Association of Engineering Geologists

Southern California Section

NEWSLETTER- April 1992

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2550 Beverly Blvd. \ Los Angeles, CA 90057

Dinner Meeting Tuesday April 14th

- The Quiet Cannon Restaurant
 901 North Via San Clemente
 Montebello
- Cost \$20.00 (Full-Time Students Free)
- ☐ Make reservations by Friday April 10th!!!

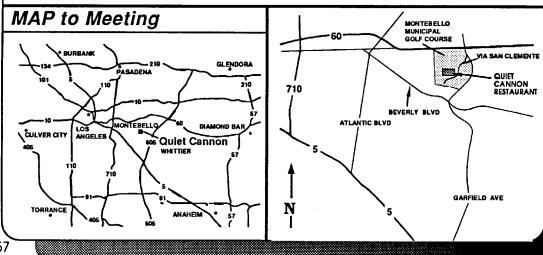
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 (Leave Your Name & Number of People in Your Party)
- ☐ 5:30 Social Hour
- G:45 Dinner
- ☐ 8:00 Program

Program

Active Faulting and Deformation of the Coalinga Anticline

Donna Eberhart-Phillips, Ph.D., Geophysicist with the USGS



PROGRAM Topic & Speaker

Active Faulting and Deformation of the Coalinga Anticline

Donna Eberhart-Phillips, Ph.D., Geophysicist

Interest in the Coalinga Anticline increased significantly following the series of earthquakes in 1983. The USGS performed extensive analyses of the data from these events and reached a number of conclusions on the faulting and deformation for this area. The USGS took an inversion of nearly 10,000 P and S arrivals from earthauakes and shots for the Coalinga region to produce a three-dimensional velocity model with 1- to 2-km gridspacing at hypocentral depths. The shape and location of velocity features corresponded well to mapped surface geology and observed gravity, and the inversion revealed details of folds where resolution is good. Interpretation of hypocenters and fault-plane solutions for the 1983 Coalinga earthquakes, together with the 3D velocity model, show that the character of the seismicity varies with the degree of previous deformation. The faulting structure beneath the fold consists primarily of southwest-dipping thrusts uplifting blocks of higher velocity material. At shallower depths, above the main thrust, both aseismic folding and secondary faulting take place. The rupture area of the Coalinga mainshock is limited by the area of uniform structural orientation and by the variation in the type of material. This research is significant because it is the first time the local inversion method has been used to study an area dominated by folding and blind thrusts; it presents the clearest picture ever seen of the geometry of aftershock seismicity in a thrust earthquake. These findings clarify the relationship between fold structures and seismic deformation along the Coast Ranges/Great Valley margin. (Much of the above description is taken from an abstract of a paper presented by Dr. Donna Eberhart-Phillips, 1990).

Donna Eberhart-Phillips, Ph.D, is a geophysicists with the U.S: Geological Survey and has conducted much of her work on faulting and tectonics in California. Dr. Eberhart-Phillips has been with the USGS since 1980 at the Menlo Park, California facilities. Last August, she transferred to the Pasadena USGS office. She has a B.S. in Geology from Northwestern University, a M.S. in Geosciences from the University of Arizona, and a Ph.D. in Geophysics from Stanford University.



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GROUNDWATER RESOURCES ASSOCIATION OF CALIFORNIA

A group of scientists, engineers, and other professionals in California is developing a state-wide professional organization that will focus on the technical aspects of the state's groundwater resources assessment, development, quality, education, and management. This organization, the Groundwater Resources Association of California (GRA), will represent all parts of the state with nine branches located throughout California. Four of these will be active immediately in the Sacramento, San Francisco Bay, Southern California, and South San Joaquin Valley areas.

Recognizing that groundwater protection includes the identification, assessment and remediation of contaminated properties, GRA also will focus on the technical and legal aspects of property site assessments and remediation of contaminated soil and groundwater; therefore, membership by professionals working in these or related fields is strongly encouraged.

Activities of the association will include monthly-bimonthly dinner meetings, local and statewide educational seminars on current developments in groundwater investigation, development, management, and site assessment, and the publishing of a monthly (initially quarterly) newsletter covering the activities of the organization and other information of interest to the members.

Those interested in the future of California's groundwater resources can benefit from membership in the Groundwater Resources Association of California. Assistance in developing this organization is welcomed. For membership information, please contact:

Vicki Kretsinger Coordinator, Organizing Committee Groundwater Resources Association of California P.O. Box 355 Davis, California 95617-0355 (916) 661-0109, FAX (916) 661-6806

You can also get more information regarding GRA from Tony Ward of Gerarhty and Miller, Inc., who is a member of the Southern California organizing committee. You can contact Tony at (818) 965-4048.

AEG So. Cal. COMMITTEE CHAIRS

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CALL FOR PAPERS

AEG 1992: Submission of papers for Technical Sessions and Poster Sessions for the 35th Annual Meeting, AEG, are now being accepted for presentation and for publication in the proceedings. Complete papers, with or without abstracts (they are not required) are due by May 1, 1992. There is a 10-page length limit, not including cover page. Paper format should follow that used by the Geological Society of America, especially where references are concerned. Each author must submit a cover page that contains the following information: Paper title (all caps); senior author and coauthors with affiliations and addresses; office, home and fax numbers; indicate whether paper is for oral presentation only, poster session, or both; primary author should be listed first, if paper is being presented by someone other than primary author, indicate with an asterisk (*). Submit papers to: Martin L. Stout, Dept. of Geological Sciences, California State University, Los Angeles, CA 90032-8203. Phone: (213) 343-2409, (213) 343-2400.

1992 San Diego Association of Geologists Annual Field Trip: This field trip will be an update to their 1978 trip to the Coronado Islands. If you are interested in submitting a paper(s) regarding the geology or natural history of the Coronado Islands, please contact Lynne Pery at (619) 292-8030. The field trip has been scheduled for Sunday, September 13, 1992.

Ninth Thematic Conference on Geologic Remote Sensing: to be held in Pasadena, CA, on February 8-11, 1993. Conference will focus on geologic remote sensing with emphasis on mineral and hydrocarbon exploration, and environmental and engineering applications. CONTACT: Dr. Robert H. Rogers, Box 134001, Ann Arbor, MI, 48113-4001, (313) 994-1200. Summaries of papers (200-500 words) are due on or before June 8, 1992.

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MEMBERSHIP IN THE INTERNATIONAL ASSOCIATION OF ENGINEERING GEOLOGISTS

The International Association of Engineering Geologists (IAEG) invites you to become a member. The Association publishes a semi-annual journal - "Bulleting of the International Association of Engineering Geology" - and sponsors field excursions and symposia on timely topics worldwide. The recent addition of an editorial board to the Bulletin qualifies it as a "refereed journal."

The U.S. Committee for IAEG represents U.S. interests in the international group and serves as a liasion. Membership in the U.S. Committee for IAEG and IAEG costs \$18/year and includes the Bulletin and periodic newsletters on worldwide activities in engineering geology.

Annual dues are \$18 for individual members. If interested, send your name, title, and address, together with a check payable to the U.S. Committee for IAEG, and send to Roger Ilsley, STS Consultants, Ltd., 11425 West Lake Drive, Milwaukee, Wisconsin 53224.

FACULTY POSITION ANNOUCEMENT TEMPORARY LECTURERS California State Polytechnic University, Pomona

The Geological Sciences Department at CalPoly is seeking part-time temporary lecturers. Minimum qualifications include a Master's degree in one of the geological sciences, astronomy or related field. Teaching or industrial experience preferred. Teaching areas available include Physical, Historical, Economic, Environmental, Engineering Geology, Astronomy, Oceanography, Hydrogeology, Paleontology, Geochemistry, Mineralogy, Petrology, Climatology, Meteorology, and Geomorphology. Temporary appointments are most often made for one academic quarter only (approximately 11 weeks) at fractions ranging from 3/15 to 12/15 of full-time; two and three quarter appointments are sometimes possible. Incumbents may be reappointed to subsequent quarters during any pool year contingent upon funding and favorable performance evaluations. Salary ranges from approximately \$1,937.60 to \$2321.60 per 3-unit course per quarter, depending upon qualifications. To become a member of the applicant pool, please request an application form from:

Dr. John Klasik, Chair Geological Sciences Department California State Polytechnic University Pomona, California 91768

interested persons must submit an application form, curriculum vita, and the names of three references



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BOOK SALE

Association of Engineering Geologists, Southern California Section

- Blake, T., and Larson, R.A., Eds., 1991, <u>Engineering Geology along the Simi-Santa Rosa fault system and adjacent areas. Simi Valley to Camarillo. Ventura County. California</u>: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, August 24, 1991, volumes 1 and 2, 383 pgs., 4 map sheets. \$40.00
- Buckley, C.I., and Larson, R.A., Eds., 1990, <u>Geology and Engineering Geology of the western Soledad Basin.</u>
 <u>Los Angeles County. California</u>: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, November 3, 1990, 185 pgs., 2 map sheets. **\$25.00**
- Buesch, D., Ed., 1979, <u>Geomorphic Applications in Engineering Geology: A State-of-the-Art Short Course</u>:

 Short course held at California State University at Los Angeles, November 10-11, 1979, reprinted by the Southern California Section of the Association of Engineering Geologists, 145 pgs. \$11.00
- Byer, J.W., Ed., 1975, Sycamore Canyon Fault. Verdugo Fault. York Boulevard Fault. Raymond Fault, and Sierra Madre Fault Zone: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, September 27, 1975, 68 pgs. \$ 8.00
- Cann, L., and Steiner, E., Eds., 1989, <u>Engineering Geology along Coastal Orange County</u>: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, September 23, 1989, 207 pgs. **\$20.00**
- City of Los Angeles, 1982, Geologic Maps of the Santa Monica Mountains. Los Angeles, California: 333 map sheets at 1" = 400', compiled by the Bureau of Engineering, Department of Public Works, City of Los Angeles, reprinted by the Southern California Section of the Association of Engineering Geologists, 342 pgs. \$26.00
- Lamar, D.L., Ed., 1978, <u>Geologic Guide and Engineering Geology Case Histories</u>. Los Angeles Metropolitan <u>Area</u>: Guidebook for the Southern California Section of the Association of Engineering Geologists, First Annual California Section Conference, May 12-14, 1978, 174 pgs. \$16.00
- Stout, M.L., Ed., 1976, <u>Geologic Guide to the San Bernardino Mountains</u>. <u>Southern California</u>: Guidebook for the Southern California Section of the Association of Engineering Geologists Annual Field Trip, May 22, 1976, 114 pgs. \$11.00

REPRINTS NOW AVAILABLE!!

- Fife, D.L., Eagen, J.T., and Hollon, C.E., 1978, <u>Failure of the St. Francis Dam. San Francisquito Canyon.</u>

 <u>California</u>: Association of Engineering Geologists, Southern California Section Special Publication.

 \$9.00
- Scullins, C. M., 1991 (Revised Edition), <u>Excavation and Grading Code Admnistration</u>. <u>Inspection and Enforcement</u>: Prentice-Hall, Inc., 405p. \$25.00

ALSO NOW AVAILABLE

Baldin, J.E., and Sitar, N., Eds., 1991, <u>Loma Prieta Earthquake: Engineering Geologic Perspectives</u>:
Association of Engineering Geologists Special Publication No. 1, 250+p. \$35.00/AEG members \$39.00/non-members.

Books are available from: Joe Cota, Publications Chairman, AEG Southern California Section, c/o GeoSoils, Inc., 6634 Valjean Avenue, Van Nuys, California 91406, (818) 785-2158. Make checks payable to AEG Southern California Section. Please add 8.25% sales tax and the following postage/handling charges: \$2.50 for the first book and \$0.50 for each additional book.

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Seminars/Meetings/Field Trips

APRIL 1992

29-May 1 1992 Pacific Section Convention AAPG-SEPM-SEG-EMD, in Sacramento, California. Theme for the convention is "Creative Approaches to Environmentally Sound Exploration." CONTACT: Rich Boyd, General Chairman, Capitol Oil Corporation, 1545 River Park Drive #501, Sacramento, CA 95815, (916) 929-4141.

JUNE 1992

5, 6 & 7 Pacific Cell Friends of the Pleistocene Field Trip to the Southern End of the Cascadia Subduction Zone and the Mendocino Triple Junction. CONTACT: Gary Carver and Bud Burker, Department of Geology, Humboldt State University, Arcata, California 95521.

First Thematic Conference on Remote Sensing for Marine and Coastal Environments:

Needs and Solutions for Pollution Monitoring, Control, and Abatement, in New Orleans, Louisiana.

CONTACT: Nancy Wallman, ERIM, Box 134001, Ann Arbor, MI, 48113-4001, (313) 994-1200, ext. 3234.

28- July 2 Stability and Performance of Slopes and Embankments: A 25-year Perspective, University of California at Berkeley, hosted by the American Society of Civil Engineers. CONTACT: (1-800) 548-ASCE.

JULY 1992

20-Aug. 20 "Volcanoes of Indonesia" Field Trip. Sites to visit include crater lakes, sulfurous hot springs, snow-capped peaks, and belching volcanoes on the islands of Java, Bali, Sumatra, Irian Jaya, and Krakatoa. CONTACT: Dorothy Stout, Cypress College, (714) 826-2220.

If you have any information regarding other meetings that may be of interest to AEG Southern California members, please call Tania Gonzalez @ (714) 860-7772.

Tania Gonzalez AEG Secretary/Newsletter Editor c/o Leighton & Assoc. 1470 S. Valley Vista Dr., #150 Diamond Bar, CA 91765







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