

COMPARISON OF FORELAND BASIN SEQUENCES: TRENTON GROUP IN SOUTHERN QUEBEC AND CENTRAL NEW YORK

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Numerous high angle faults are recognizable within the autochthonous Middle Ordovician (Trenton Group) shelf sequence in southern Quebec. These faults were active during deposition of the Trenton limestones as evidenced by rapid thickness changes over short distances on the shelf, abrupt facies changes between fault blocks and associated slump-fold zones. Syndepositional block faults have been described recently from the Trenton Group of central New York. The times of movement were documented by use of the numerous interbedded bentonite beds. Bentonites, although present in the Trenton Group in southern Quebec, are not abundant enough to correlate fault blocks. Instead, the syndepositional nature of the fault blocks can be seen by examining the facies distribution of the Deschambault limestone. The Deschambault Limestone represents a skeletal buildup on the Trenton shelf, similar to those described from the southern Appalachians. The core facies of the buildups is exposed in the Pont Rouge region. Flank facies are present to the west, near Joliette. The buildup facies are absent both downshelf and upshelf. Using the buildup facies as marker beds, at least one period or movement can be recognized. Fault blocks were primarily active after the Deschambault deposition.

The Trenton in southern Quebec can be compared to that in New York and southern Ontario. The facies changes among these areas can be shown to be controlled by proximity to or position within the Taconic foreland basin.

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