LUNCHEON MEETING—MAY 25, 1988

ROBERT R. BERG—Biographical Sketch

Dr. Berg is Professor of Geology and holds the Michel T. Halbouty Chair at Texas A&M University. His academic experience was preceded by industrial experience totaling 16 years. From 1951 to 1956 he was employed as a geologist by the California Company (Standard Oil Company of California), from 1957 to 1959 by Cosden Petroleum Corporation, and from 1959 until 1966 he was a consulting geologist in the Rocky Mountain area. Industrial work was primarily exploration for oil and gas, which included interpretations from subsurface data and geophysical surveys. 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, a position he held for 10 years. Dr. Berg's studies have included petroleum geology, subsurface stratigraphy and sedimentology. Publications describe geophysical interpretations and origins of Rocky Mountain structures; studies of reservoir sandstones in California, Montana, Wyoming, Mississippi, West Texas, New Mexico, and the Texas Gulf Coast; and the role of hydrostatic and hydrodynamic pressures in oil accumulation.

He received his B.A. and Ph.D. degrees in Geology from the University of Minnesota (1948, 1951). He has served as President of the Rocky Mountain Association of Geologists (1966) and as Secretary-Treasurer (1969) and President of the American Institute of Professional Geologists (1971). He is a Fellow of the Geological Society of America, a member and Certified Petroleum Geologist of the American Association of Petroleum Geologists, and a Certified Professional Geologist (No. 35) of the American Institute of Professional Geologists. He has been a Distinguished Lecturer of the AAPG, has received the Association's A. I. Levorsen Memorial Award, and for the past 10 years has been a lecturer in the Continuing Education Program of the AAPG. He has also been a consultant to more than twenty corporations, both major companies and independents, for evaluation of sandstone reservoirs. In 1981 he was awarded the AIPG's Ben H. Parker Medal for "Outstanding Service to the Profession", and in September 1982 he was appointed to the Michel T. Halbouty Chair in Geology at Texas A&M University. In March 1988 he was elected to the prestigious National Academy of Engineering, the highest professional honor that can be conferred on an individual in an engineering or engineering-related field.

CYNTHIA E. BLACK—Biographical Sketch

Cynthia Black was born in Houston, and she received a B.S. degree with Honors from Aberdeen University, Aberdeen, Scotland, in 1980. She then enrolled in the graduate program at Texas A&M University and was awarded the M.S. degree in Geology in 1983. Her research was on the Lower Cotton Valley sandstones at Kildare field, Cass County, Texas. She has been employed by Exxon in Midland, Texas, since August 1982 and has worked as an exploration and production geophysicist in the Permian Basin.

FAN-DELTA RESERVOIRS IN THE LOWER COTTON VALLEY GROUP (JURASSIC), KILDARE FIELD, NORTHEAST TEXAS

Fan deltas are alluvial fans that prograde into a standing body of water from a proximal highland area. Few fan deltas have been recognized in the subsurface, but the Cotton Valley Taylor "B" sandstone can be interpreted as the distal part of a fan delta in Kildare field, Cass County, Texas. Three facies are distinguished in cores of two sandstones that are 40 ft (12 m) in thickness. They are, in descending order: (1) a beach facies of massive to laminated, well-sorted sandstone, (2) a channel facies of massive to laminated, pebbly sandstone and (3) an offshore facies of very fine-grained sandstones and interbedded black shales.

Facies 1 is a fine-grained (0.21 mm) and nearly structureless unit that is 15 ft (5 m) thick, lacks bedsets and has a high quartz content that approaches 95%. Facies 2 is conglomeratic in beds that fine upward and are 0.5 to 3 ft (0.15 to 1 m) in thickness. Facies 3 is thinly bedded in massive to laminated sets that are graded and separated by black shales. The total section represents a coarsening upward, rapidly prograding sequence that was partly reworked by wave action at the top.

The three facies were identified in noncored wells by plots of true resistivity as a function of porosity. Based on the identification in well logs, the beach facies (1) shows a narrow strike trend, the channel facies (2) shows a dip trend, and the offshore facies (3) thickens in a dip direction and replaces the beach and channel facies in a seaward direction. Higher porosities of 12% and permeabilities of 7 md are found in the beach facies. ■