

MEETINGS

HGS DINNER MEETING AND POSTER SESSION—OCTOBER 12, 1992

Social Period, 5:30 p.m.,

Dinner and Meeting, 6:30 p.m.

Post Oak Doubletree Inn

RUSSELL B. LENNON—Biographical Sketch



"Russ" received his B.S. from Iowa State University and his M.S. from the University of Illinois both in Geology. Between these he served as a Lt. in the Army Signal Corps in Korea. He went to work with Shell Oil Co. in 1957 and retired 33 years later. He worked in Denver, New Orleans, Bakersfield, Los Angeles, and Houston as a Production Geologist developing fields in those areas. In addition he spent

five years working on offshore lease sales in California and Alaska, two years on a research assignment and four years teaching in Shell's training department. He has also served as an evening instructor in the graduate Petroleum Geology Department at the University of Houston for four years. After retiring from Shell he worked a year as Consultant Exploration Geologist for Greenhill Petroleum Co.

Additional authors of the talk:

D. P. Hill, Shell Western E&P Inc., Houston, TX.

C. L. Wright, Pecten International, Houston, TX.

MAKING AN OLD GEM SPARKLE: THE REJUVENATION OF McALLEN RANCH FIELD, TEXAS

Over the last three years, Shell's McAllen Ranch Field in Hidalgo County, Texas, has increased daily production rates by nearly 300%. This dramatic increase in production is due to a combined program of recompletions, commingling and an aggressive development drilling campaign, touched off by a field study and supported by a 3-D seismic survey. This recent development program has been very successful. The first eighteen wells have booked over 100 BCF and additional drilling locations are being evaluated.

This paper highlights the development program which concentrated on optimizing well locations through a better understanding of structure and stratigraphy. A detailed study of the "S" sand in North McAllen has shown this reservoir to be a stratigraphic trap with structurally related porosity development and capillarity-controlled downdip limits. Updip production limits have been identified by the event amplitude on the 3-D seismic survey and are supported by well control. Structural mapping from the 3-D survey

indicates that, in addition to a number of major faults, the "S" sand is broken by a series of radial faults that exhibit small amounts of throw (<100 feet). They do not act as seals but do influence well locations.