

Field Seminars - Paradox Basin

OUTCROP TO SUBSURFACE HIGH RESOLUTION SEQUENCE STRATIGRAPHY, PARADOX BASIN, U.S.A.

Implication for Exploration and Production in Mixed Carbonate/Siliciclastic Systems

Objectives and Itinerary

Successful reservoir prediction is a major objective to reduce risk in the costly game of exploration and production of the oil within a basin. Technical advances provide us continuously with refined geophysical data sets. However, performant geophysical and wireline logging tools can only be taken advantage of in so far as current geological models allow their interpretation. Along the canyons of the San Juan River, impressive outcrops reveal the geology of the Paradox Basin. These outcrops are the analog to the nearby oil fields within the basin.

Aim of Field Seminar

*To understand the processes and controls influencing the lateral distribution of reservoir and associated facies in the Paradox Basin, using high-resolution outcrop data as an analog for subsurface interpretation at both an exploration and production scale.

*To provide you with a predictive-iterative methodology for use in exploration and production, as well as high-resolution sequence stratigraphic models taking into account facies differentiation as a function of stratigraphic architecture.

Itinerary

Travel to Bluff, Utah

Day 1: 8-Foot Rapids - by raft to algal mound field exposed along San Juan River. Mound geometries and distribution similar to that encountered in subsurface (individual mounds 10-14 meters (33-46 feet) thick; distance between mounds <100 meters); lateral and vertical variability of reservoir facies (algal mounds and ooid shoals); porosity and permeability distribution within mounds; petrophysical characteristics.

Day 2: Aneth Overlook - observe 40 acre spacing, discuss development and completions strategies of the field. Raplee Anticline - walk-through entire section exposed along west flank of Raplee Anticline to examine the transgressive to regressive character of the Desert Creek, Lower Ismay and Upper Ismay sequences, general facies types, vertical stacking patterns of high-frequency cycles (3-10 meter { 10-34 feet} scale), biostromal mound geometries, and stacked ooid shoals. Goosenecks Overlook - general overview of section, orders of cyclicity, lateral facies changes.

Information and Reservation:

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