

Sedimentologic, Biostratigraphic, and Chemostratigraphic Insights into the Wilcox Group: Implications for Stratigraphic Correlations, Depositional Trends, Paleoclimate, and CO₂ Storage

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Description:

The University of Texas at Austin and Bureau of Economic Geology (BEG) State of Texas Advanced Oil and Gas Resource Recovery (STARR) Program present a 2-day core workshop and field course on the Wilcox Group in Texas. On the first day researchers will present work on Wilcox Group facies, depositional systems and sequence stratigraphy at our Core Research Center in Austin. The session will include discussions of subsurface observations from well log correlations and core descriptions, as well as new insights derived from the acquisition and integration of biostratigraphic and geochemical data. Attendees will get a hands-on view of key cores, with a detailed review of depositional systems and reservoir facies. Workshop participants will have the opportunity to observe numerous examples of vertically superimposed sedimentary facies from fluvial, deltaic, estuarine and transgressive-shelf depositional systems.

The following day, a field trip to outcrops near Bastrop, TX will provide an opportunity to examine deposits of tidally modified deltaic depositional systems of the Wilcox Group (Sabinetown to Carrizo) across what is interpreted as the Paleocene-Eocene Thermal Maximum. Topics include facies analysis and relationships, ichnology, biostratigraphy, bulk $\delta C13$ isotope analysis, stratal architectures, identification of key surfaces, and depositional system interpretations.

Participants will walk-away with a renewed understanding of the characteristics of the Wilcox Group deposits including facies, ichnology, biostratigraphy, geochemistry, stratal architectures, and depositional systems. We will also discuss the significance of the Wilcox Group from an oil/gas exploration and aquifer perspective.

