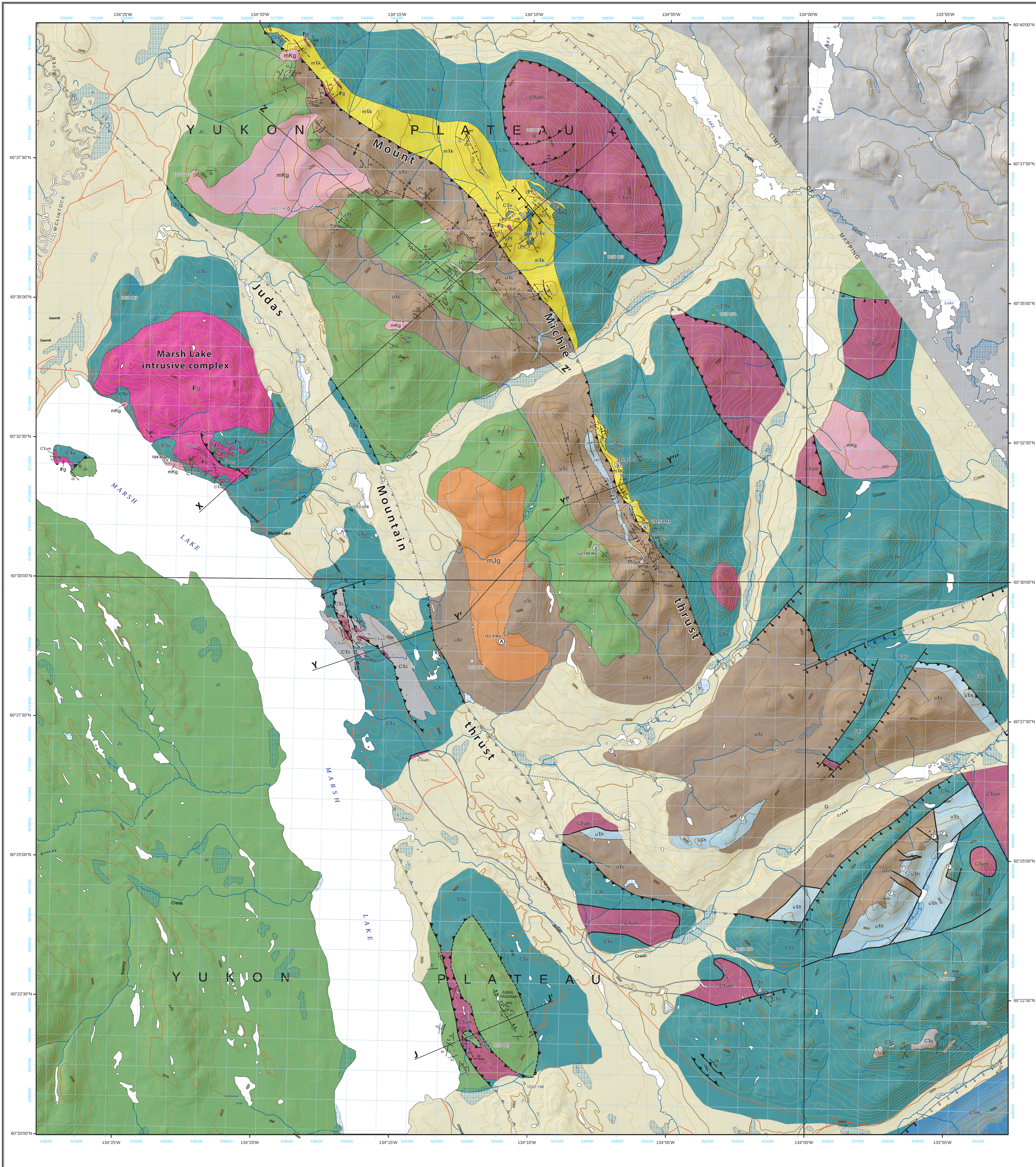




LEGEND

QUATERNARY

Q unconsolidated glacial, glacioluvial and glaciolacustrine deposits; fluvial silt, sand, and gravel, in part with cover of soil and organic deposits

INTRUSIVE ROCKS

PALEOGENE

LPf light to dark grey, very fine to medium-grained spherulitic dacite, rhyodacite; subvolcanic white-buff rhyolite, rarely with biotite and porphyritic k-feldspar

EARLY TO LATE CRETACEOUS

mKg medium to coarse-grained hornblende diorite; coarse-grained quartz biotite monzonite

MIDDLE JURASSIC

mJg coarse-grained to pegmatitic biotite muscovite syenite

PENNSYLVANIAN TO TRIASSIC

Pg MARSH LAKE INTRUSIVE COMPLEX: light grey to grey-green, medium to coarse-grained to porphyritic gabbro-norite; medium-grained clinopyroxenite; fine to medium-grained diorite; olivine porphyritic diabase

LAYERED ROCKS

WHITEHORSE TROUGH

LOWER TO MIDDLE JURASSIC

Jc RICHTHOFEN FORMATION: green-brown, medium to coarse-grained lithic sandstone, typically coupled with brown to dark grey turbiditic siltstone; polymictic paraconglomerate

STIKINIA

UPPER TRIASSIC

uTc AKSALA FORMATION, CASCA MEMBER: coarse-grained, black-grey arkosic sandstone to fine-grained, thinly laminated, dark grey argillaceous siltstone; siltstone forms thick sections with grey-buff, very fine grained sandstone interlaminae, locally bioturbated, sandstone locally calcareous

uTh AKSALA FORMATION, HANCOCK MEMBER: coarsely crystalline, light grey limestone to limestone breccia, locally fossiliferous

CACHE CREEK TERRANE

PENNSYLVANIAN TO TRIASSIC

mTk MICHE FORMATION (new unit): dark grey, fine-grained siltstone; buff, coarse-grained calc-lithic sandstone; green-grey wacke to pebble polymictic orthoconglomerate; fine-grained siltstone locally interbedded with thin, argillaceous limestone beds, carbonate-rich debris flows and rare olistoliths(?)

Ctm grey, massive, crystalline limestone, locally crinoidal and fusuline; recrystallized white to pale yellow limestone, limestone breccia, dolostone

Ctc grey-red-brown massive to ribbon banded chert, locally with soft sediment deformation; argillite interbeds

Ctv dark grey, medium-grained to aphanitic, chloritized basalt, locally amygdaloidal; light grey, fine-grained andesite; lenses of limestone and chert, locally, within the volcanic rocks; andesite to chloritized basalt intercalated with green-grey auto-brecciated volcanoclastic rocks; basalt rarely pillowed and hyaloclastic

Ctum dark grey-brown, medium to coarse-grained pyroxenite; dun-brown to orange, coarse-grained dunite, harzburgite; sheared, locally brecciated, highly magnetic serpentinite; dun-orange listwaenite

SYMBOLS

Geologic contacts (defined, approximate, inferred, covered).....

Fault; movement not known (defined, covered).....

Thrust fault (defined, approximate, inferred, covered).....

Sinistral strike-slip fault (approximate).....

Normal fault (defined, approximate, inferred, covered).....

Fold axial trace (upright - anticline, syncline; overturned - anticline, syncline).....

Bedding (inclined, overturned).....

Dominant foliation (inclined).....

Intersection lineation (m, s, z).....

Fold axis (dominant phase).....

Igneous fabric.....

Isotopic date (U-Pb detrital zircon; K-Ar; ⁴⁰Ar/³⁹Ar) (youngest detrital age indicated for U-Pb; italic numbers refer to geochronology table).....

Fossil locality (italic numbers refer to fossil table).....

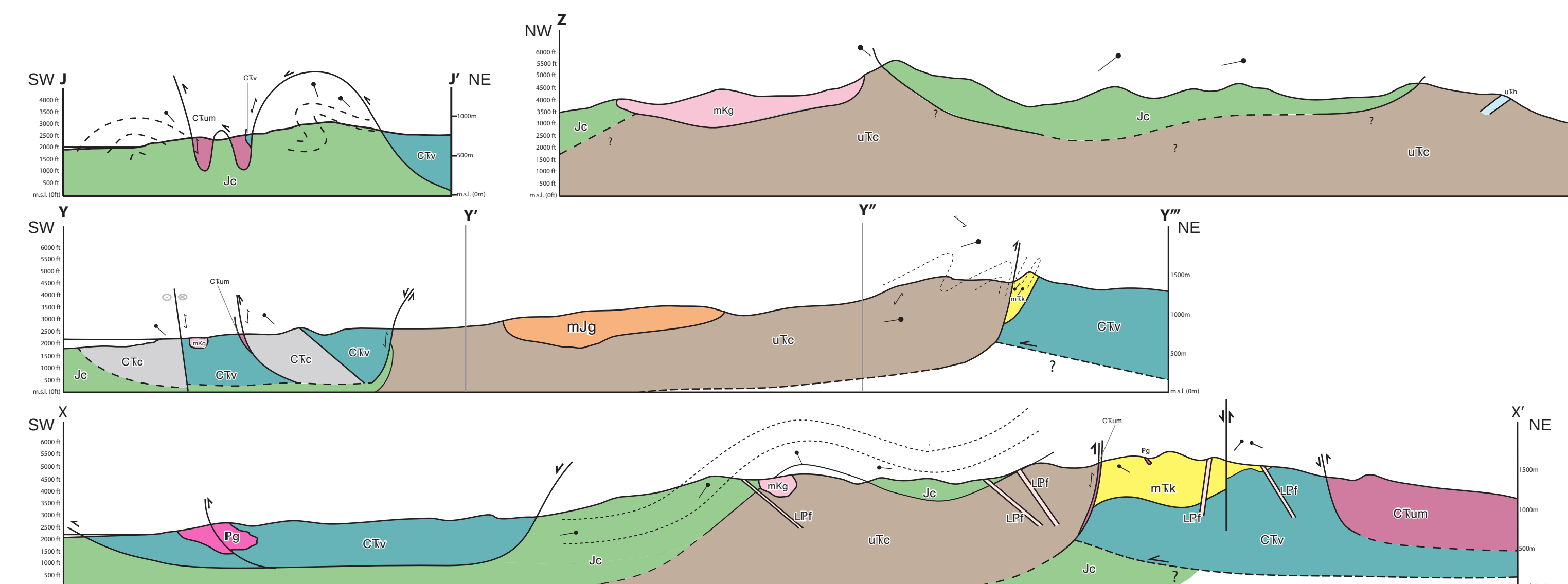
Field station.....

Road/trail.....

Apparent dip of bedding, foliation (in cross section).....

Sense of displacement across strike-slip fault (in cross section; away, toward).....

CROSS SECTIONS



MAP#	CURATION#	AGE	FORMATION	AUTHOR	DATE	STATION	FOSSIL TYPE	FOSSIL CATEGORY
1	C-176034	Late Triassic, Late Norian	Hancock	M.J. ORCHARD	1991	91-GGA-13-5A	conodont; foraminifer; radiolarian; gastropod; echinoderm; cephalopod (ammonoid); bivalve; sponge; fish	microfossil
2	C-176035	Late Triassic, Late Norian	Hancock	M.J. ORCHARD	1994	91-GGA-13-6A	conodont; foraminifer; radiolarian; gastropod; echinoderm; cephalopod (ammonoid); bivalve; sponge; fish	microfossil
3	C-176012	Middle or Late Triassic, Anisian-Carnian	Cache Creek	F. CORDEY	1994	91-GGA-10-01C	conodont; foraminifer; radiolarian; gastropod; echinoderm; cephalopod (ammonoid); bivalve; sponge; fish	microfossil
4	C-176014	Late Triassic, Norian?	Hancock	M.J. ORCHARD	1991	91-GGA-13-3A	conodont; foraminifer; radiolarian; gastropod; echinoderm; cephalopod (ammonoid); bivalve; sponge; fish	microfossil
5	C-300023	Late Triassic-Middle Jurassic	Cache Creek	F. CORDEY	1991	91-GGA-13-03B	conodont; foraminifer; radiolarian; gastropod; echinoderm; cephalopod (ammonoid); bivalve; sponge; fish	microfossil
6	C-176059	Late Triassic, Middle-Late Norian	Hancock	M.J. ORCHARD	1991	91-GGA-13-2B	conodont; foraminifer; radiolarian; gastropod; echinoderm; cephalopod (ammonoid); bivalve; sponge; fish	microfossil
7	O-025048	probably late Norian	Hancock	E.T. TOZER		85-TD-WH-1	bivalve	macrofossil
8	C-117184	Late Carboniferous (Pennsylvanian)-Early Permian?	Cache Creek	M.J. ORCHARD	1985	85-TD-WH-1	conodont; foraminifer; radiolarian; gastropod; echinoderm; holothuroid; sponge; fish	microfossil

Isotopic Age Determinations

Map ID	Type	Station #	Age (Ma)	Material	Method	Interpretation	Reference
1	K-Ar	85C164-1	104 +/- 4	Hornblende	crystallization		Hart (1995) M.Sc. thesis, University of British Columbia
2	U-Pb	10MCD49	244.54 +/- 0.13	Zircon (detrital)	CA-TIMS	source	Bickerton (2014)
3	U-Pb	12LB181	245.85 +/- 0.07	Zircon (detrital)	CA-TIMS	source	Bickerton (2014)
4	U-Pb	12LB220	ca. 190	Zircon (detrital)	LA-ICPMS	source	Bickerton (2014)
5	Ar-Ar	12LB211	165.9 +/- 0.8	White mica	⁴⁰ Ar/ ³⁹ Ar	cooling	Heizler (written comm. 2014); this map
6	Ar-Ar	12LB211	162.5 +/- 0.6	Biotite	⁴⁰ Ar/ ³⁹ Ar	cooling	Heizler (written comm. 2014); this map

Mineral Occurrences	Yukon MINFILE
105C 049	ANF Anomaly
105C 055	ANF Anomaly
105D 067	McClintock Drilled Prospect Au, Ag Au-Quartz Veins
105D 068	Oak Anomaly Cu/-Ag Quartz Veins
105D 069	Marsh Drilled Prospect Cu, Au Gabbroid Cu-Ni-PGE
105D 070	Levee Showing Ultramafic-hosted asbestos
105D 071	Michie Showing Podiform Chromite
105D 115	Worbetts Prospect Au, Ag Polymetallic Veins Ag-Pb-Zn/-Au
105D 153	Ichie Anomaly Unknown
105D 154	Into Anomaly Polymetallic Veins Ag-Pb-Zn/-Au
105D 176	Mc Michie Unknown
105D 178	Military Anomaly Unknown
105D 185	Bronco Anomaly Unknown
105D 196	Mike Showing Cu/-Ag Quartz Veins
105D 198	NLC Showing Au-Quartz Veins

1) Geology of the northeastern and western portion of the Tagish (NTS 105D/8) map area is after Wheeler (1961).

2) Geology of the western portion of the Streak Mountain (NTS 105C/12) and north western portion of the Squaga Lake (NTS 105C/5) is after Gordey and Stevens (1994).

3) Detrital zircon dates from coarse sandstones of 'Michie formation' is from Bickerton (2014).

REFERENCES

BICKERTON, L., 2014. The northern Cache Creek terrane: a record of Middle Triassic arc activity and Jurassic-Cretaceous terrane imbrication. Unpublished MSc. Thesis, Simon Fraser University, Burnaby, British Columbia.

GORDEY, S.P. and STEVENS, R.A., 1994. Geology, Teslin, Yukon Territory: Geological Survey of Canada, Open File 2886, 1:250,000.

HART, C.J.R., 1995. Magmatic and tectonic evolution of the Intermontane superterrane and coast plutonic complex in southern Yukon Territory. Unpublished MSc. Thesis, University of British Columbia, Vancouver, British Columbia.

WHEELER, J.O., 1961. Whitehorse map-area, Yukon Territory, 105D. Geological Survey of Canada, Memoir 312, 156 p.

RECOMMENDED CITATION

BICKERTON, L., 2014. Geological map of Michie Creek (NTS 105D/9) and parts of Tagish (NTS 105D/8) areas. Yukon Geological Survey, Open File 2014-11, 1:50,000 scale.

Digital cartography and drafting by Luke Bickerton, Simon Fraser University, and Maurice Colpron, Yukon Geological Survey. Cam Dorsey and Jaap Verbaas provided assistance in the field.

Any revisions or additional geological information known to the user would be welcomed by the Yukon Geological Survey.

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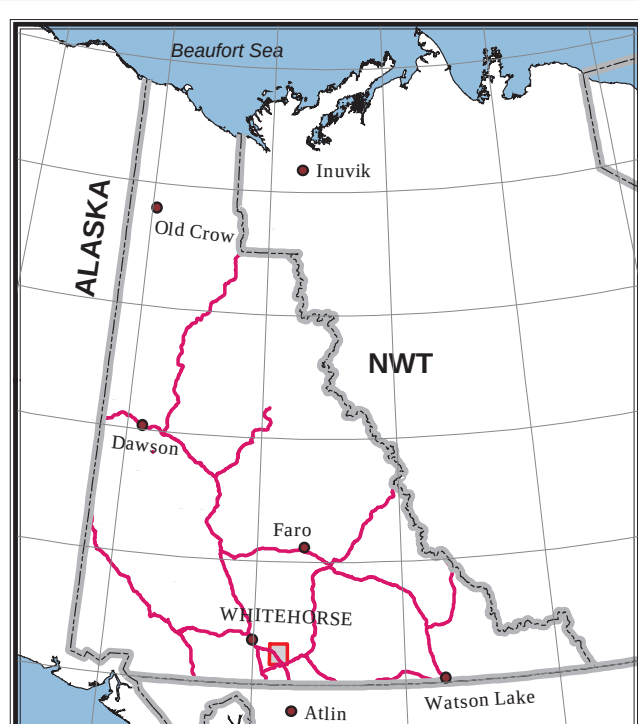
A digital PDF (Portable Document File) file of this map may be downloaded free of charge from the Yukon Geological Survey website: <http://www.geology.gov.yk.ca>.

Yukon Geological Survey
Energy, Mines and Resources
Government of Yukon

Open File 2014-11
Geological map of
Michie Creek (NTS 105D/9) and parts of
Tagish (NTS 105D/8) areas
(1:50,000 scale)

by

Luke Bickerton
Simon Fraser University



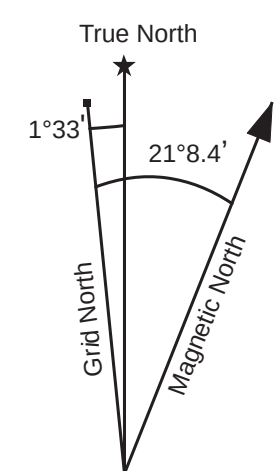
1:50 000-scale topographic base data
produced by
CENTRE FOR TOPOGRAPHIC
INFORMATION,
NATURAL RESOURCES CANADA

ONE THOUSAND METRE GRID
Universal Transverse Mercator Projection
North American Datum 1983
Zone 8

CONTOUR INTERVAL 20 METRES
Elevations in metres above Mean Sea Level

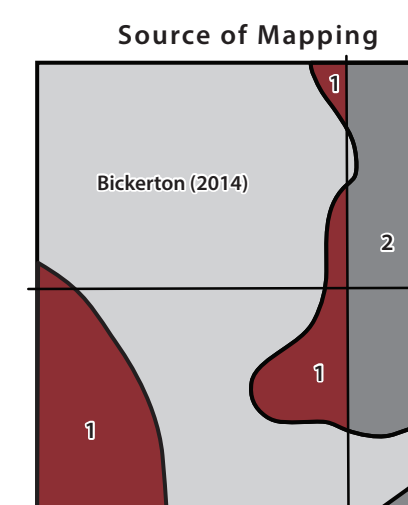
BEDROCK GEOLOGY
MICHE CREEK/TAGISH
YUKON

SCALE 1:50 000
0 1 2 3 4 5
kilometres



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 2005
FOR CENTRE OF MAP

105D/15	105D/16	105C/13
Joe Mountain	Mount McClintock	Rosy Lake
Macrae	THIS MAP	Streak Mountain
105D/10	105D/09	105C/12
Robinson		Squaga Lake



1 Wheeler (1961)
2 Gordey and Stevens (1994)