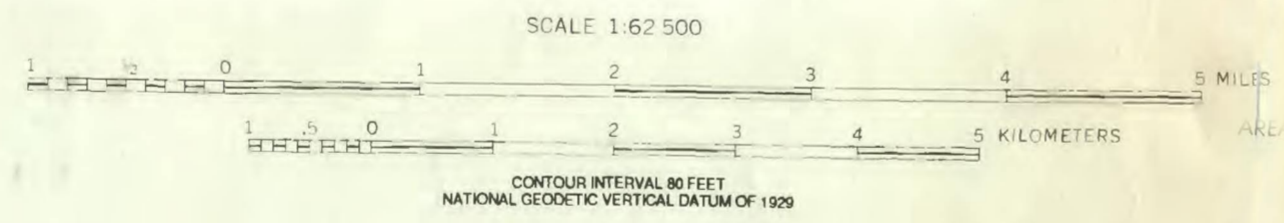


- DESCRIPTION OF MAP UNITS**
- Qa Alluvium (Quaternary)
  - Qp Playa deposits (Quaternary)
  - Qds Dune sand (Quaternary)
  - Qes Eolian sand (Quaternary)
  - Qt Talus (Quaternary)
  - Ql Landslide deposits (Quaternary)
  - Qf Fan deposits (Quaternary)
  - QTa Altered rock containing gypsum and native sulfur (Quaternary and (or) Tertiary)
  - QTc Chert conglomerate (Quaternary and (or) Tertiary)
  - QTg Gravel (Quaternary and (or) Tertiary)
  - Qg Gravel (Quaternary)
  - Qld Lake deposit (Pleistocene)
  - Tb Basalt flows (Pliocene)
  - Tbc Basalt cinder deposits (Pliocene)
  - Tih Intrusive basalt (Pliocene)
  - Tdf Dacite flows (Pliocene)
  - Td Diatreme (Pliocene)
  - Ts Sedimentary rocks (Tertiary)
  - Trf Rhyolite flows (Pliocene)
  - Tra Rhyolite ash flows (Pliocene)
  - Trt Rhyolite tuff and sedimentary deposits (Pliocene)
  - Tir Intrusive rhyolite (Pliocene)
  - Tg Gravel (Tertiary)
  - Tls Limestone
  - Tlc Limestone conglomerate and sandstone (Tertiary)
  - Tl Lacustrine deposits (Tertiary)
  - Mrs Rest Spring Shale (Mississippian)
  - Mp Perdido Formation (Mississippian)
  - Dib Lost Burro Formation (Devonian)
  - DShv Hidden Valley Formation (Devonian and Silurian)
  - Oes Ely Spring Dolomite (Ordovician)
  - Oe Eureka Quartzite (Ordovician)
  - Pogonip Group (Ordovician)
    - Opa Antelope Valley Limestone
    - Opl Lower Pogonip Group, undivided
    - En Nopah Formation (Late Cambrian)
    - end Dunderberg Shale Member
    - ebk Bonanza King Formation (Late and Middle Cambrian)
    - ec Carrara Formation (Middle Cambrian)
    - ez Zabriskie Quartzite (Middle and Early Cambrian)
    - ewc Wood Canyon Formation (Early Cambrian)
    - ewcl Limestone member
- Contact--Long dashes where approximately located, short dashes where inferred  
 Fault--Long dashes where approximately located, short dashes where inferred, dots where concealed. Ball and bar on downthrown side. Arrow indicates direction of dip  
 Thrust fault--Sawtooth on upper plate. Bar and sawtooth indicate overturned thrust, sawtooth in direction of dip  
 Low-angle normal fault--Hachures on upper plate  
 Strike and dip of bedding  
 Inclined  
 Overturned  
 Vertical  
 Strike and dip of flow layers in volcanic rocks  
 Fold axes showing trace of axial plane  
 Anticline--Arrows show direction of dip of limbs  
 Syncline--Arrows show direction of dip of limbs  
 Overturned anticline--Arrows show direction of dip of limbs  
 Minor anticline showing direction of plunge  
 Bearing and plunge of lineation  
 Fossil locality showing USGS fossil locality number  
 K-Ar age sample locality showing age  
 Prospect  
 Adit  
 Open-cut mine  
 Brecciated rock

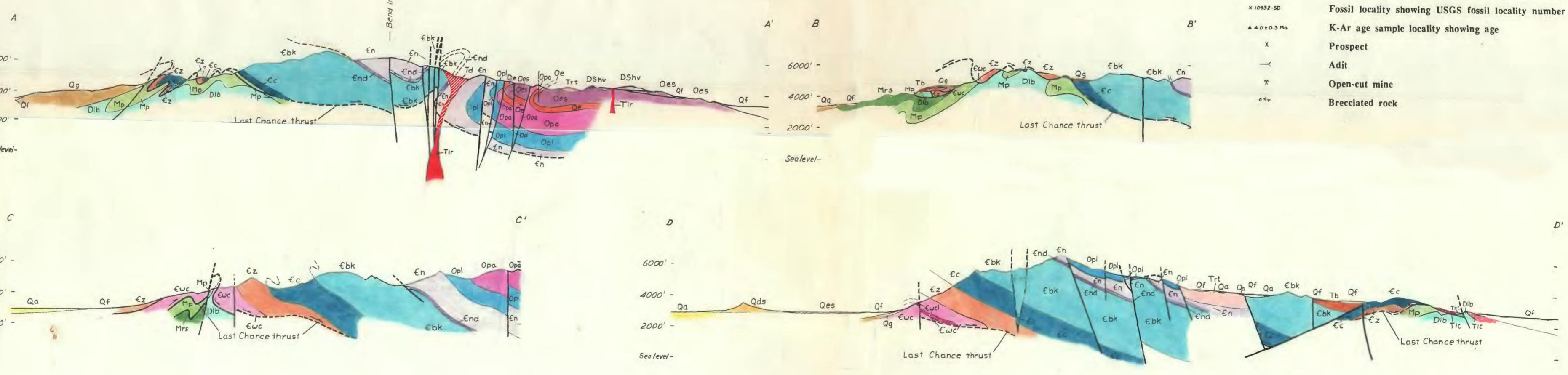
Base from U.S. Geological Survey, 1958. Polyconic projection.

TRUTH NORTH  
MAGNETIC NORTH  
APPROXIMATE MEAN DECLINATION, 1980



Geology by C.T. Wrucke 1981-1983, and K.P. Corbett 1986-1987. Additions by both authors 1988-1990

AREA OF MAP



**GEOLOGIC MAP OF THE LAST CHANCE QUADRANGLE, CALIFORNIA AND NEVADA**

BY  
CHESTER T. WRUCKE AND KEVIN P. CORBETT  
1990

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.