
**The second round of Targeted Geoscience Initiative:
evaluation of resource potential of the Appalachian
basins in eastern Canada**

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The second round of TGI 2 activities was announced in the last federal budget. A total of 10M\$ was allocated over a two year period (2003–2005). In collaboration with the provincial geological surveys of Quebec, New Brunswick, Nova Scotia and Newfoundland, the Geological Survey of Canada proposed a 1.8M\$ (federal operating dollars) Appalachian project which was accepted by the TGI 2 steering committee. On-going activities vary from one jurisdiction to the other; however, all have in common a better understanding of the Appalachian geological framework and its resource (hydrocarbon, minerals) potential.

In Quebec, activities focus on 1) the definition through a marine seismic program, of the architecture of the gas-bearing Quaternary sands in the St. Lawrence estuary, and 2) the subsurface Paleozoic architecture of eastern Quebec based on interpretation and integration of new gravimetric and high-resolution aeromagnetic surveys and reprocessing of ground seismic reflection data. In New Brunswick, activities include 1) definition, through detailed maturation, potential source rock, and reservoir studies, of the recently documented hydrocarbon potential of the post-Taconian successions in the northern part of the province, 2) construction of a web-accessible database for the extensive set of organic matter and maturation data in the Carboniferous basins of southern New Brunswick, and 3) definition through a high-resolution aeromagnetic survey

of the subsurface architecture of Carboniferous and pre-Carboniferous units in the Marrtown – Sussex area. In Nova Scotia, the project is focussed on the Carboniferous basin limited by the Cobequid – Chedabucto fault system. Integration of new and reinterpreted geological and geophysical data will provide key synthesis for the resource potential of this poorly known area. In western Newfoundland, the activity will target the definition of the geological evolution of the Humber Arm Allochthon and the evaluation of its hydrocarbon source rock and reservoir potential. Almost all these activities are in progress and acquisition of geophysical data is planned to be completed in the first year of the project in order to have the release of interpreted and integrated products at the end of the two-year project.