



April 2003

Los Angeles Basin Section Newsletter

April SPE Petroleum Forum

- DATE:** April 22, 2003
TIME: 11:30 am – Social
12:00 pm – Lunch
12:30 pm – Presentation
PLACE: The Grand (Parlor Room)
4101 E. Willow St.
Long Beach, CA
COST: \$15.00 General; \$5.00 Students
SPEAKER: **Dr. Ira Leifer**
UC Santa Barbara
TOPIC: **What can we learn about hydrocarbon migration in a fracture network by studying natural marine hydrocarbon seepage?**

Summary:

Oil and gas in the marine environment are of interest and concern to professionals across a wide spectrum of fields. Perennial marine hydrocarbon seeps provide an excellent research opportunity. Proximity and diver accessibility has allowed detailed characterization of a single seep site in the Coal Oil Point Seep Field, California, Shane Seep, over a period of several years. From observations, a conceptual model describing the flow of oil and gas through the shallow portion of the subsurface fracture network and then through the marine environment has been developed.

In a seep, gas and oil migrate upwards to the seabed

through a subsurface fracture network before escaping at the seabed as oil covered bubbles, or pure oil droplets, through vent orifices. Thus one of the most compelling rationales for studying marine hydrocarbon seeps is that they are a cross section through a fracture network allowing direct observation of the migration of oil and gas.

Many processes affect details of the migration including oil viscosity and composition, fracture structure, porosity and interconnectedness, and gas to oil ratio, etc. Spatial and temporal seep measurements and seep gas analysis allow inferences of subsurface processes and time scales to be drawn.

Biography:

Ira Leifer attended SUNY Stony Brook, NY, receiving a Bachelors degree in Physics and Astronomy, with a minor in Mathematics. He then went to the University of Michigan, Ann Arbor, MI where he received a Masters in Planetary Atmospheres and a minor in plasma physics. His doctorate was completed at the Georgia Institute of Technology, Atlanta, GA, in the Earth and Atmospheric Sciences Department. After finishing his PhD, Dr. Leifer worked as a postdoctoral researcher at the National University of Ireland, Galway on bubbles generated from breaking waves in a wind tunnel (located in Marseilles, France). After three years in Ireland, Dr. Leifer went to continue working on breaking wave induced bubble plumes at the TNO NATO Laboratory in The Hague, The Netherlands. Returning to the US, Dr Leifer began working as a researcher on turbulence from microbreaking waves at the University of California, Santa Barbara in the Chemical Engineering Department. He also began investigating numerous aspects of marine hydrocarbon seepage.

For additional information, please contact:

Rick Finken, (310) 543-8761; rdfinken@aol.com

Brandy Fellers (562) 624-3233; brandy_fellers@oxy.com

Scholarship Announcements

The LA Basin SPE Section has approved multiple college scholarships high school scholarships to be awarded at the April Forum meeting. High school scholarships in the amount of \$500 each are available for graduating seniors who are children of SPE members and planning to attend a college of engineering or earth sciences. Please contact John Yu at (562) 590-5419 or yuj@slc.ca.gov for application details.

In addition to three general college scholarships, we have also established an annual "Bruce Davis Scholarship" for \$1000, in honor of longtime SPE volunteer and active Section Member Davis, who passed away last year. Applicants should have an interest and background in combining geology or experimental chemistry and petroleum engineering.

SPE Golf Tournament Update

Mark Shemaria and others at Tidelands, with support from Fred Crosby, have graciously volunteered to organize the next LA SPE Golf Tournament. This will likely be held in the Spring of 2004.

Western Regional Meeting Update

Please mark your calendars for the upcoming Joint AAPG and SPE Western Region Conference to be held May 19-24 in Long Beach. The theme is *LA Basin: Original Urban Oilfield Legend*. The conference will include technical sessions, GEM sessions, and special panel presentations, including an "Independents Day" special session. Join us to get caught up with new technologies and old friends!

LA SPE Support for Science Outreach Programs

This year the LA SPE is financially supporting several outreach programs in science and engineering. We approved \$800 for local high school science fair competitions. We are also supporting the COMET program, a high school science mentoring program for career guidance in the energy industry.

Finally, the LA Basin SPE is supporting the Future Scientists and Engineers of America (FSEA) program at junior high schools to bring practicing engineers and scientists into the classroom for hands-on science and engineering training and projects.



LOS ANGELES BASIN SECTION
Society of Petroleum Engineers
c/o Mike Bruno
332 E. Foothill Blvd, Ste. B
Arcadia, CA 91006

Please notify SPE Headquarters directly with change of address: P.O. Box 833836, Richardson, TX 75083 or spe.org

Tel: (800) 456-6863 Fax: (972) 952-9435 E-mail address for newsletter information: newsletter@laspe.org