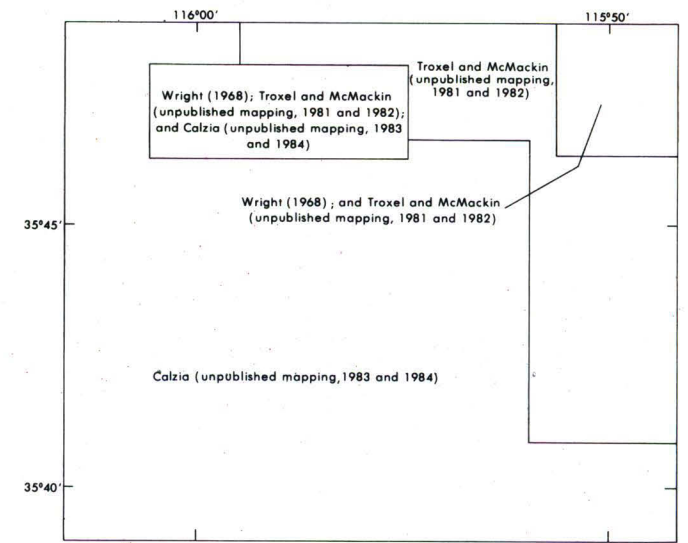
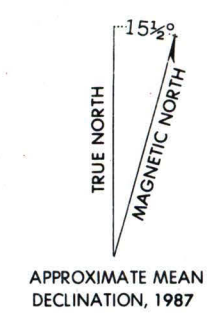
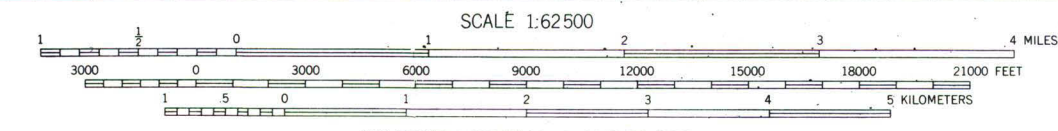


Base from U.S. Geological Survey 1:62,500:  
Tecopa, 1950; Kingston Peak, 1953; Silurian  
Hills, and Horse Thief Spring, 1956



**EXPLANATION**

- Area with high mineral resource potential--Commodities as shown
- Area with moderate mineral resource potential--Commodities as shown
- Area with low mineral resource potential--Commodities as shown

**LEVELS OF RESOURCE POTENTIAL**

H High mineral resource potential  
M Moderate mineral resource potential  
L Low mineral resource potential  
U Unknown mineral resource potential

**LEVELS OF CERTAINTY**

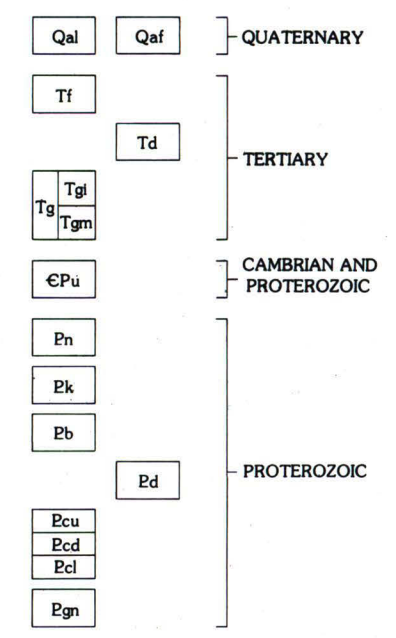
A Available data not adequate  
B Data indicate geologic environment, and suggest level of resource potential  
C Data indicate geologic environment, indicate resource potential, but do not establish activity of resource-forming processes  
D Data define geologic environment and level of resource potential and indicate activity of resource-forming processes in all or part of area

| LEVEL OF RESOURCE POTENTIAL | LEVEL OF CERTAINTY |                    |                    |   |
|-----------------------------|--------------------|--------------------|--------------------|---|
|                             | A                  | B                  | C                  | D |
| U/A                         | H/B                | H/C                | H/D                |   |
| UNKNOWN POTENTIAL           | HIGH POTENTIAL     | HIGH POTENTIAL     | HIGH POTENTIAL     |   |
|                             | M/B                | M/C                | M/D                |   |
|                             | MODERATE POTENTIAL | MODERATE POTENTIAL | MODERATE POTENTIAL |   |
|                             | L/B                | L/C                | L/D                |   |
|                             | LOW POTENTIAL      | LOW POTENTIAL      | LOW POTENTIAL      |   |
|                             |                    |                    | N/D                |   |
|                             |                    |                    | NO POTENTIAL       |   |

**COMMODITIES**

Ag Silver  
Cu Copper  
Fe Iron  
Pb Lead  
Talc

**CORRELATION OF MAP UNITS**



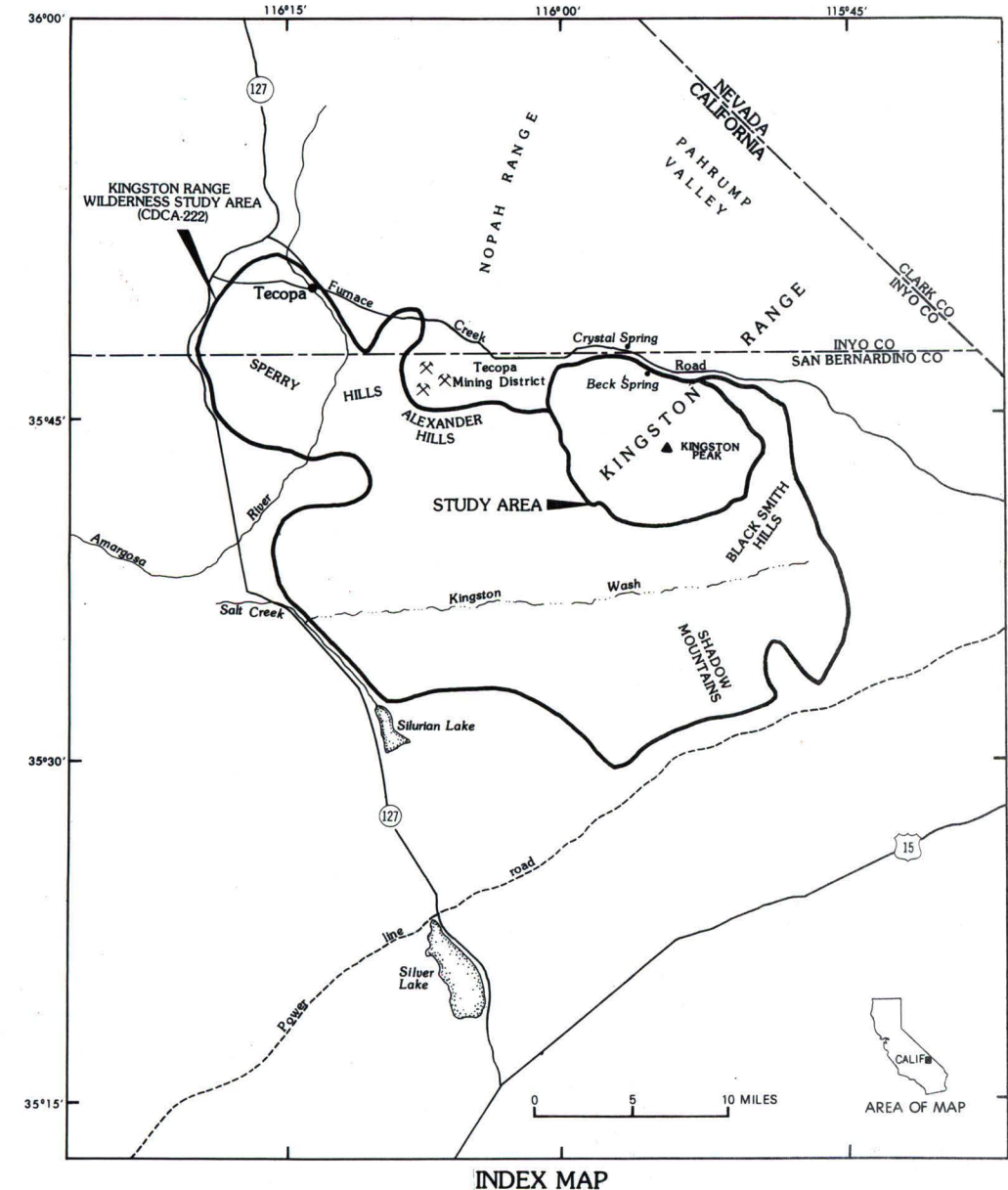
**MINES, PROSPECTS, AND CLAIMS IN AND ADJACENT TO THE KINGSTON RANGE WILDERNESS STUDY AREA**

- Rogers mine
- Tecopa mine
- American Olean mine
- Omega mine
- Crystal Spring mine
- Vulcan mine
- Sam Flake claims
- Booth mine
- Excelsior mine
- Pioneer mine
- Apex mine
- Snow White mine
- Horse Thief prospect
- Beck mine
- Silver Rule mine
- Chambers mine
- Blackwater mine
- Jupiter mine
- Moni mine
- Unnamed prospect
- Western Iron prospect
- Kame Plute claims
- Kame claims
- Amethyst prospect
- Villa de Oro prospect
- Rex prospect
- Kame By-Pass claims
- Unnamed prospect
- Moni prospect
- Unnamed prospect
- J Sun Up prospect
- Moni extension
- Unnamed prospect
- Unnamed prospect
- Unnamed prospect
- Unnamed prospect

**DESCRIPTION OF MAP UNITS**

- Qaf **Artificial fill (Holocene)**--Mine dumps and mill site associated with Beck mine
- Qal **Alluvium (Quaternary)**--Eolian, stream wash, plays, talus, and young subhorizontal fanlomerate deposits
- Tf **Fanglomerate (Tertiary)**--Rounded boulders of granite porphyry and older rocks in sandstone to siltstone matrix. Crude stratification expressed by sandy interbeds and alignment of boulders dips 20°-30° E
- Td **Dikes (Tertiary)**--Andesite(?), rhyolite porphyry, and aplite dikes
- Tg **Granite porphyry (Tertiary)**--Divided into:
- Tgm **Margin facies**--Medium-grained biotite-hornblende granite porphyry with feldspar phenocrysts. Biotite yields K-Ar date of 12.8 Ma (Armstrong, 1970)
- Tgi **Interior facies**--Fine-grained granite porphyry with quartz phenocrysts
- Cpu **Sedimentary rocks, undivided (Cambrian and Late Proterozoic)**--Early Cambrian Zabriskie Quartzite and Carrera Formation, Early Cambrian and Late Proterozoic Wood Canyon Formation, and Late Proterozoic Johnnie Formation and Stirling Quartzite
- En **Noonday Dolomite (Proterozoic)**--Pink stromatolitic dolomite
- Ek **Kingston Peak Formation (Proterozoic)**--Lower member of diamictite and siltstone; megabreccia member with large exotic clasts of dolomite, diabase, and gneiss; and upper member of conglomerate, sandstone, and siltstone
- Eb **Beck Spring Dolomite (Proterozoic)**--Gray, laminated, oolitic, and cherty dolomite
- Ed **Diabase (Proterozoic)**--Green, medium-grained diabase. Wrucke and Shride (1972) correlate diabase in the Death Valley region with 1,100-Ma diabase in Arizona
- Crystal Spring Formation (Proterozoic)**--Divided into:
- Ecu **Upper member**--Dolomite, siltstone, and arkose
- Ecd **Dolomite member**--Massive chert, stromatolitic dolomite, and quartzite. Includes alteration zones of talctremolite (tc) along intrusive contacts with diabase (Pd), and magnetite-hematite lenses (Fe)
- Ecl **Lower member**--Mudstone, feldspathic and arkosic sandstone, and conglomerate
- Egn **Gneiss (Proterozoic)**--Gneiss, schist, and granite

- 70 --- Contact--Dashed where approximately located; arrow shows direction of dip
- 55 ... Fault--Dotted where concealed; arrow shows direction of dip; bar and ball on downthrown side
- Thrust fault--Dotted where concealed; sawteeth on upper plate
- Strike and dip of beds**
- 35 Inclined
- Vertical
- 45 **Strike and dip of inclined foliation**
- Td Dike
- X18 Mine
- X4 Open pit mine
- X27 Prospect or mineral occurrence



MINERAL RESOURCE MAP OF THE KINGSTON RANGE WILDERNESS STUDY AREA, SAN BERNARDINO COUNTY, CALIFORNIA