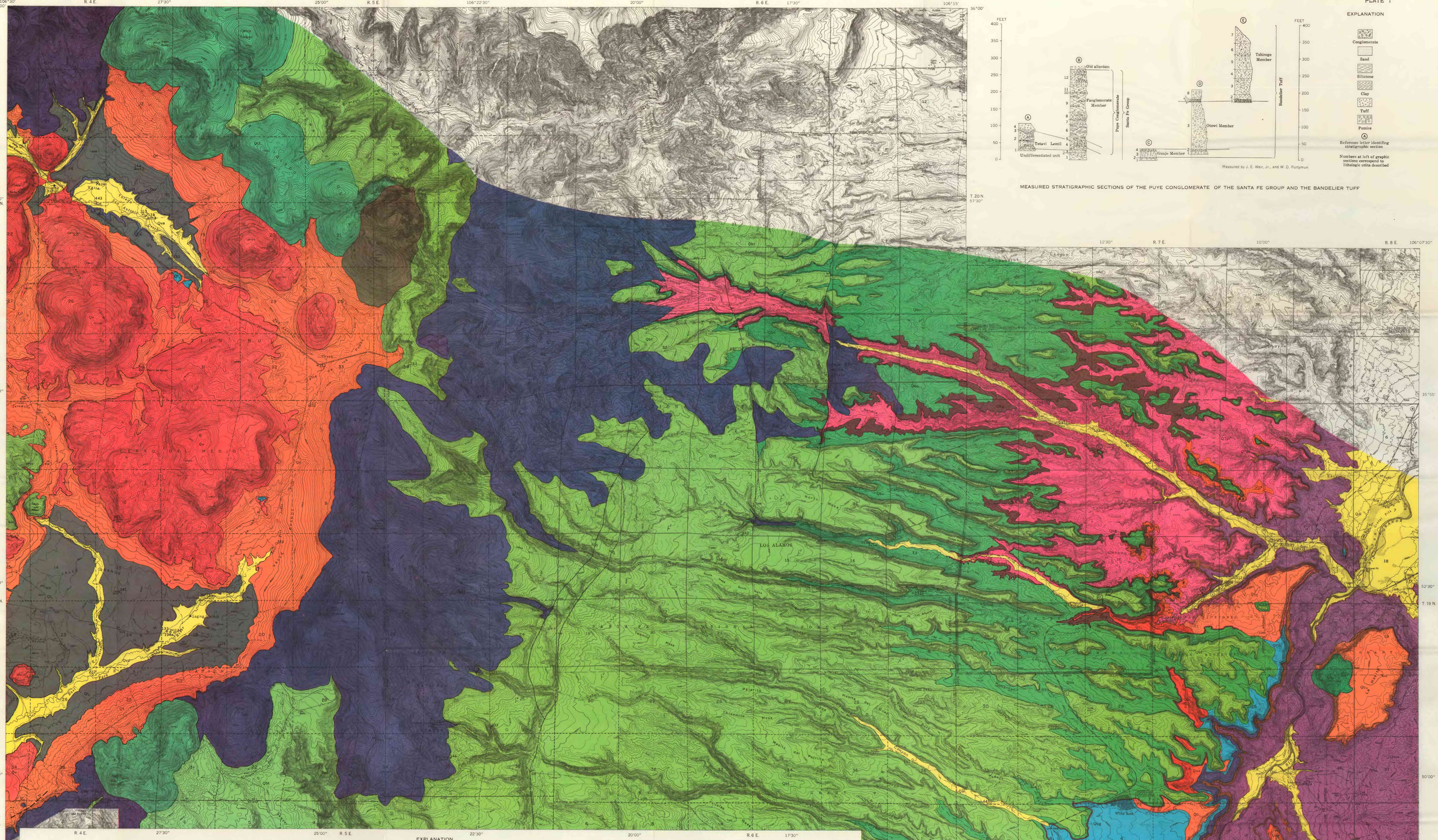

MEASURED STRATIGRAPHIC SECTIONS OF THE PUYE CONGLOMERATE OF THE SANTA FE GROUP AND THE BANDELIER TUFF

EXPLANATION

SIERRA DE LOS VALLES AREA-PAJARITO PLATEAU

QUATERNARY — Pleistocene and Recent

Qva — Valley alluvium in Valles Caldera
Sand and gravel, clayey to silty. Yields small quantities of water to seeps and springs during wet weather

Qf — Fan deposits
Silt, sand, gravel, and boulders. Yield small quantities of water to seeps and springs during wet weather

Qt₂, Qt₁ — Terrace deposits
Silt, sand, and gravel; Qt₂, younger deposits on low terraces Qt₁, older deposits on high terraces. Yield small quantities of water to seeps and springs during wet weather

Qcf — Caldera fill
Silty clay, clayey silt, sand, and gravel composed of volcanic detritus. Yields large quantities of water to wells and springs

Pleistocene — Tewa Group

Qv — Valles Rhyolite
Rhyolite domes in the Valles Caldera. Fractured pumiceous crusts of domes yield large quantities of water to springs

Qcr — Cerro Rubio Quartz Latite
Quartz latite dome north of Valle de los Pinos. May yield small quantities of water to springs

Qct — Cerro Toledo Rhyolite
Rhyolite domes south of Valles Grande and in the Sierra de Toledo. Not know to yield water

Pleistocene — Tewa Group — Bandelier Tuff

Qbt — Tshirege Member
Mainly welded rhyolite tuff. Yields small quantities of water to a few springs

DISCONFORMITY

Qbo — Otowi Member
Pumiceous rhyolite tuff. May yield small quantities of water to springs from perched zones in the upper part of Guaje Canyon

Qbg — Guaje Member
Lapilli tuff composed of lump pumice, unconsolidated. May contain small quantities of perched water

DISCONFORMITY

JEMEZ MOUNTAINS VOLCANIC PILE

Pliocene and Pleistocene(?)

QTtc, QTu — Tschicoma Formation
QTtc, pyroxene andesite flows exposed at the head of Quemazon Canyon. Not known to yield water
QTu, undifferentiated thick flows of latite and quartz latite with large feldspar phenocrysts. Yields small quantities of water to springs and wells from weathered zones and interflow breccias

TERTIARY AND QUATERNARY(?)

RIO GRANDE AREA-PAJARITO PLATEAU

QUATERNARY — Pleistocene

Qal — Alluvium
Gravel, sand, and silt in the Rio Grande Valley and eastern parts of canyons of the Pajarito Plateau. Yields small quantities of water to wells and springs during wet weather

UNCONFORMITY

Qoa — Old alluvium
Clay, sand, and gravel. Not known to yield water

DISCONFORMITY

Miocene(?) Miocene to Pleistocene(?) — Santa Fe Group

QTpf, QTpt — Puye Conglomerate
QTpf, fanglomerate member consisting of interbedded silt, sand, and pebble to boulder conglomerate derived from the Tschicoma Formation. Contains small quantities of perched water locally
QTpt, Totavi Lentil composed of stream-channel deposits of silty, sandy conglomerate. Yields small quantities of water to springs and wells

TERTIARY AND QUATERNARY(?)

Tsu — Undifferentiated unit
Tsu, slightly consolidated arkosic sand, silt, and some interbedded conglomerate, gravel and latitic volcanic detritus. Unit yields moderate quantities of water to wells and is the main aquifer of the area
Tsub, interbedded basalt flows exposed in White Rock Canyon

TERTIARY

CHINO MESA

Santa Fe Group — QUATERNARY(?)

Qb₅ — Unit 5
Cinder cones, local basalt flows and a dome of basalt. Not known to yield water

DISCONFORMITY

Qb₄ — Unit 4
Black basalt and associated tuff. Not known to yield water

Qb₃ — Unit 3
Thick step-sided masses of basalt and breccia. Yields small quantities of water to springs

DISCONFORMITY

Santa Fe Group — TERTIARY AND QUATERNARY(?)

QTb₂ — Unit 2
Andesite-basalt, commonly in thick flows. May contain small quantities of perched water locally

QTb₁ — Unit 1
Basalt and basaltic tuff, with interbedded sediments locally. May contain small quantities of perched water

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Contact
Dashed where approximate

Fault
Dashed where inferred; U, upthrown side; D, downthrown side

Strike and dip of beds

Well or test hole
Figure is location number described in text

Spring
Figure is location number described in text

Trace of measured stratigraphic section

Base from U.S. Geological Survey topographic quadrangles

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1964—W63377

Geology by Roy L. Griggs 1949–53

GEOLOGIC MAP AND SECTIONS OF THE LOS ALAMOS AREA IN PARTS OF LOS ALAMOS, SANDOVAL, AND SANTA FE COUNTIES, NEW MEXICO

SCALE 1:31 680

½ 0 1 MILE

.5 0 1 KILOMETER

CONTOUR INTERVAL 20 FEET
DATUM IS MEAN SEA LEVEL