

20. SAM C. GIESEY and FRANK F. FULK, geologists, Stanolind Oil and Gas Company, Midland: North Cowden Field, Ector County, Texas.

Geographically, the North Cowden field is on the transition between the Llano Estacado on the north and the Edwards Plateau on the south. Geologically, it is on the eastern margin of the Central Basin platform. The presence of a structure was indicated by subsurface data, and the discovery well was completed by the Southern Crude Oil Purchasing Company in September, 1930. The producing structure is an anticline  $7\frac{1}{2}$  miles long, with about 100 feet of closure indicated by present control. Oil is obtained from sands and limestone of lower Whitehorse age, and production is most prolific on the east, or basinward, flank of the structure—a condition due, at least in part, to the thickening of sands basinward from the crest. The first pay is reached at an average depth of 4,027 feet, and the average amount of pay section penetrated is 89 feet. A gas cap exists in the first pay zone on the higher parts of the structure. Progressive folding during Whitehorse and upper Castile time moved the axis of the structure basinward. Post-Rustler movement shifted it about  $1\frac{1}{4}$  miles west to its present position. The present productive area of the field includes 9,760 acres.

The Cowden anhydrite is defined in this paper.

21. MORRIS A. ELMS, geologist, Phillips Drilling Company, San Antonio, Texas: Volcanics of the Buck Hill Quadrangle, Brewster County, Texas.

The volcanic rocks in the north and west parts of the Buck Hill Quadrangle are a southeastern extension of the Davis Mountains of trans-Pecos Texas. Field evidence suggests a division of the volcanics of this area into two regions: (1) west of Calamity Creek the volcanic series, consisting of flows of trachyte porphyry, andesite porphyry, basalt (five flows), and rhyolite porphyry separated by beds of ash, tuff, and breccia, has a combined thickness of 2,100 feet; (2) east of Calamity Creek the rock series is distinctly different: here porphyritic olivine-free diabasic basalt flows (?) and intervening beds of ash and fresh-water conglomerates predominate and are 552 feet thick.

A major stratigraphic break separates the volcanic rocks from the underlying Upper Cretaceous rocks, and everywhere a basal conglomerate marks this unconformity. No difference in the dips of the underlying Cretaceous rocks and the volcanics is noticeable in the field, therefore the break at the base of the volcanics is considered one of disconformity rather than of angular unconformity. The age of these volcanic rocks is not known, but from available data it seems probable that they are of Cenozoic age.

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SOUTH TEXAS SECTION TENTH ANNUAL MEETING  
CORPUS CHRISTI, OCTOBER 21–22, 1938<sup>1</sup>

C. C. MILLER<sup>2</sup>  
Corpus Christi, Texas

The tenth annual meeting of the South Texas Section of the Association was held at the Plaza Hotel, Corpus Christi, Texas, October 21 and 22.

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<sup>2</sup> The Texas Company.