

### Los Angeles Basin Geological Society Newsletter

October 30, 2008 Meeting (5th Thursday)

Dr. Chip T. Feazel

**AAPG Distinguished Lecturer** 

Will speak on

# North Sea Chalk: 40 Years of Production at Ekofisk Field from a Rock Some Said Would Never Flow Oil

#### Speaker Synopsis / Abstract

Chalk is deposited by pelagic settling of algal and foraminiferal skeletons, and subsequently modified by resedimentation in slumps, debris flows and turbidites. It is an improbable reservoir rock characterized by high porosity (25-45%) but low matrix permeability (typically < 1mD). Effective permeability due to fractures contributes signi-ficantly to flow.

Ekofisk field, in the Norwegian North Sea, is approaching 40 years of production from the chalk, and has many years of economic life remaining. Technological advances – including 3D and 4D seismic, the world's largest offshore waterflood, monitoring and mitigating reservoir compaction and sea-floor subsidence, and creative design and geosteering of long-reach and multi-lateral wells – have extended field life, increased ultimate recovery, and restored daily production to rates not seen since the 1970s.

Ongoing studies by the license partners facilitate effective management of the chalk reservoir, and aid in planning new wells in a field containing >300 existing wellbores, >400 mapped faults, an expanding waterflood, a dynamically deforming overburden, and a challenging matrix which many geoscientists and engineers initially dismissed as non-productive.

Dr Chip T. Feazel is an AAPG Distinguished Lecturer. He received his BS from Ohio Wesleyan Univ., and an MS and PhD from John Hopkins University. He has held a number of geoscience positions with increasing responsibility for ConocoPhillips since 1975 that ranging from research geologist, chief, director, adviser, manager and presently

principal carbonate stratigrapher. He has authored or coauthored many scientific papers and abstracts. Dr. Feazel was given the Outstanding Mentor Award by ConocoPhillips in 2006.

## Meeting Time, Place, Cost and Reservations

#### Time:

5<sup>th</sup> Thursday, October 30, 2008

#### **Typical Meeting Agenda**

Lunch Served: 11:30 AM to 12:00PM Announcements: 11:50 AM to 12:00PM Guest Speaker: 12:00 PM to 1:00 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:**

Lunch and Speaker: \$20.00 with reservations

\$25.00 without reservations Student: Free (Lunch and Speaker)

#### **Meeting Reservations:**

Make your reservations using our web site at <a href="https://www.labgs.org">www.labgs.org</a>, emailing <a href="mailto:Marieke Gaudet@oxy.com">Marieke Gaudet@oxy.com</a> or calling Marieke Gaudet at (562) 624-3364. **Reservations should be made prior to** Tuesday before the meeting, but walk-ons are always welcome.