Association of Engineering Geologists

GEOLOGISTS

Southern California Section

NEWSLETTER - July 1989

Jeff Holt

Chairperson (805) 522-5174

Bob Hollingsworth

Vice Chairperson (818) 889-0844

Eldon Gath

Secretary (714) 598-2856

Jerry Treiman

Tre a sure r (213) 620-3560 c/o CDMG LA Office 107 S. Broadway, Room 1065 Los Angeles, CA 90012

James O'Tousa

Membership Drive Chairperson (818) 889-0844 c/o Grover Hollingsworth & Assoc. 31129 Via Colinas, Suite 707 Westlake Village, CA 91362

Kelly E. Rowe

AEG Newsletter Editor
12 Issues/year-\$20 to "AEG"
(818) 965-4048
(818) 964-3702 FAX
c/o Geraghty & Miller, Inc.
Ground-Water Consultants
17800 Castleton Street, Suite 175
City of Industry, CA 91748
Amer.Geop.Union TELENET
KOSMOS Computer Mail
Username: KROWE

2550 Beverly Blvd. \tag{Los Angeles, CA 90057}

Dinner Meeting Tuesday July 11th

- The Quiet Cannon Restaurant
 901 North Via San Clemente
 Montebello
- Cost \$20.00
- For reservations call by July 7th

 Jerry Treiman

(213) 620-3560 (CDMG LA Office)

Make reservations by Noon on the Friday before the Meeting

- G:45 Dinner

7:30 Announcements

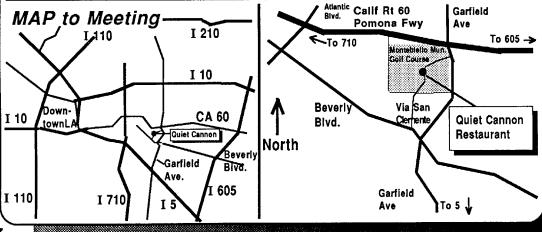
- 🖵 8:00 Program
 - 9:00 Section Affairs

Program

TOPIC Geopolitical History of Pulga and Potrero Canyons

SPEAKER

John Byer, Principal Engineering Geologist Kovacs-Byer & Associates Studio City, CA



Program

Topic & Speaker Geopolitical History of Pulga and Potrero Cyns. John Byer

As the title implies, Mr. Byer will address both the complex geologic conditions and the political problems associated with development of these canyons. The Potrero Canyon Park project has been under construction since July, 1988. Political decisions have affected the technical solutions provided for installation of the subdrain and storm drain systems in the canyon bottom. Construction of these drains at the toes of several large landslides has proven problematic.

Kovacs-Byer and Associates has been exploring the geology in nearby Pulga Canyon since November, 1988. Neighbors, bitterly opposed to development of the canyon, have used the political process to influence how exploration is performed. Exploration has, however, slowly proceeded, and John Byer will present preliminary findings regarding the canyon's geology.

John Byer is the principal engineering geologist for Kovacs-Byer and Geology from UCSB (1966) and an M.S. in Engineering Geology from USC (1969). Mr Byer has been working in the Santa Monica Mountains since 1966.

THEMONTH

July 1989



At the meeting this month there will be nominations for AEG Southern California Section Officers for next year. Those interested in being nominated either contact Eldon Gath -Secretary (714)598-2856 or have someone at the meeting nominate you.

Last month Dr. Thomas H. Heaton, with the USGS Cal Tech Field Office explained Earthquake Rupture Processes. Part of his talk dealt with the rate increase of earthquake sequences with Richter magnitudes greater than 2.3 in the Southern California area. For example, from 1975 to 1986 this rate remained constant at 19 sequences per year, while from 1986 to present this rate remained constant at 33 sequences per year. He also noted that within the last six months there has been an increase in this rate. There is therefore no prediction on when we will be able to predict when earthquakes will occur.

One of Dr. Heaton's more insightful parts of his talk was his reference to Cal Tech's reaction to predicting the magnitude of a recent earthquake for the news media. Once an earthquake event occurs, the Cal Tech staff rushes to their own seismographs to make a best guess on the earthquake magnitude. If the earthquake is local it is often difficult to pick a magnitude when the instrument reading is off the scale. This best guess is refined in a few days to determining what the actual magnitude of earthquake is, after evaluating some of the 250 seismographic station records in the Southern California area. For example, the Montebello earthquake, which occurred the day before the June meeting, was initially estimated by Cal Tech to be a magnitude 4.5: however, Dr. Heaton, speculated that the actual magnitude would be a magnitude 4.8.

The talk concluded that earthquake rupture processes are unique to individual faults. Dr. Heaton showed examples of fault plane plots for some of the most recent major earthquakes in Southern California. The fault plane plot of an earthquake event, both in the time and the absolute movement senses, show many irregularities according to the examples Dr. Heaton discussed.

The second meeting for the 1992 Los Angeles AEG Convention will be held on July 20 at the Kovacs-Byer office. Committee chairpersons will attend to continue to iron-out budget details, organization of committees and to agree to a Los Angeles AEG Convention slogan and logo. If you are Associates. Mr. Byer holds a B.A. in interested in helping on the committees over the next two years contact John Byer (818) 980-0825 or one of the section officers to direct you to the right people. In addition, ideas are still being sought for a fabulous slogan and logo for the the 1992 LA Convention. The logo design should be about 3 square inches in size and reflect life in the LA area. They will be used for the Convention and for the flyer to be published this September.

Continued on page 3

Call for papers and announcement for the 1989 AEG Southern California Section Annual Field Trip. The trip is scheduled for September 23, 1989. It will focus on Engineering Geology Along Coastal Orange County. If you have a paper you would like to include in the field trip guidebook, please contact Ed Steiner at Leighton & Associates at (714)250-7115.

Call for Papers on Baja California Geology for Volume to be published by Pacific Section SEPM in conjunction with the Fall 1989 Field Trip (Sept. 14-15). If you have some Baja California research results, please consider publishing them in the forthcoming volume on Geologic Research in Baja California. During this early planning stage there is a need to know how many people are interested in participating. Please send the working title of your manuscript to Dr. Pat Abbott, Department of Geological Sciences, San Diego State University, San Diego, CA 92182-0337, or call (619)594-5586 for further information. Rough drafts of manuscripts will be needed for review by mid-July. Edited manuscripts will be returned to authors for preparation as camera-ready copy on oversized format sheets in typical Pacific Section SEPM style. It is expected that many manuscripts will be submitted for a noteworthy volume on Baja California geology.

At the April meeting Dr. Lorne G. Everett of Kaman Tempo (805)963-6472 in Santa Barbara, spoke about vadose zone monitoring techniques employed at underground storage tank sites and at landfills. He also spoke about recent advancements in this field. Dr. Everett recently sent handouts to AEG, which he intended to provide at the April meeting, relating to books he has published in this field and are available through his office.

A few of these books are listed as follows:

Everett, 1980, Groundwater Monitoring. Cost: \$150.00

Everett, 1984, Soil Gas Sampling Methods. Cost: \$20.00

Everett, et al., 1984, Vadose Zone Monitoring for Hazardous Waste Sites. Cost: \$31.50.

Everett, 1985, Groundwater Monitoring Handbook for Coal and Oil Shale Development. Cost: \$66.75.

They may be ordered and additional information may be obtained through Kaman Tempo,

c/o S. Lyons, P.O. Drawer QQ, Santa Barbara, CA 93102.

Steven M. Testa of Engineering Enterprises, Inc. (213)518-4597, brought copies of a book he edited recently to the June AEG meeting. The title of the book is *Environmental Concerns in the Petroleum Industry* It was the result of the symposium held in May, 1989, bearing the same name, by the Pacific Section of the American Association of Petroleum Geologists. The intent of the papers is to provide an awareness and an introduction to environmental concerns and issues which impact the petroleum industry today. Papers in the book include discussions on 1) the fate and trans-

port of petroleum hydrocarbons in soil and groundwater, 2) soil and groundwater contamination, 3) subsidence as a result of past petroleum-related activities, 4) forensic geochemistry, and 5) handling and disposal of cogeneration wastewater from recovery operations. The future of regulations and environmental protection issues related to oil and gas operations are also discussed.

This book is available through AAPG Pacific Section, Publications Committee, P.O. Box 631, Ventura, CA 93002 Cost: \$30.25 (includes shipping and handling). Copies of the book may also be purchased at one of the monthly AEG SCS meetings from **Steve Townsend**, AEG Publications Chairperson, for \$20.00.

Publication announcement: California State Water Resources Control Board (SWRCB) - Solid Waste Assessment Test (SWAT) Program Report to the Legislature 1987-89: Report No. 88-14WQ (191 pp) (Item No. 7540-979-1033-4) This is the first of three required annual reports which summarize the progress of the SWAT Program (one-time assessment of state water contamination due to landfills) up to September 30, 1988. The report addresses only those sites expected to pose the greatest threat to water quality (Rank 1 sites). Successive ranks will be addressed in future reports.

The reports consists of a brief introductory text and region by region data concerning the landfills within their boundaries. According to the announcement summary, of the total of 150 Rank 1 SWAT reports required by the legislation, 114 were submitted to the regional boards by September 30, 1988. Of these, 39 reports were reviewed and accepted as meeting the requirements of the law. It was determined that only one site is leaking waste at hazardous waste concentrations. Of the 32 landfills at which leakage has been detected, five landfills have caused some degradation or pollution in domestic or municipal supply wells. (There apparently is a problem associated with getting SWAT reports completed to the satisfaction of the regional boards. ed.)

This report is available through State Water Resources Control Board, Publications Section, Ordering Department, P.O. Box 1015, North Highlands, CA 95660 Include the report name and Item No. when ordering. Cost: \$8.50 (includes shipping and handling)

Seminars/Meetings/Field Trips

JULY 1989

1-7 Field Trip T105- Geology of San Francisco and vicinity. International Geological Congress (I.G.C.) Program Leader: Clyde Wahrhaftig (USGS) Cost: \$1,100 Start-Stop in San Francisco.
1-7 Field Trip T111- Petroleum geology and structural transect across western Transverse Ranges and southern Coast Ranges, California. I.G.C. Program Leaders: Thomas Davis (Consultant) and Jay Namson (ARCO) Cost: \$925.Start - Stop in Los Angeles.
2-7 Field Trip T108- Tectonic evolution of northern California.
I.G.C. Program Leaders: M.C.Blake,Jr., and D.S.Harwood (USGS) Cost: \$1,150 Start-Stop in San Francisco.
3-7 Field Trip T109- Mesozoic and Cenozoic siliceous sediments of

3-7 Field Trip T109- Mesozoic and Cenozoic siliceous sediments of California. I.G.C.Program Leader: Joyce R. Blueford and Caroline Isaacs (USGS) Cost: \$700 Starts in San Francisco Stops in Los

3 Angeles. Continued next page

Continued from page 3

3-7 Field Trip T113- Petroleum potential of the Basin and Range province. I.G.C. Program Leader: Norman H. Foster (Indep. geol) Cost: \$675 Start and Stop in Las Vegas.

5-7 Field Trip T186- Geology of Nevada Test Site and surrounding area. I.G.C. Program Leader: H. Lawrence McKague (LLN Lab), Paul Orkild (USGS) and Vel Clanton (DOE) Cost: \$500 Start and Stop in Las

20-24 Field Trip T311- Oil in the California Monterey Formation. I.G.C.Program Leaders: R.J.B. Young and T.C.MacKinnon (Chevron) Cost: \$800 Start and Stop in Los Angeles.

20-26 Field Trip T312- Arc volcanism in the southern Cascade Range I.G.C. Program Leader: L.J.Patrick Muffler (USGS) Cost: \$775 Start

and Stop in San Francisco

20-28 Field Trip T313-Quaternary volcanism of Long Valley caldera and Mono-Inyo Craters, eastern California I.G.C. Program Leaders: Roy A. Bailey, C. Dan Miller (USGS) and Kerry Sieh (Cal Tech) Cost:

\$650 Start and Stop in Reno.

20-29 Field Trip T308- Geologic evolution of the northern most Coast Ranges and western Klamath Mountains, California. I.G.C. Program Leaders: K.R. Aalto (Humboldt SU) and G.D. Harper (SU of NY-Albany) Cost: \$750 Start and Stop at San Francisco Intern. Airport. 20-29 Field Trip T309- The San Andreas transform belt. I.G.C. Program Leaders: Arthur G. Sylvester and John C. Crowell (UCSB) Cost: \$1,400 Start in Long Beach Stops in San Francisco. 20-29 Field Trip T381- Landslides in central California. I.G.C. Program Leader: William M. Brown (USGS) Cost: \$1350 Start and Stop in San Francisco

7 & 8/11 Prof. Geology Exam Review Course: in Costa Mesa Converse Environmental Consultants offices, REG Review, Inc. Two -Five (5) hour classes & study manual. Cost: \$250 - Preregistration. Study Manual: \$75. CONTACT: (415) 339-3771 or (415) 852-9099 8 & 8/12 Prof. Geology Exam Review Course: in Pasadena - Brown & Caldwell offices, REG Review, Inc. as above 9 & 8/13 Prof. Geology Exam Review Course: in Pasadena - Brown & Caldwell offices, REG Review, Inc.as above

24-26 Advances in Incineration Technology Staff UCLA Extension Dept. Hum. Sciences and Soc. Sci./Div. of Science, Cost: \$450 - CON-TACT: C.C. Lee (213)569-7520 for tech. info. (213)825-7093 for regis.. 24-28 Introduction to Groundwater Modeling IGWMC Staff Interna-

tional Ground Water Modeling Center Short Course, CONTACT (317)283-9458.

AUGUST 1989

21-25 "Stocastic and Geostatistical Analysis for Groundwater Modeling", Dr. Robert Hoeksema (Calvin College), Dr. Leslie Smith (U of British Columbia), and Dr. Aly El-Kadi (IGWMC) International Ground Water Modeling Center Short Course. CONTACT (317)283-9458.

SEPTEMBER 1989

28 "Environmental Site Assessments - One-Day Course", at Cathedral Hill Hotel, San Francisco, NWWA Assoc. of GW Scientists and Engineers. P.O. Box 182039/Dept. #017/ Columbus, OH 43218 CON-TACT (614)761-1711.

OCTOBER 1989

1-6 "AEG 32nd Annual Meeting at Vail Colorado, Marriott's Mark Resort Theme "Engineering Geology of Mountain and Plain" hosted by the AEG Rocky Mountain Section Symposia: "Engineering Geology Problems of Large Landslides" Contact Jerome V. DeGraff, AEG Landslide Committee Chairman (209)487-5640; Short Courses 1) Groundwater Contamination Transport Modeling 2) Landslide Mitigation Techniques; Field Trips 1) Glenwood Canyon Highway Project, 2) Vail Pass Highway Project, 3) a marble quarry in the Vail area, 4) Dillon Dam and other water-supply projects, and 5) a tour of landslides and debris flows in the mountainous terrain surrounding Vail.CONTACT: for Registration (303)744-7105 Ralph G. Mock, Chen-Northern, 96 S. Zuni St., Denver, CO 80223.

14-15 "Geology of Northern Baja California" Fall Field Trip Pacific 4

Section SEPM. San Diego State University, Pat Abbott, Ph.D. and the geology faculty at the Universidad Autonoma de Baja California (UABC) are organizing visits to prime localities for rocks and structures ranging in age from Ordovician to Holocene. CON-TACT: (619)594-5586.

23-27 "Multiphase Organic Transport Modeling with Emphasis on Pollution by Hydrocarbons" Dr. John Parker and Dr. Jagath Kaluarachchi (VA Poly Inst.), Dr. Marian Kemblowski (Shell Development Co.) and Dr. Aly El-Kadi (IGWMC) International Ground Water Modeling Center Short Course. CONTACT (317)283-9458.

Proceedings available from Southern California Earthquake Preparedness Project on: The seismic Risk in the San Diego Region Workshop on the Rose Canyon Fault System - June 29-30, 1989, San Diego.

Professional Services

MOORE & TABER GROUTING DIVISION

Compaction Grouting • Level Surveys Structure Distress Investigations

4530 E. LA PALMA AVE. • ANAHEIM, CA 92807 • (714) 779-2591

5620 DISTRICT BLVD., SUITE 103 . BAKERSFIELD, CA 93313 . (805) 833-1743

16760 WEST BERNARDO DR. • SAN DIEGO, CA 92127 • (619) 487-2113

2/88

THE BORING COMPANY

P.O. BOX 17538 IRVINE CA. 92714

714-551-1002

We are specialists in HORIZONTAL BORING from 1" to 6" diameter and up to 600' length.

"Compare Us We're Unchallenged"

PRESSURE GROUT

Steven C. Chandler **Grouting Engineer**

125 South Linden Ave. So. San Francisco CA 94080-6466 415/871-2244

831 East D St. Wilmington CA 90744-6007 213/513-0773

Professional Services

Business-card size advertisment space available for \$ 50.00/year.



SIERRA BRAVO COMPANY

GEOPHYSICS FOR:

ENGINEERING-GROUNDWATER-ENVIRONMENT

- SEISMIC REFRACTION/REFLECTION
- GROUND PENETRATING RADAR
 - · ELECTRICAL
 - MAGNETICS
 - GRAVITY

PROPERTY TRANSFER SURVEYS SITE ASSESSMENT SURVEYS GEOPHYSICAL EQUIPMENT RENTAL

PO BOX 152 WOODBRIDGE CA 95258 (209) 339-8791

489

RICH DARBY

MIKE HOWORTH



DRILLING & EXCAVATION CO.

"WE DRILL & DIG HOLES.."

TESTPITS/BCRINGS, CAISSONS, FOOTINGS GRADEBEAMS, UNDERPINNINGS/PADS, SEEPAGE PITS, MONITORING WELLS, DEWATERING WELLS AND RETAINING STRUCTURES.

76 N. Sierra Bonita Avenue, # 4 Pasadena, CA 91106

818-793-5293

12/87

SANFORD L. WERNER

CONSULTING GEOHYDROLOGIST **ENGINEERING GEOLOGIST** WATER QUALITY SPECIALIST

Registered Geologist Certified Engineering Geologist

21031 Blythe St., Canoga Park, CA 91304, (818) 998-8178 12/87



Stephen W. Jensen **Principal Geologist**

10225 Barnes Canyon Road Suite A-112 San Diego, California 92121

(619) 457-0400

Soil Engineering • Geology • Groundwater

DID IT MOVE, OR DIDN'T IT?



Our automated deformation-sensing systems give you the graphic answer!

Now, track the tilts, bulges, bends and displacements of • Dams • Tunnels

- Tanks Landslides Bridges
- Buildings Roofs Any Structure.

Our systems take continuous static and dynamic readings. Then report to you. Wherever you are in the world.

- ► Structural testing
- ► Warning of unsafe conditions
- ► Long-term monitoring



1336 Brommer St., Santa Cruz, CA 95062, [408] 462-2801 • Fax (408) 462-4418

6/89

ZIP-A-DIP Combination protractor, scales, and most efficient apparent dip calculator designed.

Only \$3.00 each (2-10/\$2.50; 11+/\$2.00). Brochure describes ZIP-A-DIP. stereonet plotters, stratigraph, field bags and quantity prices.

Please send brochure only

ZIP-A-DIPS Quantity_____ Amount \$

Address

To: ZIP-A-DIP, 1318 2nd St. #25, Santa Monica, CA 90401 USA

²/88

One Source for All Your Geotechnical Instruments

We offer a full line of Geotechnical . Inclinometers Instruments with accessories and support at competitive prices. Ask us about our rental systems.

A SUBSIDIARY OF ROCHESTER INSTRUMENT SYSTEMS

3860 148th Avenue N.E., Redmond, Washington 98052 USA Phone: (206) 883-7300 Telex: 15-2070 Fax: (206) 882-1412

TECHNOLOGY CORP.

- Inclinometer Casing
- Tilt Sensors
- **Piezometers**
- Settlement Systems
 - Load Cells
 - **Data Acquisition Systems**

4/88

Your "Position Available" Ad (free) or "Professional Services" Ad (\$50.00/year) here.

Professional Services ads are standard 2-in. by 3 1/2-in. business-card size.

Position Available ads follow basic format as shown.

Contact: Newsletter Editor

Positions Available

Advertisements for Student & Part-Time "Positions Available" are Welcome. There is no charge for advertisement.

Career Opportunity For Principal Hydrogeologist

Immediate opening available for a Principal Hydrogeologist. Duties will include development and management of water resources and groundwater contamination/remediation projects. The successful candidate will have a proven record of project development and management, M.S. degree, California registration as a geologist, 7+ years professional experience with excellent technical and communication skills. Position will be in southern or central California. Salary is negotiable and commensurate with experience.

Call (805) 644-5535 or send resume to: McClelland Consultants Attention: Michael R. Ploessel 2140 Eastman Avenue Ventura, CA 93003

> Career Opportunity For Senior Engineering Geologist

Immediate opening available for a highly versatile Senior Engineering Geologist. The successful candidate will plan and supervise comprehensive engineering geological studies and be the Senior Staff Consultant on complex multi-disciplinary projects. M.S. degree, 5+ years diverse professional experience, C.E.G., and excellent technical and communication skills are required. California experience should include work in several of the following: slope stability, hillside grading, fault/seismicity evaluation, EIR/EIS, geohydrology/water resources, distressed property excavations, site assessments, soil and groundwater contamination and remediation. Salary is negotiable and commensurate with experience.

Call (805) 644-5535 or send resume to:

McClelland Consultants
Attention: Michael R. Ploessel
2140 Eastman Avenue
Ventura, CA 93003

Career Opportunity For Engineering Geologist

Immediate opening are available for entry level engineering geologists to perform supervised field mapping/investigations, cross sections, report preparation and more. B.S. in Geology, excellent written/verbal skills required. Excellent benefits/salary package. High growth potential. Call (714) 837-5001 or send resume to:

Nolte and Associates

Attention: Personnel
24741 Chrisanta Drive

Career Opportunity For Geotechnical Engineer

Immediate opening is available for a geotechnical engineer. Requirements are California registration and 5 - 10 years experience in waste disposal facility design - hydrology experience a plus.

Call (818) 848-0214 or send resume to: Law Environmental, Inc. Attention: J. Johnson 3420 N. San Fernando Blvd. Burbank, CA 91504

Mission Viejo, CA 92691

Career Opportunity For Geologist

Growing geotechnical firm needs a Registered Geologist in California to establish a geology department. Requirements are a minimum 5 years of experience in the Los Angeles and Ventura counties area.

Call (805) 484-3657 or send resume to:
Tierra Tech. Testing Lab, Inc.

Attention: Kenneth J. Palos

388 Dawson Drive P.O. Box 3240 Camarillo, CA 93011 Career Opportunities For

Geologists...

Project Geologist/Hydrogeologist at Riverside office. Requirements are a B.S. degree and Registration as a Geologist in California with a minimum of 5 years of experience in the environmental services field. Responsibilities will include project management and supervision of the Environmental Services department. Senior/Project Geologists at Riverside and Orange County offices. Requirements are a B.S. degree and Registration as a Geologist in California (CEG highly desirable) and a minimum of 4 years experience. Responsibilities will include project management and to provide geology support for both field and office. Staff Geologists...at Riverside office. Requirements are a B.S. degree and prior experience in hazardous waste

assessment to perform field investigations and to prepare proposals.

at Orange County and Valencia offices. Requirements are a B.S. degree to perform mapping, subsurface exploration

and downhole logging.
Salary is negotiable and commensurate with experience.
Call (714) 250-1421 or send resume to:
Leighton and Associates, Inc.
Attention: Human Resources
1151 Duryea
Irvine, California 92714

Company Company of the For

Career Opportunity For Senior Geotechnical Engineer

Immediate opening are available for a senior geotechnical engineer. B.S./M.S. in Civil/Geotechnical Engineering, 5 to 8 years experience, P.E. or G.E. license. To supervise geotechnical projects and staff. Good verbal/marketing skills a plus. Excellent benefits/salary package.

Call (714) 837-5001 or send resume to:

Nolte and Associates Attention: Personnel 24741 Chrisanta Drive Mission Viejo, CA 92691

Kelly E. Rowe AEG Newsletter Editor c/o Geraghty & Miller, Inc. 17800 Castleton Street, Suite 175 City of Industry, CA 91748



