NYC 9/11 Public Portal Document

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Attn: Mr. Bernard Orlan
N.Y.C. Board of Education
28-11 Queens Plaza North
Long Island City, NY 11101

Fax: (212) 475-4122 **Phone:** (212) 477-8941

Project: H.S. Of Economics And Finance
100 Trinity Place, New York, NY

Received: 5/22/02 9:00:00 PM
ATC Group #: 7835
Analysis Date: 5/23/02

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Final Rule (AHERA)

Sample	Volume	Area Analyzed	Non Asb	Asbestos Type(s)	# Structures 0.5µ-5	# Structures 5µ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm²)	Asbestos Concentration (S/cc)	Notes
03 *7835 -1*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
04 *7835 -2*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
05 *7835 -3*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
06 *7835 -4*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
07 *7835 -5*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
08 *7835 -6*	1816.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
09 *7835 -7*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	

ROMAN PEYSAKHOV
Analyzed by:

MICHAEL A. GORYCKI, Ph.D.
Approved by:

Disclaimer: The laboratory is not responsible for data reported in structures/cc, which is dependent on volume collected by non-laboratory personnel. This lab is only responsible for data reported in structures/mm². This report may not be reproduced, except in full, without written approval by ATC Associates Inc. This report may not be used to claim product endorsement by NVLAP or any other agency of the U.S. Government. This reports relates only to the samples reported above. Quality control data (including 95% confidence limits and laboratory and analysis' accuracy and precision) is available upon request.

Accredited for NVLAP PLM/TEM #101187-0, NY State ELAP #10879

CONFIDENTIAL, CITY_21MC100_003460991

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258272

NYC 9/11 Public Portal Document

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Long Island City, NY 11101

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Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Final Rule (AHERA)

Sample	*Volume*	*Area Analyzed*	*Non Asb*	*Asbestos Type(s)*	*# Structures* 0.5μ-5	5μ	*Analytical Sensitivity (S/cc)*	*Asbestos Concentration (S/mm²)*	*(S/cc)*	*Notes*
10 *7835 -8*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
11 *7835 -9*	1816.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
12 *7835 -10*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
13 *7835 -11*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
14 *7835 -12*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
15 *7835 -13*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	
16 *7835 -14*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
17 *7835 -15*	1800.00	0.0450	0	None Detected	0	0	0.0048	<22.24	<0.0048	
18 *7835 -16*	1808.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	

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ATC Group #: 7835
Analysis Date: 5/23/02

Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by EPA 40 CFR Part 763 Final Rule (AHERA)

Sample	*Volume*	*Area Analyzed*	*Non Asb*	*Asbestos Type(s)*	*# Structures 0.5μ-5*	*5μ*	*Analytical Sensitivity (S/cc)*	*Asbestos Concentration (S/mm²)*	*(S/cc)*	*Notes*
19 *7835 -17*	1840.00	0.0450	0	None Detected	0	0	0.0047	<22.24	<0.0047	

ROMAN PEYSAKHOV
Analyzed by:

MICHAEL A. GORYCKI, Ph.D.
Approved by:

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Accredited for NVLAP PLM/TEM #101187-0, NY State ELAP #10879

CONFIDENTIAL, CITY_21MC100_003460993

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258274

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	1	**Grid Opening Size:**	0.01124
Client Sample #:	03	**Area Examined:**	0.04496 mm²
GRID BOX:	116	**Magnification:**	20,000
GRID ID:	3T4R	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

3T

4K

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 μ <5μ	>=5μ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
1	Q2	NSD											
2	J2	4											
3	I2	4											
4	P2	4											

Struct = > 0.5μ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5μ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

CONFIDENTIAL, CITY_21MC100_003460994

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258275

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	2	**Grid Opening Size:**	0.01124
Client Sample #:	04	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	4M0	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	Q2	NSD											
2	K2	11											
3	P1	11											
4	H3	11											

4M / 4M0

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	3	**Grid Opening Size:**	0.01124
Client Sample #:	05	**Area Examined:**	0.04496 mm²
GRID BOX:	116	**Magnification:**	20,000
GRID ID:	485	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	Q2	1											
2	R2	4											
3	R1	4											
4	K1	4											

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber

B = Bundle (<3 fibers <1 fiber diameter apart

C = Cluster (>3 intersections)

M = Matrix

NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES

Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	4	**Grid Opening Size:**	0.01124
Client Sample #:	06	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	5LN	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	J2	ND											
2	Q2	9											
3	P2	11											
4	I2	11											
5L													
5N													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1808
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	5	**Grid Opening Size:**	0.01124
Client Sample #:	07	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	5PR	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.	Structure	Structure Type				Length		ID of Structure N or √				EDS
No Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
5P 1F2	NSD											
2P2	9											
3 J2	9											
4 Q2	9											
5R												

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded cr overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

CONFIDENTIAL, CITY_21MC100_003460998

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258279

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1816
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	6	**Grid Opening Size:**	0.01124
Client Sample #:	08	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	5TEK	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
5T 1	JZ	NSD											
2	QZ	4											
3	IZ	4											
4	PZ	4											
6K													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	7	**Grid Opening Size:**	0.01124
Client Sample #:	09	**Area Examined:**	0.04496 mm²
GRID BOX:	V61	**Magnification:**	20,000
GRID ID:	6M00	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure No	Structure Type				Length		ID of Structure N or √				EDS (Nonadb Elements)
No	Coord		F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	
6M 1	5Z	NSD											
2	QZ	9											
3	FZ	9											
4	PZ	9											
60													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyilite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258281

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1808
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	8	**Grid Opening Size:**	0.01124
Client Sample #:	10	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	6DS	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO. No	Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	>=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
1	PZ	NSD											
2	IZ	"											
3	JZ	"											
4	QZ	"											

6Q

6S

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber

B = Bundle (<3 fibers <1 fiber diameter apart

C = Cluster (>3 Intersections)

M = Matrix

NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES

Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1816
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	9	**Grid Opening Size:**	0.01124
Client Sample #:	11	**Area Examined:**	0.04496 mm²
GRID BOX:	116	**Magnification:**	20,000
GRID ID:	TLN	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
TL 1	J2	NSD											
2	Q2	11											
/ 3	I2	4											
4	P2	4											
TN													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

CONFIDENTIAL, CITY_21MC100_003461002

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258283

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	10	**Grid Opening Size:**	0.01124
Client Sample #:	12	**Area Examined:**	0.04496 mm²
GRID BOX:	1601	**Magnification:**	20,000
GRID ID:	TPR	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
TP 1	Q2	NSD											
2	Z2	4											
3	Z2	4											
4	P2	4											
TR													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber

B = Bundle (<3 fibers <1 fiber diameter apart

C = Cluster (>3 Intersections)

M = Matrix

NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES

Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	11	**Grid Opening Size:**	0.01124
Client Sample #:	13	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	TEK	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

TT

OK

GO		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	P1	NSD											
2	I3	4											
3	P6	4											
4	Q3	4											

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	12	**Grid Opening Size:**	0.01124
Client Sample #:	14	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	8MD	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	F2	NSD											
2	P2	4											
3	J2	4											
4	R2	11											

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber

B = Bundle (<3 fibers <1 fiber diameter apart

C = Cluster (>3 Intersections)

M = Matrix

NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES

Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1808
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	13	**Grid Opening Size:**	0.01124
Client Sample #:	15	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	SQS	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	>=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
1	P2	NSD											
2	I2	4											
3	J2	4											
4	Q2	11											

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	14	**Grid Opening Size:**	0.01124
Client Sample #:	16	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	9LN	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
9L 1	J2	NSD											
2	Q2	4											
3	E2	1											
4	P2	4											
9N													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1800
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	15	**Grid Opening Size:**	0.01124
Client Sample #:	17	**Area Examined:**	0.04496 mm²
GRID BOX:	1166	**Magnification:**	20,000
GRID ID:	9P, 9R	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
9P 1	Q2	NSD											
2	J2	4											
3	Z2	4											
4	P2	4											
9R													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1808
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	16	**Grid Opening Size:**	0.01124
Client Sample #:	18	**Area Examined:**	0.04496 mm²
GRID BOX:	1161	**Magnification:**	20,000
GRID ID:	9 Trok	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP
ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
9T	C P 2	NSD											
	2 I 2	4											
	3 J 2	4											
	4 Q 2	11											
10f													

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:
<50% undissolved filter, overlapped or folded
<10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

NYC 9/11 Public Portal Document

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1840
Lab Group #:	7835	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	17	**Grid Opening Size:**	0.01124
Client Sample #:	19	**Area Examined:**	0.04496 mm²
GRID BOX:	1165	**Magnification:**	20,000
GRID ID:	10M10	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/23/02

Analysis Performed By: RP

ROMAN PEYSAKHOV

GO.		Structure	Structure Type				Length		ID of Structure N or √				EDS
No	Coord	No	F	B	C	M	>=05 µ <5µ	>=5µ	Chrys	Amphibole	Nonasb	Ambig/ND	(Nonadb Elements)
1	I2	NSD											
2	P2	11											
3	Q4	4											
4	J6	4											

Struct = > 0.5µ > 5:1 Aspect Ratio

√= Positive diffraction pattern properties conforming to laboratory identification criteria observed

√= EDS spectrum conforming to laboratory identification criteria observed

F = Single Fiber
B = Bundle (<3 fibers <1 fiber diameter apart
C = Cluster (>3 Intersections)
M = Matrix
NSD = No Structures Detected

Grid acceptance:

<50% undissolved filter, overlapped or folded <10% particulate coverage >50% coverage ate least 20 unfolded or overlapped grid squares <5% holes or opaque areas

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	>5µ
Chrysotile					
Amphibole					
Ambiguous					
Non-Asbestos					
Non-Identified					

CONFIDENTIAL, CITY_21MC100_003461010

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC-WTC_000258291

NYC-WTC_000258292

NYC 9/11 Public Portal Document

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL,

CITY_21MC100_003461011

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☐ Other AIHA.

PROJECT INFORMATION

7835 12/20 90886-90905

1. Client:	2. Project Name	3. Project #	4. Project Monitor:	4c. Rotameter Number:
NYC / B.C.E.	2a. Project Address: 100 TRINITY PLACE, NYC	14584-865 / 3a. Task # 01	4a. Air Sampler: M.G. Khan	110-38

5. Date:	6. Abatement Location:	7. ☐ PCM (0.8 micron MCE)	8. ☐ TEM (0.45 micron MCE)	9. Type:		
5/22/02	AS PER PROTOCOL	Cassette/Filter Manufacture: N/A. Lot #:	Cassette/Filter Manufacture: Multi-Metrics Lot #: 00265916	a. ☐ Background b. ☐ Pre-Abate	c. ☐ Abatement d. ☐ Post-Abate e. ☐ OSHA	f. ☐ Environmental g. ☐ Ambient h. ☐ Other

DAILY AIR SAMPLE RECORD

10. Sample I.D. Number	11. Pump Number	12. Sample Location 12a. IWA	12b. OWA	12c. Sample Coordinates	13. Time (24 hrs clock) 13a. Start	13b. End	13c. Total	14. Flow Rate (L/min.) 14a. Start	14b. End	14b. Avg	15. Total Air Vol (liters)	16. # Fibers/Fields Minus Blank	17. Fiber Conc. F/CC
#1				Field Blank									
#2				Field Blank									
#3				OUTSIDE BLDG. BY THE MAIN ENTRANCE.	0740	1125	225	8.0	8.0	8.0	1800		
#4				1ST FLOOR LOBBY OUTSIDE AUDITORIUM.	0742	1127	225	8.0	8.0	8.0	1800		
#5				INSIDE AUDITORIUM AT 1ST FLOOR.	0744	1129	225	8.0	8.0	8.0	1800		
#6				STAIRCASE "B" OPEN AREA AT 7th FLOOR.	0746	1131	225	8.0	8.0	8.0	1800		
#7				CAFETERIA - N/E AT 8th FLOOR	0748	1134	226	8.0	8.0	8.0	1808		
#8				U/S AT THE TOP OF THE ROOF.	0752	1139	227	8.0	8.0	8.0	1816		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M.G. Khan.	[illegible]	5/22/02	2130
II				
III				

26. ATC Project Manager: MARK TEMBER

27. Result To: YIANNIS EFSTATHIOU
Beeper/Phone #'s 646-772-1155

LAB INFORMATION (ATC ELAP # 10879, ATC NVLAP # 1187)

22. Lab Name: ATC-TEM	23. Date:	24. Time:
a. Analyzed By: [illegible]	5.23.02	1:30
b. QC By:		
c. Lab Batch #: 7835		

28. Comments: Please call with Result to Yiannis or Mark.

25. Microscope Make/Serial #:
☐ Nikon Labophot 238913
☐ Nikon Labophot 238917
☐ Nikon Labophot 239079

Analysis Methodology
PCM - NIOSH 7400A
TEM - AHERA

WHITE - File YELLOW - Client/Report PINK - Lab GOLDENROD - Field

NY-1 (1/01)

NYC-WTC_000258293

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL, CITY_21MC100_003461012

NYC 9/11 Public Portal Document

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☐ Other ASAP

PROJECT INFORMATION

1. Client:	2. Project Name	3. Project #	4. Project Monitor:	4c. Rotameter Number:
NYC/HSOE	H.S. FOR FINANCE/ECONOMICS	14584-865		11A-38
	2a. Project Address 100 TRINITY PLACE, NYC	3a. Task # 01	4a. Air Sampler: M. G. Khan	

5. Date:	6. Abatement Location:	7. ☐ PCM (0.8 micron MCE)	8. ☒ TEM (0.45 micron MCE)	9. Type:		
5/22/02	As per Protocol	Cassette/Filter Manufacture N/A	Cassette/Filter Manufacture Mixed-Metrics	a. ☐ Background	c. ☐ Abatement	f. ☐ Environmental
		Lot #	Lot # 00265916	b. ☐ Pre-Abate	d. ☐ Post-Abate	g. ☑ Ambient
					e. ☐ OSHA	h. ☐ Other

DAILY AIR SAMPLE RECORD

10 Sample I.D. Number	11. Pump Number	12. Sample Location 12a. IWA	12b. OWA	12c. Sample Coordinates	13. Time (24 hrs clock) 13a. Start	13b. End	13c. Total	14. Flow Rate (L/min.) 14a. Start	14b. End	14b. Avg	15. Total Air Vol. (liters)	16. # Fibers/Fields Minus Blank	17. Fiber Conc. F/CC
				Field Blank									
				Field Blank									
09				OUTSIDE BLDG. BY THE MAIN ENTRANCE	1125	1510	225	8.0	8.0	8.0	1800		
10				1st FLOOR LOBBY OUTSIDE AUDITORIUM	1127	1513	226	8.0	8.0	8.0	1808		
11				STAIRCASE "B" OPEN AREA AT 7th FLOOR	1131	1518	227	8.0	8.0	8.0	1816		
12				UP AT THE TOP OF THE ROOF	1139	1524	225	8.0	8.0	8.0	1800		
13				MAIN FLOOR HALLWAY AT 9th FLOOR	1530	1915	225	8.0	8.0	8.0	1800		
14				CAFETERIA AT S/E AT 8th FLOOR	1532	1917	225	8.0	8.0	8.0	1800		

CHAIN OF CUSTODY

	18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I	M.G. Khan	[illegible]	[illegible]	
II				
III				

LAB INFORMATION (ATC ELAP # 10879, ATC NVLAP # 1187)

22. Lab Name: ATC-TEM	23. Date:	24. Time:
a. Analyzed By: RLly	5/23/02	1:30
b. QC By:		
c. Lab Batch #: 7135		

25. Microscope Make/Serial #:
☐ Nikon Labophot 238913
☐ Nikon Labophot 238917
☐ Nikon Labophot 239079

Analysis Methodology
PCM - NIOSH 7400A
TEM - AHERA

26. ATC Project Manager: MARK TERSIGNI

27. Result To: YIANNIS GEFSTATHIOU
Beeper/Phone #'s 646-772-1155

28. Comments: See Page 1 of 3

WHITE - File YELLOW - Client/Report PINK - Lab GOLDENROD - Field

NY-1 (1/01)

ATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

TURNAROUND TIME

☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard
☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☐ Other ASAP

PROJECT INFORMATION

1. Client: NYC/B.C.C.	2. Project Name: H.S. FOR FINANCE/ECONOMIC	3. Project #: 14554-865	4. Project Monitor:	4c. Rotameter Number: Hm 38
	2a. Project Address: 100 TRINITY PL NYC	3a. Task #: 01	4a. Air Sampler: M.G. Khan	
5. Date: 5/22/02	6. Abatement Location: AS PER PROTOCOL	7. ☐ PCM (0.8 micron MCE) Cassette/Filter Manufacture: N/A Lot #:	8. ☒ TEM (0.45 micron MCE) Cassette/Filter Manufacture: Multi-Metrics Lot #: 00265916	9. Type: a. ☐ Background b. ☐ Pre-Abate c. ☐ Abatement d. ☐ Post-Abate e. ☐ OSHA f. ☐ Environmental g. ☒ Ambient h. ☐ Other

DAILY AIR SAMPLE RECORD

10. Sample I.D. Number	11. Pump Number	12. Sample Location: 12a. IWA	12b. OWA	12c. Sample Coordinates	13. Time (24 hrs clock): 13a. Start	13b. End	13c. Total	14. Flow Rate (L/min.): 14a. Start	14b. End	14b. Avg	15. Total Air Vol. (liters)	16. # Fibers/Fields Minus Blank	17. Fiber Conc. F/CC
				Field Blank									
				Field Blank									
15				MAIN FLOOR HALLWAY AT 7th FLOOR.	1533	1919	226	8.0	8.0	8.0	1808		
16				INSIDE CLASS RM 605 AT 6th FLOOR.	1535	1920	225	8.0	8.0	8.0	1800		
17				MAIN FLOOR HALLWAY AT 5th FLOOR.	1537	1922	225	8.0	8.0	8.0	1800		
18				INSIDE CLASS RM 404 AT 4th FLOOR.	1539	1925	226	8.0	8.0	8.0	1808		
19				MAIN FLOOR HALLWAY AT 3RD FLOOR.	1541	1931	230	8.0	8.0	8.0	1840		
20				SEALED BLANK									

CHAIN OF CUSTODY

18. Relinquished By:	19. Received By:	20. Date:	21. Time:
I M.G. Khan	[signature]	05/22/02	1100
II			
III			

LAB INFORMATION (ATC ELAP # 10879, ATC NVLAP # 1187)

22. Lab Name: ATC-TEM	23. Date:	24. Time:
a. Analyzed By: [signature]	5.23.02	1:30
b. QC By:		
c. Lab Batch #: 7835		

25. Microscope Make/Serial #:
☐ Nikon Labophot 238913
☐ Nikon Labophot 238917
☐ Nikon Labophot 239079

Analysis Methodology
PCM - NIOSH 7400A
TEM - AHERA

26. ATC Project Manager: [signature]

27. Result To: YIANNIS EFSTATHIOU
~~Beeper~~/Phone #'s 646-772-1155

28. Comments: see page 1 of 3

WHITE - File YELLOW - Client/Report PINK - Lab GOLDENROD - Field

NY-1 (1/01)

CONFIDENTIAL, CITY_21MC100_003461013
SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008