

LEGEND

PLEISTOCENE AND RECENT	
Qb	Boulder and block debris, poorly sorted
CRETACEOUS	
UPPER CRETACEOUS	
Kgr	Granite, quartz monzonite; (b) with biotite, (bh) with biotite and hornblende
KEP	EMERALD LAKE PLUTON: alkali to calc-alkaline syenite to granite. Rb-Sr age 93 Ma with <sup>40</sup> Ar/ <sup>39</sup> Ar ratio of 0.7153-0.7166. K-Ar age 92 Ma 91 Ma U-Pb. Note 4
DEVONIAN	
LOWER AND MIDDLE DEVONIAN	
DTh	THOR HILLS FORMATION: shale; black, rusty; with 10-20% sandstone, brown
DM	MISFORTUNE FORMATION: chert; dark grey to black; minor black shale, whitish weathering
SILURIAN	
SS	STEEL FORMATION: argillite, rusty green to buff; minor black shale and chert and prominent bed of bright-orange weathering dolostone
ORDOVICIAN	
EO	ELMER CREEK FORMATION: chert and siliceous shale; black, graphitic in upper part. (I) chert, siliceous argillite; grey, upper part bitubulated; minor limestone in the lower part
CAMBRIAN TO SILURIAN	
LOWER CAMBRIAN TO SILURIAN	
CSoc	OLD CABIN FORMATION: basic volcanics, breccias, lapilli tuff, flows, sills, dykes; minor sedimentary rock units. Occurs as thick successions and tongues in Cg and PCNA where interbedded volcanics are abundant. Ccs mafic sills in unit
CAMBRIAN	
Cg	GULL LAKE FORMATION: argillite; buff, green; minor units of shale, chert, quartzite, limestone and volcaniclastic rocks (Cgv where interbedded volcanics are abundant. Ccs mafic sills in unit)
PROTEROZOIC AND CAMBRIAN	
UPPER PROTEROZOIC AND LOWER CAMBRIAN	
HYLAND GROUP (Py - PCNA)	
PCNA	NARICHILLA FORMATION Arrowhead Lake Member: argillite; maroon and pale green; minor quartzite, conglomerate, limestone. Lower Cambrian in map area but ranges into Proterozoic outside map area
PROTEROZOIC	
UPPER PROTEROZOIC	
PA	ALGAE LAKE FORMATION: limestone, arenaceous limestone; minor dolostone, argillite, breccia; upper part resistant; lower part recessive, thin bedded
Py	YUSEZYU FORMATION: sandstone; calcareous, brown weathering. Quartzite; grey-white weathering; minor shale, argillite and gnt. (m) Upper Maroon Member: argillite and siltstone, maroon and red weathering; minor green argillite, grey quartzite and buff calcareous quartzite (the only part of the Yusezyu Formation exposed in the map area is the Upper Maroon Member)

- Outcrop in covered area
- Geological boundary (defined, approximate, assumed)
- Stylized geological boundary
- Contact alteration halo
- Bedding, top unknown (inclined, vertical)
- Cleavage (inclined, vertical)
- Minor fold (with attitude of axial plane and plunge, overturned)
- Normal fault (solid circle indicates downthrow side; defined, approximate)
- Thrust or reverse fault (both indicate upthrow side; defined, approximate, assumed)
- Strike slip fault (arrow indicates relative movement)
- Rogue Decollement Surface (defined, approximate)
- Anticline (upright, overturned)
- Monoclinial bend, anticlinal
- Granite or syenite dyke (Cretaceous)
- Line of section
- Mineral occurrence with major element of composition indicated
- Fossil: GSC catalogue number; abbreviated age (e.g. mO - middle Ordovician)
- Macrofossils observed but not collected; g-graptolites; t-trace fossils

- NOTES
- The prefix "T" designates a map unit that is represented by 70-90% of the stratigraphic unit prefixed, but which is structurally repeated numerous times on small scale, local detachment surfaces. The mapped area can also include fault repetitions, as well as synclinal and anticlinal keels of underlying and overlying stratigraphic units in 10-30% of the area. Units with the "T" prefix are mapped both as single and tectonic units (e.g. Cg or TcG).
  - Rogue decollement surface inferred from the observation that strata above are shortened to 20% of their original length while strata below the surface are shortened to 60-80% of their original length.
  - Three fossil collections from inlited SS and DM separated by approximately 2-4m: C-128314, early Silurian, late Llandovery; C-128315, late Silurian, or early Devonian, latest Pragian or early Lochkovian; C-128316, early Silurian, late Llandovery.
  - Dating for Emerald Lake Pluton from Smit, 1985, GSC Paper 85-1B.

Compiled from ground traverses by M.P. Cecile (1983, 1984, 1985) with assistance by Hans Smit (1983), and Craig Hart (1984), and Peter Mustard (1985). Helicopter support was given by Northern Mountain Helicopters (1983, 1984, 1985). Expediting was provided by Ross River Services. The author's understanding of the geology was greatly assisted by discussions with J.C. Abbott (DIAND), and S.P. Cordery (GSC). Fossil determinations by B.S. Norford, G.S. Nowlan (GSC) and H.J. Hofmann (University of Montreal). Claim data from the 1996 Yukon Minfile.

Geological cartography by S.D. Orzeck, Geological Survey of Canada (Calgary)

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

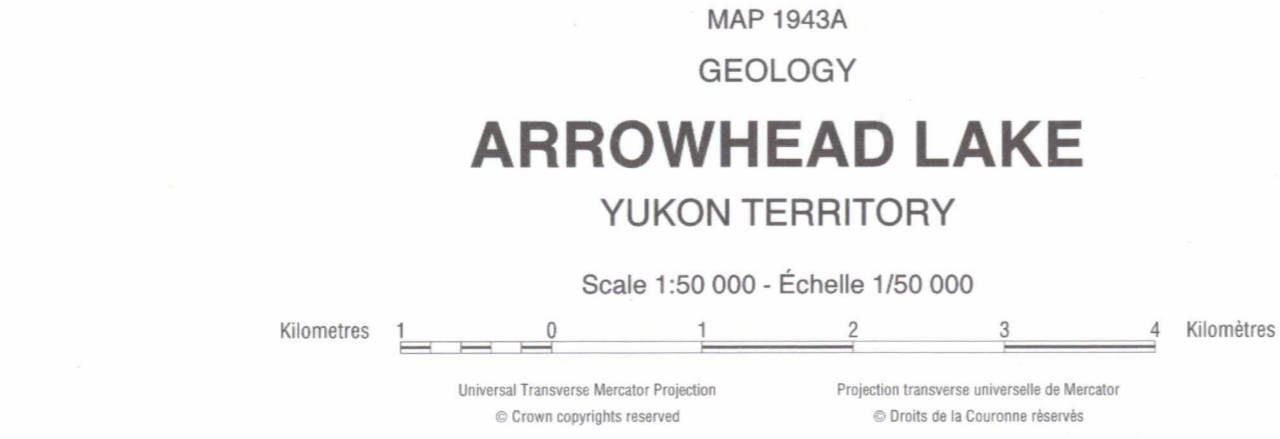
Digital base map at the same scale from Geomatics Canada, Natural Resources Canada, modified for publication by the Geological Survey of Canada

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Natural Resources Canada, Ottawa, Ontario, K1A 0E9

Magnetic declination 1998, 29°42'E, decreasing 14.0' annually

Elevations in metres above mean sea level

Copies of this map may be obtained from the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8, 3303-33rd Street, N.W., Calgary, Alberta T2L 2A7, 101-600 Robson Street, Vancouver, B.C. V6B 2J8



105-013	105-014	105-015
1944A	1923A	1899A
105-012	105-011	105-010
	1943A	1901A
105-005	105-016	105-017

ESIC CIST

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1943A