

### **Horton basin inversion event in the Moncton Subbasin, New Brunswick**

W.A. Nickerson

*Department of Earth Sciences, Memorial University of Newfoundland, St. John's, Newfoundland A1B 3X5, Canada*

Released industry seismic data in the Moncton Subbasin imaged sedimentary rocks of the Horton Group in half-grabens with northeast-trending, northwest-dipping listric basin-bounding faults. These faults have been reactivated, inverting the Horton basin and partially extruding the basin fill before the Windsor Group was deposited in Viséan time.

Seismic cross-sections and mapped fault patterns show

that the structural expression of this inversion event changes systematically along the basin's southeastern boundary with the Caledonia mountains. Analysis of the cross-section and published geological map data suggest that a combination of compressional and dextral strike-slip deformation has taken place.