



# Newsletter

## Inland Empire Chapter News

Southern California Section, Association of Environmental and Engineering Geologists

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July 9, 2006

Vol. 2, No.7

— Slate of Officer Candidates for Ballot, Election 2006-2007 —

### **Richard Jahns Distinguished Lecturer in Engineering Geology**

**Geological Society of America, Engineering Geology Division, and  
Association of Environmental and Engineering Geologists**

## Rock-fall Analysis and Mitigation

Wednesday 19-July-2006

5:30 - 6:30	Geologist Orientation	Saloon
6:30 - 7:15	Dinner	Patio
7:15 - 8:30	Meeting	Patio

### **Claim Jumper, Corona**

(Meeting Cost \$22.00, Order from Select Menu)  
(includes tax/tip//gratuity & dessert)  
(Fund-raising donation suggested is \$5.00, or more)  
*(RSVP/Directions below)*

### **Dear AEG Members:**

Meeting meal and location details and directions are found inside this Newsletter, as well as other news potentially of interest to you.

RSVP Please: by close of business 13-July-06  
Send e-Mail RSVP to Rick Gundry at  
[rick.gundry@verizon.net](mailto:rick.gundry@verizon.net), by COB 13th-July,  
or call RSVP message at (951) 924-6756.

### ***This Month's Speaker (GSA & AEG):***

**Jerry D. Higgins, Ph.D., P.G.**  
**2006 Richard Jahns Distinguished  
Lecturer in Engineering Geology**  
Associate Professor of Engineering Geology,  
Department of Geology & Geological  
Engineering, Colorado School of Mines,  
Golden, Colorado [See other attached pdf file.]

## ***“Rock-fall Analysis and Mitigation”***

### **abstract**

Rock fall refers to the detachment of rock from a steep slope along a surface on which little or no shear displacement occurs. The material rapidly descends a slope by falling, bouncing, or rolling. Except when the displaced rock has been undercut, falling will be preceded by small sliding or toppling movements that separate the displacing material from the undisturbed mass. Rock fall may involve more than one rock, but does not include large volumes such as rock slides.

The traffic on highways crossing steep topography has steadily increased resulting in an increase in the number of rock-fall related accidents and deaths. In the past 20 years or so, transportation departments have become increasingly concerned with identifying rock-fall hazard and attempting to reduce the risk of accidents along heavily traveled routes. The resulting research has led to the development of new management, analyses and mitigation techniques that make it possible to stabilize or control many of the smaller, but high risk, potential rock falls. Today, these developments are commonly applied throughout civil, environmental, and mining practice.

Engineering geologists have had the tools for many years to recognize structural or environmental conditions that may increase the potential for rock-fall events. Research in the early 1960s developed an empirical method to design effective rock-fall catchment ditches along roadways. Beginning in the 1980s several computer programs were written and tested that were effective in helping engineering geologists predict how rocks behave as they bounce

down slopes, which aided in catchment ditch design or the placement and design of rock-fall barriers on the slope. Several versions of rock-fall inventory systems were developed to aid engineering geologists in selecting priorities for remediation. Many full-scale rock-rolling experiments have been conducted for calibration of computer programs or as a basis for design of barrier or ditch systems. Various types of rock-fall barriers were designed and underwent full-scale testing. Today rock-fall analysis and mitigation has become relatively sophisticated and geologists and engineers have the tools to analyze slopes for rock-fall hazard and to construct rather sophisticated stabilization or catchment systems.

This presentation will review the development of important rock fall assessment and analysis tools, the various mitigation techniques, and full-scale-testing of rock-fall barriers.

### **The 2006 AEG/GSA Richard Jahns Distinguished Lecturer in Engineering Geology**

Jerry D. Higgins, Ph.D., P.G. has been named the 2006 Jahns Distinguished Lecturer. The Association of Engineering Geologists and the Engineering Geology Division of the Geological Society of America (GSA) jointly established the Richard H. Jahns Distinguished Lectureship in 1988 to commemorate Jahns and to promote student awareness of engineering geology through a series of lectures offered at various locations around the country throughout the year. Richard H. Jahns (1915-1983) was an engineering geologist who had a diverse and distinguished career in academia, consulting, and government.

Dr. Higgins has served on the Geology and Geological Engineering faculty at the Colorado School of Mines since 1986. He received a B.S. Geology degree from Missouri State University (1969) and M.S. Geology and Ph.D. Geological Engineering degrees (1975 and 1980) from the University of Missouri-Rolla. Prior to coming to CSM, Dr. Higgins served on the civil engineering faculty at Washington State University and as a geological engineer with a consulting engineering firm and with the City of Springfield, Missouri.

Dr. Higgins has taught many engineering geology courses and short courses. His major areas of research are slope stability, rockfall analysis and mitigation, debris flow mechanics, seismic hazard assessment, geotechnical design in loess, characterization of expansive bedrock, construction materials characterization, and engineering geologic mapping. He has completed over \$1.4 million in funded research from government and private industry. He was a contributing author to the Transportation Research Board (TRB) publication "Landslides: Investigation and Mitigation", coauthored the internationally known Colorado Rockfall Simulation Program (CRSP), authored testing standards for flexible fence rock-fall barriers, and has published numerous technical papers on engineering geology. Presently, he is part of a TRB task force preparing a book on rockfall science. He has given numerous invited presentations and workshops in the U.S. and Europe on many engineering geology topics.

An active member of the Association of Engineering Geologists since 1975, Dr. Higgins has served as chair of the Rocky Mountain Section, chair of the Academic and Student Affairs Committee, and has planned numerous technical symposia at national

meetings. He is a member of the TRB Engineering Geology and Rockfall committees. He served five years as the geological engineering representative to the ABET, Inc. Engineering Accreditation Commission, and presently serves on the ABET Board of Directors. He is also active on the SME Education and Curricular Issues committee and serves as a trainer for geological engineering accreditation evaluators.

The 2006 Jahns lecture titles include: "Rockfall Analysis and Mitigation", "Engineering Geology of Expansive Soils and Bedrock", "Site Characterization for Slope Stability Assessment", and "Preparation for Careers in Engineering and Environmental Geology" [See also page 2 of December 2005, *AEG News*, sent with permission of Association of Environmental and Engineering Geologists, in separate file sent with this announcement.]



### **SLATE OF 2006-2007 OFFICERS AEG Inland Empire Chapter**

**The current term of Chapter Officers expires 30-Sep-06. Open Season for Nominations of 2006-2007 Chapter Officers from Members and Attenders is closed, except for nominations from the floor at the Official Election meeting in August when the Election of Officers will occur, as Write-Ins, or other means described below.**

**Write-In candidates are welcome. Candidates for Officers should be AEG Members or become AEG Members, Candidates for**

**President are required to be a Member of AEG by 1-Oct-06. Floor nominations at the August meeting will be sought prior to the actual election. A slate of candidates is portrayed in this Newsletter (below).**

**Only AEG Members are eligible to Vote. Official Election Ballot will be sent by special message prior to, and within the August Newsletter. Mail-in "Absentee" Ballots are discussed in a special message sent 5-July-06, and to be mentioned in Official Ballot distribution early next month.**

**New Officer installation will occur at the September meeting. New Officers will be in charge effective 1-Oct-06**

## Message from the President

SLATE of Candidates for the Election of Chapter Officers for 2006-2007.

Chapter President  
Rick Gundry

Vice President North  
Mike Cook

Vice President South  
Frank Jordan

Chapter Treasurer  
Doug Cook

Chapter Secretary  
Dave Gaddie

AEG Members Please Vote,  
(non-Members not eligible)

SALUTE to Petras Sponsors !  
Please refer to attached file in  
announcement e-Mail for this *Newsletter*

## Treasurer's Report

End-Of-Year Chapter Fiscal Report for Year

July-05 thru Jun-06 is in preparation to report to National and Section AEG next month or as specified.

Current bank balance at end of June 30, 2006 is very healthy (about \$14,000.00) and is not reflective of current and actual financial situation as the dust is still settling on a variety of key transactions pending in income and expenses occurring in July as the result of the recent end of June short course.

However, the amount is two orders of magnitude and a factor or two or three at least greater than a year ago I am happy to report at this time.

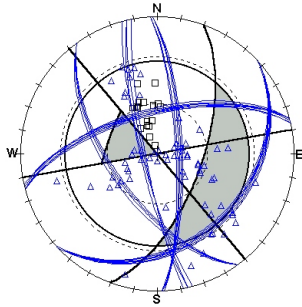
## Thanks

Thanks to the 20 Professionals that attended the June 21, 2006 Meeting in Temecula, California, as follows:

**Dr. Miles Kenney** (Speaker), Petra Geotechnical; Dr. Kerry Cato, **Cato Geosciences**; Janis Hernandez, **California Geological Survey**, Paul Theriault, **GEOCon Inc Inland Empire**, Nick Hagen, Zack Freeman, Frank Jordan, **Petras Geotechnical**; Scot Mathis, **Leighton and Associates, Inc**; Rick Gundry, **U.S. Bureau of Indian Affairs**; Gary Wallace, **RMA Group**; Mike Cook, **Kleinfelder Inc.**; Doug Cook, **Sladden Engineering Inc**; Chad Welke, **LGC Geotechnical**; Dave Jones, **Riverside County**; Brad McCardell, **Kleinfelder Inc.**; Lisa Battiato, **GEOCon Inland Empire**; Mitch Bornyasz, Pat McNamara, Leighton and Associates, Inc.; Dave Gaddie, **Riverside County**; Phuong Chau, **Leighton and Associates, Inc.**

## Thanks

Thanks to the 63 enrolled professionals participating and the three expert instructors teaching and leading at the June 23/24-2006 short course "**Rock Fall Slope Stability Investigation and Evaluation for Geologists**" held in Temecula, California, and with a field trip in through-cuts and side-hill cuts close by.



Thanks to the three Instructors . . . .

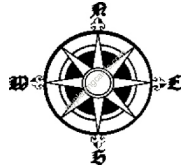
- Brendan Fisher, Senior Engineering Geologist, Kleinfelder, Inc., Bellavue, Washington.
- William (Bill) Gates, Ph.D., Principle Geological Engineer, Kleinfelder Technical Resource Center, Auburn, Washington.
- Chester (Skip) F. Watts, Ph.D., Director, Institute for Engineering Geosciences, Dalton Distinguished Professor of Geology, Radford University, Virginia.

Attendees were from mostly southern California and also included a significant number from central and northern California, Nevada and Arizona, as follows:

**Jim Baker**, Santa Clara County Planning Office, Santa Clara, CA; **Michael Cook**, Kleinfelder Inc., Redlands, CA; **James Perry**, Kleinfelder Inc., Redlands, CA; **David Perry**, MACTEC, San Diego, CA; **Greg Rzonca**, GEOCon Inc., San Diego, CA; **Bill Cavan**, Gorian and Associates Inc., Thousand Oaks, CA; **Loree Reiner**, Gorian and Associates Inc., Thousand Oaks, CA; **Matt Baumgardner**, Gorian and Associates Inc.; **Nathan Ash**, GEOCon Inc., San Diego, CA; **Jeffrey W. Tyson**, Zeise Kling Consultants, Inc., Santa Ana, CA; **Jeffrey D. Brown**, GEI Consultants, Inc., Carlsbad, CA; **Warren Sherling**, Earth Tecnic, Temecula, CA; **Avi Schwartz**, Leighton and Associates Inc, Temecula, CA; **John Tabor**, URS Corporation, San Francisco, CA; **Damien Gonsman**, GEOCon Inc, San Diego, CA; **Heather Hespeler**, Ninyo and Moore, Phoenix, AZ; **Michael Sila**, California Geological Survey, Sacramento, CA; **Randell Wagner**, Leighton and Associates, Inc, San Diego, CA; **Daniel P. Jankly**, Leighton and Associates Inc, Rancho Cucamonga, CA; **David A. Glass**, Leighton

and Associates, Inc, Rancho Cucamonga, CA; **Robert J. Fulton**, Albus-Keefe and Associates, Anaheim, CA; **Todd A. Greer**, Geosoils, Inc., Murrietta, CA; **Chad Welke**, LGC Inland, Inc., Murrietta, CA; **Dean G. Fransuch**, Kleinfelder, Glendale, CA; **Zach Washburn**, Holdree and Kull, Nevada City, CA; **Phoung Chau**, Leighton and Associates, Inc., Temecula, CA; **Bob Stroh**, Leighton and Associates, Inc., San Diego, CA; **Rick E. Larson**, Kleinfelder Inc., San Diego, CA; **Bruce A. Schell**, Schell Geological Consulting Co., Irvine, CA; **Kelley L. List**, Youngdahl Consulting Group Inc., Eldorado Hills, CA; **Nadine Langley**, Holdrege and Kull, Nevada City, CA; **Mark Doerschlag**, Terra Logic Inc., Riverside, CA; **John S. McKeown**, CHJ Inc., Colton, CA; **K. Douglas Cook**, Sladden Engineering, Hesperia, CA; **Scott Rugg**, Kleinfelder Inc, San Diego, CA; **Kenneth E. Cox**, GEOCon Inc., Murrietta, CA; **John Pettross**, Pacific Soils, Inc., Capistrano Beach, CA; **Pat McNamara**, Leighton and Associates, Inc., Temecula, CA; **Christopher Krall**, RGS Engineering Geology, Rancho Cucamonga, CA; **Katie Maes**, Lawson and Associates Geotechnical Consultants, Laguna Beach, CA; **Mark Spykerman**, Earth Systems southwest, Rancho Cucamonga, CA; **Michael Putt**, Albus-Keefe and Associates, Anaheim, CA; **Geoffrey D. Stokes**, Lawson and Associates Geotechnical Consulting, Inc., San Clemente, CA; **Michael Spira**, Albus-Keefe and Associates Inc., Anaheim, CA; **Paul Theriault**, GEOCon Inc., Murrietta, CA; **Maurice Amendolagine**, Geotechnics, San Diego, CA; **Sean Richards**, Leighton and Associates, Inc., Rancho Cucamonga, CA; **Shawn Haven**, LGC Geotechnical Consultants - Coastal, San Juan Capistrano, CA; **Brian Olson**, NMG Geotechnical., **Frank Jordan**, Petra Geotechnical, Fontanna, CA; **Andrew Shinnfield**, LGC Geotechnical Inc. - Inland, Murrietta, CA; **Jeff Kermod**, CALTRANS, Escondido, CA; **David Gaddie**, Riverside County Planning Department, Fontana, CA; **Michael J. Jurasius**, URS Corporation, Santa Barbara, CA; **Robert Hammond**, Geotek Inc., Las Vegas, NV; **Paul Elliot**, Geotechnics Inc., San Diego, CA; **Kevin B. Coson**, LGC Geotechnical Consultants Inc, San Clemente, CA; **Rick Gundry**, U.S. Bureau of Indian Affairs, Riverside, CA; **Kerry Cato**, Cato Geoscience, Temecula, CA; **Donald R. Fowler**, Fowler and Associates, San Francisco, CA; **Terry Allen Jones**, California Geological Survey, Los Angeles, CA; **Gary Wallace**, RMA Group, Rancho Cucamonga, CA; **Jim Barton**, Ninyo and Moore, Irvine, CA

Each of the three Instructor were presented professional-appearing wall-mountable plaques as *Instructors* for the short course as an award of Special Appreciation.



### Meeting Details and Location

Location. The meeting site is located in the City of Corona, (near SW Riverside) off the U.S. 91 north of the McKinley Street interchange (the first one east of I-15, and in the western direction towards Corona after Magnolia Avenue interchange in Riverside.

Claim Jumper Restaurant  
380 No. McKinley Street  
Corona, CA 92879  
(951) 735-6567

Directions to Meeting. Claim Jumper Restaurant is located in north/east Corona towards Riverside off the US 91 Freeway, east/north of the I-15/US-91 interchange a short distance eastward. From Riverside towards Corona or from Corona towards Riverside, exit at McKinley Street. If proceeding from Corona, take 1<sup>st</sup> offramp (McKinley) east of I-15 on 91 and Turn Left. If proceeding from Riverside on 91, exit McKinley, and Turn Right. Travel 1/8 to 1/4-mile preparing to turn left into large shopping center after crossing Griffin way (but quite a distance before crossing Shopping Court. (I.e., Claim Jumper is in commercial complex on left.)

Meal Venue (Menu). Select at meeting from the following basic items (see other additional side and desert choices below):

Rotisserie Chicken  
Black Tie Pasta  
Baby Back Pork Ribs

Meatloaf Mashed Potatoes  
Vegetable Stuffed Baked Idaho  
Crab Wedge Salad  
Half Honey Blonde Fish&Chips  
Chicken Pop Eye  
Club House Sandwich  
Barbeque Chicken Salad  
Oaxacan Sea Bass

Choice(s) of Sides:

Mashed Potatoes  
Baked Potatoe  
Vegetables  
Drink Choice (non-alcoholic\*)

Choice(s) of Desert :

Worldes Smallest Sundae  
Carrot Cake  
Chocolate Brownie  
Small Slice Pie your choice

\*No Host Bar: other Drinks/etc., additional

### Future Meetings

**AUG** Thursday AUGUST 17, 2006, Temecula  
- The Hungry Hunter, Temecula

*"Advanced Aquifer test analysis with the general well function"*

\_\_ Dr. Tom Perina, PG, CHG, Senior Hydrogeologist, CH2MHill, Riverside, California

**SEP** Wednesday 20, 2006, Riverside  
- Citrus City Grille (Riverside Plaza Mall)

"The Physics of Interacting Faults"

\_\_ Dr. David Oglesby, Assistant Professor of Geophysics, Department of Earth Sciences, University of California, Riverside, Riverside, California.

**OCT** Wednesday OCT 18, 2006, Temecula  
- Pat & Oscars Restaurant, Temecula

*"AEG SoCal Section Perspective/Outlook"*

\_\_ Charles Nestle, Past Chairman, AEG SoCal Section, LA Department of Public Works.

*"2007 AEG Annual Meeting, Los Angeles"*

\_\_ Jeffrey R. Keaton, AEG Annual Meeting Chair MACTEC, Los Angeles, California

**NOV** Wednesday NOV, 15, 06 Rancho California  
 - Claim Jumper, Rancho Cucamonga  
 “Refraction Microtremor for Shallow Shear Velocity”  
 \_\_\_ Tiana Rasmussen, Geophysicist, Project Geologist, Gary S. Rasmussen and Associates, Inc., San Bernardino, California

**DEC** Wednesday DEC 20, 2006, Corona  
 - Cask ‘N Cleaver Steakhouse, Corona  
 “Secondary Fault-Rupture-Hazards at a School Damaged by the 1971 San Fernando Earthquake”  
 \_\_\_ Jeffrey R. Keaton, MACTEC, Los Angeles, California.

**JAN** Wednesday JAN 21, 2006 Redlands  
 - Marie Calender  
 “Speaker/Topic to be announced”  
 \_\_\_ How About You ? Informal is OK !

**FEB** Wednesday FEB 15, 2006, Temecula  
 - Hungry Hunter, Temecula  
 “The Search for PaleoTsunami Deposits in Southern Thailand”  
 \_\_\_ Dr. Brady Rhodes, Professor, Department of Geology, California State University, Fullerton, Fullerton, California

**Connecting . . .  
 Professionals  
 Practice,  
 And the Public**

Officer Contact Information, AEG Inland Empire Chapter (SoCal Section)

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Mark Spykerman, Co-Chair Field Trips	<a href="mailto:MSpykerman@earthsys.com">MSpykerman@earthsys.com</a>	
Rick Gundry. Co-Chair/Progs Field Trips	see above	
Richard Orr, <i>ad hoc</i> Membership Chair	<a href="mailto:ROrr@Leightonconsulting.com">ROrr@Leightonconsulting.com</a>	(909) 484 2205

Mailing address and URL web-site and web-page information:  
 AEG Inland Empire Chapter, P. O. Box 8944 Moreno Valley, CA 92552-8944

[www.aegweb.org](http://www.aegweb.org) National AEG Homepage (NEW !, recently revamped !)  
<http://www.aegsc.org/> Southern California Section Web-site  
<http://www.aegsc.org/chapters/inlandempire/> Inland Empire Chapter Home-Page



## **Commemorating Inaugural Year Foundation Petras Sponsors**

Thank you to all who provided funds during the beginning times of the Inland Empire Chapter

"Petras" is a Latin term for a large rock edifice, monolith or massif of strength (eg., Rock of Gibraltar), as different to "petros", a term for a rock or stone, something one can pick up. It can mean something like a cornerstone, such as one set for the foundation of a building – something strong and set first from which a foundation is built for a larger structure needing the strength.

### **GOLD PETRAS SPONSOR**

- John Gregg, Gregg Drilling and Testing, Inc, Gregg In Situ, Inc, Signal Hill, California

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- Antony Martin, GEOVision Geophysical Services, Inc, Corona, California
- Richard R. Gundry, Agency Water Rights Hydrologist, Southern California Agency, U.S. Bureau of Indian Affairs, Riverside, California
- Joe Aldern, Regional Manager, Kleinfelder Inland Empire, Redlands, California

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- Jeffrey R. Keaton, Ph. D., Senior Principal Engineering Geologist, MACTEC Engineering and Consulting, Inc., Los Angeles, California
- Robert Riha, Manager, Leighton Consulting, Temecula, California
- Matt Hawley, Lawson & Associates Geotechnical Associates, Inc., Simi Valley, California
- Glenn Borchardt, Soil Tectonics, Berkeley, California
- David L. Perry, Engineering Geologist, MACTEC Engineering and Consulting, Inc., Los Angeles, California
- David J. Gaddie, Engineering Geologist, Riverside County Planning Department, Fontana, California.