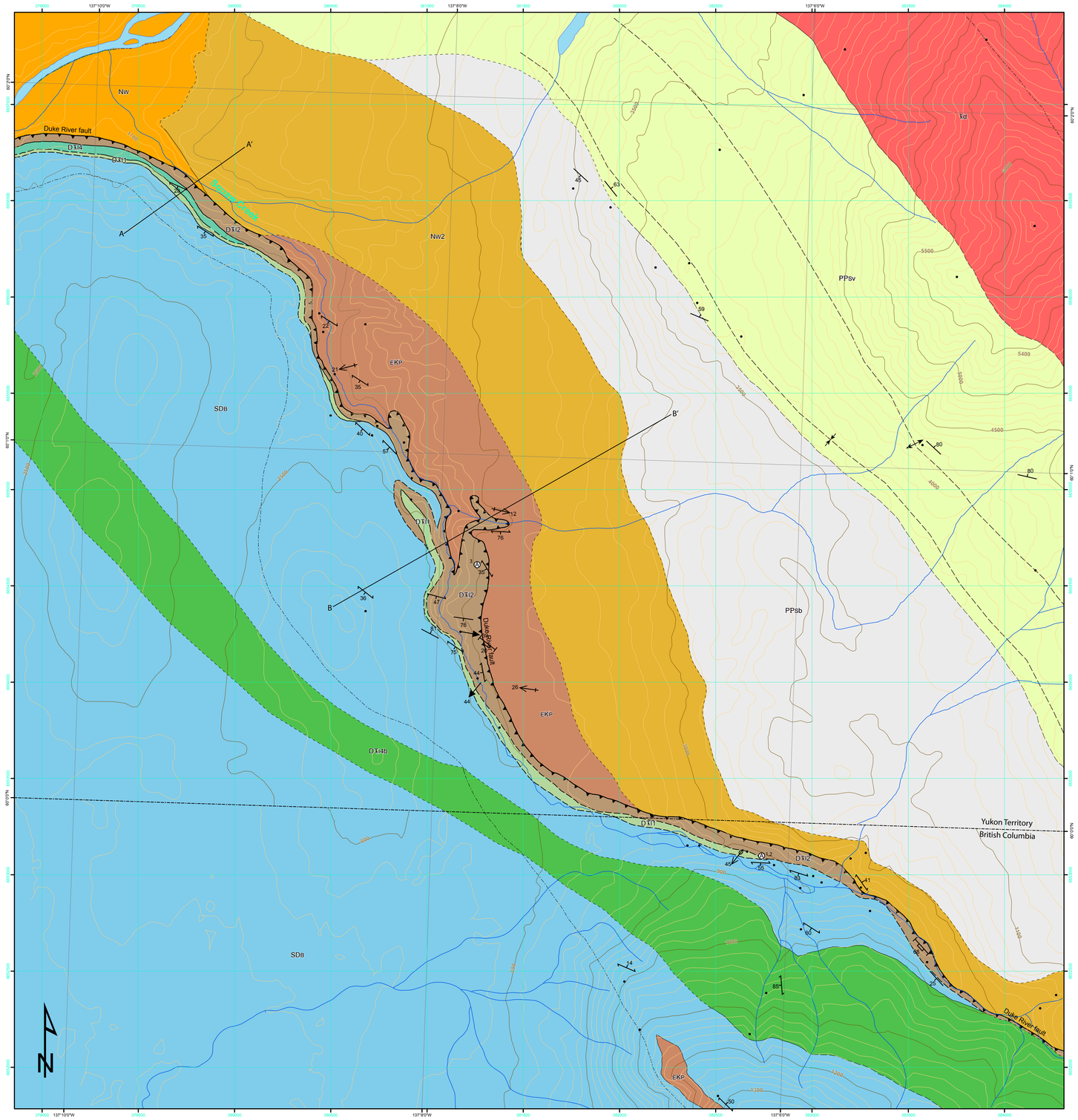

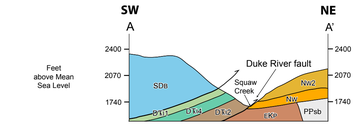

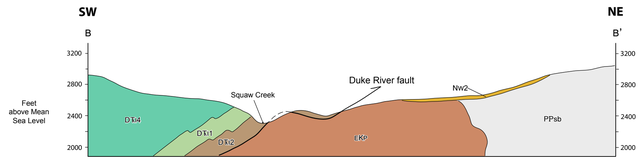

LEGEND

INTRUSIVE ROCKS

EARLY CRETACEOUS

Pyroxenite Creek

EKP — green, medium-grained, foliated, clinopyroxene-epidote gabbro

TRIASSIC

Mount Beaton Batholith

Ɨd — medium to coarse-grained, unfoliated, hornblende diorite to hornblende-biotite, quartz diorite; salt and pepper appearance; locally abundant dark grey fine-grained gabbro; may in part be equivalent to Early Cretaceous Kluane Ranges Suite

LAYERED ROCKS

MIOCENE

Wrangell volcanics

Nw — dark grey to black, fine-grained amygdaloidal basalt

Nw2 — biege, fine-grained crystal-lithic tuff

WRANGELLIA

MISSISSIPPIAN TO PENNSYLVANIAN

Station Creek Formation

PPSv — laminated to thinly bedded, light grey to light green volcanic tuff and volcaniclastic siltstone; local crystal-rich tuff interbedded with fine-grained volcanic ash

PPSb — interbedded volcanic breccia, agglomerate and volcaniclastic sandstone; dominated by pyroxene-phyric volcanic breccia; rare light grey-weathered, dark green to black, pyroxene-phyric basalt flows

ALEXANDER TERRANE

DEVONIAN TO TRIASSIC

Icefield assemblage

D Ɨ1 — fine-grained, carbonaceous muscovite-feldspar schist and carbonaceous quartz-muscovite schist

D Ɨ2 — thin-bedded, calcareous and carbonaceous siltstone and phyllite; rare muscovite-rich quartzite

D Ɨ4 — grey, thin-bedded, limestone and marble

D Ɨ4b — undifferentiated calcareous and carbonaceous silstone; fine- to medium-grained chlorite schist; grey banded limestone to marble

SILURIAN TO DEVONIAN

Bullion Creek limestone

SDB — light grey, massive to well-bedded limestone or marble, dark grey, thin-bedded limestone or marble; minor dark blue-grey calcareous argillite or phyllite

Note: Legend shows units from Cobbett, 2011

SYMBOLS

geologic contacts (defined, approximate, inferred)

thrust fault (defined, approximate)

fold axial surface trace (upright - anticline, syncline)

provincial/territorial border

bedding — 34

foliation (dominant) — 83

mineral lineation — 23

fold axis (dominant phase) — 72

crenulation lineation — 28

fault plane — 11

isotopic age sample locations (Ar-Ar) — A 1,2

cross section line — A A'

field station

Isotopic Age Determinations

	Type	Station #	Age (Ma)	Mineral	Interpretation	Reference
1	Ar-Ar	08-RC-024-1A	82.8 ± 2.7	muscovite	cooling age	Cobbett, 2011
2	Ar-Ar	08-RC-024-1B	104.6 ± 2.2	muscovite	cooling age	Cobbett, 2011
3	Ar-Ar	08-RC-028-1	90.1 ± 4.3	muscovite	cooling age	Cobbett, 2011

REFERENCE

Cobbett, R.N., 2011. Timing and kinematics of the Duke River fault: insights into the evolution of the Insular terrane, southwest Yukon. Unpublished MSc thesis, University of British Columbia, 140 p.

Gordey, S.P. and Makepeace, A.J. (compilers), 2003. Yukon Digital Geology, version 2.0. Geological Survey of Canada, Open File 1749, and Yukon Geological Survey, Open File 2003-9(D), 2 CD-ROMs.

Israel, S. and Cobbett, R., 2008. Bedrock geology of the Silver Creek area, Yukon (NTS 115A/3 and parts of 115A/6) (1:50 000 scale). Yukon Geological Survey, Open File 2008-21.

RECOMMENDED CITATION

Cobbett, R., 2013. Bedrock geology along the Duke River fault near Squaw Creek, Yukon and British Columbia (part of NTS 115A/03 and 114P/14) (1:10 000 scale). Yukon Geological Survey, Open File 2013-1.

Digital cartography and drafting by Rosie Cobbett, Yukon Geological Survey.

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

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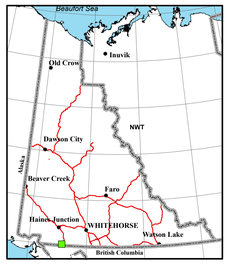
Ph. 867-667-3201, Fx. 867-667-3198, Email: geosales@gov.yk.ca

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.



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

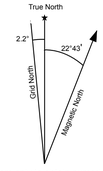
FIVE HUNDRED METRE GRID
Universal Transverse Mercator Projection
North American Datum 1983
Zone 8

CONTOUR INTERVAL:
100 Feet - Yukon Territory
20 meters - British Columbia
Elevation in feet and meters above Mean Sea Level

BEDROCK GEOLOGY
THE DUKE RIVER FAULT NEAR SQUAW CREEK
YUKON AND BRITISH COLUMBIA

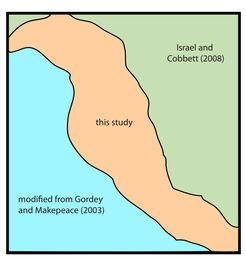
SCALE 1:10 000

0 125 250 500
metres



Use diagram only to obtain numerical values
APPROXIMATE MEAN DECLINATION 2008
FOR CENTRE OF MAP

115A/5 COTTON WOOD LAKES	115A/6 MUSH LAKE	115A/7 KLUHINI RIVER
115A/4 BATES RIVER	115A/3 **THIS MAP**	115A/2 TAHKANNE RIVER
114P/13 RANGE LAKE	114P/14 SURVEY LAKE	114P/15 PARTON RIVER



Yukon Geological Survey
Energy, Mines and Resources
Government of Yukon

Open File 2013-1

Bedrock geology along the Duke River fault near Squaw Creek, Yukon & British Columbia (part of NTS 115A/3 & 114P/14) (1:10 000 scale)

by

Rosie Cobbett