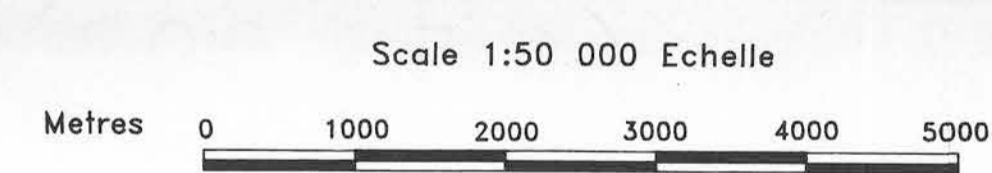




LEGEND

RECENT Recent alluvium and glacial drift	Sx Volcanic breccia, autoclastic basalt or andesite	Geological contact: defined, approximate, assumed
CARBONIFEROUS	St Tuff, crystal tuff, welded lapilli tuff	Steep brittle fault: defined, approximate, assumed
LCR Riversdale Group: arkose, quartzite, cross bedded or trough cross bedded sandstone, minor limestone, and conglomerate	Se Interbedded arkose, shale, tuff, fossiliferous limestone, (Silurian fossils identified by Phinney, 1956) and coarse polymictic conglomerate	Ainslie Detachment: low-angle to bedding parallel extensional detachment fault and calc-mylonite, defined, approximate assumed
CM Mabou Group: interbedded shale and dolostone, local redbeds, lithic arkose and conglomerate	Sa Andesite, basalt flow, autoclastic breccia	Margaree Shear Zone: low-angle ductile extensional shear zone, defined, approximate, assumed
ECW Windsor Group: limestone, evaporites, redbeds, (U) Upper, (L) Lower (Norman 1930)	OSv Schistose chlorite volcanic rocks, metabasalt and mylonitic diorite. Possibly equivalent to S ₂₈	Ductile reverse or thrust fault: defined, approximate, assumed
ECWM Macomber Formation: laminated intraclastic oolitic limestone	OSc Schistose polymictic meta-conglomerate meta-sandstone and quartz-pebble sandstone schist, chlorite-muscovite schist	
ECW Horton Group: coarse clastics; (c) conglomerate with abundance of granitic and gneissic clasts; (e) micaceous sandstone, arkose, redbeds, minor quartzite; (x) local coarse poorly sorted debris flow breccia; (o) Strathgairne-Ainslie formation (Kelly, 1968) (r) Oranish Formation (Kelly, 1968)	ODch Chloritic schist of uncertain origin, locally mylonitic, (possibly schistose LDF or OSv)	
LATE DEVONIAN	CAMBRIAN-PRECAMBRIAN	K07-14 Nova Scotia Department of Natural Resources, Mineral Occurrence Cards, Open File Report 600
Dmy Mylonite, strongly lineated muscovite + chlorite schist, mylonitic gneiss, subordinate cataclaste	HCgr Granite, equigranular biotite or biotite-muscovite granite, includes Cheticamp pluton	Mine
LDf Flase Brook Formation: (b) vesicular basalt; (r) rhyolite; interbedded redbeds, siltstone, conglomerate	HCgd Granodiorite, locally foliated and chloritic	Lineation: mineral, mylonitic, crenulation
Dg Granite to syenogranite, pink slightly porphyritic biotite-bearing	HCdi Medium to coarse grained diorite strongly chloritic, locally schistose or mylonitic	Bedding: inclined, vertical, horizontal
DNRg Granodiorite: medium to coarse-grained, light grey, biotite-hornblende granodiorite, locally pegmatitic	HSr Tonalite, granodiorite and microgranite, weakly foliated	Bedding: overturned, top known
SILURIAN-DEVONIAN	UNCERTAIN AGE	Schistosity, foliation: inclined, vertical
SDgr Granite, biotite monzogranite, locally foliated and weakly chloritized	HSW Middle River Metamorphic Complex: individual medium to high grade metamorphic rocks: includes psammolite units, biotite-garnet-kyanite schist, amphibolite, marble, paragneiss	Mylonitic foliation: inclined, vertical
SDgab Medium to coarse grained diorite and gabbro containing pyroxene crystals and phenocrysts	HSv Gneissic diorite, amphibolite	Gneissic foliation: inclined, vertical
SDdi Medium to fine grained diorite	HSnd Orthogneiss: light grey, homogeneous, biotite-garnet gneiss, minor amphibolite	Brittle shear plane, dipping towards inclination number
SILURIAN	HSgd Orthogneiss: light grey, homogeneous, biotite-garnet gneiss, minor amphibolite	Outcrop visited during the course of this study
SSB Sarah Brook Formation: unfoliated fine to coarse grained felsic to intermediate pyroclastic rocks, volcanic flows, and minor silt; (U) tuff; (a) andesite-basalt; (x) breccia; (c) conglomerate locally mylonitic (A52-7-4 Ma, U-Pb zircon Dunning, et al. In press)	HSgd Orthogneiss: light grey, homogeneous, biotite-garnet gneiss, minor amphibolite	Outcrop visited during the course of this study



Geological map (1:50,000) of Lake Ainslie area, Cape Breton Island Nova Scotia. (11K3 and west 11K2).

Map produced by **J.V.G. Lynch, C. Tremblay and H. Rose** and compiled from:

BARR, S.M., JAMIESON, R.A. & RAESIDE, R.P. (1992). Geology, Northern Cape Breton Island, Nova Scotia; Geological Survey of Canada, Map 1752A, scale 1:100 000

DUNNING, G.R., BARR, S.M., RAESIDE, R.P., & JAMIESON, R.A. (in press). U-Pb zircon, titanite and monazite ages in the Bras d'Orand Aspy terranes of Cape Breton Island, Nova Scotia: implications for magnetic and metamorphic history. Society of America, Bulletin.

FRENCH, V.A., (1985). Geology of the Gillanders Mountain intrusive complex and satellite plutons, Lake Ainslie area Cape Breton Island, Nova Scotia M.Sc. thesis, Acadia University, Wolfville, Nova Scotia 237p.

KELLY, D.G., (1968). Geology of the Baddeck Cape Breton Island, Nova Scotia; Geological Survey of Canada, Map 1211A, scale 1:63 360

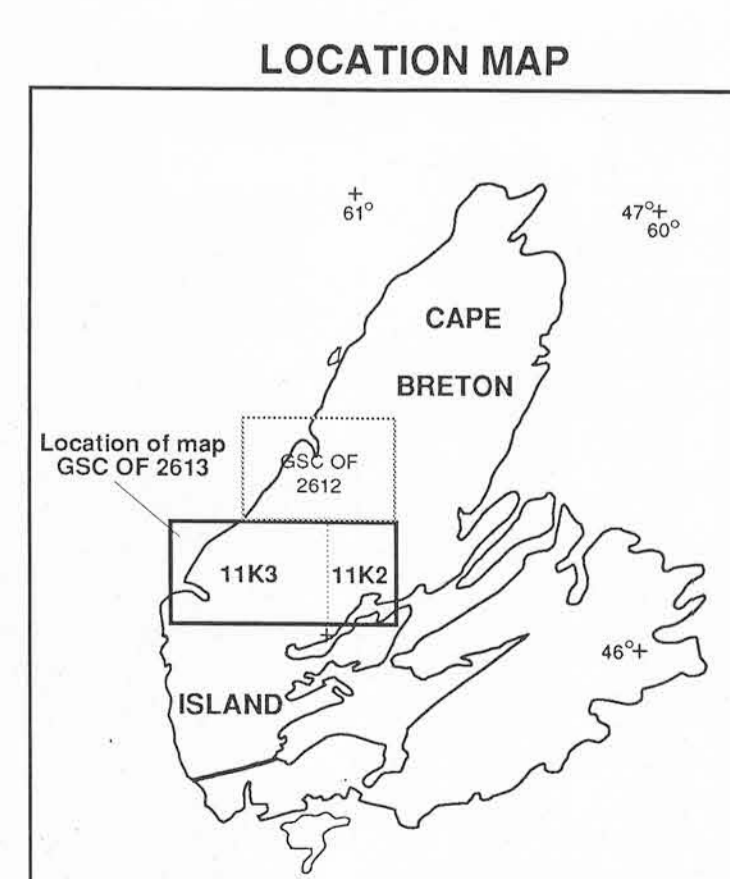
LYNCH, J.V.G. & TREMBLAY, C. (1992). Imbricate thrusting, reverse-oblique shear, and ductile extensional shear in the Acadian Orogen, central Cape Breton Highlands, Nova Scotia; in Current Research, Part D; Geological Survey of Canada, Paper 92-1D p.

LYNCH, J.V.G., TREMBLAY, C. & ROSE, H. (1993). Compression, extensional denudation of Early Silurian volcanic overlap in western Cape Breton Island, Nova Scotia; in Current Research, Part D; Geological Survey of Canada, Paper 93-1D p.

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PHINNEY, W.C., (1956). Structural relationships around the southern extension of the Mabou Highlands, Inverness County, Cape Breton Island, Nova Scotia; unpublished M.Sc. thesis, Massachusetts Institute of Technology 75 p.

PONSFORD, M. and LYTTLE, N.A. (1984). Metallic mineral occurrences Map and data compilation, Eastern Nova Scotia, Map Sheets 11F, 11G, 11J, 11K, 11N, 11O. Open File report 600, Department of Mines and Energy Nova Scotia.



COOPERATION AGREEMENT ON MINERAL DEVELOPMENT L'ENTENTE DE COOPERATION SUR L'EXPLOITATION MINIERALE

Contribution to Canada-Nova Scotia cooperation agreement on Mineral Development 1990-1995; a subsidiary agreement under the Economic and Regional Development Agreement. Contribution à l'Entente de coopération Canada-Nouvelle Écosse sur l'exploitation minière 1990-1995 dans le cadre de l'Entente de développement économique et régional. Ce projet a été financé par la Commission géologique du Canada.

Canada Nova Scotia Province of Nova Scotia

cgq Centre géoscientifique de Québec

Université du Québec Institut national de recherche scientifique (INRS) Energy, Mines and Geological Survey Ressources Canada Commission géologique du Canada

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