Base from U.S. Geological Survey, 1:24,000, 1964

Bedrock geology from geologic map of the Kearny quadrangle (Cornwall and Krieger, 1975a). Geology of the San Manuel Formation and interbedded landslides mapped by Krieger, 1969-72

☆Interior—Geological Survey, Reston, Va.,—1977
—G76331

CORRELATION OF MAP UNITS

Unit	Epoch	Period	Era
Qal, Qt, Qp	Holocene and Pleistocene	QUATERNARY	CENOZOIC
Qog	Pleistocene	QUATERNARY	CENOZOIC
Unconformity			
Tsda, Tsc, Tsdp, Ts( ), Tss, Tsa	Miocene	TERTIARY	CENOZOIC
Unconformity			
Tkr	Lower Tertiary or Upper Cretaceous	TERTIARY OR CRETACEOUS	CENOZOIC OR MESOZOIC
Kt, Kw	Upper Cretaceous	CRETACEOUS	MESOZOIC
Unconformity			
€al	Middle Cambrian	CAMBRIAN	PALEOZOIC
Disconformity			
Ydb, Yt, Yb, Ym, Yds, Ybc, Yp, Ysc			PRECAMBRIAN Y
Unconformity			
Yr			PRECAMBRIAN Y

DESCRIPTION OF MAP UNITS

SURFICIAL DEPOSITS

- **Qal** — Alluvium
- **Qt** — Talus
- **Qp** — Soil and gravel veneer on pediment surfaces
- **Qog** — Older gravels

SAN MANUEL FORMATION

- **Tsda** — Dark, nongranitic conglomerate
- **Tsdp** — Dark, nongranitic playa deposits
- **Tsc** — Playa claystone
- **Tss** — Playa sandstone
- **Tsa** — Quartzite conglomerate
- **Ts( )** — Megabreccia; lithologic units composed of following identifiable formations are shown by symbol of that formation, in parentheses, and by its map color
  - **Ts(TKr)** — Rhyodacite porphyry
  - **Ts(Kw)** — Williamson Canyon Volcanics
  - **Ts(Me)** — Escabrosa Limestone
  - **Ts(Dmu)** — Martin Formation, upper member
  - **Ts(Dml)** — Martin Formation, lower member
  - **Ts(€a)** — Abrigo Formation
  - **Ts(Ydb)** — Diabase; locally contains small unmapped lenses of Mescal Limestone and basalt
  - **Ts(Yt)** — Troy Quartzite
  - **Ts(Ym)** — Mescal Limestone
  - **Ts(u)** — Megabreccia, undifferentiated. Includes Escabrosa, Martin, and Troy Formations

RHYODACITE PORPHYRY

- **Tkr**

TORTILLA QUARTZ DIORITE

- **Kt**

WILLIAMSON CANYON VOLCANICS

- **Kw**

ABRIGO FORMATION, LOWER MEMBER

- **€al**

DIABASE

- **Ydb**

TROY QUARTZITE

- **Yt**

APACHE GROUP

- **Yb** — Basalt
- **Ym** — Mescal Limestone
- **Yds** — Dripping Spring Quartzite; Ybc (dots) indicates Barnes Conglomerate Member at base
- **Yp** — Pioneer Formation; Ysc (dots) indicates Scanlan Conglomerate Member at base

RUIN GRANITE

- **Yr**

Approximate contact—Dotted where concealed. Triangle indicates contact that was well exposed at time of mapping

Fault, showing dip where known—Dashed where approximately located; Dotted where concealed. Bar and ball on downthrown side

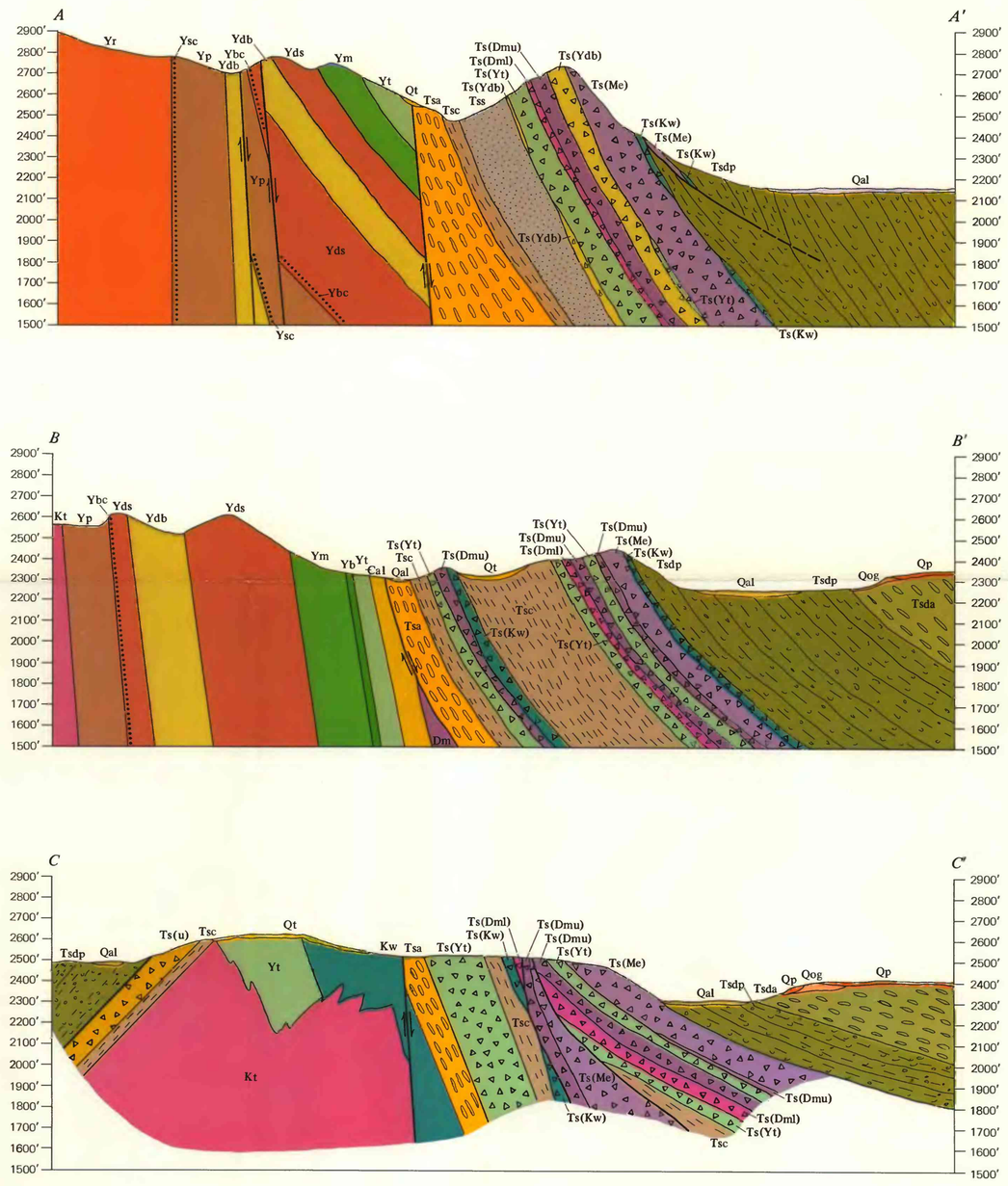
Anticline—Dashed where approximately located; dotted where concealed; queried where doubtful

Syncline—Dashed where approximately located; dotted where concealed

Strike and dip of beds

Horizontal

Inclined



SCALE 1:6 000

¼ 0 ¼ ½ MILE

.25 0 .25 .5 KILOMETER

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

GEOLOGIC MAP OF THE SOUTHERN LANDSLIDES, KEARNY QUADRANGLE, ARIZONA

This map was printed from negatives prepared by photographic color-separation of a hand-painted original.