

Nova Scotia Department of Natural Resources  
Mineral Resources Branch  
Open File Map ME 2009-3

# Bedrock Geology Map of the Pockwock Lake Area, Part of NTS Sheet 11D/13 (Sheet 2 of 4), Halifax and Hants Counties, Nova Scotia

R.J. Home, R.J. Ryan, M.C. Corey and D.L. Fox

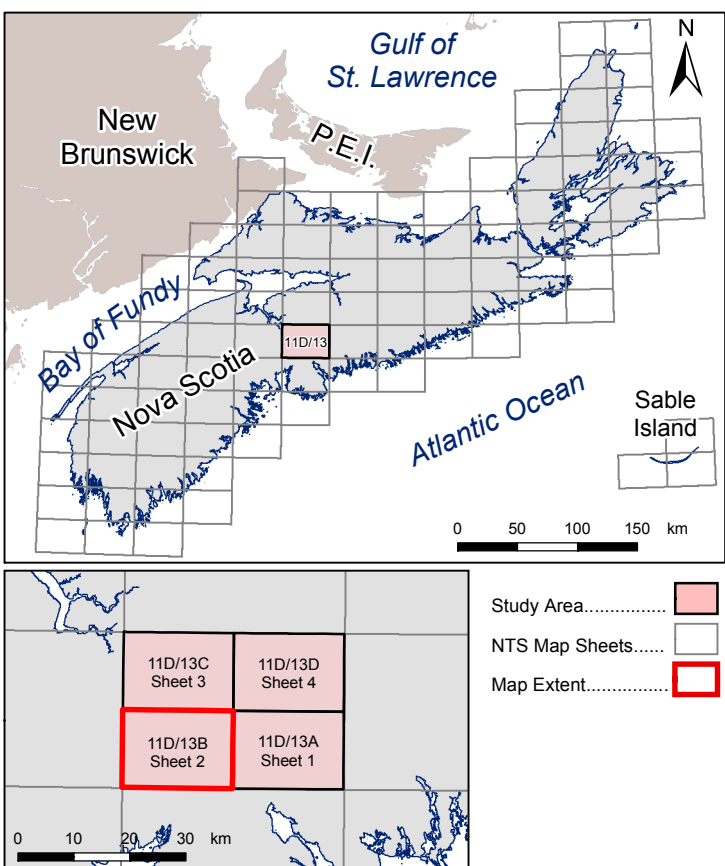
Scale 1:25 000

Halifax, Nova Scotia  
2009

**NOVA SCOTIA**  
Natural Resources

Crown Copyright © 2009, Province of Nova Scotia, all rights reserved.

## Regional Key Map



## Map Notes

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.

Cartography and reproduction by Nova Scotia Department of Natural Resources, Geoscience Information Services Section, 2009.

Final map product created using ArcMap 9.3 software.

## Acknowledgments

Partial funding provided by Canada - Nova Scotia Cooperation Agreement on Mineral Development 1992-1995.

Cartography and reproduction by Nova Scotia Department of Natural Resources, Geoscience Information Services Section.

## 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 1:25 000.

## Selected References

Corey, M.C. 1987: Geological map of Mount Unlace (NTS sheet 11D/13 west half); Nova Scotia Department of Mines and Energy, Map 87-8, scale 1:50 000.

Giles, P.S. and Boehmer, R.C. 1962: Geological map of the Shubenacadie and Musquodoboit basins, central Nova Scotia; Nova Scotia Department of Mines and Energy, Map 82-4, scale 1:50 000.

Faribault, E.R. 1898: Plan and sections, Oldham Gold District, Halifax County, Nova Scotia; Geological Survey of Canada, Map 642, scale 1:6000.

Faribault, E.R. 1900: Plan and sections, Rainfrew Gold District, Hants County, Nova Scotia; Geological Survey of Canada, Map 701, scale 1:6000.

Faribault, E.R. 1901a: Plan and section, Mount Unlace Gold District, Hants County, Nova Scotia; Geological Survey of Canada, Map 709, scale 1:3000.

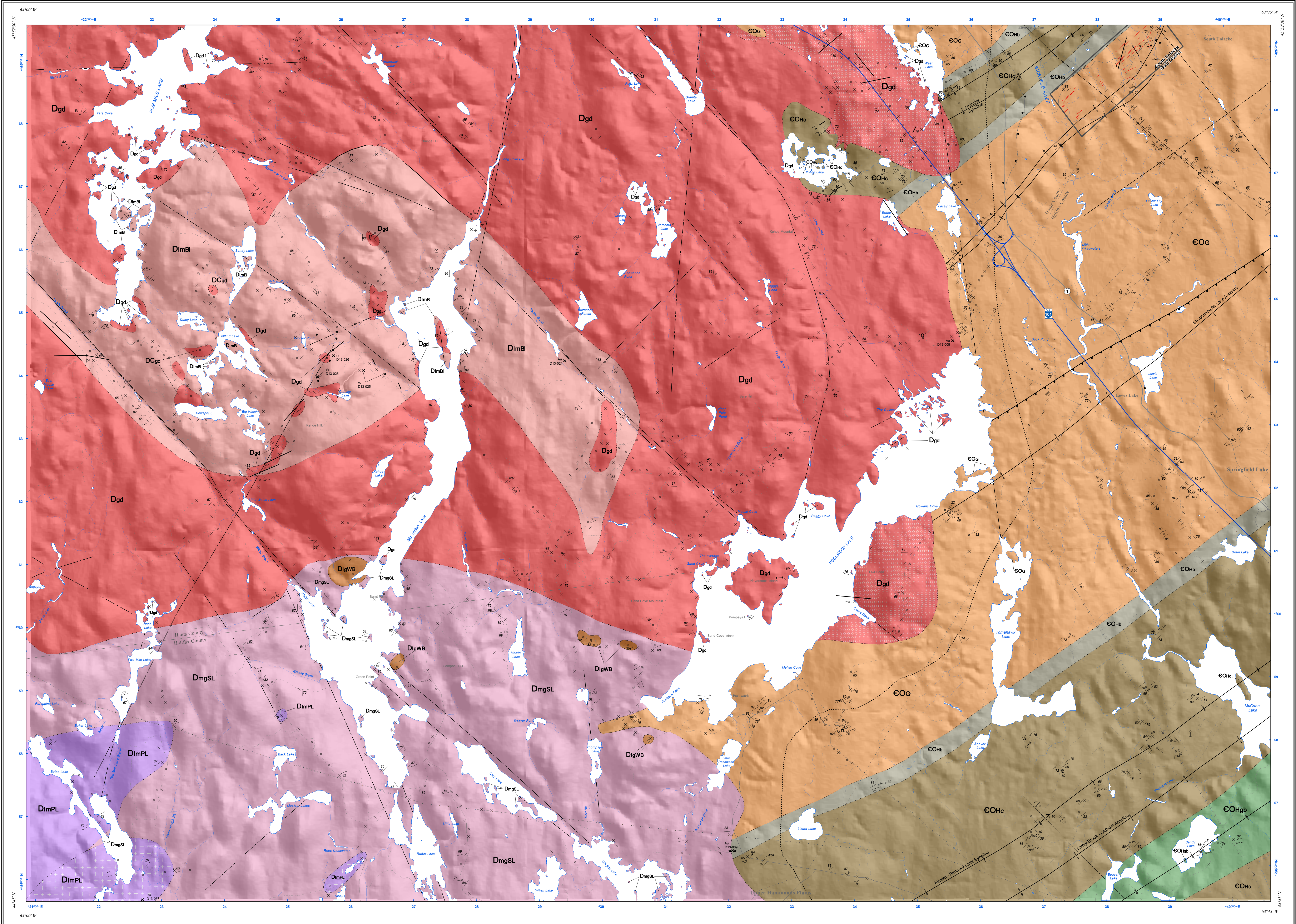
Faribault, E.R. 1901b: Plan and sections, Waverley Gold District, Halifax County, Nova Scotia; Geological Survey of Canada, Map 721, scale 1:3000.

Faribault, E.R. 1902: Plan and section, South Unlace Gold District, Hants and Halifax counties, Nova Scotia; Geological Survey of Canada, Map 768, scale 1:3000.

Hart, L.J. 1998: Geological map of Musquodoboit Batholith (part of NTS sheet 11D/15), Halifax County, Nova Scotia; Nova Scotia Department of Natural Resources, Minerals and Energy Branch, Open File Map ME 1999-3, scale 1:50 000.

## Recommended Citation

Home, R.J., Ryan, R.J., Corey, M.C. and Fox, D.L. 2009: Bedrock geology map of the Pockwock Lake area, part of NTS sheet 11D/13 (sheet 2 of 4), Halifax and Hants counties, Nova Scotia; Nova Scotia Department of Natural Resources, Mineral Resources Branch, Open File Map ME 2009-3, scale 1:25 000.



## Legend

### PALEOZOIC

#### DEVONIAN

SOUTH MOUNTAIN BATHOLITH (modified after Corey, 1987)

**Dgwb** WALSH BROOK LEUCOGRAHITE (**Dgwb**): buff to orange-pink, fine- to medium-grained, moderately equigranular; biotite (1-2%), muscovite (2-4%).

**DmPL** PANLUKE LAKE LEUCOMONZONOGRAHITE (**DmPL**): light grey to buff to dark red, predominantly fine-grained, equigranular; biotite (trace-7%), muscovite (trace-1%), cordierite.

**DmPL** with pattern: whitish grey to light buff-brown porphyry with coarse-grained K-feldspar phenocrysts and megacrysts (8-5%); biotite (~2-6%), muscovite (2-~5%).

**DmPL** \*SG INDIAN LAKE LEUCOMONZONOGRAHITE (**DmPL**): composed of two intimately associated, metamorphically similar, but texturally variable phases which exhibit sharp, but irregular contacts. The phases are characterized by the presence of < 1.0 cm aggregates of reddish-brown garnet.

Phase A: medium grey to buff, medium- to coarse-grained siltite to slightly megacrystic (<5%) monzogranite; biotite (4-6%), muscovite (trace-2%), cordierite (trace-2%), garnet (trace-2%).

Phase B: buff to light grey porphyry containing medium- to coarse-grained quartz and K-feldspar phenocrysts; biotite (2-3%), muscovite (trace-1%), s. garnet.

Phase C: buff to orange-brown, fine- to medium-grained, moderately equigranular to siltite monzogranite; biotite (3-6%), muscovite (1-4%), cordierite (trace-2%), s. garnet.

Phase D: buff to white, very fine-grained, saccharoidal monzogranite (microgranite); biotite (<4%), muscovite (1-4%), cordierite (trace-2%), garnet (trace-2%).

**DmSL** SANDY LAKE MONZOGRAHITE (**DmSL**): light- to medium-grey, medium- to coarse-grained, megacrystic (5-20%); biotite (8-12%), muscovite (trace-1%), cordierite (trace-1%).

**DmPL** GRANDIORITE (**DmPL**): medium- to dark-grey, medium- to coarse-grained megacrystic (>10%); biotite (12-15%), contains numerous xenoliths.

**DmPL** with pattern: medium-grained, equigranular; biotite (12-15%), quartz has a bluish coloration, contains abundant xenoliths.

### CAMBRO-ORDOVICIAN

#### MEGUMA SUPERGROUP

##### HALIFAX GROUP

**EOHb** GLEN BROOK FORMATION (**EOHb**): colour-banded, green-grey laminated metasilstone with minor slate and local medium bedded metasilstone.

**EOHb** CLUNARD FORMATION (**EOHb**): finely laminated black slate with thinly bedded metasilstone/metasilstone layers, commonly with high concentrations of pyrite and pyrrhotite.

**EOHb** BEAVERBANK FORMATION (**EOHb**): grey metasilstone, thin metasilstone beds, slate and, locally, intervals containing thin (<1-3 cm) calcite layers.

##### GOLDENVILLE GROUP

**EOG** UNDIVIDED **EOG**: greenish grey metasilstone and minor interbedded, green, laminated metasilstone and dark grey-black slate.

\* Unit previously named "SG INDIAN POLYPHASE INTRUSIVE SUITE" - Corey 1987

## Symbols\*

Mineral occurrence <sup>1</sup> .....	✕	Kink band (dextral, sinistral) .....	↗↘
Outcrop .....	✕	Slacken silt .....	⋈
Floot .....	✕	Paleocurrent (flow direction undetermined) .....	⋈
Shaft .....	✕	Glacial striae (ice flow direction known, unknown) .....	↗↘
Drillhole .....	✕	Feldspar megacrysts (dip unknown) .....	⋈
Quarry (active, abandoned) .....	✕	Cataclastic texture (fault breccia) .....	⋈
Bedding, tops known (inclined, overturned, vertical, horizontal) .....	↗↘	Trench .....	⋈
Bedding, tops unknown (inclined, vertical) .....	↗↘	Geological contact (approximate, assumed, gradational) <sup>2</sup> .....	⋈
Cleavage, first generation (inclined, vertical) .....	↗↘	Contact metamorphic aureole (approximate, assumed) .....	⋈
Bedding-cleavage intersection lineation .....	↗↘	Approximate limit of granite emplacement, high strain zone .....	⋈
Mineral lineation <sup>3</sup> .....	↗↘	Trace of anticline (approximate, arrow indicates plunge) .....	⋈
Crenulation cleavage, second generation (inclined, vertical) .....	↗↘	Trace of syncline (approximate, arrow indicates plunge) .....	⋈
Crenulation lineation, second generation .....	↗↘	Thrust (approximate) .....	⋈
Foliation (inclined) <sup>3</sup> .....	↗↘	Fault (approximate) .....	⋈
Stretching lineation <sup>3</sup> .....	↗↘	Trace of sedimentary ridge from air photo .....	⋈
Shear (inclined, vertical) .....	↗↘	Trace of lineaments from Digital Elevation Model .....	⋈
Dike (dip unknown, inclined) .....	↗↘	Trace of quartz veins (after Faribault, 1898, 1900, 1901a,b, 1902) .....	⋈
Axis of minor fold (first generation, second generation) .....	↗↘	Quartz vein .....	⋈
Axial surface .....	↗↘	Outline of named gold districts (after Faribault, 1898, 1900, 1901a,b, 1902) .....	⋈
Symmetry of minor fold (generation unknown; s.m.z. arrow indicates plunge) .....	↗↘	Axis of boudinage .....	⋈

\* Note: Compiled symbols list for map series. All symbols and referenced Faribault data may not appear on all maps.

<sup>1</sup> Commonly indicated at top of symbol. Nova Scotia Department of Natural Resources, Mineral Occurrences Database number at bottom of symbol.

<sup>2</sup> Mineral lineation may represent mineral or mineral aggregates, generally in the cleavage plane, i.e. recording fold-related strain.

<sup>3</sup> Foliation and stretching lineation in granite emplacement-related high strain zones. Lineation defined by contact metamorphic porphyroblasts.

<sup>4</sup> Approximate geological boundary constrained by locally exposed contacts, distance between outcrops and aeromagnetic data. Assumed geological contact constrained by stratigraphic position, extrapolation from adjacent maps and aeromagnetic data.

100 Series highway (single, twinned) .....	100
Trunk highway .....	4
Collector highway .....	333
Hard surface road .....	
Loose surface road .....	
Resource access road .....	
Vehicle track .....	
Railway (active, inactive) .....	
County boundary .....	
Lakes, single-line rivers, streams .....	
Transmission lines (mult, single) .....	