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Geological Investigations in New Brunswick

(3 papers – pdf format)

1. Seismic and Borehole Evidence for the Existence of Petroleum Reservoirs in the Eastern Offshore of New Brunswick

Steven J. Hinds, Leslie R. Fyffe, and Adrian F. Park
Geological Surveys Branch - New Brunswick Department of Natural Resources and Energy and Development

New Brunswick’s offshore jurisdiction comprises approximately 2.3 million hectares, or 24% of the province’s total onshore and offshore area of 9.6 million hectares. Previous exploration in this offshore region occurred between 1967 and 1982 and the seismic and borehole information generated during that time is re-examined in this report, in terms of the current understanding of the geological characteristics of recently discovered onshore petroleum reservoirs in New Brunswick. In the southern part of onshore New Brunswick, Early Carboniferous sedimentary rocks of the Maritimes Basin contain evidence of an extensive petroleum system extending ...

2. The Guitard Brook East Shear Zone-hosted Au–As–Ag–Cu Occurrence, Northern New Brunswick

James A. Walker
Geological Surveys Branch - New Brunswick Department of Natural Resources and Energy and Development

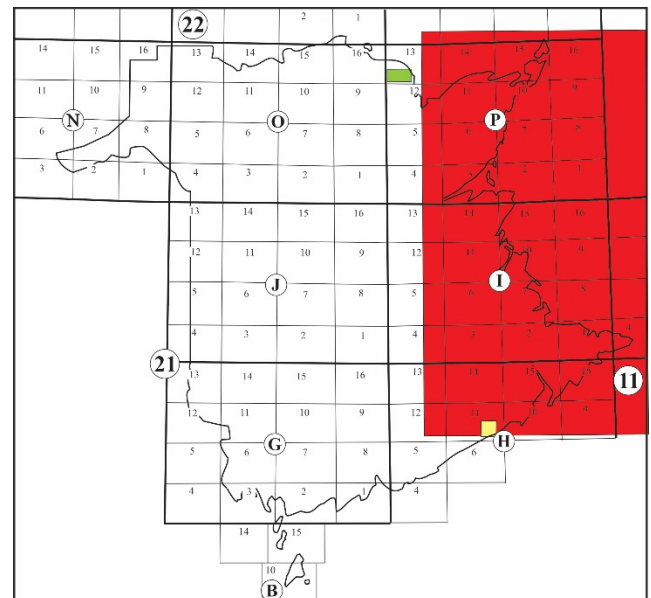
The Guitard Brook East Au–As–Ag–Cu mineral occurrence is the first significant shear zone-hosted gold mineralization recognized in allochthonous mafic volcanic and intrusive rocks of the Fournier Supergroup in the Elmtree Inlier of northern New Brunswick. The host rocks are assigned to the Ordovician Devereaux Complex, specifically mafic plutonic rocks of the Black Point Gabbro, and associated fine-grained mafic dykes of the Turgeon Road Formation.

The mineralized zone has been intersected over a strike length of 400 m and width of 200 m and to depths of 300 m. The best assay ...

3. Petrogenesis of plutonic and volcanic rocks and associated mineralization in the Goose Creek area, Caledonia Highlands, southeast New Brunswick

Ayalew L. Gebru
Geological Surveys Branch - New Brunswick Department of Natural Resources and Energy and Development

Several types of plutonic rocks occur in the Goose Creek area of the Caledonia Highlands in southeastern New Brunswick, including the: 1) Old Shepody Road Granite, 2) Forty Five River Granodiorite, 3) Goose Creek Trondhjemite, previously known as the Goose Creek Leucotonalite, 4) microgranite to syenogranite, and 5) dioritic to gabbroic rocks. All of these plutons intrude the Neoproterozoic Hayward Brook Formation (Broad River Group), which comprises mafic to felsic volcanic rocks and associated sedimentary rocks. Several base-metal occurrences (e.g., Goose Creek-Gordon and Quidy River), some of which contain gold or silver ...



shades on map denote study areas

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