

Examples of Carboniferous structural styles determined from seismic data in the Cabot Strait

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Four main structural features, apart from the dominant northeast-trending strike-slip faults, have been identified within Carboniferous sedimentary rocks of the Cabot Strait, which forms the northeastern extent of the Maritimes Basin. Conventional reflection seismic lines from this area can be

described in terms of these four features or styles, which are as follows: thrusts and detachments, basin inversion structures, east-trending faults and salt-related tectonics. Thrust and detachment faults are localized at the base of the Windsor-Codroy, where salt acts as a lubricating layer, and per-

haps within shale layers in the Horton-Anguile. Inversion structures suggest contraction of small linear troughs which parallel the major faults, thereby ejecting sedimentary fill. East-trending faults are identified on the basis of seismic, potential field and onshore geological data. These, in combi-

nation with the dominant northeast-trending strike-slip faults, subdivide the area into blocks with characteristic structural styles. Finally, salt-related tectonics involves structures actually formed by movement of salt itself, such as ridges, swells and pillars, and associated deformed sediments.