EVENING MEETING—NOVEMBER 18, 1985

WILLIAM L. FISHER—Biographical Sketch

William L. Fisher is Director of the Texas Bureau of Economic Geology and Chairman of the Department of Geological Sciences, both of The University of Texas at Austin; he is also the Morgan J. Davis Professor of Petroleum Geology in the Department of Geological Sciences.

Fisher is a graduate of Southern Illinois University (B.S., Geology, 1954) and was awarded the University's Outstanding Achievement Award in 1977. He holds an M.S. (1958) and Ph.D. (1961), both in geology from the University of Kansas, from which he received the Haworth Distinguished Alumni Honors in Geology in 1978.

Fisher joined the University's Bureau of Economic Geology in 1960 as a Research Scientist. He became Associate Director in 1968 and Bureau Director in 1970. From 1975 to 1977 Fisher took leave from the University to serve as Assistant Secretary for Energy and Minerals in the U.S. Department of the Interior.

Fisher's primary research interests are energy and mineral resources, including both geological and policy aspects. Fisher is the author or coauthor of some 135 books, reports, and articles. He lectures extensively to numerous groups worldwide; he has twice been named Distinguished Lecturer by the American Association of Petroleum Geologists, and in 1982 received its Distinguished Service Award. He frequently testifies before the U.S. Congress and the Texas Legislature.

Fisher is a member of numerous professional organizations and has held elected office in many. He is President of the American Association of Petroleum Geologists and Pat-President of the Association of American State Geologists, the Texas Section of the American Institute of Professional Geologists, and the Austin Geological Society. In 1985 he received the Public Service Award of the American Institute of Professional Geologists.

He has served on several state and national committees, including Chairman of the Outer Continental Shelf Policy Advisory Board, Chairman of the National Academy of Sciences Committee on Producibility of Oil and Gas, the U.S. National Committee on Geology, the Texas 2000 Commission, the Texas Energy Advisory Council, the Interstate Oil Compact Commission, and the Interstate Mining Compact Commission.

SMALL FIELD EXPLORATION AND LARGE FIELD EXPLOITATION — THE FUTURE OF PETROLEUM GEOLOGY

Oil and gas are finite, depletable resources. Large fields are yet being discovered, but with much less frequency than in the earlier days of exploration. These two bits of geological reality do not, however, translate to the demise of petroleum geology, but they do signal change. That change, in the U.S. Lower 48 and in many of the more extensively explored provinces worldwide, is to small field exploration and large field exploitation. Indeed the change is already here and is showing positive trends despite the prevailing gloom.

For the past 25 years in the U.S. Lower 48, 98 percent of the fields discovered have been one million BOE or less and account for one-half the total volume of oil and gas found. But we have found such fields to be worthwhile targets, and there is emerging evidence that the number of such fields is much greater than previously thought. Further, they have contributed to a relatively stable, if lower, finding rate.

A significant complement to intended modest size field exploration is further exploitation of existing, old large fields, a kind of reexploration. About 320 billion barrels of oil are known in existing reservoirs, but classed as unrecoverable. Since price decontrol, we have been moving about 3 billion barrels per year of this volume to the proven reserve column, a volume along with new field discovery, sufficient to reverse the decade-long decline in U.S. Lower 48 production and reserves.

The number of small and modest fields is huge. In recent years we have been discovering about 1300 oil and gas fields yearly in the U.S. Lower 48, or by my estimate, about 1 percent of the total number yearly. The 3 billion barrels of oil moved to the reserve column yearly from reserve growth in old reservoirs is likewise about 1 percent of the total reserve yearly.

The pursuit of targets in small field exploration and large field exploitation in recent years has stablized production and reserve levels in the U.S. Lower 48; the magnitude of these targets is sufficient for continued stability well into the future, if the appropriate incentive exists. Obituaries on U.S. petroleum geology now being written are vastly premature.