



November 2005

Los Angeles Basin Geological Society Newsletter

November Meeting: George C. Copenhaver, Jr, Senior Geologist, Geocon Inc., San Diego, California

Will speak on

THE GEOLOGY OF THE SAN DIEGO & ARIZONA EASTERN RAILWAY, SAN DIEGO AND IMPERIAL COUNTIES, CALIFORNIA AND NORTHERN BAJA CALIFORNIA, MEXICO

Speaker Synopsis / Abstract

In 2003 and 2004, a reconnaissance study of geologic, geographic, historic and cultural settings was conducted across the Peninsular Range following the 139 mile-long alignment of the San Diego & Arizona Eastern Railway. The study extended southward from San Diego, California into northern Baja California, Mexico, re-entered the United States near the crest of the Peninsular Range mountains, then descended eastward through the Carrizo Gorge into the Salton Basin of the Colorado Desert.

Mapping of geology along the railway alignment reveals a cross-section of Triassic-age through Early Cretaceous-age metamorphic and igneous rocks intruded by Jurassic-age through Late Cretaceous-age plutons of the Peninsular Range Batholith. Later Tertiary through Quaternary-age rocks overlap the edges of the central Peninsular massif.

More detailed studies, within metasedimentary rocks of the Carrizo Gorge segment, allowed some preliminary assessments of structural geology and potential geotechnical constraints along the reactivated railway. Faults, landslides, rockfalls and potentially adverse slope conditions in weak rocks along the railway and within tunnel openings are approximately delineated.

Particular attention is paid to Tunnel No. 7 for future re-opening and landslide buttressing, Tunnel No. 8 groundwater seepage for drainage and grouting, the unique wooden trestle at Goat Canyon for landslide stabilization and trestle scour-protection, and Tunnel No. 16 for east portal slope-stabilization.

A review of ongoing operations of the railway and recommendations for future improvements indicates fulfillment of a 150 year-old dream of San Diegans for an eastern "main stem" railway that connects this important corner of the United States to a multinational rail network.

George Copenhaver received his B.S. and M.S. degrees in Geology from San Diego State University in 1963 and 1970, respectively. George's specialties are in mineral exploration and engineering geology, developed while working for mining and geotechnical engineering firms (about equally) over a majority of his career.

George has practiced in Alaska, central Mexico and most of the mountain-states west of the Mississippi River. Projects involving mapping, drilling and sampling geology were mostly concentrated in the states of California, Wyoming, Colorado and Nevada.

While employed by Geocon, Incorporated in 2003, George was introduced to a project unlike any in his career . . . the re-opening of a historic railway for commercial operations. The activities to re-open the nearly 100 year-old San Diego & Arizona Eastern Railway provided an opportunity to observe geology in a continuous corridor across the Peninsular Ranges. This event also opened George's interest in western history and in doing a reconnaissance geologic guidebook for the railway alignment.

Time & Place

Time:

Thursday, November 17, 2005

(Note one week early because of Thanksgiving)

Typical Meeting Agenda

Lunch Served: 11:30 AM to 12:00PM

Announcements: 11:50 AM to 12:15 PM

Guest Speaker: 12:15 PM to 12:45 PM

Place:

The Grand at Willow Street Conference Center located at 4101 East Willow Street, Long Beach, CA. (562-426-0555). Take Lakewood Boulevard south from the San Diego Freeway (405), turn west onto Willow Street and turn right onto Grand Avenue at the sign for the Center. Park free in the garage structure.

Announcements / Information

Cost

Cost:

Lunch and Speaker: \$20.00 with reservations
\$25.00 without reservations
Student: \$ 5.00 (Lunch and Speaker)

Meeting Reservations:

Make your reservations using our web site at www.labgs.org, emailing iaburto@breitburn.com or calling Ivan Aburto at (213) 225-5900 ext. 234. **Reservations must be made prior to Tuesday** before the meeting.

LABGS Future Meetings

Lunch meetings are held at *The Grand at Willow Street Conference Center in Long Beach, California*. Lunch starts at 11:30 AM.

2005 - 2006 Speaker Schedule

December, 2005 – No Meeting, Happy Holidays

January 26, 2006 - The speaker will be **Bob Davis** speaking on "*Identification & Characterization of Faults & Folds Using Borehole Electrical Images.*"

February 23, 2006 - The speaker will be **Mike Hart** speaking on **Southern California Landslides**.

March 23, 2006 - The speaker will be **Boris Zaprianoff** speaking on "*The Dead Sea and Noah's Flood: Recent Sub-sea Archeological Discoveries.*"

If you have a speaker suggestion, please mention it to a Board member.

The exact titles for these talks may change. See the Newsletter for the most current info

Your Name Here!

Advertising in newsletters is available!

Advertising rates for a business card size ad is \$60 for 6 issues. These fees help offset our publishing costs. If interested please contact a Board member.

2005 Student Recognition Awards

The Los Angeles Basin Geological Society offers two annual scholarship awards as a form of encouragement and recognition to those College students who show dedication and passion to the field of Geoscience. It is our goal to help future geoscientists on in their pursuits. Both of these awards consist of a Brunton Compass and a wall certificate.

The LABGS Brunton Award

The LABGS Brunton Award is given to a qualified undergraduate student attending a four-year LA Basin College or University currently pursuing a baccalaureate degree in Geology or the Earth Sciences. The Society is currently looking for qualified applicants for the 2006 award.

SELECTION PROCESS

The above award winner was selected from candidates nominated by a faculty member. The winner was selected based on the following criteria:

- Grade point average in earth science classes.
- An enthusiastic or special recommendation from the college advisor, department chair, or mentor professor

LABGS Publication List

1. Guidebook from the 2004 LABGS Field Trip Examining the Catalina Schist and the Palos Verdes Peninsula. **\$20**. The book is 179 pages and printed in color. There is enough detail to allow you to recreate the trip on your own.

2. Neotectonics and Coastal Instability, Orange and Northern San Diego Counties, California - CD VERSION from the *2000 PSAAPG and WRSPE Field Trip Guidebook*. **\$28**.

For Information regarding these publications, contact Ivan Aburto – His email is accessible from our web site at www.labgs.org

LABGS T-Shirts ON SALE

The LABGS sells T-Shirts to generate additional funds to help support our scholarship and field trip activities. The shirt display's the LABGS logo on the Back with the words "LA Rocks" on the Front. The Price for shirts are \$15.00 and available at our luncheon meetings or by contacting Ivan Aburto (see contact list in this newsletter). Sizes are limited to Medium, Large, and Extra Large. **Buy one at the November Meeting for that Holiday gift giving to the earth scientist of your choice!**

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Renew Your Annual Dues and Address Changes

The Pacific Section AAPG and LABGS operate on a fiscal year from July 1 to June 30. If you are a current member, you will receive a PSAAPG membership renewal notice this month in the mail. Please note, when you renew you are renewing for both LABGS and PSAAPG (for one low price of \$12).


If you haven't done so, take this opportunity to send in a check and update your mailing information. **Changes to the semi-annual directory will be closed very soon.** New directories will be printed in the winter of 2005 and will be included in your dues for the next fiscal year (the directory is one of the key benefits of joining the LABGS through PSAAPG).

Not a Member you say!!! Join and get on the LABGS Membership / Mailing List

Become a member of the LABGS and enjoy the benefits of membership. Our goal is to provide a value added service to the geologic community of the LA area at a reasonable cost. If you join the LABGS you also become a member of the PSAAPG and vice versa.

The purpose of this is to reduce waste and duplicated effort. Check out the membership form for a list of the dual membership benefits. Membership is our primary source of income so I urge you all to join or renew. **To join or renew**, fill out the attached membership form and mail it in to PSAAPG or better yet bring it to the next meeting. This will ensure you are on our lists and the only way you can request a hard copy through the mail. The use of E-mail is our preferred method of distribution so please make sure we have your address.

WE'LL BE THERE



Epoch is one of the energy industry's leading suppliers of wellsite data gathering systems. Our drilling instrumentation products, well-site reporting software and mud logging services are industry leaders, and myWells.com allows you to access that information anytime, anywhere. That means you can make more timely decisions that deliver efficiency and economy. If real time, accurate wellsite information is important to you, call Epoch. We'll be there.

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President's Note

To all our members,

The end-of-the-year holidays are quickly approaching. Let us not forget that it is a time of remembering how fortunate we are, the passing of friends and colleagues, caring for others, and giving of our time and money. Life over the past year has been and will continue to be a difficult one for many of our friends. Please find a way to show that you care.

As a Society we continue to gain strength and try to expose our members to many geologic situations and opportunities. At the same time please feel free to answer the call-for-papers for our Alaskan convention coming up on May 7-11, 2006 in Anchorage and give an abstract on something you can contribute to our knowledge.

Thanks for a great year and Happy Holidays.

Jon

Contact Us – The LABGS Board

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OUR WEB SITE ADDRESS IS:


www.labgs.org



*Our November Speaker, talk pictures and a
New SDAG Guidebook*

George Copenhaver




San Diego Association of Geologists

2005 Field Trip

Geology and Lore Along Old Highway 80
in the San Diego Back Country



"Trains, Veins & Oikocrysts"

Mini-guidebook assembled by:
Phil Farquharson, SDAG Vice President
(and a cast of many)



Los Angeles Basin Geological Society Membership Form

Join the LABGS and become a member of the Pacific Section AAPG all for one low price of \$12.00 per year - 2 West Coast Geoscience Organizations for the price of one



Membership Benefits

- LABGS Membership
- Monthly Luncheon Meetings with Strong Technical Programs
- Pacific Section AAPG Membership
- Pacific Section AAPG Bi-Monthly Newsletter
- Discounts for PSAAPG Bookstore Publications
- Bi-Annual West Coast Geoscience Directory - *next edition 6/03*
- Networking and Social Opportunities with Fellow Geoscientists

Current Annual LABGS/PSAAPG Dues

1 Year Option = \$12.00 \$ _____
3 Year Option = \$36.00 \$ _____

Extended E-Mail Announcement List Fees

To receive meeting notices from SJGS and CGS

1 Year Option = \$12.00 \$ _____
3 Year Option = \$36.00 \$ _____

PSAAPG Foundation Contributions

B. Hacker Publication Fund \$ _____
Martin Van Couvering Fund \$ _____
Dibble Map Foundation \$ _____
California Well Sample Repository \$ _____
John Kilkenny Scholarship Fund \$ _____
PSAAPG Foundation Trust Fund \$ _____

TOTAL PAYMENT

Total Amount Enclosed \$ _____

Essential Member Information

Last Name _____
First Name _____
Middle Initial _____
E-Mail Address _____
Mail Address _____
Res or Bus ? _____

Additional Directory Information

Employer _____
Position / Title _____
Bus Phone # _____
Res Phone # _____
Fax Phone # _____
Spouse's Name _____
Education *Highest Degree* _____ *Year* _____
School _____

Signature _____

Annual membership is handled through PSAAPG and runs from July 1, through June 30. If you are already a current member of PSAAPG and you selected LABGS affiliation you are already a member of the LABGS.

**Please Make Checks out to PSAAPG and mail along with member form to:
PSAAPG P.O. Box 1072, Bakersfield, CA 93302**