GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES

LEGEND

STRATIFIED ROCKS

UPPER TERTIARY and/or QUATERNARY

TQvb — basalt; flow, breccia, plugs and dykes

UPPER CRETACEOUS to EOCENE

SUSTUT GROUP

lTB — BROTHERS PEAK FORMATION: conglomerate, sandstone, siltstone and acid tuff; minor coal

uKT — TANGO CREEK FORMATION: conglomerate, sandstone and siltstone ; minor coal

JURASSIC

Middle and Upper Jurassic

BOWSER LAKE GROUP

Upper Oxfordian

uJv — Volcanics; basalt and andesite flow, breccia, tuff and lahar

uJs — sediments; sandstone, siltstone, argillite, and conglomerate ; minor coal

Callovian to Lower Oxfordian

muJA — ASHMAN FORMATION: argillite and siltstone; minor sandstone and tuff

LOWER and MIDDLE JURASSIC

HAZELTON GROUP

Middle Toarcian to Middle Bajocian

lmJS — SMITHERS FORMATION: greywacke, siltstone; sandstone, and tuff

Lower Pliensbachian to Middle Toarcian

lJN — NILKITKWA FORMATION: argillite, siltstone, greywacke and tuff; minor sandstone and limestone

lJC — CARRUTHERS MEMBER: basalt and andesite flow, breccia, pillow breccia and tuff

Sinemurian to ? Lower Pliensbachian

lJT — TELKWA FORMATION: Calcalkaline basalt, andesite, dacite and rhyolite flow, breccia, tuff and lahar, intravolcanic fanglomerate, conglomerate, sandstone and siltstone; polymictic conglomerate with Asitka, Takla, and granitic clasts

UPPER TRIASSIC

TAKLA GROUP

Upper Karnian to Middle Norian

Belt west of the Ingenika - Pinchi Fault Zone

uTRM — MOOSEVALE FORMATION: andesitic and basaltic volcanic conglomerate, breccia, sandstone, tuff and argillite

uTRSM — SAVAGE MOUNTAIN FORMATION: basic augite porphry basalt flow, breccia, pillow breccia, tuff and interbedded bladed feldspar porphyry

uTRD — DEWAR FORMATION: tuff, sandstone and argillite; minor limestone and breccia

Belt east of the Ingenika - Pinchi fault zone

uTRv — volcanics; basic to intermediate flow, breccia and tuff; probably includes intrusive members (uTRgb) ; green phyllite and phyllitic schist; minor sediments

uTRs — sediments: argillite, tuff, sandstone, phyllite and phyllitic schist; limestone and skarn

PERMIAN, TRIASSIC and JURASSIC

PTRLT — LAY RANGE ASSEMBLAGE and TAKLA GROUP

PTRS — SITLIKA ASSEMBLAGE: sericite, chlorite, siliceous schist and phyllite, minor marble; includes the Asitka, Takla and Hazelton Groups and possibly parts of the Bowser Lake Group

PERMIAN

PA — ASITKA GROUP: basalt, rhyolite, tuff, chert, argillite and carbonate

PENNSYLVANIAN and PERMIAN

PPL — LAY RANGE ASSEMBLAGE: basic volcanics, calcareous phyllite, quartzite and limestone

PPC — CACHE CREEK GROUP: (s) siliceous phyllite, metachert, marble; (v) greenstone and amphibolite

UPPER PROTEROZOIC

PE — ESPEE FORMATION: limestone, locally oolitic and pisolitic; minor dolostone

PT — TSAYDIZ FORMATION: sericitc phyllite

PS — SWANNELL FORMATION: quartzo-feldspathic, gritty sandstone, siltstone, shale and conglomerate, metamorphic equivalents from chlorite to kyanite grade

INTRUSIVES

EOCENE

ETqm — KASTBERG INTRUSIONS: quartz monzonite, quartz-eye porphyry and felsite

LATE CRETACEOUS

lKgd — AXELGOLD LAYERED GABBRO INTRUSION; and minor plugs of gabbro and diabase

EARLY CRETACEOUS and ? LATER

EK — JENSEN PEAK BATHOLITH: EKqmd ; quartz monzodiorite
JOHANSON CREEK STOCK: EKqd; quartz diorite
KLYUIL CREEK body: EKgd ; leuco-granodiorite, minor granite
stock west of Fleet Peak: EKqd ; quartz diorite and granodiorite
stock west of Hogem Batholith: EKgd ; granodiorite

EARLY JURASSIC

EJ — HOGEM BATHOLITH: EJqmd; foliated quartz monzodiorite (Mesinlinka Pluton)
FLEET PEAK PLUTON: foliated EJmd ; monzodiorite and diorite
JOHANSON LAKE STOCK: EJqmd ; quartz monzodiorite
DARB LAKE STOCK: EJqd ; quartz diorite
ASITKA PEAK STOCK: EJqd ; quartz diorite
McConnell Range and Fredrickson Peak stocks: EJqmd ; quartz monzodiorite, and quartz diorite
plugs adjacent to the Sustut River: EJp ; leucocratic porphyry plugs

LATE TRIASSIC

lTRgb — gabbro, diabase, hypabyssal augite porphyry intrusions

Alaskan-type ultramafics; gabbro, hornblendite, pyroxenite and dunite

LATE PALEOZOIC and ? TRIASSIC

Alpine ultramafics; serpentinite, serpentinized peridotite, greenstone

MAP SYMBOLS

geologic boundary; known, approximate, inferred

limit of mapping and exposure

fault; known, approximate, inferred

high angle reverse fault; known, approximate, inferred

thrust fault; known, approximate, inferred

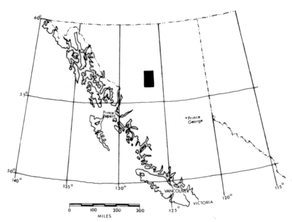
bedding; upright, vertical, overturned

foliation or schistosity; inclined, vertical

folds; anticline, syncline

metamorphic isograd

K/Ar Age determinations



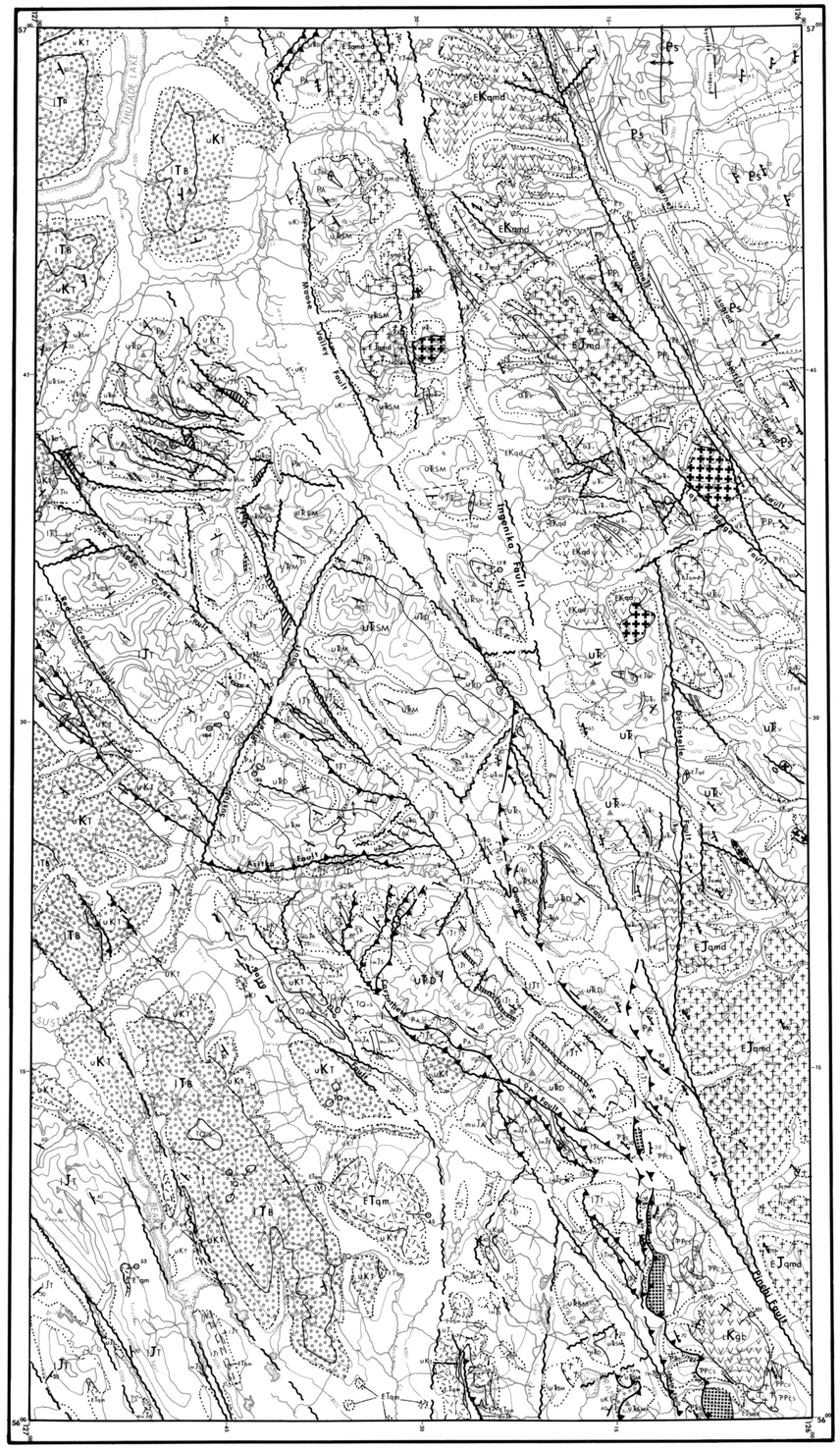
LOCATION: McConnell Creek Map-Area

Geology By: C.S. Lord(1948); N.B. Church (1973,1974); G.H. Eisbacher (1974); C.J. Dodds, T.N. Irvine, O.L. Jeletzky, J.L. Mansy, J.W.H. Monger, T. Richards, H.W. Tipper and G. Woodsworth (1975)

Geology Compiled By: T. Richards (1975)

Cartography By: G.R. Dumas, T. Richards and J. Dudley

O.F. 342



McCONNELL CREEK MAP-AREA

(94D/E)

GEOLOGY

Miles 5 0 5 10 15 20 Miles

Kilometres 5 0 5 10 15 20 25 30 Kilometres

BIBLIOGRAPHY

Church, N.B., 1974: Geology of the Sustut Area; Geology, Exploration and Mining in British Columbia; in 1973, Brit. Columb. Dept. Mines Pet. Resour., p. 411-455

Church, N.B., 1975: Geology of the Sustut Area; Geology, Mining and Exploration in British Columbia in 1974; Brit. Columb. Dept. Mines Pet. Resour.

Eisbacher, G.H., 1974: Sedimentary and Tectonic Evolution of Sustut and Sifton Basins, north-central British Columbia; Geol. Surv. Canada, paper 73-31

Garnett, J. and Woodsworth, G.J., (in preparation): Geology of the Hogem Batholith, north-central British Columbia; Brit. Columb. Dept. Mines Bulletin

Irvine, T.N., 1975: Axelgold Layered Gabbro Intrusion, McConnell Creek map-area, British Columbia; in Report of Activities, part B; Geol. Surv. Canada; paper 75-1B, p. 81

Irvine, T.N., 1976: Studies of Cordilleran Gabbroic and Ultramafic Intrusions, British Columbia,
Part 1: Axelgold Gabbro Intrusion, McConnell Creek map-area
Part 2 Alaskan-type Ultramafic-gabbroic Bodies;
in Report of Activities; Geol. Surv. Canada; Paper 76-1A, p.75-81

Lord, C.S., 1948: McConnell Creek Map-Area, Cassiar District, British Columbia; Geol. Surv. Canada, Memoir 251

Mansy, J.L. and Dodds, C.J., 1976: Stratigraphy, Structure and Metamorphism in North-central Swannell Ranges, British Columbia; in Report of Activities; Geol. Surv. Canada; Paper 76-1A, p.91-92

Mansy, J.L. and Gabrielse, H., (in preparation): Stratigraphy, Terminology and Correlation of Upper Proterozoic Rocks in Omineca and Cassiar Mountains, North Central British Columbia.

Monger, J.W.H., 1974: The Takla Group near Dewar Peak, McConnell Creek map-area (94D), British Columbia; in Rept. of Activities, Part B; Geol. Surv. Canada, Paper 74-1B, p 29-30

Monger, J.W.H., 1976: Lower Mesozoic Rocks in McConnell Creek map-area (94D), British Columbia; in Report of Activities, Geol. Surv. Canada, Paper 76-1a, p. 51-55

Monger, J.W.H., (in preparation): The Triassic Group in McConnell Creek map-area, north-central British Columbia

Paterson, I.A., 1974: Geology of Cache Creek Group and Mesozoic Rocks at the northern end of Stuart Lake Belt, central British Columbia; in Report of Activities, Part B; Geol. Surv. Canada, Paper 74-1B p. 31-42

Richards, T.A., 1976: Takla Project, McConnell Creek map-area; in Report of Activities, Part A, Geol. Surv. Canada, Paper 76-1A p. 43-50

Tipper, H.W., 1976: Biostratigraphic Study of Mesozoic Rocks in Intermontane and Insular Belts of the Canadian Cordillear; in Report of Activities, Part A, Geol. Surv. Canada, Paper 76-1A p. 57-61

Tipper, H.W. and Richards, T.A., (in press): Jurassic Stratigraphy and History of north-central British Columbia; Geol. Surv. Canada Bulletin.

Woodsworth, G.L., 1976: Takla Project, Plutonic Rocks of McConnell Creek and Aiken Lake map areas, British Columbia; in Report of Activities, Part A, Geol. Surv, Canada, Paper 76-1A, p. 69-73