# ATC ASSOCIATES INC. – TEM ANALYSIS

LAB GROUP #: 5730 - 10/19/01

| | | |
|---|---|---|
| Lab Sample No. 61698 | Filter Type MCE 25 mm | Operator UCP |
| Client Spl. No. 08 | Filter Area 385 mm^2 | |
| Instrument I.D. EM 10 CRX | Grid I.D. 466 | Disk No. |
| Screen Magnification 16,400X | (GO) Area 0.01124 mm^2 | Comments |
| Acc. Voltage 80 kV | No. GO to be Analyzed 4 | ( 3.147 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 (N or ✓) Chrys. | Amphibole | Nonasb. | Ambig./ND | EDS (Nonasb. Elements) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8R | 1 | X3 | NSD | | | | | | | | | | | |
| | 2 | G3 | -"- | | | | | | | | | | | |
| 8S | 3 | K4 | -"- | | | | | | | | | | | |
| | 4 | R4 | -"- | | | | | | | | | | | |

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

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

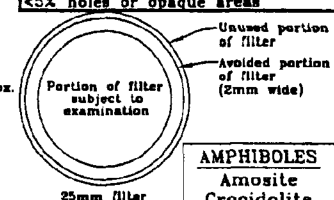
N= Not Observed (EDS spectrum or diffraction pattern)

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

✓= 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. 5.5 ratio of non-twinned layer line spot spacing to layer line repeat distance (0.53nm).

✓= EDS spectrum conforming to laboratory identification criteria observed.

P= 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 | | | | | |

L:\DATA\PRIVATE\MIKEC\CADD\TEM3 9/22/98

CONFIDENTIAL, CITY_21MC100_003470189

SUBJECT TO PROTECTIVE ORDER NO. 2, SEPT. 2008