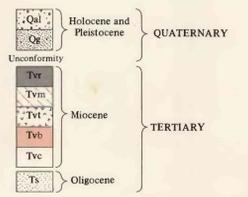
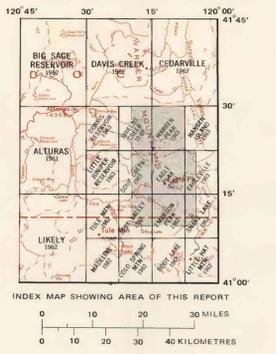


CORRELATION OF MAP UNITS

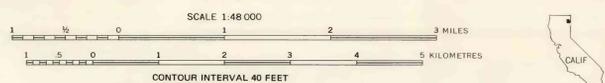


DESCRIPTION OF MAP UNITS

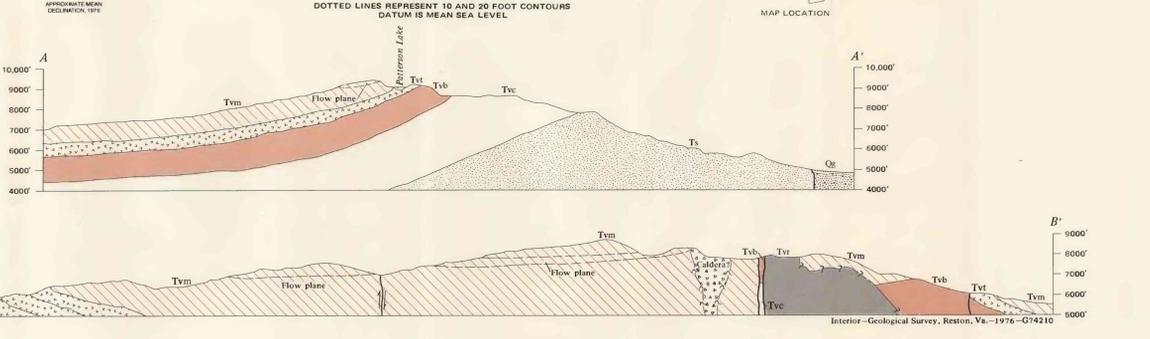
- Qal** ALLUVIUM
  - Qe** GRAVEL - Mostly stream delta and fan deposits
  - Tvm** VOLCANIC ROCKS - Includes: rhyolitic flows and plugs; mostly light-colored, flow-banded rocks with biotite phenocrysts and, locally, lithophysal texture
  - Tvt** MAFFIC LAVA FLOWS - Includes: basalt flows 10-20 feet thick, with scoriaeous tops and plagioclase, olivine, and pyroxene phenocrysts; and andesite flows up to 200 feet thick, massive to irregularly platy jointed with plagioclase and pyroxene phenocrysts
  - Tvb** TEPHERA - Mostly rhyolitic to andesitic, well-bedded deposits of pumice, scoria, lithic fragments, and ash. Graded and crossbedded locally. Contains interlayered basalt flows in southwest and southeast parts of map
  - Tvc** BASALT FLOWS - Olivine basalt flows, averaging 20 feet thick, that commonly have massive centers and vesicular tops and bottoms with zeolites in vesicles
  - Ts** COMPOSITE VOLCANIC UNIT - Generally consists of several andesite flows sandwiched between rhyolitic welded ash-flow tuff. Andesite flows range up to 400 feet thick and contain plagioclase, pyroxene, amphibole, and rarely biotite phenocrysts. Welded tuff contains common quartz, biotite, flattened pumice, and dark lithic fragments. Near south end of area andesite flows underlie lower tuff. At north end the unit includes andesitic to rhyolitic breccia and minor tephra
  - Sedimentary Rocks** - Includes: Chaotic unsorted, andesitic mudflow debris with silicified logs, well-bedded conglomerate and sandstone, and minor andesitic tuff
- Contact - Queried where poorly located  
 - - - Fault - Dashed where concealed  
 - - - Outcrop of sill - Queried where termination uncertain  
 --- Boundary of South Warner Wilderness  
 --- Strike and dip of beds  
 --- Strike and dip of dikes  
 --- Inclined  
 --- Vertical  
 A-A' Line of cross section  
 \* Inferred center of eroded cinder cone  
 \* Inferred center of eroded shield volcano  
 --- MAGNETIC CONTOURS - Showing total intensity of earth's magnetic field in gammas, relative to arbitrary datum. Hachured to indicate closed areas of lower magnetic intensity. Dashed where data are incomplete. Contour interval 20 gammas (and locally, 100 gammas)  
 x 3868 Location of measured maximum or minimum intensity within closed high or closed low  
 --- FLIGHT PATH - Showing location and spacing of data



Base from U.S. Geological Survey, 1:24,000  
Emerson Peak, Jess Valley, Snake Lake, 1962;  
Eagle Peak, Eagleville, Shields Creek,  
Soup Creek, Warren Peak, 1963



Geology by Wendell A. Duffield, 1973-74  
Aeromagnetic survey flown and compiled by the  
U.S. Geological Survey, 1970; Flight elevation, 10,000  
feet barometric pressure



GEOLOGIC AND AEROMAGNETIC MAP OF THE SOUTH WARNER WILDERNESS, MODOC COUNTY, CALIFORNIA