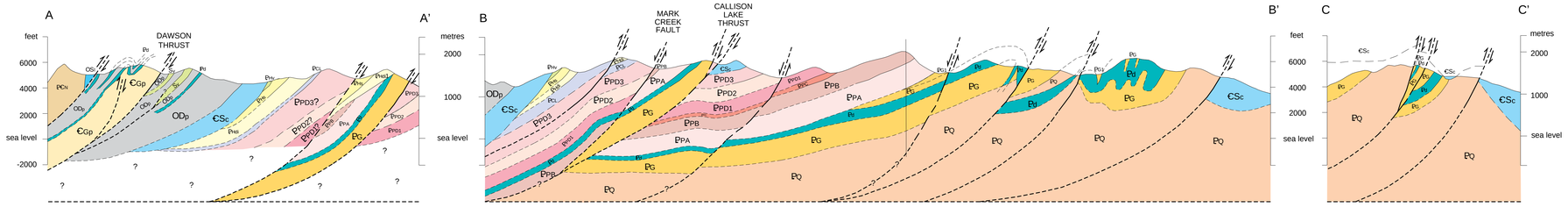
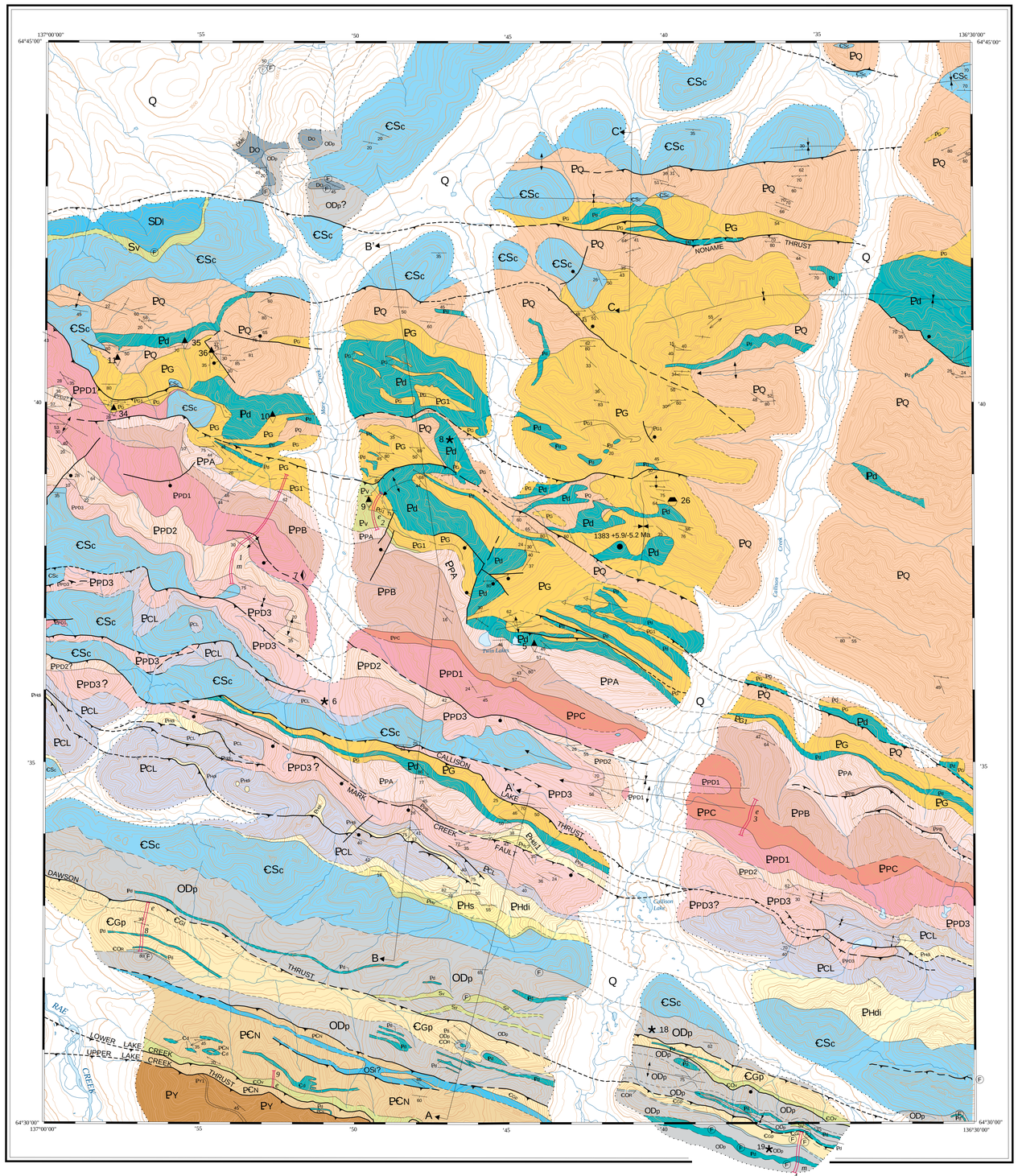


Canada

canada/yukon economic development agreement

Yukon Government



116 A/10

YUKON TERRITORY

SCALE 1:50 000

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

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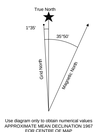
ONE THOUSAND METRE
Universal Transverse Mercator Grid
ZONE 8

Miles 1 0 1 2 3 Miles

Metres 1000 0 1000 2000 3000 4000 Metres

CONTOUR INTERVAL 100 FEET
Elevations in Feet above Mean Sea Level
North American Datum 1983
Transverse Mercator Projection



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 1997
FOR CENTRE OF MAP
Annual change decreasing 4.3'

116 A/14	116 A/15	116 A/16
116 A/11 Abbott Geoscience Map 1997-3	116 A/10 THIS MAP	116 A/9
116 A/6	116 A/7	116 A/8

LEGEND

NORTH — *SOUTH*

Q — Thin layers of alluvium on slopes and primarily fluvial and glacio-fluvial deposits in valleys

DEVONIAN AND CARBONIFEROUS

EARN GROUP

DMe — Recessive, light brown weathering chert, silver-blue siliceous shale, black shale, sandstone, and minor chert grit(DMe1: massive, coarse-grained black limestone

angular unconformity on Ogilvie Formation and unit ODp

DEVONIAN

LOWER DEVONIAN

Do — OGILVIE FORMATION: recessive, light grey weathering thick bedded light grey limestone

SILURIAN AND (?)DEVONIAN

SDl — Recessive, fossiliferous, light grey limestone

SILURIAN

Sv — Dark green mafic volcanic rocks. Includes lapilli tuff, hyaloclastic breccia,

MIDDLE OR LATE PALEOZOIC

Pd — Resistant, dark weathering diorite, gabbro sills and dikes. Intrudes Road River Group on both sides of the Dawson Fault

ORDOVICIAN, SILURIAN AND (?)DEVONIAN

ROAD RIVER GROUP

ODp — Dark blue weathering, graptolitic siliceous shale and chert. Calcareous black shale, and light grey thinly laminated limestone in northernmost exposures. May locally include Earn Group

(?)CAMBRIAN, ORDOVICIAN AND (?)SILURIAN

€Sc — Massive, talus-forming bluish-grey-weathering coarse grained dolostone

angular unconformity on all older units

PROTEROZOIC

UPPER PROTEROZOIC

MOUNT HARPER GROUP(PHdi - PHv)

PHv — Dark green mafic volcanic rocks. Includes lapilli tuff, hyaloclastic breccia, finely laminated tuff and epiclastic(?) tuff

PHs — Orange-brown to dark brown weathering platey siltstone, sandstone, and dark grey shale

PHdi — Orange to dark grey weathering diamictite comprised of angular to rounded clasts of quartzite and grey dolostone up to 30 cm across, but generally pebble-sized or smaller suspended in a matrix of orange weathering dolostone, silty dolostone, and dark grey shale. Also includes orange weathering thinly laminated silty dolostone PHs. 2 may be younger than rest of unit

angular unconformity on Callison Lake Dolostone and units Pd PPA .

PCL — CALLISON LAKE DOLOSTONE: resistant, light creamy grey weathering well bedded. Characterized by algal laminations, oolitths, lenses of grey to black chert and stromatolites

angular unconformity on Pinguicula Group (unit PPD3 and (?)PPD2)

PINGUICULA GROUP (PPA - PPD3)

PPD3 — Dark brown to rusty weathering thinly laminated to thick bedded quartz arenite, sandstone, minor orange dolostone

PPD2 — Recessive, buff weathering thin bedded limestone overlain by recessive grey weathering well bedded, medium grey dolostone

PPD1 — Lower member: maroon, green and brown weathering shale interbedded with thin to thick beds of maroon sandstone; middle member: resistant, massive to thick bedded grey quartz arenite; upper member: maroon shale

angular unconformity on all(?) older units

MIDDLE AND (?)UPPER PROTEROZOIC

PPC — Reddish weathering, massive- to thick-bedded cream coloured dolostone. Karst(?) breccia pervasive, with matrix and veinlets of reddish weathering carbonate

PPB — Orange weathering silty dolostone and limestone

PPA — Black, pale greenish brown, green and maroon phyllite, dark greenish grey massive to finely laminated greywacke and siltstone

angular unconformity on Hart River basalts, Hart River sills and Gillespie Lake Group

MIDDLE PROTEROZOIC (Pd - Pv)

Pv — HART RIVER BASALTS: mafic volcanic flows, generally massive and fine-grained, locally pillowed

unconformity on PG

Pd — HART RIVER SILLS: Resistant dark weathering diorite, gabbro sills and dikes. Only intrude Wernecke Supergroup

LOWER PROTEROZOIC

WERNECKE SUPERGROUP(PG - PQ)

PG — GILLESPIE LAKE GROUP: orange weathering thin bedded to thinly laminated silty dolostone and limestone; PG1 : black shale

PQ — QUARTET GROUP: black shale, siltstone, and sandstone. Finely laminated brown and green weatherng silty shale near top of unit

DAWSON THRUST

JURASSIC, TRIASSIC AND OLDER?

TJps — Recessive grey-brown weathering black slate, lesser amounts of weakly calcareous,micaceous siltstone, silty shale, and minor cross-laminated micaceous sandstone

stratigraphic relations unknown

MISSISSIPPIAN

Mq — KENO HILL QUARTZITE: dark grey weathering, massive to very thick bedded vitreous quartz arenite and minor black slate

stratigraphic relations unknown

ORDOVICIAN AND ?SILURIAN

ROAD RIVER GROUP

OSl — Resistant light grey weathering limestone. Varies from thin bedded with green shale partings through thick bedded to massive. Interbedded with black feld limestone and chert

unconformity on Narchilla Formation, Gull Lake Formation and unit €Ou

ORDOVICIAN, SILURIAN AND (?)DEVONIAN

ROAD RIVER GROUP

ODpt — Olive green weathering slate, interbedded with variable amounts of brown weathering thin bedded chert, and minor silver-blue weathering siliceous black shale

ORDOVICIAN

ROAD RIVER GROUP

Ot — Resistant, thick to very thick bedded bioturbated grey chert

angular unconformity? with Narchilla Formation, disconformable? on unit €Ou

CAMBRIAN AND ORDOVICIAN

UPPER CAMBRIAN AND LOWER ORDOVICIAN

€OR — RABBITKETTLE FORMATION: thin bedded, platey grey limestone interbedded with dark grey shale

disconformable? on Gull Lake Formation

CAMBRIAN AND ORDOVICIAN (€Ov - €Ou)

€Ou — Green and grey siliceous shale and interbedded grey green chert with minor limestone. Probably equivalent to Rabbitkettle Formation and lower parts of unit ODp

angular unconformity with all older units

€Ov — DEMPSTER VOLCANICS: Resistant, dark greenish grey weathering mafic volcanic flows, tuffs and hyaloclastic breccias

angular unconformity with Gull Lake and Narchilla Formations; locally conformable(?) on Gull Lake Formation

CAMBRIAN

€d — Resistant dark weathering diorite, gabbro sills and dikes. Intrudes Cambrian and Proterozoic strata south of Dawson Thrust

CAMBRIAN

LOWER AND MIDDLE? CAMBRIAN

€G — GULL LAKE FORMATION: €Gp : recessive, drab brown weathering dull grey and greenish grey thinly laminated siltstone and bioturbated shale; €Gl: yellowish brown weathering limestone diamicite, shale, calcareous sandstone, calcareous siltstone; €Gs : quartz arenite, mafic volcanics, limestone, shale; €Gv : resistant dark greenish grey weathering mafic volcanic flows, tuffs and hyaloclastic breccias

disconformable? on Narchilla Formation

PROTEROZOIC AND CAMBRIAN

UPPER PROTEROZOIC AND LOWER CAMBRIAN

HYLAND GROUP (PY - PCN)

PCN — NARCHILLA FORMATION: recessive maroon, green, and grey shale, with lesser amounts of sandstone, quartz arenite, and quartzofeldspathic grit

PROTEROZOIC

UPPER PROTEROZOIC

HYLAND GROUP

PY — YUSEZYU FORMATION: dull grey-brown weathering quartzofeldspathic grit and sandstone with lesser amounts of interbedded dark grey phyllite and minor maroon and green shale, siltstone, shale PY1 : brown weathering sandy limestone, limestone

SYMBOLS

Geological contact (defined, approximate, assumed/covered)

Fault or vein-fault, displacement unknown (defined, approximate, assumed/covered)

Thrust fault-teeth on hanging wall (defined, approximate, assumed/covered)

Normal fault-dot on downthrown side (defined, approximate, assumed/covered)

Fold axial trace (upright anticline, syncline, overturned anticline, syncline)

Limit of outcrop

Bedding (known upright, overturned, unknown) — 34, 23, 17

Foliation- (one tick indicates earliest phase of deformation, two indicates subsequent phase of deformation) — 36

Line of cross-section — A A'

Stratigraphic section (measured, estimated) — m e

Isotopic age determination (see accompanying report) — 519 ±2.9 Ma

MINERAL OCCURRENCES
(FROM YUKON MINFILE)

SYMBOL	MINFILE NO.	NAME	TYPE
1	116A 5	SOUP	Cu vein
2	116A 9	HART RIVER	Cu, Zn, Ag, Au replacement
3	116A 10	BELCARRA	Cu vein
4	116A 11	ZEBRA	Cu, Ag vein
5	116A 34	HAWEY	Cu, Au vein
6	116A 35	BRIDEN	Cu, Ag vein
7	116A 36	HOLCAPER	Cu, Pb, Zn vein
8	116A 7	REINDEER	Cu-unknown
9	116A 26	CLOUD	axinite in skarn?
10	116A 6	CINCH	work target
11	116A 8	GRACE	work target
12	116A 18	CALLISON	work target
13	116A 19	RAE	work target

RECOMMENDED CITATION

ABBOTT, J.G., 1997. Geology of NTS map area 116 A/10, eastern Ogilvie Mountains, Yukon Territory. Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Geoscience Map 1997-2, scale 1:50 000.

This map accompanies ABBOTT, J.G., 1997. Geology of the upper Hart River area, eastern Ogilvie Mountains, Yukon Territory (116 A/10,11). Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Bulletin 9.

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

Any revisions of 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 102-300 Main St. Whitehorse, Yukon Y1A 2B5, Ph. 867-667-3264, Fax 867-667-3267.

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

Last revised November, 1997.

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

Geoscience Map 1997-2

Geology of NTS map area 116 A/10 eastern Ogilvie Mountains, Yukon

by
Grant Abbott
Canada/Yukon Mineral Development Agreement
Geoscience Office