Evolution of a Regional Interconnected Diagenetic Aquifer in the Lower Prairie Evaporite of Northeast Alberta

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Abstract

The Prairie Evaporite Formation of northeast Alberta comprises a thick, dominantly evaporitic succession, deposited in the middle reaches of the Keg River-Winnipegosis basin. It has generally been regarded as lacking any significant widespread porous units and the regional Keg River Formation has been regarded as the main interconnected aquifer in the area. In past years, this aquifer was referred to as the Methy Formation, a now obsolete stratigraphic term. In the present study, the Prairie Evaporite section east of the Athabasca River Valley has been subdivided into two informal units: an uppermost Prairie 'Collapse' and a lower Prairie 'Intact'.