slopes and dips are functions of sediment load. In general, the greater slopes and dips are toward localities of greater loads of sediments within the basin. The conclusion is that, at comparable locations with reference to the shore, the pre-Trinity deposits in South Texas are thicker than in East Texas, Louisiana, and Arkansas.

Some criteria are suggested for locating the Jurassic shore line. Importance for possible oil and gas production along the continental shore, and the shores of peninsulas and islands, is stressed. Probability of the presence of undiscovered salt domes in South Texas is pointed out.

26. JAMES L. TATUM, Plymouth Oil Company, Sinton, Texas
JARVIS GARST, Plymouth Oil Company, Sinton, Texas
Plymouth Field, San Patricio County, Texas

The Plymouth oil field is located in northeastern San Patricio County, Texas, in the Coastal Bend province of the Gulf Coastal Plain. The discovery well was completed in April, 1935, in the Plymouth or 5,500-foot sand. Reflection seismograph led to the discovery. One hundred eighty-eight wells have been completed as of January 1, 1942. The field has a proved area of 3,000 surface acres and has produced 21,631,000 barrels of oil to January 1, 1942.

The field is located on strike with the most prolific lower Catahoula (Frio) sand fields of the Coastal Bend province. The sand conditions are excellent along this strike and reach their maximum thickness a short distance downdip from the Plymouth field. The structure is an elongate flat dome of moderately low relief. The maximum proved closure is approximately 100 feet. The dome is bounded on the southwest flank by a graben. The structural uplift is probably caused by a deep, buried salt core. The dome becomes more pronounced and steeper with depth; on the Greta sand there is only a broad nosing, on the 5,600-foot sand there is a broad flat dome, but on the 6,100-foot sand there is a very pronounced doming with steeper dips. There is good evidence of at least one erosional unconformity.

There are four producing oil sands: (1) Plymouth sand, 5,500 feet; (2) Heep sand, 5,600 feet; (3) Magnolia sand, 5,800 feet; (4) 6,100-foot sand. Of these, the Heep is the most important oil reservoir.

27. CHARLES E. DECKER, University of Oklahoma, Norman, Oklahoma
A Silurian Graptolite Zone in Crane County, Texas

In June, 1941, William Hilseweck of the Gulf Oil Corporation of Fort Worth, Texas, sent the writer a piece of core from a well taken at a depth of 9,340 feet in Crane County, Tesas. While he did not determine the species, he correctly concluded that the graptolites on the core proved the presence of a Silurian zone for one which had commonly been called Devonian. A few fragments of graptolites occur on the surface of the core, but they have sufficiently diagnostic characteristics to identify the species. The stratigraphic conditions are noted, and the species is illustrated and described. Also, it is compared with specimens of the same species which were sent to the writer from the Chicago region by Alfred and Helen Loeblich.

28. F. R. DENTON, Consulting Geologist, Tyler, Texas
R. M. TROWBRIDGE, Consulting Geologist, Tyler, Texas
Developments in East Texas during 1941

The marked increase in exploratory tests in East Texas during 1941 resulted in the discovery of three oil fields. Two of these fields are producing from the Woodbine formation and one from the Rodessa zone of the lower Glen Rose formation.

In the Hawkins field, which was the major 1940 discovery, a rapid development program took place and 243 oil wells, 3 gas wells, and 8 dry holes were drilled.

The number of completions in other proved fields exceeded that of 1940.

29. O. L. BRACE, Consulting Geologist, Houston, Texas
Review of Developments in 1941, Gulf Coast of Upper Texas and Louisiana

More refined methods of oil exploration have resulted in a slight increase in the discovery rate on the Texas Gulf Coast for 1941 but the generally second-grade type of individual pool that has resulted from exploratory activity during the past few years still characterizes the discovery column. Coastal Louisiana has had a successful year, with 17 new productive areas but there is no one of these that seems at this time to compare with some of the outstanding discoveries of recent years.

Activity along the Eocene Wilcox trend has been rather successful in Texas for