

cussed. It is suggested that both local and regional studies of producing horizons be made in the light of the theory of the "marine overlap."

9. CLARENCE E. BREHM, consulting geologist, Mt. Vernon, Illinois
Pickens Pool, Yazoo County, Mississippi

The Pickens pool was discovered by continuous profiling seismic work which showed an increase of closure with depth. This increase, causing four times as much reversal on the Eutaw as on the Midway, has been substantiated by drilling.

The "pool" consists of four wells producing 4-8 feet of saturated Wilburn sand in the Eutaw over approximately 160 acres. The producing area is practically defined by dry holes. Wells come in for 400 barrels, settle to a steady 200 barrels on pump. Production to date is 300,000 barrels.

The limited producing area suggests a small structure but an isopach of the Wilcox formation shows it to be in the center of an area of structural thinning extending 30 or 40 miles parallel to the Yazoo basin.

The break in seismic reflections near the field is interpreted as a fault extending into the Lower Cretaceous. It is suggested that the original reservoir was in those lower beds and that some oil migrated up the fault plane to impregnate this small area of the Wilburn sand. This condition is compared with the faulted Tinsley field and Upper Cretaceous fields of northern Louisiana and southern Arkansas.

10. A. N. WILSON, General Crude Oil Company, Houston, Texas
Basal Vicksburg Sand of Texas Gulf Coast

The discovery of commercially important oil sands at the base of the Vicksburg formation, on the flanks of some Texas Gulf Coast dome structures during the past few years, recalls the necessity for constant re-examination of the older producing areas by methods which make full use of the newest proved geological tools.

This paper employs the now common electrical well log, in conjunction with the best paleontological opinions, to identify and to map the areal extent and thickness of the basal Vicksburg sand in the Texas Gulf Coast, and to predict, with some foundation, its future possibilities for commercial oil production on the older known structures.

Electrical well log cross sections through the region, two of them down the dip and one along the sedimentary strike, are given in support of the sand thickness map.

11. JOSEPH M. WILSON, Dallas, Texas
South Cotton Lake Field of Chambers County, Texas

Torsion-balance work in 1934 indicated a large minimum which centered, after regional corrections were applied, slightly north of the present producing area. After two wells were drilled in the vicinity, both of which were abandoned after encouraging showings, the area was detailed with the reflection seismograph, using the continuous profile method. As the result of this work, the discovery well was located and subsequent development of the field showed that the seismograph gave a remarkably accurate picture of the structure, a faulted dome elongate east and west.

The three producing sands are the *Marginulina* sand with an average of 7½ feet of effective sand, the No. 1 Frio with 10 feet and the No. 2 Frio with 5 feet. Each sand has a separate water level and oil-gas contact and all occur within an interval of about 100 feet. The average total depth of wells is 6,500 feet. The maximum producing area is expected to be about 1,200 acres. One deep test in the field failed to find any promising deeper sands. There are now 51 oil wells and two gas wells here and development is nearly complete. As of January 1, 1941, the field had produced a total of 1,573,400 barrels.

SOUTH TEXAS

12. L. B. HERRING, consulting geologist, Corpus Christi, Texas
Developments in South Texas during 1940

This paper discusses the developments during the year 1940 in the South Texas area and suggests that the collapse of foreign markets caused pipe-line proration and local price cuts.

Twenty-eight new producing areas were found during the year. Drilling was slightly under the 1939 rate, and geological exploratory work was greatly reduced.

Four wildcat wells were completed in Wilcox sands, three producing gas and condensate and one producing oil with water. None of these discoveries appears to represent reserves of consequence.