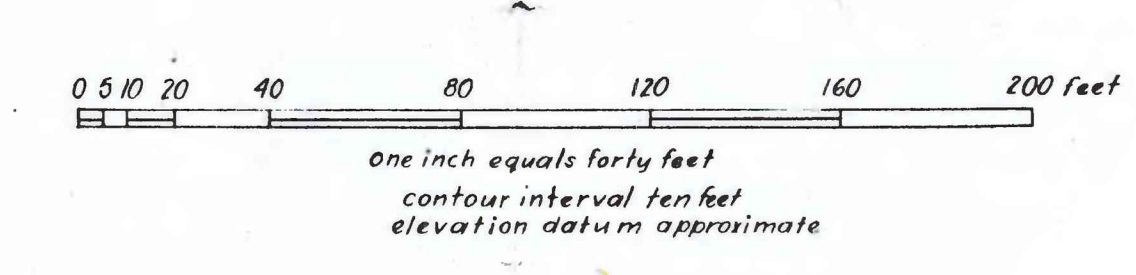


EXPLANATION

- Geologic contact, located
- - - Geologic contact, approximated
- Geologic contact, inferred
- 115 Located fault, showing dip
- Inferred fault
- Strike and dip of bed
- Strike and dip of principal cleavage (flow cleavage); vertical cleavage; angle of dip unknown
- Strike and dip of minor cleavage (fracture or shear cleavage)
- Strike and dip of joint
- Plunge of fold in cleavage
- Vertical shaft
- Inclined shaft; caved shaft shown as pit
- Open pit or trench
- Adit, Year indicates caved
- Building
- Sections shown on Plates 12, 13, 14, and 15

- Covered area**
includes tertiary gravels, placer mining debris, and mine dumps.
- Mafic dike**
- Yellow-brown gossan**
derived from micaceous with chalcocite, pyrite and sphalerite.
- Hematitic Jasper**
sericitized rock of uncertain derivation; contains micaceous quartz and <5% disseminated pyrite or red gossan.
- Quartz porphyry**
qpc - amygdaloidal, partly cleaved rock with subhedral quartz phenocrysts derived from quartz latite porphyry intrusives. qps - sericitized phase of qpc. qps - silicified sericitized phase of qpc. qbs - silicified quartz porphyry breccia.
- Grey felsite**
grey aphanitic rock, with feldspar phenocrysts, massive to well cleaved; in part intrusive.
- Meta-agglomerate and tuff**
green to light green, partly cleaved rock composed principally of quartz, epidote and feldspar; commonly contains fragments up to 2" long of mafic, mica, or mlt; derived from basaltic (?) pyroclastics.
- Meta-basalt (flows?)**
dark green, massive to well cleaved rock, composed principally of epidote, chlorite, and feldspar; commonly with chlorite amygdules and pillow structure; derived from basaltic lavas. mbs - sericitized phase of mbs.
- Meta-felsite agglomerate and tuff**
mlc - light green to white, poorly to well cleaved rock, composed principally of quartz fragments, feldspar, sericite and chlorite; includes small areas of green slate and grey felsite; derived from felsitic pyroclastics. mfr - sericitized phase of mlc. mfa - silicified-sericitized phase of mlc.



UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

GEOLOGIC MAP OF THE NUMBER 2 SHAFT AREA
PENN MINE
CALAVERAS COUNTY, CALIFORNIA

July-August 1949

Surveyed by T. W. Cox
and J. M. Eric