

# Monday, October 29, 2007 Joint International and N. American Explorations Dinner Meeting

Westchase Hilton • 9999 Westheimer  
 Social 5:30 p.m., Dinner 6:30 p.m.

Cost: \$28 Preregistered members; \$35 non-members & walk-ups

The HGS prefers that you make your reservations on-line through the HGS website at [www.hgs.org](http://www.hgs.org). If you have no Internet access, you can e-mail [reservations@hgs.org](mailto:reservations@hgs.org), or call the office at 713-463-9476 (include your name, e-mail address, meeting you are attending, phone number and membership ID#).

by David B. Rains,  
 Larry Zarra and  
 Dave Meyer  
 Chevron

**Wilcox Night is two great talks on the recently discovered Deepwater Wilcox Sands combined into one fine evening. This thick sand package is an exciting new play in the Gulf of Mexico.**

## The Lower Tertiary Wilcox Trend in the Deepwater Gulf of Mexico

Initial Lower Tertiary penetrations in the western deepwater Gulf of Mexico (GoM) document a greater-than 6,000 foot thick succession of Wilcox Group (upper Paleocene–lower Eocene) turbidites located 250 miles down-dip from their fluvial and deltaic equivalents. These same thick turbidites have also been discovered 200–300 miles to the east, in new exploration wells in this emerging trend. Regional synthesis demonstrates a systematic progression from lower slope to extensive fan sands to starved distal basin.

The deepwater Wilcox Trend covers over 30,000 square miles. Well target depths range from 12,000 to 35,000 feet subsea, water depths range from 4,000 to 10,000 feet, and salt canopies vary from 7,000 to more than 20,000 feet thick and cover approximately 90% of the trend. More than twenty wildcats have been drilled in the deepwater Wilcox Trend. The twelve announced discoveries have ultimate recoverable reserves ranging from 40–500 mmb. Ultimately, the deepwater Wilcox Trend has the potential for recovering 3–15 billion barrels of reserves (bboe) from these and additional untested Louann salt-cored structures.

The Jack #2 production test (Walker Ridge 758) had a sustained flow rate of over 6,000 bopd from perforations that opened approximately 40% of the reservoir. The test occurred in 7,000 feet of water and below 25,000 feet subsea; it established six world production test records. Test results significantly increase our understanding of trend deliverability.

Many technical challenges need to be resolved before the billions of barrels of hydrocarbons trapped in deepwater Wilcox structures can be recognized as recoverable economic reserves. These challenges include complex sub-salt imaging improvements, reservoir quality, distribution and flow capability, cost-effective drilling and completion, facilities, and infrastructure designs. ■

*Regional synthesis demonstrates a systematic progression from lower slope to extensive fan sands to starved distal basin.*

### Biographical Sketch

DAVID RAINS earned his BS in geology from Baylor University in 1998, and received his MS in geology in 2001 from Texas A&M University. Mr. Rains joined Chevron in 2001, where he was assigned to the Gulf of Mexico Deepwater Business Unit on the Western Trends Exploration Team. As an exploration geologist, he was on the ground floor of the emerging Lower Tertiary Trend, working both the Jack and St. Malo discoveries. In 2004 he followed both discoveries into deepwater appraisal as the project geologist. As subsurface coordinator for the Jack Project, he helped plan and execute the Jack well test. In January 2007, Mr. Rains accepted his current assignment with Chevron's Southern Africa Business Unit working offshore Angola.

