

Field Trip #2: Shelf to basin changes in stratigraphic architecture of the Lewis Shale and Fox Hills Sandstone, eastern margin of the Greater Green River Basin, Wyoming

Date:Saturday, July 12-15, 2008

Instructor:David Pyles (Colorado School of Mines)

Coordinator:.....Charlie Rourke (Colorado School of Mines)

Departure/Return:Depart 8:00 a.m. Denver and return to Denver at 7:00pm

Fee:\$550 (includes transportation, lunches, lodging, and field guidebook)

Limit:18 persons

Sponsors:Rocky Mountain Section SEPM

The Upper Cretaceous Lewis Shale, Fox Hills Sandstone, and Lance Formations are an important gas resource in the Greater Green River Basin, southern Wyoming. These formations are unique to many other Cretaceous formations as they record the southward progradation of a linked shelf-slope-basin depositional system. The field school has two goals. The first goal is to get a grasp on regional correlation and sequence stratigraphy of the system. The second goal is to learn how depositional processes, stratigraphic architecture, reservoir styles, source rocks, and seals change from the proximal fluvial systems to the distal turbidite system. This goal will be accomplished by visiting five exposures of coeval stratigraphy from various parts of the physiographic profile: (1) river systems on the shelf, (2) deltas at the shelf edge, (3) turbidite channels on the slope, (4) turbidite channels and fans at the base-of-slope, and (5) turbidite fans on the basin floor. We invite participants to bring subsurface examples of deltas and deepwater reservoirs (from the Lewis Shale and other areas) to facilitate the learning process. This trip will be of interest for geologists and engineers of all experience levels.

