

Characterization, Simulation, and Successful Development of a Tight Gas, Fluvial Reservoir System in the Piceance Basin, CO

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Abstract:

Accuracy in reservoir characterization is absolutely essential in successful development of a tight gas resource play. In conventional reservoirs, with high porosities and large contrasts in resistivity, small inaccuracies in petrophysical analysis can be tolerated. Not so with tight gas reservoirs, where the average porosity is below 10%, and even a small error in calculating porosity or water saturation can represent a very large error in OGIP and reserve calculations.

This talk will focus on the reservoir characterization and simulation work for the Mamm Creek Field in the Southern Piceance Basin, which has been very successfully developed, with over 900 producing wells. Issues regarding depositional environment, core analysis (5 whole cores have been taken), log interpretation, outcrop data, well testing, and reservoir simulation will be discussed. In addition, very opinionated and perhaps outrageous statements will be made, and participants will be encouraged to share alternate viewpoints and experiences!