



CHUTINE RIVER (EAST HALF)  
104G/12E

YEHINIKO LAKE (WEST HALF)  
104G/11W

- QUATERNARY**
- Qal Alluvium, 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 breccia and tuff
  - Tbs Dark brown weathering, columnar jointed, plagioclase-phyric trachyandesite and basalt flows; breccia
- UPPER CRETACEOUS (?) TO PALEOCENE (OR EOCENE ?)**
- SUSTITUT GROUP - BROTHERS PEAK FORMATION**
- KTS Poorly indurated, blocky, brown and grey polytomic conglomerates, lesser sandstone, wacke, siltstone, rare shale; rare coaly plant stems, leaves and tree fragments
- LOWER (TO MIDDLE ?) JURASSIC**
- HAZELTON GROUP**
- ImJb Amygdaloidal olivine basalt flows, carbonate-cemented pillow breccia; rare bioclastic limestone lenses (< 2 m thick); interbedded Bajocian
  - ImJh Liny sandstone; felsiparitic wacke, arenite, fossiliferous - belemnites, terebratulid brachiopods, rare Weyla, small Trionyx
  - ImJd Flow-banded, pink to red, hematitic rhyodacite/dacite ignimbrite flows, locally auto-brecciated and flow-folded; tuff to rusty, flow-banded spargitic rhyolite; possibly Pliansbachan ?
  - ImJv Maroon, purple, mauve, brick-red and green dacite to basaltic andesite pyroxene-plagioclase porphyritic, flow-banded and amygdaloidal flows, crystal lithic tuff-breccia and lapilli tuff; local tuffaceous grit
- Note: Anderson et al. (1990) have proposed a revised nomenclature for the Hazelton Group in the Stewart and Iskut River areas. Preliminary correlations between units used in this report and those of Anderson are as follows: unit ImJb with Salmon River Formation, Eskay Creek facies; unit ImJh with Salmon River formation, "lower member"; and unit ImJd with Mount Dinworth formation.
- UPPER TRIASSIC**
- STUHINI GROUP**
- UTSs Sedimentary rocks; (s) = undifferentiated
- UPPER NOVAN**
- UTSd "West Yehiniko" Creek and Havelock Creek areas: Thin to thick-bedded, buff, grey, green and massive sandstone, siltstone and argillite; minor shale and fossiliferous shale with abundant Monotis subcircularis; L2 = discontinuous limestone lenses (up to 30 m thick); minor pale grey chert
- UPPER CHUTINE/LOWER NOVAN**
- UTSf Stikine River - Glomerata Creek area: Grey arkosic wacke with limestone clasts, siltstone, graphitic shale, rare black chert; rare granitoid-bearing polytomic conglomerates/breccia; L1 = discontinuous limestone lenses; LBX = limestone sedimentary breccia
- UTSv Volcanic rocks; undifferentiated**
- b Mafic volcanic rocks; augite-porphyrific 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
  - a Banded plagioclase-porphyrific basalt or basaltic andesite, locally pillowed
  - s Intermediate volcanic rocks; massive, green andesite flow-breccia containing 10-20% equant plagioclase phenocrysts; red-brown to purple plagioclase-rich volcanic breccia and tuff; fine-grained, massive, green to olive aphyric andesite
  - rt Heterolithic maroon crystal lithic lapilli tuff-breccia, commonly containing carbonate clasts, plagioclase and lesser pyroxene crystals
  - f Felsic volcanic rocks; rhyolite/dacite; subaqueous felsic/siliceous ash tuff, laminated, pale to dark green, commonly pyritic; "sharpstone", siliceous wacke/breccia, pale to dark green, siliceous angular fragments; local welded ignimbrite
- TRIASSIC OR OLDER**
- m Foliated to massive mafic meta-volcanic rocks, amphibolite (extrapolated north from the Scud River area; see Brown and Gunning, 1989)
- PERMIAN OR OLDER**
- STIKINE ASSEMBLAGE**
- LOWER PERMIAN**
- PS Complexly folded and faulted, locally foliated, grey limestone with minor siliceous layers, lenses or nodules; (m) = maroon and green plagioclase crystal lithic tuff, tuffaceous mudstone
- PRE-PERMIAN**
- pps Rusty weathering, pyritic metasiltstone, meta-argillite; well-bedded to laminated sericitic siliceous ash tuff; varicoloured chert; buff calcareous siltstone; (l) = discontinuous recrystallized limestone, probably Carboniferous age
- INTRUSIVE ROCKS**
- TERTIARY AND OLDER DIKES**
- Andesite (A), basalt (B), felsite (F), rhyolite (R)
- EOCENE**
- SAWBACK PLUTON**
- Egr Well-jointed, medium-grained (hornblende) biotite granite
- MIDDLE JURASSIC**
- YEHINIKO PLUTON**
- mJgn Pink, medium-grained hornblende biotite granite, minor quartz monzonite; (mJgn) = quartz monzodiorite
- DOKDAON INTRUSIONS**
- mJd Hornblende granite to quartz monzonite stocks; spatially associated pink plagioclase lites, trichite, (quartz) myelite, (quartz) monzonite dikes, typically biotite-hornblende-plagioclase porphyritic
- STRATA GLACIER PLUTON + STRATA MOUNTAIN PLUTON**
- mJgd Equigranular, medium-grained (biotite) hornblende granodiorite; (mJgd) = quartz monzodiorite
- EARLY JURASSIC (?)**
- CONOVER PLUTON**
- eJm Texturally heterogeneous, aenitic to crowded plagioclase-porphyrific, locally trachytic, hornblende monzonite to monzodiorite; groundmass of fine to medium grained euhedral to subhedral hornblende and potassium feldspar
- LATE TRIASSIC (?) - PRE-MIDDLE JURASSIC**
- YEHINIKO DIORITE**
- Id Hornblende diorite, leucodiorite, tonalite, locally foliated or gneissic
- MIDDLE TO LATE TRIASSIC**
- NIGHTOUT PLUTON**
- ITgd Foliated to massive biotite hornblende granodiorite, quartz monzonite, monzodiorite, diorite, typically contains megacrystic poikilitic potassium feldspar; (m) = unfoliated (biotite) hornblende tonalite
- NOTE: Detailed descriptions of the map units can be found in Brown and Greig (1990a).



GEOLOGICAL SURVEY BRANCH  
OPEN FILE 1990-1 (SHEET 1 OF 2)

**GEOLOGY OF THE STIKINE RIVER - YEHINIKO LAKE AREA, NORTHWESTERN B. C.**

NTS 104G/11W, 12E  
DEREK A. BROWN, CHARLES J. GREIG AND MICHAEL H. GUNNING  
SCALE 1:50 000

- SYMBOLS**
- Geological boundary (defined, approximate, assumed)
  - Unconformity (defined, approximate, assumed)
  - Bedding (inclined, vertical)
  - Bedding; top observed (inclined, overturned)
  - Foliation (inclined, vertical)
  - Dike (inclined, vertical; composition indicated by abbreviation)
  - Antiformal axis (approximate)
  - Synformal axis (approximate)
  - Overturned synclinal axis
  - Axial plane of minor fold (inclined, vertical)
  - Fold axis of minor fold (arrow indicates plunge)
  - Glacial striae (undetermined direction of movement)
  - High-angle fault (defined, approximate; slicked circle on downthrown side)
  - Reverse fault (defined, approximate; teeth in direction of dip)
  - Dike swarm
  - Cross-section line
  - Fossil location; age determined, undetermined (data on Sheet 2)
  - Potassium-argon isotopic age sample location (data on Sheet 2)
  - Field station with no structural measurements
  - Landslide scars
  - Diamond drill hole location
  - Hand trench location
  - Observed outcrop distribution; shown as a grey tone

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