DIVISION OF MINES
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PLATE I.

GEOLOGIC MAP OF LAS FLORES AND DRY CANYON QUADRANGLES AND WESTERN PART OF TOPANGA CANYON QUADRANGLE SANTA MONICA MOUNTAINS, CALIF.

GEOLOGY BY E. K. SOPER 1937.

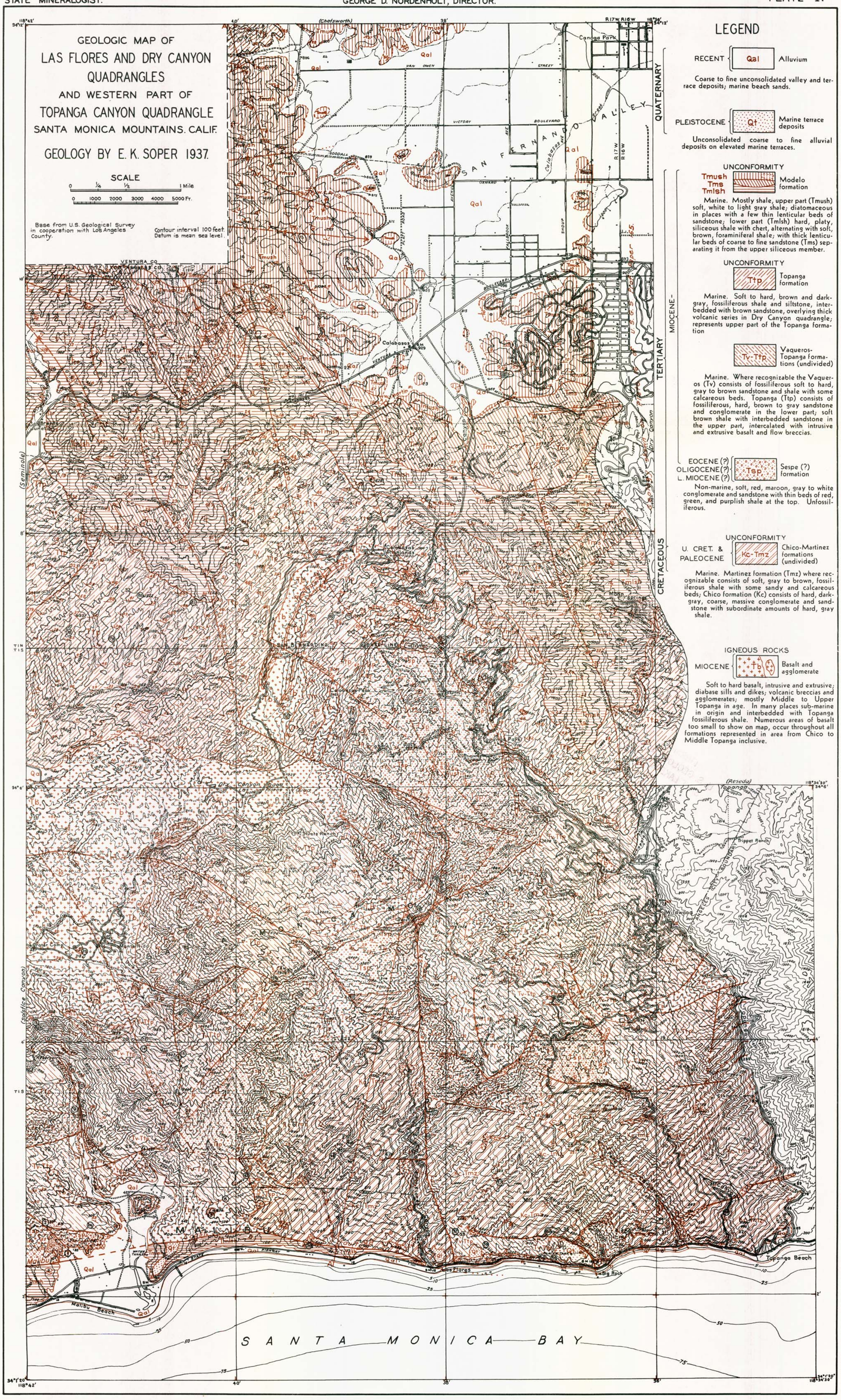
SCALE

0 ¼ ½ 1 Mile

0 1000 2000 3000 4000 5000 Ft.

Base from U.S. Geological Survey in cooperation with Los Angeles County.

Contour interval 100 feet. Datum is mean sea level.



LEGEND

QUATERNARY

RECENT — Qal — Alluvium

Coarse to fine unconsolidated valley and terrace deposits; marine beach sands.

PLEISTOCENE — Qt — Marine terrace deposits

Unconsolidated coarse to fine alluvial deposits on elevated marine terraces.

TERTIARY — MIOCENE

UNCONFORMITY

Tmush, Tms, Tmlsh — Modelo formation

Marine. Mostly shale, upper part (Tmush) soft, white to light gray shale; diatomaceous in places with a few thin lenticular beds of sandstone; lower part (Tmlsh) hard, platy, siliceous shale with chert, alternating with soft, brown, foraminiferal shale; with thick lenticular beds of coarse to fine sandstone (Tms) separating it from the upper siliceous member.

UNCONFORMITY

Ttp — Topanga formation

Marine. Soft to hard, brown and dark-gray, fossiliferous shale and siltstone, interbedded with brown sandstone, overlying thick volcanic series in Dry Canyon quadrangle; represents upper part of the Topanga formation

Tv-Ttp — Vaqueros-Topanga formations (undivided)

Marine. Where recognizable the Vaqueros (Tv) consists of fossiliferous soft to hard, gray to brown sandstone and shale with some calcareous beds. Topanga (Ttp) consists of fossiliferous, hard, brown to gray sandstone and conglomerate in the lower part; soft brown shale with interbedded sandstone in the upper part, intercalated with intrusive and extrusive basalt and flow breccias.

EOCENE (?), OLIGOCENE (?), L. MIOCENE (?) — Tsp — Sespe (?) formation

Non-marine, soft, red, maroon, gray to white conglomerate and sandstone with thin beds of red, green, and purplish shale at the top. Unfossiliferous.

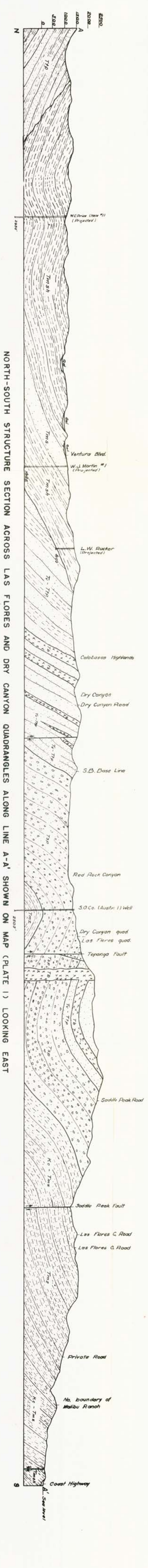
CRETACEOUS

UNCONFORMITY

U. CRET. & PALEOCENE — Kc-Tmz — Chico-Martinez formations (undivided)

Marine. Martinez formation (Tmz) where recognizable consists of soft, gray to brown, fossiliferous shale with some sandy and calcareous beds; Chico formation (Kc) consists of hard, dark-gray, coarse, massive conglomerate and sandstone with subordinate amounts of hard, gray shale.

IGNEOUS ROCKS

MIOCENE — Tb — Basalt and agglomerate

Soft to hard basalt, intrusive and extrusive; diabase sills and dikes; volcanic breccias and agglomerates; mostly Middle to Upper Topanga in age. In many places sub-marine in origin and interbedded with Topanga fossiliferous shale. Numerous areas of basalt too small to show on map, occur throughout all formations represented in area from Chico to Middle Topanga inclusive.