Albian-Cenomanian Stratigraphy and Petroleum Systems, Eagle Plain Basin, Yukon, Canada

Kevin W. Jackson¹, Per Kent Pedersen¹, and Larry S. Lane¹

Geoscience, University of Calgary, Calgary, AB, Canada

Abstract

Eagle Plain is an underexplored basin in northern Yukon with known hydrocarbon potential. The middle to Upper Cretaceous succession is underlies the majority of Eagle Plain at surface. The middle to Late Albian Parkin Formation and Cenomanian Fishing Branch Formation are the focus of this study.

The Cenomanian Fishing Branch Formation flowed 3300mcf/day of gas from the Chance G-08 well on production test. Refinement of the stratigraphic framework is important for understanding regional sedimentation patterns, basin morphology, and the distribution of reservoir facies within the Cretaceous strata of Eagle Plain. Very large oil and gas fields have been discovered in comparable stratigraphically confined reservoirs around the world, and could easily have been overlooked in Eagle Plain where extensive gaps in well control occur. The Eagle Plain Group represents a prospective shallow target for primarily gas and merits attention for future exploration activity.