

EXPLANATION

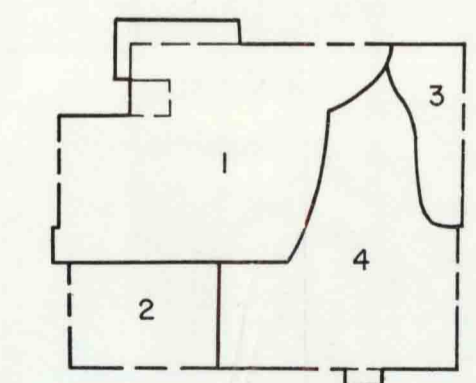
Pleistocene and Recent	Qld Lake and dune deposits (Mostly lake deposits in hachure-enclosed area in Estancia Valley and Encino basin. On east side of playas in Estancia Valley and Encino basin, dune sand. Older rock along the margins.)	QTVf Valley fill (Valley fill in Estancia Valley and Pinos Wells basin. Pediment gravels south of Abo. Stream gravels northwest of Abo. Santa Fe group west of the Manzano Mountains)	TERTIARY AND QUATERNARY
	QTU Upland surficial deposits (Mostly upland gravels, in part Ogallala formation. Many exposures not mapped.)		
Miocene (f)	Tii Later Tertiary intrusive rocks (Mostly dikes and sills.)		TERTIARY
	Tei Early Tertiary intrusive rocks (Mostly dikes and sills.)		
Eocene and Oligocene (f)	Rd Dockum group (Mostly gray and tan conglomeratic sandstone, red shale, and some limestone conglomerate.)		TERTIARY
	Ps Upper clastic member and limestone member (Upper clastic member and limestone member in the northeastern part of the county. Limestone member in the southern and western part of the county.)		
Upper Triassic	Psg Glorieta sandstone member (White to yellow sandstone, usually well cemented.)		PERMIAN
	Py Yeso formation (Mostly red and some yellow sandstone, gypsum, and some red siltstone and gray limestone.)		
San Andres formation	Pa Abo formation (Dark-red shale, dark-red sandstone and arkose conglomerate. Includes Bursus formation at base in southwestern part of county.)		PERMIAN
	Pma Arkosic limestone member (Alternating red or brown arkosic sandstone, arkosic limestone, gray limestone, and shale.)		
Madera limestone	Pm Lower gray limestone member (Gray cherty limestone, calcareous shale.)		PERMIAN
	Ppsu Upper clastic member		
Sandia formation	Pc Igneous and metamorphic rocks (Igneous and metamorphic rocks in northern Manzano Mountains. Metamorphic rocks, mostly quartzite, in the southern Manzano Mountains. Mostly quartzite and some igneous and other metamorphic rocks in Pedernal Hills area. Quartzite in Cerro del Lobo. Granite gneiss and other metamorphic rocks in southeastern part of county.)		PERMIAN

--- Contact line between rock units
(Long dashes where approximate; short dashes where concealed.)

--- Approximate position of ancient lake shoreline
(Estancia Valley and Encino basin.)

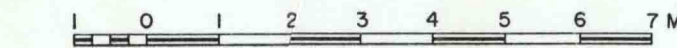
--- 200 ---
Lines of equal thickness of valley fill in Estancia Valley
(100-foot interval. Dashed where approximate.)

--- Fault



Source of data for geologic map:
 1. Adapted from Q11 and Q12 Preliminary Map 21.
 2. Lake boundary from aerial photographs.
 3. Adapted from Q11 and Q12 Preliminary Map 21.
 4. Field reconnaissance by Z. E. Spiegel.
 5. Field reconnaissance by R. E. Smith. Lake boundary from aerial photographs.

Base map adapted from County Highway Planning Map, 1951



GEOLOGY OF TORRANCE COUNTY, N. MEX.