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GEOLOGICAL SURVEY OF CANADA — COMMISSION GÉOLOGIQUE DU CANADA

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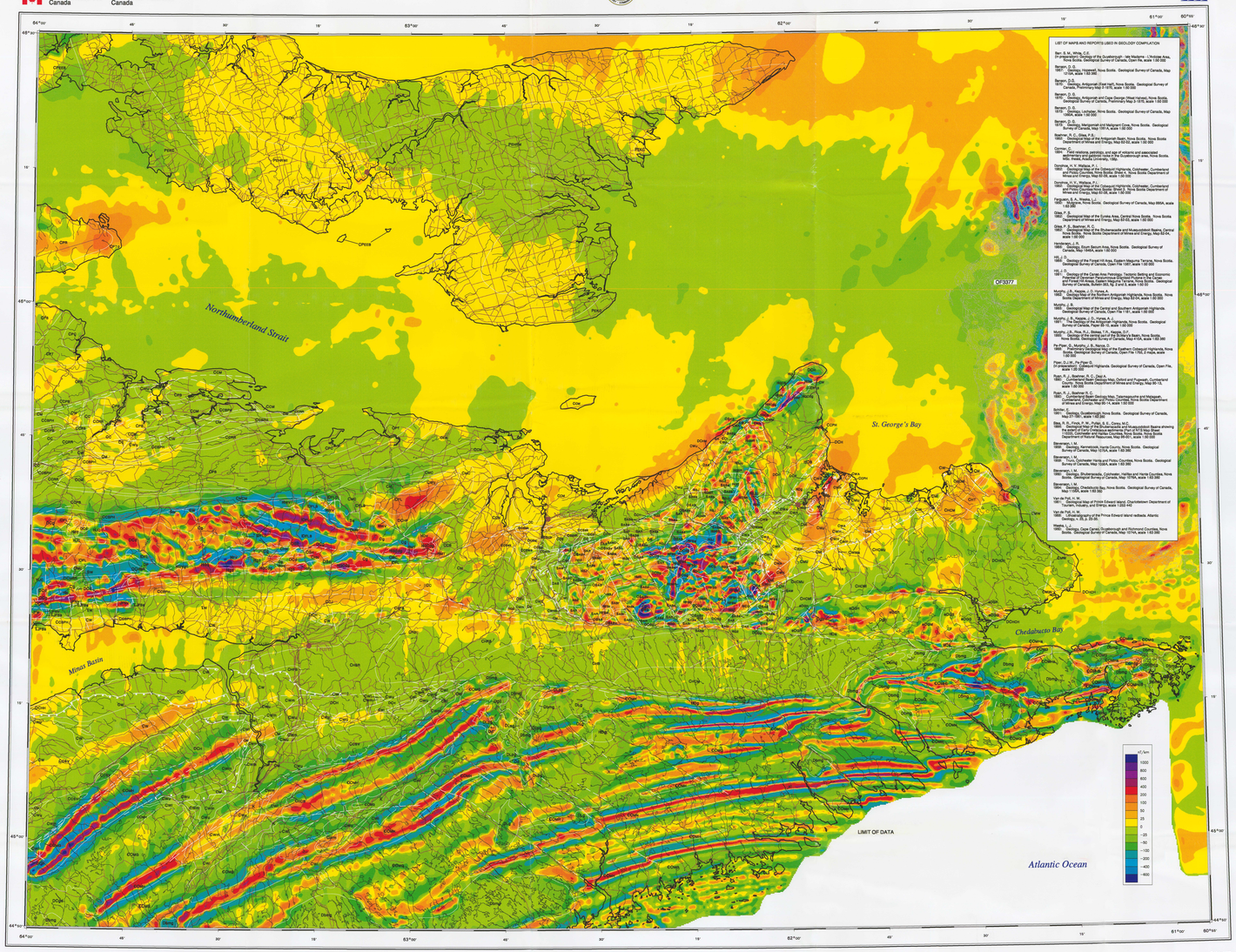

LOCATION MAP - LOCALISATION DE LA CARTE

First vertical derivative of 200m gridded magnetic anomaly. Directional filtering was applied to reduce northeast-striked flight line corrugations in Minas Basin and Northumberland Strait regions.

Digital base map assembled and modified by the Geological Survey of Canada from digital bases compiled by the Canada Center for Cartographic Science.

Geology from Lynch et al. (1992), Geological Survey of Canada Open File 2377.

Mean magnetic declination 1997, 20°49' West, at coordinates 45°36'N and 62°30'W

Copies of this map may be obtained from the Geological Survey of Canada (Atlantic) P.O. Box 1006, Dartmouth, Nova Scotia, B2Y 4A2

Aeromagnetic data may be obtained from the Geomagnetic Data Service, Geological Survey of Canada 1 Observatory Crescent, Ottawa, Ontario, K1A 0Y3 (613) 995-5326

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Dehler, S. A., 1997. Magnetic vertical derivative map, Central Nova Scotia and Prince Edward Island, with geology overlay. Geological Survey of Canada, Open File 3542, scale 1:250 000

Canada

MAGNETIC VERTICAL DERIVATIVE MAP

CENTRAL NOVA SCOTIA

AND PRINCE EDWARD ISLAND

Scale 1:250 000 - Échelle 1/250 000

Kilometres 0 5 10 15 20 25 30 35 40 Kilomètres

North American Datum 1927
Universal Transverse Mercator Projection

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Le Programme canadien de cartographie géoscientifique

OPEN FILE
DOSSIER PUBLIC
3542
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
OTTAWA
1997

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Published 1997

STRATIFIED ROCKS

CRETACEOUS

- K — (Kh4) and grey clay, Nelson, alluvial sand, lignite

JURASSIC

- JPe — **NEWARK SUPERGROUP - FUNDY GROUP**
  (JPe4) McCoy Brook Formation: buff, dense, fine-grained, pale, and pebble clastic rocks; lacustrine limestone and basalt agglomerate > 200m (Hettangian and younger vertebrate fossils and spores)
- JPm — (JPm1) North Mountain Formation: Diabase (tholeiitic plateau basalt) 100 - 270m thick (202.1 ± 1Ma; U-Pb concordant zircon age in basalt flow)

TRASSIC - JURASSIC

- TJ — TJPre, TJr — (TJr) undivided, red - brown conglomerate, sandstone, and shale
  - (TJPre) Riverdale Formation: lacustrine shale, sandstone, and dolomitic clastic rocks; minor aeolian sandstone and conglomerate; 0 - 250m (?Triassic - Hettangian spores and fossils)
  - (TJr) Wolfville Formation (?Triassic): fluvial sandstone and conglomerate, aeolian sandstone, minor dolomitic lacustrine deposits; 0 - >300m (Anisian - ?Carnian spores and fossils)

PERMIAN - CARBONIFEROUS

- PIPzh — **PRINCE EDWARD ISLAND GROUP**
  (PIPzh4) Orby Head Formation: mainly conglomerate and coarser- to medium grained sandstone. Reed conglomerate is dominated by well rounded quartz pebbles and cobbles. Reed conglomerate "mature" (quartz + quartzite 78 - 88 %, rhyolite 0 - 14 %, roundness .40 - .80)
- PIPzmbr — (PIPzmbr) Hillsborough River Formation, Mount Mellon member: coarser wacke and conglomerate with high concentration of rhyolite clasts. Reed conglomerate "immature" (quartz + quartzite 50 - 78 %, rhyolite 0 - 8 %, roundness .15 - .40)
- PIPzmbr — (PIPzmbr) Hillsborough River Formation, Wood Island Member: medium to coarse locally light gray thinly to thickly bedded quartz sandstone and polymictic pebble conglomerate; dolomitic lenses and beds, and siderite veins
- PIPzfd — (PIPzfd) Fall Brook Formation: interstratified red-gray to dark gray, locally organic-rich, fissile mudstone, siltstone, and sandstone
- PIPzh2 — (PIPzh2) Kildare Capes Formation: upward fining sequence marked by lowermost conglomerate with a high content of rhyolite clasts, progressing upwards to red mudstone and sandstone. Reed conglomerate "immature" (quartz + quartzite 50 - 78 %, rhyolite 0 - 8 %, roundness .15 - .40); conglomerate "submature" (quartz + quartzite 81 - 88 %, rhyolite 0 - 4 %, roundness .35 - .60)
- CPIzss — (CPIzss) Egmont Bay Formation: fining upwards sequence with relatively coarse locally pebbly, wacke at the base changing to red mudstone with interbeds of fine wacke at the top, as well as dispersed plant fossils.

CARBONIFEROUS

WESTPHALIAN

- Cp — CPz, CPr, CPs, CPe
- CC — CCw, CCbb, CCbd, CCu, CCh, CCPb, CCk, CCb, CCbpm, CCbv, CCPr
  - (CPz) undivided, spatially red and minor green sandstone and mudstone
  - (CPr1) Cape John Formation: floodplain mudstone, fluvial sandstone, arkosic sandstone, minor conglomerate and lacustrine limestone: 300 - > 400m (Stephanian spores)
  - (CPr1a) Tormentine Formation: brick-red to brownish red, sandstone, siltstone and, mudstone
  - (CPr1) Tatamagouche Formation: floodplain mudstone, fluvial sandstone, conglomerate, rare lacustrine limestone 300 - 350 m (Stephanian spores)
  - (CPe) Riverbouche Formation: gray to reddish gray, sandstone, calcareous mud-chip breccia, and lacustrine limestone; minor conglomerate, gypsum gray mudstone, siltstone and very fine grained sandstone; minor thin coal
  - (CPs) Balfron Formation: fluvial sandstone, conglomerate, floodplain mudstone, mudstone, rare lacustrine limestone 800 - 900m (Westphalian D -Stephanian spores); Parautonomous to unconformable on coal (Carboniferous-Devonian unit)
  - (CCw) undivided, Wabana and minor green sandstone and mudstone
  - (CCbb) Cape John Formation: floodplain mudstone, fluvial sandstone, arkosic sandstone, minor conglomerate and lacustrine limestone: 350 - > 400m (Stephanian spores)
  - (CCbd) Stellarton Formation: Pictou Member, 600m, shale, sandstone, coal
  - (CCbd1) Stellarton Formation: Coal Brook Member, 600m, shale and oil shale
  - (CCbd2) Stellarton Formation: Albion Member, 600m, shale, sandstone, coal
  - (CCbd3) Stellarton Formation: Plymouth Member, 0 - 600m, redbeds
  - (CCbd4-6) Stellarton Formation: Westville Member, 350m, shale, sandstone, coal
  - (CCbd6) Stellarton Formation: Skinner Brook Member, 550m, red, mudstone, mottled siltstone, sandstone, minor conglomerate
  - (CCbh4) Ragged Reef Formation: fluvial sandstone, conglomerate, mudstone, rare coal and lacustrine limestone; 0 - 1050m (Westphalian B - C spores)
  - (CCu) Joggins Formation: floodplain mudstone, minor sandstone, coal, lacustrine limestone and shale; 0 - 1450m (Westphalian A - B spores and bivalves)
  - (CCh) Hollow conglomerate; red polymictic conglomerate
  - (CCPb) Polly Brook Formation: alluvial conglomerate, sandstone, rare mudstone; 0 - 1000m (Westphalian A - B spores). Conformable to unconformable on Boss Point Formation
  - (CCk) New Glasgow Formation: upper member: red conglomerate, minor sandstone; lower member: interbedded red sandstone and mudstone
  - (CCb) Boss Point Formation: gray and green, medium- to fine-grained sandstone, gray and black mudstone
  - (CCbpm) Boss Point, Parrsboro and Port Hood formations: fluvial sandstone, calcrete limestone, conglomerate, mudstone; 200 - 1200m (Westphalian A spores)
  - (CCbv) Scotch Village Formation: fluvial sandstone, siltstone, shale > 400m (Early Westphalian to Namurian plants and spores) unconformable on Tween Rivers/ver Windsor and Mabou groups
  - (CCPr) Port Hood Formation: gray and brown sandstone and conglomerate

NAMURIAN

- Cw — CWu, CWGH, CWG, CWW
  - (CWu) Upper member including Pomquet Formation: red and green siltstone and mudstone, minor conglomerate (Namurian spores)
  - (CWGH) Claremont and Millsville formations: alluvial conglomerate and sandstone: 50 - 1500m (Namurian-Westphalian A spores). Conformable to unconformable on Devonian-Pictou Group
  - (CWG) Claremont Formation: red gravitoid orthoconglomerate
  - (CWW) Lower member including Wolaston Brook Formation: siltstone, minor sandstone, gypsum and anhydrite (Viséan (Brigantian)-Namurian spores); Hastings Formation: shale and siltstone, dolomite siltstone, and thin dolomitic limestone beds, rare gypsum (Viséan-Namurian spores); Mahoney Formation: red sandstone to mudstone
- CWW — (CWW) undivided Mabou and Windsor groups

VISÉAN

- Cw — CWu, CWW, CWGH, CWG, CWK, CWLa, CWLb, CWB, CWS, CWSp, CWSq, CWSr, CWSW
  - (CWu) Upper member including Pomquet Formation: red and green siltstone and mudstone, minor conglomerate (Namurian spores)
  - (CWW) Lower member including Wolaston Brook Formation: siltstone, minor sandstone, gypsum and anhydrite (Viséan (Brigantian)-Namurian spores); Hastings Formation: shale and siltstone, dolomite siltstone, and thin dolomitic limestone beds, rare gypsum (Viséan-Namurian spores); Mahoney Formation: red sandstone to mudstone
  - (CWGH) undivided Windsor Group
  - (CWG) undifferentiated Windsor Group
  - (CWK) undivided upper Windsor Group includes Inland Island Formation: Churchville Formation, red sandstone to mudstone; Forbes Lake Formation: marron to gray-red mudstone, paracongloomerates; Lake Lone-Kim Brook, Murphy Road, Peasquoit, and Green Oaks formations, siltstone, sandstone, minor gypsum, and alkaline marine limestone (Viséan (?Arfakian - Asbian); C. 2 subzone fauna and spores)
  - (CWLa) Hood Island Formation: red siltstone and sandstone with interstratied marine limestone and dolostone and minor gypsum; rhythmic alternation of these rock units is characteristic
  - (CWLb) undivided middle Windsor Group includes Mentworth Station, Miller Creek, MacDonald Road, Elderflerk, Pugwash Mine, Addington, Wallace Brook and Malagash formations; Lake Lone-Kim Brook, Murphy Road, Peasquoit, marine limestone and dolostone (Viséan (?Arfakian); B subzone fauna and spores)
  - (CWB) Addington Formation: red siltstone, with gypsum and anhydrite and thin carbonate beds; rhythmic alternation of these rock units is typical
  - (CWS) undivided lower Windsor Group, including Martin Road, Bridgevale, Hardwin, White Quarry, Belvedere, Carrolle Corner, Mountain, and Dauphinais formations; anhydrite, salt, marine dolostone and limestone (Viséan (Arundian); A subzone fauna and spores)
  - (CWSp) Bridgevale Formation: anhydrite and gypsum, with limestone and dolomitic limestone in variable proportions as interbeds
  - (CWSq) Mountain Formation: limestone in part dolomitic, laminated and/or banded, pelsitic, sparsely fossiliferous; includes limestone breccias of complex origin
  - (CWSr) Dauphinais Formation: limestone, minor dolostone, thinly bedded, argillaceous, in part pelsitic, locally thickly bedded and highly fossiliferous in mound-shaped deposits resting upon pre Carboniferous rocks
  - (CWSW) Hillsborough River Formation: limestone laminated in part, pelsitic, oolitic, sparsely fossiliferous

DEVONIAN - CARBONIFEROUS

FAMENIAN-TOURNAISIAN

- DCc — DCcb, DCcbm, DCcbr, DCcbw, DCcbd
- DCbr — DCbb, DCbl
- DCc — DCrl, DCrfs
- DCbr — DCbrf, DCbrbs, DCbrch, DCbrch1, DCbrw
  - (DCcb) Cheverie Formation: fluvial conglomerate, sandstone and minor shale; 0 - > 100m (?Tournaisian (?Conoceras) (?TI-0 IV-1/2) spores and fauna). Unconformable on Meguma Group
  - (DCcbm) Sandrock Formation: red and gray conglomerate, sandstone, mudstone, typically cross-stratified
  - (DCcbd) undivided Caledonia Mills Formation: red to maroon siltstone and sandstone; gray, thinly bedded quartz sandstone, arkosic sandstone; polymictic pebble conglomerate
  - (DCcbd1) upper Caledonia Mills Formation: red to maroon siltstone and sandstone; gray, thinly bedded quartz sandstone
  - (DCcbd2) lower Caledonia Mills Formation: gray to green laminated siltstone interlayered with red to maroon siltstone
  - (DCcbf) Salmon River Formation: siltstone, quartz arenite, and pebble conglomerate, interlayered with minor shale and siltstone
  - (DCrbl) Barren Formation: gray to green medium-grained interbedded sandstone, siltstone, and shale
  - (DCrfs) Lochiel Formation: green sandstone with minor interlayers of conglomerate siltstone, and mudstone
  - (DCrbb) Huntley Formation: alluvial wacke, siltstone, conglomerate, fluvial argillite, rare lacustrine limestone and felsic volcanic rocks: 1000m (?Tournaisian spores)
  - (DCrl) Tracadie Head Formation: gray to black laminated siltstone interlayered with light gray thinly to thickly bedded quartz sandstone and polymictic pebble conglomerate; dolomitic lenses and beds, and siderite veins
  - (DCbrbf) Fall Brook Formation: interstratified red-gray to dark gray, locally organic-rich, fissile mudstone, siltstone, and sandstone
  - (DCbrch) Parks Formation: felsic to felsic polymictic conglomerate, wacke, siltstone
  - (DCbrch1) Horton Bluff Formation: fluvial lacustrine, shale, siltstone, sandstone, conglomerate, breccia, minor limestone and limestone: 900 - 1400m (?Famennian-?Tournaisian (?Burnian-Cuvoxian) (?TI-0 IV-2) spores and fauna)
  - (DCbrch2) Granville River and Royal Brook Formations: alluvial conglomerate, wacke, sandstone, fluvial siltstone and argillite
  - (DCbrch3) Clam Harbour Formation: light gray to green to maroon quartz sandstone and siltstone; gray to black laminated siltstone; polymictic pebble to boulder conglomerate
  - (DCbrch4) McAras Brook Formation: red pebble conglomerate, sandstone, fine wacke; fluvial basalt flows

HORTON GROUP

- (DCbrch) undivided Cheverie-Carboniferous floors, possibly Horton Group equivalent: gray and reddish brown polymictic conglomerate, gray and pale red feldspathic sandstone, red siltstone, and minor shale; rare lacustrine limestone; rare fluvial of fresh-water limestone occur in association with gray shale, and basal volcanic rocks
- (DCrbl) Cobbeenan Formation: fluvial conglomerate, sandstone and minor shale; 0 - > 100m (?Tournaisian (?Conoceras) (?TI-0 IV-1/2) spores and fauna). Unconformable on Meguma Group
- (DCrbb) Sandrock Formation: red and gray conglomerate, sandstone, mudstone, typically cross-stratified
- (DCrfs) undivided Caledonia Mills Formation: red to maroon siltstone and sandstone; gray, thinly bedded quartz sandstone, arkosic sandstone; polymictic pebble conglomerate
- (DCrl) upper Caledonia Mills Formation: red to maroon siltstone and sandstone; gray, thinly bedded quartz sandstone
- (DCrbf) lower Caledonia Mills Formation: gray to green laminated siltstone interlayered with red to maroon siltstone
- (DCrbs) Salmon River Formation: siltstone, quartz arenite, and pebble conglomerate, interlayered with minor shale and siltstone
- (DCrbl) Barren Formation: gray to green medium-grained interbedded sandstone, siltstone, and shale
- (DCrfs) Lochiel Formation: green sandstone with minor interlayers of conglomerate siltstone, and mudstone
- (DCrbb) Huntley Formation: alluvial wacke, siltstone, conglomerate, fluvial argillite, rare lacustrine limestone and felsic volcanic rocks: 1000m (?Tournaisian spores)
- (DCrl) Tracadie Head Formation: gray to black laminated siltstone interlayered with light gray thinly to thickly bedded quartz sandstone and polymictic pebble conglomerate; dolomitic lenses and beds, and siderite veins
- (DCbrbf) Fall Brook Formation: interstratified red-gray to dark gray, locally organic-rich, fissile mudstone, siltstone, and sandstone
- (DCbrch) Parks Formation: felsic to felsic polymictic conglomerate, wacke, siltstone
- (DCbrch1) Horton Bluff Formation: fluvial lacustrine, shale, siltstone, sandstone, conglomerate, breccia, minor dolostone and limestone: 900 - 1400m (?Famennian-?Tournaisian (?Burnian-Cuvoxian) (?TI-0 IV-2) spores and fauna)
- (DCbrch2) Granville River and Royal Brook Formations: alluvial conglomerate, wacke, sandstone, fluvial siltstone and argillite
- (DCbrch3) Clam Harbour Formation: light gray to green to maroon quartz sandstone and siltstone; gray to black laminated siltstone; polymictic pebble to boulder conglomerate
- (DCbrch4) McAras Brook Formation: red pebble conglomerate, sandstone, fine wacke; fluvial basalt flows

LATE DEVONIAN

- DPL — DPLb, DPLb1
  - (DPLb) basalt, rhyolite, tuff, sandstone, siltstone, conglomerate
  - (DPLb1) Barra Brook Formation: basin: volcanic, rhyolite, minor siltstone, wacke (387 ± 2 and 341 ± 4 Ma; Rb-Sr whole-rock isochrons)
  - (DPLb2) Diamond Brook Formation: basalt, wacke, siltstone, rhyolite (?Famenian spores)

FOUNTAIN LAKE GROUP

EARLY TO MIDDLE DEVONIAN

- eDsh — (DSh) Sherbrooke Formation: basalt flows with minor tilfs; flow-banded to aphyritic rhyolite; felsic tilfs crystal tuff; lower polymictic conglomerate; gray quartz arenite and quartz wacke interlayered with gray to green laminated siltstone; rare mafic dykes
- eDgb — (DGB) Barren Valley Formation: gray quartz arenite to arkosarenite, interlayered with quartz wacke feldspathic arkosarenite; minor conglomerate, siltstone, and shale; rare felsic tilfs; dolomitic lenses; polymictic conglomerate interlayered with basaltic flows, rare siliceous sandstone; mafic dykes common
- eDsb — (DSB) Stellarton Formation: Harrison: to gray polymictic conglomerate; minor maroon arkosarenite and gray siltstone; red and purple volcaniclastic breccia conglomerate and associated tuffaceous sandstone; rare gray basaltic flows and pyroclastic tilfs; rare felsic dykes
- eDsb — (DSB) Burnsville Formation: basaltic to andesitic flows and associated tilfs; tuff interlayered with maroon to gray polymictic, minor arkosarenite and subtilfarenite; minor green volcaniclastic breccia conglomerate; mafic dykes common
- eDsb — (DSB) Minister Brook Formation: gray feldspathic greywacke to quartz wacke with minor laminated siltstone, arkosarenite, and shale; rare gray quartz arenite, oligomictic conglomerate, and mafic flows; mafic dykes common

ORDOVICIAN - DEVONIAN

- DAx — (DAx) Arisaig Formation: shallow marine-nonmarine mudstone and siltstone; > 300m (early Devonian fauna)

ARISAIG GROUP

CAMBRIAN - ORDOVICIAN

- Sx — DAx, SAw, SAwc, SAwb, SAy, SAr, SAb, SAbr, SAbb, SAbs, SAbg, SAbc, SBw, SBr, SBs, SBb, SBbr, SBbb, SBbs, SBbg, SBbc
  - (SAx) Arisaig Formation: shallow marine-nonmarine mudstone and siltstone; > 300m (early Devonian fauna)
  - (SAw) Wyckoff Formation: green mudstone, siltstone, to red mudstone
  - (SAwc) McAdam Formation: grey to green siltstone, shale, minor limestone
  - (SAy) French River Formation: blue-gray siltstone, mudstone
  - (SAr) Rose Brook Formation: buff siltstone, siltstone
  - (SAb) Beechill Cove Formation: rhyolite
  - (SAbr) Beechill Cove Formation: blue-green siltstone
  - (SAbs) Beechill Cove Formation: siltstone
  - (SAbg) Beechill Cove Formation: siltstone
  - (SBw) Willard Brook Formation: shallow marine siltstone and wacke (Wenlock-Ludlow fauna)
  - (SBr) Portapique River Formation: siltstone and wacke
  - (SBs) Earltown Formation: shallow marine siltstone and wacke (Wenlock-Ludlow fauna)
  - (SBb) unnamed unit: wacke, siltstone, shale, tuff
  - (SBbr) arkosic conglomerate, red siltstone, blue-green siltstone (undivided)
  - (SBbs) Black John Formation: red conglomerate, sandstone, shale
  - (SBbg) Diamond Brook Formation: basalt, wacke, siltstone, shale, siltstone, wacke (387 ± 2 and 341 ± 4 Ma; Rb-Sr whole-rock isochrons)
  - (SBbc) Diamond Brook Formation: basalt, wacke, siltstone, rhyolite (?Famenian spores)
  - (SBb) Barra Brook Formation: basin: volcanic, rhyolite, minor siltstone, wacke (387 ± 2 and 341 ± 4 Ma; Rb-Sr whole-rock isochrons)

ORDOVICIAN - DEVONIAN

- Dwu — (DWu) Murphy Brook Formation: siltstone, shale, conglomerate, wacke (late Emsian-early Eifelian plants). Unconformable on Silurian Willard Brook Formation
- Dr — (DR) Portapique River Formation: siltstone and wacke

ORDOVICIAN - SILURIAN

- OS — (OS) arkosic conglomerate, red siltstone, blue-green siltstone (undivided)
- OSbJ — (OSbJ) Black John Formation: red conglomerate, sandstone, shale

NEOPROTEROZOIC - ORDOVICIAN

- ZOs — (ZOs) Baxter Brook Formation: laminated fine-grained siltstone and argillite, and tuff with minor interbedded dark green andesite

NEOPROTEROZOIC

- Zdg — (Zdg) Gamble Brook Formation: quartzite, garnet-mica schist (1180 ± 5 Ma; U-Pb age of pyroclast concordant dacitic zircon; cut by Dalem River Pluton 605 ± 1 Ma; U-Pb concordant zircon age)
- ZJC — (ZJC) Cranberry Lake, Humming Brook, and Gilbert Hills Formations: Cranberry Lake Formation: metarhyolite, metadacite, metatuff, minor metasandstone; Humming Brook Formation: metamudstone, graphite, rare sandstone and siltstone; > 100m; Gilbert Hills Formation: metamorphosed tholeiitic and calcalkaline, felsic-intermediate-mafic lavas and pyroclastics; > 100m (cut by Jeffers Pluton 807 ± 3 and 805 ± 4 Ma; 40Ar/39Ar hornblende plateau ages

JEFFERS GROUP

NEOPROTEROZOIC

- ZPv — (ZPv) Folly River Formation: tholeiitic meta-basalt, deep marine, distal turbidite meta-argillite and chert; > 800m (cut by Dalem River granite 605 ± 4 Ma; U-Pb concordant zircon age). Unconformable on deformed Gambo Brook Formation
- ZDv — (ZDv) Dalhousie Mountain Volcanics: metamorphosed felsic-mafic lavas and pyroclastics, turbidite wacke
- ZWv — (ZWv) Warwick Mountain Formation: metamorphosed tholeiitic and calcalkaline, mafic-felsic lavas and tuffs, turbidite wacke and argillite

GEORGEVILLE GROUP

- ZSbM — (ZSbM) South Rights Formation: black-green mudstone, minor greywacke, basalt
- ZSc — (ZSc) Clutheadale Formation: basalt, black-green mudstone, greywacke
- ZJL — (ZJL) Livingstone Cove Formation: green conglomerate, black mudstone
- ZJb — (ZJb) James River Formation: conglomerate, black and green mudstone, greywacke, minor basalt
  - ZJbJu — (ZJbJu) Upper James River Formation
  - ZJbJl — (ZJbJl) Lower James River Formation
- ZSbm — (ZSbm) Middle Rights Formation: black and green mudstone, minor greywacke
- ZSM — (ZSM) Minor Brook Formation: black mudstone, minor chert and limestone
- ZdOB — (ZdOB) Chisholm Brook Formation: mafic flows, tuff and breccia, interbedded marble
- ZDK — (ZDK) Keppoch Formation: undivided volcanics
- ZSB — (ZSB) undivided Georgeville Group sedimentary and volcanic rocks
- ZWm — (ZWm) Moose River Formation: interlayered rhyolite, mafic tuff and flows, felsic, minor greywacke
- ZFBr — (ZFBr) Frasers Brook Formation: rhyolite, minor andesite, basalt, red siltstone, slate
- ZFBa — (ZFBa) Frasers Brook Formation: andesite, minor rhyolite, basalt, red siltstone, slate
- ZFBb — (ZFBb) Frasers Brook Formation: basalt, minor andesite, rhyolite, red siltstone, slate
- ZFBe — (ZFBe) Frasers Brook Formation: red siltstone, slate, minor volcanics

PLUTONIC ROCKS

CARBONIFEROUS

- Cg — (Cg) granite

DEVONIAN - CARBONIFEROUS

- DCd — (DCd) diorite-gabbro
- DCgd — (DCgd) granodiorite
- DCg — (DCg) granite
- DCGg — (DCGg) Barnaby River, Gunn Lake plutons: granite, granodiorite (minutes Beechill Cove Formation)

DEVONIAN

- DSmg — (DSmg) coarse grained, porphyritic to aerate muscovite-biotite, granite
- DSmfg — (DSmfg) fine to locally medium grained, generally equigranular biotite-muscovite, leucogranite
- DSgb — (DSgb) gabbro: dark grey, fine- to coarse-grained, equigranular
- Dt — Dt.Ag, Dt.Ag, Dt, Dgd, DSmg, Dt.g
  - LISCOMB COMPLEX
  - (Dt) tonalite: deformed, medium grained, locally plagioclase-phyric biotite tonalite, hornblende-biotite tonalite and migmatitic muscovite-biotite tonalite
  - (Dt.Ag) peraluminous alkfelsite garnet + cordierite quartzo-feldspathic gneiss and aplite
  - (Dt.ag) orthogneiss garnet-hornblende gneiss, quartzo-feldspathic augen gneiss (371 - 377 Ma; 40Ar/39Ar cooling age given in hornblende and mica; complex intrudes Meguma Group)
  - (Dd) diorite-gabbro
  - (Dgd) granodiorite
  - (DSmg) muscovite-biotite monzogranite
  - (Dt.g) granite (375.5 ± 2 to 371 ± 2 Ma; U-Pb concordant zircon and monazite age range; intrudes all other units)

ORDOVICIAN - SILURIAN

- OSg — (OSg) granite (ca.468 Ma; U-Pb, upper intercept, zircon age; intrudes White Rock and Fenwick Formations)

NEOPROTEROZOIC - CAMBRIAN

- ZCG — (ZCG) Chris James River, and Indian Lake plutons: granite, granodiorite

NEOPROTEROZOIC

- ZGrgn — (ZGrgn) Great Village River Gneiss: hornblende quartzo-feldspathic gneiss, amphibolite, granite gneiss (980 ± 8 to 935 ± 5 Ma; U-Pb upper intercept zircon ages from migmatite and amphibolite)
- ZGcdg — (ZGcdg) Greenvale Complex, Black Brook Pluton, Eden Lake Complex: Greenvale Complex: hornblende-biotite granodiorite, biotite granodiorite, biotite granite; Black Brook Pluton: aegirine, minor monzogranite; Eden Lake Complex: aegirine, hornblende gneiss, pegmatite, monzogranite, alkali granite, and gabbro
- ZJPb — (ZJPb) concordant zircon age 608 ± 2 Ma (Tobin River Pluton) 606.5 ± 1.6/-2.5 Ma (Greenvale Pluton) (40Ar/39Ar hornblende plateau ages 602 ± 5 Ma (Frog Lake Pluton) 593 ± 4 Ma (Jeffers Pluton) 603 ± 3 Ma (Black Brook Pluton)
- Zdd — (Zdd) diorite
- Zgb — (Zgb) gabbro
- Zg — (Zg) granite
- Zc — (Zc) Economy River Gneiss: granodiorite-diorite orthogneiss, amphibolite (724 ± 2 Ma; U-Pb concordant zircon age)
- ZMT — (ZMT) Mount Thom Complex: garnet and hornblende, feldspar gneiss, granite gneiss (934 Ma; Rb-Sr whole-rock isochron model protolith age – ca.1150 Ma)
- ZGa — (ZGa) amphibolite, garnet amphibolite, alkfelsite aplite; phyllonite, mylonite; sheared granitoid rocks
- ZGg — (ZGg) medium-grained variably foliated granite, granodiorite and associated phyllonite and mylonite rocks

Geological Boundary

Steep fault

Airalds Detachment: flanking zone of shearing and brecciation occurring along the lip of the Mauchtoe Breccias near the base of the Windsor Group

Detachment fault or apparent basin normal fault above Airalds Detachment, includes Salem and Antigonish faults, fault and space in hanging wall