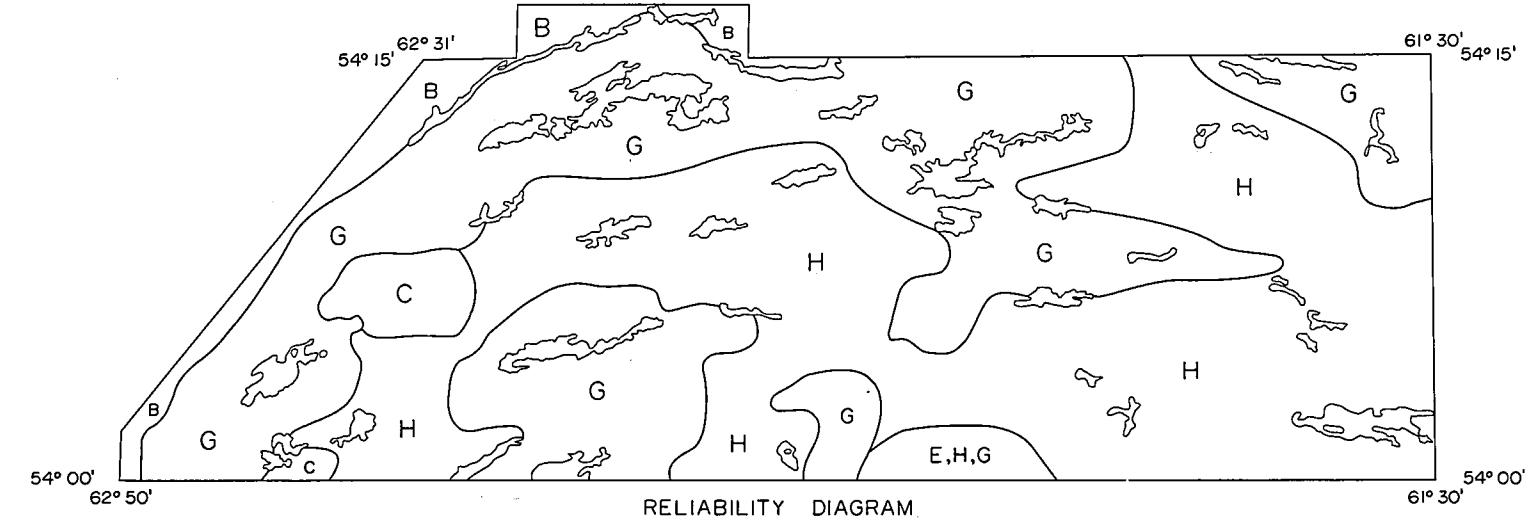
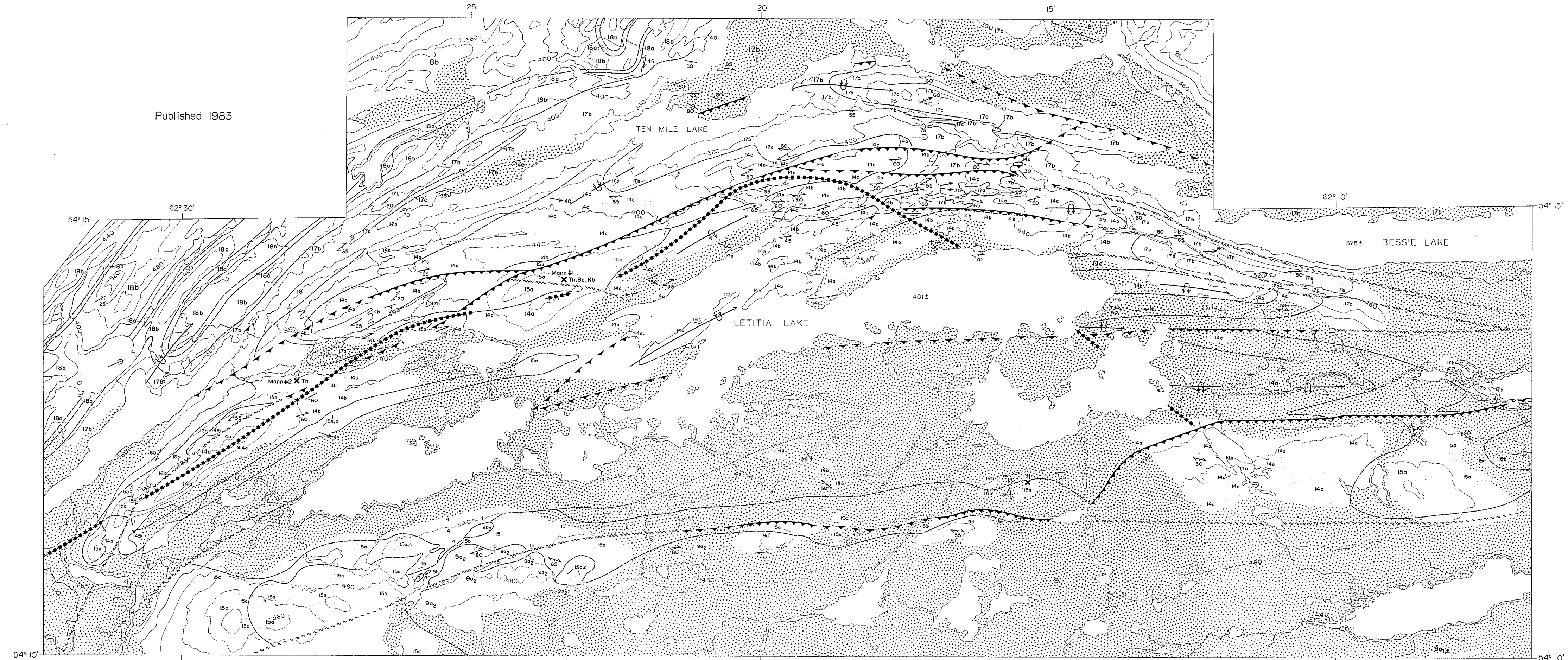
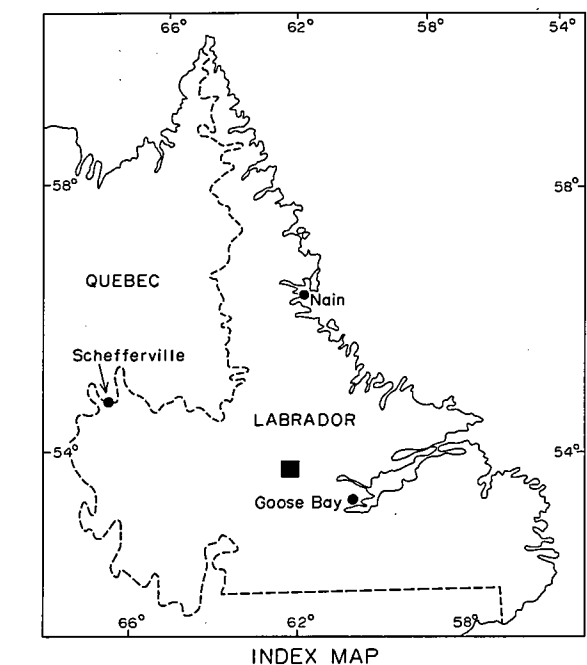


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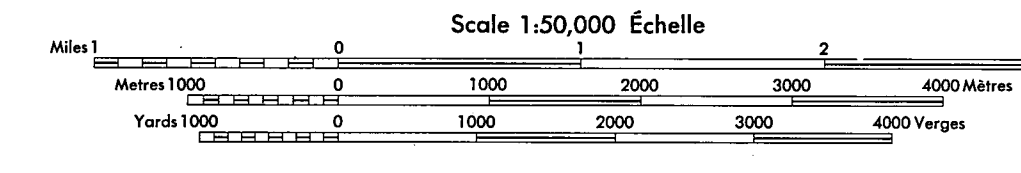


RELIABILITY DIAGRAM
B - Compiled from Brummer and Mann (1961).
C - Compiled from Curtis and Currie (1961).
E - Compiled from Embley et al. (1978).
G - Ground Traverses.
H - Helicopter Reconnaissance, Air Photo Interpretation.

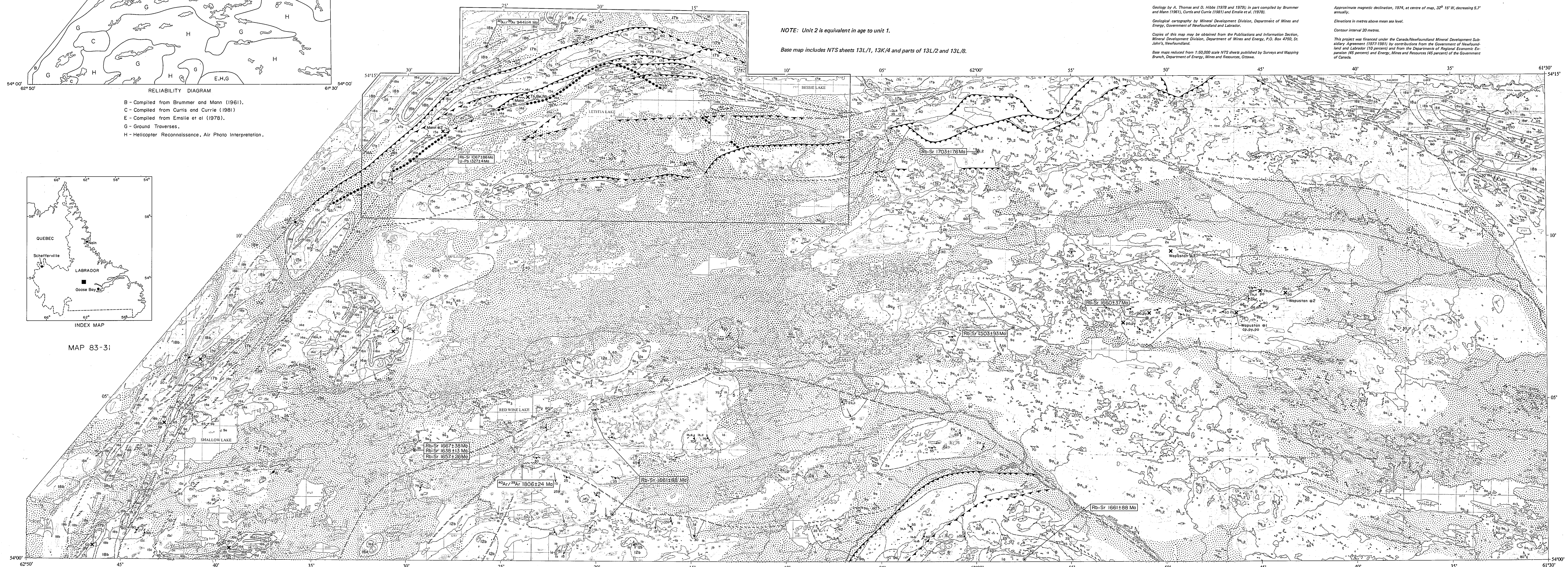


MAP 83-31

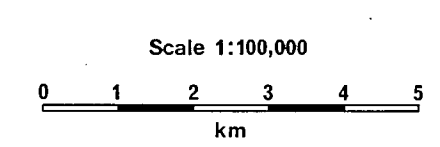
NOTE INSERT ABOVE IS AN ENLARGEMENT OF AREA BELOW OUTLINED IN BLACK.



NOTE: Unit 2 is equivalent in age to unit 1.
Base map includes NTS sheets 13L/1, 13K/A and parts of 13L/2 and 13L/B.



GEOLOGY, LETITIA LAKE - WAPUSTAN LAKE AREA, LABRADOR



LEGEND		SYMBOLS	
NEOHELIXIAN			
SEAL LAKE GROUP (17, 18)			
18	WUCHUSK LAKE FORMATION: 18a, Silstone, shale, argillite and interbedded chert; fine grained quartzite; thin calcareous beds; stromatolites; 18b, gabbro and diabase sills.	Area of glacial drift	
17	BESSIE LAKE FORMATION: 17a, Porphyry cobble conglomerate (derived from Units 9 and 14 and characteristic of the base of this unit); 17b, felspathic to clean, coarse grained white quartzite; 17c, amygdaloidal to massive green basalt flows.	Area of bedrock outcrop, minor bedrock outcrop	
PALEOHELIXIAN			
RED WINE ALKALINE INTRUSIVE SUITE (15, 16)			
16	QUARTZ UNDERSATURATED SERIES: 16a, Green pyroxene and aegirite-bearing gneiss; 16b, blue-black amphibole and nepheline-bearing gneiss; 16c, leucocratic, aegirite-bearing and feldspar-bearing gneiss ± nepheline, pyroxene, eudialyte; 16d, malinite and nepheline syenite.	Geological boundary (defined, approximate, assumed)	
15	QUARTZ SATURATED TO OVERSATURATED SERIES: 15a, Mafic to intermediate peralkaline syenite to quartz syenite; 15b, felsic peralkaline quartz syenite and peralkaline quartz-feldspar porphyry; 15c, peralkaline granite.	Bedding, tops known (inclined, vertical, horizontal, overturned)	
14	LETITIA LAKE GROUP: 14a, Massive peralkaline feldspar porphyry, peralkaline quartz-feldspar porphyry (contains xenoliths of Unit 4); 14b, massive porphyritic peralkaline rhyolite, banded peralkaline rhyolite, crystal and granitic tuffs; 14c, rhyolite, oxidized peralkaline volcanic rocks, oxidized and hematized peralkaline quartz-feldspar porphyry, magnetite-bearing grit, muscovite, sericite schist.	Bedding, tops unknown (inclined, vertical, horizontal)	
13	SHABOGAMO GABBRO: Medium to coarse grained, olivine-bearing leucogabbro exhibiting fresh igneous texture.	Primary igneous flow banding (inclined, vertical, horizontal)	
12	GABBRO: 12a, Massive to foliated hornblende gabbro and diabase exhibiting igneous texture; 12b, amphibolite exhibiting relict igneous texture.	Foliation (inclined, vertical, horizontal)	
11	SUSAN RIVER QUARTZ DIORITE: Massive igneous to gneissic textured body of quartz diorite composition.	Crenulation foliation (inclined, vertical, horizontal)	
10	Coarse grained massive amphibolite.	Gneissic banding, foliation (inclined, vertical, horizontal)	
9	NORTH POLE BROOK INTRUSIVE SUITE: 9a, Biotite granite to granodiorite; 9a ₁ , megacrystic; 9a ₂ , hornblende-bearing; 9a ₃ , muscovite-bearing; 9a ₄ , garnet-bearing; 9a ₅ , recrystallized; 9a ₆ , gneissic equivalents of above units; 9b, quartz monzonite to quartz monzodiorite; 9c, monzonite; 9d, quartz diorite to diorite.	Jointing (inclined, vertical, horizontal)	
PALEOHELIXIAN - APHEBIAN			
8	Cataclastic hypersthene granite, hypersthene monzodiorite, hypersthene, quartz monzodiorite, charnockitic gneiss.	Lineation (inclined, vertical, horizontal)	
7	BEAVER RIVER GNEISS: Banded to massive, medium grained, pyroxene, garnet amphibolite.	Minor fold axis (inclined, vertical, horizontal)	
6	GABBRO AND GABBROPORITE: Fine to medium grained, massive to foliated and recrystallized, pyroxene-bearing gabbro, leucogabbro, norite, diabase.	S-folds, Z-folds	
APHEBIAN			
5	ANDESITE: Dark green equigranular rock occurring as roof pendants in Unit 9.	Fault (defined, approximate, assumed)	
4	PORPHYRITIC RHODACITE: Aegirine, riebeckite-bearing (may be fenitized equivalent of Unit 5).	Thrust fault, teeth in direction of dip (defined, approximate, assumed)	
3	FOLIATED GRANITE: 3a, Porphyritic; 3b, aplitic.	Antiform (horizontal, plunging, overturned)	
2	WAPUSTAN RIVER METAMORPHIC SUITE: 2a, Banded muscovite-biotite quartzofeldspathic gneiss; 2b, pelitic schist, metagraywacke, metaquartzite; 2c, mafic metavolcanic rocks; 2d, amphibolite (metadiabase).	Synform (horizontal, plunging, overturned)	
1	DISAPPOINTMENT LAKE GNEISS: 1a, Pink to beige banded sapphirine hypersthene-sillimanite-biotite ± garnet quartzofeldspathic gneiss containing amphibolite pods and metabasite dikes; 1b, banded, pink sillimanite-kyanite-biotite ± garnet quartzofeldspathic gneiss containing amphibolite pods and metabasite dikes; 1c, siliceous, white kyanite-sillimanite-biotite-muscovite ± garnet gneiss and schist; 1d, amphibolite (metadiabase); 1e, chlorite-biotite-muscovite schist.	Glacial striae (direction of ice movement known, unknown)	
Geochronological sample locality			
		U-Pb	Uranium-lead whole-rock concordia age
		Rb-Sr	Rubidium-strontium whole-rock isochron age
		Rb-Sr	Rubidium-strontium average age from combined whole rock isochrons
		⁴⁰ Ar/ ³⁹ Ar	Argon-argon incremental release spectra, whole-rock plateau age
			Argon-argon incremental release spectra, hornblende plateau age
ABBREVIATIONS			
Beryllium	..... .Be	Chalcocopyrite	..... .cp
Niobium	..... .Nb	Fluorite	..... .ff
Thorium	..... .Th	Pyrrhotite	..... .po
Zincum	..... .Zr	Pyrite	..... .py
		Sphalerite	..... .sp

Geology by A. Thorne and D. Hibbs (1978 and 1979), in part compiled by Brummer and Mann (1961), Curtis and Currie (1961) and Embley et al. (1978).
Geological cartography by Mineral Development Division, Department of Mines and Energy, Government of Newfoundland and Labrador.
Data of this map may be obtained from the Publications and Information Section, Mineral Development Division, Department of Mines and Energy, P.O. Box 4720, St. John's, Newfoundland.
Base map modified from 1:50,000 scale NTS sheets published by Survey and Mapping Branch, Department of Energy, Mines and Resources, Ottawa.
Approximate magnetic declination, 1974, at centre of map, 32° 15' W, decreasing 5.7' annually.
Elevations in metres above mean sea level.
Contour interval 20 metres.
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