HGS Luncheon Meeting

Wednesday, May 27 • Hyatt Regency, 1200 Louisiana • Social Hour Starts at 11:15 a.m. Meeting starts at 11:45 a.m.

Hoover: A Significant Oil Discovery in the Western Gulf of Mexico Deepwater

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Exxon Exploration Company,
Dean Chergotis, BP Exploration, and
Jay C. Nania, BP Exploration

The Hoover field discovery represents the largest of a string of recent successes in the sand-rich, Plio-Pleistocene, Diana field intraslope basin of the western Gulf of Mexico. Hoover is located 160 miles south of Galveston and 120 miles offshore in 4800' of water. The discovery is an amplitude-supported, oil and gas discovery located in Alaminos Canyon Blocks 25 and 26; an anticlinal closure in the central portion of the Diana basin. Hoover contains reserves in excess of 100 MBOE in two zones. The first is a shallow, Pleistocene gas sand. The second, and most prolific, is a Pliocene oil zone with very good reservoir quality. Both zones have significant amplitude expression with apparent flat events related to hydrocarbon/water contacts.

The discovery well, the Exxon/BP AC 25 #1,(Figure 1) drilled in early 1997, found 47' of gross gas pay in the Pleistocene and 97' of gross oil pay in the lower portion of the Upper Pliocene. The discovery well found the hydrocarbon/water contact in both zones and confirmed the amplitude-based areal extent for each accumulation. Although high quality reservoir was predicted, the Pliocene reservoir quality exceeded expectations. The reservoir has average porosity in excess of 30% and average permeability over 1000 md.

The Hoover discovery is in stark contrast to the largely unsuccessful Rockefeller prospect, five miles west. Although an anticlinal closure like Hoover, Rockefeller had no thermogenic hydrocarbons. In late 1995, Exxon drilled the Exxon EB 992 #1 and #1 ST which found full saturation biogenic gas in only one of four objectives. The remainder were water sands with low saturations of biogenic gas.

A detailed vertical and lateral migration analysis of the entire Diana intraslope basin was undertaken to insure Hoover and the surrounding prospects had adequate migration to warrant investment. The study found Rockefeller to be heavily dependent upon a single fault for vertical migration from the Early Tertiary source. Hoover, however, had several prospective vertical migration conduits within its lateral migration drainage basin. In addition, all the closures along this migration pathway had amplitudes to their structural spill points. This analysis was provided the critical technical justification to proceed with exploration at Hoover. The presence of thermogenic hydrocarbons in the Hoover's Pliocene reservoir confirmed our current model for vertical and lateral migration of hydrocarbons in the Diana intraslope basin. It also lowers the source risk of other closures within the same migration system.

With these latest discovery volumes, the Exxon/BP partnership should be able to fully exploit Hoover, the sizable Diana reserves discovered in 1990, and surrounding satellite discoveries and prospects.

BIOGRAPHICAL SKETCHES:

Jim Higgins received a B. S. in geology from Oklahoma State University in 1981. He started with Exxon as a geologist working onshore basins (Gulf Coast, Anadarko basin, Williston basin, and several Rocky Mountain basins) from 1981 to 1989 in both the exploration and production departments. From 1989 to 1993, Jim was in Exxon's Midland production office as a supervisor of geologists and engineers responsible for new field development and secondary

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recovery implementation. Since 1993, Jim has been working as a geologist and geophysical interpreter in Exxon Exploration where he has been developing and drilling several prospects in the western Gulf of Mexico.

Dean Chergotis, BP Exploration, no bio available.

Jay C. Nania received a B. S. in geology in 1984 and a M. S. in geology in 1987 from the University of Wisconsin, Madison. He started with BP Exploration working as a wellsite geologist, and geoscience operations coordinator for activities throughout the lower 48 and offshore Gulf of Mexico. From 1990 to 1994, Jay worked as a production geologist and reservoir modeler on several of BP's Gulf of Mexico Shelf and Flex Trend fields. Since 1995, Jay has been senior geologist, responsible for exploration and appraisal of BP's interests in the Diana/Hoover sub-basin in the deepwater (>4000') western Gulf of Mexico. He is currently assigned to the Exxon/BP Diana and Hoover Integrated Project team.

Please make reservations by May 25
Reservation Code 5-0-5

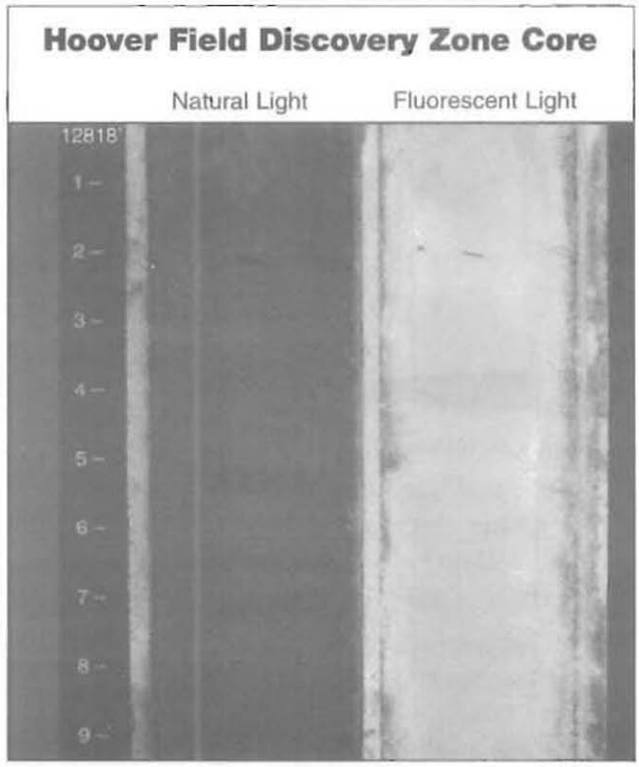

Figure 1: *Core photo from discovery well in Alaminos Canyon Block 25. The core has 33% porosity and 1540 md permeability.*