

**HGS INTERNATIONAL EXPLORATIONISTS  
SEPTEMBER 14, 1983**

**DAVID A. FONTAINE — Biographical Sketch**



David Fontaine is an independent and consulting exploration geologist who maintains an office in Houston, Texas. He received his B.A. and M.S. in Geology from Rutgers University, and studied sedimentation and field geology at Princeton University. He holds certification in Investment Analysis and Portfolio Management from the New York Institute of Finance. His experience includes surface mapping

and stratigraphic studies along the U.S. Atlantic margin, subsurface prospect generation onshore and offshore Gulf Coast, production geology in the Permian Basin of West Texas and the Ventura and Santa Maria basins of California. He has combined his technical experience with his financial background in several ways, including a former position with a major oil company as Supervisor of Economic Evaluations-Offshore Area and Alaska, and most recently as a representative to several New York investment groups participating in domestic and foreign drilling programs.

Primarily a sedimentologist, his most recent publications include structural-stratigraphic studies of the M&F, the New Ace, and the Rincon fields - all on the Texas Gulf Coast. Current research centers on paleoclimatic factors controlling the generation and distribution of source and reservoir rocks.

Throughout his career, Dave has been active in professional organizations. Some of his more significant responsibilities include Assistant Editor-HGS *Bulletin*; Chairman, Awards and Student Loan Committee-HGS; Chairman, Technical Services Committee-East Coast Offshore Symposium, AAPG 1973; and membership on an industry-staffed study group on arctic resources to the National Petroleum Council. He holds membership in the AAPG, the International Association of Energy Economists, the Houston Producers Forum, and the Crude Club.

**SOURCE AND RESERVOIR ROCK FACTORS ---  
TERTIARY HYDROCARBON ACCUMULATIONS AND  
BASINS OF COASTAL SOUTH AMERICA**

Pacific and Caribbean coastal Tertiary basins of South America exhibit a wide variety of clastic fill. Some basins are sand-starved relative to others which are sand-rich. These differences cannot be explained by utilizing the classical tectonic-sedimentary approach of source area relief, distance, tectonic intensity or lithology. Many of the basins studied are approximately equal with respect to these factors but contain markedly different fill. Caribbean basins tend to be sand-rich, while Pacific basins are usually sand-poor.

The potential for high organic content in shales of these basins appears fairly uniform when based upon the occurrence of oceanic upwelling zones during the Cretaceous - Tertiary. The Pacific and Caribbean areas appear to be sites of greatest potential, the Atlantic basins less so.

Oceanic and atmospheric circulation appears to have played a significant role in influencing the distribution of potential source rocks and may have acted as the controlling factor over the processes responsible for the generation, transport, and deposition of reservoir sandstones. By mapping these circulation patterns on paleogeographic maps, it is generally possible to predict in advance of drilling, those basins that should contain the fortuitous combination of potential source rocks and reservoir sandstones, and those that should not.

Case studies of oil fields and basins along western Ecuador, Peru, Chile, northern Columbia, Venezuela, and eastern Brazil are discussed.