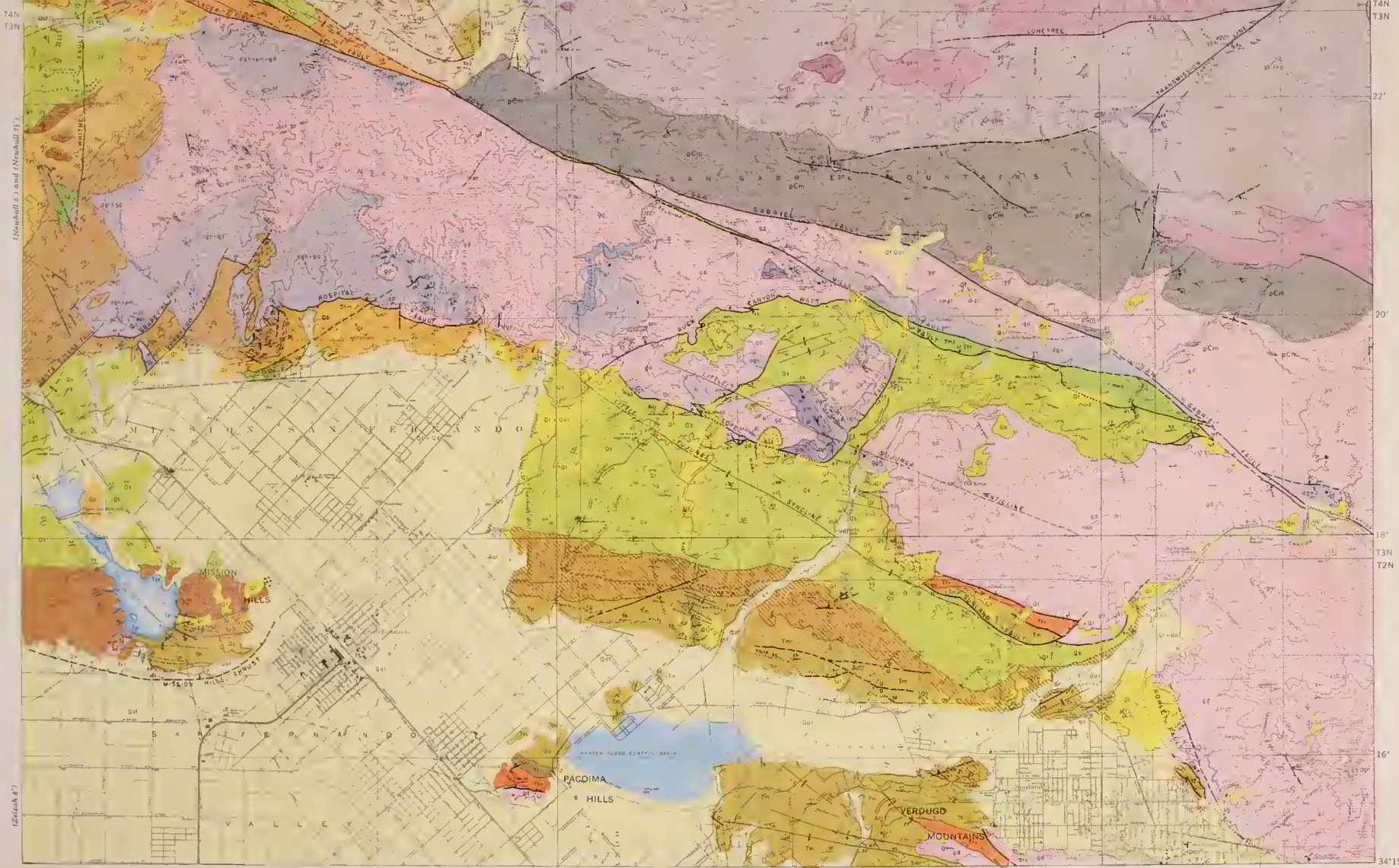


LEGEND

SEDIMENTARY AND VOLCANIC ROCKS		INTRUSIVE AND METAMORPHIC ROCKS	
RECENT	Qal	gfp	QUATERNARY
	Alluvium	gr	
	Qls	gr*	
UPPER	Landslide	gd	UPPER JURASSIC (?) OR LOWER CRETACEOUS (?)
	Qt	gr*	
	Terrace deposits (fanglomerate and terrace gravels)	gd	
PLEISTOCENE	UNCONFORMITY	gr*	UPPER JURASSIC (?) OR LOWER CRETACEOUS (?)
	Qp	gd	
	Pacoima formation (dark brown breccia and fanglomerate, locally folded)	gr*	
MIDDLE	MAJOR UNCONFORMITY	sy	UPPER JURASSIC (?) OR LOWER CRETACEOUS (?)
	Qs	sy*	
	Saugus formation (continental light-colored conglomerate and sandstone)	sy*	
LOWER	LOCAL UNCONFORMITY	hd	UPPER JURASSIC (?) OR LOWER CRETACEOUS (?)
	Tsr	hd	
	Sunshine Ranch member (continental and brackish-water greenish sandstone, mudstone, conglomerate, red beds and thin limestone beds (ls))	hd	
UPPER	Pico formation	dgn	PRE-CRETACEOUS
		Tpu	
		Upper Pico member (marine sandstone and mudstone, conglomerate; fossiliferous)	
MIDDLE	Pico formation	pm	PRE-CRETACEOUS
		Tpl	
		Lower Pico member (marine conglomerate, sandstone, siltstone, fossiliferous calcareous sandstone)	
LOWER	Repetto formation	ps	PRE-CRETACEOUS
		Tr	
		Repetto formation (undifferentiated) (marine siltstone and mudstone, arkose, sandstone and conglomerate)	
UPPER	Repetto formation	an + gr	TERTIARY
		Te	
		Elsmere member † (marine fossiliferous coarse sandstone and conglomerate, often petrolierous; interbedded sandstone and siltstone)	
UPPER	UNCONFORMITY	an + gr	TERTIARY
		Tm	
		Modelo formation (marine arkose, conglomerate, sandstone, silicious and diatomaceous shale)	
UPPER	UNCONFORMITY	gb / gbm	PRE-CAMBRIAN
		Tmc	
		Gabbroic and noritic rocks* (altered rocks bordering anorthosite, ilmenite-magnetite gabbro (gbm), includes massive ilmenite-magnetite)	

San Gabriel Mountains (Newhall 21)



Base from U. S. Geological Survey 6" 1:24,000 topographic maps.

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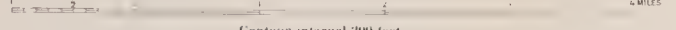
Geology surveyed 1933-35, 39-41, -45-52

118°15'

GEOLOGIC MAP OF THE SAN FERNANDO QUADRANGLE, CALIFORNIA

By Gordon B. Oakeshott

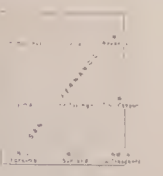
SCALE 1:62,500



Contour interval 200 feet

Contours from 1:24,000 maps

1958



NOTE: 1. 1930 and 1940 geologies in the 1:24,000 6" maps are 1:24,000 geologies.

<p>LC</p> <p>UPPER</p> <p>MIOCENE</p> <p>MIDDLE TO LOWER</p> <p>MIDDLE TO LOWER</p> <p>LOWER MIOCENE</p> <p>OLIGOCENE</p> <p>PALEOCENE</p> <p>EOCENE</p>	<p>Repetto</p> <p>Elmire member † (marine fossiliferous coarse sandstone and conglomerate, often petrolierous, interbedded sandstone and siltstone)</p>	<p>an / an +gr</p> <p>Anorthosite * (medium to very coarse-grained, largely basic andesite. Anorthosite and granite (an+gr))</p>
	<p>Tm</p> <p>Modelo formation (marine arkose, conglomerate, sandstone, siltstone and diatomaceous shale)</p>	<p>gb / gbm</p> <p>Gabbroic and noritic rocks * (altered rocks bordering anorthosite. Ilmenite-magnetite gabbro (gbm), includes massive ilmenite-magnetite)</p>
	<p>Tmc</p> <p>Mint Canyon formation * (continental sandstone and conglomerate, mudstone, claystone, tuff, lake beds)</p>	<p>pCm</p> <p>Mendenhall gneiss, * (blue quartz-plagioclase gneisses with variable amounts of ferromagnesian minerals)</p>
	<p>Ttc</p> <p>Tick Canyon formation * (continental sandstone and conglomerate, siltstone, claystone, lake beds)</p>	<p>SYMBOLS</p>
	<p>Tt / Tv</p> <p>Topanga (?) formation † (continental arkose, conglomerate, red and yellow beds. Interbedded andesite and basalt flows (Ttv))</p>	<p>Well defined</p> <p>Inferred</p> <p>Alluvium and terrace</p>
	<p>Tv / Tv</p> <p>Vasquez formation * (continental red beds, sandstone and conglomerate, green and yellow sandstone. Interbedded volcanics (Ttv))</p>	<p>Well defined</p> <p>Inferred</p> <p>Concealed</p>
	<p>Td</p> <p>Domengine formation † (marine gray to greenish hard calcareous sandstone and conglomerate)</p>	<p>Anticline</p> <p>Syncline</p>
	<p>Tmz</p> <p>Martinez formation † (marine greenish-black sandstone, dark shale, coarse conglomerate)</p>	<p>Strike and dip</p> <p>Vertical</p> <p>Horizontal</p>
		<p>Foliation</p> <p>Vertical foliation</p>
		<p>Conglomerate bed</p> <p>Tuff bed</p> <p>Limestone bed</p>

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2

Geology in part after

1 Hill, 1930

2. Jahns 1940

1