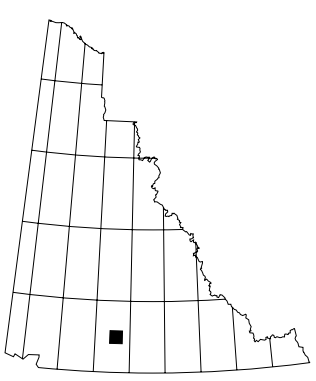
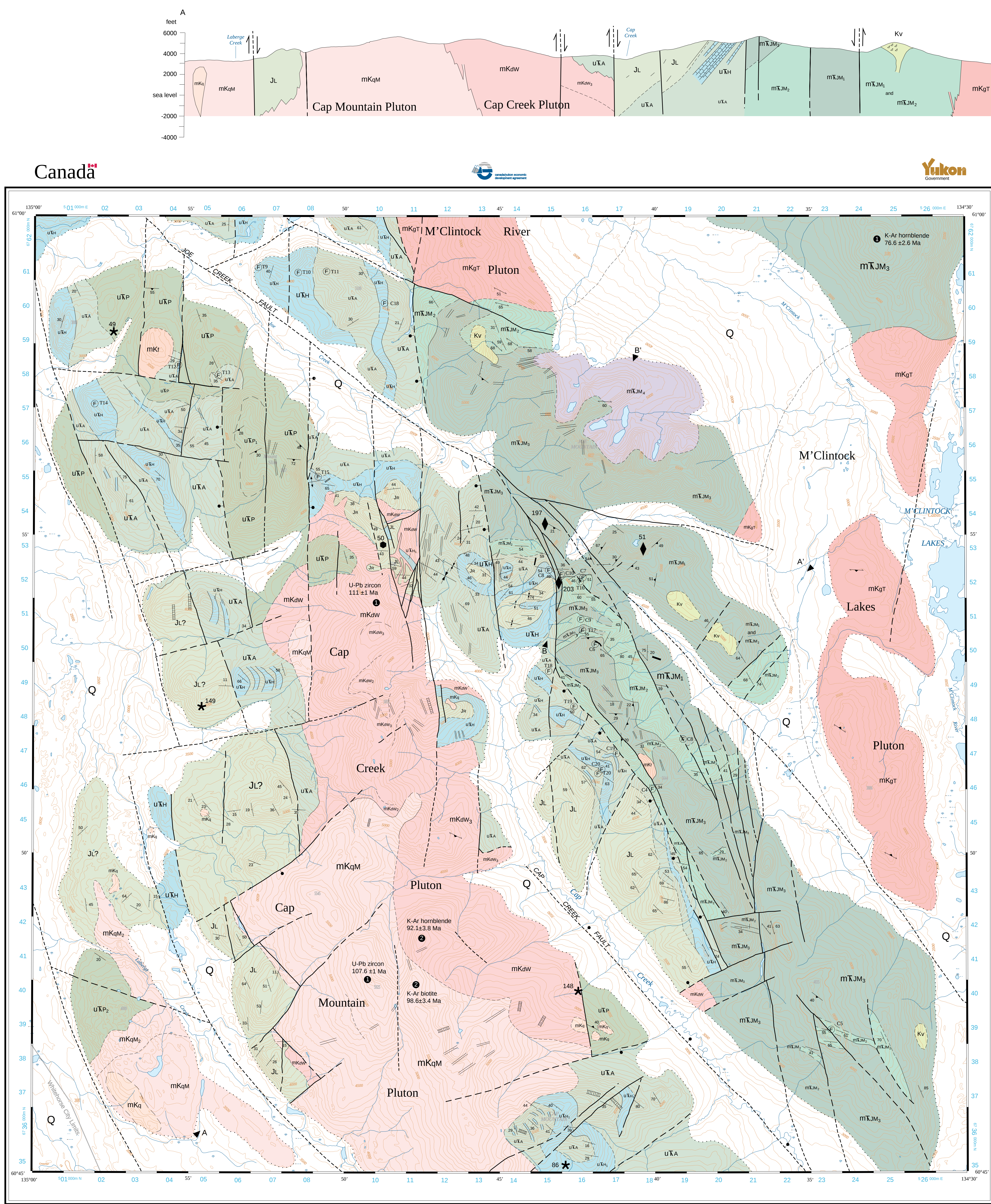




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ONE THOUSAND METRE
Universal Transverse Mercator Grid
ZONE 8

Scale bar showing distances in metres (0 to 5000) and feet (0 to 15000).

JOE MOUNTAIN
YUKON TERRITORY
SCALE 1:50 000

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

North arrow indicating True North and Magnetic North.

105 E/3 Tempehnan-Klut, 1984	105 E/2 Tempehnan-Klut, 1984	105 E/1 Tempehnan-Klut, 1984
105 D/14 Hart and Hunt, 1997	105 D/15 THIS MAP	105 D/16 Hart and Hunt, 1997
105 D/11 Hart and Hunt, 1997	105 D/10 Whelan, 1961	105 D/9 Whelan, 1961

- LEGEND**
- QUATERNARY**
- Q Unconsolidated silt, sand and gravel of glacial, fluvial and lacustrine origins.
- CRETACEOUS**
- MID-CRETACEOUS**
- Kv Light weathering, black to light orange, quartz-eye rhyolite and dacite flows, tuffs, breccias and associated fragmental volcanics with tourmaline breccia. Related to Bying Creek volcanics on 105 D/16.
- MOUNT MONTYRE PLUTONIC SUITE (109 Ma)**
- mKqM Cap Mountain Pluton: light pink to orange weathering, pink, medium to coarse-grained hornblende-biotite quartz monzonite, granite and quartz syenite containing numerous small, mafic xenoliths and clots. Pink granophytic quartz monzonite is characterized by coarse-grained plagioclase, hornblende and quartz phenocrysts set in a fine-grained, aegirine, pink potassium feldspar and quartz matrix.
 - mKqM₂ Dark grey weathering, dark pink, hornblende monzonite and syenite with dark pink groundmass and chloritic hornblende phenocrysts. Epidote and chlorite alteration is common.
 - mKq Light weathering, white, pink or light orange, rhyolite, alkali quartz-feldspar porphyry plugs and dykes. Light weathering, white and light grey, flow banded rhyolite.
 - Rhyolite alkali and quartz-feldspar porphyry dykes genetically related to the Cap Mountain Pluton.
- WHITEHORSE PLUTONIC SUITE (111 Ma)**
- mKwW Cap Creek Pluton: medium grey weathering, medium grained, equigranular, biotite hornblende granodiorite.
 - mKwW₂ Dark weathering, fine-grained, biotite or hornblende-rich quartz diorite and diorite.
 - mKwW₃ Medium-grained, white weathering, propylitically altered biotite and hornblende, leucocratic granodiorite.
 - mKwW₄ Dark, blocky weathering, coarse grained, hornblende diorite.
 - mKl Light weathering, light grey, feldspar-hornblende-quartz-phryic, siliceous felsite dykes and plugs.
 - Andesite and feldspar porphyry dykes assumed to be genetically related to the Cap Creek Pluton.
- TESLIN PLUTONIC SUITE (ca. 120 Ma)**
- mKqT M'Clintock Granodiorite: White to pale grey weathering, recessive, leucocratic, coarse-grained equigranular biotite - hornblende granodiorite locally with sparse grey and pink potassium feldspar phenocrysts.
- JURASSIC**
- LOWER TO MIDDLE JURASSIC**
- LABERGE GROUP**
- Jl Brown to tan weathering, recessive, sedimentary rocks including siltstone, sandstone, greywacke, interbedded silt and sandstone couplets, and horntiles with rare, usually solitary, conglomerate and limestone beds. Similar to and may include UTA.
- RICHTHOFFEN FORMATION**
- Jr Dark weathering, massive to finely laminated, black mudstone, limy mudstone mudstone and horntiles, locally with wavy brown laminar or limestone horizons. Depositionally on top of unmetamorphosed Lewis River Group limestone. Lower part of this unit is flaggy and limy.
- TRIASSIC**
- LATE TRIASSIC**
- LEWES RIVER GROUP**
- AKSALA FORMATION**
- UTA Undifferentiated sedimentary rocks including in decreasing abundance, limy siltstone, siltstone, shale, sandstone, conglomerate, horntiles and diamictite all locally with limestone. Very difficult to distinguish from, and may include Laberge Group.
 - UTh Harpoc Member: White weathering, resistant, massive to poorly bedded, biotitic and micritic limestone, marble and skarn; and recessive, flaggy, dark grey limestone and sandy limestone.
 - UHi Massive to poorly bedded, limestone conglomerate and breccia deposited as debris flows and fan conglomerate. Limestone occurs as angular clasts or as a fine-grained matrix.
- POVOAS FORMATION**
- UPP Dark grey-green weathering, monotonous accumulations of grungy-green pillowed basalt flows with vesiculated rims, interpillow carbonate, epidote, calcite and chlorite alteration.
 - As above, except maroon weathering as a result of hematitic alteration induced by oxidation.
 - UPP₂ Resistant, dark weathering, massive, chertitized and epidotized, greenstone.
- MIDDLE TRIASSIC**
- JOE MOUNTAIN FORMATION**
- Dark, resistant, magnetic, basaltic andesite and gabbro dykes.
 - mKJ₁ Black weathering, fine-grained, aphyric, pillowed basalt flows with calcite veining and weak but pervasive chloritic alteration. These pillows are under a package of gritty and limy sediments.
 - mKJ₂ Chaotic assemblage of recessive weathering, volcanogenic sandstone siltstone, shale and gritty sandstone. Includes limestone or limy beds, and resistant, dark weathering, chaotic and massive to poorly bedded, heterolithic, diamictite, conglomerate and fragmental or gritty sedimentary rocks.
 - mKJ₃ Dark grey weathering, generally unaltered, fine-grained and feldspar and pyroxene-phryic, pillowed basalt flows massive microdiorite. Locally interbedded with mKJ₂.
 - mKJ₄ Dark weathering, massive, variable textured, coarse-grained and locally pegmatitic, pyroxene gabbro and diorite.

SYMBOLS

Limit of outcrop.....

Geological contact (defined, approximate, assumed and/or covered).....

Fault (defined, approximate, assumed and/or covered).....

Bedding.....

Flow surface (includes pillows).....

Schistosity of shear zone.....

Primary magmatic flow fabric.....

Anticline, syncline.....

Cross-section line.....

Isotopic age determination
Details are in the accompanying Bulletin (Appendix 7):.....

Hartman et al. 1979.....

Fossil locality
Details are in the accompanying Bulletin (Appendices 1-3):.....

T=Trasac macrofossil, C=Trasac conodont.....

MINERAL OCCURRENCES

Yukon MINFILE Number	Name	Deposit Type
49	LABE	★ Exploration Target
50	POW	● Cu (W, Mo) skarn
51	ACE	▲ Au, Ag (Pb, Zn) vein
86	WHEELER	★ Exploration Target
148	SLEWE	★ Exploration Target
149	ERGE	★ Exploration Target
197	JOE	▲ Au vein
203	GRUMPY	▲ Au vein

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RECOMMENDED CITATION

HART, C.J.R., and HUNT, J.A., 1997. Geology of Joe Mountain map area, southern Yukon Territory. 1:50,000-scale map (NTS 105 D/15). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Geoscience Map 1997-6.

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

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

Any revisions or additional geological information known to 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 103-300 Main St. Whitehorse, Yukon, Y1A 2B5, Ph. 867-667-3284 Fax 867-667-3267.

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

This map was released November, 1997, subsequent revision dates are:

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

Geoscience Map 1997-6

Geology of Joe Mountain area,
southern Yukon
(105D/15)

by

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