

**Faulting and progressive strain history of the Gaspé Belt
during the middle Devonian Acadian orogeny: tectonic implications**

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In Gaspé Peninsula, the kinematic analysis of major Acadian faults and their relationship to the Baie Verte-Brompton Line (BBL), as well as a strain study of rocks within the Upper Ordovician to Upper Devonian Gaspé Belt are used to unravel the post-Taconian deformational history of the Acadian external zone in the Québec Reentrant. Earliest structures recorded along the BBL are pre-Silurian ductile shear zones related to Taconian accretionary processes. Late Silurian normal faults parallel to the BBL in northeastern Gaspé were active during sedimentation of the Gaspé Belt rocks. These faults are contemporaneous with the development of the Salinic disturbance and to closure of a back-arc basin further southeast (documented in New Brunswick). Middle to late Devonian

brittle/ductile dextral strike-slip faulting along the BBL in northern Gaspé, and along east-trending faults (e.g., Grand Pabos) which displace the BBL in southern Gaspé, as well as northeast-trending thrust and high-angle reverse faults are related to a transpressive regime of deformation during the Acadian oblique convergence between composite Laurentia and the Gander margin of Gondwana. The transpressive strain was partitioned in time between pure shortening and reverse faulting followed by simple shear deformation with orogen-parallel extension and dextral transcurrent faulting. Reverse and strike-slip faults are probably related to a same crustal decollement at the boundary between the supracrustal sequence and the Grenville basement of composite Laurentia.