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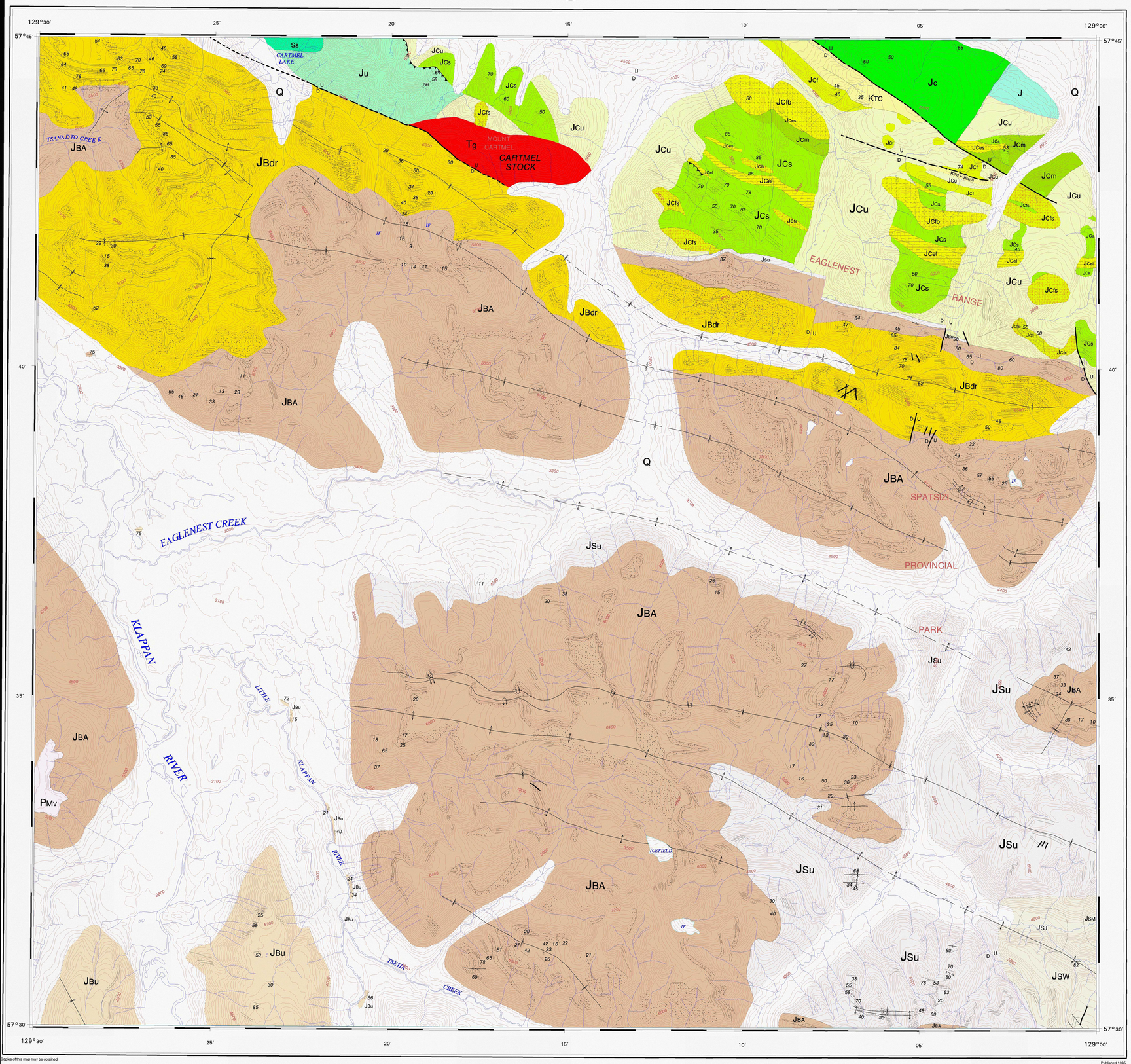
GEOLOGICAL SURVEY OF CANADA | COMMISSION GÉOLOGIQUE DU CANADA




Copies of this map may be obtained from the Geological Survey of Canada:
601 Booth Street, Ottawa, Ontario K1A 0E8
3303-33rd Street, N.W., Calgary, Alberta T2L 2A7
100 West Pender Street, Vancouver, B.C. V6B 1R8

LOCATION MAP

OPEN FILE 3013

GEOLOGY

# EAGLENEST CREEK

BRITISH COLUMBIA

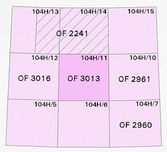
Scale 1:50 000 - Échelle 1/50 000

Kilometres 1 0 1 2 3 4 Kilometres

Transverse Mercator Projection | Projection transverse de Mercator



Published 1996




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

## LEGEND

CENOZOIC

QUATERNARY

PLEISTOCENE AND RECENT

**Q** — *Glacial till, alluvium*

TERTIARY

PLIOCENE

**PMv** — *MAITLAND VOLCANICS: Trachyte and olivine basalt flows (columnar, and rare pillows and breccia), 5.7 to 4.9 Ma (K-Ar)*

MESOZOIC

CRETACEOUS

MID TO UPPER CRETACEOUS

SUSTUT GROUP (KTC)

APTIAN OR ALBIAN TO SANTONIAN

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

JURASSIC

MIDDLE TO UPPER JURASSIC

BOWSER LAKE GROUP (JBA, JBdr)

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

PLIENSBACHIAN TO BAJOCIAN

SPATSIZI FORMATION (JSM, JSW, JSJ, JSu)

**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 (JCe, JCf, JCm, 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*

**JCm** — *Marine mafic lava, minor sandstone, shale, limestone, tuff and subaerial mafic lava*

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

**JCfb** — *mainly block lava and associated lava*

**JCel/JCes** — *JCes shale, siltstone and limestone. JCel mainly lahar, breccia and conglomerate*

UPPER TRIASSIC TO LOWER JURASSIC

CARNIAN(?) AND NORIAN(?) TO HETTANGIAN AND/OR LOWER SINEMURIAN

**Jc** — *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, Norian and Permian limestone, undated valcoloured chert and felsic to intermediate granitoid. Older than Gritth Creek volcanics*

TRIASSIC

UPPER TRIASSIC

CARNIAN(?) TO NORIAN

STUHINI GROUP (TSs)

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

LATE TRIASSIC TO TERTIARY

CARTMEL STOCK

**Tg** — *Fine grained granite and quartz diorite, medium grained quartz monzonite.*

**JBu** — *undivided Bowser Lake Group*

**JSu** — *undivided Spatsizi formation*

**JCu** — *undivided Cold Fish Volcanics*

**Ju** — *undivided Cold Fish Volcanics, Stuhini Group and TJc*

**J** — *undivided Stuhini Group and TJc*

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

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

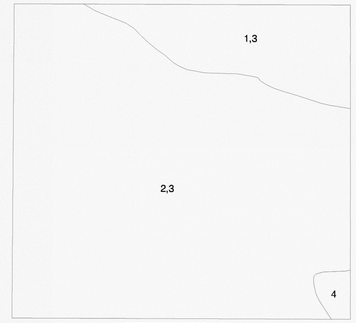
Syncline, trace of axial surface (defined, approximate, overturned)

Open, inclined anticline, syncline (long arrow points in direction of dip of axial surface)

Bedding (inclined, vertical)

Cleavage (inclined)

Conglomerate




REFERENCE MAP FOR 104H/11

Sources of information for this compilation are geological mapping by:
1. Thorkelson 1986, 1987; 2. Evenchick 1985 - 1990 (with P.S. Mustard, 1988); 3. Gabrielse and Tipper 1979, 1981, 1983 (1984); 4. Thomson et al. (1986). 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 Geological Survey of Canada, 1957, G. Eisbacher (1974), H. Gabrielse and H.W. Tipper (1984), R.C. Thomson 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: Stikine 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.

Geology by C.A. Evenchick (1985-1990), D.J. Thorkelson (1986 - 1987), and P.S. Mustard (1988)

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, Ontario K1A 0E9

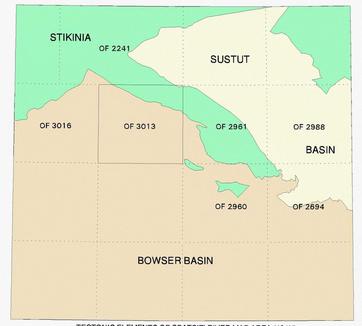
Digital geological cartography by S. Churchill, R. Cocking, D. Dunn and C. Evenchick

Electrostatic plot produced by the Geological Survey of Canada

Magnetic declination 1994, 26° 26.75' East, decreasing 10.85' annually

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




TECTONIC ELEMENTS OF SPATSIZI RIVER MAP AREA (104H) AND LOCATION OF 104H/11 (OF 3013)

OPEN FILE
DOSSIER PUBLIC
3013
GEOLOGICAL SURVEY OF CANADA
COMMISSION GÉOLOGIQUE DU CANADA
OTTAWA
02/1995

Recommended citation:
Evenchick, C.A. and Green, G.M.
1995: Geology, Eaglenest Creek, British Columbia (104H/11); Geological Survey of Canada, Open File 3013, scale 1:50 000

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