

THE STRATIGRAPHY AND PETROLEUM POTENTIAL
OF THE
LOWER MIOCENE, OFFSHORE GALVESTON,
AND JEFFERSON COUNTIES, TEXAS

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Lower Miocene sediments in the Southeast Texas coastal area can be divided into two distinct productive trends. The basal Miocene interval from the top of the Oligocene Discorbis upward to the Robulus chambersi is a predominantly regressive marine sequence which reflects the gradual progradation of Miocene sands into this area. The overlying sequence from Robulus chambersi to Amphistegina (B) consists of deltaic and delta-related sediments which reflect continued marine regression and the encroachment of a large Lower Miocene delta system.

In the nearshore Galveston and High Island areas, the basal Miocene interval contains a series of attractive objective sands, most of which are above the abnormally pressured zones and occur at depths of less than 9500 feet. Further offshore, the younger Amphistegina (B) sands become more favorable exploration objectives.

Several Lower Miocene biostratigraphic zones are identifiable throughout the area of interest, and an attempt is made to relate each zone to particular lithologic conditions or depositional environments.

Because of the general southward movement of the Miocene shoreline and a relatively limited supply of sand, prospective Miocene sand trends in the Southeast Texas offshore occur in narrow "belts" which are approximately parallel to the present coastline. The identification of these favorable trends is essential to a successful exploration program in this area.

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BIOGRAPHICAL SKETCH - Howard W. Kiatta

Howard Kiatta is a native Houstonian, attended The University of Texas at Austin earning a B.S. in Geology in 1958. He did graduate study at Texas Tech University in Lubbock earning an M.S. in Geology in 1960.

Mr. Kiatta was employed as a development geologist with Texaco, Inc. from 1960-64, working in New Orleans; from 1964-65 he was District Field Geologist in Houma, Louisiana. In 1965 Howard was transferred to Lafayette as an Exploration Geologist.

In 1967 Howard went with George Mitchell and Associates and has the responsibilities for the company's activity in the Upper Texas Gulf Coast, South Louisiana, and Offshore areas.

He is a member of the AAPG; the Houston, Lafayette, and New Orleans Geological Societies, and is a Certified Petroleum Geologist.

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