

Announcing A Professional Meeting On
Naturally Occurring Asbestos (NOA) Hazards
*Focused on the Needs of the Geologist / Environmental
Professional in the Field Dealing With NOA Issues*

April 29, 2005 (8AM - 5:20PM)

Fairmont Hotel, San Jose, CA

Geological Society of America, Cordilleran Section Meeting

(CIH's Earn 2.0 ABIH Certification Maintenance Points For Attending)

Chairperson: Mark Bailey, CA Registered Geologist
President, Asbestos TEM Laboratories

18 Speakers Including Representatives of:

Government & Regulatory Agencies

US Environmental Protection Agency (EPA)
California Dept. of Toxics Substances Control (DTSC)
California Air Resources Board (ARB)
El Dorado County Air Quality Management District (EDAQMD)
Bay Area Air Quality Management District (BAAQMD)
California Div. of Occupational Safety & Health (Cal/OSHA)
California Geological Survey (CGS)
US Geological Survey (USGS)

Environmental Industry

Asbestos TEM Laboratories
Ecology and Environment
GeoCon Consultants
GeoMatrix Consultants
Hazard Management Services
Lowney Associates
ToxiChem Management Systems
U.C. Berkeley Extension, Asbestos & Lead Training Program
Youngdahl Consulting Group
Downey Brand Attorneys

For more information contact:



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Asbestos TEM Laboratories, Inc.
Ph. 510-528-0108, Fax 510-528-0109
E-Mail: Mark@asbestostemplabs.com
NOA Web Site: www.NOAExperts.com

or

Register Today at the
Geological Society of America Website
<http://www.geosociety.org/sectdiv/cord/05cdmtg.htm>

LIST OF NOA PRESENTATIONS & AUTHORS

GSA MEETING SESSION, APRIL 29, 2005, SAN JOSE, CA

Naturally Occurring Asbestos Hazards: Geology, Regulatory Issues, and Methods of Identification and Assessment

1. OVERVIEW OF ASBESTOS USES, HEALTH EFFECTS, AND REGULATIONS. **T. Wangerin (U.C. Berkeley Extension, Asbestos & Lead Training Program / Hazard Management Services)**
2. LIBBY, MONTANA: OVERVIEW OF ASBESTOS EXPOSURES AND HEALTH EFFECTS. **A. Miller (US Environmental Protection Agency [USEPA])**
3. GEOLOGY OF NATURALLY OCCURRING ASBESTOS IN CALIFORNIA. **J. P. Clinkenbeard (Calif. Geological Survey [CGS]), , R. K. Churchill (CGS)**
4. ACTIVITY-BASED AIR SAMPLING FOR NATURALLY-OCCURRING ASBESTOS EXPOSURES IN EL DORADO COUNTY, CA, **J. Johnson (USEPA), D. Meer, A. Den, G. Hiatt, C. Weinstein, D. Hodge, K. Ladd, H. Edwards**
5. ASSESSMENT OF HUMAN EXPOSURE TO NATURALLY OCCURRING (UNPROCESSED) ASBESTOS AT THE CLEAR CREEK MANAGEMENT AREA, CALIFORNIA. **L. Suer (USEPA), A. Den, J. Lane, D. Stralka, B. Brass, T. Moore, S. Ross, C. Ziegler, R. Braun**
6. CALIFORNIA'S ASBESTOS AIRBORNE TOXIC CONTROL MEASURES. **R. Boyd (Calif. Air Resources Board [ARB])**
7. APPLYING LOCAL AND STATE AIR QUALITY REGULATIONS CONCERNING NATURALLY OCCURRING ASBESTOS (NOA) AT THE DISTRICT LEVEL IN EL DORADO COUNTY: AN AIR POLLUTION CONTROL OFFICERS PERSPECTIVE. **M. McTaggart (El Dorado Air Quality Management District)**
8. IMPLEMENTATION OF THE ASBESTOS AIRBORNE TOXIC CONTROL MEASURE FOR CONSTRUCTION AND GRADING OPERATIONS IN THE BAY AREA. **V. A. Douglas (Bay Area Air Quality District)**
9. STATE OVERSIGHT OF NATURALLY OCCURRING ASBESTOS AT PUBLIC SCHOOL SITES. **M. Malinowski (Calif. Dept. of Toxic Substances Control [DTSC])**
10. APPLYING CAL/OSHA REGULATIONS TO OUTDOOR WORK SITES WITH NATURALLY OCCURRING ASBESTOS, **B. Krycia (Cal/OSHA)**
11. GEOLOGIC SITE ASSESSMENT FOR NATURALLY OCCURRING ASBESTOS. **D. W. Bieber (GeoCon Consultants)**
12. NATURALLY OCCURRING ASBESTOS ASSESSMENT IN THE COPPER HILL VOLCANICS OF CALIFORNIA. **D. C. Sederquist (Youngdahl Consulting Group)**
13. USE OF AVIRIS TO ASSIST MAPPING OF AREAS IN CALIFORNIA THAT MAY CONTAIN NATURALLY **G. A. Swayze (US Geological Survey[USGS]), C. T. Higgins (CGS), J. P. Clinkenbeard (CGS), R. F. Kokaly, R. N. Clark, G. P. Meeker, S. J. Sutley**
14. WHAT DO POSITIVE NOA LAB RESULTS MEAN (PART I): CONSIDERATIONS WHEN ORDERING AND INTERPRETING POLARIZED LIGHT (PLM) AND PHASE CONTRAST MICROSCOPY (PCM) ANALYSES OF ROCK/SOIL AND AIR SAMPLES. **M. Bailey (Asbestos TEM Laboratories)**
15. WHAT DO POSITIVE NOA LAB RESULTS MEAN (PART II): CONSIDERATIONS WHEN ORDERING AND INTERPRETING TRANSMISSION ELECTRON MICROSCOPY (TEM) ANALYSES OF ROCK/SOIL AND AIR SAMPLES. **M. Bailey (Asbestos TEM Laboratories), M. Hu, P. Burmistrova**
16. IMPLICATIONS OF NATURALLY OCCURRING ASBESTOS DURING CONSTRUCTION. **M. B. Bloes (GeoMatrix Consultants), B. J. Thompson**
17. ASBESTOS AIR SAMPLING ON NATURALLY OCCURRING ASBESTOS PROJECTS. **R. Beall (Hazard Management Services)**
18. RISK ESTIMATION AND AIR SAMPLING AT NOA SITES. **D. W. Hernandez (ToxiChem Management Systems)**
19. MITIGATION PRACTICES FOR NOA. **T. F. McCloskey (Lowney Associates)**
20. SUMMARY OF POTENTIAL RISKS OF LIABILITY ASSOCIATED WITH NATURALLY OCCURRING ASBESTOS. **N. R. Gleason (Downey Brand Attorneys)**



For more information contact:

Mark Bailey, Asbestos TEM Laboratories, Inc.

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To Register go to: www.geosociety.org/sectdiv/cord/05cdmtg.htm

Joint Meeting

- Cordilleran Section, GSA (101st Annual Meeting)
- Pacific Section, AAPG (80th Annual Meeting)

29 April - 1 May 2005 • Fairmont Hotel • San José, California

THEME: Bay, Basins, Basement, and Beyond

▲ REGISTRATION

Standard Registration Deadline: **March 28, 2005**

Cancellation Deadline: April 4, 2005

Register Now!

Registration Fees	Standard		On-Site	
	FULL MEETING	ONE DAY	FULL MEETING	ONE DAY
Professional Member	\$125	\$85	\$160	\$100
Professional Nonmember	\$150	\$100	\$200	\$125
Student Member	\$45	\$30	\$60	\$40
Student Nonmember	\$55	\$35	\$70	\$45
K-12 Professional	\$40	N/A	\$50	N/A
Guest or Spouse	\$40	N/A	\$50	N/A
Field trip or Short Course only	\$25	N/A	\$30	N/A

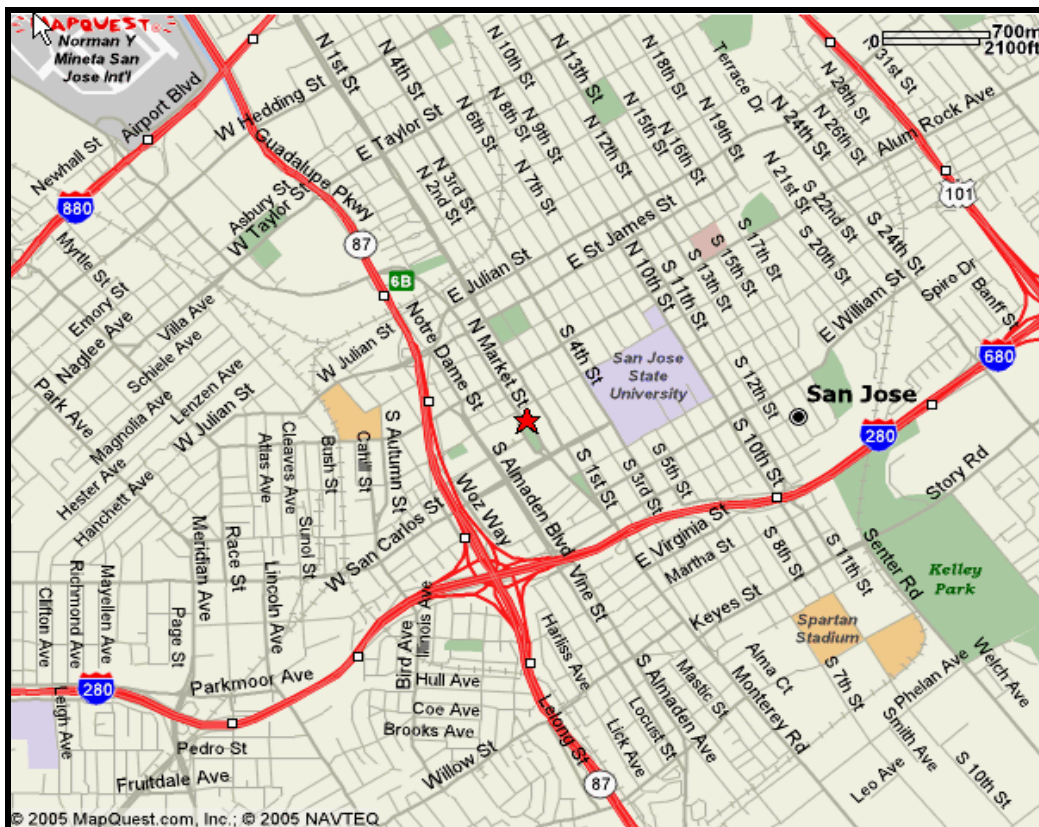
PLEASE REGISTER ONLINE. Register early to qualify for lower fees. You may also download and mail or fax in the **paper registration form** if you prefer. Should you need assistance, contact **GSA Sales and Service**, 1-888-443-4472, (303) 357-1000 option 3.

On-Site Registration Schedule

Thursday, April 28	4-8 p.m.
Friday, April 29	7:30 a.m.-4:30 p.m.
Saturday, April 30	7:30 a.m.-4:30 p.m.
Sunday, May 1	7:30 a.m.-noon

**MAP TO GSA CORDILLERAN SECTION MEETING
NATURALLY OCCURRING ASBESTOS HAZARDS SESSION
APRIL 29, 2005**

**Fairmont Hotel - 170 S Market St - San Jose, CA 95113 US
Hotel Phone: 408-998-1900**



CONSTRUCTION MANAGERS, PLANNERS AND GEOLOGICAL SITE ASSESSORS: WHAT YOU NEED TO KNOW ABOUT NATURALLY OCCURRING ASBESTOS (NOA)

Asbestos TEM Laboratories, Inc. EXPERT GEOLOGISTS & MINERALOGISTS PERFORMING NOA ANALYSIS

Recent changes in asbestos regulations governing the disruption of soil and rock during construction activities have the potential to affect virtually any construction project in California because:

- NOA is known to occur in 44 of the 58 counties in California
- The California Air Resources Board has lowered the acceptable limit of asbestos in rock/soil from 5.0% to 0.25%.
- Mitigation and monitoring measures may be required to safeguard construction workers and the public when NOA is present.

Protect yourself by choosing the best qualified laboratory to analyze your NOA rock/soil & air samples. Asbestos TEM Labs is uniquely qualified to perform NOA analysis for the following reasons:

- CA DOHS ELAP Certified & NIST/NVLAP Accredited
- Highly skilled geologist/mineralogist asbestos analysts
- Extensive experience with NOA analysis and issues: President is a California Registered Geologist & expert consultant on NOA
- Selected by CAL ARB and EPA to perform soil/rock & air sample analysis of NOA at Oak Ridge High School, El Dorado County, CA
- Complete in-house crushing/pulverizing sample prep facility



NOA-Containing Serpentine Rock

ASBESTOS LAB CAPABILITIES

- POLARIZED LIGHT MICROSCOPY
- PHASE CONTRAST MICROSCOPY
- TRANSMISSION ELECTRON MICROSCOPY

SOIL/ROCK ANALYTICAL METHODS

- CAL ARB 435
- TEM QUANTITATIVE BULK
- EPA 600/R-93/116
- OTHER MISC.



In-House Crushing & Pulverizing Equipment



Expert Geologist/Mineralogist Analysts



Asbestos TEM Laboratories, Inc.

1409 Fifth Street
Berkeley, CA 94710
Ph. 510-528-0108
Fax 510-528-0109

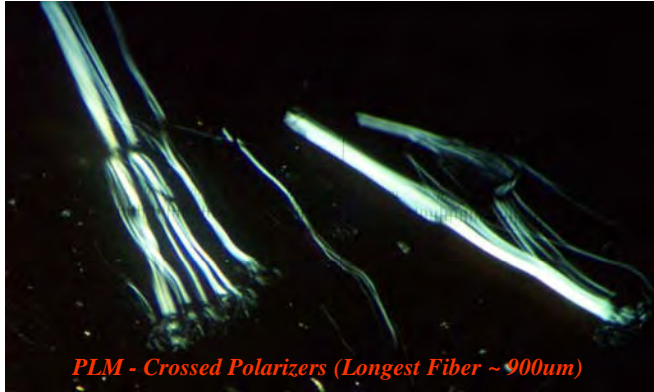
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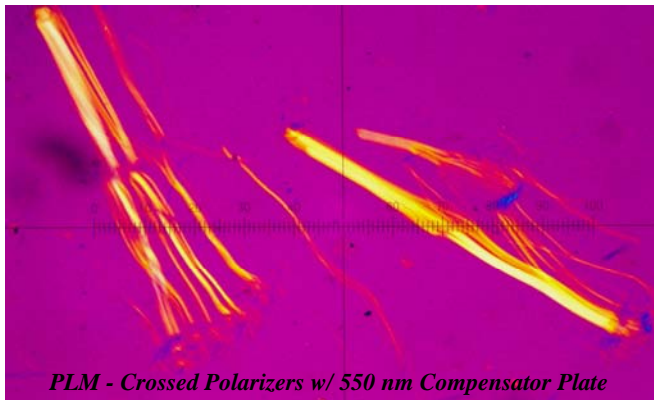


COMMON NOA MINERALS IN CALIFORNIA

CHRYBOTILE SERPENTINE ASBESTOS



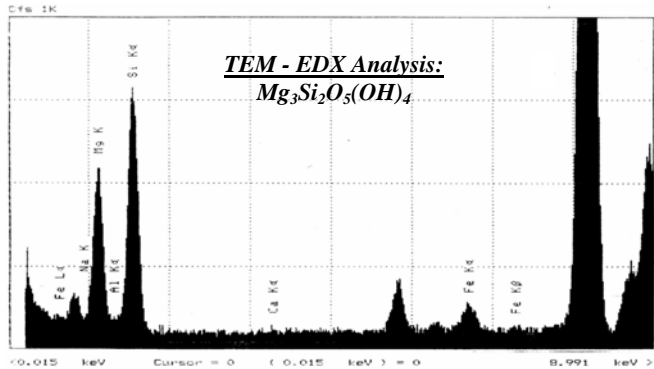
PLM - Crossed Polarizers (Longest Fiber ~ 900um)



PLM - Crossed Polarizers w/ 550 nm Compensator Plate

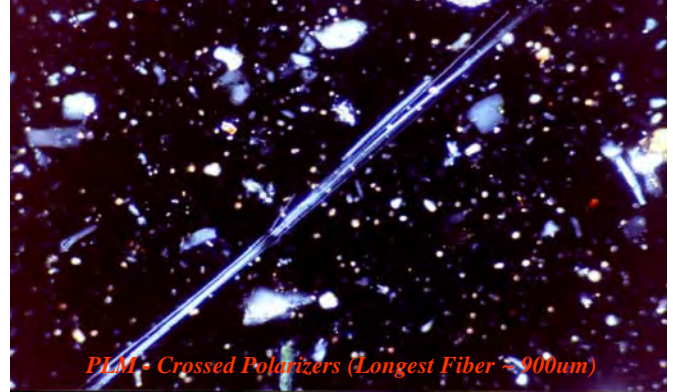


TEM (Longest Fiber ~ 5um)

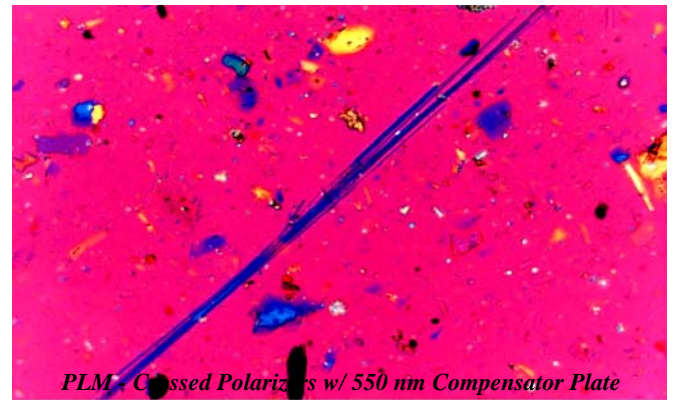


TEM - EDX Analysis:
 $Mg_3Si_2O_5(OH)_4$

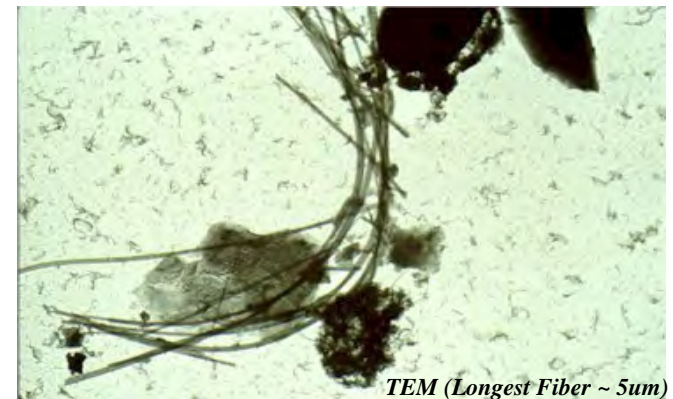
TREMOLITE / ACTINOLITE AMPHIBOLE ASBESTOS



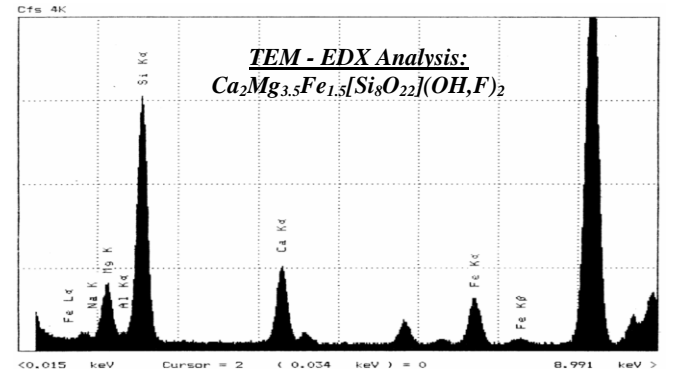
PLM - Crossed Polarizers (Longest Fiber ~ 900um)



PLM - Crossed Polarizers w/ 550 nm Compensator Plate



TEM (Longest Fiber ~ 5um)



TEM - EDX Analysis:
 $Ca_2Mg_{3.5}Fe_{1.5}[Si_8O_{22}](OH,F)_2$