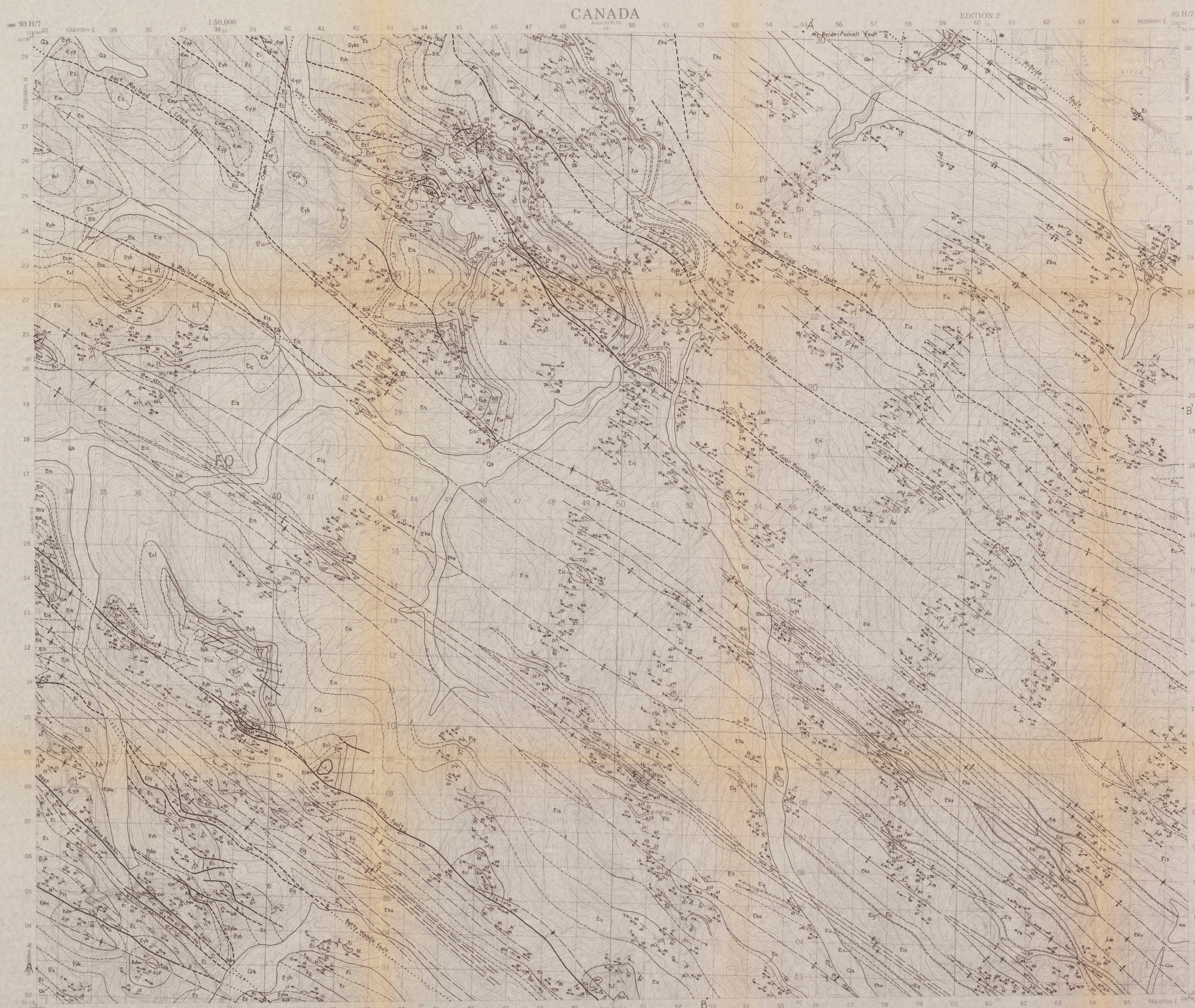
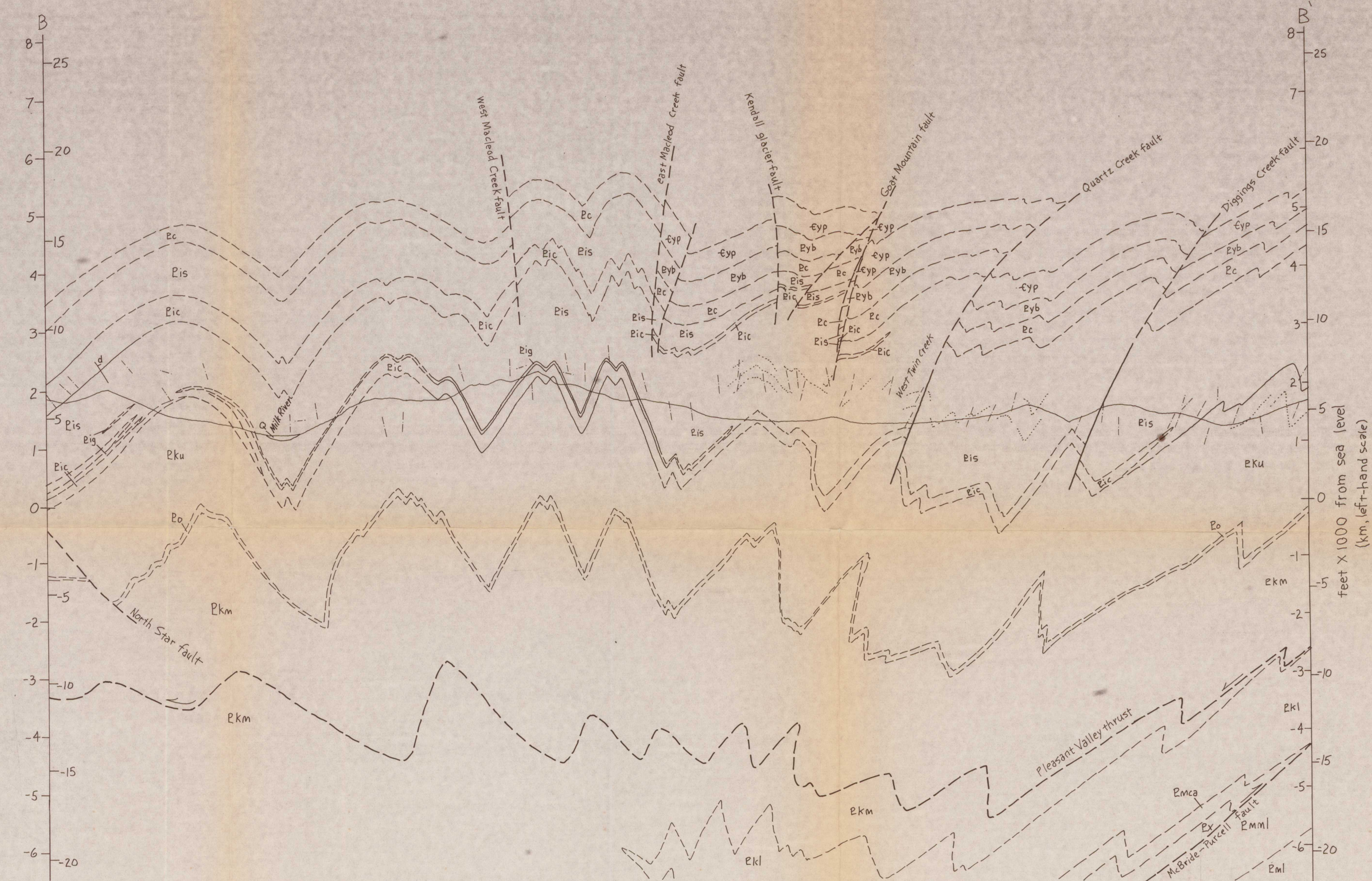
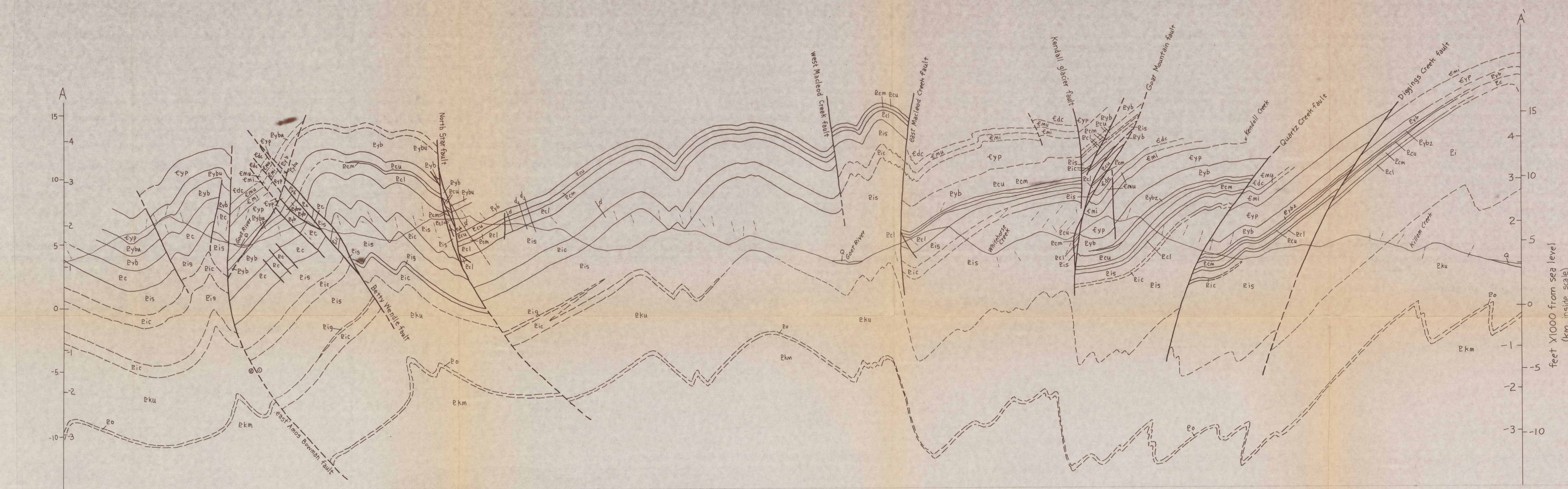


CROSS-SECTIONS, GOAT RIVER 1:50,000 CA.FERGUSON, 1999



LEGEND GOAT RIVER MAP-AREA (93H/7)

QUATERNARY

Combined alluvium and lacustrine deposits within Rocky Mountain Trench. Alluvium consists mostly of Holocene and/or Pleistocene deposits. Lacustrine deposits consist of unconsolidated clay-rich sediments along high-standing terraces above Fraser River. These are capped locally by clayey sand. Carbonate dikes, breccia deposits. The clay-rich sediments typically are thin-bedded clays and silty sands with locally abundant dropstones.

Pedimentally alluvial deposits along the bottoms of montane valleys, gradational in many areas with debris cones and major talus slopes along steep mountain sides.

Areas covered by glacial ice not recognized on base map. Shown only in areas where cover is very extensive or where critical bedrock relationships are concealed.

Emergent portion of fan deltas along east shore of Isaac Lake.

LOWER CAMBRIAN

DOVE CREEK FORMATION: Dark-colored argillite and siltstone.

MURAL FORMATION: Archeocyathid-bearing limestone consisting of two massive, thick-bedded units with an intervening medium-bedded, mudstone-rich interval.

MIDAS FORMATION: Monotonous sequence of mudstones and silty mudstones with less than 25% medium to thin-bedded, typically dolomitized, quartzite sandstones.

YANKEE BELE FORMATION: Dominated by sequences of medium and rarely thick-bedded, trough and wedge-planar cross-stratified quartz arenites and rare quartz-pebbly conglomerates, alternating with mudstone-rich sequences similar to those that make up the Mural Formation. Bioturbation generally is restricted to the mudstone-rich units and is found only in the upper two-thirds of the unit.

UPPER PROTEROZOIC (NEOPROTEROZOIC)

YANKEE BELLE FORMATION (a mixed unit of medium to thin-bedded, low-angle, undulose cross-stratified carbonates and quartzite sandstones with a background of green-colored silty argillite).

YANKEE BELLE FORMATION (Berly Wende Member): A distinctive, argillite unit with a sharp lower contact. The basal division consists of upward-fining, medium to thin-bedded, carbonate-clast conglomerates interbedded with alternating green and purple silty argillites. The basal division grades upwards into a monotonous green argillite sequence with rare, thin-bedded, fine-grained sandstones (carbonates rarely absent). The middle green argillite, which constitutes the highest division of the member, is overlain by a thin and discontinuous arenaceous sandstone interval interbedded with green argillite.

YANKEE BELLE FORMATION (Zig Zag Member): Medium to thick-bedded, trough and wedge-planar, cross-stratified quartz arenites and rare feldspathic quartz-pebbly conglomerates. Unit is found at the base of the Yankee Belle Formation only in the northeastern Cariboo Mountains.

CUNNINGHAM FORMATION (undifferentiated): Limestone and dolomite unit consisting of planar and wedge-planar, cross-stratified, cold-pond conglomerates and (to a lesser degree) wackestones. The unit is divided into three informal members northeast of Berly Wende fault. The upper and lower members (Pcu, Pcl) are thick to medium-bedded, dolomite units separated by the middle member (Pcm) a mixed siliciclastic-carbonate interval nearly identical to the Yankee Belle Formation. The middle member becomes fine grained with darker and thicker argillite towards the northeast and its definition diminishes to the southwest such that the unit appears as one monotonous medium-bedded granite unit. Stromatolite boudinages intervals, rare to the southwest, become thicker and more abundant towards the northeast.

CUNNINGHAM FORMATION (upper)

CUNNINGHAM FORMATION (middle)

CUNNINGHAM FORMATION (lower)

ISAAC FORMATION (undifferentiated): Dominantly dark-colored (blue to black) slate and silty argillite with local concentrations of sandstone or carbonate-clast conglomerate and oolitic limestone. Large pyrite crystals are common and zones of slump-folded mudstone and intraclastic conglomerates are also present. Sandstones typically are massive or normal graded with ripple cross-laminated to parallel laminated tops.

mudstone (slates): Sequences of ISAAC FORMATION with greater than 90% slate.

carbonate: Sequences of ISAAC FORMATION with greater than 10% carbonate lenticles (oolitic nodules), or carbonaceous conglomerate and dolostones. Unit Pcu is a local black shale that occurs within the upper carbonate unit.

feldspathic gnt: Sequences of ISAAC FORMATION composed chiefly of medium to thick-bedded feldspathic granite sandstones ("grits").

lower: Sequences of ISAAC FORMATION with greater than 10% medium or thick-bedded sandstone or granite sandstones ("grits").

Upper KAZA GROUP: medium to thick-bedded feldspathic gnt and sandstones with interbeds of green to dark grey-colored pelite. Grits are notably light brown to tan in colour and calcareous.

Old Fort Point FORMATION (undifferentiated): A argillite unit consisting of medium to thick-bedded cross-stratified quartzite sandstones and quartz pebbly conglomerate sharply overlying black saprophytic schist or pyrite, locally with thin bedded black crystalline limestone. The base consists of rhythmic, interbeds of thin-bedded chloritic calcareous siltstones to sandy limestones and green pelite, generally arranged in a fining-thinning-upward sequence.

middle KAZA GROUP: Medium to thick-bedded feldspathic granite sandstone ("grits") to sandstones with interbeds of green to dark grey-colored pelite. Grits are usually green to greenish-grey coloured and pyritic, particularly the interval underlying the Old Fort Point Formation.

lower KAZA GROUP: Thin to medium-bedded feldspathic granite sandstones and sandstones with interbeds of dark-colored pelite. Pelite intervals are generally thicker than those within the upper and middle Kaza Group. Grits are commonly calcareous.

MAP SYMBOLS

end of cross-section line

BEDDING

inclined beds, vertical

tops known, inclined, vertical, overturned

approximate bedding (outcrop not visited)

FOLIATIONS

S1 staly cleavage: inclined, vertical

S2-mm-scale crenulation or silty cleavage: inclined, vertical

S3 cm-scale crenulation cleavage: inclined, vertical

S4 cm-scale crenulation cleavage

LINEATIONS

L1 S0xS1 intersection

L2 S0xS2 intersections, S1xS2 crenulations, mullions, F2 fold axes

L3 S0xS3 intersections, S1xS3 crenulations

SURFACES

Trace of axial plane of F2 folds: dashed if approximately located, dash-dotted if concealed by younger deposits

anticline, overturned, concealed by younger deposits

syncline, overturned, concealed by younger deposits

diabase dyke, dashed if inferred, dip shown if known

intrusive carbonate dyke, dashed if inferred

depositional contact, dashed if approximate

FAULTS

dashed if approximately located, dotted if concealed. Dip of surface and trend and plunge of slickenlines shown if known.

Reverse, with R in hanging wall

Normal, with N in hanging wall

Strike-slip (police slip if with reverse or normal symbols)

CROSS-SECTION SYMBOLS

Topographic profile

end of cross section

bedding

S1

S2

S3

Contacts: solid if known from nearby information, dashed if approximately located

depositional

faults

strike slip component of motion along faults

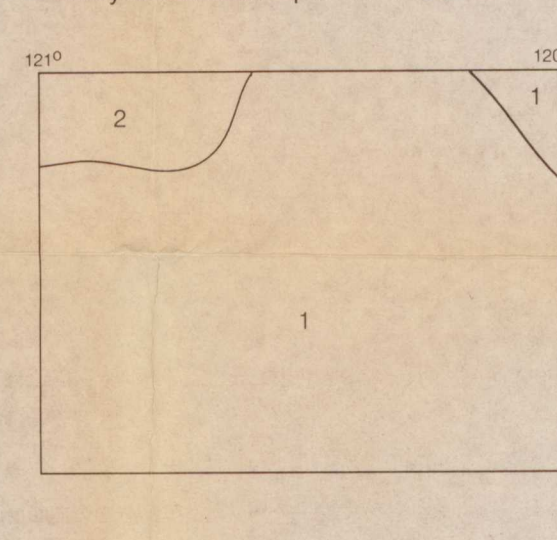
away from reader, towards reader

AREAS OF RESPONSIBILITY

1) C. A. Ferguson, 1989-92, 1995. Assisted by Peter Gibson, Elizabeth Kruiz, Neil Winder, Jeff Nazarchuk and Johanna Schmidt.

2) Campbell et al. 1973 (published source)

Recommended Citation: Ferguson, C.A., 1999. Geologic map of the Goat River map-area (93H/7), 1:50,000 scale. Geological Survey of Canada Open File 3265.



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GEOLOGICAL SURVEY

COMMISSION GEOLOGIQUE

OTTAWA

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