UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PROFESSIONAL PAPER 479
PLATE I (SOUTH HALF)

EXPLANATION

(Q–T, Quaternary and Tertiary combined in cross sections)

QUATERNARY

- Qa — Alluvium
- Qac — Alluvium and colluvium undifferentiated
- Qws — Win..blown sand
- Qt1, Qt2 — Terrace deposits
- Qba — Balluco Gravel
- Qrc — Ramey Gravel *Qrc where capped with caliche*
- Qgc — Gills Gravel *Qgc where capped with caliche*
- Qmc, Qm — Madden Gravel *Qmc where capped with caliche*
- Qmi — Miser gravel
- Qc — Older colluvium
- Qb — Basalt
- QTb — Basin deposits

TERTIARY

- Tqm — Quartz monzonite and small percentages of granodiorite, monzonite, granite and syenite
- Tr — Rhyolite and rhyolite porphyry
- Tds — Diken and sills *Principally rhyolite porphyry, latite porphyry, andesite porphyry, and hornblende andesite porphyry.*
- Tsp — Square Peak Volcanics

UNCONFORMITY

CRETACEOUS

Upper Cretaceous

- Ks — Sandstone and siltstone
- Kw — Rocks of Washita age *Principally limestone*
- Kk — Kiamichi Formation
- Kf, Kfs — Finlay Limestone *Kfs, sandstone beds and lenses on Diablo Plateau*
- Kc — Cox Sandstone
- Kb — Bluff Mesa Limestone
- Kca — Campagrande Formation
- Ky — Yucca Formation
- Ke — Etholen Conglomerate *Exposed only near Etholen Hill and Etholen Knobs*

Lower Cretaceous

- Kt, Ktc — Torcer Formation *Ktc, quartzitic sandstone and conglomerate*

Lower Cretaceous(?)

JURASSIC

Upper Jurassic

- Jmu, Jml — Malone Formation *Jmu, upper member, Jml, lower member*

UNCONFORMITY

PERMIAN

Leonard

- Pbb, Pbbd, Pb, Pbl — Briggs Formation *Pbb, buff dolomite member. Pbbd, black dolomite member. Pbl, black limestone member, exposed only at northwest end of Malone Hills*
- Prm, Pl — Marlstone, limestone and conglomerate *Prm, marlstone. Pl, limestone and limestone-pebble conglomerate*

Contact
Dashed where approximately located

Normal fault
Dashed where approximately located; dotted where concealed; U, upthrown side; D, downthrown side. X's indicate that Tds dike follows fault

Thrust fault
Sawteeth and T on upper plate. Dashed where approximately located; dotted where concealed

Strike and dip of beds

Strike and dip of overturned beds

Strike and dip of beds overturned more than 180°

Strike of vertical beds

Horizontal beds

Anticline
Showing direction of plunge of axis. Dashed where approximately located; dotted where concealed

Syncline
Showing direction of plunge of axis. Dashed where approximately located; dotted where concealed

Overturned anticline
Showing trace of axial plane and direction of dip of limbs

Overturned syncline
Showing trace of axial plane and direction of dip of limbs

Earthquake cracks

Prospect

Pit
G, gravel; c, caliche; cl, clay; Q, quarry

Well (abandoned) drilled for oil
Number refers to well log in text

Line of traverse of measured stratigraphic section, and number of section

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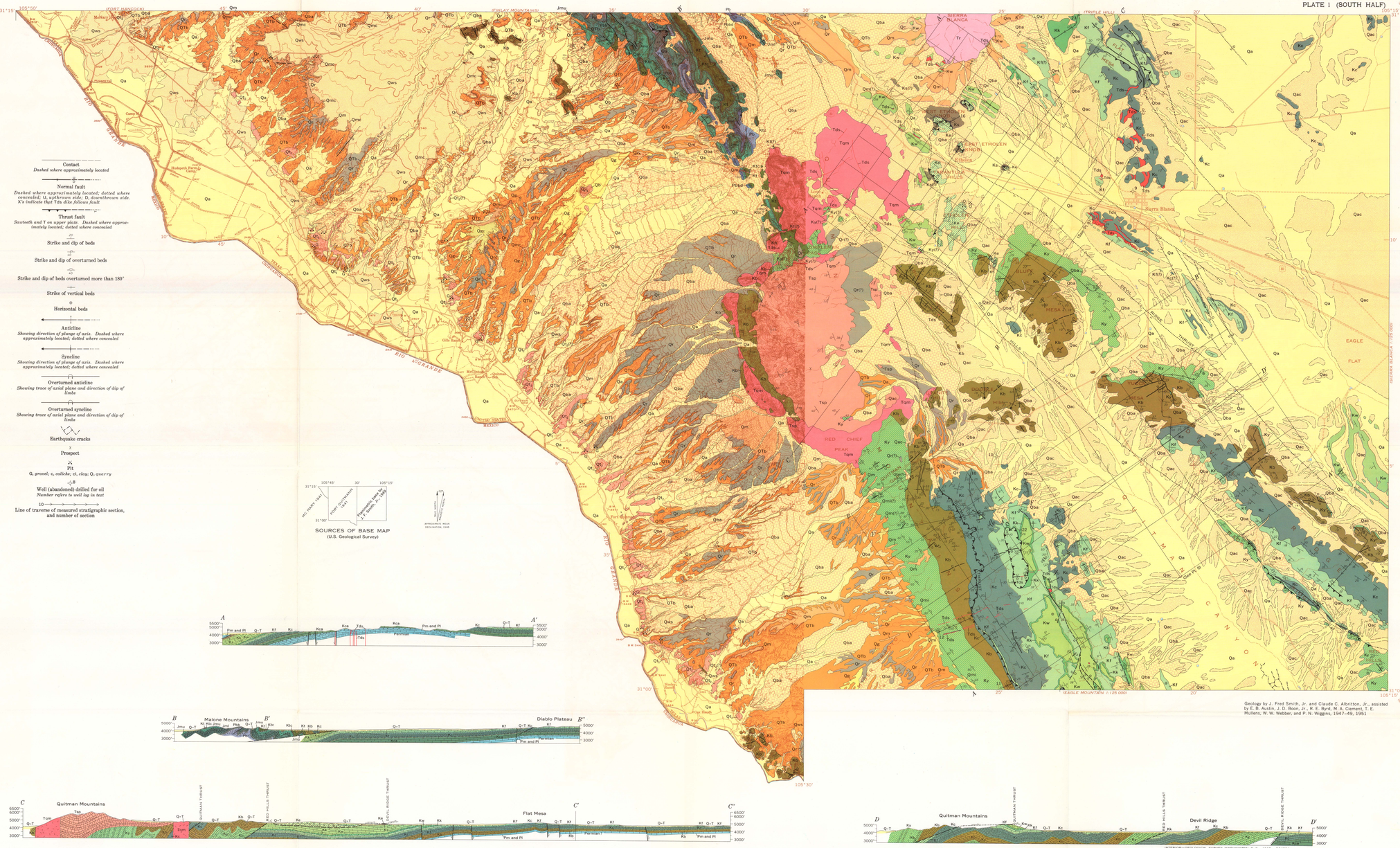
SOURCES OF BASE MAP
(U.S. Geological Survey)

Geology by J. Fred Smith, Jr. and Claude C. Albritton, Jr., assisted by E. B. Austin, J. D. Boon, Jr., R. E. Byrd, M. A. Clement, T. E. Mullens, W. W. Webber, and P. N. Wiggins, 1947–49, 1951



GEOLOGIC MAP AND SECTIONS OF THE SIERRA BLANCA AREA, HUDSPETH COUNTY, TEXAS

SCALE 1:62 500

1 ½ 0 1 2 3 4 5 MILES

1 ½ 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL

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