red and green clays with thinly bedded sands, assigned to the Frio formation. Two prominent sandstone beds occur in the upper 200 feet of the formation.

The Catahoula is subdivided into three members: Fant, 75 feet; Soledad, 200 feet, and La Chusa, 1,000 feet thick (Thomas L. Bailey, *Univ. Texas Bull. 2645*).

Approximately 200 feet of pinkish chocolate-colored clays with globules of soft limestone overlies the La Chusa tuffs. These clays are distinctly different from Catahoula deposits, and are referred to the Oakville formation, due to their lithologic character and position in section.

The Catahoula and Oakville are overlapped by Lissie or post-Pleistocene conglomerate throughout north and northeastern Starr County.

5. LEE C. SMITH, geologist, Sun Oil Company, Dallas: Oil and Gas Fields of the Rio Grande Valley.

6. EUGENE L. EARL, geologist, Fohs Oil Company, Houston, and F. W. MUELLER, geologist, Skelly Oil Company: The Sam Fordyce Field, Hidalgo and Starr Counties (abstract).

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, 1923, by the King-Woods Oil Company, was completed in a sand in the basal Frio formation of middle Oligocene age. Subsequent development has proved the accumulation of oil and gas in other sands of the same formation.

The reservoir is a faulted anticline whose major axis trends northwest and southeast along the regional strike. Closure against a major fault on the updip side of the structure accounts for the oil and gas accumulation. The fault has a maximum throw of 880 feet on top of the Sam Fordyce sand, and this sand has 260 feet of producing closure.

Geologically the Sam Fordyce structure is an outstanding example of differential sedimentation during the time of fault movement. A gradual downwarping movement northeast into the Rio Grande embayment caused the thicker sediments which are found on the downthrown side of the major fault.

The productive area of the field embraces 2,000 acres, 900 acres of which are within the oil zone of the Sam Fordyce sand zone. There are 260 acres of oil production in the Wheeler sand zone, and 215 acres in the Barlow.

7. L. B. HERRING, consulting geologist, Corpus Christi: Economics and Evaluation of the Oil and Gas Fields of South Texas.

8. HAROLD M. SMITH, chemist, United States Bureau of Mines, Bartlesville, Oklahoma: Commercial Production of Synthetic Products from Natural Gas.

Presentation of 9 charts showing composition of natural gas and the products obtainable from natural gas production.

9. EUGENE MCDERMOTT, president, Geophysical Service Incorporated, Dallas: Soil Surveys (abstract).

Attention was called to the important rôle that visual oil and gas seeps and mineralization phenomena have played in the location of oil and gas fields throughout the world. A. Beeby Thompson was quoted in part from his