The Hydrocarbon Potential of the Birdbear Formation, South Eastern Saskatchewan – Preliminary Results

Kathryn M. Feiss[1]
[1]*Saskatchewan Ministry of Energy and Resources, Regina, Saskatchewan, Canada*

Abstract

The Upper Devonian age Birdbear Formation of south eastern Saskatchewan is comprised of porous and permeable dolostone, dolomitic limestone and anhydrite and is the stratigraphic equivalent to the Nisku Formation of Alberta. Light oil with gravities that range from 34 to 39 deg API has been found structurally trapped in dolostone reservoirs at Hummingbird, Kisbey, Ceylon, Flat Lake and Tatagwa. No stratigraphic traps have been identified for this formation in Saskatchewan to date although it is likely that such traps do exist.

The purpose of Saskatchewan Energy and Resources Birdbear Formation study of south eastern Saskatchewan is to evaluate the undeveloped hydrocarbon potential for this interval in the area defined by TWP 001 to 22 RNG 30W1M to RNG 1W3M. A significant aspect of the study will be to develop an understanding of the cause(s) of the low resistivity log response in the oil bearing carbonate and the possible cause(s) for salt water recoveries from drill stem test of intervals that are later perforated and capable of oil production. These data will then be assessed to determine if areas of bypassed pay potential can be identified and mapped for the Birdbear within the study area. A secondary objective is to identify area(s) where stratigraphic traps are most likely to occur.