

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 previously 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 in subsequent visits. The present map incorporates field data collected by Stevenson

The map is augmented by follow-up examination of stained slabs, petrographic thin sections, and whole-rock geochemical analyses. U-Pb geochronological results (Schärer et al., 1986; Schärer and Gower, 1988; Schärer, 1991; Kamo et al., 1996; Krogh et al., 2002, Nd-Sm isotopic data (Schärer, 1991; R.A. Creaser, unpublished - see digital database), Rb-Sr isotopic data (Fahrig and Loveridge, 1981; Brooks, 1982; Owen, 1985; Owen et al., 1988; Schärer, 1991), K-Ar isotopic data (Geological Survey of Canada, unpublished; Grasty et al., 1969; Wanless et al., 1972, 1973), Ar-Ar isotopic data (Owen et al., 1988; R. D. Dallmeyer, unpublished, see digital database), and paleomagnetic sites (Fahrig and Larochelle, 1972; Park and Gower, 1996) are shown. Localities designated as mineral occurrences are based partly on observations made during the 1979 and 1980 field seasons, but include earlier and later reported discoveries (see Mineral Occurrence Table; current to 2009).

(1970) and Owen (1985), making use of original field notes recorded by I.M. Stevenson and assistants and thesis material of J.V.

current and preliminary versions of this map, particularly in the northeast part of the map, where the mapping of Owen (1985) has been integrated, but also regarding the depiction of thrusts in the southwest part, most of which are vet 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. 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. 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

Since the preliminary map was published, interpretation for the region has evolved, so there are some differences between the

Recommended citation Gower, C.F., 2010: Geology of the Groswater Bay area (NTS sheets 13I/03, 04, 05 and 06), eastern Labrador. Geological Survey, Mines Branch, Department of Natural Resources, Government of Newfoundland and Labrador, Map 2010-08, Open File

labels applied are based on an awareness of such factors.

Magnetic declination at 54° 00' N, 58° 00' W at the start of 2010 was 23° 12' W.

UTM (Universal Transverse Mercator) Grid Zone 21, NAD (North American Datum) 27.

Elevations are in feet above sea level. Contour interval is 60 feet.

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

Geological cartography by T. Paltanavage, Cartographic Unit, Geological Survey, Department of Natural Resources. Digital NTS base maps (NTS 13I/03, 04, 05, and 06) used for this map are available from Surveys and Mapping Branch, Natural

Dr. C.F. Gower, 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: cgower@gov.nl.ca. 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,

NOTE: Map 2010-08 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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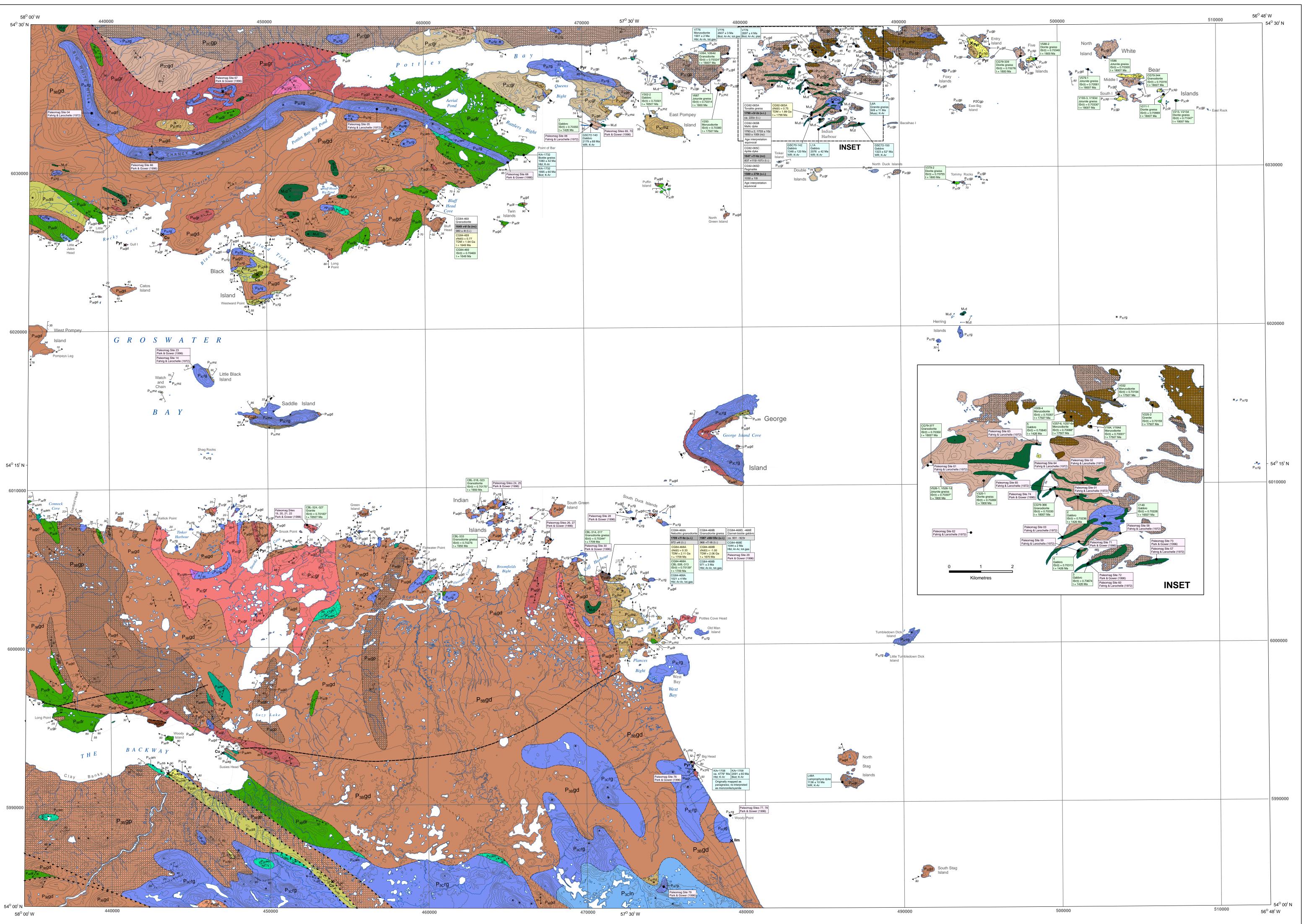
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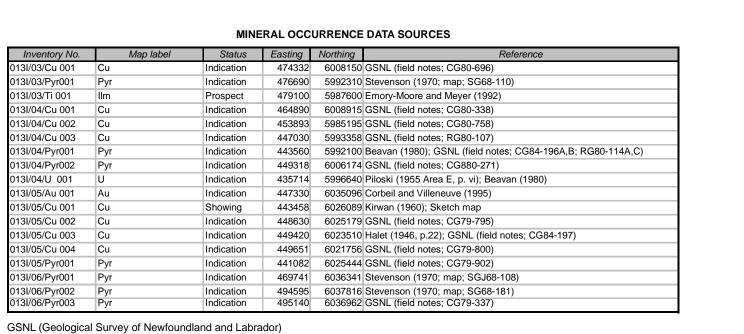
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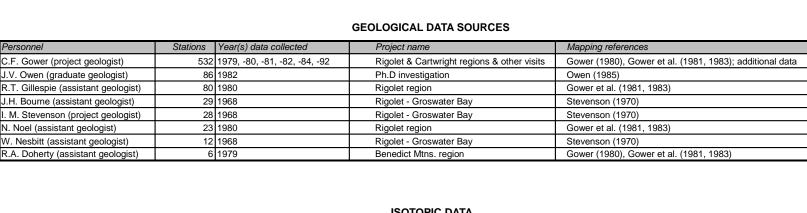
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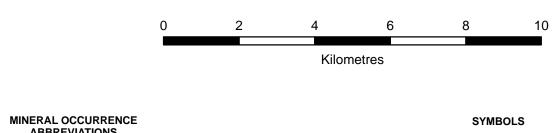








U/Pb Geochronology				Nd/Sm Geochronology	Rb/Sr Geochronology	K/Ar Geochronology
Inhe Emp	apple number k type erited/detrital age placement age amorphism/closure/ ing/undefined oss age	a - allanite b - baddele m - monaz r - rutile t - titanite x - xenotim z - zircon	eyite ite  a abbreviations: lant oncordant ntercept	Sample number Rock type Epsilon value Depleted mantle age Age of rock  (? age inferred)	Sample number Rock type Initial Sr ratio calculated from time t Age of rock  (? age inferred) (* one of two or more analyses)	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
	Reference(s)		Samples			
1ethod			Samples CG92-065C			
<i>lethod</i> -Pb	Reference(s) Kamo et al. (1996)		CG92-065C	2-065B; CG92-065D		
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Scale 1:100 000

/IATIONS	STMBOLS		
Amazonite	Geological contact		
Gold	-		
Biotite	Normal fault		
Clay			
Chromium	Strike-slip fault	$\sim \sim \sim \sim \sim \sim$	
Copper	•		
Iron	Thrust fault	***	
Feldspar			
Fluorite	Normal fault reactivating thrust		
Garnet			
Ilmenite	Fold axial plane (1st, 2nd, 3rd generation)*		
Limestone			
	S-fold axis (1st generation)	<del>&lt; +2</del>	
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	Z-fold axis (1st generation)	<del>Z+-&gt;</del>	
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	Fault (sense of movement unknown, dextral, sinistral, normal)		
	. aux (33700 of movement anniversity doctroit, of notice, normal)		
•	Joint		
	CONT.		
	Linear fabric (1st, 2nd, 3rd generation)*		
	Linear rabite ( for, 2rra, ora generation)	<del></del>	
	Fold axis (1st, 2nd, 3rd generation)*		
	Tota and (19t, 21ta, ora gonoration)	<del>&gt;&gt;&gt;</del>	
	Slickenside		
	Olloholi ioluc		
•	Geological data station		
	Scological data station	×	
	Geological data station (no fabric measured)	110	
	Geological data station (no labric measured)	*	
	Redding (tons known unknown)		
·	Deduting (tops known, unknown)		
but validity suspect	Enclovo		
	LIIUIAVE	<del>-</del>	
	Foliation (1st 2nd 3rd generation)*		
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	Gneissosity (1st. 2nd generation)*	*** ***	
	Cholosophy (10), End gonoradon/	<del>▼1-</del> <del>▼11-</del>	
res use 90° dip value.	Igneous layering (tops known, unknown)	<del></del>	
	Vein	<del></del>	
	Shear zone (sense of movement unknown, dextral		
	sinistral, reverse)		
MAGNETIC DATA	33. 3., 1010100/		
anatia sita numbar	Mineral occurrence	•	
		×	
e source	Geochronology location		
	Amazonite Gold Biotite Clay Chromium Copper Iron Feldspar Fluorite Garnet Ilmenite Limestone Magnetite Molybdenite Muscovite Nepheline Nickel Lead Paladium Pyrrhotite Platinum Pyrite Sapphire Silica Dimension stone Thorium Tourmaline Topaz Uranium Vanadium Zinc Zirconium Occurrence reported but validity suspect  urrence and structural t appear on each map.  ures use 90° dip value. f structure only applicable site.  MAGNETIC DATA gnetic site number se source	Gold Bibtite Clay Chromium Copper Iron Feldspar Fluorite Garnet Ilmenite Limestone Magnetite Muscovite Lead Paladium Pyrrhotite Platinum Pyrrhotite Platinum Pyrite Sapphire Silica Dimension stone Thorium Tournaline Geological data station. Vanadium Vanadium Vanadium Vanadium Vanadium Vanadium Vanadium Vanadium Cocurrence reported but validity suspect  Is structure only applicable site.  MAGNETIC DATA MAGNETIC DATA MAGNETIC DATA MAGNETIC DATA MAGNETIC DATA Magnetic Striat Maria Intractivating thrust Stradiut. Strike-slip fault Normal fault Normal fault Strike-slip	

## MAP 2010-08 OPEN FILE 013I/0028 GEOLOGY OF THE GROSWATER BAY AREA (NTS SHEETS 13I/03, 04, 05 & 06) EASTERN LABRADOR

LKN LAB	KAD	OK			
LEGENI	)				
	LATE L	PALEOPROTEROZOIC ( $P_3$ 1800 $-$ 1600 Ma) ABRADORIAN GRANITOID INTRUSIONS ( $P_{3C}$ 1660 $-$ 1600 Ma) radise Arm intrusion and Hawke Bay intrusive suite			
	P <sub>3C</sub> dr	P <sub>3c</sub> ga P <sub>3c</sub> gd P <sub>3c</sub> gp P <sub>3c</sub> gr P <sub>3c</sub> mn P <sub>3c</sub> mq P <sub>3c</sub> mz P <sub>3c</sub> yq			
	P <sub>3C</sub> dr	Diorite, quartz diorite and tonalite; locally grading into leucogabbronorite			
	P <sub>3C</sub> ga	Alkali-feldspar granite, granite and quartz syenite forming discrete plutons			
	P <sub>3C</sub> gd	Granite to granodiorite forming discrete unmigmatized plutons			
	P <sub>3C</sub> gp	Megacrystic/porphyritic granite to granodiorite			
	P <sub>3C</sub> gr	Granite and minor alkali-feldspar granite			
	P <sub>3C</sub> 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 <sub>3C</sub> d	Unnamed mafic dykes			
	LATE LABRADORIAN ANORTHOSITIC AND MAFIC INTRUSIONS (P <sub>3C</sub> 1660 – 1600 Ma) e.g., White Bear Arm complex and Sand Hill Big Pond intrusion				
	P <sub>3C</sub> ag	P <sub>3C</sub> am P <sub>3C</sub> rg P <sub>3C</sub> ln P <sub>3C</sub> lt P <sub>3C</sub> um			
	P <sub>3C</sub> ag	Weakly to markedly foliated mafic granulite, plus leucocratic and melanocratic variants			
	P <sub>3C</sub> am	Weakly to markedly foliated amphibolite, plus leucocratic and melanocratic variants			
	P <sub>3C</sub> an	Massive to strongly foliated anorthosite and leucogabbronorite			
	P <sub>3C</sub> rg	Massive to strongly foliated gabbro and norite, commonly layered; subophitic and locally coronitic			
	$P_{3C}In$	Primary textured to recrystallized leucogabbronorite and leucogabbro; coronitic locally			

## EARLY LABRADORIAN MAFIC AND ASSOCIATED ROCKS (P<sub>3B</sub> 1710 – 1660 Ma) e.g., Alexis River anorthosite (assigned here although age is uncertain)

P<sub>3B</sub>In Weakly foliated to gneissic leucogabbronorite and leucogabbro; coronitic locally

P<sub>3B</sub>um Massive, weakly or strongly foliated ultramafic rocks, commonly layered and locally

EARLY LABRADORIAN GRANITOID AND ASSOCIATED ROCKS (ca. 1678 and 1671 Ma)

P<sub>3B</sub>gd Foliated to gneissic granodiorite and compositionally equivalent well-banded gneiss

P<sub>3B</sub>gr Foliated to gneissic granite and alkali-feldspar granite, and compositionally equivalent well-

P<sub>3B</sub>mq Foliated to gneissic quartz monzonite, grading into diorite or syenite, and compositionally

P<sub>3B</sub>ya Foliated to gneissic syenite, alkali-feldspar syenite and alkali-feldspar granite, and

P<sub>3B</sub>am Amphibolite skialiths, lenses and layers (mainly remnants of former dykes)

P<sub>3B</sub>mz Foliated to gneissic monzonite and monzodiorite, and compositionally equivalent well-banded

P<sub>3A</sub>dr Foliated to gneissic diorite to quartz diorite, and compositionally equivalent well-banded gneiss

P<sub>3A</sub>gr Foliated to gneissic granite and alkali-feldspar granite, and compositionally equivalent well-

P<sub>3A</sub>ln Foliated to gneissic leucogabbronorite, and compositionally equivalent well-banded gneiss

P<sub>3A</sub>ss Quartz-feldspar psammitic schist and gneiss; medium grained and commonly rusty-weathering

P<sub>3A</sub>sx Metasedimentary diatexite; coarse grained to pegmatitic and characteristically white-weathering

P<sub>3A</sub>vf Fine- to medium-grained, banded quartzofeldspathic rocks; locally have lensoid shapes, possibly

P<sub>3A</sub>vm Fine- to medium-grained, banded amphibolite containing quartz-feldspar layers and calc-silicate

P<sub>2C</sub>dr Foliated to gneissic diorite to quartz diorite, and compositionally equivalent well-banded gneiss

P<sub>3A</sub>gd Foliated to gneissic granodiorite and compositionally equivalent well-banded gneiss

P<sub>3A</sub>gp Foliated to gneissic megacrystic/porphyritic granitoid rocks, augen gneiss

P<sub>3A</sub>am Amphibolite skialiths, lenses and layers (mainly remnants of former dykes)

PRE-LABRADORIAN SUPRACRUSTAL ROCKS (P<sub>3A</sub> 1800 – 1710 Ma)

(Age uncertain; certainly pre-1670 Ma, probably 1800 – 1770 Ma)

P<sub>3A</sub>sc Calc-silicate rocks, compositionally layered, medium grained

P<sub>3A</sub>SC P<sub>3A</sub>SP P<sub>3A</sub>SQ P<sub>3A</sub>SS P<sub>3A</sub>SX P<sub>3A</sub>Vf P<sub>3A</sub>Vm

P<sub>3A</sub>sp Fine- to medium-grained pelitic schist and gneiss

indicating felsic volcanoclastic protolith

pods; interpreted as mafic volcanic rocks

MID PALEOPROTEROZOIC (P<sub>2</sub> 2100 - 1800 Ma)

LATE MID PALEOPROTEROZOIC (P<sub>2C</sub> 1900 – 1800 Ma)

Granitoid and related intrusive rocks

P<sub>3A</sub>sq Quartzite, meta-arkose, thin to thick bedded

Sedimentary protolith

P<sub>3B</sub>gp Foliated to gneissic megacrystic/porphyritic granitoid rocks, augen gneiss

P<sub>3B</sub>dr Foliated to gneissic diorite to quartz diorite, and compositionally equivalent well-banded gneiss;

P<sub>3B</sub>an Weakly foliated to gneissic anorthosite and leucogabbronorite

P<sub>3B</sub>mn Weakly foliated to gneissic monzonorite and monzogabbro

P<sub>3B</sub>dr P<sub>3B</sub>gd P<sub>3B</sub>gp P<sub>3B</sub>gr P<sub>3B</sub>mq P<sub>3B</sub>mz P<sub>3B</sub>ya P<sub>3B</sub>am

P<sub>3B</sub>rg Weakly foliated to gneissic gabbro and norite

in part derived from leucogabbronorite

showing cumulate textures

e.g., Neveisik Island and Red Island events

equivalent well-banded gneiss

compositionally equivalent well-banded gneiss

PRE-LABRADORIAN GRANITOID ROCKS (P<sub>3A</sub> 1800 – 1710 Ma)

P<sub>3A</sub>ag P<sub>3A</sub>dr P<sub>3A</sub>gd P<sub>3A</sub>gp P<sub>3A</sub>gr P<sub>3A</sub>ln P<sub>3A</sub>am

P<sub>3A</sub>ag Mafic granulite skialiths, lenses and layers

P<sub>3C</sub>um Massive, weakly or strongly foliated ultramafic rocks, commonly layered and locally showing

P<sub>3C</sub>lt Primary textured to recrystallized leucotroctolite

M<sub>3D</sub>mz Massive to weakly foliated monzonite to monzodiorite M<sub>3D</sub>yq Massive to weakly foliated syenite, quartz syenite and alkali-feldspar quartz syenite P<sub>3B</sub>ag Weakly foliated to gneissic amphibolite and mafic granulite, plus leucocratic and melanocratic variants

M<sub>3D</sub>d Unnamed mafic dykes EARLY POST-GRENVILLIAN INTRUSIONS (M<sub>3C</sub> ca. 985 – 975 Ma) e.g., Beaver Brook and Picton Pond plutons

M<sub>3C</sub>gr Weakly to moderately foliated granite to alkali-feldspar granite M<sub>3C</sub>In Weakly to moderately foliated leucogabbro to leuconorite

M<sub>3C</sub>mn Weakly to moderately foliated monzogabbro to monzonorite M<sub>3C</sub>mq Weakly to moderately foliated monzonite to quartz monzonite

Dd > Sandwich Bay and Battle Harbour dykes

NEOPROTEROZOIC – EARLY CAMBRIAN

NCLc Lighthouse Cove Formation

NCBa Bateau Formation

NDm Double Mer Formation

Nd Long Range dykes

e.g., Chateau Pond granite

Nq Quartz veins

NSb Sandwich Bay conglomerate

LATE MESOPROTEROZOIC (M<sub>3</sub> 1200 – 900 Ma)

LATE POST-GRENVILLIAN INTRUSIONS (M<sub>3D</sub> ca. 975 – 955 Ma)

M<sub>3D</sub>gp M<sub>3D</sub>gr M<sub>3D</sub>ln M<sub>3D</sub>mn M<sub>3D</sub>mq M<sub>3D</sub>mz M<sub>3D</sub>yq M<sub>3D</sub>d M

M<sub>3D</sub>gr Massive to weakly foliated granite to alkali-feldspar granite

M<sub>3D</sub>mn Massive to weakly foliated monzogabbro and monzonorite

M<sub>3D</sub>ln Massive to weakly foliated leucogabbro to leuconorite

M<sub>3D</sub>gp Massive to weakly foliated megacrystic/porphyritic granite to quartz monzonite

M<sub>3D</sub>mq Massive to weakly foliated quartz monzonite; mantled feldspar textures

NEOPROTEROZOIC NDm: NGi NSb:

NGi Gilbert arkose

Bradore Formation (subdivided into L'Anse-au-Clair, Crow Head and Blanc-Sablon members)

**EARLY CAMBRIAN** Forteau Formation

M<sub>3C</sub>rg Weakly to moderately foliated gabbro, norite and troctolite M<sub>3C</sub>yq Weakly to moderately foliated syenite, quartz syenite and alkali-feldspar syenite

M<sub>3C</sub>d L'Anse-au-Diable, York Point, Gilbert Bay mafic dykes

SYN-GRENVILLIAN INTRUSIONS (M<sub>3B</sub> ca. 1085 – 985 Ma) M<sub>3B</sub>gd M<sub>3B</sub>gp: M<sub>3B</sub>gr M<sub>3B</sub>yn M<sub>3B</sub>d > M<sub>3B</sub>gd Moderately to strongly foliated granodiorite to quartz diorite

M<sub>3B</sub>gp Moderately to strongly foliated megacrystic/porphyritic granodiorite to quartz diorite

M<sub>3B</sub>gr Moderately to strongly foliated granite to alkali-feldspar granite M<sub>3B</sub>yn Moderately to strongly foliated aegerine- or nepheline-bearing syenite

M<sub>3B</sub>d Unnamed mafic dykes (Makkovik Province and adjacent Grenville Province)

PRE-GRENVILLIAN INTRUSIONS (M<sub>3A</sub> ca. 1200 – 1085 Ma) e.g., Gilbert Bay pluton

M<sub>3A</sub>gr M<sub>3A</sub>mn M<sub>3A</sub>gr Weakly to strongly foliated granite

M<sub>3A</sub>mn Weakly to strongly foliated monzonite to monzonorite MIDDLE MESOPROTEROZOIC (M<sub>2</sub> 1350 – 1200 Ma) e.g., Upper North River intrusion

> $M_2$ gr  $M_2$ rg  $M_2$ yq  $M_2$ d  $\nearrow$ M<sub>2</sub>gr Weakly to strongly foliated granite and alkali-feldspar granite

M<sub>2</sub>rg Weakly to strongly foliated gabbronorite (in database only - Lourdes-de-Blanc-Sablon intrusion,

M<sub>2</sub>yq Weakly to strongly foliated syenite, quartz syenite and alkali-feldspar syenite

M<sub>2</sub>d Mealy dykes

EARLY MESOPROTEROZOIC (M<sub>1</sub> 1600 - 1350 Ma) e.g., Upper Paradise River, Kyfanan Lake and 13B/12 intrusions, and Michael Gabbro

 $M_1$ an  $M_1$ am  $M_2$ dr  $M_1$ gp  $M_1$ gr  $M_1$ ln  $M_1$ mn  $M_1$ mq  $M_1$ mq  $M_1$ mz  $M_1$ rg  $M_1$ um  $M_1$ yq  $M_1$ d  $\nearrow$ M₁an Massive or weakly foliated anorthosite to leucogabbronorite, indistinctly layered in places

M₁am Weakly to markedly foliated amphibolite, plus leucocratic and melanocratic variants; granulite facies equivalents

M₁dr Massive, weakly or strongly foliated diorite to amphibolite, may be metamorphic derivative of monzodiorite or leucogabbronorite

M<sub>1</sub>gp Moderately to strongly foliated megacrystic/porphyritic granitoid rocks

M<sub>1</sub>gr Massive, weakly or strongly foliated granite to quartz monzonite M₁In Massive, weakly or strongly foliated leucogabbronorite and anorthositic gabbro, locally

grading into gabbronorite, locally coronitic

M₁mn Moderately to strongly foliated monzonorite

M₁mq Moderately to strongly foliated monzonite to quartz monzonite M<sub>1</sub>mz Moderately to strongly foliated monzonite to monzodiorite

M₁d Mafic dykes; includes Michael Gabbro

RECRYSTALLIZED IGNEOUS ROCKS

and to leucoamphibolite

syenite and quartz syenite

Sedimentary protolith

Volcanic protolith

PMsp Pelitic schist and gneiss

PMgd Weakly to strongly foliated granite to granodiorite

PMgp Megacrystic/porphyritic recrystallized granite to quartz monzonite

PMIn Medium- to coarse-grained, recrystallized leuconorite, leucogabbro

PMrg Medium- to coarse-grained, gabbro, norite and troctolite

PMam Amphibolite; generally thought to be derived from mafic dykes

PMsc Calc-silicate rocks, compositionally layered, medium grained

PMss Quartz-feldspar psammitic schist and gneiss; medium grained

possibly indicating felsic volcaniclastic protolith

pods; interpreted as mafic volcanic rocks

β Brittle deformation; cataclastic rocks, pseudotacholite

δ Ductile deformation; mylonite, straight gneiss

PMsq Quartzite, meta-arkose, thin to thick bedded

psammitic gneiss and quartzite

AGE GENERALLY POORLY CONSTRAINED

AGE GENERALLY POORLY CONSTRAINED

f k p q

k Carbonate vein p Pegmatite

q Quartz vein

f Aplite, microgranite (felsite)

M₁rg Massive to strongly foliated gabbro, norite and troctolite, commonly layered; subophitic and locally coronitic; includes recrystallized derivatives retaining igneous textures

M<sub>1</sub>um Massive, weakly or strongly foliated ultramafic rocks, commonly layered and locally showing

LATE PALEOPROTEROZOIC AND EARLY MESOPROTEROZOIC (PM 1800 – 1350 Ma)

PMdr Medium-grained, equigranular, recrystallized weakly to strongly foliated diorite, guartz diorite

PMgr Medium- to coarse-grained, recrystallized weakly to strongly foliated granite and alkali-feldspar

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

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

PMsx Coarse-grained to pegmatitic-granitic material (diatexite), characteristically associated with

PMvf Fine- to medium-grained, banded quartzofeldspathic rocks; locally having lensoid shapes,

PMvm Fine- to medium-grained, banded amphibolite containing quartz-feldspar layers and calc-silicate

SUPRACRUSTAL ROCKS PROVISIONALLY ASSIGNED AS PITTS HARBOUR GROUP

(Ages generally unknown, but ca. 1650 Ma and 1500 – 1470 Ma rocks identified)

cumulate textures

M<sub>1</sub>yq Moderately to strongly foliated syenite and quartz syenite

P<sub>2C</sub>gp Foliated to gneissic megacrystic/porphyritic granitoid rocks, augen gneiss

P<sub>2C</sub>gr Foliated to gneissic granite and alkali-feldspar granite, and compositionally equivalent well-banded

P<sub>2C</sub>ga Alkali-feldspar granite, granite and quartz syenite

P<sub>2C</sub>mq Foliated to gneissic quartz monzonite, grading into diorite or syenite, and compositionally

P<sub>2c</sub>dr P<sub>2c</sub>ga: P<sub>2c</sub>gd P<sub>2c</sub>gp P<sub>2c</sub>gr P<sub>2c</sub>mq P<sub>2c</sub>mz P<sub>2c</sub>ya P<sub>2c</sub>yq

equivalent well-banded gneiss P<sub>2C</sub>mz Foliated to gneissic monzonite to monzodiorite, and compositionally equivalent well-banded gneiss

P<sub>2C</sub>gd Foliated to gneissic granodiorite and compositionally equivalent well-banded gneiss

P<sub>2C</sub>ya Foliated to gneissic syenite to alkali-feldspar syenite, and compositionally equivalent well-banded

P<sub>2C</sub>yq Syenite to quartz syenite

Mafic and associated intrusive rocks P<sub>2C</sub>am P<sub>2C</sub>rg P<sub>2C</sub>d

P<sub>2C</sub>rg Massive to strongly foliated gabbro and norite, commonly layered; subophitic and locally

P<sub>20</sub>am Amphibolite skialiths, lenses and layers (mainly remnants of former dykes)

P<sub>2C</sub>d Unnamed mafic dykes Sedimentary protolith

P<sub>2C</sub>sc P<sub>2C</sub>so P<sub>2C</sub>sp P<sub>2C</sub>sq P<sub>2C</sub>ss

P<sub>2C</sub>sc Calc-silicate rocks, compositionally layered, medium grained P<sub>2C</sub>so Conglomerate and agglomerate, partially of volcanic origin

P<sub>2C</sub>sp Fine- to medium-grained pelitic schist and gneiss

P<sub>2C</sub>sq Quartzite, meta-arkose, thin to thick bedded

P<sub>2C</sub>SS Quartz-feldspar psammitic schist and gneiss; medium grained and commonly rusty-weathering

Volcanic protolith

P<sub>2C</sub>vb P<sub>2C</sub>vf P<sub>2C</sub>vi P<sub>2C</sub>vm P<sub>2C</sub>

P<sub>2C</sub>vb Volcanic breccia, angular clasts, grading into agglomerate P<sub>2C</sub>vf Fine- to medium-grained, banded quartzofeldspathic rocks; locally have lensoid shapes, possibly

indicating felsic volcanoclastic protolith P<sub>2C</sub>vi Intermediate volcanic rocks

P<sub>2C</sub>vm Fine- to medium-grained, banded amphibolite containing quartz-feldspar layers and calc-silicate

pods; interpreted as mafic volcanic rocks

P<sub>2C</sub>vp Felsic volcanic porphyry interpreted to be hypabyssal

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).