

**HGS INTERNATIONAL EXPLORATIONISTS
GROUP—EVENING MEETING, March 14, 1984**

TOM C. CONNALLY—Biographical Sketch



Tom Connally is a staff geologist with Amoco's Africa and Middle East Region in Houston. He received a B.A. degree in English and an M.A. degree in geology from the University of Texas at Austin. He worked for Conoco from 1977 to 1982, mostly on the offshore Dubai concessions. In 1982 he went to work for Thomas D. Coffman Exploration of Austin where he evaluated the company's holdings in

east Texas and southeastern Colorado. Since joining Amoco in 1982 he has been involved in regional stratigraphic studies in the United Arab Emirates and Oman.

Tom is primarily a sedimentologist. Carbonate depositional environments, using both log analysis and detailed petrographic description of cuttings and cores, have been his specialty. He has also worked extensively on terrigenous clastics for his master's thesis ("Colorado Delta of the Texas Coast") and on submarine fan deposits in Cat Canyon field, Santa Maria Basin of California. He has conducted reservoir studies on the Fateh and Rashid fields of Dubai; the Sajaa field in Sharjah, U.A.E.; and southeast Fruitvale field in Van Zandt County, Texas. He has published several papers on these topics.

Tom's current activities are in seismic modeling and seismic stratigraphy, integrating detailed stratigraphic studies with the seismic tool. He is an active member of the American Association of Petroleum Geologists, the Society of Economic Paleontologists and Mineralogists, the International Association of Sedimentologists, the Society of Professional Well Log Analysts and the Houston Geological Society.

**CRETACEOUS CARBONATES OF FATEH FIELD,
DUBAI, UNITED ARAB EMIRATES**

Fateh field, a giant oil field, has 12 platforms, 43 producing wells, and estimated reserves of 1.02 billion barrels of oil. Production is from three formations, with 71 percent coming from porous Cretaceous limestones of the Mishrif formation. Since production began in 1969, 530 million barrels of oil have been produced, averaging 120 thousand barrels per day. Reservoir facies in the Mishrif are fine-grained, molluscan-fragment grainstones and packstones deposited mainly in forereef environments. Porosities average 20 to 25 percent, and permeabilities average 15 to 50 md. These facies are part of a large rudist reef complex that rimmed the Khatiyah Embayment west of Fateh Field.

Backreef, reef/near-reef, forereef, and basinal facies are recognized in the Mishrif-Khatiyah sequence at Fateh. Regional distribution of these facies indicates that the Khatiyah formation represents a transgressive basinal facies that later retreated due to the progradational out-building of rudist reef facies of the Mishrif. Along strike, the outer-shelf reef facies are discontinuous and are replaced by near-reef grainstone facies of coarse reef debris.

The overlying Laffan shale provides an adequate seal for the Mishrif reservoir. It forms a blanket deposit throughout the Fateh area and averages about 90 feet thick. Source beds are found in the underlying Khatiyah formation, which is the basinal equivalent of the Mishrif. The structural/stratigraphic trap at Fateh is formed by a breached dome over a salt structure.