Petroleum Geology in Southeastern Mexico... is the Past the Key to the Future?

Four successful eras established the basis of the present petroleum outstanding status of southeastern Mexico.

In the ‘cap-rock era’ (1902-1921), surface geology defined salt structures close to seepage areas in the Isthmus of Tehuantepec. In the ‘flank traps era’ (1923-1938) a change in paradigms led to an intensive effort to find deeper pools at sandstone horizons associated to the flanks of the salt masses in the Isthmus region. More precise geological concepts about the local geology, and surface geology combined with scarce seismic refraction surveys and the use of the torsion balance allowed the discovery of the first giant fields. The ‘new frontiers era’ (1938 - 1960) was characterized by the search for new siliciclastic Tertiary pools in an extensive area. Gravimetric reconnaissance works, paleontological systematic studies and surface geological surveys allowed not only to focus seismic reflection methods, but also led explorationists to think that hydrocarbons could be found in traps other than salt masses as those found in the Macuspana Basin. The ‘Mesozoic carbonate era’ had two breakthroughs: the discovery of the Reforma province in 1972 and the discovery of the Sonda de Campeche province in 1976. Both discoveries were the results of technical skills, perseverance and intuition, along with the proper and timely use of capital and technology.

Presently, the petroleum exploration in Southeastern Mexico, still offers diverse and profitable opportunities for an aggressive, innovative and talented workforce, whom learning from the past performance, must demonstrate its ability of achieving outstanding results.