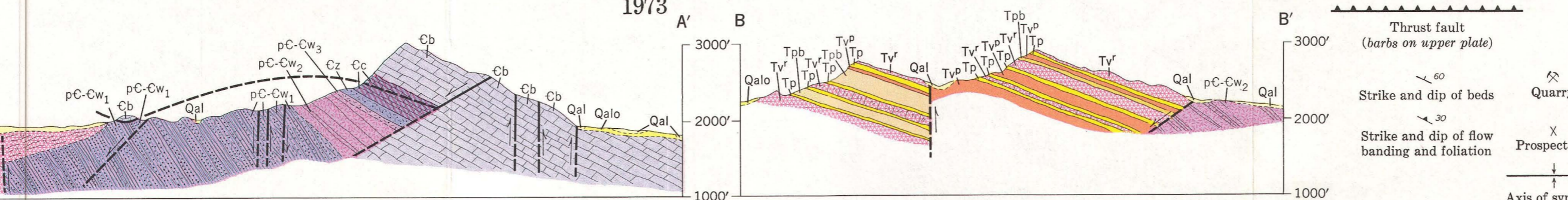


GEOLOGY OF THE N. E. 1/4 SHOSHONE 15-MINUTE QUADRANGLE, INYO COUNTY, CALIFORNIA
 by Charles W. Chesterman

SCALE 1:24,000
 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET
 0 1 2 3 4 5 6 7 KILOMETER
 CONTOUR INTERVAL 40 FEET
 DATUM IS MEAN SEA LEVEL
 1973

TOPOGRAPHIC BASE BY U.S.G.S.
 This map is an enlargement of a
 1:82,500-scale published map.



SYMBOLS

- Contact (dashed where approximately located)
- Fault (showing dip and relative movement; Dashed where approximately located; dotted where concealed; U-upthrown side, D-downthrown side)
- Thrust fault (bars on upper plate)
- Strike and dip of beds
- Strike and dip of flow banding and foliation
- Quarry
- Prospect Pit
- Axis of syncline

- QUATERNARY**
- Qal**
Alluvium
Stream and fan gravels flanking hills and mountains and grading into fine-grained clastic and chemical playa sediments.
 - Qalo**
Older alluvium
Cobbles, sand and finer clastic materials of varied lithology in partly dissected fans. Surface cobbles coated with desert varnish; locally cemented with caliche.
 - Qb**
Basalt
Fine-grained, dark-gray, porphyritic, dark-gray to black basalt flows.
 - Qa**
Andesite
Fine-grained, dark-gray, porphyritic biotite andesite flows.
 - ASH BEDS**
Ql
Lacustrine deposits
Fine-grained, well-bedded, buff-colored siltstone with subordinate layers of bentonitic clay, buff-colored marl and light-gray volcanic ash.
 - Qt**
Tuff
Medium-gray and buff-colored tuff and tuff breccia; massive, well lithified and contains broken crystals, rock fragments and rounded pumice fragments in a matrix of volcanic ash.
 - TP** **TPb**
Perlite
TP = massive perlite; light-gray to black, locally brown, generally in flows and selvages of rhyolite dikes and sills.
TPb = brecciated perlite; light-gray to black and brown, generally at base of perlite and rhyolite flows.
 - Tbr**
Monolithic breccia
Light- to dark-gray brecciated Bonanza King dolomite and dolomitized limestone interbedded with flows of rhyolite and layers of tuff breccia.
 - TV**
Rhyolite
Light-gray, pink to brown, fine-grained, weakly porphyritic rhyolite in flows, dikes, sills and plugs.
 - TVd**
Dacite
Buff, light-gray to pinkish-gray, porphyritic and non-porphyritic biotite dacite in flows and dikes.
 - Tcg**
Conglomerate
Well-consolidated, poorly-sorted conglomerates composed of well-rounded pebbles and cobbles of dacite, Stirling Quartzite and Precambrian gneiss.
 - Twt**
Welded tuff
Stony and glassy rhyolitic welded tuff, dark-gray to dark-brown in color and containing conspicuous white feldspar and glassy quartz crystals in a partly desiccated glassy groundmass.
 - TVp**
Tuff
Massive, poorly bedded tuff and tuff breccia consisting of angular and subangular, grayish-white pumice, brown andesite, dark-brown basalt and pink rhyolite fragments in moderately consolidated, gray volcanic ash matrix.
 - TI**
Lamprophyre
Dark-gray to dark greenish-gray porphyritic dikes in quartz monzonite, southern part of Greenwater Range.
 - Tqm**
Quartz monzonite
Medium-gray, moderately porphyritic, locally aplitic, quartz monzonite.
 - Cb**
Bonanza King Formation
Massive, dark-gray and light-gray dolomite and dolomitized limestone in beds ranging in thickness from a few inches to 10 feet.
 - Cc**
Carrara Formation
Red and green sandstone and shale, and buff limestone at base grading upward into buff limestone with thin interbeds of yellow-brown shale. Cambrian fossils in basal and upper beds.
 - Cz**
Zabriske Quartzite
Massive, fine- to medium-grained, light-gray to pinkish-gray, indistinctly cross-bedded at top; well-bedded, reddish-brown, shaly and locally conglomeratic quartzite below.
 - pC-Cw₃** **pC-Cw₂** **pC-Cw₁**
Wood Canyon Formation
Sandstone, shale, quartzite and minor carbonate rock and conglomerate.
pC-Cw₃ = upper unit; greenish-gray shale, brownish quartzite and dense, dark-gray sandy dolomite.
pC-Cw₂ = middle unit; reddish-brown, fine-grained quartzite and sandstone and greenish-gray micaceous shale.
pC-Cw₁ = lower unit; brownish-gray sandstone, shale, and quartzite.
 - pCs₃** **pCs₂** **pCs₁**
Stirling Quartzite
Quartzite, shaly quartzite and shale.
pCs₃ = upper unit; medium to coarse-grained, light-gray, and massive quartzite.
pCs₂ = middle unit; greenish-gray to red, locally micaceous, shaly quartzite.
pCs₁ = lower unit; light-gray, dense, fine- to coarse-grained, well-bedded quartzite.
 - pCj₃** **pCj₂** **pCj₁**
Johnnie Formation
Interbedded quartzite, dolomite and shale.
pCj₃ = upper unit; interbedded shale, quartzite, and dolomite.
pCj₂ = middle unit; gray to brown, massive quartzite, thin interbeds of tan to brown shale, and sandy dolomite.
pCj₁ = lower unit; interbedded reddish-brown, massive bedded and platy quartzite and sandy dolomite with interbeds of buff-colored calcic limestone.
 - pCd**
Noonday Dolomite
Massive, poorly bedded, light creamy-gray algal dolomite, locally gritty and conglomeratic.
 - pCgn**
Granite gneiss
Coarse-grained, foliated gneiss with porphyroblasts of pink microcline and black biotite.
- TERTIARY**
- CAMBRIAN**
- PRECAMBRIAN**