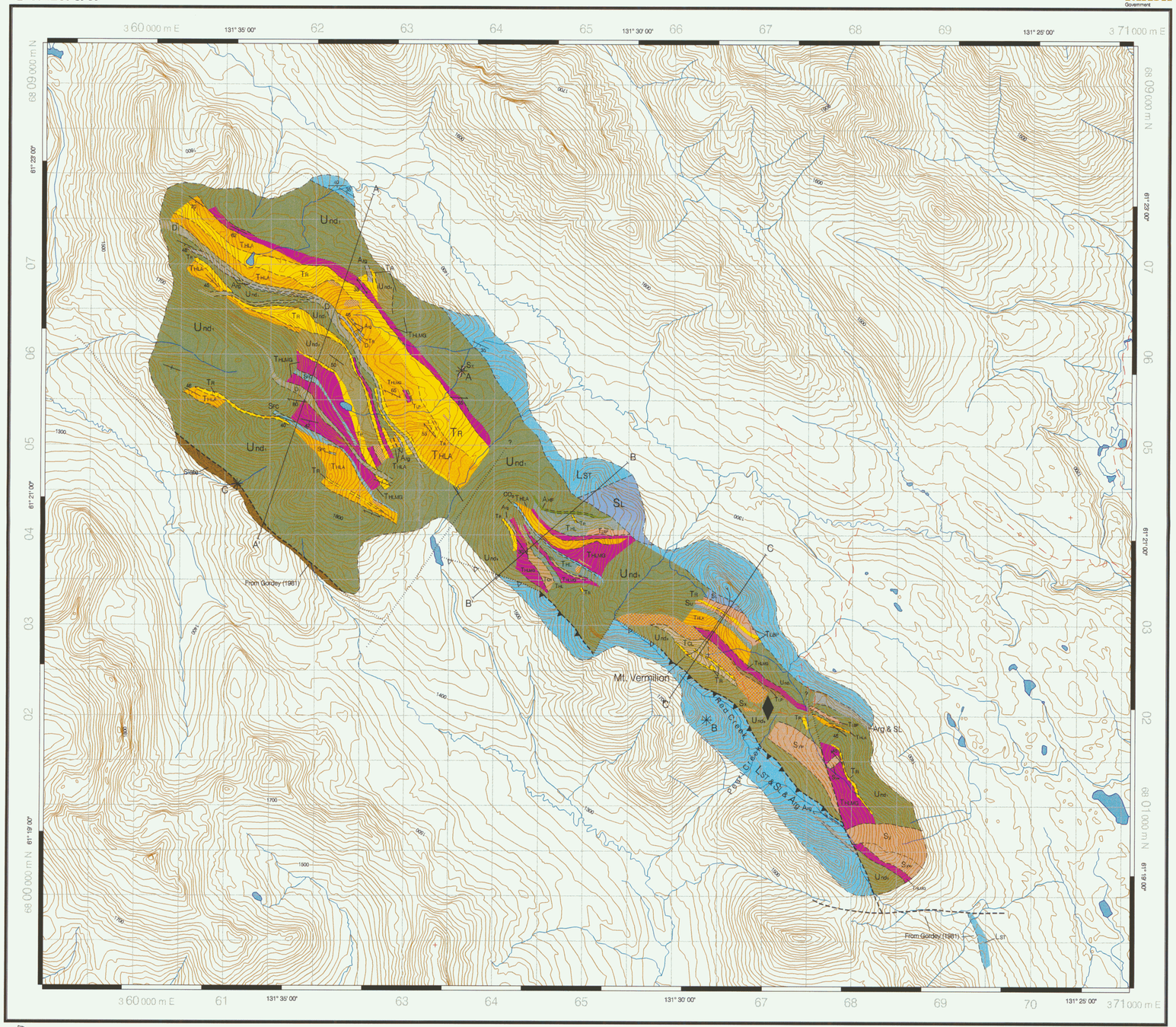
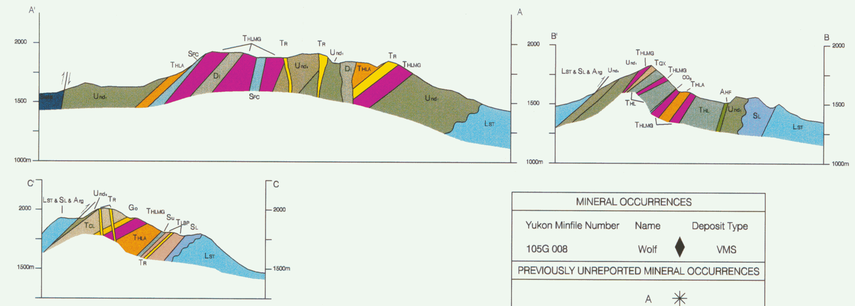
Canada

Yukon Government





MINERAL OCCURRENCES		
Yukon Minfile Number	Name	Deposit Type
105G 008	Wolf	VMS
PREVIOUSLY UNREPORTED MINERAL OCCURRENCES		
A		
B		
C		

LEGEND

DEVONO-MISSISSIPPIAN

Non-fragmental Units

S_y — Syenite - grey weathering, grey to white or rarely pink, very fine-grained to pegmatitic with pink feldspar crystals up to 4 cm long. Disseminations and blebs of pyrite occur throughout the intrusion with rare fluorite.

T_R — Trachyte flows, sills and dykes - dark rusty brown to yellow or grey weathering, fresh surfaces are dark pinkish brown to light grey with numerous iron carbonate filled vesicles. Locally fine-grained glassy needle-like feldspar crystals are visible

Di — Diorite/Andesite flows, sills and dykes - medium grey-green to brown weathering with a pitted surface. Fresh surfaces are medium green with relict biotite? And feldspar crystals and trace fine-grained disseminated pyrite. Locally the rocks are cut by numerous carbonate filled fractures.

Fragmental Units

T_{CL} — Chlorite altered tuff/brecciated diorite/andesitic lapilli tuff - black to dark grey weathering with rusty iron carbonate blebs and veinlets throughout. Rare light coloured, sub-angular fragments occur in a fine-grained dark grey matrix.

T_{HLA} — Heterolithic lapilli tuff with argillite clasts - This lithology is generally flaggy and weathers light plink-brown with silvery coloured fragments and weathered out iron carbonate blebs. The fragments are dominantly pale green volcanic rock and lesser, but distinct, fine-grained black argillite fragments that average 0.5 to 1.0 cm across. Locally this unit is very coarse-grained with argillite clasts up to 50 cm across.

T_{HL} — Heterolithic lapilli tuff - this unit is similar to T_{HLA} but has no argillite clasts.

CO_3 — Narrow white limestone bands and lenses within the volcanic package.

T_{HLAB} — T_{HLA} interbedded with narrow bands of black argillite.

T_{HLMG} — Maroon and green heterolithic lapilli tuff - In general this unit has a maroon matrix with dominantly pale green and lesser pale grey clasts that average 1 to 3 cm across. Locally this unit is very coarse grained with trachyte fragments up to 60 cm across (locally may include narrow bands and lenses of argillite.

T_{LP} — Pyritic/sulphidized lapilli tuff - weathers rusty yellow and gossanous to bleached. Pyritic clasts generally less than 1 cm across occur in a light grey matrix.

T_{QX} — Quartz (feldspar) crystal tuff - weathers medium grey with cream and black fragments. Fresh surfaces are medium grey with trace to 5% glassy quartz crystals 1 to 3 mm in diameter.

T_{LBP} — Brown-pink lapilli tuff - Flaggy, light pinkish brown weathering tuff with rounded, fine-grained, pale grey to pale green, rarely feldspar phyric, fragments (trachyte?) 2 to 15 mm across.

A_{HF} — Heterolithic felsic agglomerate/breccia - Weathers light grey with rusty blebs. Angular, fine-grained, grey fragments up to 30 cm across occur in a medium to dark grey matrix.

$S_{Y_{BX}}$ — Syenite breccia - weathers light grey to white, monolithic with fine-grained angular fragments from 1 to 15 cm across. Locally the fragments include white feldspar and rounded quartz crystals.

Arg — Argillite - black to silvery grey, fissile, locally laminated, rarely finely striped grey and green.

S_{FC} — Interbedded sandstone, shale/argillite and iron carbonate cemented breccia

S_U — Undivided sedimentary rocks - made up of interbedded argillite and fine- to coarse-grained buff coloured sandstone.

U_{nd_1} — Undivided unit made up of Tr, T_{HLA} and T_{HLMG}

U_{nd_2} — Undivided unit made up of T_{HLA} and T_{HLMG}

G_{OS} — Gossan

"DEVONO-MISSISSIPPIAN" or "DEVONIAN or older"

U_{nd_3} — Undivided unit made up of grit, conglomerate and T_{HLA}. It is not clear if this unit is part of the Devono-Mississippian volcanic sequence or the overthrust package.

DEVONIAN or older

L_{ST} — Limestone/dolomite - cliff forming carbonate weathers light grey to brown, is massive to well bedded, locally brecciated, locally crinoidal and locally fine-grained and laminated.

S_L — Limey siltstone/shale

S — Carbonate, sandstone, grit and argillite - brown to grey to cream weathering, massive, grey, locally fossilliferous and/or bioturbated carbonate with minor sandstone interbeds; dark brown weathering coarse-grained sandstone; polymictic grit made up of varicoloured fine-grained cherty clasts in an argillaceous matrix; black, fissile argillite.

Slate — Grey weathering lustrous tuffaceous slate; minor orange or grey weathering sandstone.

SYMBOLS

- Limit of mapping
- Geological contact (defined, approximate, assumed and/or covered)
- Fault (defined, approximate, assumed and/or covered)
- Thrust fault (defined, approximate, assumed and/or covered)
- Bedding — 24 VERTICAL / 67 VERTICAL
- Foliation
- Cross-section line — A A'
- Stratigraphic-section location
- Winter trail

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RECOMMENDED CITATION

Hunt, J.A., 1998. Preliminary geology of the Mount Vermilion area, Pelly-Cassiar Platform, Yukon Territory, 1:25 000-scale map (parts of 105G/5&6). Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, Geoscience Map 1999-?

Digital drafting by Jason Adams, 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 in YEG and Yukon Minfile may be purchased from Geoscience Information and Sales, c/o Whitehorse Mining Recorder, Indian and Northern Affairs Canada, Room 102-300 Main Street, Whitehorse, Yukon, Y1A 2B5, Ph: 867 667 3266, Fax: 867 667 3257

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Exploration and Geological Services Division
Yukon Region

Open File 1998-5

Preliminary Geological Map of the Mt. Vermillion Area
Southern Yukon
(Parts of 105G5 & 105G6)

by

Julie A. Hunt

Canada/Yukon Mineral Development Agreement
Geoscience Office

14-74

Topographic base map produced by SURVEYS AND MAPPING BRANCH, DEPARTMENT OF ENERGY, MINES AND RESOURCES

FIVE HUNDRED METRE Universal Transverse Mercator Grid ZONE 9

Contour Interval 20m

Elevation Conversions

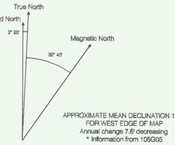
Preliminary Geological Map of the Mt.Vermillion Area

Yukon Territory

Scale 1:25 000

Meters 1000 0 1000 2000 3000 4000 Meters

Miles 1 0 1 2 3 Miles



APPROXIMATE MEAN DECLINATION 1998
FOR WEST EDGE OF MAP
Annual change 7.8' decreasing
* Information from 105G05