ATC ASSOCIATES INC. - TEM ANALYSIS

LAB GROUP #: 5515 - 09/17/01

Lab Sample No.	59054	Filter Type	MCE 25 mm	Operator	WLP
Client Spl. No.	025	Filter Area	385 mm^2		
Instrument I.D.	EM 10 CRX	Grid I.D.	406 7782	Disk No.	
Screen Magnification	16,400X	(GO) Area	0.01124 mm^2	Comments	
Acc. Voltage	80 kV	No. GO to be Analyzed	21	(16.533 Struct. Corspd. to 70 s/mm^2.)	

GO. No.	GO. Coord.	Structure No.	Structure Type F	B	C	M	Length ≥0.5 um < 5 um	≥ 5um	I.D. of Structure Chrys.	Amphibole	Nonasb.	N or ✓ Ambig./ND	EDS (Nonasb. Elements)
/													
							< 25% Particulate coverage						

Photo No. (from 1 in 5 asbestos-containing samples) — Identify all structures using EDS — Check diffraction for asbestos structures up to 70s/mm (1st 4) — Store all unrepeated spectra

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

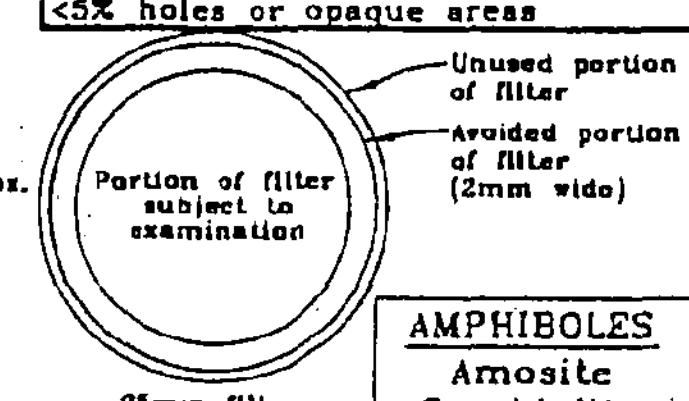
Struct. = > 0.5um & > 5:1 Aspect Ratio

N= Not Observed (EDS spectrum or diffraction pattern)

✓= Positive diffraction pattern properties conforming to laboratory identification criteria observed.
For chrysotile: 0.73nm spacing for (020) reflections, 0.53nm spacing for the layer line repeat, streaking of (110) and (130) reflections.
For amphiboles: 0.53nm layer line repeat, and approx. 3.5 ratio of non-twinned layer line spot spacing to layer line repeat distance (0.53nm).

✓= EDS spectrum conforming to laboratory identification criteria observed.

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



Stopping Rules: >50 s/G.O. or in 1st 4 G.O.

AMPHIBOLES
Amosite
Crocidolite
Anthophyllite
Tremolite
Actinolite

Totals

	F	B	C	M	≥ 5um
Chrysotile					
Amphibole					
Ambiguous					
Non-asbestos					
Non-Identified					

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