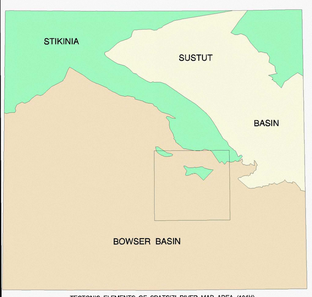

TECTONIC ELEMENTS OF SPATSIZI RIVER MAP AREA (104H) AND LOCATION OF 104H7

REFERENCE MAP FOR 104H/7

Sources of information for this compilation are geological mapping by:
1. Evenchick 1985, 1986, 1987, 1988 (with P.S. Mustard and C.F. Roots); 2. Gabrielse and Tipper 1981, 1983 (1984); 3. Thomson et al. (1986); 4. Thorkelson 1986, 1987. Dates in brackets are years of publications. Other dates are years of fieldwork from which fieldnotes are the source of information.

Previous geological maps of the region are by E.F. Roots (Geological Survey of Canada, 1957), H. Gabrielse and H.W. Tipper (1984), R.C. Thompson et al. (1986), and D.J. Thorkelson (1992).

Geology of the surrounding region (104H) and descriptive notes are given by Evenchick and Thorkelson (1993).

REFERENCES

Evenchick, C.A. and Thorkelson, D.J.
1993: Geology, Spatsizi River, British Columbia (104H); Geological Survey of Canada, Open File 2719, scale: 1:250,000.

Gabrielse, H. and Tipper, H.W.
1984: Bedrock geology of Spatsizi map area (104H); Geological Survey of Canada, Open File 1005.

Geological Survey of Canada
1957: Sikine River area, Cassiar District, British Columbia; Geological Survey of Canada, Map 9-1957.

Thomson, R.C., Smith, P.L., and Tipper, H.W.
1986: Lower to Middle Jurassic (Pliensbachian to Bajocian) stratigraphy of the northern Spatsizi area, north-central British Columbia; Canadian Journal of Earth Sciences, v. 23, p. 1963-1973.

Thorkelson, D.J.
1992: Volcanic and tectonic evolution of the Hazelton Group in Spatsizi River (104H) map area, north-central British Columbia; unpublished PhD thesis, Carleton University, Ottawa, Canada.

Copies of this map may be obtained from the Geological Survey of Canada
Institute of Sedimentary and Petroleum Geology
3303-33rd Street, N.W., Calgary, Alberta T2L 2A7
100 West Pender Street, Vancouver, B.C. V6B 1R8

LOCATION MAP

OPEN FILE 2960

GEOLOGY

BUCKINGHORSE CREEK

BRITISH COLUMBIA

Scale 1:50 000 - Échelle 1/50 000

Kilometres 1 0 1 2 3 4 Kilometres

Transverse Mercator Projection — Projection transverse de Mercator

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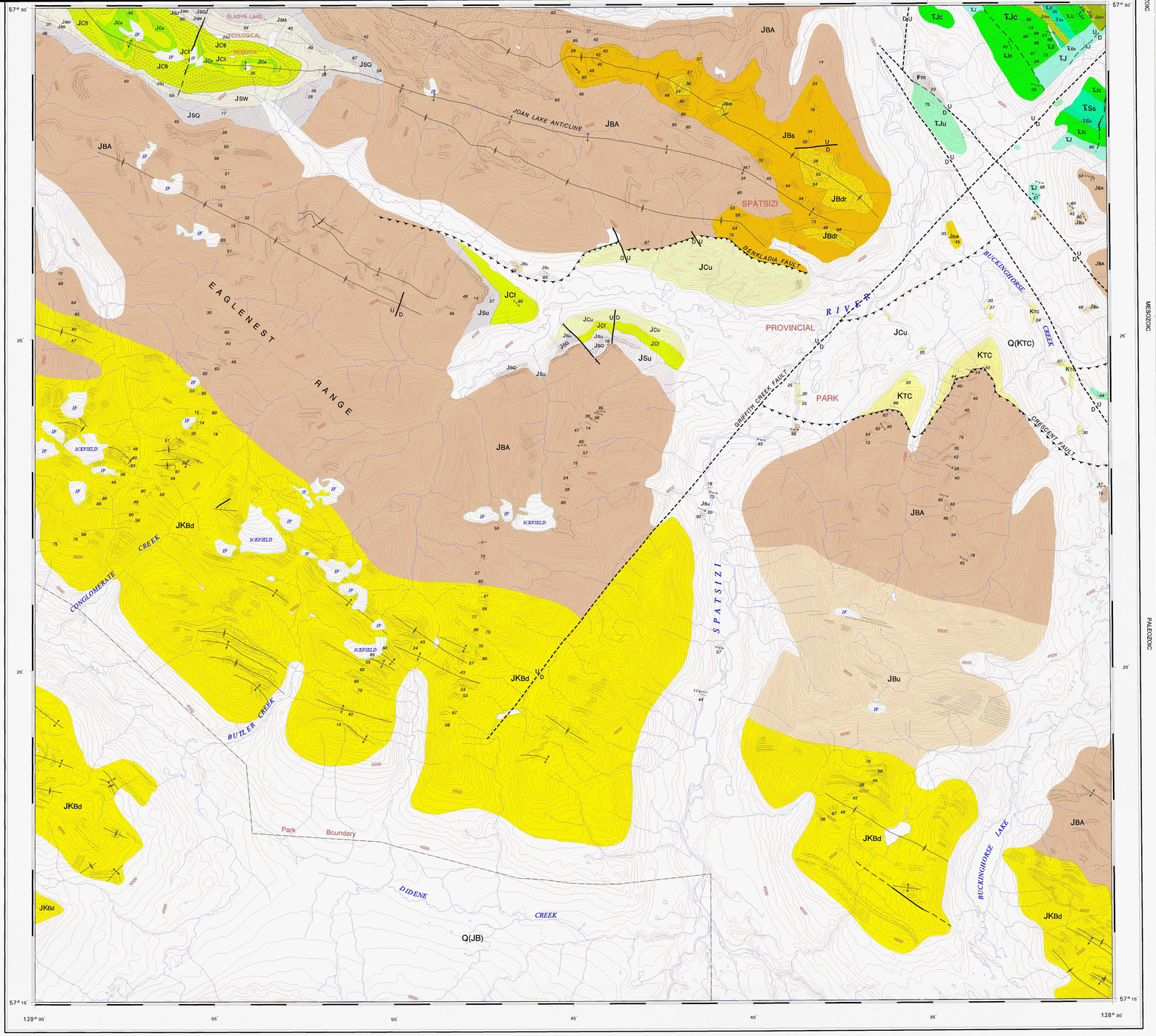
Canada



Published 1994

104H/11	104H/10	104H/9
	OF2961	
104H/6	104H/7	104H/8
	OF2960	OF2694
104H/3	104H/2	104H/1

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

CENOZOIC

Q — *Glacial till, alluvium*

CRETACEOUS
MID TO UPPER CRETACEOUS
GUSTUT GROUP (KTC)
APTIAN OR ALBIAN TO SANTONIAN

KTc — *TANGO CREEK FORMATION: micaceous sandstone, siltstone, mudstone and minor quartz grit and pebble conglomerate*

JURASSIC AND CRETACEOUS
UPPER JURASSIC AND LOWER CRETACEOUS(?)
BOWSER LAKE GROUP (JKbd)

JKBd — *Conglomerate, sandstone, siltstone, minor coal, local marine fossils (deltaic facies)*

JURASSIC
MIDDLE TO UPPER JURASSIC
BOWSER LAKE GROUP (JBA, JBs, JBdr, JBu)

JBdr — *Rusty weathering chert pebble conglomerate, with lesser sandstone, siltstone (deltaic facies)*

JBs — *Sandstone sheets and siltstone, minor conglomerate, marine fossils (shelf facies)*

JBA — *ASHMAN FORMATION: siltstone, chert pebble conglomerate, sandstone, orange weathering claystone beds in siltstone, (slope and submarine canyon facies)*

LOWER AND MIDDLE JURASSIC
HAZELTON GROUP (JS, JC, JG)
PLIENSBACHIAN TO BAJOCIAN
SPATSIZI FORMATION (JSQ, JBA, JSM, JSW, JSJ, JSu)

JSQ — *QUOCK MEMBER: siliceous, well bedded, tuffaceous(?) siltstone, siltstone, limy siltstone, black, cream, rusty and pink weathering*

JSA — *ABOU MEMBER: calcareous to siliceous organic shale, laminated, light weathering*

JSM — *MELISSON MEMBER: siliceous and calcareous siltstone and fine grained sandstone*

JSW — *WOLF DEN MEMBER: shale, dark grey to black weathering, with minor calcareous concretionary beds*

JSJ — *JOAN MEMBER: siltstone, with minor mudstone, limestone, and local basal conglomerate*

LOWER JURASSIC
LOWER PLIENSBACHIAN
COLD FISH VOLCANICS (JCf, JCs)

JCs — *Subaerial mafic lava flows interbedded with felsic airfall tuff and nonwelded ignimbrite, minor felsic sills, welded ignimbrite, conglomerate, sandstone, shale and subaqueous mafic lava*

JCf | JCfl — *Felsic volcanic rocks including sills, dykes, welded and nonwelded ignimbrite, airfall tuff breccia, and lava, minor mafic lava and epiclastic rocks. JCfl welded ignimbrite; minor nonwelded ignimbrite and felsic sills*

HETTANGIAN AND/OR LOWER SINEMURIAN
GRIFFITH CREEK VOLCANICS (JGm, JGf)

JGm — *Mafic lava flows mainly with phenocrysts of plagioclase and augite or hornblende, minor welded ignimbrite and felsic sills, some hosting grains of feldspar, biotite, quartz or hornblende*

JGf | JGfs — *Felsic to intermediate sills, ignimbrite and airfall tuff, some units rich in plagioclase, biotite, hornblende or quartz, minor epiclastic rocks and mafic lava. JGfs felsic to intermediate sills, biotite phyric*

UPPER TRIASSIC TO LOWER JURASSIC
UPPER TRIASSIC TO HETTANGIAN AND/OR LOWER SINEMURIAN

TJc | TJcl — *Conglomerate, sandstone, shale, mafic to intermediate volcanic breccia, and olistostrome. Conglomerate clasts are mainly hornblende and plagioclase porphyry andesite, but include augite phyric mafic lava, and other volcanic rocks, and felsic to intermediate granitoid. TJcl conglomerate containing abundant clasts of Norian limestone, and varicoloured chert. Older than Griffith Creek volcanics*

TJl — *Light grey micrite*

TRIASSIC
UPPER TRIASSIC
CARNIAN(?) TO NORIAN
STUHINI GROUP (TSs, TSv)

TSv — *Mafic lava flows, mainly aphyric to augite phyric, minor conglomerate, sandstone, mudstone, limestone and olistostrome*

TSs — *Mudstone, shale, sandstone and olistostrome, minor conglomerate and mafic lava*

CARBONIFEROUS TO PERMIAN

Pm — *White marble*

MESOZOIC

JBu — *undivided Bowser Lake Group*

Jsu — *undivided Spatsizi Formation*

Jcu — *undivided Cold Fish Volcanics*

TJu — *undivided (JCu, JG, TJc, TJcl Stuhini Group, TJl, and Griffith Creek volcanics and Cold Fish Volcanics*

TJ — *undivided Stuhini Group, TJl and Griffith Creek volcanics*

PALEOZOIC

Geological boundary (defined, approximate, assumed or inferred under Q)

Trace of individual beds from ground observation and airphoto interpretation

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

Thrust fault (defined, approximate, assumed or inferred under Q) Ornament on hanging wall side

Normal fault (defined, approximate, assumed or inferred under Q) Ornament on downthrown side

Steeply dipping fault, dip unknown (defined, approximate, assumed or inferred under Q); U on upthrown side, D on downthrown side — U / D

Anticline, trace of axial surface (defined, approximate, overturned)

Syncline, trace of axial surface (defined, approximate, overturned)

Bedding (inclined, vertical) — 50

Cleavage (inclined) — 20

Intersection of bedding and cleavage — 8

Conglomerate

Geology by C.A. Evenchick (1985-1988), D.J. Thorkelson (1986-1987), P.S. Mustard (1988), H. Gabrielse and H.W. Tipper (1981, 1983), and R.C. Thomson (1983).

Map compilation by C.A. Evenchick and D.J. Thorkelson.

Digital base map from Geomatics Canada published at the same scale. Generalized and modified by the Geological Survey of Canada.

Copies of the topographical edition of this map may be obtained from the Canada Map Office, Natural Resources Canada, Ottawa, Ontario K1A 0E9.

Digital geological cartography by S. Churchill, R. Cooking, D. Dunn and C. Evenchick.

Magnetic declination 1994, 26° 14.5' East, decreasing 10.75' annually. Readings vary from 26° 21' East in the NW corner to 26° 8' East in the SE corner of the map.

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

Elevations in feet above mean sea level

Contour interval 100 feet

OPEN FILE
DOSSIER PUBLIC
2960
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
OTTAWA
1994

Recommended citation:
Evenchick, C.A. and Thorkelson, D.J.
1994: Geology, Buckinghorse Creek, British Columbia (104H/7); Geological Survey of Canada, Open File 2960, scale 1:50 000