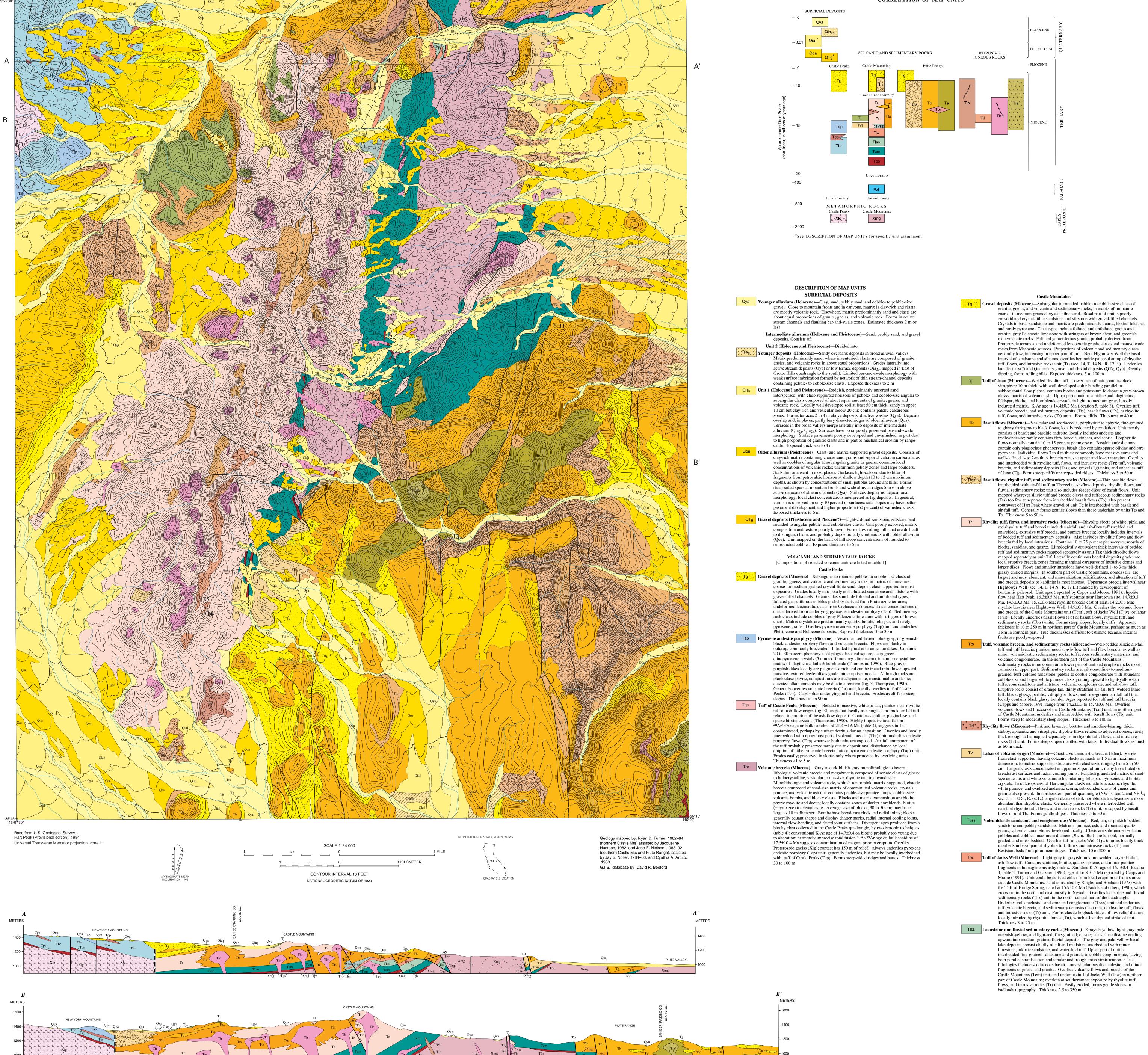
U.S. DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY





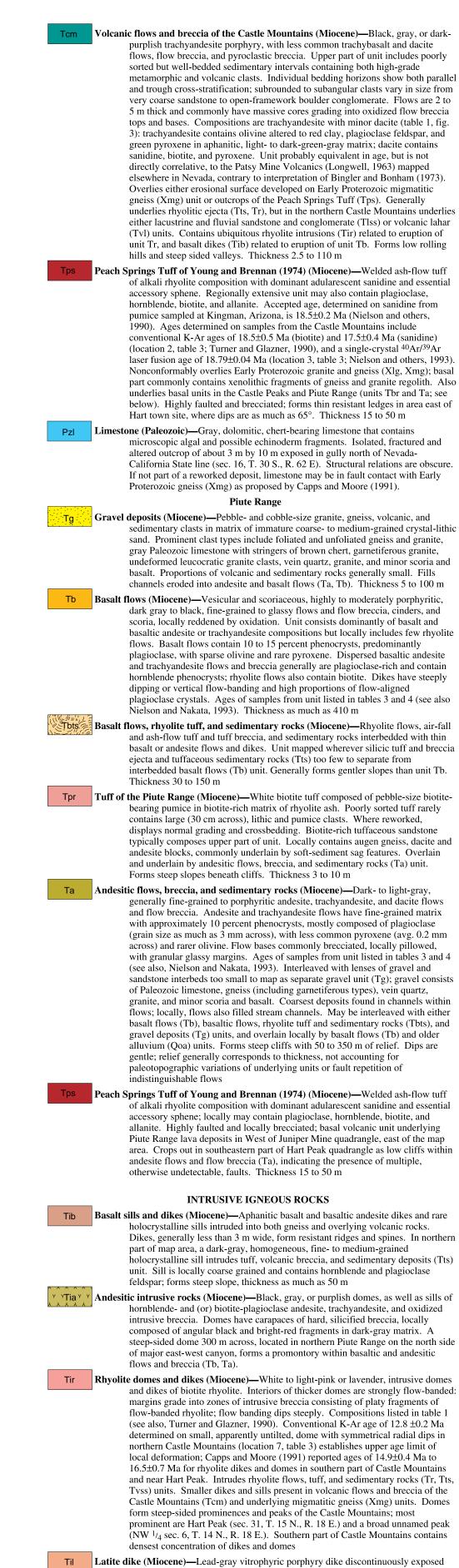
200 meters = 656 feet

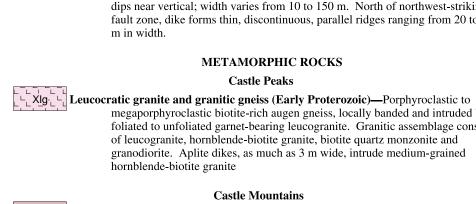
GEOLOGIC MAP OF THE HART PEAK 7.5 MINUTE QUADRANGLE, CALIFORNIA AND NEVADA: A DIGITAL DATABASE **Geology By** Jane E. Nielson and Ryan D. Turner

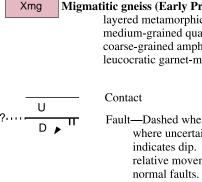
VERTICAL EXAGGERATION x 0.8

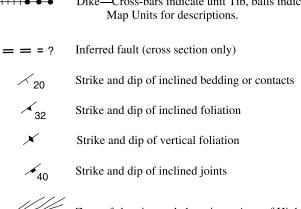
Digital Database By David R. Bedford

CORRELATION OF MAP UNITS









Zone of shearing and alteration—Area of Hightower Well \otimes **5** Dated sample locality—See figure 2 and Description of Map Units

for more than 4 km in southwest part of quadrangle; main continuous exposure 2.8 km long. Dark aphanitic matrix contains 10 to 20 percent phenocrysts; locally concentrated; composed of plagioclase, hornblende, biotite, and quartz. K-Ar ages (14, 15, table 3) of 14.3±0.4 and 14.1±0.4 Ma (biotite), and 14.6±0.5 Ma (plagioclase) compare favorably with those reported by Capps and Moore (1991: 14.5±0.5 and 15.1±0.4 Ma on biotite). Forms steep-sided ridges or spines within host unit of rhyolite tuff, flows, and intrusive rocks (Tr); contains banded chill zone at contact with oxidized tuff. Dike segments strike north-northeast; dips near vertical; width varies from 10 to 150 m. North of northwest-striking fault zone, dike forms thin, discontinuous, parallel ridges ranging from 20 to 50

megaporphyroclastic biotite-rich augen gneiss, locally banded and intruded by foliated to unfoliated garnet-bearing leucogranite. Granitic assemblage consists of leucogranite, hornblende-biotite granite, biotite quartz monzonite and granodiorite. Aplite dikes, as much as 3 m wide, intrude medium-grained

METAMORPHIC ROCKS

Castle Peaks

Castle Mountains

Xmg Migmatitic gneiss (Early Proterozoic)—Varicolored foliated and compositionally layered metamorphic rocks of amphibolite to granulite facies. Includes tan, medium-grained quartzofeldspathic gneiss; dark-gray to black, medium- to coarse-grained amphibolite; gray to brown quartz-mica schist and gneiss; and leucocratic garnet-mica gneiss and biotite-sillimanite gneiss

Fault-Dashed where approximately located, dotted where concealed; queried where uncertain. U, upthrown side; D, downthrown side. Arrow indicates dip. In cross section, half arrows indicate direction of relative movement. Cross-bars indicate direction of down-thrown side of ++++•• Dike—Cross-bars indicate unit Tib, balls indicate unit Tir. See Description of