

CGS Monthly Meeting

Tuesday January 15, 2008

(NEW LOCATION)

Biedermann Hall at Sacred Heart Church - 10800 Henderson Road, Ventura, CA 93004

Stratigraphic and Structural Controls on Fracture Distributions: Examples from California Basins

by:

Jon Schwalbach
Aera Energy LLC



MEETING INFO: 3RD TUESDAY OF EVERY MONTH (DARK IN JULY & AUGUST)

BIEDERMANN HALL AT SACRED HEART CHURCH

10800 Henderson Road Ventura, CA 93004

(See the MAP at the end of this Newsletter for directions.)

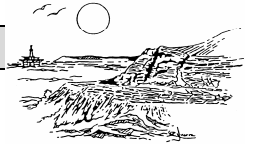
Reservation Deadline: 4:00 PM on THURSDAY before the meeting.

E-mail Reservations to: Christine White at cwhite@dcorllc.com or visit the CGS website

*****Please specify your dinner choice: Tri-Tip, BBQ Chicken or Vegetarian Lasagna,**

Social Happy Hour - 6:00 p.m., Dinner - 7:00 p.m., Speaker – 8:00 p.m.

\$18 – With Reservation, \$25 - Without Reservation, \$ 10 - For Students and K-12 Teachers



Abstract: Natural fractures have long been recognized as critical elements for production from many California reservoirs. Most Monterey Formation shale reservoirs rely on fractures for permeability, and in some fields these fractures provide significant storage capacity. Fractures also play an important but sometimes overlooked role in fluid flow within sandstone reservoirs, particularly those in secondary recovery phases such as waterflooding.

Fractures typically are distributed as a hierarchy of structural elements comprising the fracture network, ranging from microfractures to bed-bounded fractures to large multi-layer features and faults. Many aspects of the fracture network are predictable with an understanding of rock properties and stratigraphic stacking (mechanical stratigraphy), and the deformation history experienced by the rocks. We develop our conceptual framework by integrating outcrop observations with subsurface data (primarily image logs and core). These data are the basis for geologic and simulation models designed to predict fluid flow and well behavior.

This topic was the subject of field trip #15 offered in conjunction with the AAPG Long Beach Convention this past April (and was sponsored by the Coast Geological Society). If you missed that event, this is a chance to catch the condensed version. The trip will be offered again as part of the Pacific Section AAPG meeting in April.

Biography: Jon Schwalbach has a B.S. in geology from Duke University (1980), and received his M.S. (1982) and Ph.D. (1992) from the University of Southern California. He began working with Exxon in 1982, with a wide range of assignments in exploration, production, and research. His main expertise is stratigraphy and reservoir characterization and his first exposure to Monterey fractures began in 1983! In 2000 Jon started working for Occidental characterizing the siliceous shale reservoirs at Elk Hills. In 2006 he joined Aera Energy LLC, and is currently involved with reservoir studies at the Ventura Avenue Field.

RESERVATIONS: E-mail Christine White at cwhite@dcorllc.com, phone 805-535-2074 or visit the CGS website by the Thursday before the meeting at 4 pm. Please include name and menu choice (Tri Tip, Chicken, or Vegetarian Lasagna) for each person attending. If you don't make a reservation, it's possible there will not be a meal available for you the day of the meeting.

MARK YOUR CALENDAR:

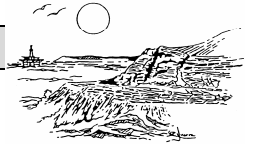
• Upcoming CGS meetings:

February 19, 2008: Ray Ingersoll, UCLA - "Paleotectonic Reconstruction of Southern California"

March 18, 2008: Joseph (Manny) Saenz - "A Mass Movement (Submarine Landslide) Model for the Santa Maria and Santa Lucia Basins, Offshore California"

UPCOMING EVENTS:

- **Santa Barbara Geologists Monthly Luncheon:** January 10, 2008 11:00 am for Social Hour, 12:00 noon for Lunch. The title of talk is to be announced. Contact Laura at 805-684-1638 by 12:00 Noon on the Wednesday before the meeting to RSVP.



- SPE Western Regional and Pacific Section AAPG Joint Meeting: "Adding Reserves Through Collaboration, Innovation and Technology Transfer" March 31-April 2, 2008 in Bakersfield, CA. Abstract Deadline is November 30, 2007. Contact Allen Waggoner at jwaggnr@wziinc.com or www.PSAAPG.org for more information.

- 2008 Desert Symposium Field Trip: April 19-21, 2008, "Development of the Colorado River and its entry into the Salton Trough." The field trip will explore geographic extent of the Bouse Formation and contrast fresh water deposits with deposits containing marine fossils. Examine sediments at Anza-Borrego that indicate when the Colorado River entered the Salton Trough. Drive from eastern Mojave Desert pinon-juniper plateaus to the Sonoran vegetation of the Colorado Desert. Contact wpresch@fullerton.edu more information.

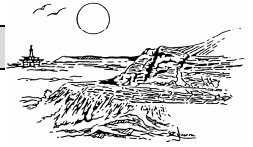
- The Statewide Golden Bear Gem & Mineral Show: 69th Annual Show of the California Federation of Mineralogical Societies. Dates & Times: Fri., June 27 - Sun., June 29, 2008 (10 AM - 5 PM each day) Admission: \$5 adults, \$4 Seniors (60+), \$3 students, Kids under 12 free with paid adult. Location: Seaside Park, Ventura County Fairgrounds, 10 W. Harbor Blvd, Ventura. Contact Person: Bural LaRue, Show Chair, (909) 874-5664, bplarue@earthlink.net or www.cfmsinc.org. Features: over 100 gem, mineral, rock, fossil & jewelry exhibits, including exhibits entered into statewide competition; 50 dealers; demonstrations of jewelry making; informative speakers; door prizes & silent auctions; kids activities; and the official State Gemstone, State Fossil, State Rock, and State Mineral on display. This is informally known as "the Super Bowl" of California gem shows!

- Upcoming Events at the California Oil Museum (Contact Debbie Bereki at 805-933-0096 for more information):
 1. Fault Workshop on January 28, 2008 from 4:30 - 6:30 pm. This workshop is designed for teachers and geologists who visit classrooms. Participants will take part in classroom oriented hands-on activities and will receive related materials for classroom use.
 2. THAR SHE BLOWS!!! A HOT SPOT MAKING VOLCANIC ISLANDS by Dr. Robert Gray, February 28, 2008. Enjoy this talk and dinner at the California Oil Museum.
 3. Could you (as Jurassic Park would lead you to believe) successfully transplant terrestrial dinosaurs into the present day? MAMMALS and NON-FLYING DINOSAURS: A tale of ecosystem evolution in the Mesozoic and Cenozoic by Dr. Bruce Tiffney, April 10, 2008. Enjoy this talk and dinner at the California Oil Museum.

ANNOUNCEMENTS:

- Moorpark College is looking for someone to teach Physical Geology Lab Class on Thursday afternoons from 2:30 - 5:30 pm in Spring 2008. They are also hiring part time instructors for Fall 2008. Application may be completed online at www.vcccd.edu.

- Layne Geosciences, a division of *Layne Christensen Company*, the nation's largest groundwater resource development contractor, is seeking candidates for a ***Senior Level Hydrogeologist*** position. The position will be based in Fontana, CA facility. For more information, please contact Mr. Tony Morgan, Manager-West Coast Operations at 909-390-2833 or tmorgan@laynechristensen.com.



NOTE: If you're a college instructor with publishers' sample textbooks and lab books stacking up in your office, here's a wonderful solution for recycling them. **Debbie Bereki**, who is the Museum Educator at the California Oil Museum, is doing outreach work with teachers. She has found that giving sample college textbooks to K-12 teachers can make an immediate positive impact on the quality their teaching. She has started a program called '**Textbooks For Teachers**' and asks for your help. Please bring your basic sample textbooks (published since 2000) and lab books to the CGS meeting and Debbie will make sure they get to K-12 teachers. For info, contact her at dbereki@ci.santa-paula.ca.us

CGS MEMBERSHIP: CGS membership is through Pacific Section AAPG. Be sure to select **Coast Geological Society** as your local affiliated society. To join CGS, please go to: www.psaapg.org/member.html

CGS OFFICERS DIRECTORY:

President: **Bob Ballog**, Hueneme HS 805-498-6294/805-402-1173, president@coastgeologicalsociety.org
Past Pres: **John Minch**, SB Museum of Natural History. 805-682-4711 x137, ppresident@coastgeologicalsociety.org
Vice-Pres: **Bill Bilodeau**, California Lutheran University, 805-493-3264, vpresident@coastgeologicalsociety.org
Treasurer: **Muriel Norton**, Subsea Systems USA 805-658-1550, treasurer@coastgeologicalsociety.org
Secretary: **Christine White**, DCOR, LLC 805-535-2074, secretary@coastgeologicalsociety.org

NOTICES

1. *No-Cost* Employment Announcements (Help Wanted & Job Wanted) are available on our website! Also, business card ads and employment ads available in the newsletter! Contact secretary@coastgeologicalsociety.org
2. If you forward the email notice to another party, cc: secretary@coastgeologicalsociety.org in the email, we will put your party on the monthly notification list. There is no cost to receive CGS email notifications.
3. Buy your raffle tickets! Money generated goes toward scholarships, field trips, etc., to promote the advancement of Geosciences. Check the CGS supported activities on our website (3 Tickets for \$1).
4. Always needed: **Sponsors for our meetings!** Sponsors get a beautiful colored banner hung at the meeting, and the opportunity to distribute their literature and introduce their businesses, as well as the satisfaction of having supported a great organization! Sponsorships are \$300 per meeting and may be shared between two individual sources. Contact vicepresident@coastgeologicalsociety.org for info.

MEETING PLACE: MAP AND DRIVING DIRECTIONS

Meetings are held at the Sacred Heart Church, Biedermann Hall, 10800 Henderson Road, Ventura, CA 93004.

The location is off Hwy 126 at the Wells Road/Route 118 Exit. Click on the map below for a more detailed view and directions.

