U.S. GEOLOGICAL SURVEY
OPEN FILE MAP

SOUTHWEST OF SAN ANDREAS FAULT

SURFICIAL DEPOSITS — QUATERNARY — Holocene / Pleistocene

- **Qa** — Alluvium (gravel, sand and clay)
- **Qls** — Landslide debris
- **Qoa** — Older alluvium (gravel and sand)

UNCONFORMITY

VALLEY SEDS. — Pliocene? or Pleisto.

- **QTg** — Paso Robles Formation (gravel and landslide debris of sandst, black shale, granitic and metamorphic rocks and marble)

UNCONFORMITY

UPPER TERT. SEDS. — Pliocene

- **Tmo** — Morales Formation (terrestrial sandst., conglom., and mudst.; early Blancan age)
- **Tq** — Quatal Formation (terrestrial gray clay)

MIDDLE TERTIARY SEQENCE — TERTIARY — Miocene to Pliocene

- **Tc, Tb, Tbs, Tms, Tvp** — Sedimentary and volcanic rocks
  - Tc, Caliente Formation (terrest. varicolored sandst., siltstone, minor conglom.; Hemphillian, Clarendonian, Barstovian and Hemingfordian ages)
  - Tb, basalt (lava flows, sills and dikes)
  - Tbs, Branch Canyon Sandst. (marine; Luisian and Relizian ages)
  - Tms, Monterey Shale, Saltos Shale Member (marine clay shale and siltstone, thin sandst.; Luisian, Relizian and Saucesian ages)
  - Tvp, Vaqueros Form. Painted Rock Sandstone Member (marine sandstone and siltstone; Saucesian age)

Contact
(Dashed where gradational or approximately located)

Fault
Dashed where inferred; dotted where concealed; U, upthrown block; D, downthrown block, relatively; single arrow indicates dip of fault; parallel arrows indicate known or probable lateral movement

Anticline — Syncline
Surface position of axis of fold; arrow on axis indicates direction of plunge

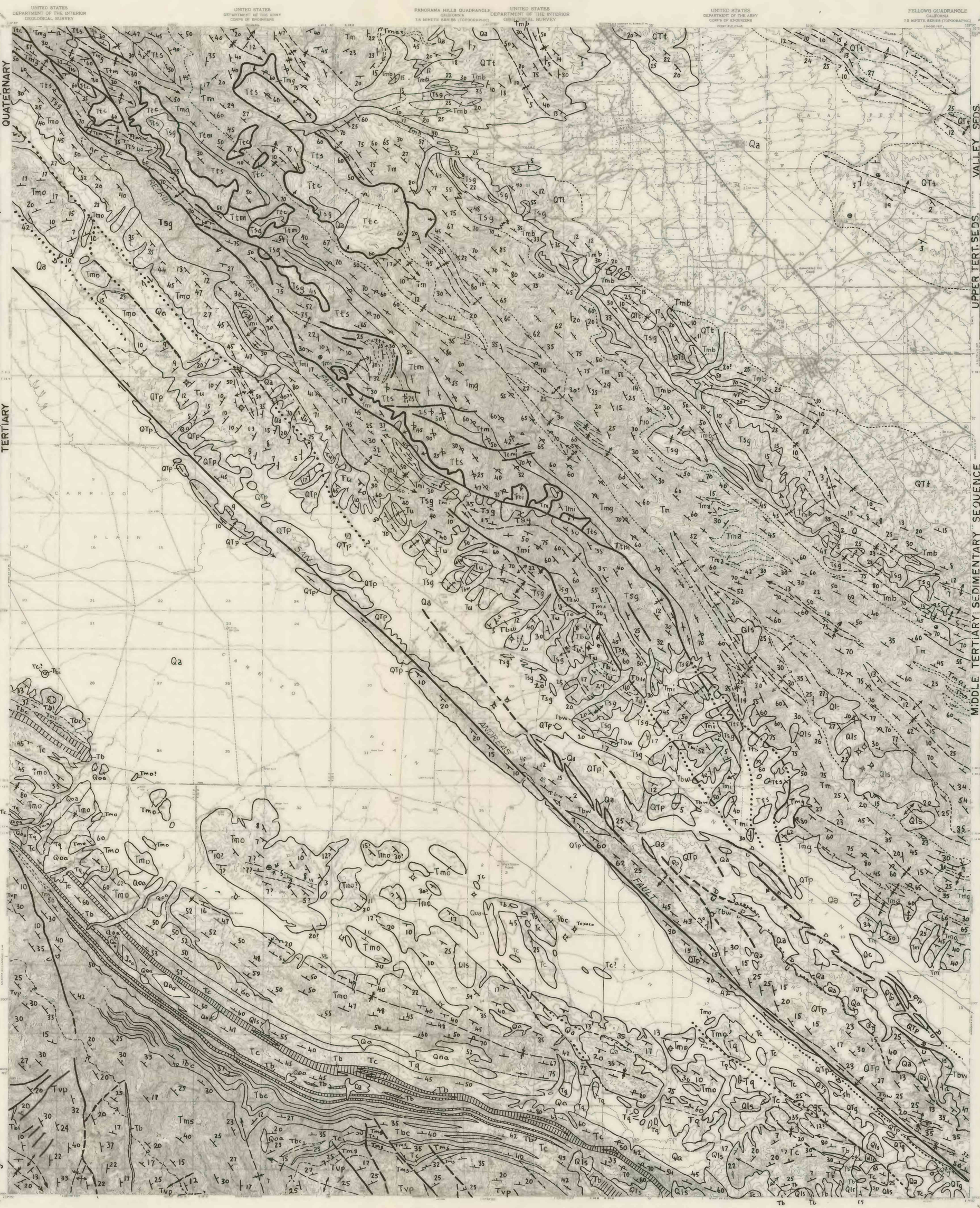
Inclined — Vertical — Overturned
Strike and dip of bedding

Abandoned test well drilled for oil or gas

Geology of south half modified from Vedder, 1970; north half by T.W. Dibblee Jr. (field work in 1966–67)

Reference: Vedder, J.G., 1970, Geologic map of the Wells Ranch and Elkhorn Hills quadrangles, San Luis Obispo and Kern Counties, Calif. U.S.G.S. Misc. Geol. Inv. Map I–585

Compiled by T.W. Dibblee Jr., 1971
Drafted by G.J. Edmonston



NORTHEAST OF SAN ANDREAS FAULT

VALLEY SEDS. — QUATERNARY — Holocene / Pleistocene

- **Qa** — Alluvium
- **Qls** — Landslide debris
- **QTp, QTt** — Valley sediments
  - QTp, Paso Robles Form. (gravel, clay and sand)
  - QTt, Tulare Formation (gravel, clay and sand)

UNCONFORMITY

UPPER TERT. SEDS. — Miocene to Pliocene

- **Tmo, Tu, Tbw** — Sedimentary rocks
  - Tmo, Morales Formation, (terrestrial conglom., sandstone and siltst.)
  - Tu, unnamed sandstone (marine sandst. and siltst.)
  - Tbw, Bitterwater Creek Shale (marine silic. mudst, Mohnian Stage)

UNCONFORMITY

MIDDLE TERTIARY SEDIMENTARY SEQUENCE — TERTIARY — Miocene

- **gr, sc, Tsg, Tmb** — Sedimentary rocks
  - gr, granitic landslide breccia
  - sc, schist landslide breccia
  - Tsg, Santa Margarita Form. (marine breccia, conglom. and sandst. of granitic schist and marble detritus; upper Miocene age
  - Tmb, Belridge Diatomite Member of Monterey Shale (marine; Mohnian Stage)

LOCAL UNCONFORMITY

- **Tm, Tma, Tmg, Tmi** — Monterey Shale
  - Tm, McLure Shale Member (marine silic. sh. Mohn. St., Tma, sandstone
  - Tmg, Gould Shale Member (marine silic. and semi-silic. shale, Luisian and Relizian Stages)
  - Tmi, semi-silic. shale and interbedded sandstone; middle Miocene

Oligocene and Miocene

- **Ttm, Tts, Ttc** — Temblor Formation
  - Ttm, Media Shale Member (marine clay shale, Reliz. and Saucesian Stages)
  - Tts, sandst. (marine, Saucesian and Zemorrian Stages)
  - Ttc, clay shale; marine, Sauc. and Zemorrian Stages

INDEX TO 7½ MINUTE QUADRANGLE BASE MAPS, SCALE 1:24000

SCALE 1:62,500

GEOLOGIC MAP OF THE "FELLOWS" QUADRANGLE, CALIFORNIA

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey standards and nomenclature.