

# Los Angeles Basin Geological Society Newsletter

# May Meeting: James Dolan – USC Department of Earth Sciences

Will speak on

# Holocene faulting in the Los Angeles region: One piece of a much larger plate-boundary puzzle

# Speaker Synopsis / Abstract

Dr. James Dolan received his B.S. in Geology from UC Davis in 1981 and his Ph.D. from UC Santa Cruz in 1988. Dr. Dolan is an Assistant Professor of Earth Sciences at the University of Southern California.

Professor Dolan researches paleo-seismology, tectonic geomorphology, and seismic hazard assessment of active structures beneath metropolitan Los Angeles. He also studies the marine geophysical study of the tectonic and sedimentary effects of the active Hispaniola-Bahamas tectonic plate collision. He has also dedicated significant time to the exploration of the paleo-seismology of active faults in Mongolia, specifically regarding clustered versus non-clustered earthquake behavior and implications for interactions between widely separated faults.

Paleo-seismological data reveal five bursts of seismic moment release in the Los Angeles region during the past 12,000 years. The historic period is part of an ongoing, 1,000-year-long lull since the most recent seismic burst. These periods of rapid seismic displacement in the Los Angeles region have occurred during the lulls between similar bursts of activity observed on the eastern California shear zone in the Mojave Desert, which is now seismically active. A kinematic model in which the faults of the greater San Andreas system suppress activity on faults in the eastern California shear zone, and vice versa, can explain the switching of activity between the two fault networks. Combined with the observation that shortterm geodetic and longer-term geologic rates co-vary on major southern California fault systems, this suggests that either a) a temporal cluster of seismic displacements on upper crustal faults increases ductile deformation on their downward extensions, or b) rapid ductile slip in the lower crust beneath faults loads the upper crust, driving a seismic cluster. We suggest that alternating periods of rapid seismic displacement may be the expected mode of seismicity when two fault systems accommodate the same plate boundary motion and slip on one system suppresses slip on the other.

Dr. Dolan's talk will focus on faulting in and around LA and discuss recent research results from studies of the Puente Hills blind thrust fault. He will cast study results in terms of their implications for more regional fault interactions between the major faults of southern California.

You can contact James Dolan at (213) 740-8599 or email him at dolan@usc.edu

## **Time & Place**

# Time:

Thursday, May 26, 2005

#### **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.

# Cost

### **Cost:**

Lunch and Speaker: \$20.00 with reservations

\$25.00 without reservations

Student: \$ 5.00 (Lunch and Speaker)

#### **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*. Lunch starts at 11:30 AM

# 2005 Speaker Schedule

May 26, 2005 – Jim Dolan Faults of the LA Basin

June 23, 2005 – TBD TBA

July & August 2005

No Meetings – Summer Field Season

**September 22, 2005 – TBD** 

TBA

## **Announcements / Information**

# Opportunity of a Lifetime! Candidates for LABGS Officers

We will be conducting election of LABGS officers for the 2005 – 2006 fiscal year in June. We are in need of persons who have a desire to shape the future of the LABGS. If you would like to run or wish to nominate someone, please contact Dalton Lockman or Ivan Aburto. The positions are President, Vice President (Program Chairman), Treasurer, and Secretary.

# 2005 Student **Second Student Recognition Awards**

Nominate students today

The Los Angeles Basin Geological Society is pleased to offer **two 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 Don Clarke Brunton Award

The Don Clarke Brunton Award is given to a qualified student graduating from an LA Basin Community College with an Associate Degree, enrolled in a Geology or Earth Science curriculum with plans to pursue a baccalaureate degree in Geology or the Earth Sciences.

#### **AWARD QUALIFICATIONS**

To qualify for this LABGS award, the student must meet the following criteria:

- 1. Plan to graduate in 2005 with an Associate Degree from a Los Angeles Basin Area Community College.
- 2. Complete a Geology or Earth Science curriculum.
- 3. Must be pursuing plans to enroll in a fouryear college or university with Geology, Geological Sciences, or Earth Science as their designated major.

#### 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.

#### **AWARD QUALIFICATIONS**

To qualify for this LABGS award, the student must meet the following criteria:

- 1. Be enrolled as an undergraduate at a college our university in the LA Basin
- Have declared majoring Geology, Geological Sciences or Earth Sciences

# REQUIREMENTS FOR NOMINATION ARE THE SAME FOR BOTH AWARDS.

Nominees for these awards are submitted by a faculty member of the nominee's LA Basin College or University. The faculty member must:

- 1. Fill out and sign the LABGS Award Form.
- 2. Submit the required documentation by the due date of May 23, 2005.

#### **SELECTION PROCESS**

The elected officers of the LABGS will select the most qualified candidates based on the following criteria:

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

#### **NOTIFICATION OF AWARD**

All Applicants will be notified once selection process has ended. Notification will be done via mail. The Award will be presented at the LABGS luncheon meeting on June 23, 2005. The winner will be invited to attend the luncheon.

To find out more information on these recognition awards or to get an application, go to our website:

www.labgs.org

# DAVID B. DEL MAR

Consulting Petroleum Geologist
California Registered Geologist #634

Development - Thermal EOR - Property Reviews

2027 Park Drive Los Angeles, CA 90026 H (323) 664-3358 dbdelmar@earthlink.net

#### LABGS T-Shirts NOW 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 May Meeting!

# Guidebooks from the 2004 LABGS Field Trip Examining the Catalina Schist and the Palos Verdes Peninsula are now on sale!

The guidebook will be available at the LABGS meeting on May 24, 2005. The cost of the guidebook is \$20. The book is 179 pages and printed in color. There is enough detail to allow you to recreate the trip on your own. The Guidebook was edited by Dick Brown who organized and led the trip on June 26, 2004. You may also purchase a copy by contacting Dick Brown, via email or by phone (see list of contacts, this newsletter). Photos of the trip are now posted on our web site at <a href="www.labgs.org">www.labgs.org</a>. Check them out!



Epoch is one of the energy industry's leading suppliers of wellsite data gathering systems. Our drilling instrumentation products, wellsite 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.

# **EPOCH**

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# LABGS 2005 Annual Field Trip to San Clemente – Placed on Hold

Our plans to conduct a field trip to examine the out crops along the coast near San Clemente and San Onofre have been "put on hold". There are two reasons for this decision; the first is the Pacific Section SEPM is running a fall field trip (October, 2005) to the same general area; the second reason is our trip leaders and organizers were having a hard time making the trip dead lines. Therefore, we would like to encourage all LABGS members to attend the PS-SEPM trip outlined below.

# SEPM FALL 2005 FIELD TRIP: Sedimentology and Facies Architecture of Channelized Slope Systems: Eocene Ardath and Scripps Formations and Miocene Capistrano Formation, Southern California

Mark your calendars for the PS-SEPM Fall Field Trip scheduled for October 29 - 30, 2005...

The Pacific Section SEPM fall field trip will focus on the architecture, lithology, and distribution of facies within two different deep-water systems exposed at two localities in southern California. Both systems were deposited in continental slope environments. Middle Eocene strata in the Ardath and Scripps Formations near La Jolla, California were deposited in an upper slope environment within a relatively larger submarine canyon. In contrast, Miocene strata in the Capistrano Formation at San Clemente, California were deposited near the distal edge of a lower slope environment within a complex of relatively smaller channels. Channel sedimentation in both deep-water systems display a well-developed hierarchy of architectural units consisting of channel stories, channels, channel complexes, and channel complex sets. Lithofacies within these slope systems range from gravelly coarse-grained turbidites to muddy, lowconcentration turbidites.

The trip will be led by Kirt M. Campion and Anthony R. Sprague from ExxonMobil Upstream Research Company and Morgan D. Sullivan from California State University, Chico.

# AAPG Convention in Calgary, Alberta, Canada - June 19-22, 2005

As we draw close to summer and temperatures rise, registration numbers are increasing and excitement is building for the American Association of Petroleum Geologists' 2005 Annual Convention. Where else can you find career-enhancing technical presentations, educational exhibits, cutting-edge technology, network opportunities with senior decision makers, majestic mountain excursions, a dinosaur fossil park, and fun for the whole family.

The Technical Committee has organized the following themes for your educational benefit: Exploration of Mature Basins; Exploration in Continental Margin Settings and Frontier Basins; Holistic Analysis of Petroleum Systems; Tectonic Systems and Basin Evolution; Depositional Systems in Time and Space; Mudrocks and Hydrocarbons; Unconventional Resources and Innovative Techniques; Optimizing Reservoirs: Business and Economic Issues; Society; Hydrocarbons, Environment, and and Astrogeology.

Continuing education is an element that will receive much attention in Calgary, with numerous field trips to the Rocky Mountains and a slate of short courses that are sure to entice you to come early or stay after for the pre- and post-convention educational opportunities.

Be prepared for an action-packed convention, and come early or stay late for education, social activities, or just pure enjoyment of the greatest summer city in Canada.

Take a look at the AAPG web site at <a href="www.aapg.org">www.aapg.org</a> for convention details and registration.

# Your Name Here!

Advertising in this newsletter is now available!
Advertising rates for a business card size add are \$60.00 for six issues. These fees help offset our publishing costs. If interested, please contact Dalton Lockman

# **LABGS Membership Info!**

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.

# **Contact Us - The LABGS Board**

President: Dalton Lockman (323) 298-2242

dlockman@plainsxp.com

Program Chair: Dick Brown (562) 598-0595

dickbrowngeo@adelphia.net

Secretary: Ivan Aburto (213) 225-5900, ext. 234

iaburto@breitburn.com

Treasurer: Steve Zigan, (949) 355-4467

szigan@eri-us.com

#### **OUR WEB SITE ADDRESS IS:**

www.labgs.org



# 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		Essential Member Information		
1 Year Option = \$12.00	\$	Last Name		
3 Year Option = \$36.00	\$	First Name		
		Middle Initial		
xtended E-Mail Announceme	nt List Fees	E-Mail Address		
To receive meeting notices from SJGS and CGS		Mail Address		
1 Year Option = \$12.00	\$	Res or Bus?		
3 Year Option = \$36.00	\$			
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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.