

New Core and Production Results from the Jean Marie, Zama area, NW Alberta

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The Jean Marie Member of the Upper Devonian Redknife Formation is a widespread carbonate unit in the subsurface of northeastern BC and northwestern Alberta. The Jean Marie is gas productive in northeast BC, where it is a primary drilling target with 10 TCF Original-Gas-In-Place. In Alberta, few wells have been drilled into the Jean Marie as the primary target, with limited gas and oil production to date. Throughout northwestern Alberta, the Jean Marie has been penetrated by several thousand wells targeting deeper Middle Devonian targets. This well database was used to map a widespread Jean Marie oil accumulation, with the thickest reservoir present in the Zama area. Recent drilling by Coda Petroleum in the Zama area targeting the Jean Marie has provided new core and production information. This submission will document observations from the new cores and demonstrate the continuity of stratigraphy and depositional facies from the productive areas in BC. Observations of Stromatoporoid-Renalcis facies at Zama is indicative of patch reef deposition. This is significant to the hydrocarbon potential in Zama as this patch reef facies is a key reservoir in July Lake BC gas pools. The new Zama cores are important in demonstrating the relationship between depositional facies and reservoir quality. The recent drilling and production has shown that the Zama area contains a large unconventional light oil accumulation. The stratigraphy, depositional environment, diagenetic evolution, and porosity-permeability relationships will be documented.