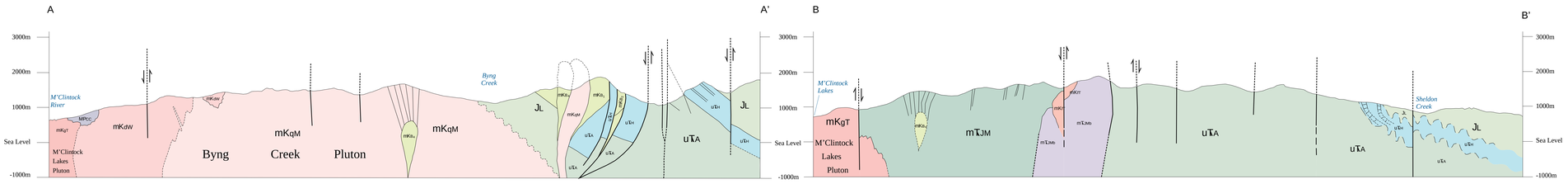
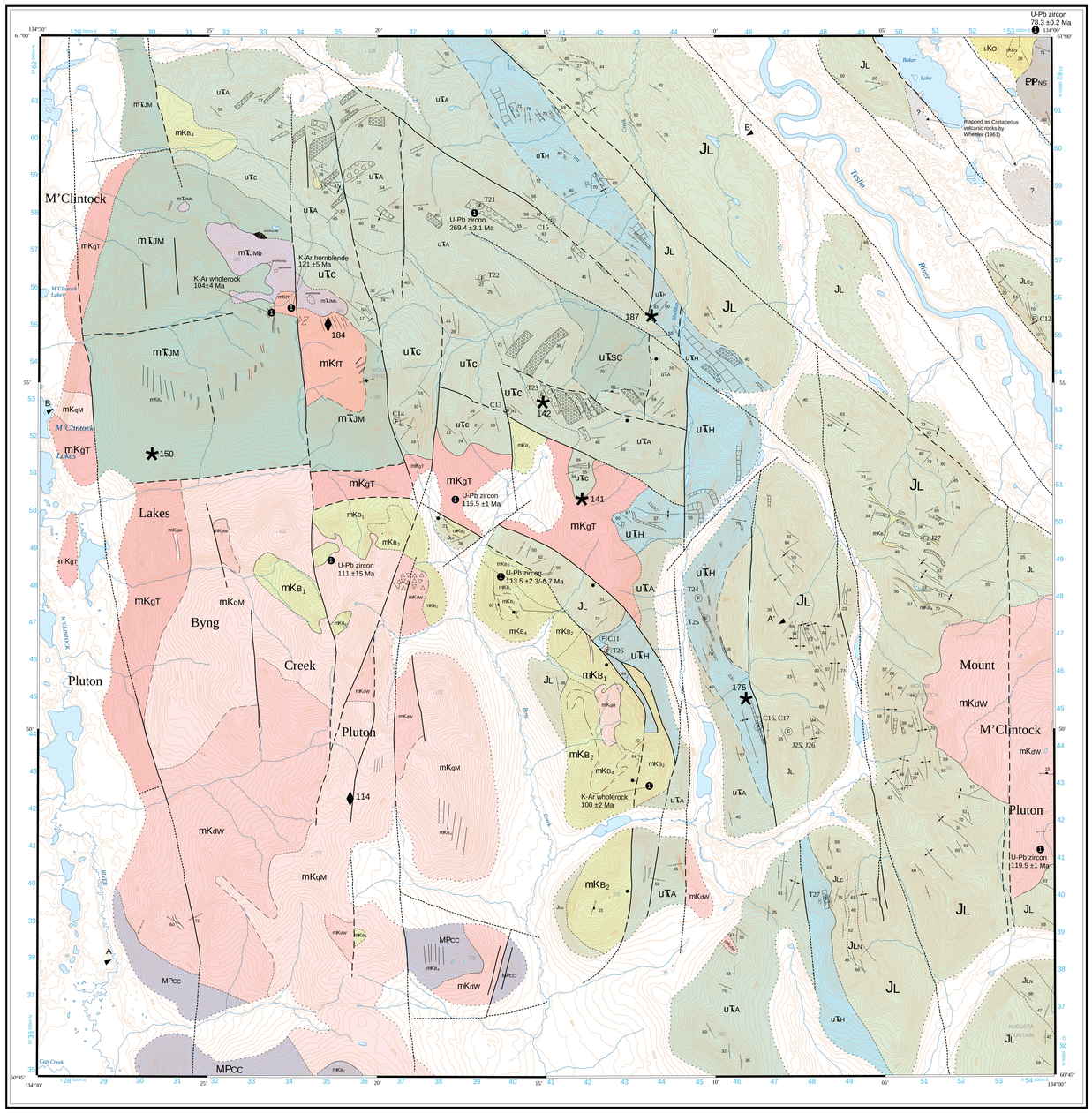


Canada

canada/yukon economic development agreement

Yukon Government



QUATERNARY

Q — Unconsolidated silt, sand and gravel of glacial, fluvial and lacustrine origins.

CRETACEOUS

LATE CRETACEOUS

OPEN CREEK VOLCANICS

LKO — Cliff-forming, resistant, columnar jointed, dark grey and vitreous, quartz-phyric, dacite flows with ash and lapilli tuff horizons.

LKOs — Recessive, maroon weathering, basal sedimentary and epiclastic rocks.

MID-CRETACEOUS

BYNG CREEK VOLCANICS (ca. 109 Ma)

mKB4 — Light yellow and orange weathering, yellow, white and pink, locally flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dykes, sills and breccias. Same as some phases of mKqM.

mKB3 — Pale to dark grey weathering, black, grey, maroon and pink fine-grained and vitreous dacite feldspar porphyry flows, dikes and sills with sparse quartz and mafic (hornblende?) phenocrysts are also recognized.

mKB2 — Light grey and orange weathering, massive and blocky, heterolithic, vitreous, quartz- and feldspar-phyric, felsic lapilli tuff; locally with bomb sized clasts. Locally densely welded.

mKB1 — Dark grey-green to brown to rusty weathering, dark green and maroon massive, non-magnetic, aphyric and feldspar-phyric andesite flows, flow breccia, heterolithic breccia and tuff.

MOUNT McINTYRE PLUTONIC SUITE (ca. 109 Ma)

mKqM — Byng Creek pluton: Light pink-grey to orange weathering, pink, medium to coarse-grained, hornblende-biotite quartz monzonite, granite and quartz syenite with small, mafic clots; locally pegmatic with numerous phases of granophyric quartz monzonite with plagioclase, quartz, and hornblende phenocrysts in a fine-grained, sucrosic, potassium feldspar and quartz matrix. Some phases form a crowded quartz-feldspar porphyry and are the same as mKB4.

WHITEHORSE PLUTONIC SUITE (ca. 115 Ma)

mKdW — Multi-phase pluton dominated by light grey weathering, medium to coarse-grained, biotite-hornblende granodiorite and hornblende quartz diorite. Includes Mount M'Clintock Pluton.

TESLIN PLUTONIC SUITE (ca. 120 Ma)

mKgT — M'Clintock Lakes Granite: White to pale grey weathering, recessive, leucocratic, coarse-grained, equigranular, hornblende- biotite granite and granodiorite, locally with sparse grey and pink potassium feldspar phenocrysts. This unit has associated aplitic phases and dykes.

mKrr — Mount Byng felsite: White to pale grey weathering, recessive, leucocratic, fine-grained to granophyric to porphyritic, feldspar-hornblende felsite and hornblende granodiorite. Occurs predominantly as north-trending dykes but forms small bodies near Mount Byng.

STIKINIA

JURASSIC

LOWER TO MIDDLE JURASSIC

LABERGE GROUP

JL — Undifferentiated Laberge Group dominated by brown to tan weathering, recessive, well-laminated, bioturbated, dark grey and brown, siltstone, interbedded siltstone and sandstone couplets, greywacke, arkosic sand stone, and hornfels; with thin beds of limestone clast conglomerate. Probably equivalent to Richthofen Formation.

JLc — Cobble conglomerate dominated by granitic clasts.

JLc2 — Cobble conglomerate dominated by limestone clasts.

JLN — Brown to grey weathering, gritty sandstone and matrix-supported pebble conglomerate and sandstone. Lithic clasts are dominated by white polycrystalline quartz, alkali feldspar, black mudstone and coarse-grained granodiorite. Similar to sandstone associated with Nordenskold dacite tuff.

TRIASSIC

UPPER TRIASSIC

LEWES RIVER GROUP

AKSALA FORMATION

uTA — Undifferentiated sedimentary rocks dominated by limy siltstone, siltstone, sandstone, conglomerate and hornfels; all with limestone. Includes massive and angular, to well-bedded and well-rounded, limestone-clast conglomerate; and resistant, thick bedded, massive and densely packed, gritty sandstone with pebble-cobble sized, igneous clasts. Very difficult to distinguish from, and may locally include JL .

uTH — Hancock Member: Undifferentiated, dominantly calcareous sedimentary rocks dominated by white weathering, resistant, massive to poorly bedded sparsely bioclastic limestone, marble and skarn; and recessive sandy limestone with limestone conglomerate, black siltstone, and sandstone.

uTc — Cascà Member: undifferentiated sedimentary rocks dominated by dark weathering, siliceous, black and white wispy to finely laminated, thick bedded, bioturbated siliceous siltstone, finely-laminated, limey brown sandstone interlaminated with black muds and interbedded with sandy and gritty limestone, and recessive weathering volcanogenic sandstone with siltstone, shale, gritty sandstone, conglomerate and hornfels.

Sheldon Creek Volcanics

uTSC — Sheldon Creek Volcanics: orange weathering, resistant, light olive-green, locally pillowed and strongly silicified, andesitic and basaltic lava flows; locally with hyaloclastite and breccia. May be part of Joe Mountain Formation.

MIDDLE TRIASSIC

JOE MOUNTAIN FORMATION

mTJM — Dark grey-green weathering, fine-grained and locally medium-grained monomineralic or feldspar and pyroxene-phyric, massive andesite and basaltic flows, breccia, microdiorite and diabase. Variably altered to greenstone or cut by aplite and epidote veinlettes.

mTJMb — Coarse-grained, varitextured pyroxene gabbro with small bodies of pyroxenite and anorthosite (in black).

CACHE CREEK TERRANE

MISSISSIPPIAN TO PERMIAN

CACHE CREEK GROUP

MPCc — Resistant, dark rusty to dunn brown weathering, strongly magnetic tectonized and serpentinized ultramafic rocks.

MPCc — Dark weathering, massive, non-magnetic, dark green chloritized, diabase diorite and basalt.

YUKON TANANA TERRANE

PALEOZOIC AND OLDER

NISLING ASSEMBLAGE

PPNS — Rusty brown to dark pink weathering, brown and grey, foliated quartzite and quartz-mica schist.

WHITEHORSE TROUGH SUPERGROUP

SYMBOLS

- Limit of outcrop
- Geological boundary (defined, approximate, assumed or covered)
- Fault (dot on downthrown side) (defined, approximate, assumed or covered)
- Bedding (inclined, vertical, horizontal)
- Igneous flow banding (inclined, vertical)
- Flow contacts
- Schistosity, gneissosity, foliation (inclined, veritcal)
- Anticline, syncline
- Cross-section line — A — A'
- Dykes, generally felsic
- Dyke swarm
- Limestone clast cobble conglomerate
- Polymictic, igneous-clast dominated cobble conglomerate
- Limestone
- Breccia zone
- Isotopic age determinations — Details are in the accompanying Bulletin (Appendix 7) — 1
- Fossil locality — Details are in the accompanying Bulletin (Appendices 1-3) — J1 F — J=Jurassic macrofossil, T=Triassic macrofossil, C=Triassic conodont

MINERAL OCCURRENCES

Yukon MINFILE Number	Name		Deposit Type
114	TEXEL (ABI)	♦	Zn, Pb, Ag vein
141	GAMMON	✱	Exploration Target
142	BYNG	✱	Exploration Target
150	UTSHIG	✱	Exploration Target
175	SEYBOLD	✱	Exploration Target
184	MOUNT BYNG	♦	Au, Ag, Cu vein
187	BALT	✱	Exploration Target

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RECOMMENDED CITATION

HART, C.J.R., 1997. Geology of Mount M'Clintock map area, southern Yukon, (NTS 105 D/16). 1:50,000-scale. Exploration and Geological Services Division, Yukon Indian and Northern Affairs Canada, Geoscience Map 1997-7.

This map accompanies: HART, C.J.R., 1997. A Transect Across Stikinia: Geology of the Northern Whitehorse Map Area (105 D/13-16). Exploration and Geological Services Division, Indian and Northern Affairs Canada, Bulletin 8, 112p.

Digital cartography and drafting by Will van Randen, Yukon Geology Program.

Any revisions or additional geological information known by the user would be welcomed by the Yukon Geology Program.

Copies of this map, the accompanying report and Yukon Minfile may be purchased from Geoscience Information and Sales, Exploration and Geological Services Division, Indian and Northern Affairs Canada, Room 102-300 Main St. Whitehorse, Yukon, Y1A 2B5 Ph. 867-667-3264, Fax 867-667-3267.

Store this map in a dark area to prevent the colours from fading.

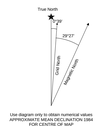
Map released November, 1997, subsequent revision dates are:

ONE THOUSAND METRE
Universal Transverse Mercator Grid
ZONE 8

MOUNT M'CLINTOCK
YUKON TERRITORY
SCALE 1:50 000

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Metres

CONTOUR INTERVAL 20 METRES
Elevations in Feet above Mean Sea Level
North American Datum 1976
Transverse Mercator Projection



105 E/2 Tempelman-Kluit 1984	105 E/1 Tempelman-Kluit 1984	105 F/4 Tempelman-Kluit 1977
105 D/15 Hart and Hunt, 1994	**105 D/16** **THIS MAP**	105 C/13 Gordey and Stevens, 1994
105 D/10 Wheeler 1961	105 D/9 Wheeler 1961	105 C/12 Gordey and Stevens, 1994

Indian and Northern Affairs Canada
Exploration and Geological Services Division
Yukon Region

Geoscience Map 1997-7

Geology of Mount M'Clintock map area, southern Yukon (NTS 105 D/16)

by
Craig J.R. Hart and Julie A. Hunt
Canada/Yukon Mineral Development Agreement
Geoscience Office