

Seismic Characterization of the Woodford Shale in the Anadarko Basin

Nabanita Gupta, Supratik Sarkar, and Kurt J. Marfurt
University of Oklahoma, Norman, OK

Seismic analysis plays a very important role in the characterization of shale gas reservoirs. Several seismic attributes including curvature and coherence attributes are commonly used to highlight discontinuities (Marfurt, 2010). But very often, the complexity of the discontinuity pattern is not clearly seen in these attributes. At the same time, studying the discontinuity patterns along with stratigraphic changes can also provide important clues for shale gas exploration. For the current study, we analyzed the Woodford Shale in the Anadarko basin with the aid of some newly developed geometric attributes including reflector convergence and reflector rotation along with some common attributes including coherence, curvature and coherent energy.