

EXPLORATION AND DEVELOPMENT — GULF COAST TERTIARY — 1983

William C. Eisenhardt¹ and Harry T. Holzman¹

ABSTRACT

Total well completions in the Texas Gulf Coast portion of the Tertiary trend registered a marked decline during 1983, with gas completions experiencing the largest drop. The overall success rate, however, remained almost unchanged at 62%. Wildcat drilling declined by about 14%, but the success rate increased to 23%. The Wilcox, particularly the deep Wilcox and Lobo trends of South Texas, was the most popular exploration target and resulted in 40 new field discoveries. The Frio provided the largest number of new discoveries in 1983 with 55 recorded, as well as the bulk of the new pays and extensions. Drilling for Yegua pay was also brisk and resulted in 18 new fields.

In South Louisiana, a similar decline occurred in overall completions and wildcats drilled, with the respective success rates of 46% and 8% being markedly lower than for the Texas Gulf Coast. Here the most significant new trend was the downdip Wilcox, centered in Lockhart Crossing and Livingston Fields in Livingston Parish, and originated by Callon Petroleum in 1982. The Miocene, however, attracted the greatest number of wildcats in 1983 and constituted the pay in most of the new fields discovered, with 12 listed.

Several prolific extensions to existing Miocene fields were also reported. The Wilcox play in the central Louisiana parishes resulted in four new field discoveries, and its extension into southwestern Mississippi opened nine new fields there. The shallow Miocene play continued in Baldwin and Mobile Counties, Alabama.

Offshore Texas and Louisiana, the bulk of exploration was directed at Miocene targets — including several tests drilled in water depths up to 3450 ft (1050 m) — and resulted in 19 new Miocene field discoveries.

¹Geomap Company, Houston, Texas 77036.