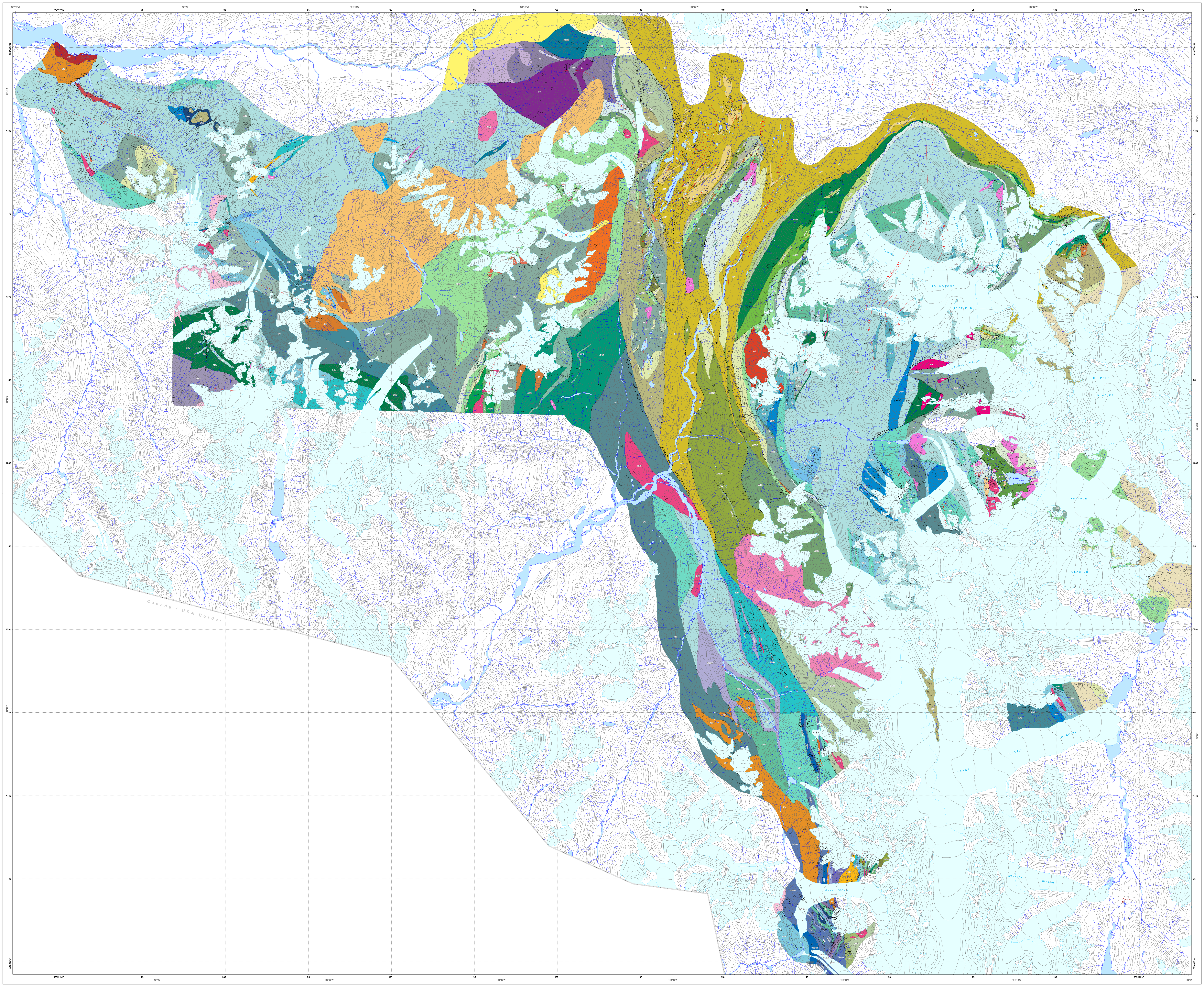
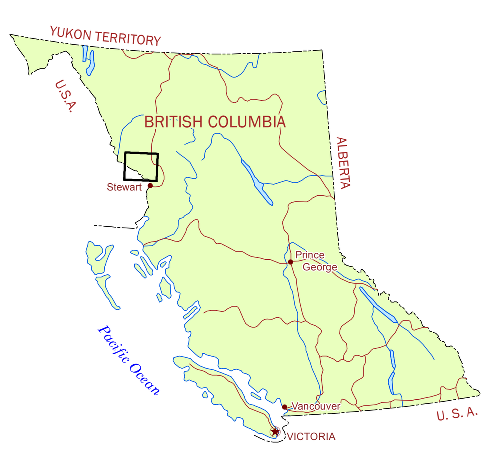
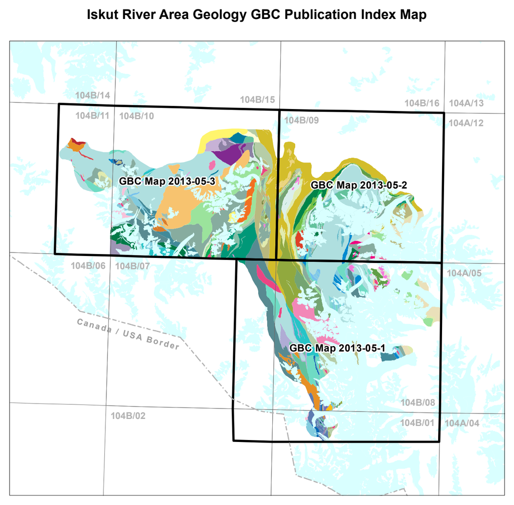




Iskut River Area Geology GBC Publication Index Map



Disclaimer: While every effort has been taken to ensure the accuracy of the information in this map, the data are provided on an 'as-is' basis, without any warranty, guarantee or representation of any kind, whether expressed or implied. It is the responsibility of the user to check the facts before entering any financial or other commitment based upon this information.

Stratified Rocks

Tertiary and Quaternary

Qs	unconsolidated fluvial and glacial sediments
Qv	Stikine volcanic suite: olivine+plagioclase-phyric basaltic lavas, tephra, and scoria deposits

Jurassic

BOWSER LAKE GROUP *biostratigraphic limits: post-Middle Bajocian; known biostratigraphic range: Middle Bajocian to Kimmeridgian*

JrB	undifferentiated sedimentary rocks
JrB1	chert pebble to cobble conglomerate, interstratified sandstone
JrB2	fine- to coarse-grained sandstone, minor interstratified conglomerate or mudstone
JrB3	thinly-bedded mudstone and siltstone

HAZELTON GROUP *biostratigraphic limits: post-Rhaetian, pre-Middle Bajocian; known biostratigraphic range: Hettangian-Sinemurian to Middle Bajocian*

JrH	sedimentary and volcanic rocks, undifferentiated

Salmon River Formation *biostratigraphic limits: post-Upper Aalenian, pre-Middle Bajocian; known biostratigraphic range: Bajocian*

JrH5	bimodal volcanic rocks and interstratified sedimentary rocks

Troy Ridge Member

JrH5S	intercalated sedimentary rocks
JrH5Sa	thinly-bedded carbonaceous mudstone, turbiditic mudstone to siltstone, locally chert

Eskay Rhyolite Member

JrH5R	rhyolite lavas, autoclastic breccias

Bruce Glacier Member

JrH5F	felsic volcanic rocks, undifferentiated
JrH5Fa	massive, aphyric flow-banded lavas, minor flow breccia
JrH5Fb	ash, lapilli tuff, non-welded to densely-welded; aphyric to quartz+k-feldspar-phyric
JrH5Fc	volcanic breccia, monolithic to slightly heterolithic
JrH5Fd	epiclastic breccia to subangular volcanic conglomerate

John Peaks Member

JrH5M	mafic volcanic rocks
JrH5Ma	massive andesitic to basaltic lavas; plagioclase+/-clinopyroxene-phyric
JrH5Mb	pillow lavas, broken pillow breccia, interbedded mudstone
JrH5Mc	volcanic breccia , hyaloclastite, interbedded mudstone

Betty Creek Formation *biostratigraphic limits: post-Hettangian/Sinemurian, pre-Middle Bajocian; known biostratigraphic range: Upper Pliensbachian to Upper Aalenian*

Treaty Ridge Member
Sedimentary unit

JrH4	undifferentiated sedimentary rocks
JrH4b	volcanic sandstone, conglomerate, local bioclastic sandy limestone intervals
JrH4c	turbiditic mudstone to siltstone
JrH4d	thinly-bedded to massive limestone

Brucejack Lake Member
Felsic volcanic rocks

JrH3	undifferentiated felsic volcanic and epiclastic rocks
JrH3a	fine-grained crystal tuff; epiclastic conglomerate, well-bedded
JrH3b	flow-banded dacite to rhyolite lavas
JrH3c	lapilli tuff, variably welded

Unuk River Member
Andesitic volcanic and epiclastic rocks

JrH2	undifferentiated andesitic volcanic and epiclastic rocks
JrH2b	epiclastic rocks: red to green coarse-grained sandstone to conglomerate; medium- to thickly-bedded, cross stratification common
JrH2c	andesitic volcanic breccia/block tuff; hornblende+plagioclase-phyric clasts, some interstratified epiclastic rocks

Jack Formation *biostratigraphic limits: post-Rhaetian, pre-Upper Pliensbachian; known biostratigraphic range: Hettangian/Sinemurian Boundary*

Basal sedimentary unit

JrH1	undifferentiated sedimentary rocks
JrH1a	clast-supported granitoid pebble to boulder conglomerate

Triassic

STUHINI GROUP *biostratigraphic limits: post-Permian, pre-Hettangian/Sinemurian; known biostratigraphic range: Carnian-Rhaetian*

TrS	volcanic and sedimentary rocks, undifferentiated
TrSv	undifferentiated volcanic rocks

Mafic volcanic rocks

TrSm	undifferentiated basaltic volcanic lavas, tuffs and volcanic breccia
TrSm1	basaltic clinopyroxene+plagioclase-phyric lapilli to block tuff

Intermediate volcanic rocks

TrSi	undifferentiated andesitic volcanic lavas, tuffs and volcanic breccia
TrSi1	andesitic clinopyroxene/hornblende+plagioclase-phyric block tuff, volcanic breccia
TrSi2	heterolithic conglomerate, mainly andesitic clinopyroxene/hornblende+plagioclase-phyric clasts

Sedimentary rocks

TrSs	undifferentiated sandstone, mudstone, conglomerate, limestone
TrSs1	thinly- to medium-bedded argillite, siltstone turbidites; interstratified sandstone and wacke
TrSs2	pale green thinly-bedded siliceous siltstone, mudstone
TrSs3	thinly- to medium-bedded feldspathic fine-grained sandstone/wacke; interstratified siltstone to mudstone
TrSs4	medium- to thickly-bedded coarse-grained feldspathic sandstone and tuffaceous heterolithic conglomerate
TrSs5	massive dark green sandstone/wacke
TrSs6	limestone
TrSs7	green andesitic boulder conglomerate
TrSs8	orange weathering, medium to coarse fossiliferous wacke
TrSs9	chert pebble conglomerate

Metamorphic Equivalents of Stuhini Group Rocks

TrSmm	mafic schist or gneiss (hornblende, plagioclase; relic clinopyroxene cores)
TrSim	amphibole schist or gneiss
TrSsm	phyllite to phyllitic schist
TrSs1m	phyllitic metasandstone, phyllite
TrSs3m	phyllite, siliceous phyllite
TrSs6m	white to grey coarsely crystalline marble
TrSs8m	phyllitic fossiliferous metasandstone

Permian

STIKINE ASSEMBLAGE *biostratigraphic limits: pre-Upper Triassic; known biostratigraphic range: Devonian-Permian*

Pc	white crinoidal limestone

Lower Permian and Older

Pvt	felsic tuff, breccia, minor lavas
Pp	phyllite, siliceous siltstone, minor chert
Pvp	foliated plagioclase porphyry, phyllitic and tuffaceous siltstone and wacke
Plb	limestone clast breccia with medium-grained wacke matrix

Intrusive Rocks

Tertiary

COAST PLUTONIC SUITE

TC	biotite+hornblende granite, minor quartz diorite; associated dykes
TL	Lee Brant stock: hornblende-biotite quartz monzonite

Uncertain

TJrN	Nickel Mountain olivine gabbro and related stocks

Jurassic

TEXAS CREEK PLUTONIC SUITE

JrL	Lehto Pluton: k-feldspar+porphyritic monzodiorite; monzonite and quartz diorite
JrLb	k-feldspar megacrystic porphyry phase
JrLc	equigranular phase
JrMe	Melville pluton: hornblende+biotite diorite to quartz diorite
JrJ	John Peaks Pluton hornblende diorite
JrDi	unnamed dioritic plutons and stocks
JrP	k-feldspar+plagioclase+hornblende porphyry (includes Eskay porphyry)
JrMi	Mitchell/Sulphurets suite: granite, monzonite, quartz monzonite, monzodiorite
JrI	Inel porphyry
JrR	Red Bluff porphyry
JrIR	Iskut River stock: k-feldspar megacrystic monzodiorite
JrQd	quartz diorite, unnamed
JrF	felsic dykes and stocks, unnamed
JrHd	Harrymel Ridge diorite
JrK	Brucejack Lake k-feldspar megacrystic porphyry
JrQm	quartz monzonite, unnamed

Triassic

STIKINE PLUTONIC SUITE

TrDi	diorite, locally agmatitic texture
TrB	Bronson stock diorite
TrSy	k-feldspar megacrystic syenite

Structure symbols

Bedding, facing determined
- inclined
- vertical
- overturned

Bedding, facing unknown
- inclined
- vertical

Slaty cleavage/schistosity, phase I
- inclined
- vertical

Slaty cleavage/schistosity, phase II
- inclined
- vertical

Gneissic layering
- inclined
- vertical

Crenulation fabric
- crenulation lineation
- crenulation cleavage, inclined
- crenulation cleavage, vertical

Mesoscopic fold
- fold axis
- axial surface, inclined
- axial surface, vertical
- kink band axis
- kink band boundary, inclined

- Fault plane
- Slickenside lineation
- Flow - banding, inclined
- Eutaxitic foliation, inclined
- Quartz +/- carbonate extension veins
- Mineral orientation lineation
- Intersection lineation

Megascopic fold axial surface trace
- antiform, upright
- synform, upright
- synform, overturned

Stratigraphic or intrusive contacts
- defined
- approximate
- inferred

Faults

Type
- defined
- approximate
- inferred

Motion
- reverse motion, teeth on upper plate
- normal motion, D = downthrown side
- strike-slip motion

- Change in level of stratigraphic detail
- Limit of mapping

- Province of B.C. border
- Major contours (1000 ft interval)
- Minor contours (200 ft interval)
- Rivers
- Lakes
- Glacier

This map includes results from the four year, industry-sponsored research project, "Metallogenesis of the Iskut River area, 1990-93", by the Mineral Deposit Research Unit at The University of British Columbia.

Mapping was by Peter Lewis, with contributions from MDRU staff, students and postdoctoral research associates. Input from industry mapping projects is also included.

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Geology data
Lewis P. D., Toma A. and Tosdal R. M. (2001): Metallogenesis of the Iskut River Area, Northwestern British Columbia; MDRU Special Publication Number 1, CD, Mineral Deposit Research Unit, The University of British Columbia.

Topographic data
Natural Resources Canada (2012): CanVec, Canada, 104B/01 - Leduc Glacier, 104B/08 - Frank Mackie Glacier, 104B/09 - John Peaks & 104B/10 - Snippaker Creek; Natural Resources Canada, Earth Sciences Sector, Mapping Information Branch, Centre for Topographic Information, URL <http://geogratis.cgdi.gc.ca/geogratis/en/product/search.do?id=5460AA9D-54CD-8349-C95E-1A4D03172FDF> [September 2012]
Natural Resources Canada (2011): CanVec, Canada, 104B/07 - Unuk River & 104B/11 - Craig River; Natural Resources Canada, Earth Sciences Sector, Mapping Information Branch, Centre for Topographic Information, URL <http://geogratis.cgdi.gc.ca/geogratis/en/product/search.do?id=5460AA9D-54CD-8349-C95E-1A4D03172FDF> [August 2012]
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Cartography by Fion Ma, Geoscience BC

MDRU Mineral Deposit Research Unit

Geoscience BC

Geoscience BC Report 2013-05

Iskut River Area Geology

NTS Sheets 104B/08, 09, 10
and part of 104B/01, 07, 11

Compiled by Peter D. Lewis

1 : 50,000

0 1 2 4 km

Universal Transverse Mercator Projection, Zone 9
Horizontal Datum: North American Datum 1983