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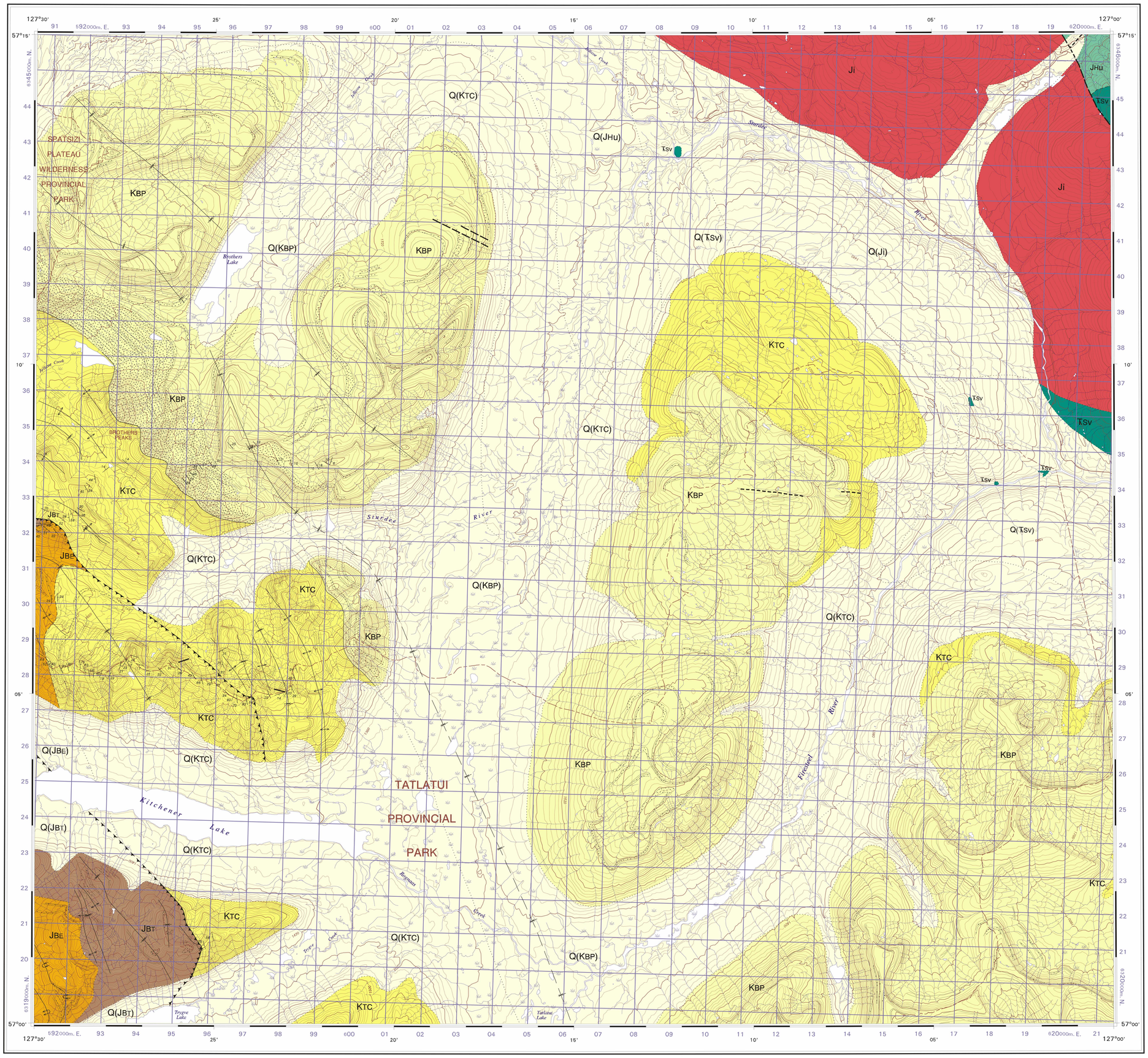
GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA



LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

Q — *Glacial till, alluvium, and colluvium; unit designators in parentheses are the inferred underlying bedrock units.*

MESOZOIC

CRETACEOUS
UPPER LOWER AND UPPER CRETACEOUS
SUSTUT GROUP (units KTC and KBP)
CAMPANIAN AND MAASTRICHTIAN

KBP — *BROTHERS PEAK FORMATION: sandstone, siltstone, conglomerate, and tuff; sandstone and siltstone are cream- and grey-weathering, tuff is cream-weathering; conglomerate in laterally continuous sheets is most common near base.*

APTIAN OR ALBIAN TO CAMPANIAN

KTC — *TANGO CREEK FORMATION: micaceous sandstone, siltstone, mudstone, and minor quartz grit and pebble conglomerate; sandstone is grey- and green-weathering, occurring as laterally continuous sheets and as lenses; siltstone and mudstone are grey-, black-, and maroon-weathering.*

JURASSIC
UPPER MIDDLE TO UPPER JURASSIC
BOWSER LAKE GROUP (units JBT–JBE)

JBE — *EAGLENEST ASSEMBLAGE (deltaic assemblage): conglomerate, sandstone, siltstone, mudstone, and rare coal, arranged in coarsening- and fining-upward cycles of mudstone to pebble or cobble conglomerate; prominently rusty-weathering and 30 to 80% conglomerate; sheets of conglomerate, up to 50 m thick, include planar beds, tabular-planar cross-stratification and trough cross-stratification, with sets locally up to tens of metres thick; sandstone is green-, brown-, and grey-weathering, has planar cross-stratification and hummocky cross-stratification; sparse marine fossils but abundant plant fossils, including silicified tree fragments.*

JBT — *TODAGIN ASSEMBLAGE (slope assemblage): siltstone, fine-grained sandstone, conglomerate; mainly laminated siltstone and/or fine-grained sandstone which is dark grey- to black-weathering, and includes thin, orange-weathering claystone beds and syndepositional faults and folds; chert-pebble conglomerate occurs as lenses; marine fossils.*

LOWER AND LOWER MIDDLE JURASSIC
HAZELTON GROUP

JHu — *Undivided volcanic and intercalated clastic rock of the Hazelton Group; regionally includes subaerial and marine mafic volcanic rocks and epiclastic rocks; felsic volcanic rocks include sills, dykes, welded and nonwelded ignimbrite, airfall tuff breccia; epiclastic and bioclastic rocks, includes lahar, breccia, conglomerate, siltstone, shale, and limestone.*

Ji — *Undivided Jurassic intrusive rocks; regionally includes granite, granodiorite, tonalite, diorite, quartz diorite, monzonite, quartz monzonite.*

TRIASSIC
STUHINI AND TAKLA GROUPS

TSv — *Augite- and coarse bladed feldspar-phyric mafic lava flows, minor conglomerate, sandstone, mudstone, limestone and olistostrome.*

Geological boundary (defined, approximate, assumed or inferred beneath unit Q)

Trace of individual beds from ground observation and airphoto interpretation

Fault, unknown displacement (defined, approximate, assumed or inferred beneath unit Q)

Thrust fault (defined, approximate, assumed or inferred beneath unit Q); symbol on hanging-wall side

Normal fault (approximate); symbol on downthrown side

Anticline, trace of axial surface (defined, overturned)

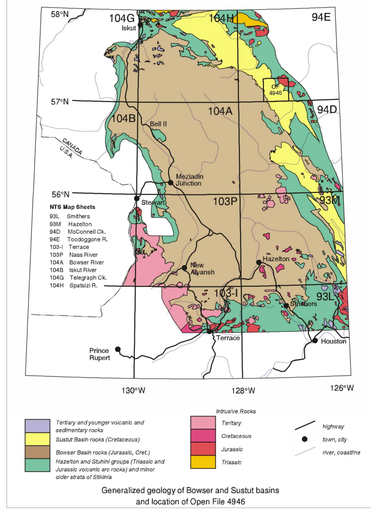
Syncline, trace of axial surface (defined, overturned)

Open, inclined syncline, trace of axial surface (defined, approximate); long arrow points in direction of dip of axial surface

Bedding (inclined, overturned)

Conglomerate

Provincial Park Boundary



Generalized geology of Bowser and Sustut basins and location of Open File 4946

This is a revision of GSC Open File 3516 (Evenchick, 1997). It incorporates stratigraphic terminology consistent with new terminology used in the Bowser Basin (see Evenchick *et al.*, 2004; Evenchick and Thorkelson, 2005), and minor revisions to contacts and structures. In addition, interpretation based on aerial photographs has been added to complete the east half of the map.

Sources of information for this compilation are geological mapping by C.A. Evenchick in 1991 (Evenchick, 1992), airphoto interpretation by C.A. Evenchick and D. Ritcey, and a regional (1:250 000) map by G. Eisbacher (1974). The sources of information for Jurassic and older strata in the northeast corner of the map are Gabrielse *et al.* (1977) and Massey *et al.* (2005)

This map is a contribution of the project "Integrated Petroleum Resource Potential and Geoscience Studies of the Bowser and Sustut Basins", of the Northern Resource Development Program, Natural Resources Canada. The project is a collaboration of the Geological Survey of Canada and the British Columbia Ministry of Energy and Mines, with contributions from Simon Fraser University. The digital topographic base is provided by the BC Ministry of Energy and Mines (BC Mineral Potential Program).

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1997: Geology, Sturdee River (94E/3 west half), British Columbia; Geological Survey of Canada, Open File 3516, scale 1:50 000.

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Massey, N.W.D., MacIntyre, D.G., Desjardins, P.J., and Cooney, R.T.
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LOCATION MAP

Geology by C.A. Evenchick (1991) and D. Ritcey (2005)

Map compilation by C.A. Evenchick

Map reviewed by K. Simpson

Digital geological cartography by C.L. Wagner, R. Cocking, Earth Science Sector Information Division (ESS Info), L. Lyons, and D. McKee, Geological Survey of Canada

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

OPEN FILE 4946

GEOLOGY

STURDEE RIVER

BRITISH COLUMBIA

Scale 1:50 000/Échelle 1/50 000

kilometres 1 0 1 2 3 4 kilomètres

Universal Transverse Mercator
North American Datum 1927
© Her Majesty the Queen in Right of Canada 2005

Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1927
© Sa Majesté la Reine du chef du Canada 2005

Digital base map from 1:20 000 digital TRIM data, converted to NAD27 by ESS Info

Mean magnetic declination 2005, 23°10'E, decreasing 15.1' annually

Elevations in metres above mean sea level

Contour interval 20 metres

94 E/5 OF4947	94 E/6	94 E/7
94 E/4 OF4948	94 E/3 OF4946	94 E/2
94 D/13	94 D/14	94 D/15

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

OPEN FILE
DOSSIER PUBLIC
4946
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
2005

Open files are products that have not gone through the GSC formal publication process.

Les dossiers publics sont des produits qui n'ont pas été soumis au processus officiel de publication de la CGC.

Canada

Recommended citation:
Evenchick, C.A. and Ritcey, D.
2005: Geology, Sturdee River, British Columbia; Geological Survey of Canada, Open File 4946, scale 1:50 000.