

PRELIMINARY RESULTS
Airborne Asbestos Analysis
TEM AHERA

Client: OHCS Inc.
209 Catharine St.
Philadelphia, PA 19147
Client No.: OHC164

Batch No.: 609059
Project: Ben Franklin
Project No.: _____
Philly Regs: Y
Turn-Around Time: 12 Hour Rush

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

Chain of Custody:			
Samples Taken in Field:	_____	Date: _____	Time: _____
Samples Rec'd at Laboratory:	<u>L. D'Ornellas</u>	Date: <u>2/4/2020</u>	Time: _____
Samples Analyzed:	<u>C. Liska</u>	Date: <u>2/5/2020</u>	Time: _____
Preliminary Results Faxed:	_____	Date: _____	Time: _____
Preliminary Results E-Mail:	_____	Date: _____	Time: _____

Summary Data
Transmission Electron Microscopy
AHERA 40CFR 763

Client Sample ID #	IATL Sample ID #	Volume (L)	Comments	Results s/mm ²	Results s/cc
020420BEN01	6964499	1810	None Detected	< 19.2	< 0.0041
020420BEN02	6964500	1810	None Detected	< 19.2	< 0.0041
020420BEN03	6964501	1810	None Detected	< 19.2	< 0.0041
020420BEN04	6964502	1810	None Detected	< 19.2	< 0.0041
020420BEN05	6964503	1810	None Detected	< 19.2	< 0.0041
020420BEN06	6964504	1810	None Detected	< 19.2	< 0.0041
020420BEN07	6964505	1810	None Detected	< 19.2	< 0.0041
020420BEN08	6964506	1850	None Detected	< 19.2	< 0.004
020420BEN09	6964507	1850	None Detected	< 19.2	< 0.004
020420BEN10	6964508	1850	None Detected	< 19.2	< 0.004

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)

Grid Box #: 1858

Instrument (I, II, III) I

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.

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

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1810</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	<u>NSD</u>	Non-Asbestos Structures:	<u>NSD</u>
0.5µm - 5.0µm:	<u>NSD</u>		
>5.0µm:	<u></u>		
Asbestos:	<u>< 19.2</u>	s/mm ²	Non-Asbestos: <u>< 19.2</u>
Asbestos:	<u>< 0.0041</u>	s/cc	Non-Asbestos: <u>< 0.0041</u>
			s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
O2 H1		NSD						
H2		NSD						
O4 B1		NSD						
B2		NSD						
Total:	NSD	NSD	0	0	0	0	0	

Loading	1%
---------	----

Reviewed By:

IATL Sample #:	6964500
Client Sample #:	020420BEN02
IATL Grid Box #:	1858
Grid Archive ID #:	06

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2	s/mm ²	Non-Asbestos: < 19.2 s/mm ²
Asbestos:	< 0.0041	s/cc	Non-Asbestos: < 0.0041 s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
O6 E1		NSD						
F1		NSD						
B1		NSD						
B2		NSD						
Total:	NSD	NSD	0	0	0	0	0	

SEE REVERSE: FIBER ORIENTATION MAP

Reviewed By:

Loading	<1
---------	----

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

Analysis Date:
02/05/20

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

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

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1810</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	<u>NSD</u>	Non-Asbestos Structures:	<u>NSD</u>
0.5µm - 5.0µm:	<u>NSD</u>		
>5.0µm:	<u> </u>		
Asbestos:	<u>< 19.2</u>	s/mm ²	Non-Asbestos: <u>< 19.2</u> s/mm ²
Asbestos:	<u>< 0.0041</u>	s/cc	Non-Asbestos: <u>< 0.0041</u> s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	** Amphibole	***Non-Asbestos	Micrograph / EDS ID
O10 C1		NSD						
C2		NSD						
P1 F9		NSD						
F10		NSD						
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: C. Liska
Reviewed By:

IATL Sample #:	6964502
Client Sample #:	020420BEN04
IATL Grid Box #:	1858
Grid Archive ID #:	O10P1

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2	s/mm ²	Non-Asbestos: < 19.2 s/mm ²
Asbestos:	< 0.0041	s/cc	Non-Asbestos: < 0.0041 s/cc

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
O10 E1		NSD						
F1		NSD						
P1 G9		NSD						
G10		NSD						
Total:	NSD	NSD	0	0	0	0	0	

Loading	<1
---------	----

Reviewed By:

IATL Sample #:	6964503
Client Sample #:	020420BEN05
IATL Grid Box #:	1858
Grid Archive ID #:	P5P7

Total Asbestos Structures:	<u>NSD</u>	Non-Asbestos Structures:	<u>NSD</u>		
0.5µm - 5.0µm:	<u>NSD</u>				
>5.0µm:					
Asbestos:	<u>< 19.2</u>	s/mm ²	Non-Asbestos:	<u>< 19.2</u>	s/mm ²
Asbestos:	<u>< 0.0041</u>	s/cc	Non-Asbestos:	<u>< 0.0041</u>	s/cc

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
P5 B7		NSD						
A7		NSD						
P7 A3		NSD						
B4		NSD						
Total:	NSD	NSD	0	0	0	0	0	

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

Analyzed By: C. Liska
Reviewed By:

Client Name: OHCS Inc. Analysis Date: 02/05/20 IATL Sample #: 6964504
 Client Project #: _____ Client Sample #: 020420BEN06
 Sample Type: AHERA -Philly Regulations IATL Grid Box #: 1858
 QC Submittal Grid Archive ID #: Q2Q4

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

Grid Opening: 0.115 mm Volume of Air Sampled: 1810 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: 0.0041 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:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 - 5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
Q2 B2		NSD						
C3		NSD						
Q4 D9		NSD						
E10		NSD						
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: C. Liska
 Reviewed By: _____

Client Name: OHCS Inc. Analysis Date: 02/05/20 IATL Sample #: 6964505
 Client Project #: _____ Client Sample #: 020420BEN07
 Sample Type: AHERA -Philly Regulations IATL Grid Box #: 1858
 QC Submittal Grid Archive ID #: Q6Q8

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

Grid Opening: 0.115 mm Volume of Air Sampled: 1810 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: 0.0041 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:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 - 5.0 µm	² Length > 5.0 µm	* Chrysotile	** Amphibole	*** Non-Asbestos	Micrograph / EDS ID
Q6 J3		NSD						
J4		NSD						
Q8 E1		NSD						
E2		NSD						
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: C. Liska
 Reviewed By: _____

IATL Sample #:	6964506
Client Sample #:	020420BEN08
IATL Grid Box #:	1858
Grid Archive ID #:	Q10R1

IATL Sample #:	6964507
Client Sample #:	020420BEN09
IATL Grid Box #:	1858
Grid Archive ID #:	R3R5

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2	s/mm ²	Non-Asbestos: < 19.2 s/mm ²
Asbestos:	< 0.004	s/cc	Non-Asbestos: < 0.0040 s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
R3 A6		NSD						
A7		NSD						
R5 C10		NSD						
D10		NSD						
Total:	NSD	NSD	0	0	0	0	0	

- SEE REVERSE: FIBER ORIENTATION MAP

Prep Quality:	
Dissolution	GOOD
Carbon Film	GOOD
Loading	

Analyzed By: C. Liska
Reviewed By:

IATL Sample #:	6964507
Client Sample #:	020420BEN09
IATL Grid Box #:	1858
Grid Archive ID #:	R3R5

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2 s/mm ²	Non-Asbestos:	< 19.2 s/mm ²
Asbestos:	< 0.004 s/cc	Non-Asbestos:	< 0.0040 s/cc

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
R3 A6		NSD						
A7		NSD						
R5 C10		NSD						
D10		NSD						
Total:	NSD	NSD	0	0	0	0	0	

- | | |
|----------------------|------|
| Prep Quality: | |
| Dissolution | GOOD |
| Carbon Film | GOOD |
| Loading | |

Analyzed By: C. Liska
Reviewed By:

Client Name: OHCS Inc. Analysis Date: 02/05/20 IATL Sample #: 6964508
 Client Project #: _____ Client Sample #: 020420BEN10
 Sample Type: AHERA -Philly Regulations IATL Grid Box #: 1858
 QC Submittal Grid Archive ID #: R7R9

Electron Microscope ID: _____ Filter Dia. (mm): 25 Magnification: 20,000X
 Effective Area (mm): 385
 I Hitachi H600AB, 542-47-3 Filter Type: MCE Accelerating Voltage: 100KeV
 EVEX 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 Non-Asbestos Structures: NSD
 0.5μm - 5.0μm: NSD
 >5.0μm: _____
 Asbestos: < 19.2 s/mm² Non-Asbestos: < 19.2 s/mm²
 Asbestos: < 0.004 s/cc Non-Asbestos: < 0.0040 s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
R7 19		NSD						
J9		NSD						
R9 15		NSD						
16		NSD						
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: C. Liska
 Reviewed By: _____

OHCS Inc.

Occupational Health Consultation Services
209 Catharine Street, Philadelphia, PA 19147.
Cell: 215-407-3900 Office: 215-925-3870 Fax: 215-925-3872

JRosenman@ohcs.net Jerni1001@ohcs.com

CHAIN OF CUSTODY - Air Samples

CLIENT: PPPT	SITE: BEN FRANKLIN
PROJECT #: _____	PAGE #: 1 OF 1
SAMPLED BY: TIM MACEY	DATE: 2.4.20
CONTAMINANTS: ASBESTOS	ANALYSIS NEEDED BY: 12 NOV.

	SAMPLE #	VOLUME	TYPE	COMMENTS	10LPM
0810	020420BTN01	1810	FM	Room 302 entrance.	6904498
0841	020420BTN02	1810		Room 309 entrance.	6904500
0842	020420BTN03	1810		334 NOUWAY	6904501
0843	020420BTN04	1810		Room 315 entrance.	6904502
0844	020420BTN05	1810		Room 318 entrance.	6904503
0845	020420BTN06	1810		Room 321 entrance.	6904504
0846	020420BTN07	1810		Room 328A entrance.	6904505
0845	020420BTN08	1850		200 common space	6904506
0844	020420BTN09	1850		236 NOUWAY OUTSIDE	6904507
0847	020420BTN10	1850		222 nurses office	6904508

SAMPLE PACKAGED AND SEALED BY:

Tim Macey

DATE: **2.1.20**

SENT TO: **PPPT**

CONDITION UPON RECEIPT (DAMAGED / UNDAIMAGED)

QA Kumpin 2/5/2020

FEB - 4 2020

WTL-BY EC

REMOVED 2/4/20

Grid Archive ID #: R7R9

Minimum Detection Limit: 0.0040 s/cc

0.00

Grid Opening	Structure Number	Structure Type		* Chrysotile	** Amphibole	*** Non-Asbestos	Micrograph / EDS ID
		¹ Length $0 \leq L < 0.1 \mu\text{m}$	² Length $L \geq 0.1 \mu\text{m}$				

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5-5.0 µm	² Length > 5.0 µm	* Chrysotile	** Amphibole	*** Non-Asbestos	Micrograph / EDS ID
R7 19		NSD						
J9		NSD						
R9 15		NSD						
16		NSD						
Total:	NSD	NSD	0	0	0	0	0	

OHCS Inc.

Occupational Health Consultation Services
209 Catharine Street, Philadelphia, PA 19147.
Cell: 215-407-3900 Office: 215-925-3870 Fax: 215-925-3872

JRosenman@ohcs.net Jerni1001@ohcs.com

CHAIN OF CUSTODY - Air Samples

CLIENT: PPPT	SITE: BEN FRANKLIN
PROJECT #: _____	PAGE #: 1 OF 1
SAMPLED BY: Tim Mally	DATE: 2.4.20
CONTAMINANTS: ASBESTOS	ANALYSIS NEEDED BY: 12 NOV

	SAMPLE #	VOLUME	TYPE	COMMENTS	10 LPM
0810	020420 B6N01	1810	FM	Room 302 entrance.	6904498
0841	020420 B6N02	1810		Room 309 entrance.	6904500
0842	020420 B6N03	1810		334 NOUWAY	6904501
0843	020420 B6N04	1810		Room 315 entrance.	6904502
0844	020420 B6N05	1810		Room 318 entrance.	6904503
0845	020420 B6N06	1810		Room 321 entrance.	6904504
0846	020420 B6N07	1810		Room 328A entrance.	6904505
0845	020420 B6N08	1850		200 common space	6904506
0844	020420 B6N09	1850		236 NOUWAY OUTSIDE	6904507
0847	020420 B6N10	1850		222 nurses office	6904508

SAMPLE PACKAGED AND SEALED BY:

Tim Mally

DATE: **2.1.20**

SENT TO: **PPPT**

CONDITION UPON RECEIPT (DAMAGED / UNDAIMAGED)

QA Kumpin 2/5/2020

FEB - 4 2020

WTL-BY EC

REMOVED 2/4/20

PRELIMINARY RESULTS
Airborne Asbestos Analysis
TEM AHERA

Client: OHCS Inc.
209 Catharine St.
Philadelphia, PA 19147
Client No.: ohc164

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

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

Chain of Custody:			
Samples Taken in Field:	_____	Date: _____	Time: _____
Samples Rec'd at Laboratory:	<u>E. Clarke</u>	Date: <u>2/4/2020</u>	Time: _____
Samples Analyzed:	<u>C. Liska</u>	Date: <u>2/5/2020</u>	Time: _____
Preliminary Results Faxed:	_____	Date: _____	Time: _____
Preliminary Results E-Mail:	_____	Date: _____	Time: _____

Summary Data
Transmission Electron Microscopy
AHERA 40CFR 763

Client Sample ID #	IATL Sample ID #	Volume (L)	Comments	Results s/mm ²	Results s/cc
020420BEN11	6964509	1800	None Detected	< 19.2	< 0.0041
020420BEN12	6964510	1800	None Detected	< 19.2	< 0.0041
020420BEN13	6964511	1800	Chrysotile	19.2	0.0041
020420BEN14	6964512	1800	None Detected	< 19.2	< 0.0041
020420BEN15	6964513	1810	None Detected	< 19.2	< 0.0041
020420BEN16	6964514	1810	None Detected	< 19.2	< 0.0041
020420BEN17	6964515	1810	None Detected	< 19.2	< 0.0041
020420BEN18	6964516	1800	None Detected	< 19.2	< 0.0041
020420BEN19	6964517	1800	None Detected	< 19.2	< 0.0041
020420BEN20	6964518	1800	None Detected	< 19.2	< 0.0041

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) I

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.

IATL Sample #:	6964509
Client Sample #:	020420BEN11
IATL Grid Box #:	1864
Grid Archive ID #:	A1A3

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1800</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD		
0.5µm - 5.0µm:	NSD				
>5.0µm:					
Asbestos:	< 19.2	s/mm ²	Non-Asbestos:	< 19.2	s/mm ²
Asbestos:	< 0.0041	s/cc	Non-Asbestos:	< 0.0041	s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
A1 F5		NSD						
F6		NSD						
A3 I1		NSD						
I2		NSD						
Total:	NSD	NSD	0	0	0	0	0	

SEE REVERSE: FIBER ORIENTATION MAP

Dissolution	GOOD
Carbon Film	GOOD
Loading	<1

Reviewed By:

IATL Sample #:	6964510
Client Sample #:	020420BEN12
IATL Grid Box #:	1864
Grid Archive ID #:	A5A7

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1800</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2 s/mm ²	Non-Asbestos:	< 19.2 s/mm ²
Asbestos:	< 0.0041 s/cc	Non-Asbestos:	< 0.0041 s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
A5 J2		NSD						
J3		NSD						
A7 B1		NSD						
B2		NSD						
Total:	NSD	NSD	0	0	0	0	0	

SEE REVERSE: FIBER ORIENTATION MAP

Dissolution	GOOD
Carbon Film	GOOD
Loading	1%

Comments:

Analyzed By: C. Liska

Reviewed By:

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

Analysis Date:
02/05/20

IATL Sample #: 6964511
Client Sample #: 020420BEN13
IATL Grid Box #: 1864
Grid Archive ID #: A9B2

Electron Microscope ID: I 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: 1
0.5μm - 5.0μm: 1
>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:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
A9 A2	1	F	1		CD			DP 5780
B3		NSD						
B2 I1		NSD						
I2		NSD						
Total:	1		1		1	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: C. Liska
Reviewed By: _____

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

Analysis Date:
02/05/20

IATL Sample #: 6964512
 Client Sample #: 020420BEN14
 IATL Grid Box #: 1864
 Grid Archive ID #: B4B6

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
 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:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
B4 A8		NSD						
B9		NSD						
B6 F9		NSD						
F10		NSD						
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: C. Liska
 Reviewed By: _____

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

Analysis Date:
02/05/20

IATL Sample #:	<u>6964513</u>
Client Sample #:	<u>020420BEN15</u>
IATL Grid Box #:	<u>1864</u>
Grid Archive ID #:	B8B10

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

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1810</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2	s/mm ²	Non-Asbestos: < 19.2
Asbestos:	< 0.0041	s/cc	Non-Asbestos: < 0.0041
			s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
B8 D4		NSD						
E5		NSD						
B10 B2		NSD						
B3		NSD						
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

Prep Quality:	
Dissolution	GOOD
Carbon Film	GOOD
Loading	2%

Comments:

Analyzed By: C. Liska
Reviewed By:

PRELIMINARY RESULTS
Airborne Asbestos Analysis
TEM AHERA

Client: OHCS Inc.
209 Catharine St.
Philadelphia, PA 19147
Client No.: ohc164

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

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

Chain of Custody:			
Samples Taken in Field:	_____	Date: _____	Time: _____
Samples Rec'd at Laboratory:	<u>E. Clarke</u>	Date: <u>2/4/2020</u>	Time: _____
Samples Analyzed:	<u>C. Liska</u>	Date: <u>2/5/2020</u>	Time: _____
Preliminary Results Faxed:	_____	Date: _____	Time: _____
Preliminary Results E-Mail:	_____	Date: _____	Time: _____

Summary Data
Transmission Electron Microscopy
AHERA 40CFR 763

Client Sample ID #	IATL Sample ID #	Volume (L)	Comments	Results s/mm ²	Results s/cc
020420BEN11	6964509	1800	None Detected	< 19.2	< 0.0041
020420BEN12	6964510	1800	None Detected	< 19.2	< 0.0041
020420BEN13	6964511	1800	Chrysotile	19.2	0.0041
020420BEN14	6964512	1800	None Detected	< 19.2	< 0.0041
020420BEN15	6964513	1810	None Detected	< 19.2	< 0.0041
020420BEN16	6964514	1810	None Detected	< 19.2	< 0.0041
020420BEN17	6964515	1810	None Detected	< 19.2	< 0.0041
020420BEN18	6964516	1800	None Detected	< 19.2	< 0.0041
020420BEN19	6964517	1800	None Detected	< 19.2	< 0.0041
020420BEN20	6964518	1800	None Detected	< 19.2	< 0.0041

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) I

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

Analysis Date:
02/05/20

IATL Sample #:	6964509
Client Sample #:	020420BEN11
IATL Grid Box #:	1864
Grid Archive ID #:	A1A3

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

Grid Opening:	0.115	mm	Volume of Air Sampled:	1800	Liters
Grid opening Area:	0.013	mm ²			
Grid Openings Read/Required:	4	4	Analytical Sensitivity:	19.2	mm ²
Total Area Analyzed:	0.0520	mm ²	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/mm ²	Non-Asbestos:	< 19.2 s/mm ²
Asbestos:	< 0.0041 s/cc	Non-Asbestos:	< 0.0041 s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
A1 F5		NSD						
F6		NSD						
A3 I1		NSD						
I2		NSD						
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

Prep Quality:

Dissolution	GOOD
Carbon Film	GOOD
Loading	<1

Comments:

Analyzed By: C. Liska

Reviewed By:

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

Analysis Date:
02/05/20

IATL Sample #:	6964510
Client Sample #:	020420BEN12
IATL Grid Box #:	1864
Grid Archive ID #:	A5A7

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

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1800</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2 s/mm ²	Non-Asbestos:	< 19.2 s/mm ²
Asbestos:	< 0.0041 s/cc	Non-Asbestos:	< 0.0041 s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
A5 J2		NSD						
J3		NSD						
A7 B1		NSD						
B2		NSD						
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: C. Liska

Reviewed By:

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

Analysis Date:
02/05/20

IATL Sample #: 6964511
Client Sample #: 020420BEN13
IATL Grid Box #: 1864
Grid Archive ID #: A9B2

Electron Microscope ID: I 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: 1
0.5μm - 5.0μm: 1
>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:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
A9 A2	1	F	1		CD			DP 5780
B3		NSD						
B2 I1		NSD						
I2		NSD						
Total:	1		1		1	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: C. Liska
Reviewed By: _____

Analysis Date:
02/05/20

IATL Sample #:	6964512
Client Sample #:	020420BEN14
IATL Grid Box #:	1864
Grid Archive ID #:	B4B6

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	mm ²
Grid Openings Read/Required:	4	4
Total Area Analyzed:	0.0520	mm ²

Volume of Air Sampled:	<u>1800</u>	Liters
Analytical Sensitivity:	<u>19.2</u>	mm ²
Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD
>5.0µm:	

Non-Asbestos Structures:	NSD
--------------------------	-----

Asbestos:	< 19.2	s/mm ²
Asbestos:	< 0.0041	s/cc

Non-Asbestos:	< 19.2	s/mm ²
Non-Asbestos:	< 0.0041	s/cc

Analysis Data:

Analysis Data:								
Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
B4 A8		NSD						
B9		NSD						
B6 F9		NSD						
F10		NSD						
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: _____ C. Liska

Reviewed By: _____

IATL Sample #:	6964513
Client Sample #:	020420BEN15
IATL Grid Box #:	1864
Grid Archive ID #:	B8B10

Grid Opening:	0.115	mm	Volume of Air Sampled:	1810	Liters
Grid opening Area:	0.013	mm ²			
Grid Openings Read/Required:	4	4	Analytical Sensitivity:	19.2	mm ²
Total Area Analyzed:	0.0520	mm ²	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/mm ²	Non-Asbestos:	< 19.2 s/mm ²
Asbestos:	< 0.0041 s/cc	Non-Asbestos:	< 0.0041 s/cc

Analysis Data:

Grid Opening ID		Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
B8	D4		NSD						
	E5		NSD						
B10	B2		NSD						
	B3		NSD						
Total:		NSD	NSD	0	0	0	0	0	

SEE REVERSE: FIBER ORIENTATION MAP

Prep Quality:	
Dissolution	GOOD
Carbon Film	GOOD
Loading	2%

Analyzed By: C. Liska
Reviewed By: _____

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

Analysis Date:
02/05/20

IATL Sample #: 6964514
Client Sample #: 020420BEN16
IATL Grid Box #: 1864
Grid Archive ID #: C1C3

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

Grid Opening: <u>0.115</u> mm	Volume of Air Sampled: <u>1810</u> Liters
Grid opening Area: <u>0.013</u> mm ²	
Grid Openings Read/Required: <u>4</u> 4	Analytical Sensitivity: <u>19.2</u> mm ²
Total Area Analyzed: <u>0.0520</u> mm ²	Minimum Detection Limit: <u>0.0041</u> s/cc

Total Asbestos Structures: <u>NSD</u>	Non-Asbestos Structures: <u>1</u>
0.5µm - 5.0µm: <u>NSD</u>	
>5.0µm: _____	
Asbestos: <u>< 19.2</u> s/mm ²	Non-Asbestos: <u>19.2</u> s/mm ²
Asbestos: <u>< 0.0041</u> s/cc	Non-Asbestos: <u>0.0041</u> s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 - 5.0 µm	² Length > 5.0 µm	* Chrysotile	** Amphibole	*** Non-Asbestos	Micrograph / EDS ID
C1 J5		NSD						
J6	1	NSD					Ti - Titanium	
C3 D9		NSD						
E10		NSD						
Total:	NSD	NSD	0	0	0	0	1	

- * 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	<u>GOOD</u>
Carbon Film	<u>GOOD</u>
Loading	<u>2%</u>

Comments: _____

Analyzed By: C. Liska
Reviewed By: _____

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

Analysis Date:
02/05/20

IATL Sample #: 6964514
Client Sample #: 020420BEN16
IATL Grid Box #: 1864
Grid Archive ID #: C1C3

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

Grid Opening: <u>0.115</u> mm	Volume of Air Sampled: <u>1810</u> Liters
Grid opening Area: <u>0.013</u> mm ²	
Grid Openings Read/Required: <u>4</u> 4	Analytical Sensitivity: <u>19.2</u> mm ²
Total Area Analyzed: <u>0.0520</u> mm ²	Minimum Detection Limit: <u>0.0041</u> s/cc

Total Asbestos Structures: <u>NSD</u>	Non-Asbestos Structures: <u>1</u>
0.5µm - 5.0µm: <u>NSD</u>	
>5.0µm: _____	
Asbestos: <u>< 19.2</u> s/mm ²	Non-Asbestos: <u>19.2</u> s/mm ²
Asbestos: <u>< 0.0041</u> s/cc	Non-Asbestos: <u>0.0041</u> s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 - 5.0 µm	² Length > 5.0 µm	* Chrysotile	** Amphibole	*** Non-Asbestos	Micrograph / EDS ID
C1 J5		NSD						
J6	1	NSD					Ti - Titanium	
C3 D9		NSD						
E10		NSD						
Total:	NSD	NSD	0	0	0	0	1	

- * 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	2%

Comments: _____

Analyzed By: C. Liska
Reviewed By: _____

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

Analysis Date:
02/05/20

IATL Sample #:	6964515
Client Sample #:	020420BEN17
IATL Grid Box #:	1864
Grid Archive ID #:	C5C7

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

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1810</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2	Non-Asbestos:	< 19.2
	s/mm ²		s/mm ²
Asbestos:	< 0.0041	Non-Asbestos:	< 0.0041
	s/cc		s/cc

Analysis Data:

Analysis Data.								
Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
C5 C1		NSD						
B2		NSD						
C7 D4		NSD						
E4		NSD						
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	2%

Analyzed By: C. Liska
Reviewed By: _____

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

Analysis Date:

02/05/20

IATL Sample #: 6964516

Client Sample #: 020420BEN18

IATL Grid Box #: 1864

Grid Archive ID #: C9D2

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

Grid Opening:	<u>0.115</u>	mm	Volume of Air Sampled:	<u>1800</u>	Liters
Grid opening Area:	<u>0.013</u>	mm ²			
Grid Openings Read/Required:	<u>4</u>	4	Analytical Sensitivity:	<u>19.2</u>	mm ²
Total Area Analyzed:	<u>0.0520</u>	mm ²	Minimum Detection Limit:	<u>0.0041</u>	s/cc

Total Asbestos Structures:	NSD	Non-Asbestos Structures:	NSD
0.5µm - 5.0µm:	NSD		
>5.0µm:			
Asbestos:	< 19.2	s/mm ²	Non-Asbestos: < 19.2
Asbestos:	< 0.0041	s/cc	Non-Asbestos: < 0.0041
			s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 μm	² Length > 5.0 μm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
C9 J6		NSD						
J7		NSD						
D2 H10		NSD						
I10		NSD						
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

Carbon Film

Loading

Analyzed By: C. Liska

Reviewed By: _____

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

Analysis Date:
02/05/20

IATL Sample #:	6964517
Client Sample #:	020420BEN19
IATL Grid Box #:	1864
Grid Archive ID #:	D4D6

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

Grid Opening:	0.115	mm	Volume of Air Sampled:	1800	Liters
Grid opening Area:	0.013	mm ²			
Grid Openings Read/Required:	4	4	Analytical Sensitivity:	19.2	mm ²
Total Area Analyzed:	0.0520	mm ²	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/mm ²	Non-Asbestos:	< 19.2	s/mm ²
Asbestos:	< 0.0041	s/cc	Non-Asbestos:	< 0.0041	s/cc

Analysis Data:

Grid Opening ID	Structure Number	Structure Type F/B/C/M	¹ Length 0.5 -5.0 µm	² Length > 5.0 µm	* Chrysotile	**Amphibole	***Non-Asbestos	Micrograph / EDS ID
D4 B3		NSD						
B4		NSD						
D6 E1		NSD						
D2		NSD						
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: C. Liska
Reviewed By:

Grid Archive ID #: **D8D10**

Accelerating Voltage: 100KeV

Minimum Detection Limit: 0.0041 s/cc

Non-Asbestos: < 0.0041 s/cc

Analysis Data:

Loading	1%
---------	----

Reviewed By:

OHCS Inc.

Occupational Health Consultation Services

209 Catharine Street, Philadelphia, PA 19147

Cell: 215-407-3900 Office: 215-925-3870 Fax: 215-925-3872

J.Roseman@ohcs.net

J.Roseman@ohcs.net J.Roseman@ohcs.net

CHAIN OF CUSTODY - Air Samples

CLIENT:

PET.

SITE:

BEN FRANKLIN.

PROJECT #:

PAGE #:

1 OF 1

SAMPLED BY:

TIM DALY.

DATE:

2.4.20

CONTAMINANTS:

ASBESTOS

ANALYSIS NEEDED BY:

12 NOV

	SAMPLE #	VOLUME	TYPE	COMMENTS	10LPM
1201	020420 BEN 11	1800	FM	228 BATHROOM CENTER.	1501
1202	020420 BEN 12	1800		213 ENTRANCE.	1502
1203	020420 BEN 13	1800		250 MAIN OFFICE CENTER.	1503
1204	020420 BEN 14	1800		227 OFFICE CENTER.	1504
1224	020420 BEN 15	1810		109 STAIRWELL S 1ST FLR LANDING.	1525
1222	020420 BEN 16	1810		113 GYM SHOWER CENTER.	1523
1227	020420 BEN 17	1810		116 B.F. SCHOOL STORE CENTER.	1520
1235	020420 BEN 18	1800		214 STORAGE ENTRANCE	1535
1237	020420 BEN 19	1800		16 MEETING ROOM ENTRANCE	1537
1239	020420 BEN 20	1800	✓	CN CORRIDOR.	1539

SAMPLE PACKAGED AND SEALED BY:

Tim Daly

DATE: 2.4.20 TIME:

SENT TO: IATL

CONDITION UPON RECEIPT (DAMAGED / UNDAAGED)

QA: Kmyph
2/5/20RECEIVED
FEB - 4 2020IATL - BY [Signature]
ANALYZED: [Signature] 2/5/20