ATC Associates

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N.Y.C. Board of Education
28-11 Queens Plaza North
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Project: NYC-BOE PS 234M Project#: 14584-1823

Received: 5/10/02 9:00:00 PM
ATC Group #: 7696
Analysis Date: 5/11/02

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*
01 *7696 -1*	1936.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
02 *7696 -2*	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
03 *7696 -3*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
04 *7696 -4*	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
05 *7696 -5*	1936.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
06 *7696 -6*	1936.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
07 *7696 -7*	1936.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	

MARK 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_003403318

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC 9/11 Public Portal Document

NYC-WTC_000264455

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: NYC-BOE PS 234M Project#: 14584-1823

Received: 5/10/02 9:00:00 PM
ATC Group #: 7696
Analysis Date: 5/11/02

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*
08 *7696 -8*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
09 *7696 -9*	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
10 *7696 -10*	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
11 *7696 -11*	1928.00	0.0450	0	None Detected	0	0	0.0044	<22.24	<0.0044	
12 *7696 -12*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
13 *7696 -13*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
14 *7696 -14*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	
15 *7696 -15*	1920.00	0.0450	0	None Detected	0	0	0.0045	<22.24	<0.0045	

MARK 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_003403319

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008

NYC 9/11 Public Portal Document

NYC-WTC_000264456

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1936
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	1	**Grid Opening Size:**	0.01124
Client Sample #:	01	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	8475	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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 E9	NSO											
2 09	—											
3 08	—											
4 E8	—											

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

NYC-WTC_000264457

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1928
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	2	**Grid Opening Size:**	0.01124
Client Sample #:	02	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	9MC	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	E3	NSD											
2	J3	—											
3	K1	—											
4	K1	—											

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

NYC-WTC_000264458

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	3	**Grid Opening Size:**	0.01124
Client Sample #:	03	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	9856	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	1750											
2	Q2	—											
3	C1	—											
4	P1	—											

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

NYC-WTC_000264459

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1928
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	4	**Grid Opening Size:**	0.01124
Client Sample #:	04	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	91105	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	CB	#50											
2	CB	— "											
3	K1	— "											
4	K1	— "											

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

NYC-WTC_000264460

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1936
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	5	**Grid Opening Size:**	0.01124
Client Sample #:	05	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	1080c	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	
1	M3	NSD											
2	R3	—											
3	P1	—											
4	V1	—											

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

NYC-WTC_000264461

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1936
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	6	**Grid Opening Size:**	0.01124
Client Sample #:	06	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	10#J	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK PEYSAKHOV

GO. No	GO. Coord	Structure No	Structure Type F	B	C	M	Length >=05 µ <5µ	Length >=5µ	ID of Structure N or √ Chrys	Amphibole	Nonasb	Ambig/ND	EDS (Nonadb Elements)
10#	1 E1	#80											
—	2 J1	— "											
	3 A7	— "											
10J	4 D7	— "											

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

NYC-WTC_000264462

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1936
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	7	**Grid Opening Size:**	0.01124
Client Sample #:	07	**Area Examined:**	0.04496 mm²
GRID BOX:	1102	**Magnification:**	20,000
GRID ID:	14	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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 QR	NSD											
2 JP	— "											
3 P1	— "											
4 U1	— "											

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

NYC-WTC_000264463

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	8	**Grid Opening Size:**	0.01124
Client Sample #:	08	**Area Examined:**	0.04496 mm²
GRID BOX:	[illegible]	**Magnification:**	20,000
GRID ID:	[illegible]	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: [signature]
MARK 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	
1	U9	W50											
2	P9	—											
3	Q4	—											
4	X1	—											

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

NYC-WTC_000264464

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1928
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	9	**Grid Opening Size:**	0.01124
Client Sample #:	09	**Area Examined:**	0.04496 mm²
GRID BOX:	1182	**Magnification:**	20,000
GRID ID:	15 2 K	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	
1	4D 7	NSD											
2	E 17	—											
3	1E 1	—											
4	F 1	—											

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

NYC-WTC_000264465

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1928
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	10	**Grid Opening Size:**	0.01124
Client Sample #:	10	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	2040	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	
1	A1	NSD											
2	D1	— "											
3	C1	— "											
4	A1	— "											

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

NYC-WTC_000264466

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1928
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	11	**Grid Opening Size:**	0.01124
Client Sample #:	11	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	2 Q 5	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	
1	R 7	NSD											
2	V 7	—											
3	Q 8	— c											
4	X 9	— c											

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

NYC-WTC_000264467

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	12	**Grid Opening Size:**	0.01124
Client Sample #:	12	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	3C16	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: [signature]

MARK 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	1E4	NSD											
2	1E4	— C											
3	1E1	— C											
4	J1	— C											

3C — 3N

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):**	1920
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	13	**Grid Opening Size:**	0.01124
Client Sample #:	13	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	3 AR	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: [signature]
MARK 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	HQ	NSD											
2	NQ	—											
3	E1	—											
4	A1	—											

3 P
3 R

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):**	1920
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	14	**Grid Opening Size:**	0.01124
Client Sample #:	14	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	35 F 4	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	
1	23	NSD											
2	23	— "											
3	89	— "											
4	89	— "											

35 — 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

NYC-WTC_000264470

TEM Asbestos (air) Count Sheet

Client Name:	NYC BOE	**Volume (liters):**	1920
Lab Group #:	7696	**Filter Type / Filter Area:**	MCE 385 mm²
Lab Sample #:	15	**Grid Opening Size:**	0.01124
Client Sample #:	15	**Area Examined:**	0.04496 mm²
GRID BOX:	1122	**Magnification:**	20,000
GRID ID:	4440	**Accelerating Voltage:**	100 KeV
# Grid Openings:	4	**Analysis Date:**	5/11/02

Analysis Performed By: MARK 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	
4CH	1 M7	NSD											
—	2 M7	— "											
	3 6i	— "											
4CO	4 M7	— "											

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

NYC-WTC_000264471

NYC 9/11 Public Portal Document

VATC ASSOCIATES INC.

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7696

TURNAROUND TIME: ☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard ☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☒ Other RUSH

ECT INFORMATION 7696 15/18 88691-88708

1.	2. Project Name	3. Project #	4. Project Monitor	4c. Rotameter Number
YC-12CE	PS 234M	K1584-C823	MARK NAKHUMOVICH	HP107
	2a. Project Address: 242 Greenwich St, NY, NY 10007		4b. Air Sampler: MARK NAKHUMOVICH	

5/10	6. Location: ENTIRE	7. ☐ PCM (0.8 micron MCE) Cassette/Filter Manufacturer: ____ Lot #: ____	8. ☒ TEM (0.45 micron MCE) Cassette/Filter Manufacturer: MMF Lot #: 01205916	9. Type: a. ☐ Background b. ☐ Pre-Abate c. ☐ Abatement d. ☐ Post-Abate e. ☐ OSHA f. ☐ Environment g. ☒ Ambient h. ☐ Other

AIR SAMPLE RECORD

Sample I.D. Number	11. Pump# Number	12. Sample Location 12a. IN/A	12b. OUTDOOR	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.
16				Field Blank									
17				Field Blank									
01				First Floor - hallway	7:07	11:09	242	8.0	8.0	8.0	1936		
02				Cafeteria	7:09	11:10	241	8.0	8.0	8.0	1928		
03				Gymnasium	7:11	11:11	240	8.0	8.0	8.0	1920		
04				Auditorium	7:13	11:14	241	8.0	8.0	8.0	1928		
05				North playground	7:15	11:17	242	8.0	8.0	8.0	1936		
06				West playground	7:17	11:19	242	8.0	8.0	8.0	1936		
07				Roof - South part	7:19	11:21	242	8.0	8.0	8.0	1936		
08				First Floor - hallway	11:09	15:09	240	8.0	8.0	8.0	1920		
09				North playground	11:17	15:18	241	8.0	8.0	8.0	1928		
10				West playground	11:19	15:20	241	8.0	8.0	8.0	1928		
11				Roof - South part	11:21	15:22	241	8.0	8.0	8.0	1928		
12				Classroom # 201	16:02	20:02	240	8.0	8.0	8.0	1920		

N OF CUSTODY

Relinquished By	19. Received By:	20. Date:	21. Time:
	M. Efst	5/10/07	11:00

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

22. Lab Name: ATC	23. Date:	24. Time:
a. Analyzed By:	5/11	00:30
b. QC By:		
c. Lab Custody #:		

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

Y. Efstathiou

Received By: Y. Efstathiou

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL, CITY_21MC100_00340333

NYC-WTC_000264472

NYC 9/11 Public Portal Document

AIR MONITORING DATA AND CHAIN OF CUSTODY FORM

7696

ATC ASSOCIATES INC.

TURNAROUND TIME: ☐ 2 hrs ☐ 6 hrs ☐ 48 hrs ☐ Standard ☐ 4 hrs ☐ 24 hrs ☐ 72 hrs ☒ Other

ECT INFORMATION

1.	2. Project Name	3. Project #	4. Project Monitor	4c. Rotameter Num
YC-13CE	PS234M	4584-0823	MARK NAKHUMOVICH	HP107
	2a. Project Address: 293 Greenwich St, NY, NY 10007		4b. Air Sampler: MARK Nakhumovich	

5.	6. Location:	7. ☐ PCM (0.8 micron MCE)	8. ☒ TEM (0.45 micron MCE)	9. Type:	
5/10	ENTIRE	Cassette/Filter Manufacturer: Lot #:	Cassette/Filter Manufacturer: Lot #:	a. ☐ Background b. ☐ Pre-Abate	c. ☐ Abatement d. ☐ Post-Abate e. ☐ OSHA

f. ☐ Environme g. ☒ Ambient h. ☐ Other

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 Co.
18				Field Blank									
				Field Blank									
13				Classroom # 225	16:04	20:04	240	8.0	8.0	8.0	1920		
14				Classroom # 220	16:06	20:06	240	8.0	8.0	8.0	1920		
15				Kindergarden	16:09	20:09	240	8.0	8.0	8.0	1920		

CHAIN OF CUSTODY

18. Relinquished By:	19. Received By:	20. Date:	21. Time:
	M. Gray	5.10.02	21:00

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

22. Lab Name: ATC Labs	23. Date:	24. Time:
a. Analyzed By	5/11	0:30
b. QC By:		
c. Lab Data #:		

25. Microscope Make/Serial #
☐ Nikon Labophot 2389
☐ Nikon Labophot 2389
☐ Nikon Labophot 2390

17. Relinquished By: Y.Efstathiou

18. Received By: Y.Efstathiou

Beeper/Phone #'s: 1446177-115 E

26. Comments:

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008 CONFIDENTIAL, CITY_21MC100_00340333

NYC-WTC_000264473