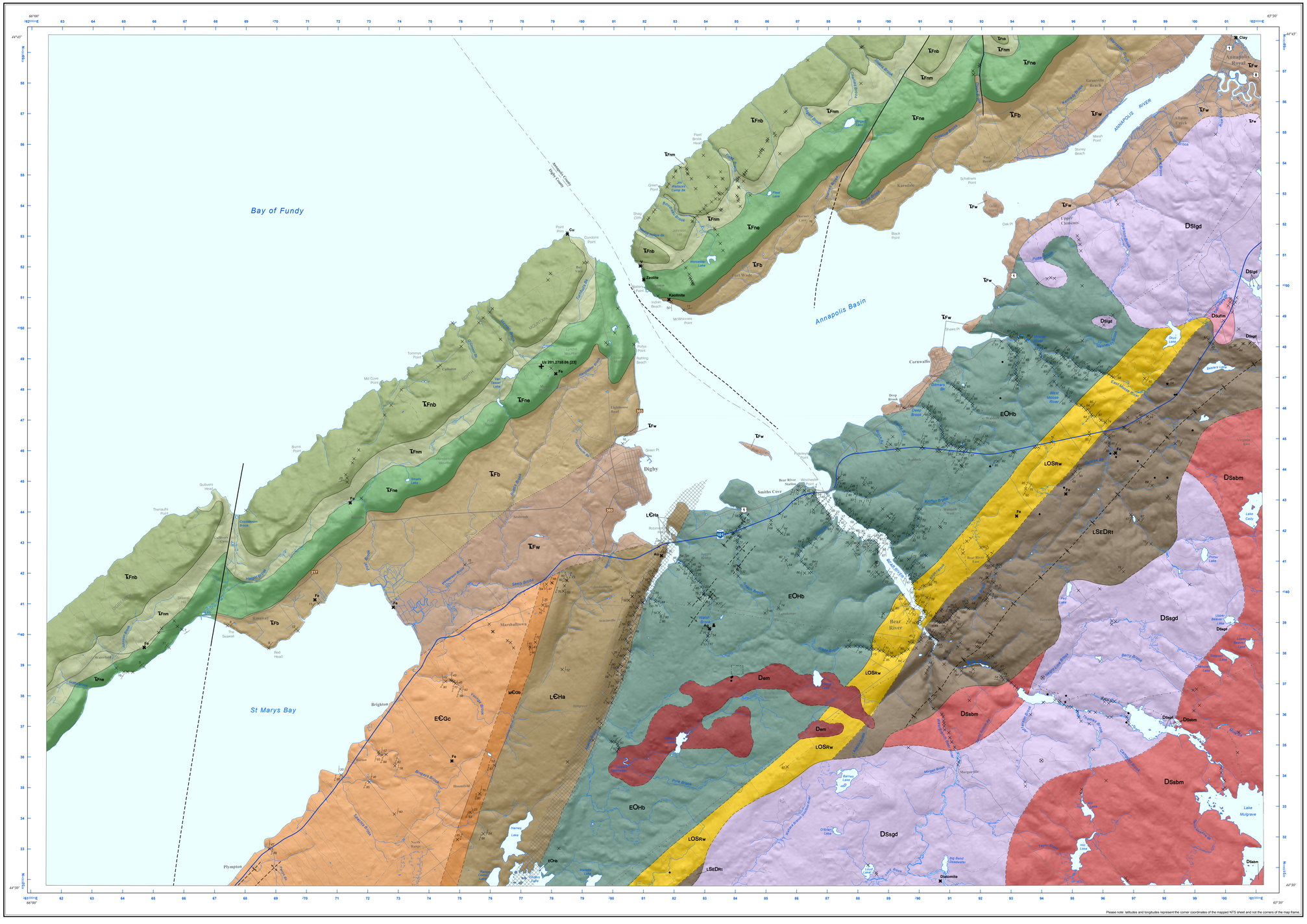


Please note: latitudes and longitudes represent the corner coordinates of the mapped NTS sheet and not the corners of the map frame.

LEGEND

MESOZOIC

LATE TRIASSIC

FUNDY GROUP

NORTH MOUNTAIN FORMATION (adapted from Kontak and Webster, 2010a, b)

- TRfne — BRIER ISLAND MEMBER (Upper Flow Unit) (TRfne): dark grey to grey-green, medium-grained, ophitic basalt with plagioclase and pyroxene microcrysts
- TRfnm — MARGARETSVILLE MEMBER (Middle Flow Unit) (TRfnm): dark grey to grey-green and red-brown, massive to vesiculated, fine-grained basalt; abundant zeolite phases
- TRfnb — EAST FERRY MEMBER (Lower Flow Unit) (TRfne): grey-green, fine- to medium-grained, massive basalt with microcrysts of plagioclase and pyroxene; gabbroic pegmatite common

MIDDLE TO LATE TRIASSIC

- TRfb — *BLOMIDON FORMATION* (TRfb): red-brown to locally grey-green siltstone and minor sandstone and shale; caliche nodules common; rare evaporite beds
- TRfw — *WOLFVILLE FORMATION* (TRfw): pink to red, coarse-grained sandstone and conglomerate with minor red to red-brown siltstone and shale

PALEOZOIC

LATE DEVONIAN

- Dem — ELLISON LAKE PLUTON (Dem): grey, medium- to coarse-grained muscovite-biotite monzogranite and granodiorite with locally well-developed K-feldspar megacrysts

SOUTH MOUNTAIN BATHOLITH (listed in order of increasing mafic mineral content; modified after MacDonald, 1994)

- DSufm — UNNAMED PLUTONIC BODIES LEUCOMONZOGRANITE (DSufm): buff, orange, white, pink, red; predominantly fine- to medium-grained, minor coarse-grained; variably porphyritic and equigranular, minor pegmatitic leucomonzogranite; metasedimentary xenoliths rare
- DSsbm — SCRAG LAKE BIOTITE MONZOGRANITE (DSsbm): light to medium grey; predominantly medium- to coarse-grained; megacrystic or seriate; metasedimentary xenoliths common to abundant
- DSdpt / DSsgd — LEQUILLE (DSlgd) SCRAG LAKE (DSsgd) BIOTITE GRANODIORITE: light to medium grey; predominantly medium- to coarse-grained, minor fine-grained; megacrystic or seriate; metasedimentary xenoliths abundant

LATE ORDOVICIAN TO EARLY DEVONIAN

ROCKVILLE NOTCH GROUP

- LSEDRt — *TORBROOK FORMATION* (LSEDRt): dark grey to black metasiltstone and calcareous metasiltstone with minor slate, metasandstone, marble, quartzite and rare ironstone; abundant shelly fossils
- LOSRw — *WHITE ROCK FORMATION* (LOSRw): grey to dark grey slate and metasiltstone and minor light grey to white, thickly bedded quartzite; abundant pinkish-grey calc-silicate lenses; rare marble

EARLY CAMBRIAN TO EARLY ORDOVICIAN

HALIFAX GROUP

- EOHb — *BEAR RIVER FORMATION* (EOHb): light to dark grey, well-laminated, cleaved metasiltstone with thin beds of slate; minor medium- bedded, fine-grained metasandstone; trace fossils and bioturbated beds common; minor mafic sills
- LCHa — *ACACIA BROOK FORMATION* (LCHa): grey to dark grey, laminated slate with minor, thin beds and lenses of light grey metasiltstone; medium-bedded, crosslaminated, fine- to medium-grained metasandstone; sulphide minerals common; minor mafic sills

GOLDENVILLE GROUP

- mECGb — *BLOOMFIELD FORMATION* (mCGb): maroon and green to grey, thin- to medium-bedded metasiltstone to slate; rare thin-bedded, fine-grained metasandstone; minor mafic sills
- ECGc — *CHURCH POINT FORMATION* (ECGc): grey, medium- to thick-bedded, very fine- to medium-grained metasandstone locally interlayered with green, cleaved metasiltstone, and rare black slate; calc-silicate nodules common; minor mafic sills

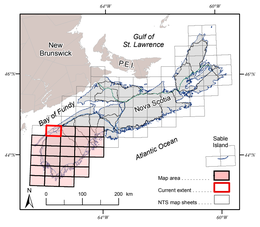
Symbols*

- Outcrop, Float, Felsenmeer
- Quarry (operating, abandoned)
- Mine (abandoned)
- Shaft
- Fossil
- Drillhole (after Fisher, 2006)
- Mineral occurrence (modified after O'Reilly et al., 2009)
  (Ag - silver, As - arsenic, Au - gold, Be - beryllium, Bi - bismuth, Co - cobalt, Cu - copper, F - fluorine, Fe - iron, Li - lithium, Mo - molybdenum, Pb - lead, Sb - antimony, Si - silicon, Sn - tin, U - uranium, V - vanadium, W - tungsten, Zn - zinc)
- Radiometric date (Ma) [reference]**
  U-Pb (z - zircon, m. - monazite, dz - detrital zircon, zm - zircon monazite, t - titanite, wr - whole rock)
  $^{40}Ar/^{39}Ar$ (b - biotite, h - hornblende, m - muscovite, p - phlogopite, wr - whole rock)
  $^{207}Pb/^{206}Pb$ (wr - whole rock)
- Bedding; tops known (inclined, vertical, overturned)
- Bedding; tops unknown (inclined, vertical)
- Fold axis; first generation (fold style unknown, m fold, s fold, z fold)
- Fold axis; second generation (fold style unknown, m fold, horizontal)
- Fold axis; third generation (fold style unknown)
- Fold axis; unknown generation (fold style unknown, horizontal)
- Cleavage; first generation (inclined, vertical)
- Cleavage; second generation (inclined, vertical)
- Kink band; first generation, inclined (sinistral)
- Geological contact (assumed, approximate, defined)
- Fault (assumed, approximate, defined)
- Antiline (assumed, approximate, defined)
- Overturned anticline (approximate, defined)
- Syncline (assumed, approximate, defined)
- Overturned syncline (approximate)
- Shear zone
- Historical gold district (after Fisher, unpublished)
- Area of concentrated drilling
- Rock in water
- Arterial highway
- Trunk highway
- Collector highway
- Hard surface road
- Loose surface/resource access road
- Trail, footpath, cart track
- Railway (active, inactive)
- Coastline
- River, stream
- County boundary
- Transmission line (multi, single line)
- National Park
- Wetlands
- Lake/ocean

* **Note:** Compiled symbols list for Open File Maps ME 2012-077 to 2012-101. All symbols may not appear on each map.

** **References for Selected Radiometric Age Dates**

[23] Schoene, B., Crowley, J. L., Condon, D. J., Schmitz, M. D. and Bowring, S. A. 2006: Reassessing the uranium decay constants for geochronology using ID-TIMS U-Pb data; Geochimica et Cosmochimica Acta, v. 70, p. 426-445.



Descriptive Text

In 1998 the Nova Scotia Department of Natural Resources initiated a program of geological mapping of the Meguma Terrane of southwestern Nova Scotia. The principal goals of this project are to produce a series of 1:50 000 scale geological bedrock maps of the area, to describe and interpret the sedimentary, igneous, metamorphic and deformational history of the Cambrian to Early Devonian metamorphic rocks, and to evaluate the area's economic potential. This map represents the first in a series of 25 maps highlighting the bedrock geology of southwestern Nova Scotia.

These new maps, combined with stratigraphic, geochemical, geochronological, paleontological and isotopic data (White, 2010; White and Barr, 2010), have highlighted the need to produce a new stratigraphic paradigm together with the 1:50 000 scale geological maps for the Meguma Terrane.

Disclaimer

The information on this map may have come from a variety of government and nongovernment sources. The Nova Scotia Department of Natural Resources does not assume any liability for errors that may occur. This map is intended for use at the published scale of 1:50 000.

Map Notes

GIS databases, cartography and reproduction by Angie Ehler, Brian Fisher and Jeff McKinnon of the Nova Scotia Department of Natural Resources, Geoscience Information Services Section, 2009-2012. The GIS databases and map were developed using ArcGIS® 9.3.

Universal Transverse Mercator Projection (UTM), Zone 20, Central Meridian 63°00' West.

North American Datum (NAD) 1983 Canadian Spatial Reference System (CSRS) 98.

Base and digital data derived from the Nova Scotia Topographic Database (NSTDB). Copyright Her Majesty the Queen in Right of the Province of Nova Scotia. The NSTDB is available from Service Nova Scotia and Municipal Relations (SNSMR), Land Information Services Division (LIS), Nova Scotia Geomatics Centre (NSGC), Amherst, Nova Scotia.

Shaded relief image derived from a 25 m Digital Elevation Model of the Province of Nova Scotia, DP ME 56, version 2, 2006. Azimuth of 0°, sun angle of 45° and a vertical exaggeration of 5.

Nova Scotia Department of Natural Resources
Mineral Resources Branch

Open File Map ME 2012-077

Bedrock Geology Map of the Digby Area, NTS Sheet 21A/12, Annapolis and Digby Counties, Nova Scotia

C. E. White, R. J. Horne and L. J. Ham

Scale 1:50 000

1 0 1 2 3 4 km

Halifax, Nova Scotia
2012

Acknowledgments

S. Barr, R. Raeside and G. O'Reilly are thanked for numerous discussions regarding the geology of southwestern Nova Scotia and the use of samples and unpublished information. Summer students C. Muir and J. Hunter contributed to the mapping on this sheet. T. Lenfesty and J. Brenton are thanked for their help in the departmental library. Map was critically reviewed by S. Barr.

Recommended Citation

White, C. E., Horne, R. J. and Ham, L. J. 2012: Bedrock geology map of the Digby area, NTS sheet 21A/12, Annapolis and Digby counties, Nova Scotia; Nova Scotia Department of Natural Resources, Mineral Resources Branch, Open File Map ME 2012-077, scale 1:50 000.

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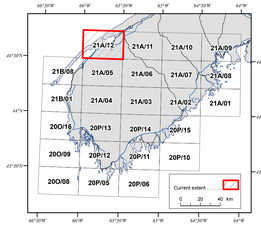

NOVA SCOTIA

Open File Map ME 2012-077

Oct 15, 2012

[1] Internal Search Number (ISN) is a unique identifier used in NovaScan - the Nova Scotia Geoscience Maps and Publications Database. The ISN can be used to retrieve a digital version of the listed citation - http://www.gov.ns.ca/natr/meb/default.asp