

LEGEND

- CARBONIFEROUS OR (?) PERMIAN  
PENNSYLVANIAN OR (?) LATER
- 8 BROAD COVE FORMATION: red shale, red sandstone
- CARBONIFEROUS  
PENNSYLVANIAN  
PICTOU GROUP
- 7 INVERNESS FORMATION: grey sandstone, grey shale, arkose, coal
- RIVERSDALE GROUP
- 6 PORT HOOD FORMATION: grey sandstone, grey and red shale, coal
- MISSISSIPPIAN AND (?) PENNSYLVANIAN  
CANOE GROUP
- 5 MABOU FORMATION: grey and brownish red shale, grey sandstone, limestone
- MISSISSIPPIAN
- 4 WINDSOR GROUP  
Red shale, siltstone, mudstone, limy shale, limestone, gypsum, anhydrite
- HORTON GROUP
- 3 Grey and red shale, sandstone, conglomerate, arkose
- DEVONIAN (?)
- 2 Granite
- CAMBRIAN OR (?) EARLIER
- Tuff, breccia, amygdaloidal lava, shale, arkose, sandstone

- Rock outcrop, outcrop area ..... X
- Bedding (inclined, vertical, overturned) ..... / / /
- Schistosity, gneissosity (inclined, vertical, dip unknown) ..... / / /
- Fault (defined, assumed) ..... - - - - -
- Fossil locality ..... ⊙
- Cool seam ..... NS L
- Gypsum (outcrop, sink hole) ..... S.H.
- Staff, slope ..... a
- Bore-hole ..... B.H.

Geology by H. I. Cameron, 1946, 1947

DESCRIPTIVE NOTES

The map-area is part of a coastal region bordering on and merging with the highland mass of northern Cape Breton Island. Topographically it shows the result of renewed erosion on an uplifted and tilted peninsula of post-Triassic age. The old erosion surface is represented by the flat-topped highlands underlain by resistant, early Carboniferous and pre-Carboniferous rocks. The major stream valleys, such as the Margaree and its branches, have been excavated on the softer formations of the Windsor and Canoe groups.

The oldest rocks in the area are those of a sedimentary and volcanic assemblage (1) underlying the Lower Mississippian, Horton group. The sedimentary members comprise altered grey and reddish brown shale, grey sandstone, and arkose. The volcanic constituents include dark green and brown, fine-grained tuff, with some amygdaloidal lava, and a few bands of volcanic breccia. Commonly they are sheared and chloritized. Rocks of this assemblage are well exposed on Pine and Angus Brooks in the southeast, and on Golan Brook and its tributaries along the eastern side of the area. Intruding these rocks are dykes and irregular masses of granite (2). A great unconformity is believed to separate these older rocks from those of the overlying Carboniferous formations.

The Horton group (3) occupies extensive higher parts of the area, where it consists of red and grey shales, red sandstone, grey arkose, and conglomerate. These rocks are believed to be the equivalent of the Horton group of Lower Carboniferous age, as determined in Lake Ainslie map-area to the south, but the possibility exists that in both areas the lowest members, as mapped, may be pre-Carboniferous and, consequently, of pre-Horton age.

Rocks of the Windsor group (4) of Upper Mississippian age disconformably overlie the Horton, though the contact is a fault in many places. Rocks of this group comprise red and grey shale, buff limestone, gypsum, anhydrite, and a dark grey, laminated basal limestone. The last is easily recognizable and is remarkably persistent for long distances. The Windsor strata are much folded and faulted.

The Canoe group (5) overlies Windsor strata disconformably, and is the equivalent of the Mabou formation of the Lake Ainslie area. It is mainly or entirely of Upper Mississippian age and terrestrial origin, and comprises red shale, grey sandstone, and minor, thin limestone beds.

Overlying the Canoe rocks is the Riversdale group, represented by the Port Hood formation (6) of Lower Pennsylvanian age, comprising massive grey sandstone with interbedded red and grey shale. Near the top of the formation is a coal-bearing zone, which is well exposed in the sea cliffs of Chimney Corner and from which coal is mined near St. Rose.

The Inverness formation (7), of the Pictou group, is of Upper Pennsylvanian age, and comprises grey sandstone, arkose, grey shale, and coal seams. The last provide a large production of Inverness, a few miles south of the map-area.

The Broad Cove formation (8) of red shales and sandstones overlies the Inverness strata with apparent conformity. It has been assigned to the Upper Pennsylvanian, but may be of Permian age.

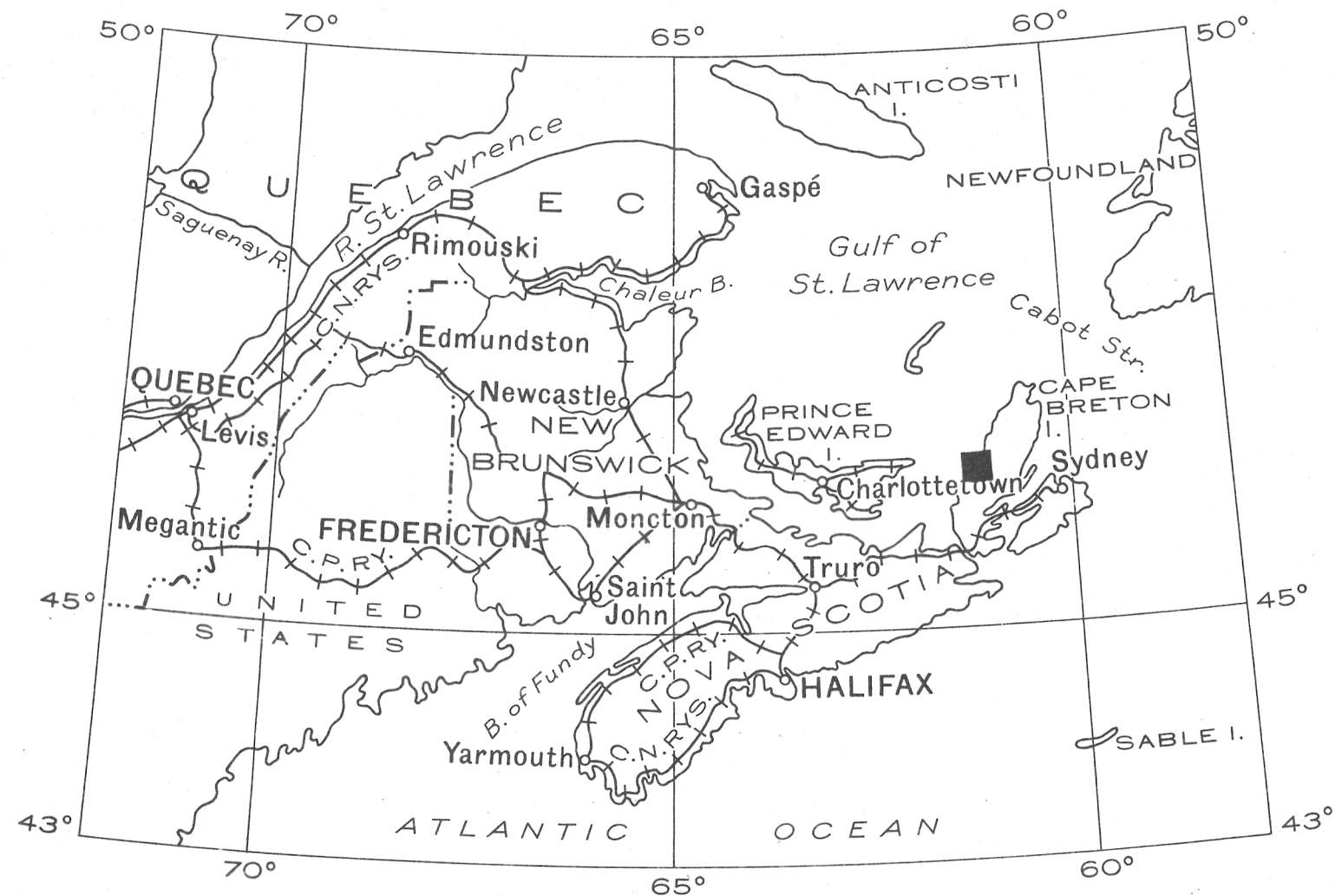
Deposits of stratified sands, gravels, and clays of glacial origin occur throughout the area. Thick deposits occur at Dunvegan, Margaree Forks, North-east Margaree Gap, and Margaree Harbour.

The structure and structural history of the pre-Carboniferous rocks are obscure. Open folding in the Carboniferous rocks produced large synclinal and anticlinal structures, the most prominent of which is the Broad Cove-Margaree Harbour syncline. Subsequently the rocks of the entire map-area were divided into a series of fault blocks.

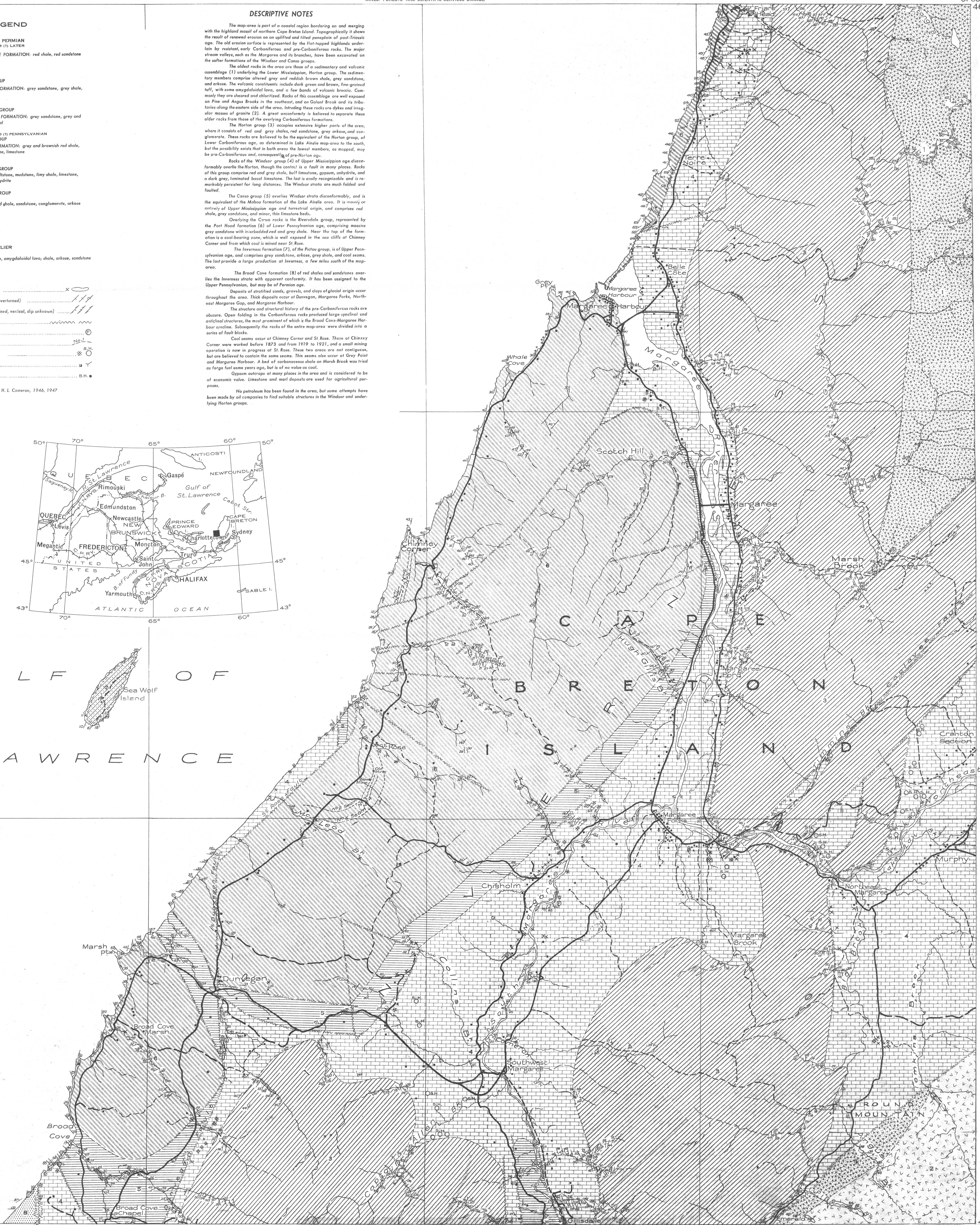
Cool seams occur at Chimney Corner and St. Rose. Those at Chimney Corner were worked before 1873 and from 1919 to 1921, and a small mining operation is now in progress at St. Rose. These two areas are not contiguous, but are believed to contain the same seams. This seams also occur at Grey Point and Margaree Harbour. A bed of carbonaceous shale on Marsh Brook was tried as forge fuel some years ago, but is of no value as coal.

Gypsum outcrops at many places in the area and is considered to be of economic value. Limestone and marl deposits are used for agricultural purposes.

No petroleum has been found in the area, but some attempts have been made by oil companies to find suitable structures in the Windsor and underlying Horton groups.

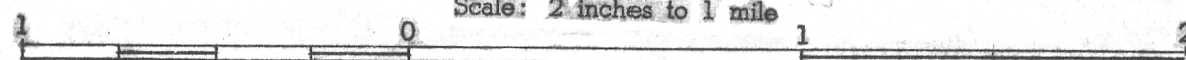


GULF OF  
ST. LAWRENCE



MAP 48-11A  
MARGAREE  
INVERNESS COUNTY  
NOVA SCOTIA

Scale: 2 inches to 1 mile



BASE MAP SURVEYED BY THE TOPOGRAPHIC SURVEY  
CONTROLED BY THE GEOLOGICAL SURVEY OF CANADA