

## **A Regional Exploration Perspective of the Gulf of Mexico Basin: Questions that Remain**

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### **Abstract**

The Gulf of Mexico is the most extensively explored basin in the world. Exploration over the past 70 years has shown the Gulf of Mexico to be one of the preeminent global super basins. With each phase of exploration and decade the basin brings new technological innovation, opportunities, and discoveries of >500 billion barrels of oil. Yet, these successes and understanding reveal uncertainty and questions regarding the basin's history and evolution of depositional systems through time.

The best ideas and concepts are grounded in observations at a basin scale. With the development of a basin-wide seismic framework it is possible to begin to investigate many outstanding questions that remain (e.g., process and origin of thick salt deposition, location and partitioning of thick deltaic successions into the deep and distal part of the basin, paleogeography of the basin prior to and after salt deposition). We present a bottom-up perspective and regional overview for the basin framework to propose possible ideas regarding the basin evolution, play distribution and new potential opportunities that remain untested. Understanding the basin architecture in Jurassic time, the impact on salt deposition and presence coeval basin-margin depositional systems remains undocumented. This presentation seeks to provide a context of the 'knowns' in order to provide a framework to investigate the remaining 'unknowns' for understanding the history of the Gulf of Mexico and the implication for future hydrocarbon exploration.