Cherokee Paleolithology, Long Branch Field, Payne County, Oklahoma

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ABSTRACT

The drilling and development of Bartlesville, Red Fork, Skinner and Prue reservoirs in the Long Branch Field of eastern Payne County, Oklahoma provides a perfect illustration of the lithologic complexities involved in the exploration of for fluvio-deltaic sandstones on the Cherokee Platform of Northern Oklahoma. Detailed stratigraphic analysis shows quite clearly that the oil traps, reservoir architecture and aerial distribution of reservoir sands is controlled by both depositional and erosional events, which can leave the resulting sands compartmentalized and complex. Understanding how these events interact to generate the final sand package can lead to the discovery of new oil and gas deposits in old, highly drilled areas.