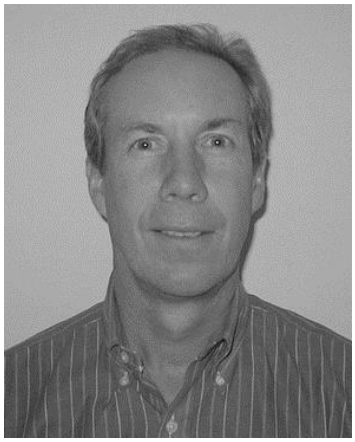
RMS-SEPM Talk, March 26th, 2013



Stratigraphic Trapping Mechanisms in the Iles Formation, Piceance Basin, Northwest Colorado

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ABSTRACT: The identification of major surfaces and systems tracts in sequence stratigraphic analysis is highly interpretive even with the existence of numerous excellent studies available as models. Once on outcrop, or even more compounded in a subsurface study, it can be hard to identify the sequence boundary especially in a low accommodation setting where multiple erosion surfaces are often superimposed. This study compares the stacking patterns of parasequences in high-resolution sequences documented for the Campanian Iles Formation in the eastern Book Cliffs near Grand Junction to derive some criteria that might be helpful in the identification of the major surfaces in others areas. The preservation of parasequences and position of major surfaces is different depending on the amount of accommodation space available at the time of deposition.

The criteria developed in this study are applied to producing units in the subsurface of the Piceance Basin and we present examples from both low and high accommodation settings. The low accommodation example is from the Corcoran Sandstone Member of the Iles Formation in Shire Gulch and Plateau fields, and the high accommodation examples is from the Rollins Sandstone Member of the Iles in the Mamm Creek field.

SPEAKER BIOGRAPHY: Stephen P. Cumella has been a geologist with Endeavour International Corporation in Denver, Colorado since March 2011. He received his bachelors and masters in geology at the University of Texas at Austin. Steve started his career with Chevron in 1981 and worked in exploration and development assignments in the Rockies, the midcontinent, the Michigan Basin, and in West Africa. After leaving Chevron in 1990, he worked on various projects in the U.S. and South America. From 2000 until 2011, Steve worked the Piceance Basin and other Rocky Mountain basins at Barrett Resources, Williams, and Bill Barrett Corporation. He has authored several publications, has given numerous presentations, and has led several fieldtrips. He is past president of the Grand Junction Geological Society and was presented the Rocky Mountain Association of Geologists (RMAG) Outstanding Scientist award in 2005. Steve was co-editor of the RMAG 2005 publication, Gas in Low Permeability Reservoirs of the Rocky Mountain Region. The publication entitled Understanding, Exploring, and Developing Tight-Gas Sands that he co-edited was awarded the Robert H. Dott Memorial Award for best AAPG special publication in 2008. In 2010, Steve was selected as an AAPG Distinguished Lecturer. Cumella is associate editor of the AAPG Bulletin and the Mountain Geologist.

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