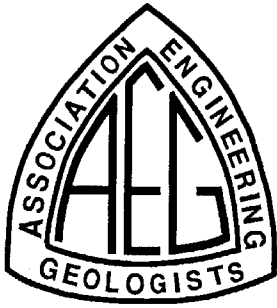


Association of Engineering Geologists

Southern California Section

NEWSLETTER - September 1989



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City of Industry, CA 91748
Amer.Geop.Union TELENET
KOSMOS Computer Mail
Username: KROWE

2550 Beverly Blvd.
Los Angeles, CA 90057

Dinner Meeting *Tuesday September 12th*

- The Quiet Cannon Restaurant
901 North Via San Clemente
Montebello
- Cost - \$20.00
- For reservations call by September 8th
Jerry Treiman
(213) 620-3560 (CDMG LA Office)

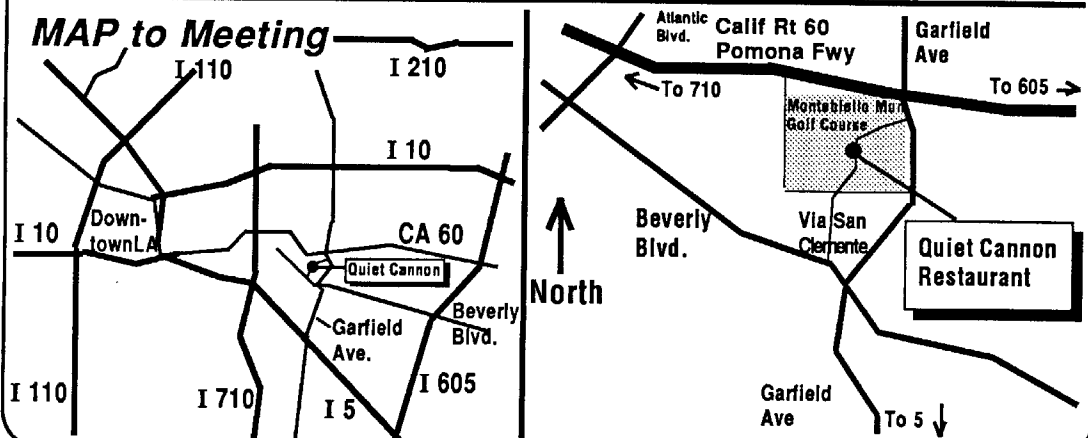
Make reservations by Noon on the Friday before the Meeting

- 5:30 Social Hour
- 6:45 Dinner
- 7:30 Announcements
- 8:00 Program
- 9:00 Section Affairs

Program

Preview of the Annual Field Trip... "Engineering Geology of Coastal Orange County"

**SPEAKERS Paul Guptill, Eldon Gath, Larry Cann
and Jack Eagan**



Program

Topic & Speaker

Preview of Annual Field Trip... Engineering Geology of Coastal Orange County

September's program will preview the annual field trip to be held on Saturday, the 23rd. The trip will focus on the **engineering geology of coastal Orange County.**

Several of the individuals who have prepared papers for the guidebook will give short presentations on their topics. **Paul Guptill** will discuss the Newport-Inglewood Fault. **Eldon Gath, Leighton & Assoc.** will present information on Quaternary coastal terraces.

Jack Eagen, Moore & Taber, will discuss construction of the Dana Point Marina. **Larry Cann** will show us several landslides that **Leighton & Assoc.** have evaluated in coastal Orange County.

THIS MONTH

September 1989



Kelly E. Rowe
Hydrogeologist

The program for the meeting this month will preview some of the projects and areas that have been studied by engineering geologists in the coastal Orange County. This will perhaps entice some people to go on the Annual AEG Field Trip this Saturday, September 23, starting at 8:00 am sharp. You will find enclosed a form to fill out if you plan to go on the field trip. The cost is \$35 for AEG members and non-members and is \$25 for students. This includes lunch, refreshments, Guidebook and Transportation. Space is probably going to be limited so sign up early. Please return to Ms. Bobbie McCarthy c/o Leighton & Associates by September 8.

Last month Alice Campbell, spoke about some of the problems associated with applying hydrogeologic principles, that are suitable for the rest of the country, to the southern California area. She pointed out some concepts to keep in mind when evaluating the dynamics of our ground-water basins. For example, rainfall in California is strongly controlled by orographic (elevation) changes and ground-water flow is controlled by the more permeable zone tapped by the well. Development of a hypsometric curve (elevation vs. rainfall) for stations in a basin can be used to more accurately calculate the sum of rainfall. Also one should carefully consider the data that is developed from a monitoring well, i.e., whether the well taps representative ground-water at a site in respect to quality and hydraulic properties. Alice Campbell provided many other interesting concepts to consider and was competitive with Lorne Everett as one of our longest-winded speakers this year.

The listing in last month's newsletter of the National AEG members in the Southern California Section neglected to list two members. Those missed were Mr. Henry Mayada and Ms. Dorian Elder Mills (soon to be Mrs. Kuper).

There will not be a meeting on the second Tuesday in October because of the AEG Annual Meeting in Vail Colorado. A joint meeting with the Association of Women Geoscientists will, however, be held on Thursday, October 19, 1989, at the Quiet Cannon in Montebello. The speakers will be Tanya Atwater

Montebello. The speakers will be Tanya Atwater and Christine Smith. Their talk is entitled "Geologic Explorations in Tierra del Fuego and Palmer Peninsula, Antarctica."

For your information, Tierra del Fuego is an archipelago off southern South America, south of the Strait of Magellan. It is also the chief island of the archipelago, divided between Chile & Argentina. Palmer Peninsula is part of Antarctica further south of South America, across from the Drake Passage.

Southern California Section Newsletter Information

For Newsletter subscription information and advertising rates, contact Kelly Rowe at (818) 965-4048. As an AEG member, you are automatically a member of your local section. To receive your section newsletter, you must be a subscriber because your Association dues do not cover production and mailing costs for section newsletters (\$20.00/year).

James O'Tousa, Membership Drive Chairperson, reports that several prospective members have all of their sponsors' forms in his possession, but he does not have their application forms. These need to be turned in so they can be processed.

For those of you who work up in Santa Clara County you should be aware the the Santa Clara Valley Water District (SCVWD) has issued a revised "Standards for the Construction and Destruction of Wells and Other Deep Excavations in Santa Clara County". The revision date is June 1989. Copies are available from Larry Wilson, at the SCVWD (408) 265-2600 Ext. 368.

Other Announcements

The South Coast Geological Society's Fall 1989 Field Trip will be along the San Andreas Fault from the vicinity of the Cajon Pass into the Carrizo Plain on October 28 and 29. Reservation forms for the trip are due by September 25. These forms may be obtained by writing to the South Coast Geological Society, P.O. Box 10244, Santa Ana,

California 92711, or come to the September 11 meeting. All S.C.G.S. members will receive a reservation form in the mail. Call Joan Baldwin at 714-839-8664 for further information

Presenters (among others) on the trip include:

Kerry Sieh, Ray Weldon, John Foster, Al Barrows, Peter Weigand and Tom Dibblee

Page 6 shows an interesting graph about historic sunspots taken from a recent issue of "Transactions" an Amer. Geophysical Union publication. We are projected to have a very active Sol over the next few years.

Geological Society of America Memoir 140 describes the reconnaissance geology of Baja California and included 3 large, colored, geologic maps of the entire state. The Memoir and maps are out-of-print, however, a cache of 41 sets of the 3 maps folded in 9" x 12" envelopes has just been discovered. For this last chance in a lifetime opportunity to own the geologic maps of the State of Baja California, send a check for \$9.90 (includes postage & handling) to SDSU Press, San Diego State University, San Diego, CA 91282.

Best wishes are extended to those who intend to take the Geologist and Engineering Geologist examinations on the 8th and 9th, respectively.

To add a bit more stress to those who are studying, consider that the next time these tests will be given will be next year about this time. It was reported earlier this year that the Board of Registration for Geologists and Geophysicists were planning to get an increase in the annual licencing renewal fees approved by the state assembly. This plan was subsequently shelved due to opposition within the assembly. The increase in fees were intended to support, among other items, increasing the number of examinations to be given per year. It is uncertain whether the former two test per year schedule will be reestablished.

Remember the AEG Annual Meeting is in Vail Colorado, from October 2nd to the 6th. See You There...

Seminars/Meetings/Field Trips

SEPTEMBER 1989

UCI Extension offers certification programs in Hazardous Materials Management, Environmental Auditing, and Environmental Site Assessment and Remediation. For a free brochure, call UCI Extension at (714) 856-5414. The following is a list of Fall courses by dates:

September

- 13-"Environmental Aspects of Soils Engineering and Geology" Wednesdays, Sept. 13 - Nov. 15. 7-10pm.
14-"Introductory Chemistry of Hazardous Materials" Thursdays, Sept. 14 - Nov. 16. 7-10pm.
18-"Environmental Law" Mondays, Sept. 18 - Dec. 4. 7-10pm.
18-"Seminar in Environmental Auditing" Mondays, Sept. 18 - Oct. 23, 2-9pm.
18-"Regulatory Framework for Toxic and hazardous Substances" Mondays, Sept. 18 - Oct. 16. 2-9pm.
20-"Elements of Health and Safety for Effective Hazardous Materials Management" Wednesdays, Sept. 20 to Oct 18. 2-9pm.
21-"Principals of Hazardous Materials Management" Thursdays, Sept. 21 - Oct. 19. 2-9pm.
26-"Hazardous Materials Emergency Preparedness, Response and Planning" Tuesdays, Sept. 26 to Oct 31. 2-9pm.
28-"Regulatory Framework for Toxic and Hazardous Substances" Thursdays, Sept. 28 - Dec. 7. 7-10pm

November

- 1-"Environmental Toxicology" Wednesdays, Nov. 1 - Dec. 6. 2-9pm.
7-"Principals of Hazardous Materials Management" Tuesdays, Nov. 7 - Dec. 5. 2-9pm

SEPTEMBER 1989

- 14-15 Pacific Section SEPM Annual Field Trip "Baja California Geology", CONTACT: Dr. Pat Abbott (619)594-5586.
23 AEG So. Calif. Section Annual Field Trip "Engineering Geology Along Coastal Orange County", Sign-ups at the monthly meeting or CONTACT: Ed Steiner at Leighton & Associates at (714)250-7115.
25-27 "Corrective Action for Containing and Controlling Ground Water Contamination", at Cathedral Hill Hotel, San Francisco, NWWA Assoc. of GW Scientists and Engineers. P.O. Box 182039/Dept. #017/ Columbus, OH 43218 CONTACT (614)761-1711.
25-27 "Fracture Trace Analysis", at Cathedral Hill Hotel, San Francisco, NWWA Assoc. of GW Scientists and Engineers. P.O. Box 182039/Dept. #017/ Columbus, OH 43218 CONTACT (614)761-1711.
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 CONTACT (614)761-1711.
28 "DRASTIC Workshop", at Cathedral Hill Hotel, San Francisco, NWWA Assoc. of GW Scientists and Engineers. P.O. Box 182039/Dept. #017/ Columbus, OH 43218 CONTACT (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 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. CONTACT: (619)594-5586.
19 (Thursday) AEG Southern California Section & the Association of Women Geoscientists "Geologic Explorations in Tierra del Fuego and Palmer Peninsula." Tanja Atwater and Christine Smith.
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.
28-29 South Coast Geological Society's Annual Field Trip "San Andreas Fault from the vicinity of the Cajon Pass into the Carrizo Plain" Field trip Leaders: Kerry Sieh, Ray Weldon, John Foster, Al Barrows, Peter Weigand, Tom Dibblee, et.al. CONTACT SCGS P.O. Box 10244, Santa Ana, CA 92711 of come to the Sept 11 meeting to obtain trip reservation forms. or call (714)839-8664.

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.

NOVEMBER 1989

- 11 "Day In The Field With Tom Dibblee" CONTACT Dick Brown for details
28-30 "Critical Issues in Underground Storage Tank Management" at Doubletree Hotel, San Diego, NWWA Assoc. of GW Scientists and Engineers. P.O. Box 182039/Dept. #017/ Columbus, OH 43218 CONTACT (614)761-1711.
28-30 "Risk Assessment for the Ground Water Scientist" at Doubletree Hotel, San Diego, NWWA Assoc. of GW Scientists and Engineers. P.O. Box 182039/Dept. #017/ Columbus, OH 43218 CONTACT (614)761-1711.

DECEMBER 1989

- 1 "Environmental Site Assessments - One-Day Course", at Doubletree Hotel, San Diego, NWWA Assoc. of GW Scientists and Engineers. P.O. Box 182039/Dept. #017/ Columbus, OH 43218 CONTACT (614)761-1711.
3-9 "American Geophysical Union - Annual Meeting" San Francisco

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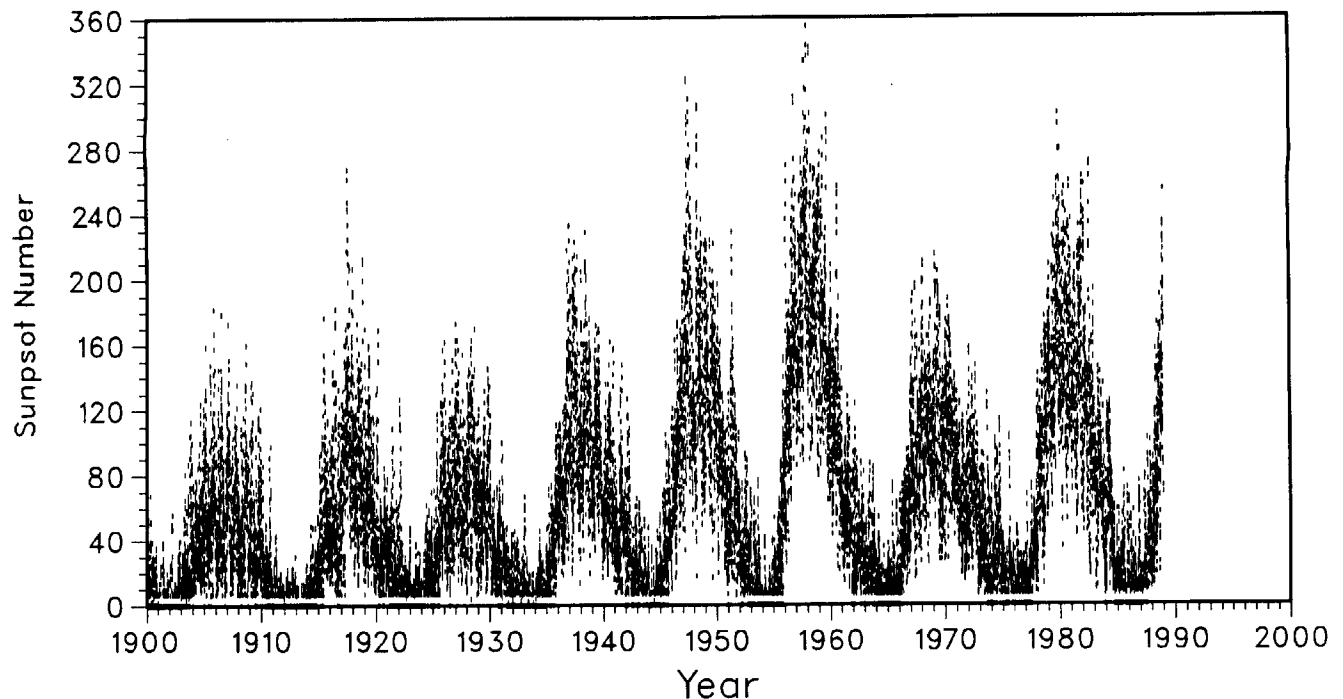
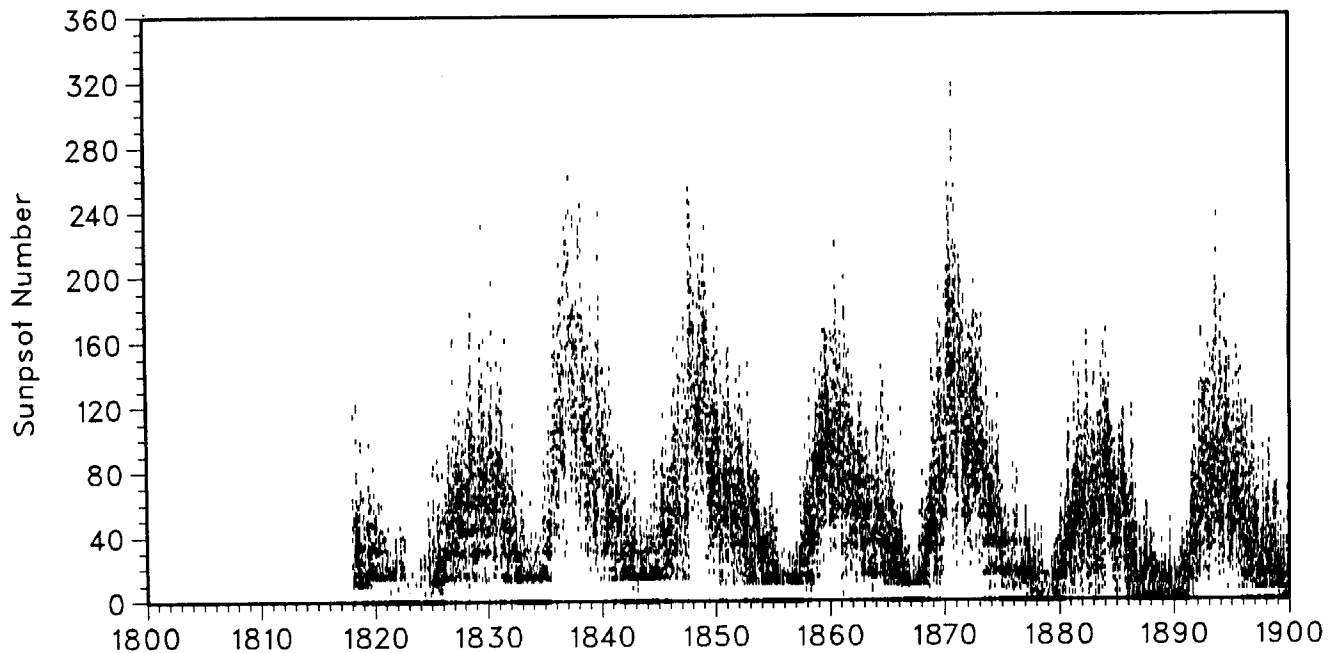
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DAILY SUNSPOT NUMBERS

January 8, 1818 - December 31, 1988



The figure above is from the Aug. 8, 1989 Vol. 70 No.32 issue of the American Geophysical Union (AGU) "Transactions". "This graph shows the daily sunspot numbers from January 8, 1818 to December 31, 1988. The plotting of daily sunspot numbers shows discontinuities in the sunspot number formula that are not seen when viewing the more commonly displayed monthly or annual means. In 1848 the Swiss astronomer Johann Rudolph Wolf defined the sunspot number index as the total spot count added to 10 times the number of sunspot groups. The gap in the numbers just above the horizontal axis illustrates how insensitive this formula is to days of low solar activity-days when the appearance of a single spot causes the number to jump from 0 to 11. Only by averaging reports from several observatories do values less than 11 occur. Note too the regularly spaced density pattern in the early sunspot numbers that

results from the factor 10 in the formula. In 1882 Wolf's successors changed the counting method to include smaller spots and to weigh spots according to their size and umbral structure.

"Present cycle 22 is predicted to rival cycle 19 as the most active on record. The largest daily sunspot number in history, 355, was recorded during cycle 19 on December 24 and 25, 1957.

"World Data Center A for Solar-Terrestrial Physics offers this graph as part of a set that includes monthly mean, smoothed monthly mean and yearly mean sunspot number plots. Sunspot number data are available on floppy disk or in publication form; tel. 303-497-6346; FAX 303-497-6513. It was contributed here by Daniel C. Wilkinson, NOAA, National Geophysical Data Center, Boulder Colorado."

Association of Engineering Geologists
Southern California Section

1989 Annual Field Trip
Engineering Geology Along Coastal Orange County

Areas Highlighted Will Include: The Newport-Inglewood Fault, The Cristianitos Fault,
The Dana Point Marina, Landslides Galore,
... And Much Much More.

Date: Saturday, September 23, 1989
Time: Buses leave at 8:00 a.m. Sharp
Please arrive 7-7:30 for coffee
Return at 4-4:30 p.m.
Place: Leighton & Associates Parking Lot
3050 Daimler Street, "B"
Santa Ana, CA 92705
(See Map Below For Location)

Cost: \$35.00 (Members/Non-members) \$25.00 (Students)
(Includes Lunch, Refreshments, Guidebook and Transportation)

Return this form by September 8th to:

Leighton & Associates
1151 Duryea Avenue
Irvine, CA 92714
Attention: Ms. Bobbie McCarthy/AEG Field Trip

Amount Enclosed: _____

Name _____
Address _____
City _____

Phone _____

Please Make Check Payable to "AEG, Southern California Section"



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Right on MacArthur
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(Newport-Costa Mesa Fwy)
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Right on Alton
Right on Daimler
Corner Alton & Daimler

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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 Associate Engineering Geologists

Positions are available in the Environmental Review Project, Sacramento, California. These positions are limited-term expiring June 30, 1990. Duties include reviewing engineering geologic, seismic and geotechnical engineering reports submitted with environmental impact reports, and hospital/school site reports. Desired qualifications include certification as an engineering geologist applicable experience, and familiarity with CEQA, SMARA and Title 24. Salary range is \$3,276-3,950. Applicants need not be on a State list, however, they must meet the minimum qualifications of the State Associate Engineering Geologist Exam.

If interested, send resume to
Zoe McCrea
Division of Mines and Geology
630 Bercut Drive
Sacramento, California 95814

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.
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Career Opportunity For Supervising Geologist

An open examination is planned to be administered by the California Department of Conservation soon. A Supervising Geologist in the Department's Div. of Mines and Geology administers one of five major programs of the organization: mineral resources, environmental protection, geologic hazards, earthquake engineering, or geologic information and support; is responsible for operational planning, budgeting, reviewing and evaluating achievements, and preparing reports. Requirements: registration as a geologist in California at the time of appointment; college degree in geological sciences or mining engineering; five years of increasingly responsible professional experience in geology or mining engineering, with at least two years of highly responsible supervisory capacity (graduate work may be substituted).

Contact or Send application/resume (by Sept. 29, 1989) to:

Department of Conservation
Attention: Exam Analyst (PT)
1416 Ninth Street, Room 1347
Sacramento, CA 95814

Career Opportunity For Geotechnical Laboratory Manager

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