

ALIGNMENTS OF OIL AND GAS FIELDS IN SOUTH LOUISIANA

R. O. Steinhoff*

ABSTRACT

Sediments constituting the geologic section in South Louisiana have an arcuate strike along which there are a multitude of down-to-the-basin faults. The faults suggest a basinward movement of the sediments. Such a movement in combination with the arcuate strike, concave toward the basin, would result in lateral shortening of the section. This shortening is compensated by upward buckling of the beds into anticlinal folds at frequent intervals at right angles to the strike. The producing structures are associated with these folds and hence are aligned normal to the regional strike.

Such alignments of oil and gas fields exist throughout central Coastal Louisiana. In addition, there are trends that parallel the strike. These are due primarily to the concentration of structures and down-to-the-basin faults along hinge lines. The overall result is a grid or checkerboard-like pattern. All the fields in central Coastal Louisiana, regardless of the type of structure, appear to fall within such a pattern. Examples of this pattern may be cited throughout other portions of South Louisiana.

Recognition of this orderly arrangement of the producing structures throughout South Louisiana should enable us to predict new areas of interest. The end result is a valuable tool in the search for oil.

*Department of Geology, Tulane University, New Orleans, La.