Mexican Petroleum Geology—Historical Review

The sequence of events described below incorporates both political and geological aspects of Mexico’s rich petroleum history. The period 1904 to 1910 saw the discovery of oil in fractured Cretaceous lime mudstones in the Ebano-Panuco area on the Tamaulipas arch, when El Aguila and other foreign companies operated. By 1916, a chain of local structures was recognized encircling the Tuxpan platform and forming an oval map pattern known as the Golden Lane. Some of these wells still hold world records for IP’s of over 200,000 BOPD.

Expropriation occurred in 1938. A national oil company, Petroleos Mexicanos, was created at this time. From 1932 onward important paleontological studies aided exploration, helped define a new reservoir facies in diagenetically altered, downslope reef talus of the giant Poza Rica field, with its ultimate production estimated at 2.5 BBO.

From the 1930’s to 1970 gas was discovered and developed in Tertiary sediments filling coastal basins, such as the Veracruz, Macuspana, Sabinas, and Burgos basins. These areas are now being drilled in the search for more gas reserves, and it is estimated that these fields together can provide more than 4.8 BCFGD. In the early 1970’s Cretaceous oil was discovered over the Villahermosa horst (Reforma), and at least 25 giant oil fields were mapped using seismic reflection technology. More recent exploration has resulted in the discovery of many more giant fields on the offshore Campeche Shelf. Present emphasis involves a continued search for facies favorable for Jurassic oil. These wells range from 2000-4000m deep.