CENOZOIC

QUATERNARY

Holocene

WEST SIDE SACRAMENTO VALLEY

Qa-NATURAL LEVEE AND CHANNEL DEPOSITS
Qb-BASIN DEPOSITS

INTERTIDAL DEPOSITS
Soft mud and peat deposited in marshes, swamps, and adjacent waterways.

SACRAMENTO VALLEY

Qa-NATURAL-LEVEE AND CHANNEL DEPOSITS
Qb-BASIN DEPOSITS

ALLUVIUM
Poorly sorted stream and basin deposits; clay to boulder size.

INTERTIDAL DEPOSITS
Soft mud and peaty mud in marshes, swamps, and waterways.

DREDGE AND MINE TAILINGS

DUNE SAND

SIERRA FOOTHILLS (WEST OF MELONES FAULT)

DREDGE AND MINE TAILINGS

SIERRA NEVADA (EAST OF MELONES FAULT)

DREDGE AND MINE TAILINGS

Pleistocene

ALLUVIUM
Poorly sorted stream and basin deposits; clay to boulder size.

OLDER ALLUVIUM
Dissected alluvial deposits.

MONTEZUMA FORMATION
Poorly stratified, slightly consolidated, clayey sand, pebbly sand-locally contains calcareous lenses.

MODESTO-RIVERBANK FORMATIONS UNDIFFERENTIATED
Alluvial deposits.

RED BLUFF FORMATION
Poorly sorted gravel in reddish silty or sandy matrix.

Qmr-MODESTO-RIVERBANK FORMATIONS UNDIFFERENTIATED (Marchand and Allwardt, 1979)
Arkosic alluvium.

Qm-MODESTO FORMATION
Qm_2-Upper member
Qm_1-Lower member

Qr-RIVERBANK FORMATION

TURLOCK LAKE FORMATION
Partially consolidated sand, silt, and gravel derived mainly from Sierran granitic and metamorphic rocks.

NORTH MERCED GRAVEL
Thin pediment veneer.

ALLUVIUM

LAKE DEPOSITS
(In vicinity of Lake Tahoe.)

BASALT
(Mainly in the Robbs Peak quadrangle.)

GLACIAL MORAINE DEPOSITS

TERTIARY

Pliocene

TEHAMA FORMATION
Sand, silt, and volcaniclastic rocks.

LAWLOR TUFF
Angular fragments of pumice in a pumiceous matrix.

LAGUNA FORMATION
Consolidated alluvial gravel, sand, and silt composed of granitic, metamorphic, and some volcanic detritus.

DACITE AND RHYODACITE DOMES
(In vicinity of Jackson.)

Miocene

SAN PABLO GROUP
(CIERBO AND NEROLY FORMATIONS)
Fossiliferous sandstone and shale. Marine.

PUTNAM PEAK BASALT
Augite basalt near Vacaville
[Correlated with Lovejoy Basalt; age is uncertain, see Durrell (1959) and Gromme (1963).]

MEHRTEN FORMATION
Mainly volcanic conglomerate and tuffaceous sandstone and siltstone derived from andesitic sources; some andesite mudflow breccia (lahar).

MEHRTEN FORMATION
Andesitic conglomerate, tuffaceous sandstone, and mudflow breccia (lahar); some tuff and rhyolite.

Ttm-TABLE MTN. LATITE
Prominent flows of dark latite characterized by abundant labradorite phenocrysts.

MEHRTEN FORMATION
Andesitic mudflow breccia, gravel, sand, basalt; some tuff and rhyolite.

Tet-EUREKA VALLEY TUFF

Ttm-TABLE MTN. LATITE (Includes Dardanelles Formation.)

Oligocene

VALLEY SPRINGS FORMATION
Rhyolitic tuff, sandstone, siltstone, claystone, and conglomerate.

Eocene

MARKLEY SANDSTONE
Massive brownish-gray feldspathic, micaceous sandstone. Marine.

NORTONVILLE SHALE
Dark brown, silty, shale; interbedded sandstone. Marine.

DOMENGINE SANDSTONE
Quartzose sandstone; basal glauconitic grit. Marine.

CAPAY FORMATION
Feldspathic sandstone with conglomerate interbeds; some shale. Marine.

IONE FORMATION
Quartzose sandstone interbedded with kaolinitic clay.

"AURIFEROUS GRAVEL"
River channel and bench gravel; pebbles, cobbles, and boulders of basement (pre-Tertiary) rock types, in places predominantly quartzose. Mostly Eocene, but may include younger and older deposits.

Paleocene

MARTINEZ FORMATION
Quartzose sandstone; some conglomerate and shale interbeds. Marine.

CRETACEOUS

GUINDA FORMATION OF KIRBY, 1943
Massive sandstone with calcareous concretions; interbedded shale. Marine.

CHICO FORMATION
Sandstone, shale, siltstone and conglomerate. Marine.

MESOZOIC GRANITIC ROCKS
Predominantly granite to granodiorite.

MESOZOIC DIORITIC ROCKS
Quartz diorite, diorite and trondhjemite (Rocklin Pluton).

MESOZOIC GRANITIC ROCKS
Predominantly granite to granodiorite.

MESOZOIC DIORITIC ROCKS
Quartz diorite, and diorite.

GABBROIC ROCKS
Locally includes ultramafic rocks; includes norite in Fallen Leaf Lake quadrangle.

ULTRAMAFIC ROCKS
Peridotite, pyroxenite, hornblendite, grades into gabbroic rock; locally serpentinized; includes talc schist in the San Andreas quadrangle.

MESOZOIC

JURASSIC

WESTERN BELT

COPPER HILL VOLCANICS
Metamorphosed mafic pyroclastic rocks, pillow lava with minor felsic porphyrite.

SALT SPRINGS SLATE
Mainly dark gray slate; some mica schist.

GOPHER RIDGE VOLCANICS
Metamorphosed mafic to felsic pyroclastic rocks; massive flows with some pillow structure.

ULTRAMAFIC ROCKS
Partly to completely serpentinized; locally includes gabbroic rocks.

OPHIOLITIC TERRANE

This belt consists of two separate ophiolites. The late Jurassic Smartville ophiolite extends southward from the Chico Sheet; the Bear Mountains ophiolite occurs along the Consumnes River—its full extent as well as its relationship to the Smartville ophiolite are unknown.

Bear Mountains Fault Zone—South of Consumnes River

ms-METASEDIMENTARY ROCKS
Slate, quartzite, chert, carbonate rock.

mv-METAVOLCANIC ROCKS
Mafic to felsic; minor sedimentary rocks.

gb-GABBROIC AND HYPABYSSAL INTRUSIVE ROCKS.

um-ULTRAMAFIC ROCKS
Partly to completely serpentinized ultramafic rocks; locally includes gabbroic and plagiogranitic rocks.

Unnamed Fault—Bear Mountains Fault Zone—North of Consumnes River

MELANGE BELT

Belt of chaotically intermixed rocks.

GABBRO TO PORPHYRITIC GREENSTONE*

ULTRAMAFIC ROCKS*
Partly to completely serpentinized; locally includes gabbroic and plagiogranitic rocks.

METAVOLCANIC ROCKS*
Mafic pyroclastic and flow rocks.

CRYSTALLINE LIMESTONE* AND DOLOMITE
May be Mesozoic in part.

METASEDIMENTARY ROCKS*
Slate, graywacke, conglomerate, pebbly mudstone, some pyroclastic rocks, quartzite, chert; includes Western Belt of Calaveras Formation.

*Horizontal line pattern denotes melange terrane.

Unnamed Fault

MOTHER LODE BELT

MARIPOSA FORMATION
Slate, metagraywacke, and metaconglomerate.

Jmb-BROWER CREEK VOLCANIC MEMBER
Mafic flows and pyroclastic rocks.

LOGTOWN RIDGE FORMATION
Metamorphosed mafic breccias, flows, pyroclastic and volcaniclastic rocks; locally grades into Brower Creek volcanic rocks (Jmb).

METAMORPHIC ROCKS OF UNKNOWN AGE
Mainly greenschist.

Melones Fault Zone

JURASSIC METAVOLCANIC ROCKS
Andesitic to basaltic pyroclastic rocks; some flow rocks.

SAILOR CANYON FORMATION
Metasedimentary rocks; may be pre-Jurassic in part.

PALEOZOIC

CALAVERAS COMPLEX
(Schweickert and others, 1977)

Pzcc-Chert, argillite, slate.

Pzcv-Andesite, tuff, breccia, basalt flows.

ls-Crystalline limestone and dolomite.

PALEOZOIC(?) METASEDIMENTARY ROCKS UNDIFFERENTIATED
Quartzite, pelitic schist, minor crystaline limestone and dolomite.

Pzg?- AUGEN GNEISS OF UNCERTAIN AGE

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