

STRUCTURE SECTIONS

CALIFORNIA
CONCORD QUADRANGLE

U.S. GEOLOGICAL SURVEY
GEORGE OTIS SMITH, DIRECTOR

LEGEND

LEGEND

SEDIMENTARY ROCKS
(continued)

SHEET SECTION
SYMBOL SYMBOL

UNCONFORMITY

Tj

Tejon formation
(hard ferruginous sandstone
with beds of shale and
lenses of conglomerate
at base)

UNCONFORMITY

Tmz

Martinez formation
(sandstone in pure glass-
conglomerate shale and some
conglomerate)

UNCONFORMITY

Kc

Chico formation with Oakland
conglomerate member at base
(massive yellowish sand-
stone and clay shale with
conglomerate member at base)

UNCONFORMITY

Kk

Knnoxville shale
(carbonaceous and
arenaceous)

UNCONFORMITY

Jfm

Metamorphic schist
(sedimentary and igneous
rocks altered by contact
metamorphism chiefly to
diagenetic schist)

UNCONFORMITY

Jf

Undifferentiated sandstones of
Franciscan group with radiolarian
chert lentils of undetermined
horizons, Jf

UNCONFORMITY

Tin

Leona rhyolite
(lava flows of undeter-
mined age)

UNCONFORMITY

Jsp

Serpentinized peridotite with
associated gabbro and pyroxenite
(serpentine in part altered
to an aggregate of silica
and various carbonates)

UNCONFORMITY

Jb

Basalt and diabase
(commonly show spheroidal
or ellipsoidal structures)

UNCONFORMITY

Faults

Concealed faults
(covered by younger
deposits)

T

indicates overthrust slide of
thrust faults

°

Strike and dip of stratified rocks

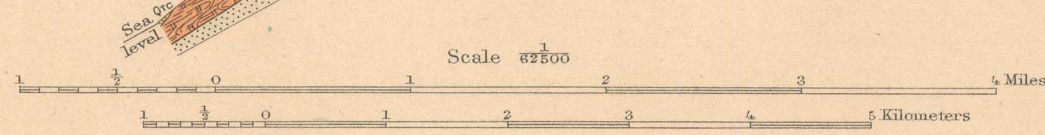
Strikes of vertical strata

- SEDIMENTARY ROCKS
- SHEET SECTION SYMBOL SYMBOL
- Salt marsh deposits (clay and silt)
- Qt
- Travertine (oolitic spring deposits)
- Qtc
- Qta
- Temescal formation (alluvium)
- UNCONFORMITY
- Qm
- Merritt sand (marine sand)
- UNCONFORMITY
- Qsac
- San Antonio formation with chert gravel member Qsac (coarse chert gravel; the lower part of the matrix Qsac contains angular chert fragments)
- Qa
- Alameda formation (yellow marine clay with some interstratified fluviatile gravels)
- UNCONFORMITY
- Qc
- Campus formation (fresh-water clay, lime stone, conglomerate, buff argillaceous sandstone and basalt flows)
- UNCONFORMITY
- Tbp
- Bald Peak basalt (lava flows with lentils of fresh-water limestone; some dikes are included in mapping)
- Tst
- Siesta formation (fresh-water conglomerate, clay, sandstone, chert, limestone, lignite, and tuff)
- UNCONFORMITY
- Tm
- Moraga formation (andesite and basalt flows with rhyolite and basalt tuffs, lentils of gravel, clay, and limestone; base of conglomerate, Tmc, near base)
- Tml
- Fresh-water limestone lentils at various horizons in the Moraga and Siesta formations (only the larger bodies shown)
- UNCONFORMITY?
- Tor
- Orinda formation (sandstone, tuff, probably sandstone, clay, limestone, and thin layers of tuff)
- Tp
- Pinole tuff (pyroclastic tuff probably andesite, deposited in fresh water)
- UNCONFORMITY
- Tsp
- San Pablo formation (coarse gray to blue sandstone with sandstone, tuffaceous material)
- UNCONFORMITY
- Thl
- Briones sandstone with Hercules shale member, Thl (light-colored coarse to finely granular sandstone with thin shales; thin hard sandstone and lentils of ferruginous limestone)
- Tr
- Rodeo shale (shaly bituminous shale, stained by iron, with some chert beds)
- Th
- Hambre sandstone (medium-textured, slightly ferruginous sandstone, with some chert beds)
- Tt
- Tice shale (white to pink bituminous shale, prevalently cherty)
- To
- Oursan sandstone (fine-grained, light-colored sandstone)
- Tc
- Claremont shale (white shaly bituminous shale and yellowish chert fragments; near base with thin shales; thin hard sandstone and lentils of ferruginous limestone)
- Ts
- Sobrante sandstone (light-colored soft sandstone with shaly bituminous beds; includes layers of white porous tuff, Tst, near base)



Henry Gannett, Chief Topographer.
R. U. Goode, Geographer in charge.
Triangulation by U.S. Coast and Geodetic Survey.
Topography by W.D. Johnson and W.H. Otis.
Surveyed in 1893-94.

APPROXIMATE MEAN
REGLATION 1913



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Geology by Andrew C. Lawson
and John C. Merriam, assisted
at various times by students
of the University of California.
Surveyed in 1894, 1896, 1905, and 1911.

Legend is continued
on the left margin.