that Lake Uinta at the time of oil shale deposition subsequently experienced a major base-level fall before any of the observed coarser grained units were deposited. Such an interpretation may be applied as a working model for further investigation of the Albert Formation.

Understanding the origin of deformed Albert Formation sandstone reservoirs: An analogue study with the northeastern Uinta Basin, Utah

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The Albert Formation (Horton Group, Mississippian) of the Moncton Basin in New Brunswick is currently divided into three lithostratigraphic units, two of which are the Frederick Brook Member and interfingering – overlying Hiram Brook Member. These units are interpreted to represent a complex interbedding of lacustrine shale (Frederick Brook Member) with deltaic and lacustrine shoreline sandbodies (Hiram Brook Member). Such sandbodies, some of which are up to 30m thick, have been the successful target for oil and gas exploration in the province. However, the understanding of the original large-scale geometries of these sandstone reservoir rocks remains limited. This is because the Formation has undergone extensive deformation, and its present-day surface exposure is very patchy. Therefore, analogue studies can be a potentially useful tool to improve our understanding of the reservoir.

Greiner, in 1962, first noted the "remarkable resemblances" of the Albert Formation to the Eocene lacustrine formations of Colorado, Wyoming and Utah. For instance, the stratigraphic succession in northeastern Uinta Basin of Utah includes a thick, fine-grained siltstone and oil-shale interval (Green River Formation), overlain by a mixed fine-coarse grained siltstone-sandstone and locally evaporitic unit (Uinta Formation). Interpretation of basal Uinta Formation strata (potentially analogous to the basal Hiram Brook Member) and the nature of its contact with underlying shale and oil shale of the Green River Formation (Frederick Brook Member equivalent) is also complicated by deformation.

The extensive and high quality outcrops in the Uinta Basin permits identification of a localized nature to the deformation at the Green River – Uinta Formation contact. At the meter scale, beds have been dewatered and folded, with large flame structures also punctuating the contact. At the decameter scale, domal and diapiric mudstone structures are common. These structures, which were originally interpreted to represent delta-front clinoforms, appear to be more indicative of flat-lying sheetflood deposits that have been subsequently dewatered and tilted after loading and diapirism, suggesting

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