NYC 9/11 Public Portal Document

ATC ASSOCIATES INC - NEW YORK BULK ASBESTOS ANALYSIS SHEET

104 East 25th Street, 10th Floor . New York, NY 10010 . Phone (212) 353 - 8280, FAX (212) 353 - 3599 or 8306

NVLAP 101197
ELAP 10879
Microscope OLYP BH-2

Client / Project NYC-BOE/PS 89M, 201 Warren St, NY, NY 10282 Project No. 14584-0819

Analysis Date 12/19/01 Analyst E. A. Cunanan Batch No. 19864

1 Field No. 01	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☒	Color White/Black Texture NF	Morphology ____ Extinction ____	____ Chrysotile	Trace Cellulose	65 Mineral Filler	16.2 Organic
Recommended ☐	Homogeneity Y	RI I ____ RI II ____	____ Amosite	____ Fiberglass	35 Organic Binders	73.6 Residue
Gravimetric PREP ☒	# of Layers ____ Asbestos ☐ ☒	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	10.2 Carbonate
Gravimetric (NOB) PLM ☒	Color of Layer ____ Detected Yes No	Bkgd ____ Sign ____			____ Other	____ Other
Gravimetric (NOB) TEM ☒	Comments:			Q.C. ☐		0 Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☒ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☒ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

2 Field No. 02	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☒	Color Gray Texture NF	Morphology ____ Extinction ____	____ Chrysotile	1 Cellulose	66 Mineral Filler	7.6 Organic
Recommended ☐	Homogeneity Y	RI I ____ RI II ____	____ Amosite	____ Fiberglass	33 Organic Binders	0.9 Residue
Gravimetric PREP ☒	# of Layers ____ Asbestos ☐ ☒	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	91.5 Carbonate
Gravimetric (NOB) PLM ☐	Color of Layer ____ Detected Yes No	Bkgd ____ Sign ____			____ Other	____ Other
Gravimetric (NOB) TEM ☐	Comments: Residue less than 1%			Q.C. ☐		____ Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☒ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☒ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

3 Field No. 03	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☒	Color Gray Texture NF	Morphology ____ Extinction ____	____ Chrysotile	1 Cellulose	65 Mineral Filler	9.8 Organic
Recommended ☐	Homogeneity Y	RI I ____ RI II ____	____ Amosite	____ Fiberglass	34 Organic Binders	0.8 Residue
Gravimetric PREP ☒	# of Layers ____ Asbestos ☐ ☒	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	89.4 Carbonate
Gravimetric (NOB) PLM ☐	Color of Layer ____ Detected Yes No	Bkgd ____ Sign ____			____ Other	____ Other
Gravimetric (NOB) TEM ☐	Comments: Residue less than 1%			Q.C. ☐		____ Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☒ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☒ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

4 Field No. 04	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☐	Color Tan Texture F.b	Morphology ____ Extinction ____	____ Chrysotile	45 Cellulose	20 Mineral Filler	____ Organic
Recommended ☐	Homogeneity Y	RI I ____ RI II ____	____ Amosite	35 Fiberglass	____ Organic Binders	____ Residue
Gravimetric PREP ☐	# of Layers ____ Asbestos ☐ ☒	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	____ Carbonate
Gravimetric (NOB) PLM ☐	Color of Layer ____ Detected Yes No	Bkgd ____ Sign ____			Trace Other Paint	____ Other
Gravimetric (NOB) TEM ☐	Comments:			Q.C. ☐		____ Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☐ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☒ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

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

CITY_21MC100_003391167

NYC-WTC_000178934

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ATC ASSOCIATES INC - NEW YORK BULK ASBESTOS ANALYSIS SHEET

104 East 25th Street, 10th Floor · New York, NY 10010 · Phone (212) 353 - 8280, FAX (212) 353 - 3599 or 8306

NVLAP 101187
ELAP 10870
Microscope OLYP BH-2

Client / Project NYC BOE / PS 89M, 201 Warren St Project No. 14584-0819

Analysis Date 12/19/01 Analyst E. A. Cisneros Batch No. 19864

1 Field No. 05	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☐	Color Tan Texture Fib.	Morphology ____ Extinction ____	____ Chrysotile	45 Cellulose	22 Mineral Filler	____ Organic
Recommended ☐	Homogenity Y	RI ∥ ____ RI ⊥ ____	____ Amosite	33 Fiberglass	____ Organic Binders	____ Residue
Gravimetric PREP ☐	# of Layers ____ Asbestos ☐ ☒	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	____ Carbonate
Gravimetric (NOB) PLM ☐	Color of Layer ____ Detected Yes No	Bkrf ____ Sign ____	/		Tr ~ Other Paint	____ Other
Gravimetric (NOB) TEM ☐	Comments:			Q.C. ☐		____ Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☐ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☒ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

2 Field No. 06	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☐	Color Tan Texture Fib.	Morphology ____ Extinction ____	____ Chrysotile	47 Cellulose	23 Mineral Filler	____ Organic
Recommended ☐	Homogenity Y	RI ∥ ____ RI ⊥ ____	____ Amosite	30 Fiberglass	____ Organic Binders	____ Residue
Gravimetric PREP ☐	# of Layers ____ Asbestos ☐ ☒	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	____ Carbonate
Gravimetric (NOB) PLM ☐	Color of Layer ____ Detected Yes No	Bkrf ____ Sign ____	/		Tr ~ Other Paint	____ Other
Gravimetric (NOB) TEM ☐	Comments:			Q.C. ☐		____ Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☐ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☒ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

3 Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☐	Color ____ Texture ____	Morphology ____ Extinction ____	____ Chrysotile	____ Cellulose	____ Mineral Filler	____ Organic
Recommended ☐	Homogenity ____	RI ∥ ____ RI ⊥ ____	____ Amosite	____ Fiberglass	____ Organic Binders	____ Residue
Gravimetric PREP ☐	# of Layers ____ Asbestos ☐ ☐	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	____ Carbonate
Gravimetric (NOB) PLM ☐	Color of Layer ____ Detected Yes No	Bkrf ____ Sign ____			____ Other	____ Other
Gravimetric (NOB) TEM ☐	Comments:			Q.C. ☐		____ Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☐ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☐ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

4 Field No.	Stereoscopic Exam	PLM Optical Properties	Asbestos Results PLM %	Other Fibrous %	Non Fibrous %	Gravimetric (NOB) Results %
Gravimetric (NOB) Required ☐	Color ____ Texture ____	Morphology ____ Extinction ____	____ Chrysotile	____ Cellulose	____ Mineral Filler	____ Organic
Recommended ☐	Homogenity ____	RI ∥ ____ RI ⊥ ____	____ Amosite	____ Fiberglass	____ Organic Binders	____ Residue
Gravimetric PREP ☐	# of Layers ____ Asbestos ☐ ☐	DS Color ____ Color,Pleo ____	____ Other	____ Other	____ Vermiculite	____ Carbonate
Gravimetric (NOB) PLM ☐	Color of Layer ____ Detected Yes No	Bkrf ____ Sign ____			____ Other	____ Other
Gravimetric (NOB) TEM ☐	Comments:			Q.C. ☐		____ Asbestos
POINT COUNT RESULTS ON THE BACK	Method: ☐ ELAP + EPA¹ ☐ ELAP ☐ EPA¹ ☐ OTHER ☐ SCANNING OPTION: ELAP (P.C.) & EPA¹ First 4 preps. Asbestos = 0					

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008, CONFIDENTIAL, CITY_21MC100_00339116

NYC-WTC_000178935

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Kush

ATC ASSOCIATES INC

GRAVIMETRIC (NOB) ANALYSIS SHEET

Client / Project: NYC BOE / P.S 89 M, 201 Warren Street, NY. NY 10282 BATCH #: 19864

Project No.: 14584-0819 DATE: 12/19/01

FIELD #	1 CRUC #	2 CRUC WT & SAMPLE	3 SAMPLE WT (2 - 1)	4 CRUC WT. & SAMPLE ASHED	5 LOSS ON ASH (2 - 4)	6 ORG %	7 PD# / PD WT. & FILTER	8 PD WT FILTER & SAMPLE	9 RESIDUE WT (8 - 7)	10 TOTAL RESIDUE %	11 RESIDUE ASB % PLM	11 RESIDUE ASB % TEM	12 NON ASB. RESIDUE %	13 $CaCO_3$ %	14 TOTAL % ASB & TYPE
1	321 8.393	8.814	0.421	8.746	0.068	16.2	21 16.964	17.274	0.310	73.6		NSD		10.2	
2	~~287 7.592~~	~~7.923~~	~~0.331~~	~~7.898~~	~~0.025~~	~~7.6~~	~~44 15.962~~	~~15.965~~	0.003	~~0.9~~				~~91.5~~	
3	231 7.970	8.336	0.366	8.300	0.036	9.8	82 13.727	13.730	0.003	0.8				89.4	

SIGNATURE

Methods: ELAP as per Items 198.1 and 198.4
EPA 600 / R - 93/116

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NYC-WTC_000178936