

David T. Lawrence¹ (1) Shell Exploration and Production Company, New Orleans, LA

Successful Exploration and Development of Significant Oil Fields in the Deepwater Gulf of Mexico

The Gulf of Mexico has been a center of deepwater exploration and development activity since the early 1980's. Shell Exploration and Production Company has five tension leg platforms in the deepwater with combined volumes in excess of 2 BBEQ, and a daily production of more than 450 MBEQ/day.

What advances in geologic concepts, technologies, engineering and operational capabilities have led to the successful exploration and development of Auger, Mars, Ram/Powell, Ursa and Brutus? What are the implications for the next generation of large deepwater discoveries?

This presentation will focus on the key strengths of regional geologic frameworks, subsurface understanding through improved seismic imaging and reservoir modeling at both the exploration and the development scales, and engineering innovation for facilities and high rate / high ultimate well design. These capabilities contribute to cost and value leadership throughout the asset life cycle. Maintaining and growing a culture which values technological excellence, creativity and sharing of knowledge will be essential to profitable developments, as projects move into progressively deeper and more complex environments.