

Microseismic Advances in Resource Plays with Low Thermal Maturity

Doug Walser

Pinnacle Technology

Various resource plays (hydrocarbon-bearing shales and combinations of low vitrinite reflectance/low TOC shales and conventional volumetric depletion reserves) have been found to be commercial, or marginally commercial. Advances in microseismic technology over the last 2 – 3 years have allowed fracture mapping of highly laminated alternating sequences of fast and slow velocity lithological units. These advances have assisted in dramatically lowering liquid hydrocarbon shale play learning curves. Methods to quantify the contribution of the mobile "resource" hydrocarbon relative to the conventional volumetrically depleted reserves will be discussed. Specific examples will be presented, and a brief description of the process improvements will be covered.