

Tectonics and Depositional Episodes of the Northern Gulf of Mexico: A Brief History and Petroleum Geology

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ABSTRACT

This lecture will attempt to summarize the critical factors which have influenced the formation and evolution of the Gulf of Mexico. It will cover the basin's physiography and tectonic origin as a result of crustal extension during the early Mesozoic breakup of Pangaea. It will address the great importance of the Louann evaporite deposit. Deformation and movement of the Louann salt affects almost all the overlying strata and plays a very important role in all aspects of the basin's petroleum systems. It will discuss the importance of paleolatitude, climate, and tectonic development as related to depositional systems and sediment accumulation. The five depositional megasequences each have unique characteristics that contribute to making the Gulf of Mexico a world class petroleum province.