

HIGHER STRUCTURAL SLICES OF IGNEOUS AND METAMORPHIC ROCKS

SKINNER COVE SLICE ASSEMBLAGE

**7** LOWER ORDOVICIAN (?)  
**SKINNER COVE FORMATION:** Well-bedded argillaceous and buff weathered black to dark grey pillow lava, porphyritic (feldspar) pink trachyte, minor red siltstone, sandstone and limestone

OLD MAN COVE SLICE

LOWER ORDOVICIAN OR OLDER  
**OLD MAN COVE FORMATION:** Polydeformed greenschists

LITTLE PORT SLICE ASSEMBLAGE

**12** LOWER ORDOVICIAN AND OLDER  
**LITTLE PORT COMPLEX (9-12):** Green and red mafic pillow lava, pillow breccia and agglomerate, minor sedimentary rocks. 12a includes porphyritic (quartz) acidic tuffs and flows

**11** Altered mafic dykes, locally sheeted and commonly brecciated

**10** Medium- to coarse-grained grey to pink quartz diorite locally well foliated

**9** Foliated and banded gabbro, polydeformed amphibolite gabbro, polydeformed green amphibolite

BAY OF ISLANDS SLICE ASSEMBLAGE

LOWER ORDOVICIAN AND OLDER  
**BAY OF ISLANDS COMPLEX (13-19):** Purple to brownish red sandstone, grey to green and red shale and siltstone, and pebbly conglomerate

**18** Dark green mafic pillow lava, minor agglomerate, pillow breccia, and clastic sedimentary rocks; includes numerous mafic dykes near contact with sheeted dykes (17)

**17** Altered mafic sheeted dykes and brecciated dyke rocks

**16** Gabbroic rocks. Bytownite gabbro anorthositic clinopyroxene and trachyte all commonly altered

**15** Ultramafic rocks. Peridotite dunite minor orthopyroxene, includes bands of feldspathic dunite, clinopyroxene and anorthositic gabbro near their contact with gabbroic rocks (16), and their zone at their base. All rocks are commonly serpentinized

**14** Garnetiferous amphibolite, banded amphibolite, polydeformed amphibolite and greenschist, garnetiferous pelitic schist, aureole beneath ultramafic rocks (15)

**13** Fine- to medium-grained black amphibolite, inclusions in gabbro (16)

LOWER STRUCTURAL SLICES OF CLASTIC SEDIMENTARY ROCKS  
HUMBER ARM SLICE ASSEMBLAGE

LOWER ORDOVICIAN AND EARLY MIDDLE ORDOVICIAN (?)

**5** **BLOW-ME-DOWN BROOK FORMATION:** grey to buff arkosic sandstone, greywacke, dark grey and red argillite, minor red micaceous sandstone; 5a, Woods Island Member, red and green agglomerate and pillow lava

LOWER ORDOVICIAN

**4** **MIDDLE ARM POINT FORMATION:** interbedded black and green shale and argillite, dark grey shale, buff weathering siltstone, dolomitic siltstone, and dolomite breccia. 4a, includes thick sandstone units transitional into overlying Blow-Me-Down Brook Formation (5), and minor strata of Cooks Brook Formation (3)

MIDDLE CAMBRIAN TO LOWER ORDOVICIAN

**3** **COOKS BROOK FORMATION:** thinly bedded dark grey shale and light grey platy limestone, siltstone and argillaceous limestone, and thick limestone breccia units; locally includes Middle Arm Point Formation (4)

LOWER CAMBRIAN, MIDDLE CAMBRIAN (?) AND OLDER (?)

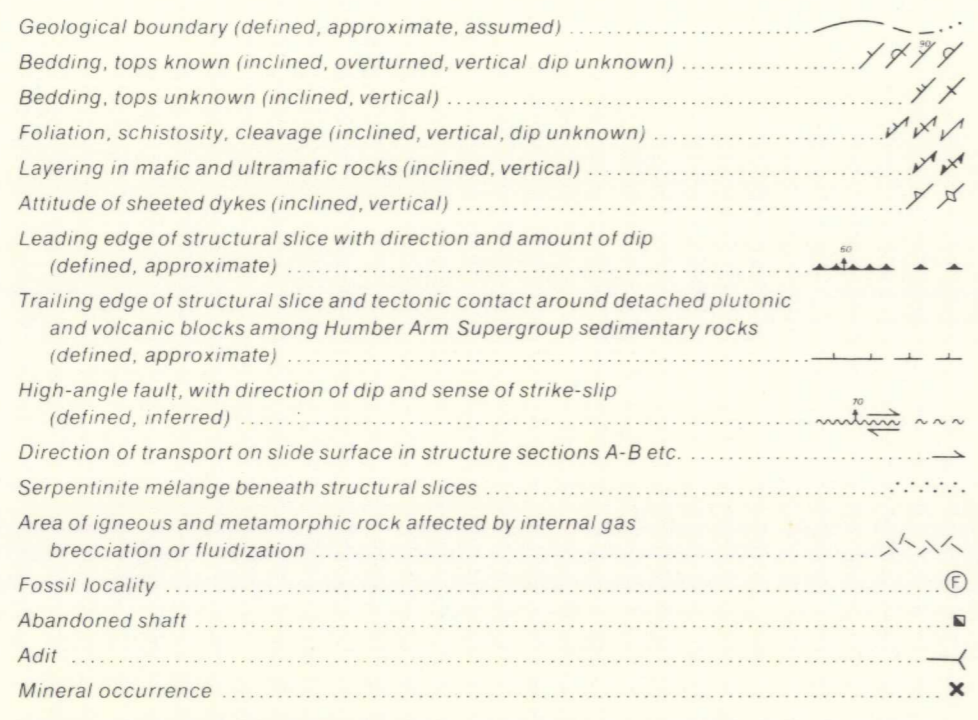
**2** **IRISH TOWN FORMATION:** dark grey shale with thin grey to buff siltstone and sandstone beds and local thick white quartzitic sandstone and conglomerate units. 2a, includes Cooks Brook Formation (3) and uncalibrated sandstone and shale between Voy's Beach and Frenchman's Head

HUMBER ARM SUPERGROUP (UNDIVIDED)

**1** **SUMMERSIDE FORMATION:** grey, green, and red shale and argillite, siltstone, and greywacke; locally includes younger formations of the Humber Arm Supergroup

**6** HUMBER ARM SUPERGROUP (UNDIVIDED)

**6a** Chaotic sedimentary rocks. Mainly interbedded dark grey, black, and green shale of Middle Arm Point Formation (4) with discontinuous thick-bedded arkosic sandstone units (blocks ?) of Blow-Me-Down Brook Formation (5). **6b** Companion Melange. Unsorted blocks of Cooks Brook and Middle Arm Point type toward the east with increasing numbers of Blow-Me-Down Brook blocks toward the west all set in a dark grey to green and black shale matrix. Locally includes volcanic and gabbro boulders up to 100 feet in diameter at Woods Island. **6c** white quartzitic sandstone, brown quartz sandstone, grey shale, and minor oolitic limestone, possibly equivalent to Cooks Brook Formation (3)



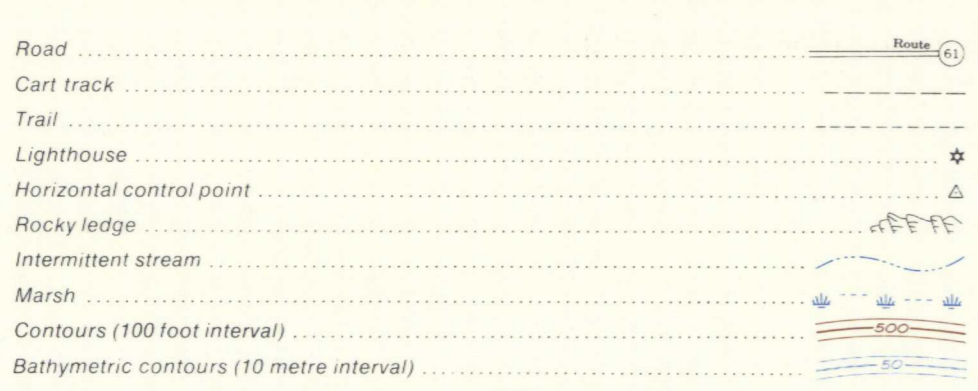
**MINERALS**

Asbestos	asb	Pyrite	py
Chalcocopyrite	cp	Pyrrhotite	po
Chromite	cr		

Geology of Bay of Islands complex after John G. Malpas, C.H. Smith and British Newfoundland Exploration Limited in part; geology of the Little Port complex after Reginald Comesa and British Newfoundland Exploration Limited in part, and geology of Humber Arm area after R. K. Stevens in part. Reconnaissance geology of entire area, compilation, and synthesis by Harold Williams, 1970-1971

Geological cartography by the Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada



Bathymetry from Natural Resource Chart 15098, Canadian Hydrographic Service, 1972

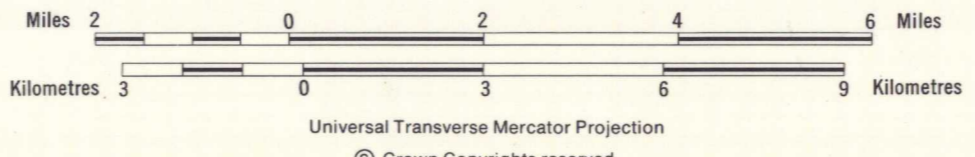
Base-map cartography by the Geological Survey of Canada from maps published at 1:250,000 scale by the Army Survey Establishment, R.C.E. in 1959

Approximate magnetic declination 1972, 27° 50' west, decreasing 3.7' annually

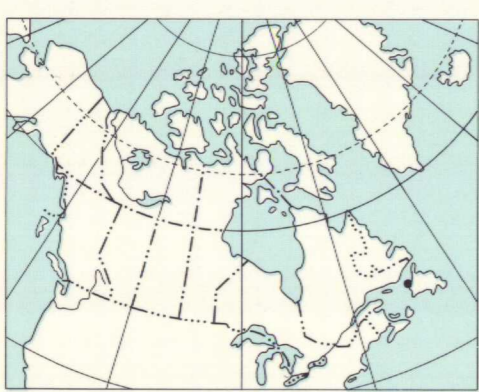
Elevations in feet above mean sea-level

MAP 1355A  
PAPER 72-34  
GEOLOGY  
**BAY OF ISLANDS**  
NEWFOUNDLAND

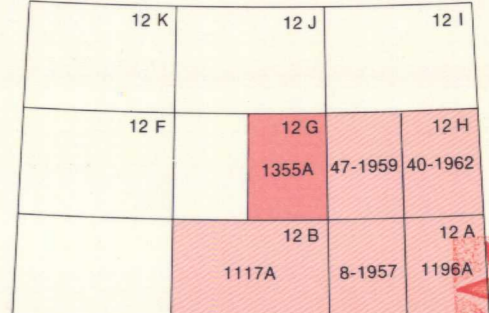
Scale 1:125,000



Universal Transverse Mercator Projection  
© Crown Copyrights reserved



G 3401-C5  
1910-  
G4  
ommc-



NOT TO BE TAKEN FROM LIBRARY  
NE PAS SORTIR DE LA BIBLIOTHÈQUE

MAP 1355A  
**BAY OF ISLANDS**  
NEWFOUNDLAND