

PALEOECOLOGY, STRATIGRAPHY, PRODUCTION
GETTING IT ALL TOGETHER
IN OFFSHORE LOUISIANA

by

Gerald C. Glaser and Andrew C. Jurasin
Information Processing Corporation
Houston, Texas

ABSTRACT

Statistical studies based on the mapping of paleoecologic zones, sand conditions, and production in offshore Louisiana indicate a positive correlation among these parameters. Oil and gas production for any given depth is associated with a narrow range of preferred environments of deposition and sand development. For example, in the depth range 10,000 - 12,000 feet in the eastern offshore area (Ship Shoal through Main Pass), about 70 percent of all oil completions occur where the section contains 10 to 30 percent sand and is in the inner neritic environment.

An IBM 1130 computer with attached Calcomp plotter was used to prepare: 1) structure and environment maps of various biostratigraphic tops, 2) environment maps of the interval between biostratigraphic tops, and 3) environment maps at constant depth slices. To aid in statistical comparisons, the following maps were constructed in 2,000 foot-thick depth intervals: 1) average weighted environment, 2) sand percentage, net sand, sand-shale ratio, and number of discrete sand bodies, and 3) oil and gas completions.

BIOGRAPHICAL SKETCH - Gerald C. Glaser

Gerald was awarded a B.S. Degree from Tulane University, 1958; Commissioned Officer, U. S. Navy, 1958-1960; M.S. Degree from Tulane University, 1962; Ph.D. Degree from University of Oklahoma in 1965.

He was employed by Crosbie-Macomber, Consulting Paleontologists and Geologists from January, 1957 through September, 1962 with Naval duty interruption from 1958-1960. In 1964 he joined The California Company as a Geologist working offshore Louisiana. Gerald moved to Continental Oil Company in 1965 as a Geologist in Wichita, Kansas. He was in Geophysical Training in Lafayette, Louisiana, Continental research lab in Ponca City in geophysical data processing, geological research and computer department. In CAGC offshore marine region (Continental, Atlantic, Getty, Cities Service) doing lease evaluation for Federal and State sales and development work. In 1969 he joined Information Processing Corporation and is now Manager, Earth Science Computing Division.

Honors: 1957 - Sigma Gamma Epsilon, Honorary Geological Society; 1958 - Phi Beta Kappa; 1958 - R. Steinmayer award as outstanding undergraduate in geology, Tulane University; 1962 - Outstanding paper award GCAGS convention, SEPM division; 1964 - E. L. McCollough award as outstanding graduate student, University of Oklahoma; 1964 National Science Foundation Summer Fellowship; 1963-1965 - Two National Science Foundation Fellowships covering school years 1963-64 and 1964-65; 1965 - Elected to Sigma Xi National Honorary Society.