# PRELIMINARY RESULTS

**Airborne Asbestos Analysis**

**TEM AHERA**

**Client:** OHCS Inc.  
209 Catharine St.  
Philadelphia, PA 19147

**Batch No.:** 609059

**Project:** Ben Franklin

**Project No.:**

**Philly Regs.:** Y

**Turn-Around Time:** 12 Hour Rush

### Client Contacts:

<table>
<thead>
<tr>
<th>Contacts</th>
<th>Phone:</th>
<th>Fax:</th>
<th>Cell/Pager:</th>
<th>E-Mail:</th>
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<tbody>
<tr>
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### Laboratory Contacts:

<table>
<thead>
<tr>
<th>Contacts</th>
<th>Phone:</th>
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<tbody>
<tr>
<td>Frank E. Ehrenfeld III</td>
<td>(856) 231-9449</td>
<td>(856) 231-9818</td>
<td>(609) 929-4211</td>
<td><a href="mailto:frankehrenfeld@iatl.com">frankehrenfeld@iatl.com</a></td>
</tr>
</tbody>
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### Chain of Custody:

<table>
<thead>
<tr>
<th>Samples Taken in Field:</th>
<th>Samples Rec'd at Laboratory:</th>
<th>Date:</th>
<th>Time:</th>
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<tbody>
<tr>
<td></td>
<td>L. D'Ornellas</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>C. Liska</td>
<td>2/4/2020</td>
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<table>
<thead>
<tr>
<th>Samples Analyzed:</th>
<th>Preliminary Results Faxed:</th>
<th>Date:</th>
<th>Time:</th>
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<td>2/5/2020</td>
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<th>Preliminary Results E-Mail:</th>
<th>Date:</th>
<th>Time:</th>
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### Summary Data

**Transmission Electron Microscopy**

**AHERA 40 CFR 763**

<table>
<thead>
<tr>
<th>Client Sample ID #</th>
<th>IATL Sample ID #</th>
<th>Volume (L)</th>
<th>Comments</th>
<th>Results s/mm²</th>
<th>Results s/cc</th>
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</thead>
<tbody>
<tr>
<td>020420BEN01</td>
<td>6964499</td>
<td>1810</td>
<td>None Detected</td>
<td>&lt; 19.2</td>
<td>&lt; 0.0041</td>
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<tr>
<td>020420BEN02</td>
<td>6964500</td>
<td>1810</td>
<td>None Detected</td>
<td>&lt; 19.2</td>
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<td>&lt; 0.0041</td>
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<td>020420BEN04</td>
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<td>None Detected</td>
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<td>020420BEN05</td>
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<td>&lt; 0.0041</td>
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<td>020420BEN06</td>
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<td>1810</td>
<td>None Detected</td>
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<td>&lt; 0.0041</td>
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<td>1810</td>
<td>None Detected</td>
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<td>1850</td>
<td>None Detected</td>
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<td>None Detected</td>
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<td>None Detected</td>
<td>&lt; 19.2</td>
<td>&lt; 0.004</td>
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</table>

AHERA Clearance Criteria is 70 s/mm².  

Average (s/mm²) = 19.2

Phila. Regulations Clearance Criteria is 0.00554 s/cc based on 5 samples  

Geo = 0.00407

Z Test Results (see attached, if applicable)

<table>
<thead>
<tr>
<th>Instrument (I, II, III)</th>
<th>Grid Box #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1858</td>
</tr>
</tbody>
</table>

These preliminary results are issued by IATL to expedite procedures by the clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COAs are to be considered the official results.

TEM-AHERA 001  
Revision Date: 08/06/18
TEM Air Sample Worksheet

Client Name: OHCS Inc.  
Client Project #:  
Sample Type: AHERA - Philly Regulations  
QC Submittal: R  

Electron Microscope ID: Hitachi H600AB, 542-47-3  
Filter Dia. (mm): 25  
Effective Area (mm): 385  
Filter Type: MCE  
Filter Pore Size (µm): 0.45  

Grid Opening: 0.115 mm  
Grid opening Area: 0.013 mm²  
Grid Openings Read/Required: 4/4  
Total Area Analyzed: 0.0520 mm²  

Volume of Air Sampled: 1810 Liters  
Analytical Sensitivity: 19.2 mm²  
Minimum Detection Limit: 0.0041 s/cc  

Total Asbestos Structures: NSD  
Non-Asbestos Structures: NSD  

0.5µm - 5.0µm: NSD  
>5.0µm: NSD  
Asbestos: < 19.2 s/mm²  
Asbestos: < 0.0041 s/cc  

Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 -5.0 µm</th>
<th>1 Length &gt; 5.0 µm</th>
<th>a Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>O2 H1</td>
<td>NSD</td>
<td>NSD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>H2</td>
<td>NSD</td>
<td>NSD</td>
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<td>NSD</td>
<td>NSD</td>
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</tr>
</tbody>
</table>

Total: NSD NSD 0 0 0 0 0 0

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (µm)  
SEE REVERSE: FIBER ORIENTATION MAP

Prep Quality:  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading: 1%  

Comments:  

Analyzed By: C. Liska  
Reviewed By:  

IATL Sample #: 6964499  
Client Sample #: 020420BEN01  
IATL Grid Box #: 1858  
Grid Archive ID #: O204
### TEM Air Sample Worksheet

**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964500  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal**  
**IATL Grid Box #:** 1858  
**Grid Archive ID #:** O6

**Electron Microscope ID:** Hitachi H600 AB, 542-47-3  
**Filter Dia. (mm):** 25  
**Effective Area (mm²):** 385  
**Filter Type:** MCE  
**Filter Pore Size (μm):** 0.45  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

<table>
<thead>
<tr>
<th>Grid Opening</th>
<th>Volume of Air Sampled: 1810 Liters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Area: 0.013 mm²</td>
<td>Analytical Sensitivity: 19.2 mm²</td>
</tr>
<tr>
<td>Grid Openings Read/Required: 4/4</td>
<td>Minimum Detection Limit: 0.0041 s/cc</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Asbestos Structures: NSD</th>
<th>Non-Asbestos Structures: NSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5μm - 5.0μm: NSD</td>
<td>0.5μm - 5.0μm: NSD</td>
</tr>
<tr>
<td>&gt;5.0μm:</td>
<td>&gt;5.0μm:</td>
</tr>
<tr>
<td>Asbestos: &lt; 19.2 s/mm²</td>
<td>Asbestos: &lt; 0.0041 s/cc</td>
</tr>
<tr>
<td>Non-Asbestos: &lt; 19.2 s/mm²</td>
<td>Non-Asbestos: &lt; 0.0041 s/cc</td>
</tr>
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</table>

### Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure ID</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<tbody>
<tr>
<td>O6 E1</td>
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<td>NSD</td>
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<td></td>
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</table>

| Total: NSD | NSD | 0 | 0 | 0 | 0 | 0 | 0 | |

**Notes:**
- Must confirm by Morphology, SAED, and EDXRF for each suspect asbestos fiber
- Record visible prominent Chrysotile DP reflections (002, 004, 110, 113, 220, 200)
- Define Amphibole (DP obtained Y/N). Print-out EDS and attach.
- Characterize by EDS

1, 2 Record Structure Length & Width (μm)  
**Prep Quality:** GOOD  
**Dissolution:** GOOD  
**Carbon Film:** GOOD  
**Loading:** <1

**Comments:**

**Prepared By:** C. Liska

**Reviewed By:**
**TEM Air Sample Worksheet**

Client Name: OHCS Inc.  
Client Project #:  
Sample Type: AHERA - Philly Regulations  
 QC Submittal:  

**Electron Microscope ID:**  
- Hitachi H600AB, 542-47-3  
- EVEX  

**IATL Sample #:** 6964501  
**Client Sample #:** 020420BEN03  
**IATL Grid Box #:** 1858  
**Grid Archive ID #:** O10P1  

**Analysis Date:** 02/05/20  

**Filter Dia. (mm):** 25  
**Effective Area (mm²):** 385  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV  
**Filter Type:** MCE  
**Filter Pore Size (µm):** 0.45  

**Grid Opening:** 0.115 mm  
**Volume of Air Sampled:** 1810 Liter  
**Grid opening Area:** 0.013 mm²  
**Grid Openings Read/Required:** 4/4  
**Analytical Sensitivity:** 19.2 mm²  
**Minimum Detection Limit:** 0.0041 s/cc  

**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD  

**0.5µm - 5.0µm:** NSD  
**>5.0µm:**  
- Asbestos: < 19.2 s/mm²  
- Non-Asbestos: < 19.2 s/mm²  
- Asbestos: < 0.0041 s/cc  
- Non-Asbestos: < 0.0041 s/cc  

### Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<tbody>
<tr>
<td>O10 C1</td>
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Total: NSD NSD 0 0 0 0 0 0

---

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
  Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)  
** Define Amphibole (DP obtained Y/N). Print-out EDX and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (µm)  

SEE REVERSE: FIBER ORIENTATION MAP

Comments:  
Prep Quality:  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading: <1  
Analyzed By: C. Liska  
Reviewed By:  

---

TEM.AHERA WS.002 3 of 10
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964502  
**Client Project #:**  
**Sample Type:** AHERA-Philly Regulations  
**IATL Grid Box #:** 020420BEN04  
**QC Submittal**  
**Grid Archive ID #:** O10P1  
**Electron Microscope ID:** Hitachi H600AB, 542-47-3

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<th>20,000X</th>
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<tbody>
<tr>
<td>Effective Area (mm):</td>
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<td>Accelerating Voltage:</td>
<td>100KeV</td>
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<table>
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<tr>
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<tr>
<td>Filter Pore Size (µm):</td>
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<tr>
<th>Grid Opening:</th>
<th>0.115 mm</th>
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</thead>
<tbody>
<tr>
<td>Grid opening Area:</td>
<td>0.013 mm²</td>
</tr>
<tr>
<td>Grid Openings Read/Required:</td>
<td>4/4</td>
</tr>
<tr>
<td>Total Area Analyzed:</td>
<td>0.0520 mm²</td>
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<table>
<thead>
<tr>
<th>Volume of Air Sampled:</th>
<th>1810 Liters</th>
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<table>
<thead>
<tr>
<th>Total Asbestos Structures:</th>
<th>NSD</th>
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<tbody>
<tr>
<td>0.5µm - 5.0µm:</td>
<td>NSD</td>
</tr>
<tr>
<td>&gt;5.0µm:</td>
<td>NSD</td>
</tr>
<tr>
<td>Asbestos:</td>
<td>&lt; 19.2 s/mm²</td>
</tr>
<tr>
<td>Non-Asbestos:</td>
<td>&lt; 19.2 s/mm²</td>
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<tr>
<td>Asbestos:</td>
<td>&lt; 0.0041 s/cc</td>
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<tr>
<td>Non-Asbestos:</td>
<td>&lt; 0.0041 s/cc</td>
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**Analysis Data:**

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
</tr>
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<tbody>
<tr>
<td>O10 E1</td>
<td>NSD</td>
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<td>0</td>
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<td></td>
</tr>
</tbody>
</table>

**Total:** NSD NSD 0 0 0 0 0

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber
  Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)
** Define Amphibole (DP obtained Y/N), Print-out EDS and attach.
*** Characterize by EDS
1, 2 Record Structure Length & Width (µm)

SEE REVERSE: FIBER ORIENTATION MAP

Comments: ____________________________

Prep Quality:
Dissolution: GOOD
Carbon Film: GOOD
Loading: <1

Analyzed By: ___________________________
Reviewed By: ___________________________
TEM Air Sample Worksheet

Client Name: OHCS Inc.  Analysis Date: 02/05/20
Client Project #:  IATL Sample #: 6964503
Sample Type: AHERA -Pailly Regulations  Client Sample #: 020420BEN05
QC Submittal  IATL Grid Box #: 1858

Electron Microscope ID:

<table>
<thead>
<tr>
<th>1</th>
<th>Hitachi H600AB, 542-47-3</th>
<th>Filter Dia. (mm): 25</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>EVEX</td>
<td>Effective Area (mm²): 385</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Filter Type: MCE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Filter Pore Size (µm): 0.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Magnification: 20,000X</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accelerating Voltage: 100KeV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grid Opening</th>
<th>0.115 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid opening Area</td>
<td>0.013 mm²</td>
</tr>
<tr>
<td>Grid Openings Read/Required:</td>
<td>4/4</td>
</tr>
<tr>
<td>Total Area Analyzed</td>
<td>0.0520 mm²</td>
</tr>
</tbody>
</table>

| Volume of Air Sampled | 1810 Liters |

| Total Asbestos Structures: NSD |
| 0.5µm - 5.0µm: NSD |
| >5.0µm: |
| Asbestos | < 19.2 s/mm² |
| Asbestos | < 0.0041 s/cc |

| Non-Asbestos Structures: NSD |
| Non-Asbestos: < 19.2 s/mm² |
| Non-Asbestos: < 0.0041 s/cc |

**Analysis Data:**

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type P/B/C/M</th>
<th>1 Length 0.5 -5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysothile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<tbody>
<tr>
<td>P5 B7</td>
<td>NSD</td>
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<td></td>
</tr>
</tbody>
</table>

| Total: NSD      | NSD | 0 | 0 | 0 | 0 | 0 |

* Must confirm by Morphology, SAED, and EDXFA for each suspect asbestos fiber
** Define Amphibole (DP obtained Y/N), Print-out EDS and attach.
*** Characterize by EDS

1, 2 Record Structure Length & Width (µm)  SEE REVERSE: FIBER ORIENTATION MAP

Prep Quality:
| Dissolution: GOOD |
| Carbon Film: GOOD |
| Loading: <1 |

Comments: 

Analyzed By: C. Liska

Reviewed By: 

5 of 10
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964504  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**IATL Grid Box #:** 1858  
**QC Submittal**  
**Client Sample #:** 020420BEN06  
**Filter Dia. (mm):** 25  
**Grid Archive ID #:** Q2Q4  
**Effective Area (mm):** 385  
**Magnification:** 20,000X  
**Filter Type:** MCE  
**Accelerating Voltage:** 100KeV  
**Filter Pore Size (μm):** 0.45  

**Electron Microscope ID:**  
- Hitachi H600AB, 542-47-3  
- EVEX  

**Grid Opening:** 0.115 mm  
**Volume of Air Sampled:** 1810 Liters  
**Grid opening Area:** 0.013 mm²  
**Analytical Sensitivity:** 19.2 mm²  
**Grid Openings Read/Required:** 4/4  
**Minimum Detection Limit:** 0.0041 s/cc  
**Total Area Analyzed:** 0.0520 mm²  

**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD  
**0.5μm - 5.0μm:** NSD  
**Asbestos:** < 19.2 s/mm²  
**Non-Asbestos:** < 19.2 s/mm²  
**>5.0μm:**  
**Asbestos:** < 0.0041 s/cc  
**Non-Asbestos:** < 0.0041 s/cc

## Analysis Data:

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<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>Chrysotile</th>
<th>Amphibole</th>
<th>Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</table>

**Total:** NSD NSD 0 0

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
  Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)  
** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (μm)  

**Prep Quality:**  
- Dissolution: GOOD  
- Carbon Film: GOOD  
- Loading: <1

**Comments:**

---

**Analyzed By:** C. Liska  
**Reviewed By:**

---

**TEM.AHERA WS.002**  
**6 of 10**
TEM Air Sample Worksheet

Client Name: OHCS Inc.  
Client Project #:  
Sample Type: AHERA - Philly Regulations  
QC Submittal:  

Electron Microscope ID: Hitachi H600AB, 542-47-3  
Filter Dia. (mm): 25  
Effective Area (mm²): 385  
Filter Type: MCE  
Filter Pore Size (µm): 0.45  

Magnification: 20,000X  
Accelerating Voltage: 100KeV

Grid Opening: 0.115 mm  
Grid opening Area: 0.013 mm²  
Grid Openings Read/Required: 4/4  
Total Area Analyzed: 0.0520 mm²  

Volume of Air Sampled: 1810 Liters  
Analytical Sensitivity: 19.2 mm²  
Minimum Detection Limit: 0.0041 s/cc

Total Asbestos Structures: NSD  
Non-Asbestos Structures: NSD

0.5µm - 5.0µm: NSD  
>5.0µm:  
Asbestos: < 19.2 s/mm²  
Non-Asbestos: < 19.2 s/mm²  
Asbestos: < 0.0041 s/cc  
Non-Asbestos: < 0.0041 s/cc

Analysis Data:

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<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>Length 0.5-5.0 µm</th>
<th>Length &gt;5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</table>

Total: NSD NSD 0 0 0 0 0

* Must confirm by Morphology, SAED, and EDXAF for each suspect asbestos fiber
  Record visible prominent Chrysotile DF reflections (002, 004, 110, 130, 220, 200)
** Define Amphibole (DF obtained Y/N) Print-out EDS and attach.
*** Characterize by EDS
1, 2 Record Structure Length & Width (µm)  

SEE REVERSE: FIBER ORIENTATION MAP

Comments:  

Prep Quality: GOOD  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading: 1%

Analyzed By: C. Liska  
Reviewed By:  

TEM.AHERA WS.002  
7 of 10
TEM Air Sample Worksheet

| Client Name: | OHCS Inc. | Analysis Date: | 02/05/20 | IATL Sample #: | 6964506 |
| Client Project #: | | | | Client Sample #: | 020420BEN08 |
| Sample Type: | AHERA - Philly Regulations | | | IATL Grid Box #: | 1858 |
| QC Submittal | | | | Grid Archive ID #: | Q10R1 |

**Electron Microscope ID:**

| Filter Dia. (mm): | 25 | Magnification: | 20,000X |
| Effective Area (mm²): | 385 | Accelerating Voltage: | 100KeV |

**Hitachi H600AB, 542-47-3**

**Filter Type:** MCE

**Filter Pore Size (µm):** 0.45

| Grid Opening: | 0.115 mm | Volume of Air Sampled: | 1850 Liters |
| Grid opening Area: | 0.013 mm² | | |
| Grid Openings Read/Required: | 4/4 | Analytical Sensitivity: | 19.2 mm² |
| Total Area Analyzed: | 0.0520 mm² | Minimum Detection Limit: | 0.0040 s/cc |

**Total Asbestos Structures:** NSD

- **0.5µm - 5.0µm:** NSD
- **>5.0µm:**
  - Asbestos: < 19.2 s/mm²
  - Asbestos: < 0.004 s/cc

**Non-Asbestos Structures:** NSD

- **0.5µm - 5.0µm:** NSD
- **>5.0µm:**
  - Non-Asbestos: < 19.2 s/mm²
  - Non-Asbestos: < 0.004 s/cc

### Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type (F/B/C/M)</th>
<th>1 Length 0.5-5.0 µm</th>
<th>2 Length &gt;5.0 µm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</tr>
</tbody>
</table>

Total: NSD NSD 0 0 0 0 0

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber

** Define Amphibole (DP obtained Y/N) Print-out EDS and attach.

### Prep Quality:
- Dissolution: GOOD
- Carbon Film: GOOD
- Loading: <1

**SEE REVERSE: FIBER ORIENTATION MAP**

Comments:

---

**Prepared By:**

**Reviewed By:**

C. Liska
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964507  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal**  
**IATL Grid Box #:** 020420BEN09  
**Grid Archive ID #:** R3R5

**Electron Microscope ID:** Hitachi H600AB, 542-47-3  
**Filter Dia. (mm):** 25  
**Effective Area (mm):** 385  
**Filter Type:** MCE  
**Filter Pore Size (µm):** 0.45  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

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<th>Grid Opening</th>
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<th>Volume of Air Sampled: 1850 Liters</th>
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<tr>
<td>Grid opening Area</td>
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<td>Grid Openings Read/Required</td>
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<tr>
<td>Total Area Analyzed</td>
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<td>Analytical Sensitivity</td>
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<tr>
<td>Minimum Detection Limit</td>
<td>0.0040 s/cc</td>
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</tr>
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**Total Asbestos Structures:** NSD  
**Total 0.5µm - 5.0µm:** NSD  
**Asbestos:** < 19.2 s/mm²  
**Non-Asbestos:** < 19.2 s/mm²  
**Total Asbestos:** NSD  
**Total 0.5µm - 5.0µm:** NSD  
**Asbestos:** < 0.004 s/cc  
**Non-Asbestos:** < 0.004 s/cc

**Analysis Data:**

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<th>Grid Opening</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</tbody>
</table>

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
  Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)  
** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (µm)  
SEE REVERSE: FIBER ORIENTATION MAP

**Prep Quality:**  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading:

**Comments:**  
**Analyzed By:** C. Liska  
**Reviewed By:**
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964507  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**IATL Grid Box #:** 1858  
**QC Submittal**  
**Grid Archive ID #:** R3R5

**Electron Microscope ID:** Hitachi H600AB, 542-47-3  
**Filter Dia. (mm):** 25  
**Effective Area (mm):** 385  
**Filter Type:** MCE  
**Filter Pore Size (µm):** 0.45  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

**Grid Opening:** 0.115 mm  
**Volume of Air Sampled:** 1850 Liters  
**Grid opening Area:** 0.013 mm²  
**Grid Openings Read/Required:** 4  
**Analytical Sensitivity:** 19.2 mm²  
**Total Area Analyzed:** 0.0520 mm²  
**Minimum Detection Limit:** 0.0040 s/cc

**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD

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<th>0.5µm - 5.0µm:</th>
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<td>&lt; 19.2 s/mm²</td>
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**Analysis Data:**

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<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
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<th>Micrograph / EDS ID</th>
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| Total: | NSD | NSD | 0 | 0 | 0 | 0 | 0 |  |

**Comments:**

---

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
  Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)  
** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (µm)  
SEE REVERSE: FIBER ORIENTATION MAP

**Prep Quality:** GOOD  
**Dissolution:** GOOD  
**Carbon Film:** GOOD  
**Loading:**

**Analyzed By:** C. Liska  
**Reviewed By:**
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964508  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal**  
**IATL Grid Box #:** 020420BEN10  
**Grid Archive ID #:** R7R9

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<td>Grid opening Area:</td>
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<td>Grid Openings Read/Required:</td>
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<td>Volume of Air Sampled:</td>
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<td>Analytical Sensitivity:</td>
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<td>Minimum Detection Limit:</td>
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**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD

<table>
<thead>
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<th>0.5µm - 5.0µm:</th>
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<tbody>
<tr>
<td>&gt;5.0µm:</td>
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<td>Asbestos:</td>
<td>&lt; 19.2 s/mm²</td>
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<td>Non-Asbestos:</td>
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<td>Asbestos:</td>
<td>&lt; 0.004 s/cc</td>
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<td>Non-Asbestos:</td>
<td>&lt; 0.004 s/cc</td>
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**Analysis Data:**

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<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
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</tbody>
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**Total:** NSD NSD 0 0 0 0 0 0

---

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS

1, 2 Record Structure Length & Width (µm)  
SEE REVERSE: FIBER ORIENTATION MAP

**Comments:**

Prep Quality:  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading: 1%

**Analyzed By:** C. Liska  
**Reviewed By:**
**Report Title:** FIRE ORIENTATION MAP

**Comments:**
- 1.2 Record Structure Length & Width (in)
- 3.1 Change sample by EDS
- **Date:** Analyzed
- **EDS:** Record Visible Prominent (EPD/SAX) Pattern EDS and Attatched
- **Record Visible Prominent (EPD/SAX) Pattern EDS and Attatched (02.00.110, 16.0.200, 20.0.000)
- This contains all Micrographs, SAX and EDS data for each sample selected after

**Analysis Data:**

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<td>17</td>
<td>12</td>
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</tbody>
</table>

**Additional Information:**

- **Volume of Air Sampled:** 4850 m³
- **Total Area Analyzed:** 0.030 m²
- **Total Area EDS:** 0.5 m²
- **End Opening Area:** 0.45 m²
- **End Opening Area:** 0.95 m²
- **End Opening Area:** 0.015 m²
- **End Opening Area:** 0.115 m²
- **End Opening Area:** 0.15 m²

**Sample Information:**

- **Sample Type:** EDS
- **Sample #:** 025/020
- **Analysis Date:** 02/05/20

**Additional Notes:**

- **Analyst:** D. Lee
- **Checked:** C. Liley
- **Reviewed By:**
- **Accepted By:**

---

**Image:**

A TEM Air Sample Worksheet.

**Institutional Accessions:**

- **Sample #:** 986988
- **Sample #:** 0240280010
- **Sample #:** 986988
## Sample Package and Seal

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**Asbestos**

**Concerns:**

- 2.4.20,
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- 2.4.20,
- 2.4.20,
- 2.4.20,
- 2.4.20,
- 2.4.20,
- 2.4.20,
- 2.4.20,
- 2.4.20,
- 2.4.20,
- 2.4.20,
PRELIMINARY RESULTS
Airborne Asbestos Analysis
TEM AHERA

Client: OHCS Inc.
209 Catharine St.
Philadelphia, PA 19147
Client No.: ohe164

Batch No.: 609060
Project: Ben Franklin
Project No.: 
Philly Regs: Y
Turn-Around Time: 12 Hour Rush

Client Contacts:
Contacts: 
Phone: 
Fax: 
Cell/Pager: 
E-Mail: 

Laboratory Contacts:
Contacts: Frank E. Ehrenfeld III
Phone: (856) 231-9449
Fax: (856) 231-9818
Cell/Pager: (609) 929-4211
E-Mail: frankehrenfeld@iatl.com

Chain of Custody:
Samples Taken in Field: 
Samples Rec'd at Laboratory: 
E. Clarke 
Samples Analyzed: 
C. Liska 
Preliminary Results Fax'd: 

Date: 2/4/2020 
Date: 2/5/2020 
Preliminary Results E-Mail: 

Summary Data
Transmission Electron Microscopy
AHERA 40CFR 763

<table>
<thead>
<tr>
<th>Client Sample ID #</th>
<th>IATL Sample ID #</th>
<th>Volume (L)</th>
<th>Comments</th>
<th>Results s/mm²</th>
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<td>&lt; 19.2</td>
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AHERA Clearance Criteria is 70 s/mm². Average (s/mm²) = 19.2
Phila. Regulations Clearance Criteria is 0.00554 s/cc based on 5 samples
Geo = 0.0041
Z Test Results (see attached, if applicable)

Grid Box #: 1864
Instrument (I, II, III) 1

These preliminary results are issued by IATL to expedite procedures by the clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COAs are to be considered the official results.

Revision Date: 10/06/18
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964509  
**Client Sample #:** 020420BEN11  
**IATL Grid Box #:** 1864  
**Grid Archive ID #:** A1A3

**Electron Microscope ID:**  
- Hitachi H600AB, 542-47-3  
- EVEX

**Filter Dia. (mm):** 25  
**Effective Area (mm):** 385  
**Filter Type:** MCE  
**Filter Pore Size (μm):** 0.45  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

**Grid Opening:** 0.115 mm  
**Grid opening Area:** 0.013 mm²

**Grid Openings Read/Required:** 4/4  
**Total Area Analyzed:** 0.0520 mm²  
**Volume of Air Sampled:** 1800 Liters  
**Analytical Sensitivity:** 19.2 mm²  
**Minimum Detection Limit:** 0.0041 s/cc

**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD

- **0.5μm - 5.0μm:** NSD  
- **>5.0μm:**
  - Asbestos: < 19.2 s/mm²
  - Asbestos: < 0.0041 s/cc

**Analysis Data:**

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<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5-5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<td>A1 F5</td>
<td>NSD</td>
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<td>A3 I1</td>
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**Total:** NSD NSD

**Notes:**
- Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber.  
  - Record visible prominent Chrysotile D₃ reflections (002, 004, 110, 130, 220, 200)  
- Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
- Characterize by EDS  
  - Record Structure Length & Width (μm)

**Prep Quality:**
- Dissolution: GOOD  
- Carbon Film: GOOD  
- Loading: <1

**Analyzed By:** C. Liska  
**Reviewed By:**

---

**Comments:**

---

**Related:**
- SEE REVERSE: FIBER ORIENTATION MAP

---
**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964510  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**IATL Grid Box #:** 1864  
**QC Submittal:**  

### TEM Air Sample Worksheet

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<th>Filter Dia. (mm):</th>
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<th>Magnification: 20,000X</th>
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<td>Accelerating Voltage: 100KeV</td>
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<td>EVEX</td>
<td>Filter Type:</td>
<td>MCE</td>
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<td>Filter Pore Size (μm):</td>
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<tr>
<th>Grid Opening:</th>
<th>0.115 mm</th>
<th>Volume of Air Sampled: 1800 Liters</th>
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<td>Grid opening Area</td>
<td>0.013 mm²</td>
<td>Analytical Sensitivity: 19.2 mm²</td>
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<tr>
<td>Grid Openings Read/Required</td>
<td>4/4</td>
<td>Minimum Detection Limit: 0.0041 s/cc</td>
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<tr>
<td>Total Area Analyzed</td>
<td>0.0520 mm²</td>
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<th>Total Asbestos Structures:</th>
<th>NSD</th>
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<td>&gt;5.0μm:</td>
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<tr>
<td>Asbestos:</td>
<td>&lt; 19.2 s/mm²</td>
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<td>Asbestos:</td>
<td>&lt; 0.0041 s/cc</td>
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<th>NSD</th>
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<tr>
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<td>&gt;5.0μm:</td>
<td>NSD</td>
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<td>Non-Asbestos:</td>
<td>&lt; 19.2 s/mm²</td>
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<tr>
<td>Non-Asbestos:</td>
<td>&lt; 0.0041 s/cc</td>
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### Analysis Data:

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<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type</th>
<th>1 Length 0.5 - 5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>* Chrysotile</th>
<th>** Amphible</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</tbody>
</table>

* Must confirm by Morphology, SAED, and EDX for each suspect asbestos fiber  
  Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)  
** Define Amphible (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (μm)  
SEE REVERSE: FIBER ORIENTATION MAP

**Prep Quality:**  
- **Dissolution:** GOOD  
- **Carbon Film:** GOOD  
- **Loading:** 1%

**Comments:**

**Analyzed By:** C. Liska  
**Reviewed By:**

---

TEM_AHERA WS 002  
2 of 10
Client Name: OHCS Inc.  
Client Project #:  
Sample Type: AHERA - Philly Regulations  
QC Submittal:  

**Electron Microscope ID:**
- Filter Dia. (mm): 25
- Effective Area (mm): 385
- Filter Type: MCE
- Filter Pore Size (µm): 0.45
- Magnification: 20,000X
- Accelerating Voltage: 100KeV

<table>
<thead>
<tr>
<th>Grid Opening</th>
<th>Grid Opening Area</th>
<th>Volume of Air Sampled</th>
<th>Analytical Sensitivity</th>
<th>Minimum Detection Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.115 mm</td>
<td>1800 liters</td>
<td>19.2 mm²</td>
<td>0.0041 s/cc</td>
</tr>
</tbody>
</table>

**Grid Openings Read/Required:** 4/4
**Total Area Analyzed:** 0.0520 mm²

**Total Asbestos Structures:** 1
**Non-Asbestos Structures:** NSD

**Analysis Data:**

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>Chrysotile</th>
<th>Amphibole</th>
<th>Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<td></td>
</tr>
</tbody>
</table>

**Total:** 1

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber
  
** Record visible prominent Chrysotile DP reflections (902, 004, 110, 130, 220, 200)
** Define Amphibole (DP obtained Y/N), Print-out EDS and attach.
** Characterize by EDS

1, 2 Record Structure Length & Width (µm)

SEE REVERSE: FIBER ORIENTATION MAP

**Admin Data:**
- Prep Quality: GOOD
- Dissolution: GOOD
- Carbon Film: GOOD
- Loading: 1%

**Analysis By:** C. Liska
**Reviewed By:**

**Highlights:**
- Client Name: OHCS Inc.
- Client Project #:  
- Sample Type: AHERA - Philly Regulations
- QC Submittal:  
- Electron Microscope ID:
  - Filter Dia. (mm): 25
  - Effective Area (mm): 385
  - Filter Type: MCE
  - Filter Pore Size (µm): 0.45
- Magnification: 20,000X
- Accelerating Voltage: 100KeV
- Grid Opening: 0.115 mm
- Grid Opening Area: 0.013 mm²
- Volume of Air Sampled: 1800 liters
- Analytical Sensitivity: 19.2 mm²
- Minimum Detection Limit: 0.0041 s/cc
- Total Asbestos Structures: 1
- Non-Asbestos Structures: NSD
- Grid Opening ID:
  - A9
  - B3
  - B2
  - I2
- Structure Number:
  - A2
  - I1
  - NSD
- Structure Type F/B/C/M:
  - F
  - NSD
- 1 Length 0.5 - 5.0 µm:
  - CD
- 2 Length > 5.0 µm:
  - NSD
- Chrysotile:
  - CD
- Amphibole:
  - NSD
- Non-Asbestos:
  - NSD
- Micrograph / EDS ID:
  - DP 5780

**Highlights:**
- Client Name: OHCS Inc.
- Client Project #:  
- Sample Type: AHERA - Philly Regulations
- QC Submittal:  
- Electron Microscope ID:
  - Filter Dia. (mm): 25
  - Effective Area (mm): 385
  - Filter Type: MCE
  - Filter Pore Size (µm): 0.45
- Magnification: 20,000X
- Accelerating Voltage: 100KeV
- Grid Opening: 0.115 mm
- Grid Opening Area: 0.013 mm²
- Volume of Air Sampled: 1800 liters
- Analytical Sensitivity: 19.2 mm²
- Minimum Detection Limit: 0.0041 s/cc
- Total Asbestos Structures: 1
- Non-Asbestos Structures: NSD
- Grid Opening ID:
  - A9
  - B3
  - B2
  - I2
- Structure Number:
  - A2
  - I1
  - NSD
- Structure Type F/B/C/M:
  - F
  - NSD
- 1 Length 0.5 - 5.0 µm:
  - CD
- 2 Length > 5.0 µm:
  - NSD
- Chrysotile:
  - CD
- Amphibole:
  - NSD
- Non-Asbestos:
  - NSD
- Micrograph / EDS ID:
  - DP 5780
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal**

<table>
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<td>Filter Type:</td>
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<tr>
<td></td>
<td>Filter Pore Size (μm):</td>
<td>0.45</td>
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<tr>
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<td>Grid Opening:</td>
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<td>Grid Openings Read/Required:</td>
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<tr>
<td></td>
<td>Total Area Analyzed:</td>
<td></td>
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</tbody>
</table>

**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV  
**Volume of Air Sampled:** 1800 Liters  
**Analytical Sensitivity:** 19.2 mm²/mm²

**Total Asbestos Structures:** NSD

**Non-Asbestos Structures:** NSD

**Asbestos:**
- < 19.2 s/mm²
- < 0.0041 s/mm²

**Non-Asbestos:**
- < 19.2 s/mm²
- < 0.0041 s/mm²

**Analysis Data:**

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5-5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<td>NSD</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total: NSD     | NSD              | 0                     | 0                  | 0                | 0           | 0          |                 |                  |

- * Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber
- Record visible prominent Chrysotile DF reflections (002, 004, 110, 130, 220, 200)
- ** Define Amphibole (DP obtained V/N). Print-out EDS and attach.
- *** Characterize by EDS
- 1, 2 Record Structure Length & Width (μm)

**Prep Quality:**
- Dissolution: GOOD
- Carbon Film: GOOD
- Loading: 1%

**Analyzed By:** C. Liska
**Reviewed By:**

**Comments:**

---

**Notice:** SEE REVERSE: FIBER ORIENTATION MAP

---

**Page Reference:** TEM.AHERA WS.002  
**Page:** 4 of 10
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal**

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<th>Electron Microscope ID:</th>
<th>Filter Dia. (mm):</th>
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<tr>
<td>Hitachi H600AB, 542-47-3</td>
<td>Effective Area (mm²):</td>
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<tr>
<td>EVEX</td>
<td>Filter Type:</td>
<td>MCE</td>
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<td></td>
<td>Filter Pore Size (µm):</td>
<td>0.45</td>
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<td></td>
<td>Magnification:</td>
<td>20,000X</td>
</tr>
<tr>
<td></td>
<td>Accelerating Voltage:</td>
<td>100KeV</td>
</tr>
</tbody>
</table>

**Grid Opening:** 0.115 mm  
**Grid opening Area:** 0.013 mm²  
**Grid Openings Read/Required:** 4/4  
**Total Area Analyzed:** 0.0520 mm²  
**Volume of Air Sampled:** 1810 Liters  
**Analytical Sensitivity:** 19.2 mm²/s/cc  
**Minimum Detection Limit:** 0.0041 s/cc

**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD

| 0.5µm - 5.0µm: | < 19.2 s/mm² |
| >5.0µm: | < 0.0041 s/cc |

**Analysis Data:**

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>¹ Length 0.5 -5.0 µm</th>
<th>² Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</thead>
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</tr>
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</table>

Total: NSD NSD 0 0 0 0 0 0

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
  Record visible prominent Chrysotile DF reflections (002, 004, 110, 130, 220, 200)  
** Define Amphibole (DF obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (µm).  
SEE REVERSE: FIBER ORIENTATION MAP  

Prep Quality:  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading: 2%

Analyzed By: C. Liska  
Reviewed By:  

---

**TEM-AHERA WS.002**  
5 of 10
# Preliminary Results

Airborne Asbestos Analysis

## TEM AHERA

**Client:** OHCS Inc.

**Client No.:** ohe164

**Client Contacts:**

<table>
<thead>
<tr>
<th>Contacts:</th>
<th>Laboratory Contacts:</th>
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<tbody>
<tr>
<td>Phone:</td>
<td>Frank E. Ehrenfeld III</td>
</tr>
<tr>
<td>Fax:</td>
<td>Phone: (856) 231-9449</td>
</tr>
<tr>
<td>Cell/Pager:</td>
<td>Fax: (856) 231-9818</td>
</tr>
<tr>
<td>E-Mail:</td>
<td>Cell/Pager: (609) 929-4211</td>
</tr>
<tr>
<td></td>
<td>E-Mail: <a href="mailto:frankehrenfeld@iatl.com">frankehrenfeld@iatl.com</a></td>
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</table>

## Chain of Custody:

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<th>Samples Taken in Field:</th>
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</thead>
<tbody>
<tr>
<td>E. Clarke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Liska</td>
<td>Date:</td>
<td>Time:</td>
</tr>
<tr>
<td>Preliminary Results Faxed:</td>
<td>Date:</td>
<td>Time:</td>
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<tr>
<td>Preliminary Results E-Mail:</td>
<td>Date:</td>
<td>Time:</td>
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## Summary Data

**Transmission Electron Microscopy**

**AHERA 40CFR 763**

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<th>Client Sample ID #</th>
<th>IATL Sample ID #</th>
<th>Volume (L)</th>
<th>Comments</th>
<th>Results s/mm²</th>
<th>Results s/cc</th>
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<td>020420BEN11</td>
<td>6964509</td>
<td>1800</td>
<td>None Detected</td>
<td>&lt; 19.2</td>
<td>&lt; 0.0041</td>
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<tr>
<td>020420BEN12</td>
<td>6964510</td>
<td>1800</td>
<td>None Detected</td>
<td>&lt; 19.2</td>
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<tr>
<td>020420BEN13</td>
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<td>1800</td>
<td>Chrysotile</td>
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<td>0.0041</td>
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<td>020420BEN14</td>
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<td>&lt; 0.0041</td>
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<td>&lt; 0.0041</td>
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<td>&lt; 0.0041</td>
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</tbody>
</table>

AHERA Clearance Criteria is 70 s/mm².  
Average (s/mm²) = 19.2  
Phiila. Regulations Clearance Criteria is 0.00554 s/cc based on 5 samples  
Geo = 0.0041  
Z Test Results (see attached, if applicable)

**Grid Box #:** 1864

**Instrument (I, II, III):** 1

These preliminary results are issued by IATL to expedite procedures by the clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COAs are to be considered the official results.
**Client Name:** OHCS Inc.  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal:** R  

**Electron Microscope ID:** Hitachi H600AB, 542-47-3  
**Filter Dia. (mm):** 25  
**Effective Area (mm²):** 385  
**Filter Type:** MCE  
**Filter Pore Size (µm):** 0.45  

**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

<table>
<thead>
<tr>
<th>Grid Opening A:</th>
<th>0.115 mm</th>
<th>Volume of Air Sampled:</th>
<th>1800 Liters</th>
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<tbody>
<tr>
<td>Grid opening Area:</td>
<td>0.013 mm²</td>
<td>Analytical Sensitivity:</td>
<td>19.2 mm²</td>
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<tr>
<td>Grid Openings Read/Required:</td>
<td>4/4</td>
<td>Minimum Detection Limit:</td>
<td>0.0041 s/cc</td>
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<tr>
<td>Total Area Analyzed:</td>
<td>0.0520 mm²</td>
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</table>

**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD

### Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</table>

**Total:** NSD NSD

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
** Record visible prominent Chrysotile D² reflections (002, 004, 110, 130, 220, 200)  
*** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS

1. Record Structure Length & Width (µm): SEE REVERSE: FIBER ORIENTATION MAP

**Prep Quality:**  
- Dissolution: GOOD  
- Carbon Film: GOOD  
- Loading: <1

**Analyzed By:** C. Liska  
**Reviewed By:**
## TEM Air Sample Worksheet

**Client Name:** OHCS Inc.  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal:**  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964S10  
**Client Sample #:** 020420LEN12  
**IATL Grid Box #:** 1864  
**Grid Archive ID #:** A5A7  

### Electron Microscope ID:
- **Filter Dia. (mm):** 25
- **Effective Area (mm²):** 385
- **Filter Type:** MCE
- **Filter Pore Size (µm):** 0.45
- **Magnification:** 20,000X  
- **Accelerating Voltage:** 100KeV

### Grid Information:
- **Grid Opening:** 0.115 mm
- **Grid opening Area:** 0.013 mm²
- **Grid Openings Read/Required:** 4/4
- **Total Area Analyzed:** 0.0520 mm²

### Volume of Air Sampled:
- **Volume of Air Sampled:** 1800 Liters

### Asbestos Structures:
- **Total Asbestos Structures:** NSD
- **0.5µm - 5.0µm:** NSD
- **>5.0µm:**
  - Asbestos: < 19.2 s/mm²
  - Asbestos: < 0.0041 s/µm

### Non-Asbestos Structures:
- **Non-Asbestos Structures:** NSD
- **Non-Asbestos:** < 19.2 s/mm²
- **Non-Asbestos:** < 0.0041 s/µm

#### Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</tbody>
</table>

*Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber*

**Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)**

**Define Amphibole (DP obtained Y/N). Print-out EDS and attach.**

***Characterize by EDS***

1, 2 Record Structure Length & Width (µm)

SEE REVERSE: FIBER ORIENTATION MAP

---

**Prep Quality:**
- **Dissolution:** GOOD
- **Carbon Film:** GOOD
- **Loading:** 1%

**Comments:**

---

**Analyzed By:** C. Liska

**Reviewed By:**

---
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964511

**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal:**

<table>
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<tr>
<th>1</th>
<th>Hitachi H600AB, 542-47-3</th>
<th>Grid Opening: 0.115 mm²</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>EVEX</td>
<td>Grid Openings Read/Required: 4 / 4</td>
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<tr>
<td></td>
<td></td>
<td>Total Area Analyzed: 0.0520 mm²</td>
</tr>
</tbody>
</table>

**IATL Grid Box #:** 1864  
**Grid Archive ID #:** A9B2  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

**Volume of Air Sampled:** 1800 Liters  
**Analytical Sensitivity:** 19.2 mm²  
**Minimum Detection Limit:** 0.0041 s/cc

**Total Asbestos Structures:** 1  
**Non-Asbestos Structures:** NSD

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5-5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</table>

**Total:** 1  
**1, 2 Record Structure Length & Width (µm)**

**Comment:** Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber. Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200).

**Prep Quality:**  
**Dissolution:** GOOD  
**Carbon Film:** GOOD  
**Loading:** 1%

**Reviewed By:** C. Liska  

---

See Reverse: Fiber Orientation Map
TEM Air Sample Worksheet

Client Name: OHCS Inc.
Client Project #: 
Sample Type: AHERA - Philly Regulations
QC Submittal

Electron Microscope ID:
1. Hitachi H600AB, 542-47-3
   EVEX

Filter Dia. (mm): 25
Effective Area (mm²): 385
Filter Type: MCE
Filter Pore Size (μm): 0.45

Magnification: 20,000X
Accelerating Voltage: 100KeV

Grid Opening: 0.115 mm
Grid opening Area: 0.013 mm²
Grid Openings Read/Required: 4/4
Total Area Analyzed: 0.0520 mm²

Volume of Air Sampled: 1800 Liters
Analytical Sensitivity: 19.2 mm²
Minimum Detection Limit: 0.0041 s/cc

Total Asbestos Structures:
| NSD | NSD |

Non-Asbestos Structures:
| NSD | NSD |

Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Type</th>
<th>Structure Type F/B/C/M</th>
<th>² Length &gt; 5.0 μm</th>
<th>² Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<tr>
<td>B9</td>
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Total: NSD NSD 0 0 0 0 0

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber
** Define Amphibole (DP obtained V/N). Print-out EDS and attach.
*** Characterize by EDS
1, 2 Record Structure Length & Width (μm)

SEE REVERSE: FIBER ORIENTATION MAP

Prep Quality:
Dissolution: GOOD
Carbon Film: GOOD
Loading: 1%

Comments:

Analyzed By: C. Liska
Reviewed By: 

TEM: AHERA WS.002

4 of 10
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal**

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<tr>
<th>Electron Microscope ID:</th>
<th>Filter Dia. (mm):</th>
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<th>Magnification:</th>
<th>20,000X</th>
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<tr>
<td>Hitachi H600AB, 542-47-3</td>
<td>Effective Area (mm):</td>
<td>385</td>
<td>Accelerating Voltage:</td>
<td>100KeV</td>
</tr>
<tr>
<td>EVEX</td>
<td>Filter Type:</td>
<td>MCE</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Filter Pore Size (μm):</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Grid Opening: | 0.115 mm  
| Grid opening Area: | 0.013 mm²  
| Grid Openings Read/Required: | 4 / 4  
| Total Area Analyzed: | 0.0520 mm²  

| Volume of Air Sampled: | 1810 Liters  
| Analytical Sensitivity: | 19.2 mm²  
| Minimum Detection Limit: | 0.0041 s/cc  

**Total Asbestos Structures:**  
- 0.5μm - 5.0μm: NSD  
- >5.0μm: NSD  
- Asbestos: < 19.2 s/mm²  
- Asbestos: < 0.0041 s/cc  

**Non-Asbestos Structures:**  
- NSD  
- Non-Asbestos: < 19.2 s/mm²  
- Non-Asbestos: < 0.0041 s/cc  

### Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<tr>
<td>B10 B2</td>
<td>NSD</td>
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<td>NSD</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total: | NSD | NSD | 0 | 0 | 0 | 0 | 0 |  

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
  Record visible prominent Chrysotile DF reflections (002, 004, 110, 130, 220, 200)  
** Define Amphibole (DF obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (μm)  
SEE REVERSE: FIBER ORIENTATION MAP  

**Prep Quality:**  
- Dissolution: GOOD  
- Carbon Film: GOOD  
- Loading: 2%  

**Comments:**  

**Analyzed By:** C. Liska  
**Reviewed By:**  

---

**TEM-AHERA WS.002**  
5 of 10
TEM Air Sample Worksheet

Client Name: OHCS Inc.  Analysis Date: 02/05/20  IATL Sample #: 6964514  Client Project #:  IATL Grid Box #: 1864  Sample Type: AHERA -Philly Regulations  Grid Archive ID #: C1C3

Electron Microscope ID:
- Hitachi H600AB, 542-47-3
- EVEX

Filter Dia. (mm): 25  Magnification: 20,000X
Effective Area (mm³): 385  Accelerating Voltage: 100Kv
Filter Type: MCE
Filter Pore Size (µm): 0.45

Grid Opening: 0.115 mm
Grid opening Area: 0.013 mm²
Grid Openings Read/Required: 4
Total Area Analyzed: 0.0520 mm²
Volume of Air Sampled: 1810 Liters
Analytical Sensitivity: 19.2 mm²
Minimum Detection Limit: 0.0041 s/cc

Total Asbestos Structures: NSD
Non-Asbestos Structures: 1
0.5µm - 5.0µm:
- NSD
>5.0µm:
- Asbestos: < 19.2 s/mm²
- Asbestos: < 0.0041 s/cc

Non-Asbestos: 19.2 s/mm²
Non-Asbestos: 0.0041 s/cc

Analysis Data:

<table>
<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 µm</th>
<th>2 Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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</thead>
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<td>J6</td>
<td>NSD</td>
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<td>C3 D9</td>
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<td>NSD</td>
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</tbody>
</table>

Total: NSD NSD 0 0 0 0 0 1

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber
** Record visible prominent Chrysotile D³ reflections (002, 004, 110, 130, 220, 200)
*** Characterize by EDS

SEE REVERSE: FIBER ORIENTATION MAP

Prep Quality:
- Dissolution: GOOD
- Carbon Film: GOOD
- Loading: 2%

Comments:

Analized By: C. Liska
Reviewed By:

TEM AHERA WS.002 6 of 10
**TEM Air Sample Worksheet**

**Client Name:** OHICS Inc.  
**Client Project #:**  
**Sample Type:** AHERA - Philly Regulations  
**QC Submittal:**

<table>
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<th>Electron Microscope ID:</th>
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<th><strong>25</strong></th>
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<tbody>
<tr>
<td>Hitachi H600AB, 542-473</td>
<td>Effective Area (mm²):</td>
<td><strong>385</strong></td>
<td>Accelerating Voltage:</td>
<td>100Kev</td>
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<td>EVEX</td>
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<td>Filter Pore Size (µm):</td>
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<table>
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<th>Grid Opening:</th>
<th>0.115 mm</th>
<th>Volume of Air Sampled:</th>
<th>1810 Liters</th>
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<td>Grid opening Area:</td>
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<td>Analytical Sensitivity:</td>
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<td>Grid Openings Read/Required:</td>
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<td>Minimum Detection Limit:</td>
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<tr>
<td>Total Area Analyzed:</td>
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**Total Asbestos Structures: NSD**  
**Non-Asbestos Structures: 1**

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<th>Total Structure Numbers</th>
<th>0.5µm - 5.0µm:</th>
<th>&gt;5.0µm:</th>
<th>Asbestos:</th>
<th>Non-Asbestos:</th>
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<td>&lt; 19.2 s/mm²</td>
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**Analysis Data:**

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<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
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<th>² Length &gt; 5.0 µm</th>
<th>* Chrysotile</th>
<th>**Amphibole</th>
<th>***Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<tr>
<td>J6</td>
<td>NSD</td>
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</table>

**Total:** NSD | NSD | 0 | 0 | 0 | 0 | 1 | |

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
  Record visible prominent Chrysotile D3 reflections (002, .004, 110, 130, 220, 200)  
** Define Amphibole (DP obtained Y/N), Print-out EDS and attach.  
** Characterize by EDS  
1, 2 Record Structure Length & Width (µm)

**Prep Quality:**

| Dissolution | GOOD | Carbon Film | GOOD | Loading | 2% |

**Analysis By:** C. Liska  
**Reviewed By:**

---

**Comments:**

---

**Fibers Orientation Map:**

SEE REVERSE: FIBER ORIENTATION MAP  

---

**TEM AHERA WS.002**

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**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc  
**Sample Type:** AHERA - Philly Regulations  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964515  
**IATL Grid Box #:** 1864  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

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<th>Filter Dia. (mm): 25</th>
<th>Effective Area (mm²): 385</th>
<th>Grid Opening: 0.115 mm</th>
<th>Total Area Analyzed: 0.0520 mm²</th>
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<td>Hitachi H600AB, 542-47-3</td>
<td>Filter Type: MCE</td>
<td>Grid opening Area: 0.013 mm²</td>
<td>Grid Openings Read/Required: 4</td>
<td>Volume of Air Sampled: 1810 Liters</td>
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<td>EVEX</td>
<td>Filter Pore Size (μm): 0.45</td>
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</tr>
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**Total Asbestos Structures: NSD**  
- 0.5μm - 5.0μm: NSD  
- >5.0μm: Asbestos: < 19.2 s/mm²  
- Asbestos: < 0.0041 s/cc

**Non-Asbestos Structures: NSD**  
- 0.5μm - 5.0μm: NSD  
- >5.0μm: Non-Asbestos: < 19.2 s/mm²  
- Non-Asbestos: < 0.0041 s/cc

**Analysis Data:**

<table>
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<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type</th>
<th>1 Length (0.5 - 5.0 μm)</th>
<th>2 Length (5.0 μm)</th>
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<th>Amphibole</th>
<th>Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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Total: NSD NSD 0 0 0 0 0 0

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
** Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)  
*** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
*** Characterize by EDS  
1, 2 Record Structure Length & Width (μm)  

**Prep Quality:**  
- Dissolution: GOOD  
- Carbon Film: GOOD  
- Loading: 2%

**Records:**  
- Analyzed By: C. Liska  
- Reviewed By: 

SEE REVERSE: FIBER ORIENTATION MAP
**TEM Air Sample Worksheet**

**Client Name:** OHCS Inc.  
**Analysis Date:** 02/05/20  
**IATL Sample #:** 6964516  
**Client Sample #:** 020420BEN18  
**IATL Grid Box #:** 1864  
**Grid Archive ID #:** C9D2

**Electron Microscope ID:** Hitachi H600AB, 542-47-3  
**Filter Dia. (mm):** 25  
**Effective Area (mm²):** 385  
**Filter Type:** MCE  
**Filter Pore Size (μm):** 0.45  
**Magnification:** 20,000X  
**Accelerating Voltage:** 100KeV

**Grid Opening:** 0.115 mm  
**Grid opening Area:** 0.013 mm²  
**Grid Openings Read/Required:** 4/4  
**Total Area Analyzed:** 0.0520 mm²  
**Volume of Air Sampled:** 1800 Liters  
**Analytical Sensitivity:** 19.2 mm²  
**Minimum Detection Limit:** 0.0041 s/cc

**Total Asbestos Structures:** NSD  
**Non-Asbestos Structures:** NSD

<table>
<thead>
<tr>
<th><strong>Grid Opening ID</strong></th>
<th><strong>Structure Number</strong></th>
<th><strong>Structure Type F/B/C/M</strong></th>
<th><strong>1 Length 0.5 -5.0 μm</strong></th>
<th><strong>2 Length &gt; 5.0 μm</strong></th>
<th><strong>∗ Chrysotile</strong></th>
<th><strong>∗∗ Amphibole</strong></th>
<th><strong>∗∗∗ Non-Asbestos</strong></th>
<th><strong>Micrograph / EDS ID</strong></th>
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<tbody>
<tr>
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</tbody>
</table>

**Total:** NSD NSD

**Analysis Data:**

- Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber
- Record visible prominent Chrysotile DP reflections (002, 004, 110, 130, 220, 200)
- **Define Amphibole (DP obtained Y/N). Print-out EDS and attach.**
- **Characterize by EDS**
- **Record Structure Length & Width (μm)**

SEE REVERSE: FIBER ORIENTATION MAP

**Comments:**

**Prep Quality:**  
- Dissolution  
- Carbon Film  
- Loading

**Analyzed By:** C. Liska

**Reviewed By:**

---

**TEM AHERA WS.002**

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TEM Air Sample Worksheet

Client Name: OHCS Inc.  
Client Project #:  
Sample Type: AHERA -Philly Regulations  
QC Submittal  
Electron Microscope ID: Hitachi H600AB, 542-47-3  
Filter Dia. (mm): 25  
Effective Area (mm²): 385  
Filter Type: MCE  
Filter Pore Size (μm): 0.45  
Grid Archive ID #: D4D6  
Magnification: 20,000X  
Accelerating Voltage: 100KeV  
Grid Opening: 0.115 mm  
Grid opening Area: 0.013 mm²  
Grid Openings Read/Required: 4  
Analytical Sensitivity: 19.2 mm²  
Minimum Detection Limit: 0.0041 s/ce  
Total Area Analyzed: 0.0520 mm²  
Volume of Air Sampled: 1800 Liters  
Total Asbestos Structures: NSD  
0.5μm - 5.0μm: NSD  
>5.0μm:  
Asbestos: < 19.2 s/mm²  
Asbestos: < 0.0041 s/ce  
Non-Asbestos Structures: NSD  
Non-Asbestos: < 19.2 s/mm²  
Non-Asbestos: < 0.0041 s/ce  

Analysis Data:

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<thead>
<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5 - 5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>* Chrysotile</th>
<th>** Amphibole</th>
<th>*** Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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<tbody>
<tr>
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</table>

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
** Record visible prominent Chrysotile DF reflections (002, .004, 110, 130, 220, 209)  
*** Characterize by EDS

1, 2 Record Structure Length & Width (μm); 
SEE REVERSE: FIBER ORIENTATION MAP

Prep Quality:  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading: 1%  

Comments:  

Analyzed By: C. Liska  
Reviewed By:  

TEM: AHERA WS.002  
9 of 10
Client Name: OHCS Inc.  
Client Project #:  
Sample Type: AHERA - Philly Regulations  
QC Submittal  
Electron Microscope ID: Hitachi H600AB, 542-47-3  
Grid Archive ID #: D8D10  
Magnification: 20,000X  
Accelerating Voltage: 100KeV  

Grid Opening: 0.115 mm  
Grid opening Area: 0.013 mm²  
Grid Openings Read/Required: 4/4  
Total Area Analyzed: 0.0520 mm²  
Volume of Air Sampled: 1800 liters  
Analytical Sensitivity: 19.2 mm²  
Minimum Detection Limit: 0.0041 s/cc  

Total Asbestos Structures: NSD  
Non-Asbestos Structures: NSD  
0.5μm - 5.0μm:  
Asbestos: < 19.2 s/mm²  
Non-Asbestos: < 19.2 s/mm²  
>5.0μm:  
Asbestos: < 0.0041 s/cc  
Non-Asbestos: < 0.0041 s/cc  

Analysis Data:  

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<tr>
<th>Grid Opening ID</th>
<th>Structure Number</th>
<th>Structure Type F/B/C/M</th>
<th>1 Length 0.5-5.0 μm</th>
<th>2 Length &gt; 5.0 μm</th>
<th>Chrysotile</th>
<th>Amphibole</th>
<th>Non-Asbestos</th>
<th>Micrograph / EDS ID</th>
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Total: NSD NSD 0 0 0 0 0 0  

* Must confirm by Morphology, SAED, and EDXA for each suspect asbestos fiber  
** Record visible prominent Chrysotile DP reflections (002, .004, 110, 130, 220, 200)  
*** Define Amphibole (DP obtained Y/N). Print-out EDS and attach.  
**** Characterize by EDS  
1, 2 Record Structure Length & Width (μm)  

Prep Quality:  
Dissolution: GOOD  
Carbon Film: GOOD  
Loading: 1%  

Comments:  

Analyzed By: C. Liska  
Reviewed By:  

SEE REVERSE: FIBER ORIENTATION MAP  

TEM AHERA WS/002  
10 of 10
**CHAIN OF CUSTODY - Air Samples**

**CLIENT:** PET  
**SITE:** BEN FRANKLIN

**PROJECT #:**  
**PAGE #:** 10 of 1

**SAMPLED BY:** TIM DALY  
**DATE:** 2-4-20

**CONTAMINANTS:** ASBESTOS  
**ANALYSIS NEEDED BY:** 12 NOV

<table>
<thead>
<tr>
<th>SAMPLE #</th>
<th>VOLUME</th>
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<td>02620 02612</td>
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**SAMPLE PACKAGED AND SEALED BY:** TIM DALY  
**DATE:** 2-4-20  
**TIME:**

**SENT TO:** LATL

**CONDITION UPON RECEIPT (DAMAGED / UNDAMAGED):**

CA: Kompeh  
2/15/20

**RECEIVED**  
**FEB 4, 2020**  
**LATL by:** 2/15/20