Qoa+aya, R. 4 W. R. 3 W. BASE BY U.S. GEOLOGICAL SURVEY, 1967 SCALE 1:24000

GEOLOGIC MAP OF THE SUNNYMEAD QUADRANGLE, RIVERSIDE COUNTY, CALIFORNIA

CONTOUR INTERVAL 40 FEET

DOTTFD LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

UTM GRID AND 1967 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

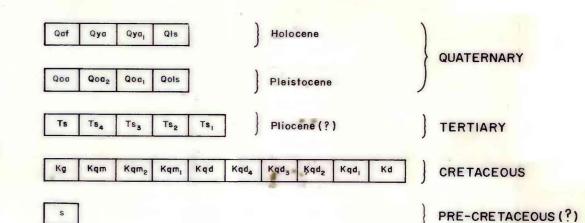
Douglas M. Morton

1978

QUADRANGLE LOCATION

EXPLANATION

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

af	ARTIFICIAL FILLCompacted road fill
ya	YOUNGER ALLUVIUM—Unconsolidated grayish sandy to cobbly alluviualong San Timoteo Canyon. Subject to reworking by stream flow-especially during periods of high runoff
ya ₁	YOUNGER ALLUVIUMUnconsolidated tannish to grayish sandy to
1	achly allowium

cobbly alluvium

LANDSLIDES—Areas mapped as landslides generally consist of a crown area and a landslide deposit of massive unconsolidated debris. Principal direction of movement shown by arrows

OLDER LANDSLIDES--Older landslide deposits with little remaining landslide morphology; consist of indurated massive debris

OLDER ALLUVIUM--Mainly indurated tannish to brown sandy to pebbly

OLDER ALLUVIUM--Perched patches of mainly unconsolidated to indurated brownish to grayish sandy to cobbly clay-bearing alluvium. Deposits in "The Badlands" generally contain less clay than in other such deposits

clay-bearing alluvium

OLDER ALLUVIUM--Perched patches of mainly indurated brown pebbly to cobbly clay-bearing alluvium containing quartzite, pegmatite, and Pelona Schist clasts

SANDSTONE AND CONGLOMERATE—Unconsolidated to indurated grayish and greenish poorly bedded coarse—grained sandstone and conglomeratic beds. Apparently derived from Ts₃ and Ts₁. May include some deposits of Pleistocene age

SANDSTONE AND CONGLOMERATE--Unconsolidated to indurated grayish, greenish-gray, and tannish poorly bedded coarse-grained sandstone, pebbly sandstone, and conglomerate. Locally contains beds of reddish-brown clay-bearing sandstone. May include some deposits of Pleistocene age

SANDSTONE AND CONGLOMERATE--Mainly well-indurated grayish conglomerate beds alternating with reddish-brown sandstone and siltstone beds. Common cliff former. Contains abundant cataclasite clasts

CONGLOMERATE--Consolidated light-gray poorly bedded conglomerate. Contains quartzite clasts not found in units Ts, Ts₄, Ts₃, and Ts₁

SANDSTONE AND CONGLOMERATE--Indurated gray to greenish-gray, well-bedded to poorly-bedded siltstone, sandstone, pebbly sandstone, and conglomerate. In part arkosic. Clasts are mainly leucocratic granitic rock and gneisses

g GRANITE--Coarse-grained to pegmatitic off-white biotite granite forming dikes

QUARTZ MONZONITE Light-colored coarse-grained porphyritic foliated biotite quartz monzonite. Phenocrysts are K-feldspar QUARTZ MONZONITE Heterogeneous light-colored porphyritic foliated biotite quartz monzonite. Contains widespread

mesocratic inclusions and leucocratic granitoid and pegmatoid textured dike and sill rock

QUARTZ MONZONITE Light-colored coarse-grained well-foliated biotite quartz monzonite

QUARTZ DIORITE Gray medium-grained massive biotite-hornblende quartz diorite

QUARTZ DIORITE--Gray coarse-grained foliated biotite-hornblende quartz diorite containing abundant platelike mesocratic inclusions

QUARTZ DIORITE--Relatively homogeneous gray foliated medium- to coarse-grained biotite-hornblende quartz diorite. Mainly lighter and contains fewer inclusions than Kqd₄

QUARTZ DIORITE—Heterogeneous gray massive to foliated medium— to coarse—grained biotite—hornblende quartz diorite and hornblende dioritic rock. Variable amounts of mesocratic inclusions. Rock west of Mount Russell commonly contains more than one foliation orientation

QUARTZ DIORITE--Gray mainly foliated coarse-grained biotitehornblende and hornblende quartz diorite. Common but variable amount of plate-like mesocratic inclusions

DIORITIC ROCK--Heterogeneous dark-gray massive to poorly foliated fine- to coarse-grained hornblende dioritic rock

SCHIST--Septa of well-foliated biotite- and sillimanite-biotite-bearing schist. East of Mount Russell locally tourmaline-rich schist

Symbols

Contact. Solid where accurately located; dashed where approximately located

Fault showing dip. Solid where accurately located; dashed where approximately located; dotted where concealed

Fault consisting of thin shear zone, showing dip

Strike and dip of bedding in sedimentary rocks

Horizontal

Inclined

Strike and dip of foliation in plutonic rocks

Horizontal

Inclined

Vertical

Strike and dip of foliation in metamorphic rocks

Strike and dip of foliation in metamorphic room
Inclined

Vertical
Lineation

Direction of landslide movement

Closed depression

Landslide scarp. Hachures on downdropped side