NOON MEETING—MARCH 26, 1980

ROBERT R. BERG—Biographical Sketch

Robert R. Berg received his B.A. and Ph.D. degrees in geology from the University of Minnesota (1948, 1951). From 1951 to 1956, he was employed as a geologist by the California Company, a subsidiary of the Standard Oil Company of California, and from 1957 until 1966 he was a consulting geologist in the Rocky Mountain area. In 1967 he became Professor and Head of the Department of Geology at Texas A&M University, and in July, 1972, he was named Director of the Office of University Research, Texas A&M University.

Berg's research interests include petroleum geology, subsurface stratigraphy, and sedimentology. His publications have described the origin of Rocky Mountain structures, seismic and gravity interpretations of the Wind River Range, Wyoming, depositional environments of Lower Cretaceous oil-reservoir sandstones in Montana, Wyoming, and Mississippi, and Tertiary reservoir sandstones in Texas, and on the role of hydrostatic and hydrodynamic pressures in stratigraphic traps. He has served as President of the Rocky Mountain Association of Geologists (1966) and as Secretary-Treasurer (1969) and President (1971) of the American Institute of Professional Geologists. He is a Fellow of the Geological Society of America, and a member of the American Association of Petroleum Geologists and of the American Institute of Professional Geologists. He has been a Distinguished Lecturer (1972) of the AAPG, has received the Association's A. I. Levorsen Memorial Award (1972), and is currently a lecturer in the Continuing Education Program of the AAPG.

CHARACTERISTICS OF LOWER WILCOX RESERVOIRS, VALENTINE AND SOUTH HALLETTSVILLE FIELDS, LAVACA COUNTY, TEXAS (Abstract)

In Valentine field, sandstones of the lowermost Wilcox Group produce oil at depths of about 9100 ft (2776 m) in a stratigraphic trap from two sandstones locally called the "Technik" and "Kubena" zones. Full-diameter cores from the "Technik" zone show that it consists of thin-bedded turbidites. The "Technik" reservoir is 25 ft (8 m) thick, and the upper part is composed of thicker beds on the order of 2 to 4 ft (0.6 to 1.2 m). Each bed displays sequences of massive or massive to laminated bedding. These sandstones represent turbidite sequences of the "AE" and the "ABE" types and were probably channel deposits. The lower part is composed of thinner beds about 1 ft (0.3 m) thick of more complete sequences of the "ABCE" type. Some adjacent sandy shales are moderately bioturbated. The "Technik" non-reservoir facies is 31 ft (9.5. m) thick and consists of thinly-interbedded shales and turbidite sandstones which are typically incomplete sequences of the "AE", "BE" and "CE" types. Shales are not bioturbated. The non-reservoir facies may be characterized as overbank deposits. The "Kubena" non-reservoir facies is similar to the "Technik."

The "Technik" reservoir sandstones appear to represent the fill of outer-shelf channels along which sands were transported across the shelf margin and into the deeper basin. The non-reservoir facies represents overbank deposits, probably contemporaneous levee sediments adjacent to channels.

In South Hallettsville field, Lower Wilcox sandstones produce gas at depths of from 10,000 to 11,400 ft (3050 to 3477 m). The beds are 2 to 10 ft (0.6 to 3 m) thick and consist of massive "A" sandstones that show textural grading. These deposits are stacked, channel turbidites that occur as isolated bodies in an expanded section of black shale. Some sandstones and their underlying shales are highly contorted, probably as a result of soft-sediment deformation.

Regional seismic control shows that Lower Wilcox sandstones are contained within a thick lens of shale that was deposited on the Early Eocene shelf margin and slope. This expanded section, called the Hallettsville slope sequence, is unconformable on Upper Cretaceous rocks. The underlying erosion surface appears to have been formed by slumping and mass movement of sediment deposited at the Upper Cretaceous shelf margin. Sediments of the Hallettsville sequence also were unstable and suffered deformation shortly after deposition.