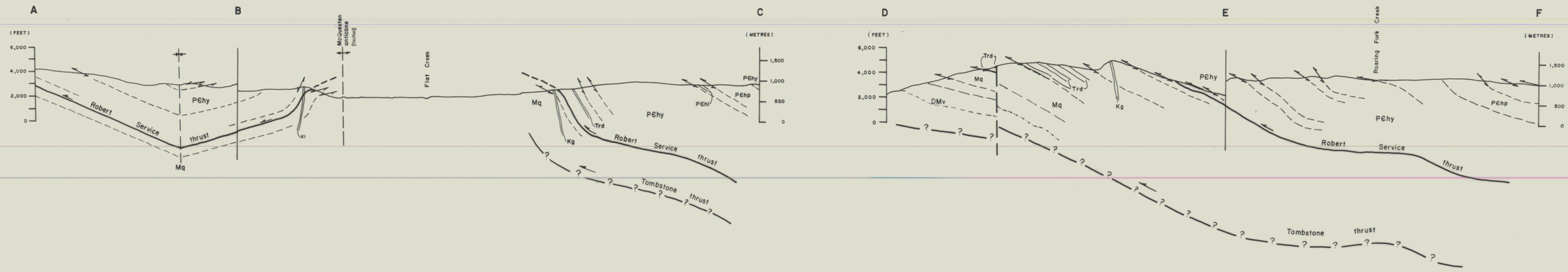

Canada

canada yukon economic development agreement

Joins 106 D/4

EDITION 2

Yukon Government

1:50,000

136°00' 452000m. E. 64°00' 7096000m. N. 135°30' 474000m. E.

MOUNT HALDANE
YUKON TERRITORY

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Miles
Metres 1000 0 1000 2000 3000 4000 Mètres
Yards 1000 0 1000 2000 3000 4000 Yerges

CONVERSION SCALE FOR ELEVATIONS
30 20 10 0 50 100 150 200 250 300 Metres
100 50 0 100 200 300 400 500 600 700 800 900 1000 Feet

Roads / Routes:
loose or stabilized surface, all weather
loose surface, dry weather and unclassified streets
cart track
trail or portage
gravier aggloméré, toute saison
de gravier, temps sec et rues fcors classe
de terre
sentier ou portage
2 lanes or more / 2 voies ou plus
less than 2 lanes / moins de 2 voies

This Provisional Map is equivalent to a standard map in accuracy of content.
Some names on this map are not yet official.
Corrections or additions are invited by the Surveys and Mapping Branch.
CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1927
Transverse Mercator Projection

T.N. 0°13' W 34.11' E 4 Mils 608 Mils
Grid North
Magnetic North
Use diagram only to obtain numerical values.
APPROXIMATE MEAN DECLINATION 1970
FOR CENTRE OF MAP
Annual change decreasing 4.4'

Refer to this map as: 105 M/13 EDITION 2 MCE SERIES A 722

LEGEND

Lithology

Quaternary

Q — Undifferentiated gravels, sands and clays.

Cretaceous

Kg — Buff to grey dykes, sills and small plugs of aplite and granite; locally quartz, feldspar and/or biotite phyric; minor arsenopyrite.[1]

Kl — Fine- to coarse-grained, light grey, biotite lamprophyre dykes, locally feldspathic.

Triassic

Trd — Dominantly foliation-concordant bodies of fine- to medium-grained greenstone (green amphibole-chlorite-plagioclase meta-diorite or meta-gabbro)[2]

Mississippian
KENO HILL QUARTZITE

Mqp — Foliated, flaggy, massive to thick-bedded, light to dark grey quartzite with graphitic phyllitic partings; locally quartzite is granular. Minor calcareous quartzite.[3]

Mq — Foliated thin-bedded dark grey graphitic phyllite and quartzite, and light to medium grey thick-bedded quartzite. Minor calcareous quartzite.

Devono-Mississippian
EARN GROUP

DMu — Undifferentiated phyllite psammite.

DMv — Foliated quartz-sericite-chlorite phyllite (metavolanic), locally quartz augen, and minor carbonaceous phyllite.[4]

DMp — Carbonaceous phyllite

Precambrian-Lower Cambrian
HYLAND GROUP

PEh — Undifferentiated foliated and lineated phyllite and psammite, minor calc-phyllite and carbonate.

PEhp — Dominantly psammite with minor phyllite

PEhy — Dominantly phyllite with minor psammite

Areas of carbonate outcrop including marble and dolomitic marble.

Symbols

Geological contact (defined, approximate, assumed)

Fault, displacement unknown (defined, approximate, projected to surface)

Thrust fault (defined, approximate, projected to surface)

Fold Axial surface trace (syncline, anticline, overturned anticline, overturned syncline, arrow on trace indicates direction of plunge)

Limit of outcrop

Bedding (tops known, tops unknown, overturned)

Prominent foliation, lineation (not necessarily included in plane of foliation)

Mineral Occurence (Yukon MINFILE reference number)

Line of cross-section

Apparent dip of measured orientation of foliation in cross-section

Form lines of foliation in cross-section

Age Constraints

[1] K-Ar date from quartz-biotite porphyritic granite sill (Kg) one mile south west of the peak of Mount Haldane: 82 +\- 5 Ma (GSC 65-49 reported in Wanless et al., 1967). Fortune Creek 600m northeast of the peak of Mount Haldane: 89 +\- 2.6 Ma (GSC 80-74 reported in Stevens et al., 1981).
[2] U-Pb zircon and baddeleyite date from diorite sill in the Tombstone Mountains: 232 +1.5/-1.2 Ma (Mortensen and Thompson, 1990).
[3] Age assignment based on mid-Mississippian (Visean) conodonts recovered from Keno Hill quartzite in Ogilvie Mountains (determination by M.J. Orchard, reported in Mortensen and Thompson, 1990).
[4] Preliminary U-Pb zircon dates from this unit are Devono-Mississippian (J. Mortensen, personal communication, 1993). This unit is correlated with felsic metavolcanic rocks of the MARG deposit (NTS 106 D/1, Turner and Abbott,1990).

Mineral Occurrences[5]

	Occurrence name	Commodities/Deposit type
♦	01 United Keno Hill	Ag, Pb, Zn-vein(s)
♦	26 Gerlitzki	Ag, Pb, Zn-vein
♦	27 Titan	Ag, Pb-vein
♦	28 Shanghai	Ag, Pb, Zn-vein
♦	29 Wayne	Ag, Pb, Zn, Au, W-vein/skarn
✱	30 Argent	
▼	31a Strebchuck	An, Ag, Pb, W-vein
◇	31b Jourmbira	Pb, Ag,Sn, W-vein
♦	32 Mount Haldane	Ag, Pb, Zn-vein
♦	33 Laysier	Ag, Pb-vein
◇	54 Chance	Sb-vein
♦	56 Sundown	Ag, Pb-vein
✱	58 Halfway	
✱	60 Newry	
✱	67 Corkery	
✱	68 Weasel	
◇	72 Beley	Zn-vein
♦	21 Peso (106 D)	Ag, Pb, Zn-vein

[5] For 105 M except where indicated

106D/14	106D/3 Green (1971)	106D/2 Green (1971)
105M/13 This study	105M/14 Murphy and Roots (1992)	105M/15 Green (1971)
105M/12	105M/11	105M/10

Notes

This map is based on 1991 and 1992 mapping and compilation of previous Geological Survey of Canada mapping, namely by Poole (1964, 1965), Green (1971) and McTaggart (1960).

Mount Haldane map area is underlain primarily by highly deformed rocks of three map units: the Upper Proterozoic to Lower Cambrian Hyland Group, the Devono-Mississippian Earn Group and Mississippian Keno Hill quartzite. The Robert Service thrust, which crosses the map area from east to west, places Hyland Group strata over Keno Hill quartzite. The westerly plunging, faulted McQuesten anticline folds the Robert Service thrust. In Haldane Creek a fault may exist that offsets this thrust. The Tombstone thrust which occurs in map areas to the east and north is not exposed in Mount Haldane map area and is assumed to be at depth.

All bedrock map units in the map area (except Cretaceous intrusive rocks) are intensely foliated and lineated. These fabrics are believed to have formed during displacement on the Tombstone thrust. Foliation and lineation are deformed by open folds with east-west trends (e.g. McQuesten anticline). All folds and fabrics are cut by north to northeast trending faults. Vein-fault mineralization is similar to that in Keno Hill map area (105 M/14) where it is believed to have occurred during north- to northeast-trending faulting (Boyle, 1965 and references therein).

Buried intrusions may be present at a number of locations as some phyllites contain andalusite (a mineral characteristic of contact metamorphism of argillaceous rocks) and limestone outcrops are locally marmorized and/or silicified.

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

Open File 1993 - 6 (G)

GEOLOGICAL MAP OF MOUNT HALDANE (105M/13)
CENTRAL YUKON

by

J.A. Hunt and D.C. Murphy
Canada/Yukon Mineral Development Agreement
Geoscience Office

C.F. Roots and W.H. Poole
Geological Survey of Canada