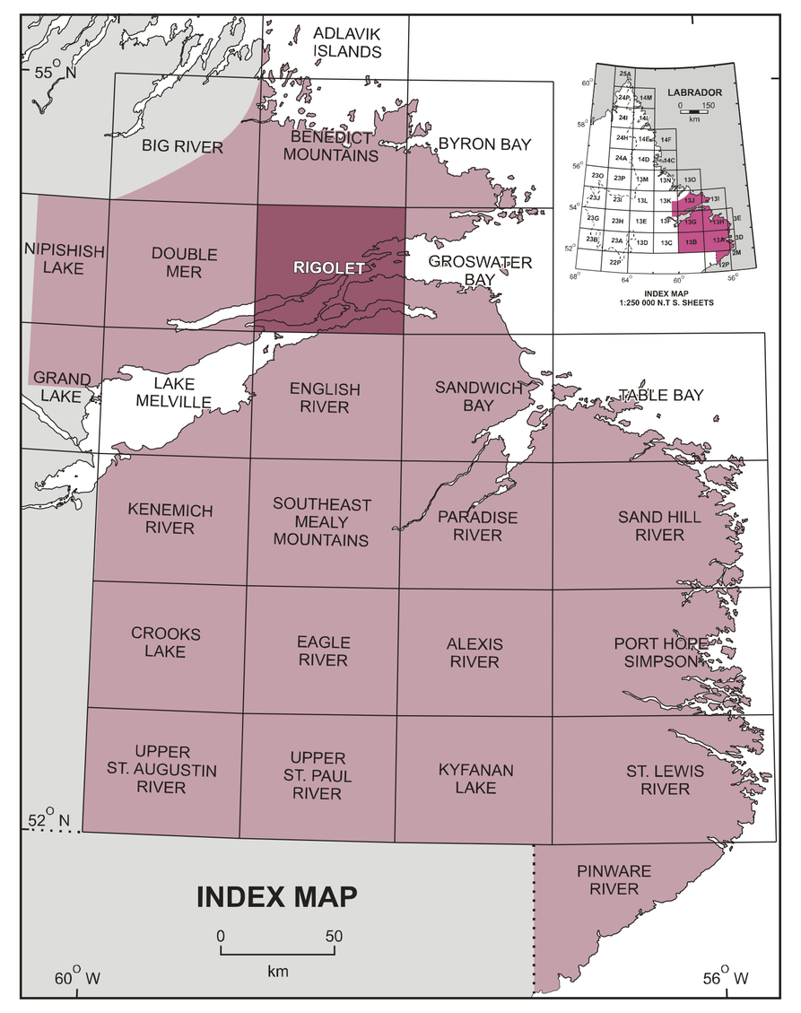
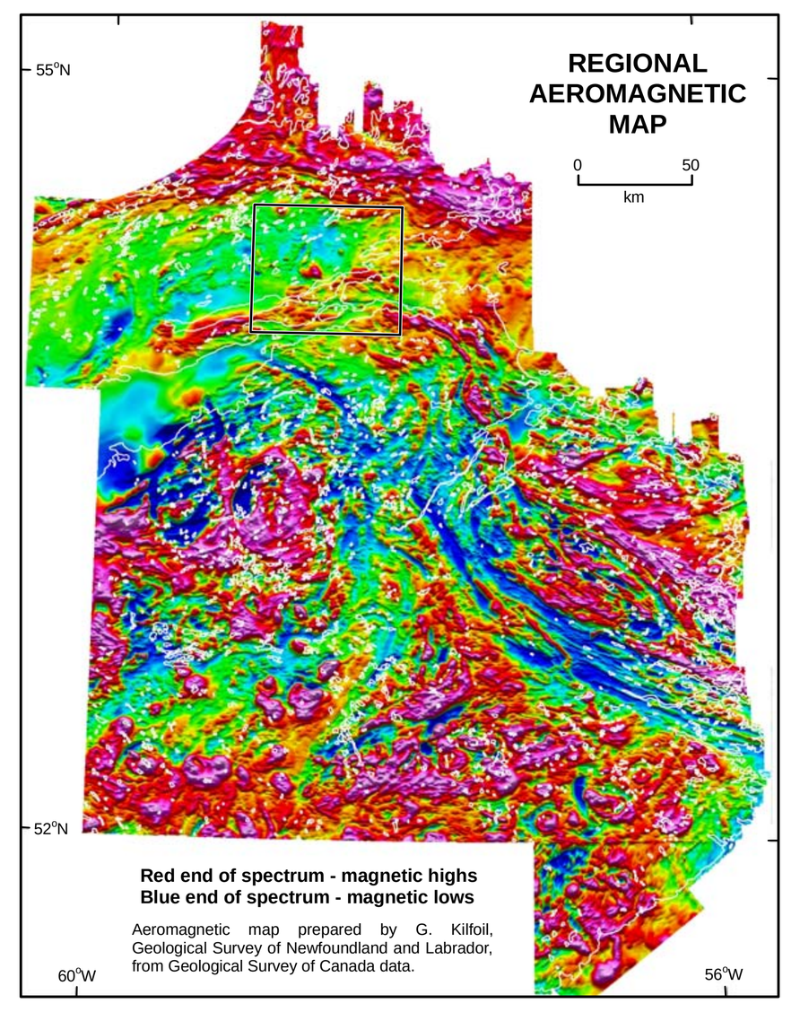
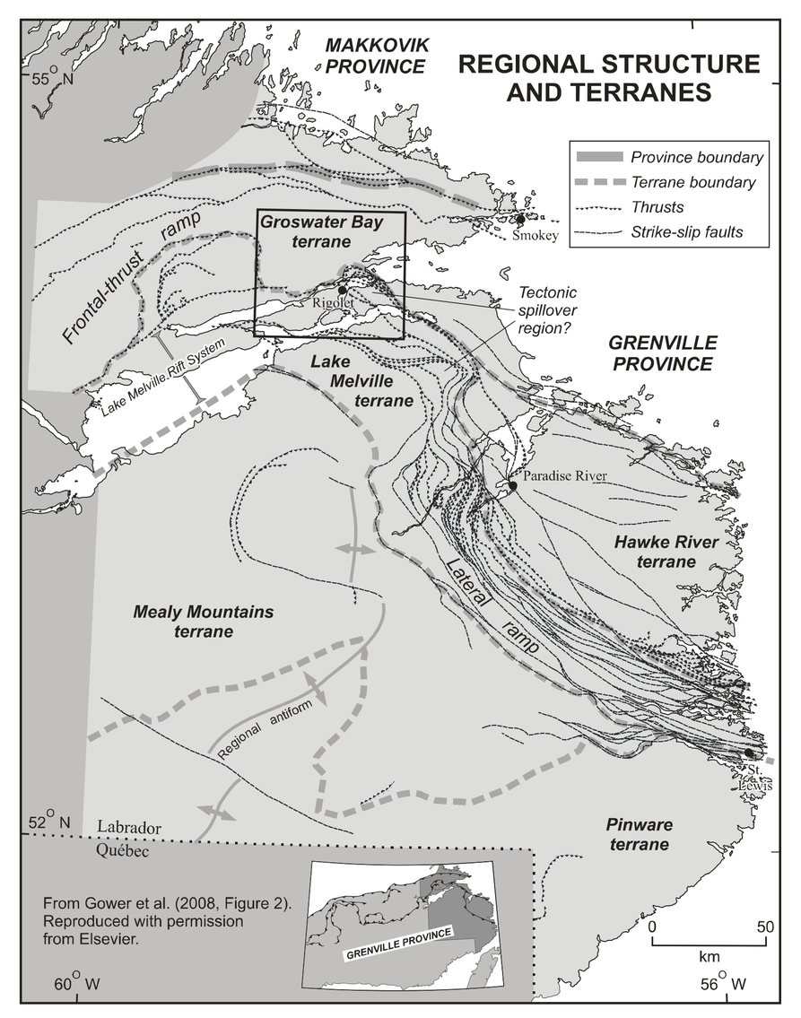
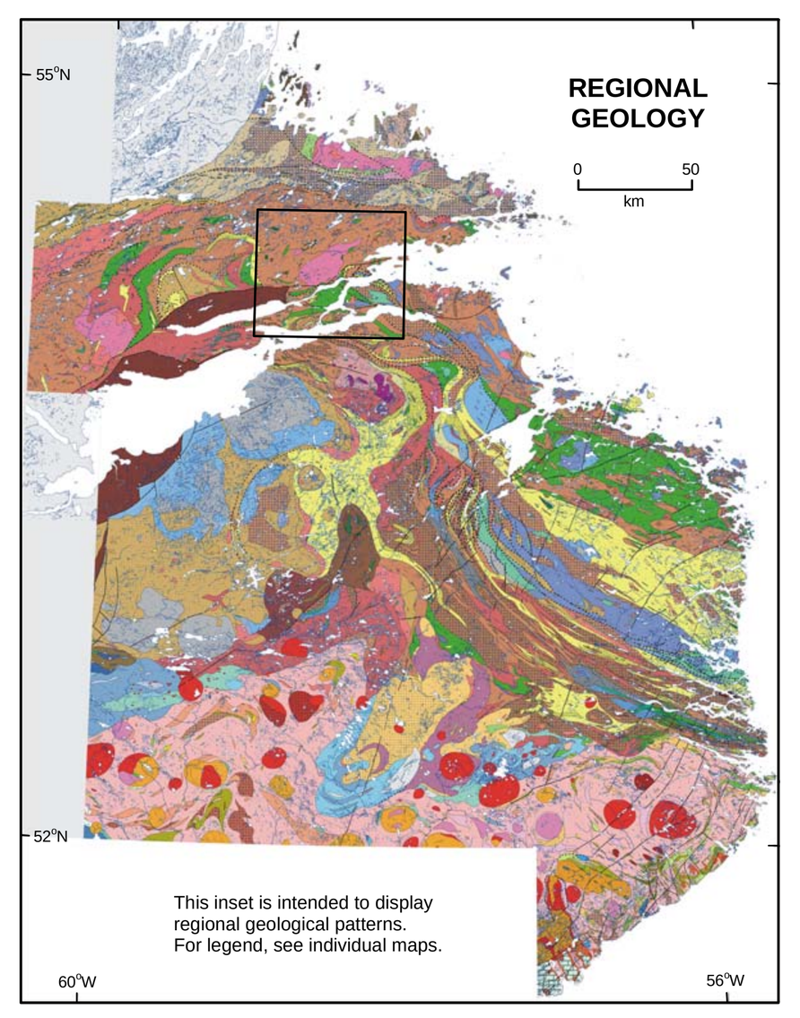
Newfoundland Labrador
NATURAL RESOURCES









RIGOLET

A preliminary version of this map was originally published uncoloured (Gower et al., 1983) and a brief description of rock types in the area was given by Gower et al. (1981). Most of the map is based on investigations carried out in 1979 and 1980, but additional field data were collected by C.F. Gower during subsequent visits. The present map incorporates field data collected by Stevenson (1970), making use of original field notes recorded by I.M. Stevenson and assistants.

The map is augmented by follow-up examination of stained slabs, petrographic thin sections, and whole-rock geochemical analyses. U-Pb geochronological results (Corrigan et al., 2000), Nd-Sm and Rb-Sr isotopic data (Emslie et al., 1997), K-Ar isotopic data (Wanless et al., 1972, Hunt and Roddick, 1987), and paleomagnetic sites (Fahrig and Larochelle, 1972; Park and Gower, 1996) are shown. Localities designated as mineral occurrences are based mostly on observations made during the 1979 and 1980 field seasons, but include earlier and later reported discoveries (see Mineral Occurrence Table; current to 2009).

Since the preliminary map was published, interpretation for the region has evolved significantly, so there are major differences between the current and preliminary versions of this map, particularly regarding the depiction of thrusts, most of which are yet to be confirmed. Unit modification is partly related to a compilation approach applied to the whole of eastern Labrador, but border regions of the map have been revised as a result of data integration with adjacent map areas. Geological boundaries are poorly controlled, especially away from shorelines, and have been extrapolated inland using structural observations, regional aeromagnetic data and topographic trends. Pre-1994 data station sites have been digitized from where originally located on aerial photographs or (rarely) on topographic maps, so reliability of location is likely mostly dependent on initial plotting accuracy. Subsequent locations are based on GPS-supported readings.

As is characteristic of metamorphic and plutonic terranes, individual outcrops are typically very complex, and commonly embody several different rock types. Generally, the unit polygon depicted is based on what was judged to be the dominant rock type present, but this approach was not universally followed, due to the exigencies of specific situations, such as the need to emphasize minor rock types deemed to have high significance. All rock types recorded from any individual outcrop may be determined by consulting the 'Unit designator' string for that locality given in the digital database. The user is alerted to the fact that, in the digital database, no attempt has been made to reconcile rock names applied to field outcrops, versus those applied to stained slabs, or petrographic thin sections. Differences may be due to subsequent, more refined identifications, but other reasons may apply, such the sample (or thin section) not being representative of its source material. Unit designator and polygon labels applied are based on an awareness of such factors.

Recommended citation
Gower, C.F., 2010: Geology of the Rigolet area (NTS sheets 13J/01, 02, 07 and 08), eastern Labrador. Geological Survey, Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador, Map 2010-07, Open File 013J/0293.

Geological cartography by T. Paltanavage, Cartographic Unit, Geological Survey, Department of Natural Resources.

Digital NTS base maps (NTS 13J/01, 02, 07 and 08) used for this map are available from Surveys and Mapping Branch, Natural Resources Canada.
Magnetic declination at the centre of the map at the start of 2010 was 23° 21' W.
Elevations are in metres above sea level for NTS sheet 13J/07 and in feet for NTS sheets 13J/01, 02 and 08. Contour interval is 20 metres or 60 feet (13J01 and 08) or 50 feet (13J/02).
UTM (Universal Transverse Mercator) Grid Zone 21, NAD (North American Datum) 27.

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Copies of this map may be obtained from the Geoscience Publications and Information Section, Geological Survey, Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador, P.O. Box 8700, St. John's, NL, A1B 4J6, Canada. Email: pub@gov.nl.ca.

NOTE: Map 2010-07 is one of twenty-five maps on the geology of the Grenville Province in eastern Labrador and adjacent eastern Makkovik Province produced by the Geological Survey, Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador.

Mines Branch website: http://www.nr.gov.nl.ca/nr/mines/index.html.

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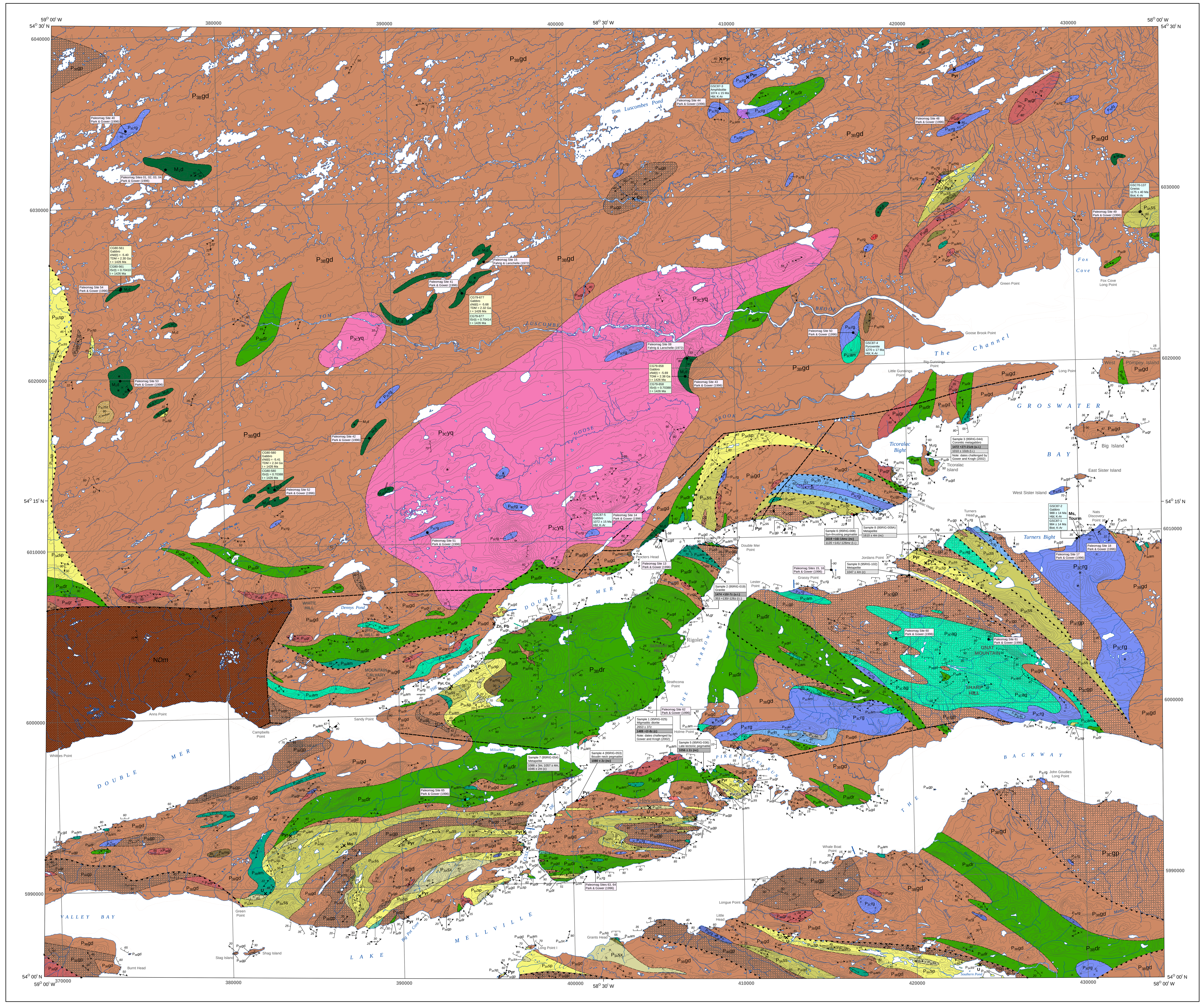

MINERAL OCCURRENCE DATA SOURCES

Inventory No.	Map label	Status	Easting	Northing	Reference
013J/01/Mic001	Ms, Tourm	Indication	429977	6009635	GSNL (field notes; CG80-049)
013J/01/Mo 001	Mo (?)	Indication	407200	5993600	No record in Gower's/Stevenson's notes, reports or maps; or assessment files
013J/01/Pyr001	Pyr	Indication	420460	6009105	GSNL (field notes; CG84-198)
013J/01/Pyr002	Pyr	Indication	418227	6011327	GSNL (field notes; CG79-960)
013J/01/Pyr003	Pyr	Indication	411040	6011006	GSNL (field notes; CG80-018)
013J/01/Pyr004	Pyr	Indication	410246	5994976	GSNL (field notes; CG80-154)
013J/01/Pyr005	Pyr	Indication	408691	5994972	GSNL (field notes; RG80-004)
013J/01/Pyr006	Pyr, Cu	Indication	409233	5994805	GSNL (field notes; RG80-006)
013J/01/Pyr007	Pyr	Indication	409777	5997662	GSNL (field notes; RG80-057)
013J/01/Pyr008	Pyr	Indication	420993	6008280	GSNL (field notes; RG80-464)
013J/01/Pyr009	Pyr	Indication	408614	5995738	GSNL (field notes; RG80-474)
013J/01/U 001	U	Indication	412381	5986534	GSNL (field notes; CG80-442)
013J/01/U 002	U	Indication	423681	5984709	Piloski (1955; Area E, p. vi)
013J/01/U 003	U	Indication	404542	5994307	GSNL (field notes; RG80-326)
013J/02/Mo 001	Mo (?)	Indication	393000	6001520	Gower and Erdmer (1984)
013J/02/Mo 002	Mo	Indication	386608	5992464	GSNL (field notes; CG80-538)
013J/02/Pyr001	Pyr	Indication	383476	5993083	GSNL (field notes; CG80-594)
013J/02/Pyr002	Pyr	Indication	400630	5994998	GSNL (field notes; LG80-002)
013J/02/Pyr003	Pyr	Indication	397175	5993036	GSNL (field notes; NN80-009)
013J/02/Pyr004	Pyr	Indication	396992	5991883	GSNL (field notes; NN80-016)
013J/02/Pyr005	Pyr	Indication	394239	6002532	GSNL (field notes; NN80-034)
013J/02/Pyr006	Pyr	Indication	393098	6001663	GSNL (field notes; NN80-035)
013J/02/Pyr007	Pyr	Indication	395878	5984790	GSNL (field notes; NN80-258)
013J/02/Pyr008	Pyr	Indication	390251	5988194	GSNL (field notes; NN80-269)
013J/02/Pyr009	Pyr	Indication	390241	5992739	GSNL (field notes; NN80-571)
013J/02/Pyr010	Pyr	Indication	390977	5989413	GSNL (field notes; RG80-316)
013J/02/U 001	U	Indication	394984	5989442	GSNL (field notes; NN80-115)
013J/02/U 002	U	Indication	381949	5989748	GSNL (field notes; CG80-585)
013J/02/Zn 001	Zn, Pb	Showing	395650	6005260	Halet (1946); positioned on Stevenson's map
013J/08/Cu 001	Cu	Indication	404342	6029964	GSNL (field notes; CG79-670)
013J/08/Pyr001	Pyr	Indication	423272	6037141	Stevenson (1970; map; SG68-055)
013J/08/Pyr002	Pyr	Indication	411169	6036935	Stevenson (1970; map; SG68-053)
013J/08/Pyr003	Pyr	Indication	422287	6030600	GSNL (field notes; DB79-214)
013J/08/Pyr004	Pyr	Indication	409621	6038034	Dawson (1996)

GSNL (Geological Survey of Newfoundland and Labrador)

GEOLOGICAL DATA SOURCES

Personnel	Stations	Year(s) data collected	Project name	Mapping references
C.F. Gower (project geologist)	563	1979, -80, -83, -84	Rigolet region & other visits	Gower et al. (1981; 1983); additional data
R.T. Gillespie (assistant geologist)	350	1980	Rigolet region	Gower et al. (1981; 1983)
N. Noel (assistant geologist)	205	1980	Rigolet region	Gower et al. (1981; 1983)
I. M. Stevenson (project geologist)	64	1968	Rigolet - Groswater Bay	Stevenson (1970)
J.H. Bourne (assistant geologist)	62	1968	Rigolet - Groswater Bay	Stevenson (1970)
W. Nesbitt (assistant geologist)	36	1968	Rigolet - Groswater Bay	Stevenson (1970)
L. Green (assistant geologist)	31	1980	Rigolet region	Gower et al. (1981; 1983)
D.G. Bailey (supporting geologist)	15	1979	Benedict Mtns. region	Gower et al. (1981; 1983)
R.A. Doherty (assistant geologist)	12	1979	Benedict Mtns. region	Gower et al. (1981; 1983)

ISOTOPIC DATA

U/Pb Geochronology
Sample number
Rock type
Inherited/detrital age
Emplacement age
Metamorphism/closure/cooling/undefined Pb loss age

Mineral abbreviations:
a - allanite
b - baddeleyite
m - monazite
r - rutile
t - titanite
x - xenotime
z - zircon

Concordia abbreviations:
c - concordant
nc - near-concordant
l.i. - lower intercept
u.i. - upper intercept

Nd/Sm Geochronology
Sample number
Rock type
Epsilon value
Depleted mantle age
Age of rock
(? age inferred)

Rb/Sr Geochronology
Sample number
Rock type
Initial Sr ratio calculated from time t
Age of rock
(? age inferred)
(* one of two or more analyses)

K/Ar Geochronology
Sample number
Rock type
Age
Mineral; Method
(* average of two or more analyses)
Biot - biotite
Hbl - hornblende
Musc - muscovite
WR - whole rock
plat - plateau age
tot. gas - total gas age

ISOTOPIC DATA SOURCES

Method	Reference(s)	Samples
U-Pb	Corrigan et al. (2000)	Sample 01 (95RIG 025); Sample 02 (95RIG 019); Sample 03 (95RIG 044); Sample 04 (95RIG 053); Sample 05 (95RIG 036); Sample 06 (95RIG 008); Sample 07 (95RIG 054); Sample 08 (95RIG 009A); Sample 09 (95RIG 102)
Nd-Sm	Emslie et al. (1997)	CG79-658; CG79-677; CG80-561; CG80-580
Rb-Sr	Emslie et al. (1997)	CG79-658; CG79-677; CG80-561; CG80-580
K-Ar	Hunt and Roddick (1987)	GSC87-1; GSC87-2; GSC87-3; GSC87-4; GSC87-5
K-Ar	Wanless et al. (1972)	GSC70-137

MINERAL OCCURRENCE ABBREVIATIONS

Amz Amazonite
Au Gold
Bt Biotite
Cly Clay
Cr Chromium
Cu Copper
Fe Iron
Fel Feldspar
Fl Fluorite
Grt Garnet
Ilm Ilmenite
Lst Limestone
Mgt Magnetite
Mo Molybdenite
Ms Muscovite
Neph Nepheline
Ni Nickel
Pb Lead
Pd Palladium
Po Pyrrhotite
Pt Platinum
Pyr Pyrite
Saph Sapphire
Si Silica
Stn Dimension stone
Th Thorium
Tourm Tourmaline
Tpz Topaz
U Uranium
V Vanadium
Zn Zinc
Zr Zirconium
(?) Occurrence reported but validity suspect

NOTE:
All mineral occurrence and structural symbols do not appear on each map.
Vertical structures use 90° dip value.
* Generation of structure only applicable at observation site.

PALEOMAGNETIC DATA

Paleomagnetic site number
Reference source

SYMBOLS

Geological contact
Normal fault
Strike-slip fault
Thrust fault
Normal fault reactivating thrust
Fold axial plane (1st, 2nd, 3rd generation)*
S-fold axis (1st generation)
Z-fold axis (1st generation)
Dyke (affinity unspecified)
Fault (sense of movement unknown, dextral, sinistral, normal)
Joint
Linear fabric (1st, 2nd, 3rd generation)*
Fold axis (1st, 2nd, 3rd generation)*
Slickenside
Geological data station
Geological data station (no fabric measured)
Bedding (tops known, unknown)
Enclave
Foliation (1st, 2nd, 3rd generation)*
Gneissosity (1st, 2nd generation)*
Igneous layering (tops known, unknown)
Vein
Shear zone (sense of movement unknown, dextral, sinistral, reverse)
Mineral occurrence
Geochronology location

Scale 1:100 000
Kilometres

MAP 2010-07
OPEN FILE 013J/0293

GEOLOGY OF THE RIGOLET AREA (NTS SHEETS 13J/01, 02, 07 & 08) EASTERN LABRADOR

LEGEND

DEVONIAN (?)
Dd Sandwich Bay and Battle Harbour dykes

EARLY CAMBRIAN
CFo Forteau Formation
CBr Bradore Formation (subdivided into L'Anse-au-Clair, Crow Head and Blanc-Sablon members)

NEOPROTEROZOIC – EARLY CAMBRIAN
NCLc Lighthouse Cove Formation
NCBa Bateau Formation

NEOPROTEROZOIC
NDm Double Mer Formation
NGi Gilbert arkose
NSb Sandwich Bay conglomerate

Nc Clastic dykes
Nd Long Range dykes
Nq Quartz veins

LATE MESOPROTEROZOIC (M_3 1200 – 900 Ma)
LATE POST-GRENVILLIAN INTRUSIONS (M_{3D} ca. 975 – 955 Ma)
e.g., Chateau Pond granite
M_{3D}gp Massive to weakly foliated megacrystic/porphyritic granite to quartz monzonite
M_{3D}gr Massive to weakly foliated granite to alkali-feldspar granite
M_{3D}ln Massive to weakly foliated leucogabbro to leuconorite
M_{3D}mn Massive to weakly foliated monzogabbro and monzonorite
M_{3D}mq Massive to weakly foliated quartz monzonite; mantled feldspar textures
M_{3D}mz Massive to weakly foliated monzonite to monzodiorite
M_{3D}yq Massive to weakly foliated syenite, quartz syenite and alkali-feldspar quartz syenite
M_{3D}d Unnamed mafic dykes

EARLY POST-GRENVILLIAN INTRUSIONS (M_{3C} ca. 985 – 975 Ma)
e.g., Beaver Brook and Picton Pond plutons
M_{3C}gr Weakly to moderately foliated granite to alkali-feldspar granite
M_{3C}ln Weakly to moderately foliated leucogabbro to leuconorite
M_{3C}mn Weakly to moderately foliated monzogabbro to monzonorite
M_{3C}mq Weakly to moderately foliated monzonite to quartz monzonite
M_{3C}rg Weakly to moderately foliated gabbro, norite and troctolite
M_{3C}yq Weakly to moderately foliated syenite, quartz syenite and alkali-feldspar syenite
M_{3C}d L'Anse-au-Diable, York Point, Gilbert Bay mafic dykes

SYN-GRENVILLIAN INTRUSIONS (M_{3B} ca. 1085 – 985 Ma)
M_{3B}gd Moderately to strongly foliated granodiorite to quartz diorite
M_{3B}gp Moderately to strongly foliated megacrystic/porphyritic granodiorite to quartz diorite
M_{3B}gr Moderately to strongly foliated granite to alkali-feldspar granite
M_{3B}yn Moderately to strongly foliated aegerine- or nepheline-bearing syenite
M_{3B}d Unnamed mafic dykes (Makkovik Province and adjacent Grenville Province)

PRE-GRENVILLIAN INTRUSIONS (M_{3A} ca. 1200 – 1085 Ma)
e.g., Gilbert Bay pluton
M_{3A}gr Weakly to strongly foliated granite
M_{3A}mn Weakly to strongly foliated monzonite to monzonorite

MIDDLE MESOPROTEROZOIC (M_2 1350 – 1200 Ma)
e.g., Upper North River intrusion
M_2gr Weakly to strongly foliated granite and alkali-feldspar granite
M_2rg Weakly to strongly foliated gabbronorite (in database only - Lourdes-de-Blanc-Sablon intrusion, Quebec)
M_2yq Weakly to strongly foliated syenite, quartz syenite and alkali-feldspar syenite
M_2d Mealy dykes

EARLY MESOPROTEROZOIC (M_1 1600 – 1350 Ma)
e.g., Upper Paradise River, Kyfanan Lake and 13B/12 intrusions, and Michael Gabbro
M_1an Massive or weakly foliated anorthosite to leucogabbronorite, indistinctly layered in places
M_1am Weakly to markedly foliated amphibolite, plus leucocratic and melanocratic variants; granulite facies equivalents
M_1dr Massive, weakly or strongly foliated diorite to amphibolite, may be metamorphic derivative of monzodiorite or leucogabbronorite
M_1gp Moderately to strongly foliated megacrystic/porphyritic granitoid rocks
M_1gr Massive, weakly or strongly foliated granite to quartz monzonite
M_1ln Massive, weakly or strongly foliated leucogabbronorite and anorthositic gabbro, locally grading into gabbronorite, locally coronitic
M_1mn Moderately to strongly foliated monzonorite
M_1mq Moderately to strongly foliated monzonite to quartz monzonite
M_1mz Moderately to strongly foliated monzonite to monzodiorite
M_1rg Massive to strongly foliated gabbro, norite and troctolite, commonly layered; subophitic and locally coronitic; includes recrystallized derivatives retaining igneous textures
M_1um Massive, weakly or strongly foliated ultramafic rocks, commonly layered and locally showing cumulate textures
M_1yq Moderately to strongly foliated syenite and quartz syenite
M_1d Mafic dykes; includes Michael Gabbro

LATE PALEOPROTEROZOIC AND EARLY MESOPROTEROZOIC (PM 1800 – 1350 Ma)
(Ages generally unknown, but ca. 1650 Ma and 1500 – 1470 Ma rocks identified)
RECRYSTALLIZED IGNEOUS ROCKS
PMdr Medium-grained, equigranular, recrystallized weakly to strongly foliated diorite, quartz diorite and to leucoamphibolite
PMgd Weakly to strongly foliated granite to granodiorite
PMgp Megacrystic/porphyritic recrystallized granite to quartz monzonite
PMgr Medium- to coarse-grained, recrystallized weakly to strongly foliated granite and alkali-feldspar granite
PMln Medium- to coarse-grained, recrystallized leuconorite, leucogabbro
PMmd Medium- to coarse-grained, recrystallized, weakly to strongly foliated, monzodiorite to monzonite
PMmq Medium- to coarse-grained, recrystallized, weakly to strongly foliated quartz monzonite
PMrg Medium- to coarse-grained, gabbro, norite and troctolite
PMtn Medium- to coarse-grained, recrystallized, weakly to strongly foliated tonalite to granodiorite
PMyq Medium- to coarse-grained, recrystallized, weakly to strongly foliated syenite, alkali-feldspar syenite and quartz syenite
PMam Amphibolite; generally thought to be derived from mafic dykes

SUPRACRUSTAL ROCKS PROVISIONALLY ASSIGNED AS PITTS HARBOUR GROUP
Sedimentary protolith
PMsc Calc-silicate rocks, compositionally layered, medium grained
PMsp Pelitic schist and gneiss
PMsq Quartzite, meta-arkose, thin to thick bedded
PMss Quartz-feldspar psammitic schist and gneiss; medium grained
PMsx Coarse-grained to pegmatitic-granitic material (diatexite), characteristically associated with psammitic gneiss and quartzite

Volcanic protolith
PMvf Fine- to medium-grained, banded quartzofeldspathic rocks; locally having lensoid shapes, possibly indicating felsic volcaniclastic protolith
PMvm Fine- to medium-grained, banded amphibolite containing quartz-feldspar layers and calc-silicate pods; interpreted as mafic volcanic rocks

AGE GENERALLY POORLY CONSTRAINED
β Brittle deformation; cataclastic rocks, pseudotacholite
δ Ductile deformation; mylonite, straight gneiss

AGE GENERALLY POORLY CONSTRAINED
f Aplite, microgranite (felsite)
k Carbonate vein
p Pegmatite
q Quartz vein

LATE PALEOPROTEROZOIC (P_3 1800 – 1600 Ma)
LATE LABRADORIAN GRANITOID INTRUSIONS (P_{3C} 1660 – 1600 Ma)
e.g., Paradise Arm intrusion and Hawke Bay intrusive suite
P_{3C}dr Diorite, quartz diorite and tonalite; locally grading into leucogabbronorite
P_{3C}ga Alkali-feldspar granite, granite and quartz syenite forming discrete plutons
P_{3C}gd Granite to granodiorite forming discrete unmigmatized plutons
P_{3C}gp Megacrystic/porphyritic granite to granodiorite
P_{3C}gr Granite and minor alkali-feldspar granite
P_{3C}mn Monzonorite and monzogabbro
P_{3C}mq Quartz monzonite, including rare quartz syenite
P_{3C}mz Monzonite, including minor syenite
P_{3C}yq Syenite to quartz syenite forming discrete plutons
P_{3C}d Unnamed mafic dykes

LATE LABRADORIAN ANORTHOSITIC AND MAFIC INTRUSIONS (P_{3C} 1660 – 1600 Ma)
e.g., White Bear Arm complex and Sand Hill Big Pond intrusion
P_{3C}ag Weakly to markedly foliated mafic granulite, plus leucocratic and melanocratic variants
P_{3C}am Weakly to markedly foliated amphibolite, plus leucocratic and melanocratic variants
P_{3C}an Massive to strongly foliated anorthosite and leucogabbronorite
P_{3C}rg Massive to strongly foliated gabbro and norite, commonly layered; subophitic and locally coronitic
P_{3C}ln Primary textured to recrystallized leucogabbronorite and leucogabbro; coronitic locally
P_{3C}lt Primary textured to recrystallized leucotroctolite
P_{3C}um Massive, weakly or strongly foliated ultramafic rocks, commonly layered and locally showing cumulate textures

EARLY LABRADORIAN MAFIC AND ASSOCIATED ROCKS (P_{3B} 1710 – 1660 Ma)
e.g., Alexis River anorthosite (assigned here although age is uncertain)
P_{3B}ag Weakly foliated to gneissic amphibolite and mafic granulite, plus leucocratic and melanocratic variants
P_{3B}an Weakly foliated to gneissic anorthosite and leucogabbronorite
P_{3B}ln Weakly foliated to gneissic leucogabbronorite and leucogabbro; coronitic locally
P_{3B}mn Weakly foliated to gneissic monzonorite and monzogabbro
P_{3B}rg Weakly foliated to gneissic gabbro and norite
P_{3B}um Massive, weakly or strongly foliated ultramafic rocks, commonly layered and locally showing cumulate textures

EARLY LABRADORIAN GRANITOID AND ASSOCIATED ROCKS (ca. 1678 and 1671 Ma)
e.g., Neveisik Island and Red Island events
P_{3B}dr Foliated to gneissic diorite to quartz diorite, and compositionally equivalent well-banded gneiss; in part derived from leucogabbronorite
P_{3B}gd Foliated to gneissic granodiorite and compositionally equivalent well-banded gneiss
P_{3B}gp Foliated to gneissic megacrystic/porphyritic granitoid rocks, augen gneiss
P_{3B}gr Foliated to gneissic granite and alkali-feldspar granite, and compositionally equivalent well-banded gneiss
P_{3B}mq Foliated to gneissic quartz monzonite, grading into diorite or syenite, and compositionally equivalent well-banded gneiss
P_{3B}mz Foliated to gneissic monzonite and monzodiorite, and compositionally equivalent well-banded gneiss
P_{3B}ya Foliated to gneissic syenite, alkali-feldspar syenite and alkali-feldspar granite, and compositionally equivalent well-banded gneiss
P_{3B}am Amphibolite skialiths, lenses and layers (mainly remnants of former dykes)

PRE-LABRADORIAN GRANITOID ROCKS (P_{3A} 1800 – 1710 Ma)
P_{3A}ag Mafic granulite skialiths, lenses and layers
P_{3A}dr Foliated to gneissic diorite to quartz diorite, and compositionally equivalent well-banded gneiss
P_{3A}gd Foliated to gneissic granodiorite and compositionally equivalent well-banded gneiss
P_{3A}gp Foliated to gneissic megacrystic/porphyritic granitoid rocks, augen gneiss
P_{3A}gr Foliated to gneissic granite and alkali-feldspar granite, and compositionally equivalent well-banded gneiss
P_{3A}ln Foliated to gneissic leucogabbronorite, and compositionally equivalent well-banded gneiss
P_{3A}am Amphibolite skialiths, lenses and layers (mainly remnants of former dykes)

PRE-LABRADORIAN SUPRACRUSTAL ROCKS (P_{3A} 1800 – 1710 Ma)
(Age uncertain; certainly pre-1670 Ma, probably 1800 – 1770 Ma)
Sedimentary protolith
P_{3A}sc Calc-silicate rocks, compositionally layered, medium grained
P_{3A}sp Fine- to medium-grained pelitic schist and gneiss
P_{3A}sq Quartzite, meta-arkose, thin to thick bedded
P_{3A}ss Quartz-feldspar psammitic schist and gneiss; medium grained and commonly rusty-weathering
P_{3A}sx Metasedimentary diatexite; coarse grained to pegmatitic and characteristically white-weathering

Volcanic protolith
P_{3A}vf Fine- to medium-grained, banded quartzofeldspathic rocks; locally have lensoid shapes, possibly indicating felsic volcanoclastic protolith
P_{3A}vm Fine- to medium-grained, banded amphibolite containing quartz-feldspar layers and calc-silicate pods; interpreted as mafic volcanic rocks

MID PALEOPROTEROZOIC (P_2 2100 – 1800 Ma)
LATE MID PALEOPROTEROZOIC (P_{2C} 1900 – 1800 Ma)
Granitoid and related intrusive rocks
P_{2C}dr Foliated to gneissic diorite to quartz diorite, and compositionally equivalent well-banded gneiss
P_{2C}ga Alkali-feldspar granite, granite and quartz syenite
P_{2C}gd Foliated to gneissic granodiorite and compositionally equivalent well-banded gneiss
P_{2C}gp Foliated to gneissic megacrystic/porphyritic granitoid rocks, augen gneiss
P_{2C}gr Foliated to gneissic granite and alkali-feldspar granite, and compositionally equivalent well-banded gneiss
P_{2C}mq Foliated to gneissic quartz monzonite, grading into diorite or syenite, and compositionally equivalent well-banded gneiss
P_{2C}mz Foliated to gneissic monzonite to monzodiorite, and compositionally equivalent well-banded gneiss
P_{2C}ya Foliated to gneissic syenite to alkali-feldspar syenite, and compositionally equivalent well-banded gneiss
P_{2C}yq Syenite to quartz syenite

Mafic and associated intrusive rocks
P_{2C}am Amphibolite skialiths, lenses and layers (mainly remnants of former dykes)
P_{2C}rg Massive to strongly foliated gabbro and norite, commonly layered; subophitic and locally coronitic
P_{2C}d Unnamed mafic dykes

Sedimentary protolith
P_{2C}sc Calc-silicate rocks, compositionally layered, medium grained
P_{2C}so Conglomerate and agglomerate, partially of volcanic origin
P_{2C}sp Fine- to medium-grained pelitic schist and gneiss
P_{2C}sq Quartzite, meta-arkose, thin to thick bedded
P_{2C}ss Quartz-feldspar psammitic schist and gneiss; medium grained and commonly rusty-weathering

Volcanic protolith
P_{2C}vb Volcanic breccia, angular clasts, grading into agglomerate
P_{2C}vf Fine- to medium-grained, banded quartzofeldspathic rocks; locally have lensoid shapes, possibly indicating felsic volcaniclastic protolith
P_{2C}vi Intermediate volcanic rocks
P_{2C}vm Fine- to medium-grained, banded amphibolite containing quartz-feldspar layers and calc-silicate pods; interpreted as mafic volcanic rocks
P_{2C}vp Felsic volcanic porphyry interpreted to be hypabyssal

NOTES

1. Legend is common to all maps (Map 2010-01 to Map 2010-25), but all units do not appear on every map.
2. Uncoloured units do not appear as polygons on maps, but are in unit-designator strings in database.
3. Some mafic dykes also shown as polygons (especially where orientation is unknown).