Tuesday, February 19, 2008

Black Lab Pub, Churchill Room • 4100 Montrose Blvd.

Social 5:30 p.m., Dinner 6:30 p.m.

Cost: $25 Preregistered members; $30 non-members & walk-ups

The HGS prefers that you make your reservations on-line through the HGS website at www.hgs.org. If you have no Internet access, you can e-mail 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 ***Dr. Carl Norman***

Houston-Area Active Faults— What Makes Them Move?

More than 350 surface faults are scattered about the Houston Metropolitan area. The first to be recognized was the Pelly Fault in Baytown, which moved several inches during development of the Goose Creek oilfield in the early 1920s. Movement on the Pelly Fault and a companion fault beneath the bay waters was attributed to the rapid production of petroleum. In the 1940s it became apparent that a subsidence basin was developing in the Ship Channel area. Extensive re-leveling of bench marks firmly established that the cause was excessive groundwater production with an attendant decline of groundwater piezometric levels.

It was natural to assume that the subsidence and activation of faults were somehow linked, a belief that persists in the minds of many today. However, not all active faults are located in areas where subsurface fluids are being extracted at high rates, and conversely, such areas often lack active faults. The emphasis of this discussion is on facts that do not fit the notion that fault activation is caused by the extraction of subsurface fluids. ■

Biographical Sketch

Carl E. Norman completed his BS in geology from the University of Minnesota in 1957 and his master's degree from Ohio State University in 1959. He joined Carter Oil (soon after Humble Oil and Refining), where he worked for four years. He returned to Ohio State University completing of his PhD in 1967, when he accepted a faculty position in the Geology Department at the University of Houston, where he taught for 33 years until his retirement in 2000. Dr. Norman taught introductory geology to over 6500 students. He received the HGS Distinguished Service Award for his leadership plus the GCAGS Outstanding Educator Award.