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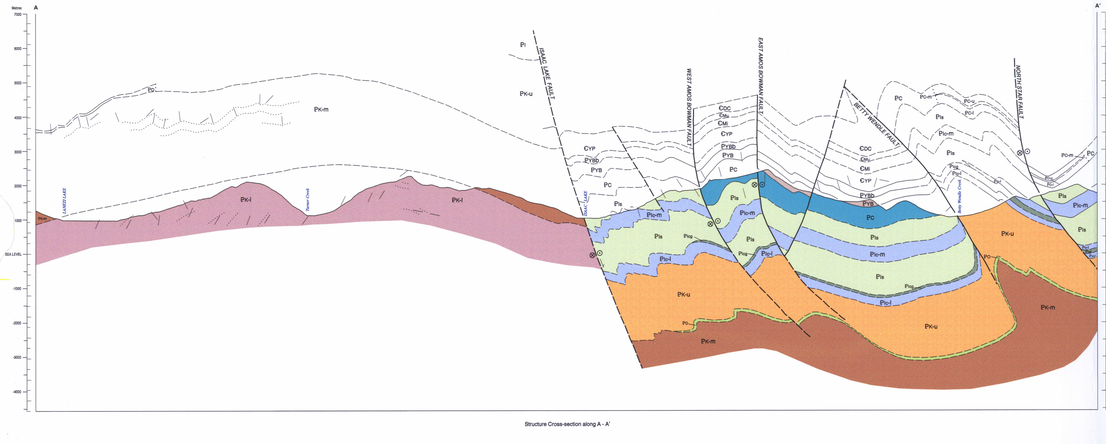
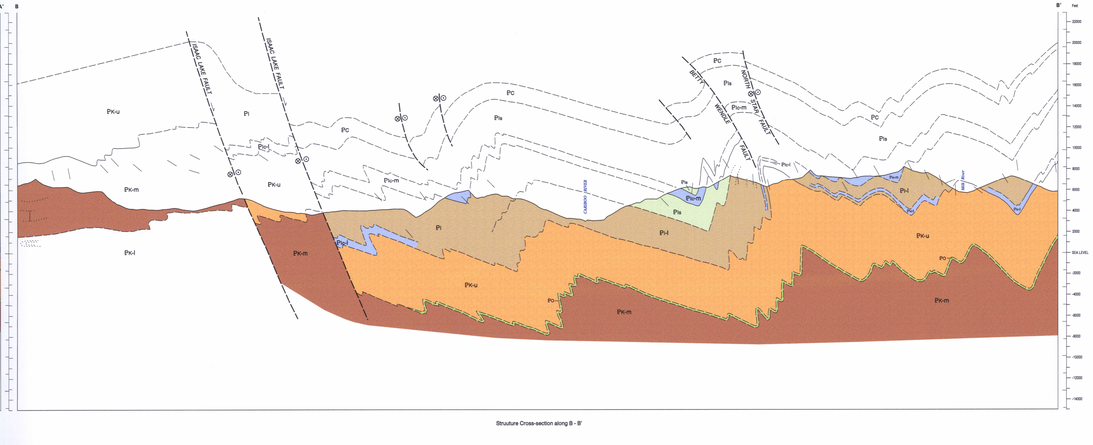


Structure Cross-section along A - A'



Structure Cross-section along B - B'

DESCRIPTIVE NOTES

The Lanezi Lake map area is part of the southern McBride 1:250,000-scale map area, which was mapped by Campbell et al. (1973), and was also included in regional mapping of the Cariboo River area by Sutherland Brown (1963). In general the region is underlain almost exclusively by structurally folded metasedimentary strata of the Neoproterozoic Cariboo Group (Campbell et al., 1973; Sutherland Brown, 1963; Struik, 1988). The most significant structural feature is the Isaac Lake Fault, a northeast-trending oblique slip normal fault that separates an eastern region of low-grade deformed Neoproterozoic strata from a western region of lower amphibolite to upper greenschist grade Neoproterozoic strata. Deformation within the Isaac Lake Fault hanging wall is characterized by a penetrative, ductile fabric (S2) and tight and locally overturned folds of bedding (F2), whereas the footwall is characterized by a relatively open, brittle structural deformation (Campbell et al., 1973). Most of the results here were derived by foot traverses that carefully defined and traced out distinct stratigraphic units and structural geometries and as extended canoe work along the shores of Isaacs and Lanezi lakes.

STRATIGRAPHY AND DEPOSITIONAL ENVIRONMENTS

Two groups are represented in the map area: the Kaza and Cariboo groups, of Neoproterozoic to Lower Cambrian age. The Kaza Group comprises a succession of fine- to coarse-grained clastic rocks that range from basin setting (Kaza Group) up through slope and rise to a shelf environment (Yankee Belle Formation of the Cariboo Group (Struik et al., 1988). The upper Cariboo Group (Yanks Peak, Midas, and Mural formations) represents the basal deposits of a younger superposed sedimentary succession (Campbell et al., 1973).

The Kaza Group comprises a sequence of felsic/pelitic coarse-pelitic to granular-sandstone ("grit") and interbedded metamorphosed mudrock (pelite). Sedimentary structures are typical of those formed in turbidite settings and include graded bedding, flame structures, and flute casts. Although the ratio of grit to pelite is variable, the overall dominance of pelite to grit, the composition of the grit, and their position with respect to a very well-defined stratigraphic marker (Old Fort Point Formation) a fourfold subdivision of the Kaza Group has been recognized.

The lower Kaza Group (unit PI-u) is characterized by the dominance of grit in which the grit comprises a subordinate component of the unit. The grit deposits are generally thin, lenticular, locally coarse-sand grade to granular to pebble conglomerate, and commonly have patchy brown calcareous cement, probably concretionary in origin. The pelite is generally dark grey to black and locally rusty weathering. Overall the unit is dominantly grey to black-pelite. The lower Kaza Group is relatively undeformed in the map area and is at least 1000 m thick.

The overlying middle Kaza Group (unit PI-m) is characterized by distinctive green pelite and grit and a much greater sandstone-to-shale ratio; the contact with the lower Kaza is entirely gradational. The middle Kaza Group is comprised predominantly of interbedded green-weathering, coarse sandy to granular feldspathic grit and thin shale beds, which are commonly graded. The grit is typically medium to very thick bedded (0.3 to 3 m) and is locally pebbly. The unit is characterized by bed thicknesses in excess of 12 m, thus forming distinctive and locally precipitous cliffs. Both the pelite and grit in the upper part of the middle Kaza Group are pyritic with large euhedral crystals more than 4 cm across. The middle Kaza Group is correlated with the Isaac Formation of the Cariboo Group in the Cariboo River and Jasper area (WGDI, Charlesworth et al., 1967; Mountjoy and Price, 1985), and which can be correlated regionally through the southern Canadian Cordillera (Rose and Murphy, 1988; Rose et al., 1990).

The Old Fort Point Formation (unit PO-u) represents a significant change in sand deposition during a major sea level rise with transgressive (unit PO-u), highstand (unit PO-m) and falling sea level (unit PO-u) conditions. Only a thin remnant of the unit PO is preserved in the southwest corner of the Lanezi Lake map area, making the distinction between the upper and middle Kaza Group difficult.

The upper Kaza Group (unit PI-u) is similar to the middle Kaza Group and consists of stacked sheets of feldspathic grit interbedded with green to dark grey pelite. The grit tends to have a grey to brown colour, in part reflecting the presence of calcareous cement. Both the grit and pelite of the upper Kaza Group contain pyrite, giving the weathered unit a streaked, rusty appearance.

The Kaza Group is overlain by the Isaac Formation (unit PI) of the Cariboo Group. The Isaac Formation is interpreted as muti-rich slope facies that prograded over the basin-floor, sand-rich turbidite facies of the Kaza Group. The contact is relatively sharp over an interval of almost 50 m and is recognized by the appearance of distinctive blue-grey pelite and abundant sandstone interbeds. Sedimentary structures are typical of those formed in turbidite settings. The Isaac Formation is a signature lithology of the Isaac Formation, is typically blue to grey in colour, banded with silty laminae and interbedded with 2-5 cm thick brown-weathering ripple- to parallel-laminated calcareous sandstone. Large euhedral pyrite crystals are common. Four informal members have been recognized in the Lanezi Lake map area. The lower Isaac Formation (unit PI-l) is characterized by the presence of isolated to amalgamated sheets of calcareous, brown, feldspathic turbidite grit, it broadly lenticular channels up to 100 m thick (unit Pu where mappable), that are interbedded with dark grey to black pelite. Sedimentary structures are typical of those formed in a turbidite setting and include flute casts, graded bedding, and flame structures. The lower Isaac Formation is interpreted as a basin-floor fan deposit. The predominant unit of the Isaac Formation, Unit Pu is composed almost exclusively of thin-bedded pelite and sandstone with a complete lack of grit; the top of the lower Isaac (unit PI-l) is taken as the last grit sheet. Slumped units are locally developed and consist of chaotically folded and faulted pelite and sandstone. They are typical of a slope setting. There are two regionally persistent carbonate units in the Isaac Formation: the lower (unit PI-m) and middle (unit PI-m) carbonate members, each of which is interpreted as a regional deposit related to falling sea level. These units can be traced for 10's of km's along strike and are typically 10's of m's thick. Carbonate lithologies include thin- to thick-bedded limestone-pelite turbidite, massive grey calcarenite to mud-rich boulder conglomerate, calcareous pebbly grit and very clean, coarse-grained quartz arenite. The extreme changes in lithology and thickness of the Isaac carbonate members make their reconstruction difficult in outcrop.

The Isaac Formation grades upward into the Cunningham Formation (unit PI), composed predominantly of intraclastic to pisolitic/oolitic limestone. The transition from the Isaac Formation shale into the Cunningham Formation limestone is gradational. The Cunningham Formation is divided into a lower and upper unit on the basis of relative carbonate. In turn, the Cunningham Formation records the upward transition from semi-pelite to platform-style carbonate. The ramp facies comprises massive calcarenite and oolitic/oolitic that grade into crossbedded calcarenite and intraclastic limestone and then into thin-bedded limestone and shale. The Cunningham Formation is interpreted as an informal, tripartite division of map units in the Cunningham (lower (unit PI-l), middle (unit PI-m) and upper (unit PI-u)); this distinction is present near Northstar Mountain but absent further southwest in the Lanezi Lake map area. The Cunningham Formation is overlain gradationally by the Yanks Peak Formation (unit PYP), which is characterized by thin-bedded, fine-grained, dark grey-weathering limestone. The lower part of the Yanks Belle Formation (informally Nowhere Member; unit PYb) consists of decimetre-scale, upward-shoaling clastic-to-carbonate cycles whereas the upper part of the Yankee Belle Formation (Betty Wanda Member; unit PYbb) consists predominantly of greenish shale and subordinate sandstone with a distinctive stromatolitic carbonate unit near the top of the unit.

The Mural Formation (unit PYbz) is characterized by thin-bedded, dark grey, locally pisolitic, metasiltstone trace fossils occur about two-thirds of the way up from the base of this unit. Based on regional relationships it is unconformable with the Yankee Belle Formation of the Cariboo Group. The Yanks Peak Formation is overlain by the Midas Formation (unit PYm) which is characterized by thin-bedded, fine-grained, dark grey-weathering limestone. The Midas Formation (unit Cmu) composed of limestone and subordinate siltstone/shale (locally altered to hornfels). The latter two units are preserved in a synclinal in the hanging wall of the Amos Bowman Fault.

STRUCTURE

The Lanezi Lake map area is divided into two contrasting structural regimes by the Isaac Lake Fault, a major right-lateral oblique-slip normal fault. The structure east of the Isaac Lake Fault is dominated by folds with northwest-striking axial surface traces. Northwest-striking faults with oblique slip motion have formed in areas dominated by mechanically rigid structural elements such as the Cunningham and Yanks Peak carbonates. These faults in turn are truncated by the Amos Bowman Fault to the northeast. West of the Isaac Lake Fault, in the Mowdiet Range, fold closures are rare and the structure of the metamorphosed Kaza Group is dominated by gentle warping over the Lanezi Arch. Interpreted as a post-D2 structure. Four different fold(s) elements have been mapped and follow the nomenclature established by Murphy (1987). Fold interference patterns are locally developed and have been used to aid in the structural reconstruction, mapping and determination of fold geometry. First-phase (D1) deformation is expressed mostly as a bedding-parallel cleavage (S1) with only rare mesoscopic folds. Second-phase (D2) deformation is the dominant fold geometry and structural style in the map area. Associated with D2 is a penetrative, axial planar cleavage (S2) and tight to isoclinal folds that produces a crenulation lineation, further evidence of the sometimes cryptic presence of bedding-parallel S1 cleavage. The intersection lineation in general has a gentle northwest plunge of ~10° but locally reverses to the southwest, perhaps as a result of D3 folding (Struik et al., 1988). Third-phase (D3) deformation is expressed by a spaced, locally crenulation cleavage (S3) that is present locally in structural fabrics around fault zones such as the Isaac Lake Fault, especially in ductile lithologies such as the Isaac Formation. The broad arch that is the Lanezi Arch folds D2 and earlier structures and is the result of D3 folding. Fourth-phase (D4) deformation is expressed by a spaced crenulation cleavage (S4) that ranges from mm- to decimetre-scale-spaced crenulations at a high angle to predominant structural strike and clearly postdates all other fabrics in the region. D3 is the only structural element that has been dated directly. Struik (1988) has suggested that the Cariboo River map area (Murphy, 1986) we crossed by the 184 Ma (U-Pb zircon) Hobson Pluton. (L.Reid, pers. comm., 2001).

FAULTS

The Isaac Lake, Amos Bowman, Betty Wandle and Northstar faults make up a family of oblique slip faults prominent in the Lanezi Lake map area. The latter three faults appear to be the brittle expression of folding at deeper structural levels and thus may be related to D2 deformation, but were reactivated during younger oblique slip deformation. The Isaac Lake Fault is a northeast-striking, steeply dipping fault that can be traced for over 100 km from Isaac Lake to the south. It is located along the eastern side of the Isaac Lake Synclinorium and may follow the orientation of D3 folds and axial planar cleavage. The fault itself is well exposed along the western shores of Isaac Lake and particularly at Isaac Falls at the outlet of Isaac Lake. Here the fault is characterized by a zone of cataclasite and fault breccia with numerous subsidiary planes and associated foliation surfaces and lineation that indicates a right-lateral extensional sense of displacement with perhaps up to 4-6 km of displacement (Ferguson, 1994; Reid et al., 2002). The Isaac Lake Fault continues to the north where it is truncated by the Northstar Fault. To the south, the Isaac Lake Fault is truncated by the Eocene-Oligocene the Omineca Belt (Reid et al., 2002). The age of these faults is unknown currently but appears to postdate Jurassic (circa. 184 Ma) plutons.

METAMORPHISM

The Lanezi Lake map area preserves evidence of two distinct metamorphic events. The first and oldest led to the development of pelite, garnet and, at highest grade, staurolite, the latter present in the core of the Lanezi Arch. Biotite porphyroblasts are locally crenulated around D2 fabrics, suggesting that metamorphism must predate that deformation event (pre 184 Ma). This contrasts with biotite porphyroblasts in the adjacent Kitty map area (Struik, 1988; Reid and Ferguson, map 1987A) which are randomly oriented and postdate D2 structures. The second or "retrograde" metamorphism is characterized by the development of chlorite and sericite in the pelitic rocks, the biotite and chlorite in the cores of the rocks west of the Isaac Lake Fault are at biotite grade (upper greenschist) with local occurrences of garnet and staurolite. Amphibolitic pods are present (plagioclase+green amphibole+garnet), likely formed from metamorphism of calcareous concretions and cements in the Kaza Group sandstone.

ECONOMIC GEOLOGY

No major mineral occurrences were discovered during mapping. The Precambrian units generally have a high concentration of sulfides that consists almost exclusively of pyrite, which is most prominent in the middle and upper Kaza Group (unit PI-m and PI-u). Pyrite is also present in the Isaac Formation (unit PI) and in the basal, fine-grained sandstone of the lower member of the Old Fort Point Formation. Several generations of quartz veins are present.S2 folds deformed early, bedding-parallel veins, whereas late veins make up upright sheets parallel to D4 faults. Locally, the early veins have been folded by D2 and are transposed into the axial plane of F2 folds. The late veins are typically barren of sulfides. Commonly, the mineralogy contrast between grits and pelites has led to extensive fracturing of the grits and emplacement of quartz veins. Generally these veins are barren and consist of milky quartz with minor amounts of siderite-ankerite, pyrite, and chlorite.

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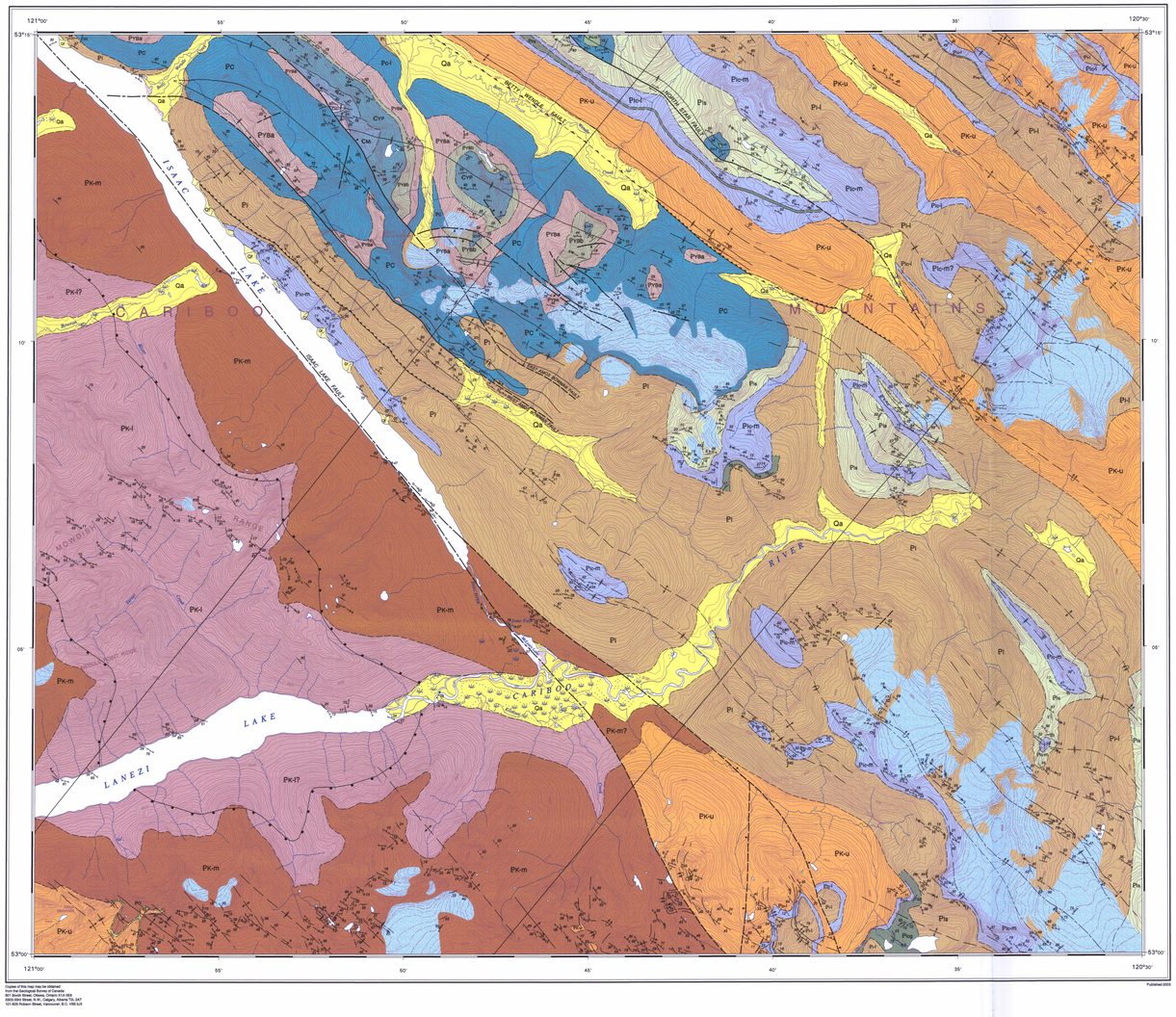

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LEGEND

This legend is common to maps 1967A, 2001A, 2003A, and 2004A. Not all map symbols shown in the legend necessarily appear on this map.

CENOZOIC

QUATERNARY

Qa, Qal *Qa, predominantly alluvial deposits along the bottoms of montane valleys; in many areas gravelsmantled with debris cones and major talus slopes along steep mountainsides*
Qal, combined alluvial and lacustrine deposits within Rocky Mountain Trench. Alluvium consists mostly of Holocene sandy deposits along floodplain of Fraser River. Lacustrine deposits consist of Holocene silty and sandy rich sediments along adjacent low-lying terrace south of Fraser River. These are capped locally by nobbly sand, Gilbert-type delta foreset deposits. The clay-rich sediments typically are thin-bedded clay and silty sand with locally abundant dropstones

Qf *Emergent portion of fan deltas along east shore of Isaac Lake*

SOUTHERN ROCKY MOUNTAIN TRENCH

PALEOZOIC (NEOPROTEROZOIC)

UPPER PROTEROZOIC (NEOPROTEROZOIC)

PTs *Dark-coloured phyllite, probably equivalent to Isaac, middle Cunningham, or Midas formations*

PTms *Cream-coloured, banded marble, and green silty argillite with fine-grained quartzite, probably equivalent to Yankee Belle or Cunningham formations*

PTm *Cream-coloured, banded marble, probably equivalent to Cunningham, Yankee Belle, or Mural formations*

PTs *Quartzite and quartz pebble conglomerate, locally feldspathic. Probably equivalent to Yanks Peak Formation or Zig Zag Member of the Yankee Belle Formation*

→ **PT** *TRENCH ASSEMBLAGE, undivided: highly sheared metasedimentary rocks at the lookout of the McBride Fault. Compositional layering typically consists of transposed bedding. Probable stratigraphic equivalent of subdivisions, in Cariboo Mountains nomenclature, listed with descriptions and shown schematically on structural cross-sections*

ROCKY MOUNTAINS

Stratigraphic equivalent, in Cariboo Mountains nomenclature, shown in bold type

PALEOZOIC (NEOPROTEROZOIC)

NEOPROTEROZOIC? - CAMBRIAN
NEOPROTEROZOIC? - LOWER CAMBRIAN

CMo *MAHTO FORMATION: quartzite (quartz sandstone) shale, phyllite, sandy dolostone (structure section only)*

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

CMN *McNAUGHTON FORMATION, YANKEE PEAK FORMATION: medium- to, rarely, thick-bedded trough and wedge-planar cross-stratified quartz arenite and rare, quartz pebble conglomerate, alternating with thinner, mudstone-rich intervals*

UPPER PROTEROZOIC (NEOPROTEROZOIC)

EAST TWIN FORMATION (PEs - PEu)

PEs *YANKEE BELLE FORMATION: green argillite-quartzite unit, thin- to medium-bedded, fine-grained, low-angle, cross-stratified quartzite with green argillite interbeds*

PEb *YANKEE BELLE and/or CUNNINGHAM formations: orange limestone unit, thin-bedded, orange weathering, grey, crystalline limestone with argillite partings*

PEa *EAST TWIN FORMATION: Upper Isaac: dominantly argillite characterized by very low percentage of quartzite interbeds (<<5%)*

→ **PE** *EAST TWIN FORMATION: ISAAC FORMATION, undivided: dominantly dark-coloured slate and silty argillite with local concentrations of sandstone or carbonate-clast conglomerate and dolostone*

PMK-gc *McKALE FORMATION (upper calcareous): Lower Isaac: argillite characterized by relatively high percentage (5-25%) of calcareous, feldspathic or quartzose grit beds and carbonate clast conglomerate*

PMK-u *McKALE FORMATION (upper): Upper Kaza: medium- to thick-bedded, feldspathic grit, pebbly sandstone and sandstone with interbeds of green to dark grey-coloured pelite. Grits are notably lighter brown to brown on outcrop and sedimentary*

PO-u *OLD FORT POINT FORMATION (PO-l - PO-u)*
Upper member: medium- to thick-bedded, coarse-grained quartzose sandstone and quartz pebble conglomerate commonly with pebble to cobble-sized carbonate clasts. Locally with limestone, sandy limestone. Sharply overlies the middle or lower member with local erosional relief

PO-m *Middle member: dark grey to black, sulphidic (pyritic) mudstone or phyllite, locally with thin-bedded, black crystalline limestone*

PO-l *Lower member: rhythmically interbedded thin beds of chloritic, calcareous siltstone to sandy limestone and green pelite, generally arranged in a fining- and thinning-upward sequence that grades up into the middle member*

PMK-l *McKALE FORMATION (lower): middle Kaza: medium- to thick-bedded, brown weathering, feldspathic grit, pebbly sandstone and sandstone with interbeds of green pelite of fine-grained sandstone*

PCC *CUSHING CREEK FORMATION: lower Kaza: dark-coloured, sulphidic argillite and silty argillite with thin- to medium-bedded, black, crystalline limestone. Dark grey feldspathic sandstone is <10%*
PCC-l: limestone-rich intervals of CUSHING CREEK FORMATION: lower Kaza

NEOPROTEROZOIC

PCo *OLD FORT POINT FORMATION, undivided*

PCu *CUNNINGHAM FORMATION, undivided: limestone and dolostone unit consisting of planar and wedge-planar, cross-stratified, cold-ploid grainstone and wackestone*

PI *ISAAC FORMATION, undivided: slate and silty argillite, dominantly dark-coloured, distinctly blue to black or grey; thin beds of calcareous siltstone, rare occurrences of granule sandstone sheets, carbonate-clast conglomerate and olistostromes; large pyrite crystals are common, and zones of slump-folded mudstone and intrastatic conglomerate are present; thin sandstone beds typically are massive or normal-graded with ripple-crossbedded to parallel-laminated tops*

PK-u *KAZA GROUP (PK-l - PK-u)*
Upper Kaza (informal): medium- to thick-bedded granule sandstone, feldspathic, light brown to tan; interbeds of green to dark grey pelite

PK-m *Middle member: banded black and grey sulphidic (pyritic) pelite; locally with thin-bedded, black, crystalline, silty limestone and calcareous, brown sandstone*

PK-l *Lower member: rhythmically thin-bedded, chloritic siltstone to sandy limestone and green pelite, generally arranged in a thinning-upward sequence that grades into the middle member*

PK-u *Lower Kaza (informal): medium- to thick-bedded feldspathic granule sandstone (grits) to sandstone; interbeds of green to dark grey pelite; grits are notably green to greenish grey and pyritic, particularly the interval underlying the Old Fort Point Formation*

PK-l *Lower Kaza (informal): thin-bedded to medium-bedded feldspathic granule sandstone and sandstone; interbeds of dark-coloured pelite; pelite intervals are generally thicker than those within the upper and middle Kaza Group; sandstone is commonly calcareous with metaconcretions*

CARIBOO MOUNTAINS

NEOPROTEROZOIC? - CAMBRIAN
NEOPROTEROZOIC? - LOWER CAMBRIAN
CARIBOO GROUP (PI - CDC)

CDC *DOME CREEK FORMATION: dark-coloured argillite and siltstone*

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

CMi *MIDAS FORMATION: monotonous mudstone and silty mudstone with less than 25% medium to thin-bedded, typically bioturbated, quartzose sandstone*

CYP *YANKS PEAK FORMATION: dominated by medium- and, rarely, thick-bedded, trough and wedge planar-cross-stratified quartz arenite and rare quartz-pebble conglomerate, alternating with mudstone-rich sequences similar to those that make up the Midas 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 (PYbz - PYbb)
Betty Wanda Member: a distinctive, tripartite unit with a sharp lower contact. The basal division consists of fining-upward, medium- to thin-bedded, carbonate-clast conglomerate interbedded with alternating green and purple silty argillite. The basal division grades upward into monotonous green argillite with rare, thin-bedded, fine-grained sandstone (carbonate noticably absent). The middle green argillite, which constitutes the thickest division of the unit, is characterized by a thin and discontinuous stromatolitic boundstone interval interbedded with green argillite

PYbb *Betty Wanda Member, undivided*

PYba *Amos Bowman Member: a mixed, cyclic unit of medium- to thin-bedded, low-angle, unidirectional cross-stratified quartzose and quartzose sandstone within a background of green-coloured silty argillite, upward increase in proportion of limestone; sharp contact with Betty Wanda Member*

PYbz *Zig Zag Member: medium- to thick-bedded, trough and wedge-planar, cross-stratified quartz arenite and rare, feldspathic, quartz pebble conglomerate. Unit is found at the base of the Yankee Belle Formation only in the northeastern Cariboo Mountains*

PYb *YANKEE BELLE FORMATION, undivided*

CUNNINGHAM FORMATION (PI-l - PI-u)
Upper Cunningham (informal): medium-bedded packstone-wackestone, intraclastic conglomerate, and shale arranged in shoaling-upward cycles

Middle Cunningham (informal): interbedded, crossbedded packstone-grainstone, intraclastic conglomerate and quartz sandstone; local stromatolitic dolomite; similar to Yankee Belle Formation. Absent west of Betty Wanda Fault

Lower Cunningham (informal): composed of thin-bedded, current-laminated limestone, massive wackestone-packstone and thin shale interbeds. Becomes more thickly bedded upsection

PC-u **PC-m** **PC-l** → **PC** *CUNNINGHAM FORMATION, undivided: limestone and dolostone unit consisting of planar and wedge-planar, cross-stratified, cold-ploid grainstone and wackestone*

ISAAC FORMATION (PI - Pu)
Upper Isaac (informal): thin-bedded, blue-grey, pyritic slate/mudstone; thin beds and lenticles of fine-grained, calcareous sandstone in siltstone; local intraformational slumped intervals and orange weathering limestone beds; granule sandstone and conglomerate beds are conspicuously absent

PI-u **PI-m** **PI-l** → **PI** *ISAAC FORMATION, undivided: slate and silty argillite, dominantly dark-coloured, distinctly blue to black or grey; thin beds of calcareous siltstone, rare occurrences of granule sandstone sheets, carbonate-clast conglomerate and olistostromes; large pyrite crystals are common, and zones of slump-folded mudstone and intrastatic conglomerate are present; thin sandstone beds typically are massive or normal-graded with ripple-crossbedded to parallel-laminated tops*

Pu-u **Pu-m** **Pu-l** → **Pu** *UNNAMED FORMATION, undivided: dominantly thin-bedded, dark grey to black, pyritic mudstone and siltstone; thin sandstone beds are rare*

Ps *Lower Isaac (informal): shale/slate, blue to black; thin interbeds of calcareous sandstone and prominent, interbedded medium- or thick-bedded sandstone to granule sandstone. The sandstone form laterally discontinuous sheets up to 100 m thick, are arkosic and locally conglomeratic (until Pog, where mappable)*

Pl → **PS** *UNNAMED FORMATION, undivided: dominantly thin-bedded, dark grey to black, pyritic slate/mudstone; thin beds and lenticles of fine-grained, calcareous sandstone in siltstone; local intraformational slumped intervals and orange weathering limestone beds; granule sandstone and conglomerate beds are conspicuously absent*

Pl-u **Pl-m** **Pl-l** → **PI** *Geology by G.M. Ross and C.A. Ferguson based on ground observation by G.M. Ross and C.A. Ferguson, 1986-1992; area adjacent to Mount Amos Bowman from Sutherland Brown (1963)*

Digital cartography by S.D. Crosoi, Geological Survey of Canada (Calgary)

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

Digital base map from data compiled by Geomatics Canada, modified by the Geological Survey of Canada

Mean magnetic declination 2003, 20°18' E, decreasing 11.6' annually

Elevations in feet above mean sea level

LOCATION MAP

MAP 2001A

GEOLOGY AND STRUCTURE CROSS-SECTIONS

LANEZI LAKE

BRITISH COLUMBIA

Scale 1:50 000/Échelle 1/50 000

kilometres 0 1 2 4 kilometres

Universal Transverse Mercator Projection
North American Datum 1983
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Projection transverse universelle de Mercator
Système de référence géodésique nord-américain, 1983
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Canada

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Ross, G.M. and Ferguson, C.A.
2003. Geology and structure cross-sections, Lanezi Lake, British Columbia; Geological Survey of Canada, Map 2001A, scale 1:50 000.

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