Congreso Mexicano del Petróleo

26 - 29 septiembre. Acapulco, 2018

3. RESERVOIR CHARACTERIZATION OF DEEP WATER SYSTEMS: IMPACT FROM EXPLORATION TO PRODUCTION

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ABREU CONSULTING & TRAINING

"Compartir ideas para afrontar nuevos retos"

This course emphasizes key changes in reservoir models that have a major impact in exploration and production of these reservoirs. The course will include lectures, exercises, and observations from cores, well logs and seismic profiles. Participants will learn how to interpret and map environments of deposition (EoDs) in deep water systems and understand how the different EoDs and sub-EoDs behave as reservoirs. Engineering data will also be used to demonstrate how to improve prediction of reservoir performance. Cores, well-logs and seismic examples will be used to compare and contrast with core information to help participants to link the 1-D core information to 3-D views of reservoir-scale depositional systems. The class will also review the evolution of concepts in deep water models, emphasizing recent approaches that integrate experimental and numerical models, quaternary analogues and ultra-high resolution data. Resulting new depositional models have strong impact from exploration to production scales.

Who Should Attend

Geologists, Geophysicists and Petroleum Engineers working on deep water reservoirs from exploration to production.

Objectives

- Interpretation and mapping techniques for cores, well-logs and seismic lines in DW settings from Exploration to Production business scales.
- Interpret environments of deposition (EoDs) and related reservoir architecture, lithofacies associations and diversity
- Learn about the different EoDs in deep water that can generate reservoir-scale, sand-rich systems.
- Learn how to recognize the different EoDs and sub-EoDs in seismic, well logs and cores and outcrops
- Evaluate reservoir geometry and connectivity in different EoDs, integrating with production data
- Review deep water lithofacies and nomenclature, common lithofacies associations and interpret lithofacies in cores.

Biography

Vitor Abreu received his B.S. and M.S. degrees at the Federal University of Rio Grande do Sul (Porto Alegre, Brazil) and his Ph.D. degree at Rice University (Houston, Texas). He worked for Petrobras from 1987 to 1997, for Unocal from 1998 to 2000, and for ExxonMobil from 2000 to 2015. Vitor spent the majority of his 15 years with ExxonMobil at the Upstream Research Company as a Senior Technical Consultant for Hydrocarbon Systems. Vitor has 28 years of experience in the oil industry in petroleum exploration, with a proven record in evaluating, risking and/or drilling in 22 countries and 31 sedimentary basins in the 6 continents. His areas of expertise include projects in tectono-stratigraphic evolution of basins in different tectonic settings, regional studies to define the petroleum system elements and key plays in frontier exploration, maturing opportunities to drillable status, and play to prospect risking assessment. His experience in development and production includes several field studies ranging from fluvio-deltaic to deep water systems, with high-result ion stratigraphic interpretation integrated to engineering data to define reservoir connectivity and main baffles and barriers to define effective field development plans. On research, Vitor is considered one of the world leaders on reservoir characterization of deep water systems, proposing new deep water models with strong impact in reservoir characterization and also developing research projects including deep water outcrops in North America and Europe. He has applied his geologic expertise to almost all producing deep-water basins, impacting activities in West Africa, Brazil, U.S., Canada, northern South America, The North Sea, The Black Sea, Russia, South Africa and Tanzania.

His work has significantly enhanced the understanding of the broader geologic community through technical publications, presentations and short courses on the fundamental geologic processes that control deep-water deposition. Additionally, Vitor has been an Adjunct Professor at Rice University since 1999, where he took responsibility for the course on Sequence Stratigraphy after Peter Vail's retirement. Vitor was also appointed Adjunct Professor at the University of Houston. He was the recipient of the Jules Braunstein Memorial Award (best poster presentation, 2002 AAPG/SEPM Annual Meeting) and was appointed AAPG's inaugural international Distinguished Instructor in 2006. He is the current President Elect of the Society of Sedimentary Geology (SEPM), and was the SEPM Research Councilor from 2004 to 2006. He has been organizing and chairing technical sessions at annual meetings and serving on the Annual Meeting Committees for both AAPG and SEPM. More than 1000 students from around the globe have taken his SEPM short course on "Sequence Stratigraphy for Graduate Students" since 2000. This course has been taught at the US AAPG/SEPM annual meeting, international meetings, Universities, and geological societies around the world continuously since it was first offered. Vitor is the chief editor of SEPM's "Sequence Stratigraphy of Siliciclastic Systems", which has sold more than 3000 copies since publication in 2010.