.1	2.1	2.1	840	5/100	<0.004
	C807	H	3055	ECE-EXHAUST 4	0/100	0655	1324	389	2	2	2	778	1/100	<0.005
	C808	H	097	W. STAIRWAY EXHAUST 4	0/100	0657	1320	383	2.1	2.1	2.1	804	3/100	<0.005
	C809	H	6109	(EXT) EXHAUST 4 @ 284	0/100	5700	1322	382	2.5	2.5	2.5	955	3.5/100	<0.004
	C810	OWA	1696	LV3, @ N CORRIDOR	0/100	0709	1340	391	4	4	4	1564	3/100	<0.003
	C811	H	1698	ROOF-NEG AIR 04	0/100	0710	1353	403	4	4	4	1612	1/100	<0.003
	C812	OWA	HV18-38	LV1 - @ LOAD OUT	0/100	0717	1350	393	4	4	4	1572	13/100	0.004
	C813	IWA	8504	LV2 - @ 272 DOORWAY	0/100	0731	1007	156	4	4	4	624	22.5/100	0.018
	C814	IWA	211607	LV3 NE CORRIDOR	0/100	0740	1212	272	4	4	4	1088	31/100	0.014
	C815	H	HV30A	ROOF-NEG AIR 06	0/100	0710	1352	402	4	4	4	1608	1/100	<0.003
Recount Sample #		C812	Recount	13/100										

















PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs			WEATHER/TEMP:	Comments:	
Project No.: 40535.488		I.H. FERMAN FLETCHER			
Location: Lakewood, WA		SAMPLE MEDIA/ANALYTICAL METHOD:			
Contractor: Dickson					
Client: DES					

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>[Signature]</i>	DATE/TIME:	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>[Signature]</i>	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
12/29/21	C889	B	-	FIELD BLANK									0/100	-
	C890	B	-	FIELD BLANK									0/100	-
	C891	H	6109	(EXT) EXHAUST 2 @ 283	0/100	0657	1404	427	2.4	2.4	2.4	1025	0/100	<0.004
	C892	H	089	ECE - EXHAUST 2	0/100	0659	1411	432	2.1	2.1	2.1	907	0/100	<0.004
	C893	H	090	W. STAIRS - EXHAUST 2	0/100	0701	1413	432	2	2	2	864	0/100	<0.004
	C894	H	3055	(EXT) EXHAUST 2 @ 284	0/100	0703	1414	431	2	2	2	862	0/100	<0.004
	C895	OWA	097	LV3 - N. CORRIDOR	0/100	0707	1414	427	2.1	2.1	2.1	897	0/100	<0.004
	C896	H	1698	ROOF - NEG AIR 02	0/100	0712	1421	429	4	4	4	1716	0/100	<0.003
	C897	H	HV30A	ROOF - NEG AIR 01	0/100	0712	1421	429	4	4	4	1716	0/100	<0.003
	C898	OWA	HV18-38	L.V.1 - @ LOAD OUT	0/100	0721	1428	427	4	4	4	1708	0/100	<0.003
	C899	OWA	70	LV3 - A LOADOUT	0/100	0729	1430	431	4	4	4	1724	0/100	0.005
	C900	IWA	211607	LV3 - CENT	0/100	0742	1247		CANT READ - ENCAPSULANT ON SAMPLE					
Recount Sample # <i>C899</i> Recount <i>14/100</i>														

241









PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. CLAIRE TSAI		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH		
Contractor: Dickson	7400		
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: 1/5/22	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
1/4/22	932	B	-	FIELD BLANK									0/100	-
	933	B	-	FIELD BLANK									0/100	-
	934	OWA	201067	LV 2 @ LOADOUT	0/100	0725	1355	390	4	4	4	1560	4/100	<0.003
	935	OWA	3055	LV 3 - N. CORRIDOR	0/100	0700	1405	425	2.2	2.2	2.2	935	7/100	0.004
	936	H	HV30A	ROOF - NEG AIR 08	0/100	0705	1408	423	4	4	4	1692	2/100	<0.003
	937	H	1698	ROOF - NEG AIR 04	0/100	0707	1409	421	4	4	4	1684	2/100	<0.003
	938	H	097	(EXT) EXHAUST 2 @ 284	0/100	0712	1402	410	2	2	2	820	0/100	<0.004
	939	H	60109	W. STAIRS - EXHAUST 2	0/100	0715	1401	406	2.4	2.4	2.4	974	0/100	<0.004
	940	H	089	ECE - EXHAUST 5	0/100	0710	1359	409	2.2	2.2	2.2	900	1/100	<0.004
	941	H	090	(EXT) EXHAUST 2 @ 283	0/100	0718	1358	400	2	2	2	800	0/100	<0.004
	942	OWA	70	LV 3 - CLEAN ROOM	0/100	0727	1355	388	4	4	4	1552	9/100	0.003
	943	IWA	211607	LV 3 - @ CENTER	0/100	0729	1140	251	4	4	4	1004	13/100	0.006
Recount Sample #			Recount	13/100										







PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.239.535  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <i>Toan N</i>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: <i>1/10/22</i>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
<i>1/7/22</i>	<i>C961</i>	<i>B</i>	<i>-</i>	<i>FIELD BLANK</i>									<i>0/100</i>	
	<i>C962</i>	<i>B</i>	<i>-</i>	<i>FIELD BLANK</i>									<i>0/100</i>	
	<i>C963</i>	<i>OWA</i>	<i>HV19-9</i>	<i>LV3 OUTSIDE STUDENT LOUNGE</i>	<i>0/100</i>	<i>0842</i>	<i>1335</i>	<i>293</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>1172</i>	<i>3/100</i>	<i>60.004</i>
	<i>C964</i>	<i>H</i>	<i>HV30A</i>	<i>ROOF-NEG AIR 06</i>	<i>0/100</i>	<i>0846</i>	<i>1339</i>	<i>293</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>1172</i>	<i>0/100</i>	<i>60.004</i>
	<i>C965</i>	<i>H</i>	<i>1698</i>	<i>ROOF-NEG AIR 01</i>	<i>0/100</i>	<i>0847</i>	<i>1339</i>	<i>292</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>1168</i>	<i>1/100</i>	<i>60.004</i>
	<i>C966</i>	<i>H</i>	<i>090</i>	<i>LV2 W. STAIRWAY</i>	<i>0/100</i>	<i>0908</i>	<i>1332</i>	<i>264</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>660</i>	<i>1/100</i>	<i>60.005</i>
	<i>C967</i>	<i>OWA</i>	<i>207067</i>	<i>LV2 @ SKYBRIDGE</i>	<i>0/100</i>	<i>0909</i>	<i>1343</i>	<i>274</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>1096</i>	<i>2/100</i>	<i>60.004</i>
	<i>C968</i>	<i>H</i>	<i>089</i>	<i>(EXT) EXHAUST @ 283</i>	<i>0/100</i>	<i>0904</i>	<i>1330</i>	<i>266</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>532</i>	<i>0/100</i>	<i>60.006</i>
	<i>C969</i>	<i>H</i>	<i>097</i>	<i>(EXT) EXHAUST 4 @ 284</i>	<i>0/100</i>	<i>0905</i>	<i>1331</i>	<i>266</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>665</i>	<i>0/100</i>	<i>60.005</i>
	<i>C970</i>	<i>OWA</i>	<i>70</i>	<i>LV3 @ CLEANROOM</i>	<i>0/100</i>	<i>0913</i>	<i>1343</i>	<i>270</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>1080</i>	<i>0/100</i>	<i>60.004</i>
	<i>C971</i>	<i>IWA</i>	<i>211607</i>	<i>LV3 CENT. AREA</i>	<i>0/100</i>	<i>0919</i>	<i>1219</i>	<i>180</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>720</i>	<i>31/100</i>	<i>0.02</i>

Recount Sample # *C971* Recount *28/100*

















PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H.		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH		
Contractor: Dickson	7400		
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: MIKE SMITH / Mike Smith	DATE/TIME: 1/20/20	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
1/19/20	C1047	B	-	FIELD BLANK									0/100	
	C1048	B	-	FIELD BLANK									0/100	
	C1049	OWA	HV199	OUTSIDE STUDENT LOUNGE	0/100	0730	1245	315	4	4	4	1260	3/100	<0.003
	C1050	OWA	8297	LV 1 - CLEAN ROOM	0/100	0731	1257	326	5	5	5	1630	16/100	0.005
	C1051	H	1698	ROOF-NEG AIR 02	0/100	0738	1253	315	4	4	4	1260	0/100	<0.003
	C1052	H	HV30A	ROOF-NEG AIR 08	0/100	0740	1252	312	4	4	4	1248	0/100	<0.003
	C1053	IWA	208318	LV2 - CENTER	0/100	0742	1042	180	4	4	4	957	OVER	LOAD
	C1054	H	097	(EXT) EXHAUST 3 @ 283	0/100	0746	1305	319	3	3	3	790	0/100	<0.004
	C1055	H	6109	W. STAIRS EXHAUST 3	0/100	0749	1305	316	2.5	2.5	2.5	790	3/100	<0.004
	C1056	H	090	ECE- EXHAUST 1	0/100	0753	1303	310	2.5	2.5	2.5	775	1/100	<0.004
	C1057	H	089	(EXT) EXHAUST 1 @ 284	0/100	0756	1302	306	3	3	3	918	1/100	<0.004
Recount Sample #		C1055	Recount	3/100										



PBS Engineering and Environmental Inc.  
214 E GALER STREET, SUITE 300  
SEATTLE, WA 98102  
206.233.939  
pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H.		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD:		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>MIKE SMITH</i>	DATE/TIME: <i>1/21/22</i>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
<i>1/20/22</i>	<i>C1058</i>	<i>B</i>	<i>-</i>	<i>FIELD BLANK</i>									<i>1/100</i>	<i>-</i>
	<i>C1059</i>	<i>B</i>	<i>-</i>	<i>FIELD BLANK</i>									<i>1/100</i>	<i>-</i>
	<i>C1060</i>	<i>OWA</i>	<i>097</i>	<i>LV. 2 @ LOADOUT</i>	<i>1/100</i>	<i>0744</i>	<i>1324</i>	<i>340</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>1360</i>	<i>2/100</i>	<i>&lt;0.003</i>
	<i>C1061</i>	<i>H</i>	<i>207607</i>	<i>(EXT) EXHAUST 4 @ 284</i>	<i>1/100</i>	<i>0749</i>	<i>1336</i>	<i>355</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>888</i>	<i>1/100</i>	<i>&lt;0.004</i>
	<i>C1062</i>	<i>H</i>	<i>6109</i>	<i>W. STAIRS EXHAUST 4</i>	<i>1/100</i>	<i>0749</i>	<i>1335</i>	<i>340</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>865</i>	<i>1/100</i>	<i>&lt;0.004</i>
	<i>C1063</i>	<i>H</i>	<i>089</i>	<i>ECE - EXHAUST 3</i>	<i>1/100</i>	<i>0753</i>	<i>1333</i>	<i>340</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>850</i>	<i>1/100</i>	<i>&lt;0.004</i>
	<i>C1064</i>	<i>H</i>	<i>090</i>	<i>(EXT) EXHAUST 3 @ 283</i>	<i>1/100</i>	<i>0755</i>	<i>1331</i>	<i>330</i>	<i>2.5</i>	<i>2.5</i>	<i>2.5</i>	<i>840</i>	<i>1/100</i>	<i>&lt;0.004</i>
Recount Sample #	<i>C1064</i>	Recount	<i>1/100</i>											





**PBS Engineering and Environmental Inc.**  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H.		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD:		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>MIKE SMITH</i>	DATE/TIME: 1/24/22	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
1/21/22	C1065	B	-	FIELD BLANK									0/100	-
	C1066	B	-	FIELD BLANK									0/100	-
	C1067	H	HV30A	ROOF - NEG AIR 06	0/100	0746	1313	327	4	4	4	1308	0/100	<0.003
	C1068	H	1698	ROOF - NEG AIR 03	0/100	0748	1313	325	4	4	4	1300	0/100	<0.003
	C1069	H	090	(EXT) EXHAUST 1 @ 284	0/100	0754	1317	323	2.5	2.5	2.5	808	0/100	<0.004
	C1070	H	089	W. STAIR EXHAUST 1	0/100	0755	1318	323	2.5	2.5	2.5	808	0/100	<0.004
	C1071	H	097	ECE-EXHAUST 4	0/100	0802	1319	317	2.5	2.5	2.5	793	0/100	<0.004
	C1072	H	6109	(EXT) EXHAUST 2 @ 283	0/100	0804	1319	315	2.5	2.5	2.5	788	0/100	<0.004
	C1073	OWA	8297	LV 1 - CLEAN ROOM	0/100	0810	1328	318	4	4	4	1272	8/100	0.003
	C1074	OWA	207607	LV 2 - SKYBRIDGE LOADING	0/100	0813	1327	314	4	4	4	1256	10/100	0.004
	C1075	IWA	8504	LV 2 - ART GALLERY	0/100	0830	1030	120	5	5	5	600	100/85	0.10
Recount Sample #		C1075	Recount	100/80										



PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H.		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD:		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: 1/25/22	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
1/24/22	C1076	H	090	West stairs # 4	0/100	0737	1336	361	2.5	2.5	2.5	902.5L	0/100	<0.004
	C1077	H	097	0284 - #4	0/100	0735	1336	359	2.5	2.5	2.5	897.5L	0/100	<0.004
	C1078	H	6109	0283 - # 1	0/100	0742	1340	362	2.5	2.5	2.5	905L	1/100	<0.004
	C1079	H	0889	ECE - # 4	0/100	0740	1346	362	2.5	2.5	2.5	905L	0/100	<0.004
	C1080	H	1698	Roof - NAB5	0/100	0930	1332	242	4	4	4	968L	1/100	<0.004
	C1081	OWA	207607	2nd Fl. - skybridge	0/100	0747	1348	359	2.5	2.5	2.5	897.5L	2/100	0.007
	C1082	IWA	8584	2nd Fl. - Art gallery	0/100	0810	1140	210	4	4	4	840	23/100	0.013
	C1083	B	---	Field blank 1	---	---	---	---	---	---	---	---	0/100	---
	C1084	B	---	Field blank 2	---	---	---	---	---	---	---	---	0/100	---

Recount Sample #	Recount
------------------	---------













PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.539  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name:		WEATHER/TEMP:	Comments:
Project No.:	I.H. <u>TOAN NGUYEN</u>		
Location:	SAMPLE MEDIA/ANALYTICAL METHOD: <u>NIOSH 7400</u>		
Contractor:			
Client:			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <u>[Signature]</u>	DATE/TIME: <u>2/2/22</u>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
<u>2/1/22</u>	<u>C1130</u>	<u>B</u>	<u>-</u>	<u>FIELD BLANK</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>0/100</u>	<u>—</u>
	<u>C1131</u>	<u>B</u>	<u>-</u>	<u>FIELD BLANK</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>0/100</u>	<u>—</u>
	<u>C1132</u>	<u>H</u>	<u>1098</u>	<u>ROOF - EXHAUST 01</u>	<u>0/100</u>	<u>0750</u>	<u>1307</u>	<u>317</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>1268</u>	<u>5/100</u>	<u>40.003</u>
	<u>C1133</u>	<u>H</u>	<u>6109</u>	<u>(EXT)-EXHAUST 3 @ 284</u>	<u>0/100</u>	<u>0759</u>	<u>1315</u>	<u>316</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>790</u>	<u>1/100</u>	<u>40.004</u>
	<u>C1134</u>	<u>H</u>	<u>089</u>	<u>(EXT) W. STAIR - #3</u>	<u>0/100</u>	<u>0800</u>	<u>1315</u>	<u>315</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>788</u>	<u>2/100</u>	<u>40.004</u>
	<u>C1135</u>	<u>H</u>	<u>097</u>	<u>(EXT) EXHAUST 2 @ 283</u>	<u>0/100</u>	<u>0806</u>	<u>1312</u>	<u>306</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>765</u>	<u>1/100</u>	<u>40.004</u>
	<u>C1136</u>	<u>H</u>	<u>090</u>	<u>ECE - EXHAUST 3</u>	<u>0/100</u>	<u>0804</u>	<u>1310</u>	<u>306</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>765</u>	<u>0/100</u>	<u>40.004</u>
	<u>C1137</u>	<u>OWA</u>	<u>207607</u>	<u>LV 2 @ SKY BRIDGE</u>	<u>0/100</u>	<u>0810</u>	<u>1321</u>	<u>311</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>1244</u>	<u>5/100</u>	<u>40.003</u>
	<u>C1138</u>	<u>OWA</u>	<u>8297</u>	<u>LV I @ CLEAN ROOM</u>	<u>0/100</u>	<u>0812</u>	<u>1326</u>	<u>314</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>1250</u>	<u>13/100</u>	<u>0.005</u>
	<u>C1139</u>	<u>IWA</u>	<u>8205</u>	<u>LV 2 - ART GALLERY</u>	<u>0/100</u>	<u>0835</u>	<u>1208</u>	<u>213</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>852</u>	<u>100/91</u>	<u>0.063</u>

Recount Sample #		Recount	
------------------	--	---------	--







PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <u>TOAN</u>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: <u>NIOSH 7400</u>		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <u>MIKE SMITH / [Signature]</u>	DATE/TIME: <u>2/4/22</u>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
<u>4/3/22</u>	<u>C1150</u>	<u>B</u>	<u>-</u>	<u>FIELD BLANK</u>									<u>0/100</u>	<u>-</u>
	<u>C1151</u>	<u>B</u>	<u>-</u>	<u>FIELD BLANK</u>									<u>0/100</u>	<u>-</u>
	<u>C1152</u>	<u>H</u>	<u>1698</u>	<u>ROOF- NEG AIR #02</u>	<u>0/100</u>	<u>0750</u>	<u>1254</u>	<u>304</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>1210</u>	<u>0/100</u>	<u>250/100</u>
	<u>C1153</u>	<u>H</u>	<u>6109</u>	<u>(EXT) EXHAUST 3 @ 0284</u>	<u>0/100</u>	<u>0758</u>	<u>1300</u>	<u>302</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>755</u>	<u>0/100</u>	<u>40.004</u>
	<u>C1154</u>	<u>H</u>	<u>097</u>	<u>LV2 - W. STAIRS, EXHAUST</u>	<u>0/100</u>	<u>0759</u>	<u>1300</u>	<u>301</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>753</u>	<u>1/100</u>	<u>40.004</u>
	<u>C1155</u>	<u>H</u>	<u>089</u>	<u>LV1 - ECE, EXHAUST 5</u>	<u>0/100</u>	<u>0800</u>	<u>1259</u>	<u>299</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>748</u>	<u>0/100</u>	<u>40.004</u>
	<u>C1156</u>	<u>H</u>	<u>090</u>	<u>(EXT) EXHAUST 1 @ 0283</u>	<u>0/100</u>	<u>0804</u>	<u>1258</u>	<u>294</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>735</u>	<u>1/100</u>	<u>40.004</u>
	<u>C1157</u>	<u>OWA</u>	<u>207607</u>	<u>LV2 @ SKYBRIDGE</u>	<u>0/100</u>	<u>0807</u>	<u>1247</u>	<u>280</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>1120</u>	<u>4/100</u>	<u>40.003</u>
	<u>C1158</u>	<u>OWA</u>	<u>8207</u>	<u>LV1 @ CLEAN ROOM</u>	<u>0/100</u>	<u>0809</u>	<u>1248</u>	<u>279</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>1116</u>	<u>12/100</u>	<u>0.005</u>
	<u>C1159</u>	<u>IWA</u>	<u>8502</u>	<u>LV2 @ ART GALLERY</u>	<u>0/100</u>	<u>0830</u>	<u>1303</u>	<u>273</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>1092</u>	<u>OVERLOADED</u>	
Recount Sample #	<u>C1154</u>	Recount	<u>0/100</u>											



PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.9339  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <b>TOAN</b>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: <b>NIOSH 7400</b>		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smart</i>	DATE/TIME: <b>2/7/22</b>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
2/4/22	C1160	B	-	FIELD BLANK									0/100	-
	C1161	B	-	FIELD BLANK									1/100	-
	C1162	OWA	8297	LV1, @ CLEAN ROOM	0.5/100	0755	1225	270	4	4	4	1080	26/100	0.011
	C1163	OWA	207607	LV2, @ SKYBRIDGE	0.5/100	0800	1400	360	4	4	4	1440	7.5/100	<0.003
	C1164	H	1098	ROOF - NEG AIR OI	0.5/100	0807	1400	354	4	4	4	1416	0/100	<0.003
	C1165	H	097	(EXT) EXHAUST 1 @ 284	0.5/100	0817	1350	333	2.5	2.5	2.5	833	0/100	<0.004
	C1166	H	6109	LV2-W. STAIRS - EXHAUST 1	0.5/100	0819	1352	333	2.5	2.5	2.5	833	2.5/100	<0.004
	C1167	H	090	LV1 - ECE, EXHAUST 1	0.5/100	0820	1351	331	2.5	2.5	2.5	828	2/100	<0.004
	C1168	H	089	(EXT) EXHAUST 1 @ 283	0.5/100	0823	1350	327	2.5	2.5	2.5	818	1/100	<0.004
	C1169	IWA	8502	LV2 @ ART GALLERY	0.5/100	0845	1213	208	4	4	4	832	22/100	0.05 0.013
Recount Sample #		C1162	Recount	24/100										



PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <u>PETER STENSLAND</u>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD:		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <u>Mike Smith / [Signature]</u>	DATE/TIME: <u>2/8/22</u>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC	
									PRE	POST	AVG				
<u>2/7/22</u>	<u>C1170</u>	<u>B</u>	<u>-</u>	<u>FIELD BLANK</u>									<u>0/100</u>	<u>-</u>	
	<u>C1171</u>	<u>B</u>	<u>-</u>	<u>FIELD BLANK</u>									<u>0/100</u>	<u>-</u>	
	<u>C1172</u>	<u>H</u>	<u>690</u>	<u>(EXT) EXHAUST I @ 283</u>	<u>0/100</u>	<u>0655</u>	<u>1416</u>	<u>441</u>	<u>2.1</u>	<u>2.1</u>	<u>2.1</u>	<u>926</u>	<u>1/100</u>	<u>40.004</u>	
	<u>C1173</u>	<u>H</u>	<u>6109</u>	<u>ECE - EXHAUST 3</u>	<u>0/100</u>	<u>0659</u>	<u>1417</u>	<u>438</u>	<u>2.4</u>	<u>2.4</u>	<u>2.4</u>	<u>1051</u>	<u>0/100</u>	<u>40.004</u>	
	<u>C1174</u>	<u>H</u>	<u>089</u>	<u>W. STAIR - EXHAUST I</u>	<u>0/100</u>	<u>0659</u>	<u>1418</u>	<u>439</u>	<u>2.2</u>	<u>2.2</u>	<u>2.2</u>	<u>966</u>	<u>2.5/100</u>	<u>40.004</u>	
	<u>C1175</u>	<u>H</u>	<u>097</u>	<u>(EXT) EXHAUST I @ 284</u>	<u>0/100</u>	<u>0700</u>	<u>1419</u>	<u>439</u>	<u>2.1</u>	<u>2.1</u>	<u>2.1</u>	<u>922</u>	<u>0/100</u>	<u>40.004</u>	
	<u>C1176</u>	<u>H</u>	<u>1698</u>	<u>ROOF - NEG AIR 1</u>	<u>0/100</u>	<u>0707</u>	<u>1300</u>	<u>353</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>1765</u>	<u>0/100</u>	<u>40.002</u>	
	<u>C1177</u>	<u>OWA</u>	<u>267607</u>	<u>LV 2 @ SKY BRIDGE</u>	<u>0/100</u>	<u>0719</u>	<u>1425</u>	<u>405</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>2025</u>	<u>7.5/100</u>	<u>0.002</u>	
	<u>C1178</u>	<u>OWA</u>	<u>8297</u>	<u>LV 1 @ LOADOUT</u>	<u>0/100</u>	<u>0723</u>	<u>1427</u>	<u>424</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>2120</u>	<u>29/100</u>	<u>0.007</u>	
	<u>C1179</u>	<u>IWA</u>	<u>8564</u>	<u>LV 2 @ ART GALLERY</u>	<u>0/100</u>	<u>0737</u>	<u>0947</u>	<u>130</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>650</u>	<u>OVERLOADED</u>		
	<u>C1180</u>	<u>IWA</u>	<u>208518</u>	<u>LV 1 IN LOADOUT</u>	<u>0/100</u>	<u>0754</u>	<u>0954</u>	<u>120</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>600</u>	<u>15/100</u>	<u>0.012</u>	
Recount Sample # <u>C1177</u>		Recount	<u>8/100</u>												





















PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <u>PETER STENSLAND</u>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: <u>NIOSH 7400</u>		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <u>Mike Smith / [Signature]</u>	DATE/TIME: <u>2/21/22</u>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
2/18/22	C1274	B	-	FIELD BLANK									0/100	
	C1275	B	-	FIELD BLANK									0/100	
	C1276	H	090	(EXT) EXHAUST 2 @ 283	0/100	0715	1428	433	2.1	2.1	2.1	909	2/100	0.003
	C1277	H	097	ECE - EXHAUST 5	0/100	0717	1425	428	2.1	2.1	2.1	899	1/100	0.003
	C1278	H	6113	W. STAIRS - EXHAUST 1	0/100	0719	1422	423	2.5	2.5	2.5	1058	0/100	0.003
	C1279	H	089	(EXT) EXHAUST 1 @ 284	0/100	0721	1423	422	2.3	2.3	2.3	971	1/100	0.003
	C1280	OWA	6109	LV 2, OLY N @ CONST WALL	0/100	0724	1419	415	2.7	2.4	2.4	996	1/100	0.003
	C1281	H	HV30A	ROOF - NEG AIR 07	0/100	0728	1416	408	5	5	5	2040	0/100	0.001
	C1282	OWA	207067	OLY N @ SKY BRIDGE	0/100	0803	1438	395	5	5	5	1975	5.5/100	0.001
	C1283	IWA	8504	LV 2 @ 284A	0/100	0820	1042	142	3	3	3	426	10/100	0.020
	C1284	OWA	8297	LV 1 @ DECON	0/100	0805	1440	395	5	5	5	1975	13/100	0.003
	C1285	IWA	208518	LV 1 NEAR ELEVATOR	0/100	0825	1040	145	3	3	3	435	16/100	0.052
Recount Sample # <u>C1283</u>		Recount		<u>17.5/100</u>										

























PBS Engineering and Environmental Inc.  
214 E GALES STREET, SUITE 300  
SEATTLE, WA 98102  
206.233.939  
pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs			WEATHER/TEMP:	Comments:
Project No.: 40535.488		I.H. <b>PETER STENSLAND</b>		
Location: Lakewood, WA		SAMPLE MEDIA/ANALYTICAL METHOD: <b>NIOSH 7400</b>		
Contractor: Dickson		Client: DES		

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smith / [Signature]</i>	DATE/TIME: <b>3/9/22</b>	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
3/9/22	C1389	B	-	FIELD BLANK									0/100	-
	C1390	B	-	FIELD BLANK									0/100	-
	C1391	H	089	(EAT) EXHAUST 1 @ 283	0/100	0722	1436	434	2.3	2.3	2.3	998	0/100	<0.003
	C1392	H	097	ECE - EXHAUST 1	0/100	0724	1434	430	2.1	2.1	2.1	903	1/100	<0.003
	C1393	H	090	W. STAIR - EXHAUST 1	0/100	0726	1433	429	2.1	2.1	2.1	901	1/100	<0.003
	C1394	OWA	6113	OLY N. LV2 @ CONST. WALL	0/100	0728	1428	426	2.6	2.6	2.6	1108	1/100	<0.003
	C1395	H	HV30A	ROOF - NEG AIR 06	0/100	0733	1431	418	5	5	5	1045	1.5/100	<0.003
	C1396	OWA	207067	LV2 @ SKYBRIDGE	0/100	0741	1438	417	5	5	5	2085	0/100	<0.001
	C1397	IWA	8504	LV2 272	0/100	0750	1019	149	3	3	3	447	7.5/100	0.008
	C1398	IWA	208518	LV 1 @ Rm 172	0/100	0753	1016	143	3	3	3	429	9/100	0.010
Recount Sample # <b>C1397</b> Recount <b>0/100</b>														





























PBS Engineering and Environmental Inc.  
214 E GALER STREET, SUITE 300  
SEATTLE, WA 98102  
206.239.939  
pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <i>PETER STENSLAND</i>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>MIKE SMITH</i>	DATE/TIME: 3/24/22	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL    C CLEARANCE    PRE PRE-ABATEMENT    GBA GLOVE BAG AREA  
 IWA INSIDE AREA    A AMBIENT AIR    EX EXCURSION    H HEPA  
 OWA OUTSIDE AREA    B BLANK    TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
3/23/22	C1524	B	-	FIELD BLANK									0/100	-
	C1525	B	-	FIELD BLANK									0/100	-
	C1526	H	Hr30A	ROOF- NEG AIR OP	0/100	0700	1425	445	5	5	5	2225	2/100	40.001
	C1527	OWA	6113	LV2 @ CONST WALL	0/100	0713	1422	429	2.6	2.6	2.6	1115	2/100	40.003
	C1528	OWA	8297	LV2 @ SKYBRIDGE	0/100	0715	1410	415	5	5	5	2075	1/100	40.001
	C1529	H	097	W. STAIR-EXHAUST 2	0/100	0718	1420	422	2	2	2	844	0/100	40.003
	C1530	H	089	ECE - EXHAUST 3	0/100	0721	1418	417	1.8	1.8	1.8	751	0/100	40.004
	C1531	OWA	8298	OUTSIDE OF ECE BY PLAYGROUN	0/100	0722	1417	415	5	5	5	2075	1/100	40.001
	C1532	H	090	(EXT) EXHAUST 3 @ 283	0/100	0727	1415	408	2	2	2	816	1/100	40.003
	C1533	OWA	HPP-03	OUTSIDE OF SKYBRIDGE CONTAIN	0/100	0732	-	-	5	VOID	-	POWER OFF		-
	C1534	IWA	8501	LV2 @ Rms 283/284 ENTRY	0/100	0734	1224	290	5	5	5	1450	42/100	0.014

Recount Sample #	<i>C1534</i>	Recount	<i>44.5/100</i>
------------------	--------------	---------	-----------------







PBS Engineering and Environmental Inc.  
214 E GALER STREET, SUITE 300  
SEATTLE, WA 98102  
206.233.9359  
pbsusa.com

## LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. <u>PETER STENSLAND</u>		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <u>MIKE SMITH / Michael [Signature]</u>	DATE/TIME: 3/29/22	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
3/29/22	C1561	B	-	FIELD BLANK	0/100							0/100	-	
	C1562	B	-	FIELD BLANK	0/100							0/100	-	
	C1563	H	090	(EXT) EXHAUST 1 @ 283	0/100	0700	1419	439	2.1	2.1	2.1	922	0/100	<0.003
	C1564	H	097	ECE - EXHAUST 1	0/100	0702	1421	439	2.1	2.1	2.1	922	1/100	<0.003
	C1565	H	089	(EXT) EXHAUST 1 @ 284	0/100	0704	1423	439	2.2	2.2	2.2	966	0/100	<0.003
	C1566	OWA	6113	LV2, OLYN @ CONST. WALL	0/100	0706	1425	439	2.5	2.5	2.5	1098	1/100	<0.003
	C1567	IWA	37A	LV3 N END OF SERVER RM	0/100	0715	1433	438	5	5	5	2190	4/100	<0.001
	C1568	H	HV30A	ROOF - NEG AIR 010	0/100	0716	1424	428	5	5	5	2140	0/100	<0.001
	C1569	IWA	8504	LV2 HALL @ 283/284	0/100	0724	1352	388	5	5	5	1940	0/100	0.002
	C1570	OWA	207067	LV2 @ SKYBRIDGE	0/100	0725	1434	429	5	5	5	2145	1/100	<0.001
	C1571	OWA	HV99	LV3 - E SIDE OF FLOOR	0/100	0714	1432	438	5	5	5	2190	3/100	<0.001
Recount Sample #		C1567	Recount	5/100										

















PBS Engineering and Environmental Inc.  
 214 E GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.233.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs		WEATHER/TEMP:	Comments:
Project No.: 40535.488	I.H. PETER STEINSLAND		
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400		
Contractor: Dickson			
Client: DES			

RELINQUISHED BY (SIGN.):	DATE/TIME:	ANALYZED BY: <i>Mike Smith</i>	DATE/TIME: 4/8/22	TWA:
RECEIVED BY (SIGN.):	DATE/TIME:	ANALYZED BY:	DATE/TIME:	

CODES: P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
4/7/22	C1618	B	-	FIELD BLANK									1/100	-
	C1619	B	-	FIELD BLANK									0/100	-
	C1620	H	090	ECE - EXHAUST OH	.5/100	0635	1426	471	2	2	2	942	0/100	40.003
	C1621	OWA	089	LV1 @ CLEAN ROOM	.5/100	0642	1423	461	2.5	2.5	2.5	1153	4/100	40.002
	C1622	IWA	070	LV1 @ MECH. ROOM	.5/100	0752	1418	386	5	5	5	1930	34.5/100	0.009
Recount Sample #	C1621	Recount	4/100											





















**SEATTLE ASBESTOS TEST**

LYNNWOOD LAB: 19701 Seacher Lake Road, Suite 103, Lynnwood, WA 98148, Tel:425.673.9820, Fax:425.673.9810

BELLEVUE LAB: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.881.4111, Fax:425.881.1118

**ASBESTOS & OTHER FIBER ANALYSIS BY NIOSH 7400 (PCM)**

Attention: Claire Tsai  
 Client: PBS Engineering and Environmental, Seattle  
 Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Batch #: 202209985  
 Job#: 40635.488  
 Samples: 5

Project Location: Lakewood, WA

Sample ID	Type	Location	Activities	Start/End Time	Start/End Rate	Ave. Rate	Min. Liters	LOQ (MIN)	LOQ (MAX)	RL (Fb/cc)	Fb/Fields	Fb/mm2	Fb/cc
1	Blank	Blank											
	Protection	Blank											
	Decon	Blank											
	Environment	Blank											
	Pump #	70											
2	Blank	Blank											
	Protection	Blank											
	Decon	Blank											
	Environment	Blank											
	Pump #	70											
3	Blank	Blank											
	Protection	Blank											
	Decon	Blank											
	Environment	Blank											
	Pump #	70											
4	Blank	Blank											
	Protection	Blank											
	Decon	Blank											
	Environment	Blank											
	Pump #	70											
5	Blank	Blank											
	Protection	Blank											
	Decon	Blank											
	Environment	Blank											
	Pump #	70											

Blank Ave. Microscope View Area (mm2): 0.0785 Effective Filtration Area (mm2): 385 Precision: 15% +/- Accuracy: 10% +/-  
 (f/mm2): 0.0 LOQ: Limits of Quantitation; RL: the Reporting Limit

Sampled by: Claire Tsai  
 Analyzed by: Cici Xu  
 Reviewed by: Steve (Guangao) Zhang - President  
 Date: 5/10/2022  
 Date: 5/10/2022





202209963



**PBS Engineering and Environmental Inc.**  
 234 F GALER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.243.9300  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs			WEATHER/TEMP:	Comments: 4 Day TAT Results to: <del>claire.tsai@pbsusa.com</del> claire.tsai@pbsusa.com
Project No.: 40535.488	I.H. Peter Stensland			
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400			
Contractor: Dickson				
Client: DES				

RELINQUISHED BY (SIGN.): <i>Clare Tsai</i>	DATE/TIME: 5/19/22	ANALYZED BY:	DATE/TIME:	TWA:
RECEIVED BY (SIGN.): <i>Clare Tsai</i>	DATE/TIME: 5/10/22 13:20	ANALYZED BY:	DATE/TIME:	

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW (L)			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
4/27/22	C1680	B	/	Blank									0	
	C1681	B	/	Blank									0	
4/28/22	C1682	OWA	70	Level 1 decon		8:20	2:11	3:51	5	5	5	1755	5/10/22	

Recount Sample #	Recount
------------------	---------

**SEATTLE ASBESTOS TEST**

LYNNWOOD LAB: 12701 Seabur Lake Road, Suite 103, Lynnwood, WA 98036, Tel:425.672.9556, Fax:425.672.9810

BELLEVIEW LAB: 12227 Northrup Way, Suite 1, Bellevue, WA 98005, Tel:425.561.1111, Fax:425.561.1112

**ASBESTOS & OTHER FIBER ANALYSIS BY NIOSH 7400 (PCM)**

Attention: Claire Tsai  
 Client: PBS Engineering and Environmental, Seattle  
 Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Batch #: 202209963  
 Job#: 40535488  
 Samples: 3

Project Location: Lakenwood, WA

Sample ID	Type	Location	Activities	Start/Time	End Time	Ave. Rate	Min. Liters	LOQ (MIN)
1	Blank	Blank	Observation					LOQ (MAX)
	Decon		Worker	SSN				RL (Fb/cc)
	Environment							Fb/Fields
Pump #							Fb/mm2	
Date								Fb/cc
2	Blank	Blank	Observation					LOQ (MAX)
	Decon		Worker	SSN				RL (Fb/cc)
	Environment							Fb/Fields
Pump #							Fb/mm2	
Date								Fb/cc
3	Blank	Level 1 Decon	Observation					LOQ (MIN)
	Decon		Worker	SSN				LOQ (MAX)
	Environment							RL (Fb/cc)
Pump #	70						Fb/Fields	
Date	4/27/2022							Fb/mm2
								Fb/cc

Blank Ave. (f/mm2): 0.0      Microscope View Area (mm2): 0.00785      Effective Filtration Area (mm2): 385      Precision: ±16% +/-      Accuracy: ±10% +/-  
 LOQ: Limits of Quantification: RL: the Reporting Limit

Sampled by: Claire Tsai      Date: 5/10/2022  
 Analyzed by: Cici Xu  
 Reviewed by: Steve (Fanyao) Zhang - President      Date: 5/10/2022



**SEATTLE ASBESTOS TEST**

LYNNWOOD LAB: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98038, Tel:425.673.9850, Fax:435.673.9810

BELLEVUE LAB: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118

**ASBESTOS & OTHER FIBER ANALYSIS BY NIOSH 7400 (PCM)**

Attention: Claire Tsai  
 Client: PBS Engineering and Environmental, Seattle  
 Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Batch #: 202209962  
 Job#: 40535.488  
 Samples: 4

Project Location: Lakewood, WA

1	Sample ID	C1683	Location						Field blank		
	Type	Blank	Activities							LOQ (MIN)	
	Protection		Observation							LOQ (MAX)	
	Decon		Worker	SSN		Cert #		RL (Fb/cc)			
	Environment		StartTime	End Time		Min.		Fb/Fields	0		
	Pump #		StartRate	End Rate	Ave. Rate	Liters		Fb/mm2	< 7.00		
	Date	5/2/2022						Fb/cc			
2	Sample ID	C1684	Location						Field blank		
	Type	Blank	Activities							LOQ (MIN)	
	Protection		Observation							LOQ (MAX)	
	Decon		Worker	SSN		Cert #		RL (Fb/cc)			
	Environment		StartTime	End Time		Min.		Fb/Fields	0		
	Pump #		StartRate	End Rate	Ave. Rate	Liters		Fb/mm2	< 7.00		
	Date	5/2/2022						Fb/cc			
3	Sample ID	C1685	Location						Lv2 Hepa Exhaust		
	Type	H	Activities							LOQ (MIN)	0.023
	Protection		Observation							LOQ (MAX)	0.294
	Decon		Worker	SSN		Cert #		RL (Fb/cc)	0.002		
	Environment		StartTime	11:25	End Time	14:15	Min.	170	Fb/Fields	1	
	Pump #	7058	StartRate	10	End Rate	10	Ave. Rate	10	Liters	1700	
	Date	5/2/2022						Fb/cc	< 0.002		
4	Sample ID	C1686	Location						Lv1 Hepa Exhaust		
	Type	H	Activities							LOQ (MIN)	0.018
	Protection		Observation							LOQ (MAX)	0.238
	Decon		Worker	SSN		Cert #		RL (Fb/cc)	0.001		
	Environment		StartTime	11:57	End Time	14:17	Min.	140	Fb/Fields	2	
	Pump #	207067	StartRate	15	End Rate	15	Ave. Rate	15	Liters	2100	
	Date	5/2/2022						Fb/cc	< 0.001		

Blank Ave. (f/mm2): 0.0      Microscope View Area (mm2): 0.00785      Effective Filtration Area (mm2): 385      Precision: 16% +/-      Accuracy: 10% +/-  
 LOQ: Limits of Quantification;    RL: the Reporting Limit

Sampled by: Claire Tsai  
 Analyzed by: Cici Xu  
 Reviewed by: Steve (Fanyao) Zhang - President

Date: 5/10/2022  
 Date: 5/10/2022



**SEATTLE ASBESTOS TEST**

LYNNWOOD LAB: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810

BELLEVUE LAB: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118

**ASBESTOS & OTHER FIBER ANALYSIS BY NIOSH 7400 (PCM)**

Attention: Claire Tsai  
 Client: PBS Engineering and Environmental, Seattle  
 Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Batch #: 202209966  
 Job#: 40535.488  
 Samples: 4

Project Location: Lakewood, WA											
1	Sample ID	C1687	Location Field Blank								
	Type	Blank	Activities								
	Protection		Observation								
	Decon		Worker _____ SSN _____ Cert # _____								
	Environment		Start Time _____ End Time _____ Min. _____								
	Pump #		Start Rate _____ End Rate _____ Ave. Rate _____ Liters _____								
	Date	5/3/2022	Fb/Fields 0 Fb/mm2 < 7.00 Fb/cc								
2	Sample ID	C1688	Location Field Blank								
	Type	Blank	Activities								
	Protection		Observation								
	Decon		Worker _____ SSN _____ Cert # _____								
	Environment		Start Time _____ End Time _____ Min. _____								
	Pump #		Start Rate _____ End Rate _____ Ave. Rate _____ Liters _____								
	Date	5/3/2022	Fb/Fields 0 Fb/mm2 < 7.00 Fb/cc								
3	Sample ID	C1689	Location Base of East Stairwell								
	Type	H	Activities								
	Protection		Observation								
	Decon		Worker _____ SSN _____ Cert # _____								
	Environment		Start Time 07:15 End Time 14:16 Min. 421								
	Pump #	207017	Start Rate 10 End Rate 10 Ave. Rate 10 Liters 4210								
	Date	5/3/2022	Fb/Fields 2 Fb/mm2 < 7.00 Fb/cc < 0.001								
4	Sample ID	C1690	Location Skybridge to cascade								
	Type	OWA	Activities								
	Protection		Observation								
	Decon		Worker _____ SSN _____ Cert # _____								
	Environment		Start Time 11:55 End Time 14:15 Min. 140								
	Pump #	1696	Start Rate 10 End Rate 10 Ave. Rate 10 Liters 1400								
	Date	5/3/2022	Fb/Fields 1 Fb/mm2 < 7.00 Fb/cc < 0.002								

Blank Ave. (f/mm2): 0.0 Microscope View Area (mm2): 0.00785 Effective Filtration Area (mm2): 385 Precision: 16% +/- Accuracy: 10% +/-  
 LOQ: Limits of Quantification; RL: the Reporting Limit

Sampled by: Claire Tsai  
 Analyzed by: Cici Xie  
 Reviewed by: Steve (Fanyao) Zhang - President

Date: 5/10/2022  
 Date: 5/10/2022





**SEATTLE ASBESTOS TEST**

LYNNWOOD LAB: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel:425.873.9850, Fax:425.673.9810

BELLEVUE LAB: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1115

**ASBESTOS & OTHER FIBER ANALYSIS BY NIOSH 7400 (PCM)**

Attention: Claire Tsai  
 Client: PBS Engineering and Environmental, Seattle  
 Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Batch #: 202209964  
 Job#: 40535.488  
 Samples: 3

Project Location: Lakewood, WA

1	Sample ID	C1691	Location					Field Blank		
	Type	Blank	Activities						LOQ (MIN)	
	Protection		Observation						LOQ (MAX)	
	Decon		Worker	SSN	Cert #		RL (Fb/cc)			
	Environment		Start Time	End Time	Min.		Fb/Fields			
	Pump #		Start Rate	End Rate	Ave. Rate	Liters	Fb/mm2	<	7.00	
	Date	5/5/2022					Fb/cc			
2	Sample ID	C1692	Location					Field Blank		
	Type	Blank	Activities						LOQ (MIN)	
	Protection		Observation						LOQ (MAX)	
	Decon		Worker	SSN	Cert #		RL (Fb/cc)			
	Environment		Start Time	End Time	Min.		Fb/Fields			
	Pump #		Start Rate	End Rate	Ave. Rate	Liters	Fb/mm2	<	7.00	
	Date	5/5/2022					Fb/cc			
3	Sample ID	C1693	Location					Outside decon CAS skbridge to olys		
	Type	OWA	Activities						LOQ (MIN)	0.029
	Protection		Observation						LOQ (MAX)	0.371
	Decon		Worker	SSN	Cert #		RL (Fb/cc)		0.002	
	Environment		Start Time	09:15	End Time	13:45	Min.	270	Fb/Fields	3
	Pump #	1696	Start Rate	5	End Rate	5	Ave. Rate	5	Liters	1350
	Date	5/5/2022							Fb/mm2	< 7.00
								Fb/cc	< 0.002	

Blank Ave. (f/mm2): 0.0      Microscope View Area (mm2): 0.00785      Effective Filtration Area (mm2): 385      Precision: 16% +/-      Accuracy: 10% +/-  
 LOQ: Limits of Quantification;      RL: the Reporting Limit

Sampled by: Claire Tsai  
 Analyzed by: Cici Xu  
 Reviewed by: Steve (Fanyao) Zhang - President

Date: 5/10/2022  
 Date: 5/10/2022

202209961



PBS Engineering and Environmental Inc.  
 214 E GALLER STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.254.939  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs			WEATHER/TEMP:    	Comments: 4 Day TAT Results to: Claire.tsat@pbsusa.com
Project No.: 40535.488	I.H. Peter Stensland			
Location: Lakewood, WA	SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH 7400			
Contractor: Dickson				
Client: DES				

RELINQUISHED BY (SIGN.): <i>Charles Tsat</i>	DATE/TIME: 5/9/22	ANALYZED BY:	DATE/TIME:	TWA:
RECEIVED BY (SIGN.):	DATE/TIME: 5/10/22 13:20	ANALYZED BY:	DATE/TIME:	

CODES: P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
          IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
          OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW (L)			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
5/6/22	C1694	B	/	Field Blank									0	
	C1695	B	/	Field Blank									0	
	C1696	OWA	1696	Outside Decon Cas Skybridge to OLYS		8:15	2:15	360	5	5	5	1800	3/100	
Recount Sample #			Recount											

**SEATTLE ASBESTOS TEST**

LYNNWOOD LAB: 19701 Scriber Lake Road, Suite 103, Lynnwood, WA 98036, Tel:425.673.9850, Fax:425.673.9810

BELLEVUE LAB: 12727 Northup Way, Suite 1, Bellevue, WA 98005, Tel:425.861.1111, Fax:425.861.1118

**ASBESTOS & OTHER FIBER ANALYSIS BY NIOSH 7400 (PCM)**

Attention: Claire Tsai  
 Client: PBS Engineering and Environmental, Seattle  
 Address: 214 E Galer Street, Suite 300, Seattle, WA 98102

Batch #: 20220996f  
 Job#: 40535.488  
 Samples: 3

Project Location: Lakewood, WA

1	Sample ID	C1694	Location Field blank						LOQ (MIN)	
	Type	Blank	Activities						LOQ (MAX)	
	Protection		Observation						RL (Fb/cc)	
	Decon		Worker	SSN		Cert #		Fb/Fields	0	
	Environment		StartTime	End Time		Min.		Fb/mm2	< 7.00	
	Pump #		StartRate	End Rate	Ave. Rate	Liters		Fb/cc		
	Date	5/6/2022								
2	Sample ID	C1695	Location Field blank						LOQ (MIN)	
	Type	Blank	Activities						LOQ (MAX)	
	Protection		Observation						RL (Fb/cc)	
	Decon		Worker	SSN		Cert #		Fb/Fields	0	
	Environment		StartTime	End Time		Min.		Fb/mm2	< 7.00	
	Pump #		StartRate	End Rate	Ave. Rate	Liters		Fb/cc		
	Date	5/6/2022								
3	Sample ID	C1696	Location Outside decon cas skybridge to olys						LOQ (MIN)	0.021
	Type	OWA	Activities						LOQ (MAX)	0.278
	Protection		Observation						RL (Fb/cc)	0.001
	Decon		Worker	SSN		Cert #		Fb/Fields	3	
	Environment		StartTime	08:15	End Time	14:15	Min.	360	Fb/mm2	< 7.00
	Pump #	1696	StartRate	5	End Rate	5	Ave. Rate	5	Liters	1800
	Date	5/6/2022							Fb/cc	< 0.001

Blank Ave. (f/mm2): 0.0      Microscope View Area (mm2): 0.00785      Effective Filtration Area (mm2): 385      Precision: 16% +/-      Accuracy: 10% +/-  
 LOQ: Limits of Quantification;    RL: the Reporting Limit

Sampled by: Claire Tsai  
 Analyzed by: Cici Xu  
 Reviewed by: Steve (Panyao) Zhang - President

Date: 5/10/2022  
 Date: 5/10/2022















220531



**PBS Engineering and Environmental Inc.**  
 214 E. GOSHEN STREET, SUITE 200  
 SEATTLE, WA 98102  
 206.319.0999  
 pbsusa.com

**LABORATORY DATA SHEET**

Project Name: Pierce College Olympic South <b>Abatement and Repairs</b>		I.H. Claire Tsai		WEATHER/TEMP: Cloudy: 50s/60s		Comments: Results by EOD 5/25 Please email results to Gregg.Middaugh@pbsusa.com Claire.Tsai@pbsusa.com	
Project No.: 40535.488		SAMPLE MEDIA/ANALYTICAL METHOD: NIOSH METHOD 7402 - Labcor inc.					
Location: Olympic South							
Contractor: N/A							
Client: DES							

RELINQUISHED BY (SIGN.):	DATE/TIME: 5/24/2022	ANALYZED BY:	DATE/TIME:	TWA:
RECEIVED BY (SIGN.):	DATE/TIME: 5/24 17:30	ANALYZED BY:	DATE/TIME:	

**CODES:** P PERSONAL      C CLEARANCE      PRE PRE-ABATEMENT      GBA GLOVE BAG AREA  
 IWA INSIDE AREA      A AMBIENT AIR      EX EXCURSION      H HEPA  
 OWA OUTSIDE AREA      B BLANK      TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
5/24/2022	C1715	C	HV106	East Stairwell level 2/3 duct removal		1:18	3:20	132	10	10	10	1320		
5/24/2022	C1716	B	NA	Field Blank		-	-	-	-	-	-	-		
5/24/2022	C1717	B	NA	Field Blank		-	-	-	-	-	-	-		

Reviewed by:	
Results Released:	
Fax    Verbal    USPS    Email	
Invoice Released:	
Fax    USPS    Email	

**NIOSH 7402 - TEM - Direct Report**

**Job Number: 220531**

**Client: PBS Engineering + Environmental**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project No.: 40535.488**

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number: 220531R01**

**Report Date: 5/25/2022**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220531 - S1	C1715	NIOSH 7402 - TEM - Direct		5/24/2022	5/24/2022
220531 - S2	C1716	NIOSH 7402 - TEM - Direct		5/24/2022	5/24/2022
220531 - S3	C1717	NIOSH 7402 - TEM - Direct		5/24/2022	5/24/2022

NIOSH 7402 - TEM - Direct Preparation and analysis of the above samples was conducted in accordance with the NIOSH method 7402 for the identification of asbestos. The samples were collapsed with dimethylformamide (DMF) / acetic acid, carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification of 900x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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   
**Shauna Bjornson**  
 Analyst

**NIOSH 7402 - TEM - Direct Rapid Summary - Final Report**

Job Number: 220531      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220531R01  
 Date Received: 5/24/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup>		Analytical Sens. (fiber/cc) :
					Prim	Total	
S1	C1715	NIOSH ASBESTOS	< 0.001	0 - 0.003 - Poisson	0		0.00069
S2	C1716	NIOSH ASBESTOS	Not Applicable	Not Applicable	0		NA
S3	C1717	NIOSH ASBESTOS	Not Applicable	Not Applicable	0		NA

Reviewed by:

x   
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**NIOSH 7402 - TEM - Direct Summary Data -  
 Final Report**

Job Number: 220531      SEA

Client: PBS Engineering + Environmental

Project Name: Pierce College Olympic South Abatement and Repairs

Report Number: 220531R01

Date Received: 5/24/2022

Lab/Cor Sample No.: S1

Client Sample No.: C1715

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/25/2022      JEOL-Sr 1200      1200

Volume (L) : 1320  
 Lab Filter Area (mm2) : 385  
 Grid Openings Analyzed : 40  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm2) : 0.424  
 Analytical Sens. (fiber/cc) : 0.00069

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	< 0.001	0 - 0.003 - Poisson	0
NIOSH NonASBESTOS	0.003	0.001 - 0.007 - Poisson	4
NIOSH Libby-Other Amphibole	< 0.001	0 - 0.003 - Poisson	0
NIOSH Total Fibers	0.003	0.001 - 0.007 - Poisson	4

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Client Sample No.: C1716

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/25/2022      JEOL-Sr 1200      1200

Volume (L) : 0  
 Lab Filter Area (mm2) : 385  
 Grid Openings Analyzed : 40  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm2) : 0.424  
 Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	1
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



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

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

**NIOSH 7402 - TEM - Direct Summary Data -  
Final Report**

Job Number: 220531      SEA  
Client: PBS Engineering + Environmental

Report Number: 220531R01

Lab/Cor Sample No.: S3  
Client Sample No.: C1717

Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      5/25/2022      JEOL-Sr 1200      1200

Volume (L) : 0  
Lab Filter Area (mm<sup>2</sup>) : 385  
Grid Openings Analyzed : 40  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm<sup>2</sup>) : 0.424  
Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	1
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Reviewed by:

x   
Shauna Bjornson  
Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220531      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220531R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/24/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: C1715

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B42				NSD							
G1	2	C41				NSD							
G1	3	C42	NAS	1		Fiber	5.5	1	5.5	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G1	4	E41	NAS	2		Fiber	12.5	1.25	10	Non Asbestos Structure			NIOSH_NAM, NIOSH_Total
G1	5	E42	NAS	3		Fiber	8	1	8	Non Asbestos Structure			NIOSH_NAM, NIOSH_Total
G1	6	F41				NSD							
G1	7	F42				NSD							
G1	8	G41				NSD							
G1	9	G42				NSD							
G1	10	H41				NSD							
G1	11	C24				NSD							
G1	12	E23				NSD							
G1	13	E24				NSD							
G1	14	F23				NSD							
G1	15	F24				NSD							
G1	16	G23				NSD							
G1	17	G24				NSD							
G1	18	E34				NSD							
G1	19	F33				NSD							
G1	20	F34				NSD							
G2	21	C51				NSD							
G2	22	C52				NSD							
G2	23	E51				NSD							
G2	24	E52				NSD							
G2	25	F51				NSD							
G2	26	F52	NAS	4		Fiber	5.5	1	5.5	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G2	27	G51				NSD							
G2	28	G52				NSD							
G2	29	H51				NSD							
G2	30	H52				NSD							
G2	31	K51				NSD							
G2	32	C42				NSD							
G2	33	E41				NSD							
G2	34	E42				NSD							
G2	35	F41				NSD							
G2	36	F42				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220531                      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220531R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/24/2022

Lab/Cor Sample No: S1

Client Sample No: C1715

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G2	37	G41				NSD							
G2	38	G42				NSD							
G2	39	H41				NSD							
G2	40	H42				NSD							



**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220531      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220531R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/24/2022

Lab/Cor Sample No: S2

Client Sample No: C1716

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B43				NSD							
G1	2	B44				NSD							
G1	3	C43				NSD							
G1	4	C44	NAS	1		Fiber	10.5	0.75	14	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G1	5	E43				NSD							
G1	6	E44				NSD							
G1	7	F43				NSD							
G1	8	F44				NSD							
G1	9	G43				NSD							
G1	10	G44				NSD							
G1	11	B32				NSD							
G1	12	C31				NSD							
G1	13	C32				NSD							
G1	14	E31				NSD							
G1	15	E32				NSD							
G1	16	F31				NSD							
G1	17	F32				NSD							
G1	18	G31				NSD							
G1	19	G32				NSD							
G1	20	H31				NSD							
G2	21	B34				NSD							
G2	22	C33				NSD							
G2	23	C34				NSD							
G2	24	E33				NSD							
G2	25	E34				NSD							
G2	26	F33				NSD							
G2	27	G34				NSD							
G2	28	H34				NSD							
G2	29	H44				NSD							
G2	30	G44				NSD							
G2	31	G43				NSD							
G2	32	F44				NSD							
G2	33	F43				NSD							
G2	34	E44				NSD							
G2	35	C44				NSD							
G2	36	C43				NSD							
G2	37	F53				NSD							
G2	38	F54				NSD							
G2	39	G54				NSD							
G2	40	H53				NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220531      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220531R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/24/2022

Lab/Cor Sample No: S3

Client Sample No: C1717

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B44				NSD							
G1	2	C43				NSD							
G1	3	C44				NSD							
G1	4	E43				NSD							
G1	5	E44				NSD							
G1	6	F43	NAS	1		Fiber	15	4.5	3.3	Non Asbestos Structure	None	Possible Organic	NIOSH_NAM, NIOSH_Total
G1	7	F44				NSD							
G1	8	G43				NSD							
G1	9	G44				NSD							
G1	10	H43				NSD							
G1	11	H44				NSD							
G1	12	E24				NSD							
G1	13	F23				NSD							
G1	14	F24				NSD							
G1	15	G23				NSD							
G1	16	G24				NSD							
G1	17	H23				NSD							
G1	18	H24				NSD							
G1	19	F32				NSD							
G1	20	G32				NSD							
G2	21	B43				NSD							
G2	22	B44				NSD							
G2	23	C44				NSD							
G2	24	E43				NSD							
G2	25	E44				NSD							
G2	26	F43				NSD							
G2	27	F44				NSD							
G2	28	G43				NSD							
G2	29	G44				NSD							
G2	30	H43				NSD							
G2	31	B32				NSD							
G2	32	C31				NSD							
G2	33	C32				NSD							
G2	34	E31				NSD							
G2	35	E32				NSD							
G2	36	F31				NSD							
G2	37	F32				NSD							
G2	38	G32				NSD							
G2	39	F24				NSD							
G2	40	G24				NSD							

---

**NIOSH 7402 - TEM - Direct Raw Data -  
Final Report**

Job Number: 220531      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220531R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/24/2022

**Count Categories**

---

NIOSH_ASB	NIOSH ASBESTOS	NIOSH_NAM	NIOSH NonASBESTOS	NIOSH_Other	NIOSH Libby-Other Amphibole
NIOSH_Total	NIOSH Total Fibers				

---

Reviewed by:

x   
Shauna Bjornson  
Analyst







**NIOSH 7402 - TEM - Direct Report**

**Job Number:** 220557

**Client:** PBS Engineering + Environmental

**Address:** 214 E Galer Street  
 Seattle, WA 98102

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Project No.:** 40535.488

**PO Number:**

**Sub Project:**

**Reference No.:**

**Report Number:** 220557R01

**Report Date:** 6/7/2022

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220557 - S1	C1724	NIOSH 7402 - TEM - Direct		6/6/2022	6/6/2022
220557 - S2	C1725	NIOSH 7402 - TEM - Direct		6/6/2022	6/6/2022
220557 - S3	C1726	NIOSH 7402 - TEM - Direct		6/6/2022	6/6/2022

NIOSH 7402 - TEM - Direct Preparation and analysis of the above samples was conducted in accordance with the NIOSH method 7402 for the identification of asbestos. The samples were collapsed with dimethylformamide (DMF) / acetic acid, carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at an approximate screen magnification of 900x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification.

**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/cm<sup>3</sup> and structures/mm<sup>2</sup> 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   
 Shauna Bjornson  
 Analyst

**NIOSH 7402 - TEM - Direct Rapid Summary - Final Report**

Job Number: 220557      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220557R01  
 Date Received: 6/6/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total	Analytical Sens. (fiber/cc) :
S1	C1724	NIOSH ASBESTOS	< 0.001	0 - 0.003 - Poisson	0	0.00076
S2	C1725	NIOSH ASBESTOS	Not Applicable	Not Applicable	0	NA
S3	C1726	NIOSH ASBESTOS	Not Applicable	Not Applicable	0	NA

Reviewed by:

x   
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.



**NIOSH 7402 - TEM - Direct Summary Data -  
 Final Report**

Job Number: 220557      SEA

Client: PBS Engineering + Environmental

Project Name: Pierce College Olympic South Abatement and Repairs

Report Number: 220557R01

Date Received: 6/6/2022

Lab/Cor Sample No.: S1

Client Sample No.: C1724

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      6/7/2022              JEOL-Sr 1200              1200

Volume (L) : 1200

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 40

Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.424

Analytical Sens. (fiber/cc) : 0.00076

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	< 0.001	0 - 0.003 - Poisson	0
NIOSH NonASBESTOS	0.003	0.001 - 0.008 - Poisson	4
NIOSH Libby-Other Amphibole	< 0.001	0 - 0.003 - Poisson	0
NIOSH Total Fibers	0.003	0.001 - 0.008 - Poisson	4

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Client Sample No.: C1725

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      6/7/2022              JEOL-Sr 1200              1200

Volume (L) : 0

Lab Filter Area (mm<sup>2</sup>) : 385

Grid Openings Analyzed : 40

Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.424

Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	0
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**NIOSH 7402 - TEM - Direct Summary Data -  
 Final Report**

Job Number: 220557      SEA  
 Client: PBS Engineering + Environmental

Report Number: 220557R01

Lab/Cor Sample No.: S3  
 Client Sample No.: C1726

Volume (L) : 0

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      6/7/2022              JEOL-Sr 1200              1200

Lab Filter Area (mm2) : 385  
 Grid Openings Analyzed : 40  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm2) : 0.424  
 Analytical Sens. (fiber/cc) : NA

Structure Type	Concentration* (fiber/cc)	95% Confidence Interval (fiber/cc)	Fiber Count <sup>1</sup> Prim/Total
NIOSH ASBESTOS	Not Applicable	Not Applicable	0
NIOSH NonASBESTOS	Not Applicable	Not Applicable	0
NIOSH Libby-Other Amphibole	Not Applicable	Not Applicable	0
NIOSH Total Fibers	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Reviewed by:

x   
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220557      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220557R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 6/6/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: C1724

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B44			NSD							
G1	2	C43	NAS	1	Fiber	5.75	0.8	7.2	Non Asbestos Structure	S, Ca	Possible Gypsum	NIOSH_NAM, NIOSH_Total
G1	3	C44			NSD							
G1	4	E43			NSD							
G1	5	E44	NAS	2	Fiber	8.5	1.5	5.7	Non Asbestos Structure	S, Ca	Possible Gypsum	NIOSH_NAM, NIOSH_Total
G1	6	F43			NSD							
G1	7	F44	NAS	3	Fiber	6	1.5	4	Non Asbestos Structure			NIOSH_NAM, NIOSH_Total
G1	8	G43			NSD							
G1	9	G44			NSD							
G1	10	H43			NSD							
G1	11	C31			NSD							
G1	12	C32			NSD							
G1	13	E31			NSD							
G1	14	E32			NSD							
G1	15	F31	NAS	4	Fiber	9	2	4.5	Non Asbestos Structure			NIOSH_NAM, NIOSH_Total
G1	16	F32			NSD							
G1	17	G31			NSD							
G1	18	G32			NSD							
G1	19	H31			NSD							
G1	20	H32			NSD							
G2	21	B43			NSD							
G2	22	C43			NSD							
G2	23	E43			NSD							
G2	24	F43			NSD							
G2	25	G43			NSD							
G2	26	H43			NSD							
G2	27	H44			NSD							
G2	28	F41			NSD							
G2	29	E41			NSD							
G2	30	C42			NSD							
G2	31	B41			NSD							
G2	32	B34			NSD							
G2	33	H34			NSD							
G2	34	G31			NSD							
G2	35	E32			NSD							
G2	36	C31			NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220557      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220557R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 6/6/2022

Lab/Cor Sample No: S1

Client Sample No: C1724

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G2	37	C24			NSD							
G2	38	F53			NSD							
G2	39	G53			NSD							
G2	40	G54			NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220557      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220557R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 6/6/2022

Lab/Cor Sample No: S2

Client Sample No: C1725

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B43			NSD							
G1	2	B44			NSD							
G1	3	C43			NSD							
G1	4	C44			NSD							
G1	5	E43			NSD							
G1	6	E44			NSD							
G1	7	F43			NSD							
G1	8	F44			NSD							
G1	9	G43			NSD							
G1	10	G44			NSD							
G1	11	C32			NSD							
G1	12	E31			NSD							
G1	13	E32			NSD							
G1	14	F31			NSD							
G1	15	F32			NSD							
G1	16	G31			NSD							
G1	17	G32			NSD							
G1	18	H31			NSD							
G1	19	H32			NSD							
G1	20	G24			NSD							
G2	21	C43			NSD							
G2	22	C44			NSD							
G2	23	E43			NSD							
G2	24	E44			NSD							
G2	25	F43			NSD							
G2	26	F44			NSD							
G2	27	G43			NSD							
G2	28	G44			NSD							
G2	29	C34			NSD							
G2	30	E33			NSD							
G2	31	F33			NSD							
G2	32	F34			NSD							
G2	33	G33			NSD							
G2	34	G34			NSD							
G2	35	H33			NSD							
G2	36	H34			NSD							
G2	37	G31			NSD							
G2	38	F31			NSD							
G2	39	E32			NSD							
G2	40	C31			NSD							

**NIOSH 7402 - TEM - Direct Raw Data -  
 Final Report**

Job Number: 220557      SEA

NIOSH 7402

Client: PBS Engineering + Environmental

Report Number: 220557R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 6/6/2022

Lab/Cor Sample No: S3

Client Sample No: C1726

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E51			NSD							
G1	2	E52			NSD							
G1	3	F51			NSD							
G1	4	F52			NSD							
G1	5	G51			NSD							
G1	6	B44			NSD							
G1	7	C43			NSD							
G1	8	C44			NSD							
G1	9	E43			NSD							
G1	10	E44			NSD							
G1	11	H41			NSD							
G1	12	G42			NSD							
G1	13	G41			NSD							
G1	14	F42			NSD							
G1	15	F41			NSD							
G1	16	B34			NSD							
G1	17	C34			NSD							
G1	18	E33			NSD							
G1	19	E34			NSD							
G1	20	F33			NSD							
G2	21	C43			NSD							
G2	22	C44			NSD							
G2	23	E43			NSD							
G2	24	E44			NSD							
G2	25	F43			NSD							
G2	26	H42			NSD							
G2	27	H41			NSD							
G2	28	G42			NSD							
G2	29	G41			NSD							
G2	30	F42			NSD							
G2	31	C34			NSD							
G2	32	E33			NSD							
G2	33	E34			NSD							
G2	34	F33			NSD							
G2	35	F34			NSD							
G2	36	H31			NSD							
G2	37	G32			NSD							
G2	38	G31			NSD							
G2	39	F32			NSD							
G2	40	F31			NSD							

---

**NIOSH 7402 - TEM - Direct Raw Data -  
Final Report**

**Job Number:** 220557      **SEA**

**NIOSH 7402**

**Client:** PBS Engineering + Environmental

**Report Number:** 220557R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 6/6/2022

**Count Categories**

---

NIOSH_ASB	NIOSH ASBESTOS	NIOSH_NAM	NIOSH NonASBESTOS	NIOSH_Other	NIOSH Libby-Other Amphibole
NIOSH_Total	NIOSH Total Fibers				

---

**Reviewed by:**

x   
**Shauna Bjornson**  
**Analyst**

AHERA CLEARANCE SAMPLE INVENTORY

<u>PBS Sample #</u>	<u>Sample Location</u>	<u>Lab Result</u>		<u>Lab Report Date</u>	<u>Lab</u>
		<u>Structure Count</u>	<u>Concentration (struc/cc)</u>		
<b>Cascade Room 432</b>		<b>Sample Set <u>Passes</u> AHERA Clearance Criteria</b>			
Associated surface dust sample numbers include: MVC56-60					
CL-01	North wall of Rm. 432	0	<0.004	9/22/2021	Lab Cor
CL-02	SW wall of Rm. 432	0	<0.004	9/22/2021	Lab Cor
CL-03	SE wall of Rm. 432	0	<0.004	9/22/2021	Lab Cor
CL-04	East wall of Rm. 432	0	<0.004	9/22/2021	Lab Cor
CL-05	NE wall of Rm. 432	0	<0.004	9/22/2021	Lab Cor
CL-06	North of dressing corr. Rm. 431	0	<0.004	9/22/2021	Lab Cor
CL-07	North-central of dressing corr.	0	<0.004	9/22/2021	Lab Cor
CL-08	Central of dressing corr. Rm. 431	1	0.004	9/22/2021	Lab Cor
CL-09	South-central of dressing corr.	0	<0.004	9/22/2021	Lab Cor
CL-10	South of dressing corr. Rm. 431	0	<0.004	9/22/2021	Lab Cor
CL-11	Field Blank 1	0	NA	9/22/2021	Lab Cor
CL-12	Field Blank 2	0	NA	9/22/2021	Lab Cor
CL-13	Lab Blank	0	NA	9/22/2021	Lab Cor

<b>Maintenance Building</b>		<b>Sample Set <u>Passes</u> AHERA Clearance Criteria</b>			
Associated surface dust sample numbers include: MVC42-55					
CL-14	NW wall of maintenance shed	0	<0.004	9/22/2021	Lab Cor
CL-15	Central of maintenance shed	0	<0.004	9/22/2021	Lab Cor
CL-16	SE wall of maintenance shed	0	<0.004	9/22/2021	Lab Cor
CL-17	NE wall of maintenance shed	0	<0.004	9/22/2021	Lab Cor
CL-18	SW wall of maintenance shed	0	<0.004	9/22/2021	Lab Cor
CL-19	Outside of maintenance shedNE	0	<0.004	9/22/2021	Lab Cor
CL-20	Outside of maintenance shedS	0	<0.004	9/22/2021	Lab Cor
CL-21	Outside of maintenance shed SW	0	<0.004	9/22/2021	Lab Cor
CL-22	Outside of maintenance shed W	0	<0.004	9/22/2021	Lab Cor
CL-23	Outside of the maintenance shed NW	0	<0.004	9/22/2021	Lab Cor
CL-24	Field Blank 1	0	NA	9/22/2021	Lab Cor
CL-25	Field Blank 2	0	NA	9/22/2021	Lab Cor
CL-26	Lab Blank	0	NA	9/22/2021	Lab Cor



<u>PBS Sample #</u>	<u>Sample Location</u>	<u>Structure Count</u>	<u>Concentration</u> <u>(struc/cc)</u>	<u>Lab Report Date</u>	<u>Lab</u>
<b>Level 3 Student Lounge</b>					
<b>Sample Set <u>Passes</u> AHERA Clearance Criteria</b>					
Associated surface dust sample numbers include: MVC243-247					
CL-27	Olympic South LV3 Student lounge NE	0	<0.004	1/3/2022	Lab Cor
CL-28	Olympic South LV3 Student lounge SE	0	<0.004	1/3/2022	Lab Cor
CL-29	Olympic South LV3 Student lounge C	0	<0.004	1/3/2022	Lab Cor
CL-30	Olympic South LV3 Student lounge NW	0	<0.004	1/3/2022	Lab Cor
CL-31	Olympic South LV3 Student lounge SW	0	<0.004	1/3/2022	Lab Cor
CL-32	Outside West elevation below skybridge	0	<0.004	1/3/2022	Lab Cor
CL-33	Outside West elevation below skybridge	0	<0.004	1/3/2022	Lab Cor
CL-34	Outside West elevation below skybridge	0	<0.004	1/3/2022	Lab Cor
CL-35	Outside Olympic North LV3 hallway	0	<0.004	1/3/2022	Lab Cor
CL-36	Outside Olympic North LV3 hallway	0	<0.004	1/3/2022	Lab Cor
CL-37	Field Blank 1	0	NA	1/3/2022	Lab Cor
CL-38	Field Blank 2	0	NA	1/3/2022	Lab Cor
CL-39	Lab Blank	0	NA	1/3/2022	Lab Cor

<b>Level 3 Part 2 Main Floor and Plenum</b>					
<b>Sample Set <u>Passes</u> AHERA Clearance Criteria</b>					
Associated surface dust sample numbers include: MVC284-292					
CL-40	Olympic South LV3 NE - Above floor	0	<0.004	1/24/2022	Lab Cor
CL-41	Olympic South LV3 SW - Above floor	0	<0.004	1/24/2022	Lab Cor
CL-42	Olympic South LV3 SE - Above floor	0	<0.004	1/24/2022	Lab Cor
CL-43	Olympic South LV3 NW - Above floor	0	<0.004	1/24/2022	Lab Cor
CL-44	Olympic South LV3 Center - Above floor	0	<0.004	1/24/2022	Lab Cor
CL-45	Olympic South LV3 NE - Sub floor			NOT ANALYZED	
CL-46	Olympic South LV3 SW - Sub floor	0	<0.004	1/24/2022	Lab Cor
CL-47	Olympic South LV3 South/Center - Sub floor	0	<0.004	1/24/2022	Lab Cor
CL-48	Olympic South LV3 SE - Sub floor	0	<0.004	1/24/2022	Lab Cor
CL-49	Olympic South LV3 Center - Sub floor	0	<0.004	1/24/2022	Lab Cor
CL-50	Olympic South LV3 - Clean room	0	<0.004	1/24/2022	Lab Cor
CL-51	Olympic South LV3 - Clean room	0	<0.004	1/24/2022	Lab Cor
CL-52	Olympic South - Student Lounge - Center	0	<0.004	1/24/2022	Lab Cor
CL-53	Olympic South - Student Lounge - NW	0	<0.004	1/24/2022	Lab Cor
CL-54	Olympic South - Roof - Center	0	<0.004	1/24/2022	Lab Cor
CL-55	Field Blank 1	0	NA	1/24/2022	Lab Cor

<u>PBS Sample #</u>	<u>Sample Location</u>	<u>Structure Count</u>	<u>Concentration</u> <u>(struc/cc)</u>	<u>Lab Report Date</u>	<u>Lab</u>
CL-56	Field Blank 2	0	NA	1/24/2022	Lab Cor
CL-57	Lab Blank	0	NA	1/24/2022	Lab Cor

### Level 3 Southwest Server Floor

#### Sample Set Passes AHERA Clearance Criteria

Associated surface dust sample numbers include: MVC354-358

CL-58	Lab Blank	0	NA	4/4/2022	Lab Cor
CL-59	Field Blank 1	0	NA	4/4/2022	Lab Cor
CL-60	Field Blank 2	0	NA	4/4/2022	Lab Cor
CL-61	LVI 3 SE in containment	0	<0.005	4/4/2022	Lab Cor
CL-62	LVI 3 SW in containment	0	<0.005	4/4/2022	Lab Cor
CL-63	LVI 3 NE in containment	0	<0.005	4/4/2022	Lab Cor
CL-64	LVI 3 NW in containment	0	<0.005	4/4/2022	Lab Cor
CL-65	LVI 3 N in containment	0	<0.005	4/4/2022	Lab Cor
CL-66	LVI 3 E in containment	0	<0.005	4/4/2022	Lab Cor
CL-67	LVI 3 W in containment	0	<0.005	4/4/2022	Lab Cor
CL-68	Roof S outside	0	<0.005	4/4/2022	Lab Cor
CL-69	Roof N outside	0	<0.005	4/4/2022	Lab Cor
CL-70	Bottom of E stairs outside	0	<0.005	4/4/2022	Lab Cor

### Level 2

#### Sample Set Passes AHERA Clearance Criteria

Associated surface dust sample numbers include: MVC359-369, 371-374

CL-71	Lab Blank	0	NA	4/6/2022	Lab Cor
CL-72	Field Blank	0	NA	4/6/2022	Lab Cor
CL-73	Field Blank	0	NA	4/6/2022	Lab Cor
CL-74	LV2 NE corner by decon	0	<0.005	4/6/2022	Lab Cor
CL-75	LV2 Skybridge to Olympic N	0	<0.005	4/6/2022	Lab Cor
CL-76	LV2 South of stairs	0	<0.005	4/6/2022	Lab Cor
CL-77	LV2 Central E area	0	<0.005	4/6/2022	Lab Cor
CL-78	LV2 Ramp on central corridor	0	<0.005	4/6/2022	Lab Cor
CL-79	LV2 southwest area near exterior stairs	0	<0.005	4/6/2022	Lab Cor
CL-80	LV2 SE Main floor	0	<0.005	4/6/2022	Lab Cor
CL-81	LV2 Hallway between music rooms	0	<0.005	4/6/2022	Lab Cor
CL-82	LV2 Middle of Rm 284 on the floor	0	<0.005	4/6/2022	Lab Cor
CL-83	LV2 Rm 284 top of scaffolding	0	<0.005	4/6/2022	Lab Cor
CL-84	LV2 Rm 283 Center of the floor	0	<0.005	4/6/2022	Lab Cor

<u>PBS Sample #</u>	<u>Sample Location</u>	<u>Structure Count</u>	<u>Concentration</u> <u>(struc/cc)</u>	<u>Lab Report Date</u>	<u>Lab</u>
CL-85	LV2 Mechanical Mezzanine	0	<0.005	4/6/2022	Lab Cor
CL-86	LV2 Skybridge to Cascade OWA	0	<0.005	4/6/2022	Lab Cor
CL-87	LvV2 Landing OWA	0	<0.005	4/6/2022	Lab Cor
CL-88	LV1 Exterior landing Outside Stairwell OWA	0	<0.005	4/6/2022	Lab Cor
CL-89	West elevation N Scaffold OWA	0	<0.005	4/6/2022	Lab Cor
CL-90	West elevation below skybridge OWA	0	<0.005	4/6/2022	Lab Cor

### Level 3 Electrical Containment

#### Sample Set Passes AHERA Clearance Criteria

Associated surface dust sample numbers include: MVC377-380

CL-91	Lab Blank	0	NA	4/20/2022	Lab Cor
CL-92	Field Blank	0	NA	4/20/2022	Lab Cor
CL-93	Field Blank	0	NA	4/20/2022	Lab Cor
CL-94	Level 3 NW IWA	0	<0.005	4/20/2022	Lab Cor
CL-95	Level 3 NE IWA	0	<0.005	4/20/2022	Lab Cor
CL-96	Level 3 Central IWA	0	<0.005	4/20/2022	Lab Cor
CL-97	Level 3 SW IWA	0	<0.005	4/20/2022	Lab Cor
CL-98	Level 3 SE IWA	0	<0.005	4/20/2022	Lab Cor
CL-99	Level 3 W OWA	0	<0.005	4/20/2022	Lab Cor
CL-100	Level 3 N OWA	0	<0.005	4/20/2022	Lab Cor
CL-101	Level 3 E OWA	0	<0.005	4/20/2022	Lab Cor
CL-102	Level 1 Exterior Stairwell Landing OWA	0	<0.005	4/20/2022	Lab Cor
CL-103	West Elevation N Scaffolding Level 2 OWA	1	0.005	4/20/2022	Lab Cor

### Level 1

#### Sample Set Passes AHERA Clearance Criteria

Associated surface dust sample numbers include: MVC381-391

CI-104	Level 2 E of elevator shaft	0	<0.005	5/5/2022	Lab Cor
CI-105	Northwest stair landing between 1 & 2	0	<0.005	5/5/2022	Lab Cor
CI-106	Level 1 North East	0	<0.005	5/5/2022	Lab Cor
CI-107	Level 1 W of Decon	0	<0.005	5/5/2022	Lab Cor
CI-108	Level 1 Mechanical room	0	<0.005	5/5/2022	Lab Cor
CI-109	Level 1 South West	0	<0.005	5/5/2022	Lab Cor
CI-110	Level 1 S of Mech. Room	0	<0.005	5/5/2022	Lab Cor
CI-111	Level 1 South East	0	<0.005	5/5/2022	Lab Cor
CI-112	Clean room OWA	0	<0.005	5/5/2022	Lab Cor
CI-113	Loadout OWA	0	<0.005	5/5/2022	Lab Cor

<u>PBS Sample #</u>	<u>Sample Location</u>	<u>Structure Count</u>	<u>Concentration (struc/cc)</u>	<u>Lab Report Date</u>	<u>Lab</u>
CI-114	Underneath Olympic N to S skybridge OWA	0	<0.005	5/5/2022	Lab Cor
CI-115	Stair Tower Base OWA	0	<0.005	5/5/2022	Lab Cor
CI-116	Lvl 2 S of containment OWA	0	<0.005	5/5/2022	Lab Cor
CI-117	Lab Blank	0	NA	5/5/2022	Lab Cor
CI-118	Field Blank	0	NA	5/5/2022	Lab Cor
CI-119	Field Blank	0	NA	5/5/2022	Lab Cor

### Stairwell

### Sample Set Passes AHERA Clearance Criteria

Associated surface dust sample numbers include: MVC392-396

CI-120	East stairwell level 1	0	<0.004	5/20/2022	Lab Cor
CI-121	East stairwell level 1 landing	0	<0.004	5/20/2022	Lab Cor
CI-122	East stairwell level 2	0	<0.004	5/20/2022	Lab Cor
CI-123	East stairwell level 2 landing	0	<0.004	5/20/2022	Lab Cor
CI-124	East stairwell level 3	0	<0.004	5/20/2022	Lab Cor
CI-125	Level 3 top of stairs outside stairwell	0	<0.004	5/20/2022	Lab Cor
CI-126	Level 3 top of stairs outside stairwell	0	<0.004	5/20/2022	Lab Cor
CI-127	Level 2 skybridge to cascade outside decon	0	<0.004	5/20/2022	Lab Cor
CI-128	Top of scaffolding to skybridge to cascade	0	<0.004	5/20/2022	Lab Cor
CI-129	Top of scaffolding to skybridge to cascade	0	<0.004	5/20/2022	Lab Cor
CI-130	Lab Blank	0	NA	5/20/2022	Lab Cor
CI-131	Field Blank	0	NA	5/20/2022	Lab Cor
CI-132	Field Blank	0	NA	5/20/2022	Lab Cor

**AHERA Final Report**

**Job Number: 210934**

**Report Number: 210934R01**

**Client: PBS Engineering + Environmental**

**Report Date: 9/22/2021**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project Num: 40535.488**

**PO Number:**

**Sub Project:**

**PASSES AHERA Initial Screening Test with <70 s/mm2.  
 PASSES AHERA Blank Contamination Test with <70 s/mm2.  
 PASSES AHERA Z-Test, Z-score <1.65.**

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:
210934 - S1	CL-01 -	AHERA		9/20/2021
210934 - S2	CL-02 -	AHERA		9/20/2021
210934 - S3	CL-03 -	AHERA		9/20/2021
210934 - S4	CL-04 -	AHERA		9/20/2021
210934 - S5	CL-05 -	AHERA		9/20/2021
210934 - S6	CL-06 -	AHERA		9/20/2021
210934 - S7	CL-07 -	AHERA		9/20/2021
210934 - S8	CL-08 -	AHERA		9/20/2021
210934 - S9	CL-09 -	AHERA		9/20/2021
210934 - S10	CL-10 -	AHERA		9/20/2021
210934 - S11	CL-11 -	AHERA		9/20/2021
210934 - S12	CL-12 -	AHERA		9/20/2021
210934 - S13	CL-13 -	AHERA		9/20/2021

---

## AHERA Final Report

**Job Number:** 210934

**Client:** PBS Engineering + Environmental

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 210934R01

**Report Date:** 9/22/2021

---

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

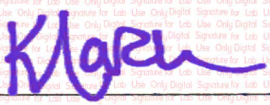
Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for this method is based on the Filter Density (str/mm<sup>2</sup>). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm<sup>2</sup> the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm<sup>3</sup> or structures/mm<sup>2</sup> 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
X  
Kate March  
Quality Control Officer



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

## AHERA Rapid Summary - Final Report

Job Number: 210934 SEA

Report Number: 210934R01

Client: PBS Engineering + Environmental

Date Received: 9/20/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Description	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-01		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S2	CL-02		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S3	CL-03		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S4	CL-04		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S5	CL-05		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S6	CL-06		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S7	CL-07		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S8	CL-08		AHERA TOTAL >=0.5, 5:1	13.9	0.004	0 - 0.025 - Poisson	1	0.00446
S9	CL-09		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S10	CL-10		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S11	CL-11		AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S12	CL-12		AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S13	CL-13		AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**AHERA Rapid Summary - Final Report**

Job Number: 210934 SEA

Report Number: 210934R01

Client: PBS Engineering + Environmental

Date Received: 9/20/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Description	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
--------------------	-------------------	-------------	----------------	------------------------	----------------------------	-------------------------------------	--------------------------------------	--------------------------------

**Reviewed by:**

  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.



## AHERA Summary Data - Final Report

Job Number: 210934      SEA

Client: PBS Engineering + Environmental

Report Number: 210934R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S1

Client Sample No.: CL-01

Description:

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/22/2021	Hitachi 7000FA	20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.012  
Area Analyzed (mm2) : 0.072  
Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Client Sample No.: CL-02

Description:

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/22/2021	Hitachi 7000FA	20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.012  
Area Analyzed (mm2) : 0.072  
Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Client Sample No.: CL-03

Description:

Analyst(s)	Analysis Date	Microscope	Magnification
SH	9/22/2021	Hitachi 7000FA	20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.012  
Area Analyzed (mm2) : 0.072  
Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 210934      SEA

Client: PBS Engineering + Environmental

Report Number: 210934R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S4

Volume (L) : 1200

Client Sample No.: CL-04

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	9/22/2021	Hitachi 7000FA	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1200

Client Sample No.: CL-05

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	9/22/2021	Hitachi 7000FA	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1200

Client Sample No.: CL-06

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 210934      SEA

Client: PBS Engineering + Environmental

Report Number: 210934R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S7

Volume (L) : 1200

Client Sample No.: CL-07

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Volume (L) : 1200

Client Sample No.: CL-08

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	13.9	0.004	0 - 0.025 - Poisson	1
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	13.9	0.004	0 - 0.025 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1200

Client Sample No.: CL-09

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

Analyst(s)	Analysis Date	Microscope	Magnification
SB	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 210934      SEA

Client: PBS Engineering + Environmental

Report Number: 210934R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S10

Volume (L) : 1200

Client Sample No.: CL-10

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 0

Client Sample No.: CL-11

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 5

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.06

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 0

Client Sample No.: CL-12

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 5

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.06

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

**Job Number:** 210934      **SEA**  
**Client:** PBS Engineering + Environmental      **Report Number:** 210934R01  
**Project Name:** Pierce College Olympic South Abatement and Repairs      **Date Received:** 9/20/2021

**Lab/Cor Sample No.:** S13      **Volume (L) :** 0  
**Client Sample No.:** CL-13      **Lab Filter Area (mm<sup>2</sup>) :** 385  
**Description:**      **Grid Openings Analyzed :** 10  
**Average Grid Opening Area :** 0.012  
**Area Analyzed (mm<sup>2</sup>) :** 0.12  
**Analytical Sens. (struc/cc) :** NA

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	9/22/2021	Hitachi 7000FA	20000

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup>	
				Prim	Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0	

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*K. March*

**Kate March**  
**Quality Control Officer**

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Raw Data -  
 Final Report**

**Job Number:** 210934      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 210934R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 9/20/2021

**Project No.:** 40535.488

**Lab/Cor Sample No:** S1

**Client Sample No:** CL-01

**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C31				NSD								
G1	2	C32				NSD								
G1	3	E31				NSD								
G2	4	G34				NSD								
G2	5	H33				NSD								
G2	6	H34				NSD								

**Lab/Cor Sample No:** S2

**Client Sample No:** CL-02

**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	F44				NSD								
G1	2	G43				NSD								
G1	3	G44				NSD								
G2	4	F41				NSD								
G2	5	F42				NSD								
G2	6	G41				NSD								

**Lab/Cor Sample No:** S3

**Client Sample No:** CL-03

**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E42				NSD								
G1	2	F41				NSD								
G1	3	F42				NSD								
G2	4	F41				NSD								
G2	5	F42				NSD								
G2	6	G41				NSD								

**Lab/Cor Sample No:** S4

**Client Sample No:** CL-04

**Description:**

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C41				NSD								
G1	2	C42				NSD								
G1	3	E41				NSD								
G2	4	F42				NSD								
G2	5	G41				NSD								
G2	6	G42				NSD								

**AHERA Raw Data -  
Final Report**

Job Number: 210934      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 210934R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No: S5

Client Sample No: CL-05

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F54			NSD							
G1	2	G53			NSD							
G2	3	F41			NSD							
G2	4	F42			NSD							
G2	5	G41			NSD							
G2	6	G42			NSD							

Lab/Cor Sample No: S6

Client Sample No: CL-06

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G34			NSD							
G1	2	G42			NSD							
G1	3	H41			NSD							
G2	4	F42			NSD							
G2	5	G41			NSD							
G2	6	G33			NSD							

Lab/Cor Sample No: S7

Client Sample No: CL-07

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G44			NSD							
G1	2	H43			NSD							
G1	3	H51			NSD							
G2	4	E52			NSD							
G2	5	E44			NSD							
G2	6	F43			NSD							

Lab/Cor Sample No: S8

Client Sample No: CL-08

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	G41			NSD							
G1	3	G33	CDQ	1	Fiber	2.5	0.12	20.8	Chrysotile			AHERA, AHERA_0.5-5.0
					ItemType		ItemNum			Confirmed	Comment	
					Brightfield		J66048BF					
					Diffraction Spectra		J66048DF			SB	9/22/2021	0.53nm ROW SPACING
							J66048SP					
G2	4	F42			NSD							
G2	5	G41			NSD							
G2	6	G33			NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 210934      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 210934R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No: S9

Client Sample No: CL-09

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	G41			NSD							
G1	3	G33			NSD							
G2	4	C42			NSD							
G2	5	E41			NSD							
G2	6	E33			NSD							

Lab/Cor Sample No: S10

Client Sample No: CL-10

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F32			NSD							
G1	2	G31			NSD							
G1	3	G23			NSD							
G2	4	F44			NSD							
G2	5	G43			NSD							
G2	6	G51			NSD							

Lab/Cor Sample No: S11

Client Sample No: CL-11

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34			NSD							
G1	2	F33			NSD							
G1	3	F41			NSD							
G2	4	F44			NSD							
G2	5	C62			NSD							

Lab/Cor Sample No: S12

Client Sample No: CL-12

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	G41			NSD							
G1	3	G33			NSD							
G2	4	G44			NSD							
G2	5	H43			NSD							



**AHERA Raw Data -  
 Final Report**

Job Number: 210934      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 210934R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No: S13

Client Sample No: CL-13


Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C42			NSD							
G1	2	E41			NSD							
G1	3	E42			NSD							
G1	4	F41			NSD							
G1	5	F42			NSD							
G2	6	C34			NSD							
G2	7	E33			NSD							
G2	8	E34			NSD							
G2	9	F33			NSD							
G2	10	F34			NSD							

Count Categories

AHERA      AHERA TOTAL >=0.5, 5:1      AHERA\_0.5-5.0      AHERA >=0.5 to 5.0µm, 5:1      AHERA\_5.0      AHERA >=5.0µm, 5:1

Reviewed by:

*Digital Signature for Lab Use Only*  


**Kate March**  
 Quality Control Officer



PBS Engineering and Environmental Inc.  
224 E. GARDEN STREET, SUITE 300  
SEASIDE, CA 92138  
951.434.9399  
pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs

WEATHER/TEMP:  
60-70 F

Comments:

Project No.: 40535.488

5 samples inside enclosure  
5 samples outside enclosure

Location: Lakewood, WA

I.H.: C. Tsai, P. Stenstand, T. Nguyen.  
SAMPLE MEDIA/ANALYTICAL METHOD:  
AHERA

Contractor: Dickson

Client: DES

REINQUISHED BY (SIGN.):

DATE/TIME:

ANALYZED BY:

DATE/TIME:

TWA:

RECEIVED BY (SIGN.):

DATE/TIME:

ANALYZED BY:

DATE/TIME:

CODES: P PERSONAL C CLEARANCE  
IWA INSIDE AREA A AMBIENT AIR  
OWA OUTSIDE AREA B BLANK

PRE ABATEMENT EXCURSION  
CLEARANCE SAMPLE

GBA GLOVE BAG AREA  
H HEPA

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
9/20/2021	CL-01	TEM	8504	North wall of Rm. 432		7:10	9:10	120	10	10	10	1200		
	CL-02	TEM	HFP-01	SW wall of Rm. 432		7:11	9:11	120	10	10	10	1200		
	CL-03	TEM	1696	SE wall of Rm. 432		7:12	9:12	120	10	10	10	1200		
	CL-04	TEM	70	East wall of Rm. 432		7:12	9:12	120	10	10	10	1200		
	CL-05	TEM	HV-106	NE wall of Rm. 432		7:13	9:13	120	10	10	10	1200		
	CL-06	TEM	1606	North of dressing corr. Rm. 431		7:24	9:24	120	10	10	10	1200		
	CL-07	TEM	HV19-9	North-central of dressing corr. Rm. 431		7:25	9:25	120	10	10	10	1200		
	CL-08	TEM	HV18-1	Central of dressing corr. Rm. 431		7:25	9:25	120	10	10	10	1200		
	CL-09	TEM	HV135	South-central of dressing corr. Rm. 431		7:24	9:24	120	10	10	10	1200		
	CL-10	TEM	HV18-35	South of dressing corr. Rm. 431		7:25	9:25	120	10	10	10	1200		
	CL-11	B	-	Field Blank 1										
	CL-12	B	-	Field Blank 2										
	CL-13	B	-	Lab Blank										
Recount Sample #				Recount										

FOR RELEASE  
Invoice Released  
Fax USPS  
Email USPS

2109134

**AHERA Final Report**

**Job Number: 210935**

**Report Number: 210935R02**

**Client: PBS Engineering + Environmental**

**Report Date: 9/22/2021**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Project Num:** 40535.488

**PO Number:**

**Sub Project:**

**REVISED** This report was revised to add the Z-test information to the cover page. No other analytical data  
**Report Note:** changed.

**PASSES AHERA Initial Screening Test with <70 s/mm2.  
 PASSES AHERA Blank Contamination Test with <70 s/mm2.  
 PASSES AHERA Z-Test, Z-score <1.65.**

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:
210935 - S1	CL-14 -	AHERA		9/20/2021
210935 - S2	CL-15 -	AHERA		9/20/2021
210935 - S3	CL-16 -	AHERA		9/20/2021
210935 - S4	CL-17 -	AHERA		9/20/2021
210935 - S5	CL-18 -	AHERA		9/20/2021
210935 - S6	CL-19 -	AHERA		9/20/2021
210935 - S7	CL-20 -	AHERA		9/20/2021
210935 - S8	CL-21 -	AHERA		9/20/2021
210935 - S9	CL-22 -	AHERA		9/20/2021
210935 - S10	CL-23 -	AHERA		9/20/2021
210935 - S11	CL-24 -	AHERA		9/20/2021
210935 - S12	CL-25 -	AHERA		9/20/2021
210935 - S13	CL-26 -	AHERA		9/20/2021

---

## AHERA Final Report

**Job Number:** 210935

**Client:** PBS Engineering + Environmental

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 210935R02

**Report Date:** 9/22/2021

---

AHERA - Method 40-CFR Part 763 Subpart E, Appendix A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.


Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for this method is based on the Filter Density (str/mm<sup>2</sup>). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm<sup>2</sup> the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm<sup>3</sup> or structures/mm<sup>2</sup> 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
X

**Kate March**  
**Quality Control Officer**



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

## AHERA Rapid Summary - Final Report

Job Number: 210935 SEA

Report Number: 210935R02

Client: PBS Engineering + Environmental

Date Received: 9/20/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Description	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-14		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S2	CL-15		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S3	CL-16		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S4	CL-17		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S5	CL-18		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S6	CL-19		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S7	CL-20		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S8	CL-21		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S9	CL-22		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S10	CL-23		AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S11	CL-24		AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S12	CL-25		AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S13	CL-26		AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**AHERA Rapid Summary - Final Report**

Job Number: 210935 SEA

Report Number: 210935R02  
 Date Received: 9/20/2021

Client: PBS Engineering + Environmental

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Description	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count Prim/Total	Analytical Sens. (struct/cc) :
--------------------	-------------------	-------------	----------------	------------------------	----------------------------	-------------------------------------	-------------------------	--------------------------------

**Reviewed by:**

*[Signature]*  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]\* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

Job Number: 210935      SEA

Client: PBS Engineering + Environmental

Report Number: 210935R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S1

Client Sample No.: CL-14

Description:

Analyst(s)	Analysis Date	Microscope	Magnification
KM	9/22/2021	JEOL-Sr 1200	20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.012  
Area Analyzed (mm2) : 0.072  
Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Client Sample No.: CL-15

Description:

Analyst(s)	Analysis Date	Microscope	Magnification
KM	9/22/2021	JEOL-Sr 1200	20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.012  
Area Analyzed (mm2) : 0.072  
Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Client Sample No.: CL-16

Description:

Analyst(s)	Analysis Date	Microscope	Magnification
KM	9/22/2021	JEOL-Sr 1200	20000

Volume (L) : 1200  
Lab Filter Area (mm2) : 385  
Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.012  
Area Analyzed (mm2) : 0.072  
Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 210935      SEA

Client: PBS Engineering + Environmental

Report Number: 210935R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S4

Volume (L) : 1200

Client Sample No.: CL-17

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1200

Client Sample No.: CL-18

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1200

Client Sample No.: CL-19

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



## AHERA Summary Data - Final Report

Job Number: 210935      SEA

Client: PBS Engineering + Environmental

Report Number: 210935R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S7

Volume (L) : 1200

Client Sample No.: CL-20

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Volume (L) : 1200

Client Sample No.: CL-21

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	9/22/2021	Hitachi 7000FA	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1200

Client Sample No.: CL-22

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	9/22/2021	Hitachi 7000FA	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 210935      SEA

Client: PBS Engineering + Environmental

Report Number: 210935R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No.: S10

Volume (L) : 1200

Client Sample No.: CL-23

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 6

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	9/22/2021	Hitachi 7000FA	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 0

Client Sample No.: CL-24

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 5

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.06

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 0

Client Sample No.: CL-25

Lab Filter Area (mm<sup>2</sup>) : 385

Description:

Grid Openings Analyzed : 5

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	9/22/2021	JEOL-Sr 1200	20000

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.06

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Summary Data -  
 Final Report**

**Job Number:** 210935      **SEA**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 210935R02  
**Date Received:** 9/20/2021

**Lab/Cor Sample No.:** S13  
**Client Sample No.:** CL-26  
**Description:**

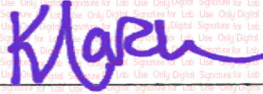
**Volume (L) :** 0  
**Lab Filter Area (mm<sup>2</sup>) :** 385  
**Grid Openings Analyzed :** 5  
**Average Grid Opening Area :** 0.012  
**Area Analyzed (mm<sup>2</sup>) :** 0.06  
**Analytical Sens. (struc/cc) :** NA

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SH                      9/22/2021              Hitachi 7000FA              20000

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup>	
				Prim	Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0	

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**



**Kate March**  
**Quality Control Officer**

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Raw Data -  
 Final Report**

Job Number: 210935      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 210935R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: CL-14

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E34				NSD								
G1	2	F33				NSD								
G1	3	F42				NSD								
G1	4	G41				NSD								
G2	5	F34				NSD								
G2	6	G41				NSD								

Lab/Cor Sample No: S2

Client Sample No: CL-15

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E34				NSD								
G1	2	F33				NSD								
G1	3	F42				NSD								
G1	4	G41				NSD								
G2	5	F34				NSD								
G2	6	G41				NSD								

Lab/Cor Sample No: S3

Client Sample No: CL-16

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E34				NSD								
G1	2	F33				NSD								
G1	3	F42				NSD								
G1	4	G41				NSD								
G2	5	H51				NSD								
G2	6	H44				NSD								

Lab/Cor Sample No: S4

Client Sample No: CL-17

Description:

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	F34				NSD								
G1	2	G33				NSD								
G1	3	G42				NSD								
G1	4	F41				NSD								
G2	5	E24				NSD								
G2	6	F31				NSD								

**AHERA Raw Data -  
 Final Report**

Job Number: 210935      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 210935R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No: S5

Client Sample No: CL-18

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34			NSD							
G1	2	F33			NSD							
G1	3	F42			NSD							
G1	4	G41			NSD							
G2	5	E34			NSD							
G2	6	F41			NSD							

Lab/Cor Sample No: S6

Client Sample No: CL-19

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F33			NSD							
G1	2	F42			NSD							
G1	3	G41			NSD							
G2	4	F33			NSD							
G2	5	F42			NSD							
G2	6	G41			NSD							

Lab/Cor Sample No: S7

Client Sample No: CL-20

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E33			NSD							
G1	2	E42			NSD							
G1	3	F41			NSD							
G2	4	F34			NSD							
G2	5	G33			NSD							
G2	6	G42			NSD							

Lab/Cor Sample No: S8

Client Sample No: CL-21

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G44			NSD							
G2	4	C41			NSD							
G2	5	C42			NSD							
G2	6	E41			NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 210935      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 210935R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 9/20/2021

Lab/Cor Sample No: S9

Client Sample No: CL-22

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C41			NSD							
G1	2	C42			NSD							
G1	3	E41			NSD							
G1	4	E42			NSD							
G2	5	E41			NSD							
G2	6	E42			NSD							

Lab/Cor Sample No: S10

Client Sample No: CL-23

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G43			NSD							
G1	2	G44			NSD							
G1	3	H43			NSD							
G2	4	F41			NSD							
G2	5	F42			NSD							
G2	6	G41			NSD							

Lab/Cor Sample No: S11

Client Sample No: CL-24

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	F41			NSD							
G1	3	G43			NSD							
G2	4	F34			NSD							
G2	5	G41			NSD							

Lab/Cor Sample No: S12

Client Sample No: CL-25

Description:

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G31			NSD							
G1	2	G32			NSD							
G1	3	H33			NSD							
G2	4	G43			NSD							
G2	5	F52			NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 210935      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 210935R02

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 9/20/2021

**Lab/Cor Sample No:** S13

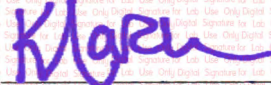
**Client Sample No:** CL-26

**Description:**

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C43			NSD							
G1	2	C44			NSD							
G1	3	E43			NSD							
G2	4	H41			NSD							
G2	5	H42			NSD							

Count Categories												
AHERA	AHERA TOTAL >=0.5, 5:1	AHERA_0.5-5.0	AHERA >=0.5 to 5.0µm, 5:1	AHERA_5.0	AHERA >=5.0µm, 5:1							

**Reviewed by:**

*(Faint, repeated text: Digital Signature for Lab Use Only)*  


**X Kate March**  
 Quality Control Officer



PBS Engineering and Environmental Inc.  
 214 E GALE STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.323.989  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs

Project No.: 40535.488

I.H.: C. Tsai, P. Stensland, T. Nguyen

Location: Lakewood, WA

SAMPLE MEDIA/ANALYTICAL METHOD:  
 AHERA

Contractor: Dickson

Client: DES

REINQUISHED BY (SIGN.):

DATE/TIME: 09/20/21

ANALYZED BY:

DATE/TIME:

TWA:

RECEIVED BY (SIGN.):

DATE/TIME: 9/20/21 4:24pm

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
9/20/2021	CL-14	TEM	8504	NW wall of maintenance shed		10:34	12:34	120	10	10	10	1200		
	CL-15	TEM	70	Central of maintenance shed		10:34	12:34	120	10	10	10	1200		
	CL-16	TEM		SE wall of maintenance shed		10:34	12:34	120	10	10	10	1200		
	CL-17	TEM	13	NE wall of maintenance shed		10:34	12:34	120	10	10	10	1200		
	CL-18	TEM	HFP-01	SW wall of maintenance shed		10:34	12:34	120	10	10	10	1200		
	CL-19	TEM	HV-106	Outside of maintenance shed NE		10:33	12:33	120	10	10	10	1200		
	CL-20	TEM	1696	Outside of maintenance shed S		10:33	12:33	120	10	10	10	1200		
	CL-21	TEM	HV-135	Outside of maintenance shed SW		10:33	12:33	120	10	10	10	1200		
	CL-22	TEM	HV18-38	Outside of maintenance shed W		10:33	12:33	120	10	10	10	1200		
	CL-23	TEM	HV19-9	Outside of the maintenance shed NW		10:33	12:33	120	10	10	10	1200		
	CL-24	B		Field Blank 1										
	CL-25	B		Field Blank 2										
	CL-26	B		Lab Blank										

WEATHER/TEMP:  
 60-70F

Comments:

Results Released:  
 Fax: \_\_\_\_\_ Vendor: \_\_\_\_\_ USPS: \_\_\_\_\_ Email: \_\_\_\_\_  
 Invoices Released:  
 Fax: \_\_\_\_\_ USPS: \_\_\_\_\_ Email: \_\_\_\_\_

210933



**AHERA Final Report**

**Job Number: 211292**

**Report Number: 211292R01**

**Client: PBS Engineering + Environmental**

**Report Date: 1/3/2022**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Project Num:** 40535.488

**PO Number:**

**Sub Project:**

**PASSES AHERA INITIAL SCREENING TEST - THE CUMULATIVE AVERAGE FILTER DENSITY FOR THIS SET IS: 0 S/MM2.**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
211292 - S1	CL-27	AHERA		12/30/2021	12/30/2021
211292 - S2	CL-28	AHERA		12/30/2021	12/30/2021
211292 - S3	CL-29	AHERA		12/30/2021	12/30/2021
211292 - S4	CL-30	AHERA		12/30/2021	12/30/2021
211292 - S5	CL-31	AHERA		12/30/2021	12/30/2021
211292 - S6	CL-32	AHERA		12/30/2021	12/30/2021
211292 - S7	CL-33	AHERA		12/30/2021	12/30/2021
211292 - S8	CL-34	AHERA		12/30/2021	12/30/2021
211292 - S9	CL-35	AHERA		12/30/2021	12/30/2021
211292 - S10	CL-36	AHERA		12/30/2021	12/30/2021
211292 - S11	CL-37	AHERA		12/30/2021	12/30/2021
211292 - S12	CL-38	AHERA		12/30/2021	12/30/2021
211292 - S13	CL-39	AHERA		12/30/2021	12/30/2021

### AHERA Final Report

**Job Number:** 211292      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 211292R01  
**Report Date:** 1/3/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.


Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for this method is based on the Filter Density (str/mm2). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm2 the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm3 or 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
**Sierra Hinkle**  
**Technician/Analyst**

**AHERA Rapid Summary - Final Report**

Job Number: 211292 SEA

Report Number: 211292R01

Client: PBS Engineering + Environmental

Date Received: 12/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-27	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00442
S2	CL-28	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00442
S3	CL-29	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00442
S4	CL-30	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00442
S5	CL-31	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00442
S6	CL-32	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S7	CL-33	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S8	CL-34	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S9	CL-35	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S10	CL-36	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S11	CL-37	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S12	CL-38	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S13	CL-39	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**AHERA Rapid Summary - Final Report**

Job Number: 211292 SEA

Report Number: 211292R01

Client: PBS Engineering + Environmental

Date Received: 12/30/2021

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count Prim/Total	Analytical Sens. (struct/cc) :
--------------------	-------------------	----------------	------------------------	----------------------------	-------------------------------------	-------------------------	--------------------------------

**Reviewed by:**

*Sierra Hinkle*  
 X

**Sierra Hinkle**  
 Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

Job Number: 211292      SEA

Client: PBS Engineering + Environmental

Report Number: 211292R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 12/30/2021

Lab/Cor Sample No.: S1

Volume (L) : 1210

Client Sample No.: CL-27

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH                      1/3/2022              Hitachi 7000FA      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072  
 Analytical Sens. (struc/cc) : 0.0044192

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Volume (L) : 1210

Client Sample No.: CL-28

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH                      1/3/2022              Hitachi 7000FA      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072  
 Analytical Sens. (struc/cc) : 0.0044192

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Volume (L) : 1210

Client Sample No.: CL-29

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH                      1/3/2022              JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072  
 Analytical Sens. (struc/cc) : 0.0044192

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 211292      SEA

Client: PBS Engineering + Environmental

Report Number: 211292R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 12/30/2021

Lab/Cor Sample No.: S4

Volume (L) : 1210

Client Sample No.: CL-30

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      1/3/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0044192

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1210

Client Sample No.: CL-31

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      1/3/2022      Hitachi 7000FA      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0044192

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1200

Client Sample No.: CL-32

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
SH                      1/3/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 211292      SEA

Client: PBS Engineering + Environmental

Report Number: 211292R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 12/30/2021

Lab/Cor Sample No.: S7

Volume (L) : 1200

Client Sample No.: CL-33

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH                      1/3/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Volume (L) : 1200

Client Sample No.: CL-34

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH                      1/3/2022      Hitachi 7000FA      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1200

Client Sample No.: CL-35

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH                      1/3/2022      Hitachi 7000FA      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 211292      SEA

Client: PBS Engineering + Environmental

Report Number: 211292R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 12/30/2021

Lab/Cor Sample No.: S10

Volume (L) : 1200

Client Sample No.: CL-36

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	1/3/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 0

Client Sample No.: CL-37

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	1/3/2022	Hitachi 7000FA	20000

Grid Openings Analyzed : 10

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.12

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 0

Client Sample No.: CL-38

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SH	1/3/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.12

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



## AHERA Summary Data - Final Report

Job Number: 211292      SEA

Client: PBS Engineering + Environmental

Report Number: 211292R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 12/30/2021

Lab/Cor Sample No.: S13

Volume (L) : 0

Client Sample No.: CL-39

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SH                      1/3/2022              Hitachi 7000FA              20000

Grid Openings Analyzed : 10

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.12

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Sierra Hinkle*

**Sierra Hinkle**  
 Technician/Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Raw Data -  
 Final Report**

**Job Number:** 211292      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 211292R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 12/30/2021

**Project No.:** 40535.488

**Lab/Cor Sample No:** S1

**Client Sample No:** CL-27

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E52			NSD							
G1	2	F51			NSD							
G1	3	F52			NSD							
G2	4	F43			NSD							
G2	5	F44			NSD							
G2	6	H34			NSD							

**Lab/Cor Sample No:** S2

**Client Sample No:** CL-28

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C42			NSD							
G1	2	E41			NSD							
G1	3	H51			NSD							
G2	4	F41			NSD							
G2	5	F42			NSD							
G2	6	G41			NSD							

**Lab/Cor Sample No:** S3

**Client Sample No:** CL-29

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F52			NSD							
G1	2	G51			NSD							
G1	3	G52			NSD							
G2	4	C41			NSD							
G2	5	C42			NSD							
G2	6	G42			NSD							

**Lab/Cor Sample No:** S4

**Client Sample No:** CL-30

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C42			NSD							
G1	2	E41			NSD							
G1	3	E42			NSD							
G2	4	G51			NSD							
G2	5	G52			NSD							
G2	6	H51			NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 211292      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 211292R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 12/30/2021

Lab/Cor Sample No: S5  
 Client Sample No: CL-31

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G43				NSD							
G1	2	G44				NSD							
G1	3	H43				NSD							
G2	4	F43				NSD							
G2	5	F44				NSD							
G2	6	G43				NSD							

Lab/Cor Sample No: S6  
 Client Sample No: CL-32

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42				NSD							
G1	2	G41				NSD							
G1	3	G42				NSD							
G2	4	E52				NSD							
G2	5	F51				NSD							
G2	6	F52				NSD							

Lab/Cor Sample No: S7  
 Client Sample No: CL-33

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C41				NSD							
G1	2	C42				NSD							
G1	3	E41				NSD							
G2	4	F44				NSD							
G2	5	G43				NSD							
G2	6	G44				NSD							

Lab/Cor Sample No: S8  
 Client Sample No: CL-34

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G44				NSD							
G2	4	F41				NSD							
G2	5	F42				NSD							
G2	6	G41				NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 211292      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 211292R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 12/30/2021

Lab/Cor Sample No: S9  
 Client Sample No: CL-35

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G44				NSD							
G2	4	G43				NSD							
G2	5	G44				NSD							
G2	6	H43				NSD							

Lab/Cor Sample No: S10  
 Client Sample No: CL-36

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E41				NSD							
G1	2	E42				NSD							
G1	3	F41				NSD							
G2	4	E43				NSD							
G2	5	E44				NSD							
G2	6	F43				NSD							

Lab/Cor Sample No: S11  
 Client Sample No: CL-37

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C51				NSD							
G1	2	C52				NSD							
G1	3	E51				NSD							
G1	4	E52				NSD							
G1	5	F52				NSD							
G2	6	C43				NSD							
G2	7	C44				NSD							
G2	8	E43				NSD							
G2	9	E44				NSD							
G2	10	F43				NSD							

## AHERA Raw Data - Final Report

**Job Number:** 211292      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 211292R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 12/30/2021

**Lab/Cor Sample No:** S12

**Client Sample No:** CL-38

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C41				NSD							
G1	2	C42				NSD							
G1	3	E41				NSD							
G1	4	E42				NSD							
G1	5	F41				NSD							
G1	6	F42				NSD							
G2	7	C42				NSD							
G2	8	E41				NSD							
G2	9	E42				NSD							
G2	10	F41				NSD							

**Lab/Cor Sample No:** S13

**Client Sample No:** CL-39

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C43				NSD							
G1	2	C44				NSD							
G1	3	E43				NSD							
G1	4	E44				NSD							
G1	5	F43				NSD							
G2	6	C31				NSD							
G2	7	C32				NSD							
G2	8	E31				NSD							
G2	9	E32				NSD							
G2	10	E34				NSD							

Count Categories				
AHERA	AHERA TOTAL >=0.5, 5:1	AHERA_0.5-5.0	AHERA >=0.5 to 5.0µm, 5:1	AHERA_5.0    AHERA >=5.0µm, 5:1

**Reviewed by:**

*Sierra Hinkle*

**Sierra Hinkle**  
 Technician/Analyst



**AHERA Final Report**

**Job Number: 220055**

**Report Number: 220055R01**

**Client: PBS Engineering + Environmental**

**Report Date: 1/24/2022**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project Num: 40535.488**

**PO Number:**

**Sub Project:**

**Report Note: DISCLAIMER: S6: CL-45 was not analyzed due to no filter being present in the cassette.**

**PASSES AHERA INITIAL SCREENING TEST - THE CUMULATIVE AVERAGE FILTER DENSITY FOR THIS SET IS: 0 S/MM2.**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220055 - S1	CL-40	AHERA		1/21/2022	1/21/2022
220055 - S2	CL-41	AHERA		1/21/2022	1/21/2022
220055 - S3	CL-42	AHERA		1/21/2022	1/21/2022
220055 - S4	CL-43	AHERA		1/21/2022	1/21/2022
220055 - S5	CL-44	AHERA		1/21/2022	1/21/2022
220055 - S6	CL-45	AHERA	Not Analyzed	1/21/2022	1/21/2022
220055 - S7	CL-46	AHERA		1/21/2022	1/21/2022
220055 - S8	CL-47	AHERA		1/21/2022	1/21/2022
220055 - S9	CL-48	AHERA		1/21/2022	1/21/2022
220055 - S10	CL-49	AHERA		1/21/2022	1/21/2022
220055 - S11	CL-50	AHERA		1/21/2022	1/21/2022
220055 - S12	CL-51	AHERA		1/21/2022	1/21/2022
220055 - S13	CL-52	AHERA		1/21/2022	1/21/2022
220055 - S14	CL-53	AHERA		1/21/2022	1/21/2022
220055 - S15	CL-54	AHERA		1/21/2022	1/21/2022
220055 - S16	CL-55	AHERA		1/21/2022	1/21/2022
220055 - S17	CL-56	AHERA		1/21/2022	1/21/2022
220055 - S18	CL-57	AHERA		1/21/2022	1/21/2022

---

## AHERA Final Report

**Job Number:** 220055      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220055R01  
**Report Date:** 1/24/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

---

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.


Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for this method is based on the Filter Density (str/mm<sup>2</sup>). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm<sup>2</sup> the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm<sup>3</sup> or structures/mm<sup>2</sup> 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
**Shauna Bjornson**  
Analyst





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

## AHERA Rapid Summary - Final Report

Job Number: 220055 SEA

Report Number: 220055R01

Client: PBS Engineering + Environmental

Date Received: 1/21/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-40	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00402
S2	CL-41	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00396
S3	CL-42	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00396
S4	CL-43	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00402
S5	CL-44	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00399
S7	CL-46	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00396
S8	CL-47	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00393
S9	CL-48	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S10	CL-49	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00399
S11	CL-50	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0	0.00411
S12	CL-51	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00421
S13	CL-52	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00438
S14	CL-53	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00435
S15	CL-54	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00446
S16	CL-55	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S17	CL-56	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**AHERA Rapid Summary - Final Report**

Job Number: 220055 SEA

Report Number: 220055R01

Client: PBS Engineering + Environmental

Date Received: 1/21/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count Prim/Total	Analytical Sens. (struct/cc) :
S18	CL-57	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

**Reviewed by:**

*Shauna Bjornson*  
 X

**Shauna Bjornson**  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

1 Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

Job Number: 220055      SEA

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No.: S1

Volume (L) : 1330

Client Sample No.: CL-40

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072  
 Analytical Sens. (struc/cc) : 0.0040205

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Volume (L) : 1350

Client Sample No.: CL-41

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072  
 Analytical Sens. (struc/cc) : 0.0039609

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Volume (L) : 1350

Client Sample No.: CL-42

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072  
 Analytical Sens. (struc/cc) : 0.0039609

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220055      SEA

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No.: S4

Volume (L) : 1330

Client Sample No.: CL-43

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0040205

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1340

Client Sample No.: CL-44

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0039905

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S7

Volume (L) : 1350

Client Sample No.: CL-46

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0039609

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220055      SEA

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No.: S8

Volume (L) : 1360

Client Sample No.: CL-47

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0039318

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1200

Client Sample No.: CL-48

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S10

Volume (L) : 1340

Client Sample No.: CL-49

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0039905

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220055      SEA

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No.: S11

Volume (L) : 1300

Client Sample No.: CL-50

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0041132

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.015 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.015 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 1270

Client Sample No.: CL-51

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0042104

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S13

Volume (L) : 1220

Client Sample No.: CL-52

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	1/24/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004383

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220055      SEA

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No.: S14

Volume (L) : 1230

Client Sample No.: CL-53

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.0043473

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S15

Volume (L) : 1200

Client Sample No.: CL-54

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.072

Analytical Sens. (struc/cc) : 0.004456

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S16

Volume (L) : 0

Client Sample No.: CL-55

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 10

Average Grid Opening Area : 0.012

Area Analyzed (mm<sup>2</sup>) : 0.12

Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Summary Data -  
 Final Report**

Job Number: 220055      SEA

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No.: S17

Volume (L) : 0

Client Sample No.: CL-56

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.012  
 Area Analyzed (mm<sup>2</sup>) : 0.12  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S18

Volume (L) : 0

Client Sample No.: CL-57

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      1/24/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.012  
 Area Analyzed (mm<sup>2</sup>) : 0.12  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Shauna Bjornson*  
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations (([Struc count] \* [Analytical Sensitivity])) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**AHERA Raw Data -  
 Final Report**

**Job Number:** 220055      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220055R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 1/21/2022

**Project No.:** 40535.488

**Lab/Cor Sample No:** S1

**Client Sample No:** CL-40

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G1	3	F52			NSD							
G2	4	F34			NSD							
G2	5	G33			NSD							
G2	6	E42			NSD							

**Lab/Cor Sample No:** S2

**Client Sample No:** CL-41

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G51			NSD							
G2	4	E34			NSD							
G2	5	F33			NSD							
G2	6	F41			NSD							

**Lab/Cor Sample No:** S3

**Client Sample No:** CL-42

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G44			NSD							
G1	2	H43			NSD							
G1	3	H51			NSD							
G2	4	F42			NSD							
G2	5	G41			NSD							
G2	6	G33			NSD							

**Lab/Cor Sample No:** S4

**Client Sample No:** CL-43

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G44			NSD							
G1	2	H43			NSD							
G1	3	H51			NSD							
G2	4	F34			NSD							
G2	5	G33			NSD							
G2	6	G41			NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 220055      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No: S5  
 Client Sample No: CL-44

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C32				NSD							
G1	2	E31				NSD							
G1	3	F33				NSD							
G2	4	E34				NSD							
G2	5	F33				NSD							
G2	6	F41				NSD							

Lab/Cor Sample No: S7  
 Client Sample No: CL-46

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G51				NSD							
G2	4	C34				NSD							
G2	5	E33				NSD							
G2	6	E41				NSD							

Lab/Cor Sample No: S8  
 Client Sample No: CL-47

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G44				NSD							
G1	2	H43				NSD							
G1	3	H51				NSD							
G2	4	G44				NSD							
G2	5	H43				NSD							
G2	6	H51				NSD							

Lab/Cor Sample No: S9  
 Client Sample No: CL-48

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C44				NSD							
G1	2	E43				NSD							
G1	3	E51				NSD							
G2	4	F32				NSD							
G2	5	G31				NSD							
G2	6	G23				NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 220055      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No: S10  
 Client Sample No: CL-49

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G51				NSD							
G2	4	E44				NSD							
G2	5	F43				NSD							
G2	6	F51				NSD							

Lab/Cor Sample No: S11  
 Client Sample No: CL-50

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44				NSD							
G1	2	F43				NSD							
G1	3	F51				NSD							
G2	4	E44				NSD							
G2	5	F43				NSD							
G2	6	F51				NSD							

Lab/Cor Sample No: S12  
 Client Sample No: CL-51

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G51				NSD							
G2	4	G32				NSD							
G2	5	H31				NSD							
G2	6	H23				NSD							

Lab/Cor Sample No: S13  
 Client Sample No: CL-52

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42				NSD							
G1	2	G41				NSD							
G1	3	G33				NSD							
G2	4	G44				NSD							
G2	5	H43				NSD							
G2	6	H51				NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 220055      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220055R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 1/21/2022

Lab/Cor Sample No: S14  
 Client Sample No: CL-53

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F54				NSD							
G1	2	G53				NSD							
G1	3	G61				NSD							
G2	4	F42				NSD							
G2	5	G41				NSD							
G2	6	G33				NSD							

Lab/Cor Sample No: S15  
 Client Sample No: CL-54

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C32				NSD							
G1	2	E31				NSD							
G1	3	E23				NSD							
G2	4	F42				NSD							
G2	5	G41				NSD							
G2	6	G33				NSD							

Lab/Cor Sample No: S16  
 Client Sample No: CL-55

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G41				NSD							
G1	4	C54				NSD							
G1	5	E53				NSD							
G2	6	F42				NSD							
G2	7	G41				NSD							
G2	8	G33				NSD							
G2	9	G24				NSD							
G2	10	H23				NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220055      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220055R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 1/21/2022

**Lab/Cor Sample No:** S17

**Client Sample No:** CL-56

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42				NSD							
G1	2	G41				NSD							
G1	3	G33				NSD							
G1	4	G42				NSD							
G1	5	H41				NSD							
G2	6	F44				NSD							
G2	7	G43				NSD							
G2	8	G51				NSD							
G2	9	C42				NSD							
G2	10	E41				NSD							

**Lab/Cor Sample No:** S18

**Client Sample No:** CL-57

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42				NSD							
G1	2	G41				NSD							
G1	3	G33				NSD							
G1	4	G44				NSD							
G1	5	H43				NSD							
G2	6	G52				NSD							
G2	7	G44				NSD							
G2	8	H43				NSD							
G2	9	E32				NSD							
G2	10	F31				NSD							

**Count Categories**

AHERA      AHERA TOTAL >=0.5, 5:1      AHERA\_0.5-5.0      AHERA >=0.5 to 5.0µm, 5:1      AHERA\_5.0      AHERA >=5.0µm, 5:1

**Reviewed by:**

*Shauna Bjornson*  
 Shauna Bjornson  
 Analyst



PBS Engineering and Environmental Inc.  
 2147 EAST STREIBER, SUITE 300  
 WAUWATUSA, WI 53190  
 262.233.892  
 pbsusa.com

# LABORATORY DATA SHEET

220055  
1/2

Project Name: Pierce College Olympic South Abatement and Repairs

Project No.: 40535.488

I.H.: Toan N, F. Fletcher

Location: Lakewood, WA

SAMPLE MEDIA/ANALYTICAL METHOD:  
AHERA

Contractor: Dickson

Client: DES

REQUISITIONED BY (SIGN.):

DATE/TIME: 1/21/22

ANALYZED BY:

DATE/TIME: 1/21/22

WEATHER/TEMP: 40s

Comments: 24HR TAT Email results to Gregg.Middaugh@pbsusa.com and Claire.Tsai@pbsusa.com

RECEIVED BY (SIGN.):

DATE/TIME: 1/21/22

ANALYZED BY:

DATE/TIME: 1/21/22

CODES: P PERSONAL C CLEARANCE  
 IWA INSIDE AREA A AMBIENT AIR  
 OWA OUTSIDE AREA B BLANK

PRE-ABATEMENT EX CLEARANCE SAMPLE  
 GBA GLOVE BAG AREA  
 H HEPA

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
1/21/2022	CL-40	TEM	7052	Olympic South LV3 NE - Above floor		10:51	13:04	133	10	10	10	1330		
	CL-41	TEM	8298	Olympic South LV3 SW - Above floor		10:50	13:05	135	10	10	10	1350		
	CL-42	TEM	4173	Olympic South LV3 SE - Above floor		10:50	13:05	135	10	10	10	1350		
	CL-43	TEM	13	Olympic South LV3 NW - Above floor		10:52	13:05	133	10	10	10	1330		
	CL-44	TEM	6714	Olympic South LV3 Center - Above floor		10:50	13:04	134	10	10	10	1340		
	CL-45	TEM	HV106	Olympic South LV3 NE - Sub floor		10:49	13:04	135	10	10	10	1350		
	CL-46	TEM	7085	Olympic South LV3 SW - Sub floor		10:50	13:05	135	10	10	10	1350		
	CL-47	TEM	1696	Olympic South LV3 South/Center - Sub floor		10:50	13:06	136	10	10	10	1360		
	CL-48	TEM	HV18-1	Olympic South LV3 SE - Sub floor		10:45	12:45	120	10	10	10	1200		
	CL-49	TEM	10W40	Olympic South LV3 Center - Sub floor		10:51	13:05	134	10	10	10	1340		
	CL-50	TEM	70	Olympic South LV3 - Clean room		10:55	13:05	130	10	10	10	1300		
	CL-51	TEM	8297	Olympic South LV3 - Clean room		10:56	13:03	127	10	10	10	1270		
	CL-52	TEM	6163	Olympic South - Student Lounge - Center		11:08	13:10	122	10	10	10	1220		
	CL-53	TEM	9198	Olympic South - Student Lounge - NW		11:07	13:10	123	10	10	10	1230		
	CL-54	TEM	HV30A	Olympic South - Roof - Center		11:12	13:12	120	10	10	10	1200		

5 OUTSIDE SAMPLES



PBS Engineering and Environmental Inc.  
 114 6th Avenue Street, Suite 300  
 Seattle, WA 98101  
 206.232.6199  
 pbsusa.com

# LABORATORY DATA SHEET

Project Name: Pierce College Olympic South Abatement and Repairs

Project No.: 40535.488

Location: Lakewood, WA

Contractor: Dickson

I.H.: Toan N, F. Fletcher

SAMPLE MEDIA/ANALYTICAL METHOD:  
 AHERA

WEATHER/TEMP:  
 40s

Comments: 24HR TAT Email results to  
 Gregg: Mliddaugh@pbsusa.com and  
 Claire: Tsai@pbsusa.com

Client: DES

RELINQUISHED BY (SIGN.):

DATE/TIME:

ANALYZED BY:

DATE/TIME:

TWA:

RECEIVED BY (SIGN.):

DATE/TIME:

ANALYZED BY:

DATE/TIME:

CODES: P PERSONAL C CLEARANCE

IWA INSIDE AREA A AMBIENT AIR

OWA OUTSIDE AREA B BLANK

PRE-ABATEMENT EX EXCURSION TEM CLEARANCE SAMPLE

GBA GLOVE BAG AREA H HEPA

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
	CL-54	B	HEPA	Olympic South - Roof - Center				120	10	10	10	1200		
	CL-55	B		Field Blank 1										
	CL-56	B		Field Blank 2										
	CL-57	B		Lab Blank										

220055 212

**AHERA Final Report**

**Job Number: 220340**

**Report Number: 220340R01**

**Client: PBS Engineering + Environmental**

**Report Date: 4/4/2022**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Project Num:** 40535.488

**PO Number:**

**Sub Project:**

**PASSES AHERA Initial Screening Test with <70 s/mm2.  
 PASSES AHERA Blank Contamination Test with <70 s/mm2.  
 PASSES AHERA Z-Test, Z-score <1.65.**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Received:
220340 - S1	CL-58	AHERA		4/4/2022
220340 - S2	CL-59	AHERA		4/4/2022
220340 - S3	CL-60	AHERA		4/4/2022
220340 - S4	CL-61	AHERA		4/4/2022
220340 - S5	CL-62	AHERA		4/4/2022
220340 - S6	CL-63	AHERA		4/4/2022
220340 - S7	CL-64	AHERA		4/4/2022
220340 - S8	CL-65	AHERA		4/4/2022
220340 - S9	CL-66	AHERA		4/4/2022
220340 - S10	CL-67	AHERA		4/4/2022
220340 - S11	CL-68	AHERA		4/4/2022
220340 - S12	CL-69	AHERA		4/4/2022
220340 - S13	CL-70	AHERA		4/4/2022



---

## AHERA Final Report

**Job Number:** 220340

**Client:** PBS Engineering + Environmental

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 220340R01

**Report Date:** 4/4/2022

---

AHERA - Method 40-CFR Part 763 App. A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

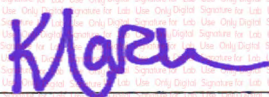
Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for the initial clearance as defined by the method is based on the Filter Density (str/mm<sup>2</sup>). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm<sup>2</sup> the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm<sup>3</sup> or structures/mm<sup>2</sup> 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
X Digital Signature for Lab Use Only

**Kate March**  
Quality Control Officer



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

## AHERA Rapid Summary - Final Report

Job Number: 220340    SEA  
Client: PBS Engineering + Environmental  
Project Name: Pierce College Olympic South Abatement and Repairs

Report Number: 220340R01  
Date Received: 4/4/2022

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-58	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S2	CL-59	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S3	CL-60	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S4	CL-61	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S5	CL-62	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S6	CL-63	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S7	CL-64	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S8	CL-65	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S9	CL-66	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S10	CL-67	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S11	CL-68	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S12	CL-69	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S13	CL-70	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**AHERA Rapid Summary - Final Report**

Job Number: 220340 SEA

Report Number: 220340R01

Client: PBS Engineering + Environmental

Date Received: 4/4/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
--------------------	-------------------	----------------	------------------------	----------------------------	-------------------------------------	--------------------------------------	--------------------------------

Reviewed by:

  
 X \_\_\_\_\_  
 Kate March  
 Quality Control Officer

Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

Job Number: 220340      SEA

Client: PBS Engineering + Environmental

Report Number: 220340R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/4/2022

Lab/Cor Sample No.: S1

Volume (L) : 0

Client Sample No.: CL-58

Lab Filter Area (mm2) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/4/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.106  
Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Volume (L) : 0

Client Sample No.: CL-59

Lab Filter Area (mm2) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/4/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.106  
Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Volume (L) : 0

Client Sample No.: CL-60

Lab Filter Area (mm2) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/4/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.106  
Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220340      SEA

Client: PBS Engineering + Environmental

Report Number: 220340R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/4/2022

Lab/Cor Sample No.: S4

Volume (L) : 1250

Client Sample No.: CL-61

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.0636

Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1250

Client Sample No.: CL-62

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.0636

Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1250

Client Sample No.: CL-63

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6

Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.0636

Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220340      SEA

Client: PBS Engineering + Environmental

Report Number: 220340R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/4/2022

Lab/Cor Sample No.: S7

Client Sample No.: CL-64

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Volume (L) : 1250  
 Lab Filter Area (mm<sup>2</sup>) : 385  
 Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Client Sample No.: CL-65

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Volume (L) : 1250  
 Lab Filter Area (mm<sup>2</sup>) : 385  
 Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Client Sample No.: CL-66

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Volume (L) : 1250  
 Lab Filter Area (mm<sup>2</sup>) : 385  
 Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220340      SEA

Client: PBS Engineering + Environmental

Report Number: 220340R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/4/2022

Lab/Cor Sample No.: S10

Volume (L) : 1250

Client Sample No.: CL-67

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 1250

Client Sample No.: CL-68

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 1250

Client Sample No.: CL-69

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Summary Data -  
 Final Report**

**Job Number:** 220340      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220340R01  
**Date Received:** 4/4/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S13  
**Client Sample No.:** CL-70

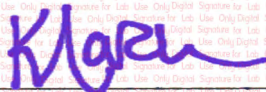
**Volume (L) :** 1250  
**Lab Filter Area (mm<sup>2</sup>) :** 385  
**Grid Openings Analyzed :** 6  
**Average Grid Opening Area :** 0.0106  
**Area Analyzed (mm<sup>2</sup>) :** 0.0636  
**Analytical Sens. (struc/cc) :** 0.0048428

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SB                      4/4/2022              JEOL-Sr 1200              20000

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Digital Signature for Lab Use Only*  
  
**Kate March**  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**AHERA Raw Data -  
 Final Report**

**Job Number:** 220340      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220340R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/4/2022

**Project No.:** 40535.488

**Lab/Cor Sample No:** S1

**Client Sample No:** CL-58

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G51			NSD							
G1	4	E42			NSD							
G1	5	F41			NSD							
G2	6	F43			NSD							
G2	7	F44			NSD							
G2	8	G43			NSD							
G2	9	G44			NSD							
G2	10	H43			NSD							

**Lab/Cor Sample No:** S2

**Client Sample No:** CL-59

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34			NSD							
G1	2	F33			NSD							
G1	3	F34			NSD							
G1	4	G33			NSD							
G1	5	G34			NSD							
G2	6	C44			NSD							
G2	7	E43			NSD							
G2	8	E44			NSD							
G2	9	F43			NSD							
G2	10	F44			NSD							

**Lab/Cor Sample No:** S3

**Client Sample No:** CL-60

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C44			NSD							
G1	2	E43			NSD							
G1	3	E44			NSD							
G1	4	F43			NSD							
G1	5	F44			NSD							
G2	6	C42			NSD							
G2	7	E41			NSD							
G2	8	E42			NSD							
G2	9	F41			NSD							
G2	10	F42			NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220340      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220340R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/4/2022

**Lab/Cor Sample No:** S4  
**Client Sample No:** CL-61

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E42				NSD								
G1	2	F41				NSD								
G1	3	F33				NSD								
G1	4	G33				NSD								
G2	5	F44				NSD								
G2	6	G43				NSD								

**Lab/Cor Sample No:** S5  
**Client Sample No:** CL-62

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E42				NSD								
G1	2	F41				NSD								
G1	3	F33				NSD								
G2	4	F44				NSD								
G2	5	G43				NSD								
G2	6	G51				NSD								

**Lab/Cor Sample No:** S6  
**Client Sample No:** CL-63

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E44				NSD								
G1	2	F43				NSD								
G1	3	F51				NSD								
G2	4	E42				NSD								
G2	5	F41				NSD								
G2	6	F33				NSD								

**Lab/Cor Sample No:** S7  
**Client Sample No:** CL-64

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E44				NSD								
G1	2	F43				NSD								
G1	3	F51				NSD								
G2	4	E44				NSD								
G2	5	F43				NSD								
G2	6	F51				NSD								

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220340      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220340R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/4/2022

**Lab/Cor Sample No:** S8  
**Client Sample No:** CL-65

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G1	3	G51			NSD							
G2	4	E44			NSD							
G2	5	F43			NSD							
G2	6	F51			NSD							

**Lab/Cor Sample No:** S9  
**Client Sample No:** CL-66

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	G41			NSD							
G1	3	G33			NSD							
G2	4	E44			NSD							
G2	5	F43			NSD							
G2	6	F51			NSD							

**Lab/Cor Sample No:** S10  
**Client Sample No:** CL-67

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E32			NSD							
G1	2	F31			NSD							
G1	3	F23			NSD							
G2	4	G42			NSD							
G2	5	H41			NSD							
G2	6	H33			NSD							

**Lab/Cor Sample No:** S11  
**Client Sample No:** CL-68

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C42			NSD							
G1	2	E41			NSD							
G1	3	E33			NSD							
G2	4	E44			NSD							
G2	5	F43			NSD							
G2	6	F51			NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220340      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220340R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/4/2022

**Lab/Cor Sample No:** S12

**Client Sample No:** CL-69

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G51			NSD							
G2	4	F44			NSD							
G2	5	G43			NSD							
G2	6	G51			NSD							

**Lab/Cor Sample No:** S13

**Client Sample No:** CL-70

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	F41			NSD							
G1	3	F33			NSD							
G2	4	E42			NSD							
G2	5	F41			NSD							
G2	6	F33			NSD							

**Count Categories**

AHERA      AHERA TOTAL >=0.5, 5:1      AHERA\_0.5-5.0      AHERA >=0.5 to 5.0µm, 5:1      AHERA\_5.0      AHERA >=5.0µm, 5:1

**Reviewed by:**

*(Faint background text: Digital Signature for Lab Use Only...)*  


**Kate March**  
**Quality Control Officer**



**AHERA Final Report**

**Job Number: 220348**

**Report Number: 220348R01**

**Client: PBS Engineering + Environmental**

**Report Date: 4/6/2022**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project Num: 40535.488**

**PO Number:**

**Sub Project:**

**PASSES AHERA Initial Screening Test with <70 s/mm2.  
 PASSES AHERA Blank Contamination Test with <70 s/mm2.  
 PASSES AHERA Z-Test, Z-score <1.65.**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220348 - S1	CL-71	AHERA		4/5/2022	4/5/2022
220348 - S2	CL-72	AHERA		4/5/2022	4/5/2022
220348 - S3	CL-73	AHERA		4/5/2022	4/5/2022
220348 - S4	CL-74	AHERA		4/5/2022	4/5/2022
220348 - S5	CL-75	AHERA		4/5/2022	4/5/2022
220348 - S6	CL-76	AHERA		4/5/2022	4/5/2022
220348 - S7	CL-77	AHERA		4/5/2022	4/5/2022
220348 - S8	CL-78	AHERA		4/5/2022	4/5/2022
220348 - S9	CL-79	AHERA		4/5/2022	4/5/2022
220348 - S10	CL-80	AHERA		4/5/2022	4/5/2022
220348 - S11	CL-81	AHERA		4/5/2022	4/5/2022
220348 - S12	CL-82	AHERA		4/5/2022	4/5/2022
220348 - S13	CL-83	AHERA		4/5/2022	4/5/2022
220348 - S14	CL-84	AHERA		4/5/2022	4/5/2022
220348 - S15	CL-85	AHERA		4/5/2022	4/5/2022
220348 - S16	CL-86	AHERA		4/5/2022	4/5/2022
220348 - S17	CL-87	AHERA		4/5/2022	4/5/2022
220348 - S18	CL-88	AHERA		4/5/2022	4/5/2022
220348 - S19	CL-89	AHERA		4/5/2022	4/5/2022
220348 - S20	CL-90	AHERA		4/5/2022	4/5/2022

---

## AHERA Final Report

**Job Number: 220348**

**Client: PBS Engineering + Environmental**

**Report Number: 220348R01**

**Report Date: 4/6/2022**

**Project Name: Pierce College Olympic South Abatement and Repairs**

---

AHERA - Method 40-CFR Part 763 Subpart E, Appendix A) Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma ether to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

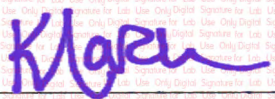
Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for the initial clearance as defined by the method is based on the Filter Density (str/mm2). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm2 the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm3 or 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
X Digital Signature for Lab Use Only

**Kate March**  
Quality Control Officer



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

## AHERA Rapid Summary - Final Report

Job Number: 220348    SEA  
Client: PBS Engineering + Environmental  
Project Name: Pierce College Olympic South Abatement and Repairs

Report Number: 220348R01  
Date Received: 4/5/2022

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-71	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S2	CL-72	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S3	CL-73	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S4	CL-74	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S5	CL-75	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S6	CL-76	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S7	CL-77	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S8	CL-78	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S9	CL-79	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S10	CL-80	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S11	CL-81	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S12	CL-82	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S13	CL-83	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S14	CL-84	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S15	CL-85	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S16	CL-86	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.



## AHERA Rapid Summary - Final Report

Job Number: 220348      SEA

Report Number: 220348R01

Client: PBS Engineering + Environmental

Date Received: 4/5/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S17	CL-87	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S18	CL-88	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S19	CL-89	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S20	CL-90	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484

Reviewed by:

  
 Kate March  
 Quality Control Officer

Digitally signed by Kate March, DN: cn=Kate March, o=Lab/Cor, ou=Quality Control, email=kate@labcor.net, c=US

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

Job Number: 220348      SEA

Client: PBS Engineering + Environmental

Report Number: 220348R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/5/2022

Lab/Cor Sample No.: S1

Volume (L) : 0

Client Sample No.: CL-71

Lab Filter Area (mm2) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/6/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.106  
Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Volume (L) : 0

Client Sample No.: CL-72

Lab Filter Area (mm2) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/6/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.106  
Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Volume (L) : 0

Client Sample No.: CL-73

Lab Filter Area (mm2) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/6/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm2) : 0.106  
Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220348      SEA

Client: PBS Engineering + Environmental

Report Number: 220348R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/5/2022

Lab/Cor Sample No.: S4

Volume (L) : 1250

Client Sample No.: CL-74

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1250

Client Sample No.: CL-75

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1250

Client Sample No.: CL-76

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220348      SEA

Client: PBS Engineering + Environmental

Report Number: 220348R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/5/2022

Lab/Cor Sample No.: S7

Volume (L) : 1250

Client Sample No.: CL-77

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Volume (L) : 1250

Client Sample No.: CL-78

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1250

Client Sample No.: CL-79

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220348      SEA

Client: PBS Engineering + Environmental

Report Number: 220348R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/5/2022

Lab/Cor Sample No.: S10

Volume (L) : 1250

Client Sample No.: CL-80

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm<sup>2</sup>) : 0.0636  
Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 1250

Client Sample No.: CL-81

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm<sup>2</sup>) : 0.0636  
Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 1250

Client Sample No.: CL-82

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
SB                      4/6/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
Average Grid Opening Area : 0.0106  
Area Analyzed (mm<sup>2</sup>) : 0.0636  
Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220348      SEA

Client: PBS Engineering + Environmental

Report Number: 220348R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/5/2022

Lab/Cor Sample No.: S13

Client Sample No.: CL-83

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/6/2022	JEOL-Sr 1200	20000

Volume (L) : 1250  
 Lab Filter Area (mm2) : 385  
 Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm2) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S14

Client Sample No.: CL-84

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/6/2022	JEOL-Sr 1200	20000

Volume (L) : 1250  
 Lab Filter Area (mm2) : 385  
 Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm2) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S15

Client Sample No.: CL-85

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/6/2022	JEOL-Sr 1200	20000

Volume (L) : 1250  
 Lab Filter Area (mm2) : 385  
 Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm2) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220348      SEA

Client: PBS Engineering + Environmental

Report Number: 220348R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/5/2022

Lab/Cor Sample No.: S16

Volume (L) : 1250

Client Sample No.: CL-86

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/6/2022	JEOL-Sr 1200	20000
KM	4/6/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S17

Volume (L) : 1250

Client Sample No.: CL-87

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/6/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S18

Volume (L) : 1250

Client Sample No.: CL-88

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)	Analysis Date	Microscope	Magnification
SB	4/6/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Summary Data -  
 Final Report**

Job Number: 220348      SEA

Client: PBS Engineering + Environmental

Report Number: 220348R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/5/2022

Lab/Cor Sample No.: S19

Volume (L) : 1250

Client Sample No.: CL-89

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S20

Volume (L) : 1250

Client Sample No.: CL-90

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/6/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Kate March*  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**AHERA Raw Data -  
 Final Report**

**Job Number:** 220348      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220348R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/5/2022

**Project No.:** 40535.488

**Lab/Cor Sample No:** S1

**Client Sample No:** CL-71

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C42			NSD							
G1	2	E41			NSD							
G1	3	E33			NSD							
G1	4	F34			NSD							
G1	5	G33			NSD							
G2	6	E44			NSD							
G2	7	F43			NSD							
G2	8	F51			NSD							
G2	9	F42			NSD							
G2	10	G41			NSD							

**Lab/Cor Sample No:** S2

**Client Sample No:** CL-72

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G51			NSD							
G1	4	C32			NSD							
G1	5	E31			NSD							
G2	6	E34			NSD							
G2	7	F33			NSD							
G2	8	F44			NSD							
G2	9	G43			NSD							
G2	10	G51			NSD							

**Lab/Cor Sample No:** S3

**Client Sample No:** CL-73

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G1	3	F51			NSD							
G1	4	G51			NSD							
G1	5	G43			NSD							
G2	6	F42			NSD							
G2	7	G41			NSD							
G2	8	G33			NSD							
G2	9	E32			NSD							
G2	10	F31			NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220348      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220348R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/5/2022

**Lab/Cor Sample No:** S4  
**Client Sample No:** CL-74

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C42				NSD							
G1	2	E41				NSD							
G1	3	E33				NSD							
G2	4	C44				NSD							
G2	5	E43				NSD							
G2	6	E51				NSD							

**Lab/Cor Sample No:** S5  
**Client Sample No:** CL-75

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42				NSD							
G1	2	F41				NSD							
G1	3	G33				NSD							
G2	4	E44				NSD							
G2	5	F43				NSD							
G2	6	F51				NSD							

**Lab/Cor Sample No:** S6  
**Client Sample No:** CL-76

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C44				NSD							
G1	2	E43				NSD							
G1	3	E51				NSD							
G2	4	C44				NSD							
G2	5	C52				NSD							
G2	6	E51				NSD							

**Lab/Cor Sample No:** S7  
**Client Sample No:** CL-77

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34				NSD							
G1	2	F33				NSD							
G1	3	F41				NSD							
G2	4	C44				NSD							
G2	5	E43				NSD							
G2	6	E51				NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220348      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220348R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/5/2022

**Lab/Cor Sample No:** S8  
**Client Sample No:** CL-78

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	F42				NSD								
G1	2	F34				NSD								
G1	3	G33				NSD								
G2	4	F44				NSD								
G2	5	G43				NSD								
G2	6	G51				NSD								

**Lab/Cor Sample No:** S9  
**Client Sample No:** CL-79

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	F44				NSD								
G1	2	G43				NSD								
G1	3	G51				NSD								
G2	4	E52				NSD								
G2	5	F51				NSD								
G2	6	F43				NSD								

**Lab/Cor Sample No:** S10  
**Client Sample No:** CL-80

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	F44				NSD								
G1	2	G43				NSD								
G1	3	G51				NSD								
G2	4	E34				NSD								
G2	5	F33				NSD								
G2	6	F41				NSD								

**Lab/Cor Sample No:** S11  
**Client Sample No:** CL-81

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E42				NSD								
G1	2	F41				NSD								
G1	3	F33				NSD								
G2	4	E42				NSD								
G2	5	F41				NSD								
G2	6	F33				NSD								

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220348      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220348R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/5/2022

**Lab/Cor Sample No:** S12  
**Client Sample No:** CL-82

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G51				NSD							
G2	4	E44				NSD							
G2	5	F43				NSD							
G2	6	F51				NSD							

**Lab/Cor Sample No:** S13  
**Client Sample No:** CL-83

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F34				NSD							
G1	2	F42				NSD							
G1	3	G41				NSD							
G2	4	F44				NSD							
G2	5	G43				NSD							
G2	6	G51				NSD							

**Lab/Cor Sample No:** S14  
**Client Sample No:** CL-84

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44				NSD							
G1	2	F43				NSD							
G1	3	F51				NSD							
G2	4	E42				NSD							
G2	5	F41				NSD							
G2	6	F33				NSD							

**Lab/Cor Sample No:** S15  
**Client Sample No:** CL-85

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44				NSD							
G1	2	F43				NSD							
G1	3	F51				NSD							
G2	4	E42				NSD							
G2	5	F41				NSD							
G2	6	F33				NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220348      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220348R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/5/2022

**Lab/Cor Sample No:** S16  
**Client Sample No:** CL-86

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	F41				NSD								
G1	2	F34				NSD								
G1	3	G42				NSD								
G2	4	E34				NSD								
G2	5	F33				NSD								
G2	6	F41				NSD								

**Lab/Cor Sample No:** S17  
**Client Sample No:** CL-87

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C54				NSD								
G1	2	E53				NSD								
G1	3	E61				NSD								
G2	4	E44				NSD								
G2	5	F43				NSD								
G2	6	F51				NSD								

**Lab/Cor Sample No:** S18  
**Client Sample No:** CL-88

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E44				NSD								
G1	2	F43				NSD								
G1	3	F51				NSD								
G2	4	E42				NSD								
G2	5	F41				NSD								
G2	6	F33				NSD								

**Lab/Cor Sample No:** S19  
**Client Sample No:** CL-89

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E44				NSD								
G1	2	F43				NSD								
G1	3	F51				NSD								
G2	4	E42				NSD								
G2	5	F41				NSD								
G2	6	F33				NSD								

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220348      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220348R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 4/5/2022

**Lab/Cor Sample No:** S20

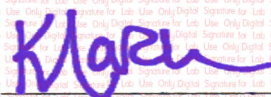
**Client Sample No:** CL-90

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	F41			NSD							
G1	3	F33			NSD							
G2	4	E42			NSD							
G2	5	F41			NSD							
G2	6	F33			NSD							

**Count Categories**

AHERA      AHERA TOTAL >=0.5, 5:1      AHERA\_0.5-5.0      AHERA >=0.5 to 5.0µm, 5:1      AHERA\_5.0      AHERA >=5.0µm, 5:1

**Reviewed by:**

*Digital Signature for Lab Use Only*  
  
 X

**Kate March**  
 Quality Control Officer



**PBS Engineering and Environmental Inc.**  
 3341 GARDEN STREET, SUITE 100  
 SEATTLE, WA 98102  
 206.433.9297  
 pbsusa.com

# LABORATORY DATA SHEET

220348

Project Name: Pierce College Olympic South Abatement and Repairs

Project No.: 40535,488

I.H.: Peter Stensland

WEATHER/TEMP:  
50s

Comments: 24HR TAT Email results to  
 Gregg.Middaugh@pbsusa.com and  
 Claire.Tsai@pbsusa.com

Location: Lakewood, WA

SAMPLE MEDIA/ANALYTICAL METHOD:  
AHERA

Contractor: Dickson

Client: DES

RELINQUISHED BY (SIGN.): DATE/TIME: 4/5/2022

ANALYZED BY:

DATE/TIME:

TWA:

RECEIVED BY (SIGN.): DATE/TIME: 4/5/22 4:10PM

ANALYZED BY:

DATE/TIME:

CODES: P PERSONAL C CLEARANCE PRE PRE-ABATEMENT GBA GLOVE BAG AREA  
 IWA INSIDE AREA A AMBIENT AIR EX EXCURSION H HEPA  
 OWA OUTSIDE AREA B BLANK TEM CLEARANCE SAMPLE

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC	
									PRE	POST	AVG				
4/5/2022	CL-71	B	NA	Lab Blank											
	CL-72	B	NA	Field Blank											
	CL-73	B	NA	Field Blank											
	CL-74	TEM	7058	LV2 NE corner by decon		7:38	9:43	125	10	10	10	1250			
	CL-75	TEM	13	LV2 Skybridge to Olympic N		7:38	9:43	125	10	10	10	1250			
	CL-76	TEM	HV18-38	LV2 South of stairs		7:38	9:43	125	10	10	10	1250			
	CL-77	TEM	HV18-1	LV2 Central E area		7:39	9:44	125	10	10	10	1250			
	CL-78	TEM	HV19-9	LV2 Ramp on central corridor		7:40	9:45	125	10	10	10	1250			
	CL-79	TEM	8292	LV2 southwest area near exterior stairs		7:40	9:45	125	10	10	10	1250			
	CL-80	TEM	6714	LV2 SE Main floor		7:41	9:46	125	10	10	10	1250			
	CL-81	TEM	4173	LV2 Hallway between music rooms		7:41	9:46	125	10	10	10	1250			
	CL-82	TEM	207067	LV2 Middle of Rm 284 on the floor		7:41	9:46	125	10	10	10	1250			
	CL-83	TEM	8297	LV2 Rm 284 top of scaffolding		7:43	9:48	125	10	10	10	1250			
	CL-84	TEM	HFP01	LV2 Rm 283 Center of the floor		7:44	9:49	125	10	10	10	1250			
	CL-85	TEM	HFP04	LV2 Mechanical Mezzanine		7:45	9:50	125	10	10	10	1250			
	CL-86	TEM	1696	LV2 Skybridge to Cascade OWA		7:51	9:56	125	10	10	10	1250			
	CL-87	TEM	HV-135	LV2 Landing OWA		7:52	9:57	125	10	10	10	1250			
	CL-88	TEM	37A	LV1 Exterior anding Outsid Startiwell OWA		7:53	9:58	125	10	10	10	1250			
	CL-89	TEM	7052	West elevation N Scaffold OWA		7:55	10:00	125	10	10	10	1250			
	CL-90	TEM	WH	West elevation below skybridge OWA		7:56	10:01	125	10	10	10	1250			

Reviewed by:

Results Released:

Fax Verbal USPS Email

Invoice Released:

Fax USPS E-mail

**AHERA Final Report**

**Job Number: 220404**

**Report Number: 220404R01**

**Client: PBS Engineering + Environmental**

**Report Date: 4/20/2022**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project Num: 40535.488**

**PO Number:**

**Sub Project:**

**PASSES AHERA Initial Screening Test with <70 s/mm2.  
 PASSES AHERA Blank Contamination Test with <70 s/mm2.  
 PASSES AHERA Z-Test, Z-score <1.65.**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220404 - S1	CL94	AHERA		4/18/2022	4/19/2022
220404 - S2	CL95	AHERA		4/18/2022	4/19/2022
220404 - S3	CL96	AHERA		4/18/2022	4/19/2022
220404 - S4	CL97	AHERA		4/18/2022	4/19/2022
220404 - S5	CL98	AHERA		4/18/2022	4/19/2022
220404 - S6	CL99	AHERA		4/18/2022	4/19/2022
220404 - S7	CL100	AHERA		4/18/2022	4/19/2022
220404 - S8	CL101	AHERA		4/18/2022	4/19/2022
220404 - S9	CL102	AHERA		4/18/2022	4/19/2022
220404 - S10	CL103	AHERA		4/18/2022	4/19/2022
220404 - S11	CL91	AHERA		4/18/2022	4/19/2022
220404 - S12	CL92	AHERA		4/18/2022	4/19/2022
220404 - S13	CL93	AHERA		4/18/2022	4/19/2022



## AHERA Final Report

**Job Number: 220404**

**Client: PBS Engineering + Environmental**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Report Number: 220404R01**

**Report Date: 4/20/2022**

AHERA - Method 40-CFR Part 763 Subpart E, Appendix A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

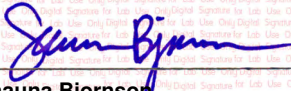
Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for the initial clearance as defined by the method is based on the Filter Density (str/mm2). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm2 the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm3 or 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
**Shauna Bjornson**  
Analyst



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

## AHERA Rapid Summary - Final Report

Job Number: 220404 SEA

Report Number: 220404R01

Client: PBS Engineering + Environmental

Date Received: 4/19/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL94	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S2	CL95	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S3	CL96	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S4	CL97	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S5	CL98	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S6	CL99	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S7	CL100	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S8	CL101	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S9	CL102	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0	0.00466
S10	CL103	AHERA TOTAL >=0.5, 5:1	15.7	0.005	0 - 0.026 - Poisson	1	0.00466
S11	CL91	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S12	CL92	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S13	CL93	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**AHERA Rapid Summary - Final Report**

Job Number: 220404 SEA

Report Number: 220404R01

Client: PBS Engineering + Environmental

Date Received: 4/19/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count Prim/Total	Analytical Sens. (struct/cc) :
--------------------	-------------------	----------------	------------------------	----------------------------	-------------------------------------	-------------------------	--------------------------------

**Reviewed by:**

*Shauna Bjornsof*  
 Shauna Bjornsof  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

Job Number: 220404      SEA

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Lab/Cor Sample No.: S1

Volume (L) : 1300

Client Sample No.: CL94

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to 5.0 $\mu$ m, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA $\geq 5.0\mu$ m, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Volume (L) : 1300

Client Sample No.: CL95

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to 5.0 $\mu$ m, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA $\geq 5.0\mu$ m, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Volume (L) : 1300

Client Sample No.: CL96

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA $\geq 0.5$ to 5.0 $\mu$ m, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA $\geq 5.0\mu$ m, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL $\geq 0.5$ , 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220404      SEA

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Lab/Cor Sample No.: S4

Volume (L) : 1300

Client Sample No.: CL97

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/19/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1300

Client Sample No.: CL98

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/19/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1300

Client Sample No.: CL99

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	4/19/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220404      SEA

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Lab/Cor Sample No.: S7

Volume (L) : 1300

Client Sample No.: CL100

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/19/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Volume (L) : 1300

Client Sample No.: CL101

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/19/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1300

Client Sample No.: CL102

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.017 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220404      SEA

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Lab/Cor Sample No.: S10

Volume (L) : 1300

Client Sample No.: CL103

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0046565

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	15.7	0.005	0 - 0.026 - Poisson	1
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.017 - Poisson	0
AHERA TOTAL >=0.5, 5:1	15.7	0.005	0 - 0.026 - Poisson	1

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 0

Client Sample No.: CL91

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.106  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 0

Client Sample No.: CL92

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      4/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.106  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ((Struc count) \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Summary Data -  
 Final Report**

**Job Number:** 220404      **SEA**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 220404R01  
**Date Received:** 4/19/2022

**Lab/Cor Sample No.:** S13  
**Client Sample No.:** CL93

**Volume (L) :** 0  
**Lab Filter Area (mm<sup>2</sup>) :** 385  
**Grid Openings Analyzed :** 10  
**Average Grid Opening Area :** 0.0106  
**Area Analyzed (mm<sup>2</sup>) :** 0.106  
**Analytical Sens. (struc/cc) :** NA

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SB                      4/20/2022              JEOL-Sr 1200              20000

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup>	
				Prim	Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0	

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Shauna Bjornson*  
 Shauna Bjornson  
 Analyst

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3



**AHERA Raw Data -  
 Final Report**

Job Number: 220404      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: CL94

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G51			NSD							
G1	2	G44			NSD							
G1	3	H52			NSD							
G2	4	G34			NSD							
G2	5	H33			NSD							
G2	6	H41			NSD							

Lab/Cor Sample No: S2

Client Sample No: CL95

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	F41			NSD							
G1	3	F33			NSD							
G2	4	E44			NSD							
G2	5	F43			NSD							
G2	6	F51			NSD							

Lab/Cor Sample No: S3

Client Sample No: CL96

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	F41			NSD							
G1	3	F33			NSD							
G2	4	F42			NSD							
G2	5	G41			NSD							
G2	6	G33			NSD							

Lab/Cor Sample No: S4

Client Sample No: CL97

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	F41			NSD							
G1	3	F33			NSD							
G2	4	F44			NSD							
G2	5	G43			NSD							
G2	6	G51			NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 220404      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Lab/Cor Sample No: S5  
 Client Sample No: CL98

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	C51			NSD							
G1	3	E54			NSD							
G2	4	F44			NSD							
G2	5	G43			NSD							
G2	6	G51			NSD							

Lab/Cor Sample No: S6  
 Client Sample No: CL99

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G51			NSD							
G2	4	E34			NSD							
G2	5	F33			NSD							
G2	6	F41			NSD							

Lab/Cor Sample No: S7  
 Client Sample No: CL100

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G51			NSD							
G2	4	E44			NSD							
G2	5	F43			NSD							
G2	6	F51			NSD							

Lab/Cor Sample No: S8  
 Client Sample No: CL101

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42			NSD							
G1	2	G41			NSD							
G1	3	G33			NSD							
G2	4	F34			NSD							
G2	5	G33			NSD							
G2	6	G41			NSD							

**AHERA Raw Data -  
 Final Report**

Job Number: 220404      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Lab/Cor Sample No: S9  
 Client Sample No: CL102

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G51				NSD							
G2	4	C44				NSD							
G2	5	E43				NSD							
G2	6	E51				NSD							

Lab/Cor Sample No: S10  
 Client Sample No: CL103

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	B34				NSD							
G1	2	C33				NSD							
G1	3	C41				NSD							
G2	4	E34				NSD							
G2	5	F33				NSD							
G2	6	F41	ADQ	1		Matrix 1-0	2.23	1.6	1.4	Tremolite	Mg, Si, Ca		AHERA, AHERA_0.5-5.0
						ItemType		ItemNum			Confirmed	Comment	
						Brightfield		J68115BF					
						Diffraction		J68115DF		SB	4/20/2022	0.53nm ROW SPACING	
						Spectra		J68115SP		SB	4/20/2022		

Lab/Cor Sample No: S11  
 Client Sample No: CL91

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C32				NSD							
G1	2	E31				NSD							
G1	3	E23				NSD							
G2	4	F44				NSD							
G2	5	G43				NSD							
G2	6	G51				NSD							
G1	7	F41				NSD							
G1	8	G42				NSD							
G2	9	E32				NSD							
G2	10	F41				NSD							

## AHERA Raw Data - Final Report

Job Number: 220404      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220404R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 4/19/2022

Lab/Cor Sample No: S12

Client Sample No: CL92

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F42				NSD							
G1	2	G41				NSD							
G1	3	G33				NSD							
G2	4	E44				NSD							
G2	5	F43				NSD							
G2	6	F51				NSD							
G1	7	E32				NSD							
G1	8	F31				NSD							
G2	9	E32				NSD							
G2	10	F31				NSD							

Lab/Cor Sample No: S13

Client Sample No: CL93

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44				NSD							
G1	2	F43				NSD							
G1	3	F51				NSD							
G1	4	C34				NSD							
G1	5	E33				NSD							
G2	6	F42				NSD							
G2	7	G41				NSD							
G2	8	G33				NSD							
G2	9	E32				NSD							
G2	10	F31				NSD							

**Count Categories**

AHERA	AHERA TOTAL >=0.5, 5:1	AHERA_0.5-5.0	AHERA >=0.5 to 5.0µm, 5:1	AHERA_5.0	AHERA >=5.0µm, 5:1
-------	------------------------	---------------	---------------------------	-----------	--------------------

**Reviewed by:**

*Shauna Bjornson*  
 Shauna Bjornson  
 Analyst



PBS Engineering and Environmental Inc.  
 2314 GALLER STREET, SUITE 200  
 SEATTLE, WA 98102  
 206.321.3292  
 pbsusa.com

# LABORATORY DATA SHEET

2204041

11

Project Name: Pierce College Olympic South Abatement and Repairs

Project No.: 40535.488

Location: Lakewood, WA

Contractor: Dickson

Client: DES

I.H.: Peter Stensland

SAMPLE MEDIA/ANALYTICAL METHOD:  
 AHERA

WEATHER/TEMP:  
 50s Rainy

Comments: 24HR TAT Email results to  
 Gregg.Middaugh@pbsusa.com and  
 Claire.Tsai@pbsusa.com

RELINQUISHED BY (SIGN.): *Michael Tsai* DATE/TIME: 4/18/2022

ANALYZED BY:

DATE/TIME:

TWA:

RECEIVED BY (SIGN.): *Michael Tsai* DATE/TIME: 4/19/22

ANALYZED BY:

DATE/TIME:

CODES: P PERSONAL C CLEARANCE  
 IWA INSIDE AREA A AMBIENT AIR  
 OWA OUTSIDE AREA 8 BLANK

PRE-ABATEMENT EXCURSION  
 EX TEM CLEARANCE SAMPLE

GBA GLOVE BAG AREA  
 HEPA

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD	FIB CC
									PRE	POST	AVG			
4/18/2022	CL-91	B	NA	Lab Blank										
	CL-92	B	NA	Field Blank										
	CL-93	B	NA	Field Blank										
	CL-94	TEM	HV18-1	Level 3 NW IWA		9:12	11:22	130	10	10	10	1300		
	CL-95	TEM	8292	Level 3 NE IWA		9:12	11:22	130	10	10	10	1300		
	CL-96	TEM	6714	Level 3 Central IWA		9:12	11:22	130	10	10	10	1300		
	CL-97	TEM	8297	Level 3 SW IWA		9:12	11:22	130	10	10	10	1300		
	CL-98	TEM	4173	Level 3 SE IWA		9:12	11:22	130	10	10	10	1300		
	CL-99	TEM	HV18-38	Level 3 W OWA		9:15	11:25	130	10	10	10	1300		
	CL-100	TEM	13	Level 3 N OWA		9:15	11:25	130	10	10	10	1300		
	CL-101	TEM	HV19-9	Level 3 E OWA		9:15	11:25	130	10	10	10	1300		
	CL-102	TEM	207067	Level 1 Exterior Stairwell Landing OWA		9:17	11:27	130	10	10	10	1300		
	CL-103	TEM	7052	West Elevation N Scaffolding Level 2 OWA		9:19	11:29	130	10	10	10	1300		

Reviewed by: \_\_\_\_\_

Results / Invoice Sent: \_\_\_\_\_  
 Fax Phone USPS Email  
 Sample Condition / Temp: \_\_\_\_\_  
 Poor Fair Good

**AHERA Final Report**

**Job Number: 220468**

**Report Number: 220468R01**

**Client: PBS Engineering + Environmental**

**Report Date: 5/5/2022**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name: Pierce College Olympic South Abatement and Repairs**

**Project Num: 40535.488**

**PO Number:**

**Sub Project:**

**PASSES AHERA Initial Screening Test with <70 s/mm2.  
 PASSES AHERA Blank Contamination Test with <70 s/mm2.  
 PASSES AHERA Z-Test, Z-score <1.65.**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220468 - S1	CL-104	AHERA		5/4/2022	5/5/2022
220468 - S2	CL-105	AHERA		5/4/2022	5/5/2022
220468 - S3	CL-106	AHERA		5/4/2022	5/5/2022
220468 - S4	CL-107	AHERA		5/4/2022	5/5/2022
220468 - S5	CL-108	AHERA		5/4/2022	5/5/2022
220468 - S6	CL-109	AHERA		5/4/2022	5/5/2022
220468 - S7	CL-110	AHERA		5/4/2022	5/5/2022
220468 - S8	CL-111	AHERA		5/4/2022	5/5/2022
220468 - S9	CL-112	AHERA		5/4/2022	5/5/2022
220468 - S10	CL-113	AHERA		5/4/2022	5/5/2022
220468 - S11	CL-114	AHERA		5/4/2022	5/5/2022
220468 - S12	CL-115	AHERA		5/4/2022	5/5/2022
220468 - S13	CL-116	AHERA		5/4/2022	5/5/2022
220468 - S14	CL-117	AHERA		5/4/2022	5/5/2022
220468 - S15	CL-118	AHERA		5/4/2022	5/5/2022
220468 - S16	CL-119	AHERA		5/4/2022	5/5/2022

---

## AHERA Final Report

**Job Number:** 220468

**Client:** PBS Engineering + Environmental

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 220468R01

**Report Date:** 5/5/2022

---

AHERA - Method 40-CFR Part 763 Subpart E, Appendix A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

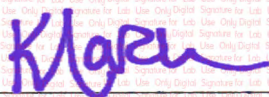
Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for the initial clearance as defined by the method is based on the Filter Density (str/mm<sup>2</sup>). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm<sup>2</sup> the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm<sup>3</sup> or structures/mm<sup>2</sup> 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
X Digital Signature for Lab Use Only

**Kate March**  
Quality Control Officer



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

## AHERA Rapid Summary - Final Report

Job Number: 220468      SEA  
Client: PBS Engineering + Environmental  
Project Name: Pierce College Olympic South Abatement and Repairs

Report Number: 220468R01  
Date Received: 5/5/2022

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-104	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S2	CL-105	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S3	CL-106	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S4	CL-107	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S5	CL-108	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S6	CL-109	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S7	CL-110	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S8	CL-111	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S9	CL-112	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S10	CL-113	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S11	CL-114	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S12	CL-115	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S13	CL-116	AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0	0.00484
S14	CL-117	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S15	CL-118	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S16	CL-119	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.



**AHERA Rapid Summary - Final Report**

Job Number: 220468 SEA

Client: PBS Engineering + Environmental

Project Name: Pierce College Olympic South Abatement and Repairs

Report Number: 220468R01  
 Date Received: 5/5/2022

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
--------------------	-------------------	----------------	------------------------	----------------------------	-------------------------------------	--------------------------------------	--------------------------------

**Reviewed by:**

*Kate March*  
 Kate March  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

Job Number: 220468      SEA

Client: PBS Engineering + Environmental

Report Number: 220468R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No.: S1

Volume (L) : 1250

Client Sample No.: CL-104

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	5/5/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.0636

Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S2

Volume (L) : 1250

Client Sample No.: CL-105

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	5/5/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.0636

Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S3

Volume (L) : 1250

Client Sample No.: CL-106

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
KM	5/5/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106

Area Analyzed (mm<sup>2</sup>) : 0.0636

Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220468      SEA

Client: PBS Engineering + Environmental

Report Number: 220468R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No.: S4

Volume (L) : 1250

Client Sample No.: CL-107

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 KM                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1250

Client Sample No.: CL-108

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1250

Client Sample No.: CL-109

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220468      SEA

Client: PBS Engineering + Environmental

Report Number: 220468R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No.: S7

Volume (L) : 1250

Client Sample No.: CL-110

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Volume (L) : 1250

Client Sample No.: CL-111

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1250

Client Sample No.: CL-112

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220468      SEA

Client: PBS Engineering + Environmental

Report Number: 220468R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No.: S10

Volume (L) : 1250

Client Sample No.: CL-113

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 1250

Client Sample No.: CL-114

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 1250

Client Sample No.: CL-115

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220468      SEA

Client: PBS Engineering + Environmental

Report Number: 220468R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Lab/Cor Sample No.: S13

Volume (L) : 1250

Client Sample No.: CL-116

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 6  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0636  
 Analytical Sens. (struc/cc) : 0.0048428

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.005	0 - 0.018 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.005	0 - 0.018 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S14

Volume (L) : 0

Client Sample No.: CL-117

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.106  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S15

Volume (L) : 0

Client Sample No.: CL-118

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.106  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Summary Data -  
 Final Report**

**Job Number:** 220468      **SEA**  
**Client:** PBS Engineering + Environmental

**Report Number:** 220468R01  
**Date Received:** 5/5/2022

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Lab/Cor Sample No.:** S16  
**Client Sample No.:** CL-119

**Volume (L) :** 0  
**Lab Filter Area (mm<sup>2</sup>) :** 385  
**Grid Openings Analyzed :** 10  
**Average Grid Opening Area :** 0.0106  
**Area Analyzed (mm<sup>2</sup>) :** 0.106  
**Analytical Sens. (struc/cc) :** NA

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 SB                      5/5/2022              JEOL-Sr 1200              20000

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Digital Signature for Lab Use Only*  
  
**Kate March**  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Raw Data -  
 Final Report**

Job Number: 220468      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220468R01

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/5/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: CL-104

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34			NSD							
G1	2	F33			NSD							
G1	3	F42			NSD							
G1	4	G41			NSD							
G2	5	F34			NSD							
G2	6	G41			NSD							

Lab/Cor Sample No: S2

Client Sample No: CL-105

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C34			NSD							
G1	2	E33			NSD							
G1	3	E42			NSD							
G1	4	F41			NSD							
G2	5	E33			NSD							
G2	6	E42			NSD							

Lab/Cor Sample No: S3

Client Sample No: CL-106

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G1	3	F52			NSD							
G1	4	G51			NSD							
G2	5	E34			NSD							
G2	6	F41			NSD							

Lab/Cor Sample No: S4

Client Sample No: CL-107

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44			NSD							
G1	2	F43			NSD							
G1	3	F52			NSD							
G1	4	G51			NSD							
G2	5	E34			NSD							
G2	6	F41			NSD							



**AHERA Raw Data -  
 Final Report**

**Job Number:** 220468      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220468R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 5/5/2022

**Lab/Cor Sample No:** S5

**Client Sample No:** CL-108

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E34				NSD								
G1	2	F33				NSD								
G1	3	F41				NSD								
G2	4	F52				NSD								
G2	5	G51				NSD								
G2	6	G43				NSD								

**Lab/Cor Sample No:** S6

**Client Sample No:** CL-109

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	C44				NSD								
G1	2	E43				NSD								
G1	3	E51				NSD								
G2	4	F34				NSD								
G2	5	F42				NSD								
G2	6	G41				NSD								

**Lab/Cor Sample No:** S7

**Client Sample No:** CL-110

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	F34				NSD								
G1	2	G33				NSD								
G1	3	G41				NSD								
G2	4	G52				NSD								
G2	5	H51				NSD								
G2	6	H43				NSD								

**Lab/Cor Sample No:** S8

**Client Sample No:** CL-111

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E44				NSD								
G1	2	F43				NSD								
G1	3	F51				NSD								
G2	4	F24				NSD								
G2	5	G23				NSD								
G2	6	G31				NSD								

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220468      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220468R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 5/5/2022

**Lab/Cor Sample No:** S9

**Client Sample No:** CL-112

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E42				NSD								
G1	2	F41				NSD								
G1	3	F33				NSD								
G2	4	F42				NSD								
G2	5	G41				NSD								
G2	6	G33				NSD								

**Lab/Cor Sample No:** S10

**Client Sample No:** CL-113

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E52				NSD								
G1	2	F51				NSD								
G1	3	F43				NSD								
G2	4	E42				NSD								
G2	5	F41				NSD								
G2	6	F33				NSD								

**Lab/Cor Sample No:** S11

**Client Sample No:** CL-114

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E42				NSD								
G1	2	F41				NSD								
G1	3	F33				NSD								
G2	4	E52				NSD								
G2	5	F51				NSD								
G2	6	F43				NSD								

**Lab/Cor Sample No:** S12

**Client Sample No:** CL-115

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count	Categories
G1	1	E42				NSD								
G1	2	F41				NSD								
G1	3	F33				NSD								
G2	4	F44				NSD								
G2	5	G43				NSD								
G2	6	G51				NSD								

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220468      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220468R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 5/5/2022

**Lab/Cor Sample No:** S13  
**Client Sample No:** CL-116

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F34			NSD							
G1	2	G33			NSD							
G1	3	G41			NSD							
G2	4	C42			NSD							
G2	5	E41			NSD							
G2	6	E33			NSD							

**Lab/Cor Sample No:** S14  
**Client Sample No:** CL-117

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C34			NSD							
G1	2	E33			NSD							
G1	3	E41			NSD							
G1	4	F42			NSD							
G1	5	G41			NSD							
G2	6	E34			NSD							
G2	7	F33			NSD							
G2	8	F41			NSD							
G2	9	E24			NSD							
G2	10	F23			NSD							

**Lab/Cor Sample No:** S15  
**Client Sample No:** CL-118

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F34			NSD							
G1	2	G33			NSD							
G1	3	G41			NSD							
G1	4	H44			NSD							
G1	5	K43			NSD							
G2	6	F44			NSD							
G2	7	G43			NSD							
G2	8	G51			NSD							
G2	9	C42			NSD							
G2	10	E41			NSD							

## AHERA Raw Data - Final Report

**Job Number:** 220468      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220468R01

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 5/5/2022

**Lab/Cor Sample No:** S16

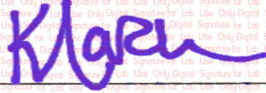
**Client Sample No:** CL-119

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G42				NSD							
G1	2	H41				NSD							
G1	3	H33				NSD							
G1	4	C32				NSD							
G1	5	E31				NSD							
G2	6	C34				NSD							
G2	7	E33				NSD							
G2	8	E44				NSD							
G2	9	F44				NSD							
G2	10	G43				NSD							

**Count Categories**

AHERA      AHERA TOTAL >=0.5, 5:1      AHERA\_0.5-5.0 AHERA >=0.5 to 5.0µm, 5:1      AHERA\_5.0      AHERA >=5.0µm, 5:1

**Reviewed by:**

*(Faint background text: Digital Signature for Lab Use Only...)*  


**Kate March**  
**Quality Control Officer**

220408



**PBS Engineering and Environmental Inc.**  
 2107 GARLAND STREET, SUITE 300  
 SEATTLE, WA 98102  
 206.223.9300  
 pbsusa.com

**LABORATORY DATA SHEET**

Project Name: Pierce College Olympic South Abatement and Repairs

Project No.: 40535.488

L.H.: Peter Stensland

Location: Lakewood, WA

SAMPLE MEDIA/ANALYTICAL METHOD:  
 AHERA

Contractor: Dickson

Client: DES

RELINQUISHED BY (SIGN.):  
 DATE/TIME: 5/4/2022

ANALYZED BY:

DATE/TIME:

TWA:

RECEIVED BY (SIGN.):  
 DATE/TIME: 5/4/22 5:48pm

CODES: P PERSONAL  
 IWA INSIDE AREA  
 OWA OUTSIDE AREA

C CLEARANCE  
 A AMBIENT AIR  
 B BLANK

PRE-ABATEMENT  
 EX EXCURSION  
 TEM CLEARANCE SAMPLE

GBA GLOVE BAG AREA  
 H HEPA

WEATHER/TEMP:  
 50s Rainy

Comments: 24HR TAT Email result  
 Gregg.Middaugh@pbsusa.com an  
 Claire.Tsai@pbsusa.com

DATE	SAMPLE NUMBER	CODE	PUMP	LOCATION ACTIVITY / PERSON	BLANK AVG	TIME ON	TIME OFF	TOTAL TIME	FLOW			TOTAL VOL	FIB FLD
									PRE	POST	AVG		
5/4/2022	CL-104	TEM	4173	Level 2 E of elevator shaft		8:28	10:33	125	10	10	10	1250	
	CL-105	TEM	HV18-38	Northwest stair landing between 1 & 2		8:28	10:33	125	10	10	10	1250	
	CL-106	TEM	6714	Level 1 North East		8:28	10:33	125	10	10	10	1250	
	CL-107	TEM	8293	Level 1 W of Decon		8:29	10:34	125	10	10	10	1250	
	CL-108	TEM	8297	Level 1 Mechanical room		8:29	10:34	125	10	10	10	1250	
	CL-109	TEM	13	Level 1 South West		8:30	10:35	125	10	10	10	1250	
	CL-110	TEM	HV18-1	Level 1 S of Mech. Room		8:30	10:35	125	10	10	10	1250	
	CL-111	TEM	HV19-9	Level 1 South East		8:31	10:36	125	10	10	10	1250	
	CL-112	TEM	208518	Clean room OWA		8:36	10:41	125	10	10	10	1250	
	CL-113	TEM	70	Loadout OWA		8:38	10:43	125	10	10	10	1250	
	CL-114	TEM	1698	Underneath Olympic N to S skybridge OWA		8:41	10:46	125	10	10	10	1250	
	CL-115	TEM	8504	Stair Tower Base OWA		8:43	10:48	125	10	10	10	1250	
	CL-116	TEM	10W45	Lvl 2 S of containment OWA		8:46	10:51	125	10	10	10	1250	
	CL-117	B	NA	Lab Blank									
	CL-118	B	NA	Field Blank									
	CL-119	B	NA	Field Blank									

Reviewed by: \_\_\_\_\_

Results Released: \_\_\_\_\_

Fax Verbal: \_\_\_\_\_

Invoice Released: \_\_\_\_\_

Fax USPS: \_\_\_\_\_

Email USPS: \_\_\_\_\_

**AHERA Final Report**

**Job Number: 220520**

**Report Number: 220520R02**

**Client: PBS Engineering + Environmental**

**Report Date: 5/20/2022**

**Address: 214 E Galer Street  
 Seattle, WA 98102**

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Project Num:** 40535.488

**PO Number:**

**Sub Project:**

**Report Note:** 220520R01 was a preliminary report requested by Claire.

**PASSES AHERA Initial Screening Test with <70 s/mm2.  
 PASSES AHERA Blank Contamination Test with <70 s/mm2.  
 PASSES AHERA Z-Test, Z-score <1.65.**

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

Lab/Cor Num.	Client Sample Number	Analysis	Analysis Notes	Date Sampled:	Date Received:
220520 - S1	CL-120	AHERA	Many S, Ca Fibers Present	5/19/2022	5/19/2022
220520 - S2	CL-121	AHERA	Some S, Ca Fibers Present	5/19/2022	5/19/2022
220520 - S3	CL-122	AHERA	Few S, Ca Fibers present	5/19/2022	5/19/2022
220520 - S4	CL-123	AHERA	Few S, Ca Fibers present	5/19/2022	5/19/2022
220520 - S5	CL-124	AHERA		5/19/2022	5/19/2022
220520 - S6	CL-125	AHERA		5/19/2022	5/19/2022
220520 - S7	CL-126	AHERA		5/19/2022	5/19/2022
220520 - S8	CL-127	AHERA		5/19/2022	5/19/2022
220520 - S9	CL-128	AHERA		5/19/2022	5/19/2022
220520 - S10	CL-129	AHERA		5/19/2022	5/19/2022
220520 - S11	CL-130	AHERA		5/19/2022	5/19/2022
220520 - S12	CL-131	AHERA		5/19/2022	5/19/2022
220520 - S13	CL-132	AHERA		5/19/2022	5/19/2022

---

## AHERA Final Report

**Job Number:** 220520

**Client:** PBS Engineering + Environmental

**Project Name:** Pierce College Olympic South Abatement and Repairs

---

**Report Number:** 220520R02

**Report Date:** 5/20/2022

AHERA - Method 40-CFR Part 763 Subpart E, Appendix A, Subpart E Preparation and analysis of the above samples was conducted in accordance with the AHERA method (40-CFR Part 763 Subpart E, Appendix A) for the identification of asbestos. Briefly, the samples were collapsed with a solution of N,N-dimethylformamide and acetic acid, then etched in a low temperature plasma etcher to remove the top surface of the filter and other organics. The samples were carbon coated at high vacuum with a thin layer of carbon, placed on 200 mesh copper grids and allowed to dissolve in N,N-Dimethylformamide / Acetone baths until cleared of filter debris.

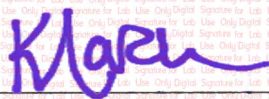
Analysis was performed using a transmission electron microscope equipped with an EDS X ray analyzer. The samples were analyzed at approximate screen magnification of between 15,000x-20,000x, with an accelerating voltage of 100 KV. The sizing of grid openings was performed using a calibrated digital imaging system at low magnification. Grid preparations are evaluated by the analyst before commencing analysis. Proper preparations have >75% replicate coverage, have a 10% etch rate, have acceptable particulate loading and show no evidence of preparation remnants (chemical or material).

Passing criteria for the initial clearance as defined by the method is based on the Filter Density (str/mm<sup>2</sup>). The Total Filter Density is divided by the number of inside work area samples; if the average Filter Density is >70 str/mm<sup>2</sup> the sample set fails initial AHERA clearance criteria.

**Disclaimer** This test report shall not be reproduced, except in full, without written approval of the laboratory. 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 either structures/cm<sup>3</sup> or structures/mm<sup>2</sup> 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. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

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.

**Reviewed by:**

  
X Digital Signature for Lab Use Only

**Kate March**  
Quality Control Officer



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

## AHERA Rapid Summary - Final Report

Job Number: 220520 SEA

Report Number: 220520R02

Client: PBS Engineering + Environmental

Date Received: 5/19/2022

Project Name: Pierce College Olympic South Abatement and Repairs

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
S1	CL-120	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S2	CL-121	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S3	CL-122	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S4	CL-123	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S5	CL-124	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S6	CL-125	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S7	CL-126	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S8	CL-127	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S9	CL-128	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S10	CL-129	AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0	0.00432
S11	CL-130	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S12	CL-131	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA
S13	CL-132	AHERA TOTAL >=0.5, 5:1	0	Not Applicable	Not Applicable	0	NA

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>1</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.



**AHERA Rapid Summary - Final Report**

Job Number: 220520 SEA

Client: PBS Engineering + Environmental

Project Name: Pierce College Olympic South Abatement and Repairs

Report Number: 220520R02

Date Received: 5/19/2022

Lab/Cor Sample No.	Client Sample No.	Structure Type	Filter Density (s/mm2)	Concentration* (struct/cc)	95% Confidence Interval (struct/cc)	Struct Count <sup>1</sup> Prim/Total	Analytical Sens. (struct/cc) :
--------------------	-------------------	----------------	------------------------	----------------------------	-------------------------------------	--------------------------------------	--------------------------------

**Reviewed by:**

*Kate March*  
 X

**Kate March**  
 Quality Control Officer

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struct count]<sup>\*</sup> [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

## AHERA Summary Data - Final Report

**Job Number:** 220520      **SEA**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 220520R02  
**Date Received:** 5/19/2022

**Lab/Cor Sample No.:** S1

**Client Sample No.:** CL-120

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
SB                      5/20/2022              JEOL-Sr 1200              20000

**Volume (L) :** 1200  
**Lab Filter Area (mm2) :** 385  
**Grid Openings Analyzed :** 7  
**Average Grid Opening Area :** 0.0106  
**Area Analyzed (mm2) :** 0.0742  
**Analytical Sens. (struc/cc) :** 0.0043239

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Lab/Cor Sample No.:** S2

**Client Sample No.:** CL-121

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
SB                      5/20/2022              JEOL-Sr 1200              20000

**Volume (L) :** 1200  
**Lab Filter Area (mm2) :** 385  
**Grid Openings Analyzed :** 7  
**Average Grid Opening Area :** 0.0106  
**Area Analyzed (mm2) :** 0.0742  
**Analytical Sens. (struc/cc) :** 0.0043239

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Lab/Cor Sample No.:** S3

**Client Sample No.:** CL-122

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
SB                      5/20/2022              JEOL-Sr 1200              20000

**Volume (L) :** 1200  
**Lab Filter Area (mm2) :** 385  
**Grid Openings Analyzed :** 7  
**Average Grid Opening Area :** 0.0106  
**Area Analyzed (mm2) :** 0.0742  
**Analytical Sens. (struc/cc) :** 0.0043239

Structure Type	Filter Density (s/mm2)	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220520      SEA

Client: PBS Engineering + Environmental

Report Number: 220520R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/19/2022

Lab/Cor Sample No.: S4

Volume (L) : 1200

Client Sample No.: CL-123

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 7  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0742  
 Analytical Sens. (struc/cc) : 0.0043239

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S5

Volume (L) : 1200

Client Sample No.: CL-124

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 7  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0742  
 Analytical Sens. (struc/cc) : 0.0043239

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S6

Volume (L) : 1200

Client Sample No.: CL-125

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 7  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0742  
 Analytical Sens. (struc/cc) : 0.0043239

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220520      SEA

Client: PBS Engineering + Environmental

Report Number: 220520R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/19/2022

Lab/Cor Sample No.: S7

Volume (L) : 1200

Client Sample No.: CL-126

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 7  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0742  
 Analytical Sens. (struc/cc) : 0.0043239

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S8

Volume (L) : 1200

Client Sample No.: CL-127

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 7  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0742  
 Analytical Sens. (struc/cc) : 0.0043239

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S9

Volume (L) : 1200

Client Sample No.: CL-128

Lab Filter Area (mm<sup>2</sup>) : 385

Analyst(s)      Analysis Date      Microscope      Magnification  
 SB                      5/20/2022      JEOL-Sr 1200      20000

Grid Openings Analyzed : 7  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0742  
 Analytical Sens. (struc/cc) : 0.0043239

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA TOTAL >=0.5, 5:1	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

## AHERA Summary Data - Final Report

Job Number: 220520      SEA

Client: PBS Engineering + Environmental

Report Number: 220520R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/19/2022

Lab/Cor Sample No.: S10

Volume (L) : 1200

Client Sample No.: CL-129

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	5/20/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 7  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.0742  
 Analytical Sens. (struc/cc) : 0.0043239

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
AHERA >=5.0µm, 5:1	0	< 0.004	0 - 0.016 - Poisson	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	< 0.004	0 - 0.016 - Poisson	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S11

Volume (L) : 0

Client Sample No.: CL-130

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	5/20/2022	JEOL-Sr 1200	20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.106  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

Lab/Cor Sample No.: S12

Volume (L) : 0

Client Sample No.: CL-131

Lab Filter Area (mm<sup>2</sup>) : 385

<b>Analyst(s)</b>	<b>Analysis Date</b>	<b>Microscope</b>	<b>Magnification</b>
SB	5/20/2022	JEOL-Sr 1200	20000
KM	5/20/2022	Hitachi 7000FA	20000

Grid Openings Analyzed : 10  
 Average Grid Opening Area : 0.0106  
 Area Analyzed (mm<sup>2</sup>) : 0.106  
 Analytical Sens. (struc/cc) : NA

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup> Prim/Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Summary Data -  
 Final Report**

**Job Number:** 220520      **SEA**  
**Client:** PBS Engineering + Environmental  
**Project Name:** Pierce College Olympic South Abatement and Repairs

**Report Number:** 220520R02  
**Date Received:** 5/19/2022

**Lab/Cor Sample No.:** S13  
**Client Sample No.:** CL-132

**Volume (L) :** 0  
**Lab Filter Area (mm<sup>2</sup>) :** 385  
**Grid Openings Analyzed :** 10  
**Average Grid Opening Area :** 0.0106  
**Area Analyzed (mm<sup>2</sup>) :** 0.106  
**Analytical Sens. (struc/cc) :** NA

**Analyst(s)**      **Analysis Date**      **Microscope**      **Magnification**  
 KM                      5/20/2022              Hitachi 7000FA              20000

Structure Type	Filter Density (s/mm <sup>2</sup> )	Concentration* (struc/cc)	95% Confidence Interval (struc/cc)	Structure Count <sup>1</sup>	
				Prim	Total
AHERA >=0.5 to 5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
AHERA >=5.0µm, 5:1	0	Not Applicable	Not Applicable	0	
<b>AHERA TOTAL &gt;=0.5, 5:1</b>	0	Not Applicable	Not Applicable	0	

<sup>1</sup> Concentration and 95% Confidence Level are calculated based upon the number showing under the Structure Count header.

**Reviewed by:**

*Digital Signature for Lab Use Only*  
  
**Kate March**  
**Quality Control Officer**

\* One-sided upper 95% Poisson confidence limits may be used to calculate sample concentrations ([Struc count] \* [Analytical Sensitivity]) when the structure count is below 4. The limits are: 0 str - 0, 1 str - 1, 2 str - 2, 3 str - 3

**AHERA Raw Data -  
 Final Report**

Job Number: 220520      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220520R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/19/2022

Project No.: 40535.488

Lab/Cor Sample No: S1

Client Sample No: CL-120

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	C42			NSD							
G1	2	E41			NSD							
G1	3	E34			NSD							
G1	4	F33			NSD							
G2	5	E44			NSD							
G2	6	F43			NSD							
G2	7	F51			NSD							

Lab/Cor Sample No: S2

Client Sample No: CL-121

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E42			NSD							
G1	2	F41			NSD							
G1	3	F33			NSD							
G1	4	G31			NSD							
G2	5	F42			NSD							
G2	6	G41			NSD							
G2	7	G33			NSD							

Lab/Cor Sample No: S3

Client Sample No: CL-122

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34			NSD							
G1	2	F33			NSD							
G1	3	F41			NSD							
G1	4	G41			NSD							
G2	5	C42			NSD							
G2	6	E41			NSD							
G2	7	E33			NSD							

Lab/Cor Sample No: S4

Client Sample No: CL-123

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F52			NSD							
G1	2	G51			NSD							
G1	3	G43			NSD							
G1	4	H41			NSD							
G2	5	F34			NSD							
G2	6	G33			NSD							
G2	7	G41			NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220520      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220520R02

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 5/19/2022

**Lab/Cor Sample No:** S5

**Client Sample No:** CL-124

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F34				NSD							
G1	2	G33				NSD							
G1	3	G41				NSD							
G1	4	F43				NSD							
G2	5	E52				NSD							
G2	6	E44				NSD							
G2	7	F43				NSD							

**Lab/Cor Sample No:** S6

**Client Sample No:** CL-125

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44				NSD							
G1	2	F43				NSD							
G1	3	F51				NSD							
G1	4	G51				NSD							
G2	5	F51				NSD							
G2	6	G43				NSD							
G2	7	G51				NSD							

**Lab/Cor Sample No:** S7

**Client Sample No:** CL-126

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E34				NSD							
G1	2	F33				NSD							
G1	3	F41				NSD							
G1	4	G41				NSD							
G2	5	F44				NSD							
G2	6	G43				NSD							
G2	7	G51				NSD							

**Lab/Cor Sample No:** S8

**Client Sample No:** CL-127

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44				NSD							
G1	2	G43				NSD							
G1	3	G51				NSD							
G1	4	E42				NSD							
G2	5	E52				NSD							
G2	6	F51				NSD							
G2	7	F43				NSD							



**AHERA Raw Data -  
 Final Report**

Job Number: 220520      SEA      Method 40-CFR Part 763 App. A, Subpart E

Client: PBS Engineering + Environmental

Report Number: 220520R02

Project Name: Pierce College Olympic South Abatement and Repairs

Date Received: 5/19/2022

Lab/Cor Sample No: S9

Client Sample No: CL-128

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F34				NSD							
G1	2	G33				NSD							
G1	3	G41				NSD							
G1	4	E42				NSD							
G2	5	E42				NSD							
G2	6	F41				NSD							
G2	7	F33				NSD							

Lab/Cor Sample No: S10

Client Sample No: CL-129

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F52				NSD							
G1	2	G51				NSD							
G1	3	G43				NSD							
G1	4	G33				NSD							
G2	5	G34				NSD							
G2	6	H33				NSD							
G2	7	H41				NSD							

Lab/Cor Sample No: S11

Client Sample No: CL-130

Gr	No.	Loc.	ID	Prim	Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	E44				NSD							
G1	2	F43				NSD							
G1	3	F51				NSD							
G1	4	C52				NSD							
G1	5	E51				NSD							
G2	6	E44				NSD							
G2	7	F43				NSD							
G2	8	F51				NSD							
G2	9	E34				NSD							
G2	10	F33				NSD							

**AHERA Raw Data -  
 Final Report**

**Job Number:** 220520      **SEA**      **Method** 40-CFR Part 763 App. A, Subpart E

**Client:** PBS Engineering + Environmental

**Report Number:** 220520R02

**Project Name:** Pierce College Olympic South Abatement and Repairs

**Date Received:** 5/19/2022

**Lab/Cor Sample No:** S12

**Client Sample No:** CL-131

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	F44			NSD							
G1	2	G43			NSD							
G1	3	G51			NSD							
G1	4	C42			NSD							
G1	5	E41			NSD							
G2	6	E42			NSD							
G2	7	F41			NSD							
G2	8	F42			NSD							
G2	9	G41			NSD							
G2	10	G42			NSD							

**Lab/Cor Sample No:** S13

**Client Sample No:** CL-132

Gr	No.	Loc.	ID	Prim Tot	Class	Length	Width	Aspect	Analyte	Elements	Comment	Count Categories
G1	1	G42			NSD							
G1	2	G41			NSD							
G1	3	F42			NSD							
G1	4	F41			NSD							
G1	5	E34			NSD							
G1	6	F33			NSD							
G1	7	F34			NSD							
G2	8	C42			NSD							
G2	9	E41			NSD							
G2	10	F41			NSD							

**Count Categories**

AHERA	AHERA TOTAL >=0.5, 5:1	AHERA_0.5-5.0	AHERA >=0.5 to 5.0µm, 5:1	AHERA_5.0	AHERA >=5.0µm, 5:1
-------	------------------------	---------------	---------------------------	-----------	--------------------

**Reviewed by:**

*(Faint red text: Digital Signature for Lab Use Only...)*  


**Kate March**  
**Quality Control Officer**



---

## **APPENDIX D**

### **Bulk PCB Sampling Information**

Bulk PCB Sample Inventory

Bulk PCB Laboratory Data Sheets and Chain of Custody Documentation

PCB SAMPLE INVENTORY

<u>PBS Sample #</u>	<u>Material</u>	<u>Sample Location</u>	<u>Analyte</u>	<u>Lab Results (mg/kg)</u>	<u>Lab</u>
40535.488-PCB01	Oil Hydronic Fluid	Olympic South, Room 181B elevator mechanical room	Aroclor 1016	ND	Fremont
			Aroclor 1221	ND	Analytical
			Aroclor 1232	ND	
			Aroclor 1242	ND	
			Aroclor 1248	ND	
			Aroclor 1254	ND	
			Aroclor 1260	ND	
			Aroclor 1262	ND	
			Aroclor 1268	ND	

mg/kg = Milligrams per kilogram

< = Less than the Limit of Detection

ND = Not Detected at the Reporting Limit



3600 Fremont Ave. N.  
Seattle, WA 98103  
T: (206) 352-3790  
F: (206) 352-7178  
info@fremontanalytical.com

**PBS Engineering & Environmental**  
Gregg Middaugh  
214 E Galer St. Suite 300  
Seattle, WA 98102

**RE: Pierce College Olympic South Abatement and Repairs**  
**Work Order Number: 2201333**

January 25, 2022

**Attention Gregg Middaugh:**

Fremont Analytical, Inc. received 1 sample(s) on 1/21/2022 for the analyses presented in the following report.

***Polychlorinated Biphenyls (PCB) by EPA 8082***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

CC:  
Claire Tsai

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Original



---

**CLIENT:** PBS Engineering & Environmental  
**Project:** Pierce College Olympic South Abatement an  
**Work Order:** 2201333

---

**Work Order Sample Summary**

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Date/Time Collected</b>	<b>Date/Time Received</b>
2201333-001	40535.488-PCB01	01/21/2022 12:00 AM	01/21/2022 2:45 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** PBS Engineering & Environmental  
**Project:** Pierce College Olympic South Abatement and Repairs

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2201333-001A) required Acid Cleanup Procedure (Using Method No 3665A).

Prep Comments for METHOD (PREP-PCB-S), SAMPLE (2201333-001A) required Florisil Cleanup Procedure (Using Method No 3620C).



---

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



**Client:** PBS Engineering & Environmental

**Collection Date:** 1/21/2022

**Project:** Pierce College Olympic South Abatement and Repairs

**Lab ID:** 2201333-001

**Matrix:** Product

**Client Sample ID:** 40535.488-PCB01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**Polychlorinated Biphenyls (PCB) by EPA 8082**

Batch ID: 35117

Analyst: SB

Aroclor 1016	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1221	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1232	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1242	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1248	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1254	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1260	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1262	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Aroclor 1268	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Total PCBs	ND	0.909		mg/Kg	1	1/24/2022 3:22:37 PM
Surr: Decachlorobiphenyl	63.1	25.9 - 167		%Rec	1	1/24/2022 3:22:37 PM
Surr: Tetrachloro-m-xylene	78.8	31.3 - 173		%Rec	1	1/24/2022 3:22:37 PM

Work Order: 2201333  
 CLIENT: PBS Engineering & Environmental  
 Project: Pierce College Olympic South Abatement an

**QC SUMMARY REPORT**  
**Polychlorinated Biphenyls (PCB) by EPA 8082**

Sample ID: <b>MB-35117</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/24/2022</b>	RunNo: <b>72761</b>							
Client ID: <b>MBLKS</b>	Batch ID: <b>35117</b>		Analysis Date: <b>1/24/2022</b>	SeqNo: <b>1485049</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.0500									
Aroclor 1221	ND	0.0500									
Aroclor 1232	ND	0.0500									
Aroclor 1242	ND	0.0500									
Aroclor 1248	ND	0.0500									
Aroclor 1254	ND	0.0500									
Aroclor 1260	ND	0.0500									
Aroclor 1262	ND	0.0500									
Aroclor 1268	ND	0.0500									
Total PCBs	ND	0.0500									
Surr: Decachlorobiphenyl	171		200.0		85.3	25.9	167				
Surr: Tetrachloro-m-xylene	206		200.0		103	31.3	173				

Sample ID: <b>LCS1-35117</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/24/2022</b>	RunNo: <b>72761</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>35117</b>		Analysis Date: <b>1/24/2022</b>	SeqNo: <b>1485050</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.22	0.0500	1.000	0	122	54.1	142				
Aroclor 1260	1.22	0.0500	1.000	0	122	51.7	152				
Surr: Decachlorobiphenyl	168		200.0		83.8	25.9	167				
Surr: Tetrachloro-m-xylene	240		200.0		120	31.3	173				

Sample ID: <b>LCS2-35117</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/24/2022</b>	RunNo: <b>72761</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>35117</b>		Analysis Date: <b>1/24/2022</b>	SeqNo: <b>1485051</b>							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1254	1.02	0.0500	1.000	0	102	55.9	156				
Surr: Decachlorobiphenyl	180		200.0		89.8	25.9	167				
Surr: Tetrachloro-m-xylene	230		200.0		115	31.3	173				

**Work Order:** 2201333  
**CLIENT:** PBS Engineering & Environmental  
**Project:** Pierce College Olympic South Abatement an

**QC SUMMARY REPORT**  
**Polychlorinated Biphenyls (PCB) by EPA 8082**

Sample ID: <b>LCS2-35117</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>	Prep Date: <b>1/24/2022</b>	RunNo: <b>72761</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>35117</b>	Analysis Date: <b>1/24/2022</b>	SeqNo: <b>1485051</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: <b>2201334-076AMS</b>	SampType: <b>MS</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>1/24/2022</b>	RunNo: <b>72761</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>35117</b>	Analysis Date: <b>1/24/2022</b>	SeqNo: <b>1485067</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.25	0.0529	1.057	0	118	26.5	166				
Aroclor 1260	1.24	0.0529	1.057	0	117	29.2	168				
Surr: Decachlorobiphenyl	126		211.4		59.4	25.9	167				
Surr: Tetrachloro-m-xylene	208		211.4		98.4	31.3	173				

Sample ID: <b>2201334-076AMSD</b>	SampType: <b>MSD</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>1/24/2022</b>	RunNo: <b>72761</b>							
Client ID: <b>BATCH</b>	Batch ID: <b>35117</b>	Analysis Date: <b>1/24/2022</b>	SeqNo: <b>1485068</b>								
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	1.23	0.0531	1.062	0	116	26.5	166	1.251	1.76	30	
Aroclor 1260	1.18	0.0531	1.062	0	111	29.2	168	1.237	4.77	30	
Surr: Decachlorobiphenyl	107		212.4		50.4	25.9	167		0		
Surr: Tetrachloro-m-xylene	192		212.4		90.2	31.3	173		0		

Client Name: **PBS**

 Work Order Number: **2201333**

 Logged by: **Gabrielle Coeulle**

 Date Received: **1/21/2022 2:45:00 PM**

### Chain of Custody

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Client

### Log In

3. Coolers are present? Yes  No  NA   
No cooler present
4. Shipping container/cooler in good condition? Yes  No
5. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes  No  Not Present
6. Was an attempt made to cool the samples? Yes  No  NA   
Unknown prior to receipt
7. Were all items received at a temperature of >2°C to 6°C \* Yes  No  NA
8. Sample(s) in proper container(s)? Yes  No
9. Sufficient sample volume for indicated test(s)? Yes  No
10. Are samples properly preserved? Yes  No
11. Was preservative added to bottles? Yes  No  NA
12. Is there headspace in the VOA vials? Yes  No  NA
13. Did all samples containers arrive in good condition(unbroken)? Yes  No
14. Does paperwork match bottle labels? Yes  No
15. Are matrices correctly identified on Chain of Custody? Yes  No
16. Is it clear what analyses were requested? Yes  No
17. Were all holding times able to be met? Yes  No

### Special Handling (if applicable)

18. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

19. Additional remarks:

### Item Information

Item #	Temp °C
Sample 1	17.5

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C



LABORATORY CHAIN OF CUSTODY

2201333

Project: Pierce College Olympic South Abatement and Repairs

Project #: 40535.488

Analysis requested: PCB analysis

Date: 1/20/2021

Relinquished by/Signature: Claire Tsai

Date/Time: 1/29/2022

Received by/Signature: Justine March

Date/Time: 1/21/22

Email ALL INVOICES to: seattleap@pbsusa.com

E-mail results to:

- Checkboxes for email recipients: Brian Stanford, Willem Mager, Gregg Middaugh, Mark Hiley, Tim Ogden, Prudy Stoudt-McRae, Janet Murphy, Kaitlin Soukup, Claire Tsai, Holly Tuttle, Mike Smith, Ferman Fletcher, Ryan Hunter, Toan Nguyen.

TURN AROUND TIME:

- Checkboxes for turnaround times: 1 Hour, 2 Hours, 4 Hours, 24 Hours, 48 Hours, 3 Days, Other.

SAMPLE DATA FORM

Table with 4 columns: Sample #, Material, Location, Lab. Row 1: 40535.488-PCB01, Oil Hydronic Fluid, Olympic South, Room 181B elevator mechanical room, Fremont.