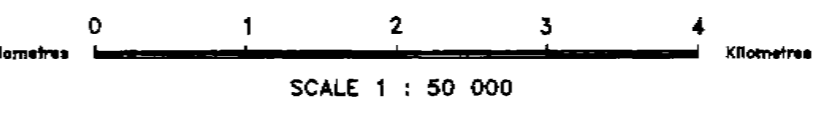


Geological Survey Branch  
GEOLOGICAL MAP 1993-5

### GEOLOGY OF THE YEHINKO LAKE AND CHUTINE RIVER AREA, NORTHWESTERN B.C.

NTS 104G/11W,12

By D.A. Brown, C.J. Greig and M.H. Gunning



- STRATIFIED ROCKS**
- QUATERNARY**
- Qal Alluvium, glacial till, unconsolidated glaciofluvial deposits
- TERTIARY-EOCENE**
- SLOKO GROUP**
- TSd Pale green to white, locally welded, dacite and rhyolite; minor olive green andesite flows and breccia; hornblende crystal lithic lapilli tuff-breccia and tuff
  - TSS Dark brown weathering, columnar-jointed, plagioclase-phyric trachyandesite and basalt flows
- UPPER CRETACEOUS (?) TO PALEOCENE**
- SUSU? GROUP**
- KTS Brothers Peak Formation: Poorly indurated, brick-red, brown and grey psammite conglomerate; lesser sandstone, siltstone, rare shale; granitoid cobble conglomerate (gpc); white rhyolite to rhyodacite ash to lapilli tuff horizons (<10m thick); rhyolite to rhyodacite flows, minor basalt and andesite flows & breccia (?)
- LOWER TO MIDDLE JURASSIC**
- HAZELTON GROUP**
- ImJv Undifferentiated volcanic and minor sedimentary rocks
  - ImJb Amphigastoid alvea basalt flows, carbonate-cemented pillow breccia; rare bioclastic limestone lenses (<2m thick)
  - ImJr Flow-banded, pink to red, hematitic rhyodacite/dacite/ignimbrite flows, locally subvolcanic and flow-tied
  - ImJh Maroon, purple, mauve, brick-red and green dactyl to basaltic andesite pyroxene-plagioclase porphyritic, flow-banded and amygdaloidal flows, crystal lithic tuff-breccia and lapilli tuff; local tuffaceous ash
  - UJH Lamy sandstone, feldspathic wacke, oronite, discontinuous limestone lenses, fossiliferous-belemnites, ammonites, terabivalvite brachiopods, rare Weyss, small shales
  - UJH Buff to rusty, flow-banded aphanitic rhyolite flow (or sill?)
- UPPER TRIASSIC GROUP**
- STUHN GROUP**
- UTS Undifferentiated volcanic and sedimentary rocks; argillite (arg)
  - UTL micritic limestone (L); limestone breccia (b); tuffaceous wacke (tw)
  - UTS Sedimentary rocks; undifferentiated
- UTS2** Upper Noron  
Thin to thick-bedded, buff, grey, green & mauve sandstone, siltstone & argillite; minor shale & fossiliferous shale with abundant Merista subtruncularis; discontinuous limestone lenses (up to 50m thick) with middle to late Noron conodonts (L2); minor grey chert
- UTS1** Carleton-Lower Noron  
Well-bedded to massive, tuffaceous siltstone, wacke, minor argillite, intraformational limestone-bearing conglomerate  
Grey arkosic wacke with limestone clasts, siltstone, graphitic shale, rare black chert; rare granitoid-bearing psammite conglomerate/breccia; discontinuous limestone lenses with Carleton to early Noron conodonts (L1); limestone with nodules to Carleton conodonts (L2); limestone sedimentary breccia (b); limestone (L)
- UTSv** Volcanic rocks, undifferentiated; volcanic breccia (vb); maroon volcanic breccia (mvb); andesite (and); clinopyroxene phyric basalt (pb); maroon epilitic (ep); felsic volcanic rocks; subvolcanic felsic ash tuff; laminated, pale to dark green, commonly pyritic "shrapnel", siliceous wacke/breccia, pale to dark green, siliceous angular fragments, local welded ignimbrite (subaerial?)
- UTS4** Bladed plagioclase phyric basalt or basaltic andesite flows (p), locally pillowed
- UTS3** Massive, medium-grained, plagioclase-rich, tuffaceous wacke
- UTS2** Intermediate volcanic rocks (v); massive, green hornblende-plagioclase-rich andesite black-tuff, tuff, minor flows, green & maroon andesite lithic fragments; maroon & green (UTS2m); limestone boulder conglomerate (c), light grey, well-bedded, hornblende-rich tuff (m), red-brown to purple plagioclase-rich volcanic breccia and tuff; fine-grained, massive, green to olive agyric andesite
- UTS1** Vette volcanic rocks (v); agyric-phyric basalt to basaltic andesite flows and breccia; pyroxene-rich crystal lithic lapilli tuff; volcanic wacke, dark green to olive-green, medium-grained, massive, minor plagioclase

- INTRUSIVE ROCKS**
- TERTIARY AND OLDER DIKES**
- Andesite (A); basalt (B); felsite (F); dark green, pyroxene-phyric olivine basalt (M); rhyolite (R); syenite (S)
- RYOZER SUITE**
- Egn Well-jointed, medium to coarse-grained (hornblende) biotite granite (gn); locally K-feldspar megacrystic (<5% gk); equigranular, medium-grained hornblende-biotite granodiorite (gd); gk K-feldspar megacrystic granodiorite; felsite (f)
- MIDDLE JURASSIC — THREE SISTERS SUITE**
- wJn Hornblende granite to quartz monzonite stocks; spatially associated pink plagioclase talus, rhyolite, quartz syenite, quartz monzonite dikes, typically biotite-hornblende-plagioclase porphyritic
  - wJm Texturally heterogeneous, sorted to crowded plagioclase-porphyrific, locally trachytic, hornblende monzonite to monzonoides; groundmass of fine to medium grained, euhedral to subhedral hornblende and potassium feldspar
- LATE EARLY JURASSIC — CONE MOUNTAIN SUITE**
- LJgd Equigranular, medium-grained (biotite) hornblende granodiorite; quartz monzonite
- EARLY JURASSIC — TOSAS CREEK SUITE**
- LJm Medium-grained hornblende monzonite; quartz monzonite
- MIDDLE TO LATE TRIASSIC STIKINE SUITE**
- LJm Heterogeneous quartz monzonite (qm); foliated to massive hornblende biotite granodiorite (gd); monzonite, quartz diorite, diorite
  - LJm Nightout pluton typically contains megacrystic perthitic potassium feldspar; unfoliated (biotite) hornblende tonalite (t)
- ALASKAN-TYPE ULTRAMAFIC ROCKS**
- LT Medium to coarse-grained olivine clinopyroxene (opx); dunite (du)

- Geological boundary**
- defined
  - approximate
  - assumed
  - unconformity
  - defined
  - approximate
  - assumed
- High-angle fault, surface trace, trend and plunge of slickensides indicated by arrow; nodal circles on downthrown side**
- defined
  - approximate
  - assumed
- Contractional fault—surface trace; teeth in direction of dip**
- defined
  - approximate
  - assumed
- Cross-section line**
- Bedding: tops unknown, ggentile, moderate, steep
  - Bedding: tops observed, inclined, overturned
  - Foliation: inclined, vertical, isomorphous
  - Dike: inclined, vertical, composition indicated by abbreviation
  - Vein: inclined, vertical (as quartz)
  - Joint: inclined, vertical
  - Antiform axis
  - Synformal axis
  - Overturned synclinal axis
  - Axial plane of minor fold; inclined, vertical
  - Fold axis of minor fold (arrow indicates plunge)
  - m, s, and z asymmetry
  - Glacial strike (undetermined direction of movement)
  - Dike swarm
  - Fossil location; age determined (with GSC number)
  - macrofossil; conodont; fusulinid; radiolaria
  - Fossil location; age indeterminate, macrofossil, barren sample
  - Field station with no structural measurement
  - Landscape scar
  - Diamond drill hole
  - Trench
  - MINFILE mineral occurrence with number (104G...)
  - Isotopic age locally (U/Pb, K/Ar, Rb/Sr, Ar/Ar)
  - hornblende, biotite, whole rock
  - Uranium-altered zone (shown as grey tone)

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