

almost continuous producing area from Keensburg, Wabash County, at the north, to a point $3\frac{1}{2}$ miles southeast of Phillipstown, White County. This single area is approximately 18 miles long and varies in width from $\frac{1}{2}$ mile to more than 2 miles at its widest point in White County. As of January 1, 1942, there were almost 1,000 producing wells in the two fields and the productive area proved by drilling was 7,238 acres.

All of the eight Chester sandstone formations and additional sandstone beds in other Chester formations were found productive in one place or another throughout the area. Considerable lateral variation in thickness and character of the "sands" was indicated by drilling. In many cases it was so great that it made the development of a particular sandstone uncertain from well to well. The lenticular character of producing "sands" resulted in irregular producing areas. The producing areas of the different "sands" may or may not be directly over or under each other. Many wells in the area are producing from more than one "sand."

Distribution of productive areas depends more on sand characteristics than structure in the lower Wabash River area.

62. JED B. MAEBIUS, Gulf Refining Company, Saginaw, Michigan
The Results of the Drilling of a Deep Test near Bay City, Michigan

The Gulf's Bateson No. 1 is located approximately 3 miles northwest of Bay City, Michigan, in CS/2-SE-SE. Sec. 2, T. 14 N., R. 4 E. It was completed at a total depth of 10,447 feet in the St. Peter sandstone. This is the first well that has penetrated rocks of Silurian and Ordovician age near the center of the Michigan structural basin. The stratigraphy of the formations drilled are described, and correlations are made with other deep wells in the state. Gas was encountered in a dolomitic member near the base of the Salina formation. At this point the well blew out and caught fire, destroying the drilling equipment. An exceptional occurrence of gas, as inclusions in the Salina salt above the producing zone, caused blow-outs and presented many drilling-mud problems. No showings of oil or gas were encountered below the Salina gas zone.

63. L. E. WORKMAN, Illinois State Geological Survey, Urbana, Illinois
TRACY GILLETTE, Illinois State Geological Survey, Urbana, Illinois
Subsurface Stratigraphy of the Kinderhook-New Albany Strata in Illinois

This paper summarizes the subsurface occurrence of the Kinderhook-New Albany succession in Illinois and shows the relationships of the formations and facies from place to place.

A zone of relatively thinner strata extending northeasterly from the Ozark uplift divides the region into two sedimentary provinces. Southeast of this zone the succession is predominantly hard, black New Albany shale capped by the Rockford limestone. Its thickness increases southeasterly to a maximum in Gallatin and Hardin counties. Along the zone of relatively thinner strata the black shale is overlain by gray and greenish shales and siltstones in turn overlain by the Rockford limestone. In a limited area northwest of the zone, as far as Calhoun, Green, Macoupin, and Montgomery counties, the upward succession is the black Grassy Creek shale, the Louisiana limestone, the blue Maple Mill shale and siltstone, and the Chouteau limestone. The Chouteau limestone is shown to be the westerly equivalent of the Rockford limestone.

Farther northwest, as far as the Kinderhook occurs in Illinois, the black shale grades upward through grayish brown into gray and blue shales, succeeded by the English River siltstone, the McCraney limestone, and the Prospect Hill siltstone. The total thickness of these strata reaches a maximum in Hancock County.

There is an erosional unconformity between the Kinderhook and overlying Osage group.

A number of cross sections and isopach maps illustrate correlations and changes in thicknesses and facies of the strata throughout their subsurface occurrence in Illinois.

64. EUGENE L. EARL, Fohs Oil Company, Houston, Texas
FREDERICK W. MUELLER, Skelly Oil Company, Houston, Texas
The Sam Fordyce Field, Hidalgo and Starr Counties, Texas

The Sam Fordyce oil and gas field is located in southwest Hidalgo and southeast Starr counties, Texas.

Magnetometer work in 1929 first indicated structure in the area; however, the first well drilled on the anomaly in 1932 was completed as a dry hole.

The discovery well of the field, which was drilled in September, 1932, by King-Woods Oil Company, was completed from a sand in the basal Frio formation of middle