GEOLOGIC MAP AND SECTIONS OF DWYER QUADRANGLE, NEW MEXICO

EXPLANATION

Qtr — Hot Springs deposit
Calcareous deposit found only at Faywood Hot Springs

Qt — Talus

Qal — Alluvium
Bolson deposits and alluvium formed by present-day streams. Includes sands, clays, and conglomerate.

Qtg 2, Qtg 1, Qtg — Terrace and pediment gravels
Qtg 2 *high level gravels*
Qtg 1 *low level gravels*
Qtg *terrace gravels, undifferentiated*

QUATERNARY

Tsf, Tsfa — Santa Fe fanglomerates
Tsf-*fanglomerates, conglomerates and sandstones mostly consolidated*
Tsfa-*minor iddingsite andesite flows and pyroclastics interbedded with Santa Fe fanglomerates*

Tswf, Tswi — Swartz rhyolite
Tswf-*porphyritic rhyolite flows, tuffs, and flow breccias*
Tswi-*intrusive domes and dikes of porphyritic rhyolite*

Tbs — Bear Springs basalt
Olivine basalt and olivine andesite flows, tuffs and flow breccias.

Tr — Razorback formation
Upper member-*black aphanitic rhyolite flows with spherulitic, perlitic and brecciated zones, minor tuffs*
Lower member-*black, fine-grained iddingsite andesite flows and flow breccias containing quartz and oligoclase inclusions*

Tp — Pollack rhyolite
Rhyolite porphyry and vitrophyre flows. Exact stratigraphic position unknown.

Tpi — Piloncillo sediments
Fanglomerates, conglomerates, tuffs and sandstones. Equivalent in age to volcanic sequence from Box Canyon rhyolite through Razorback rhyolite.

Upper volcanic series

Tcb — Caballo Blanco rhyolite
Massive, white, pumiceous, porphyritic rhyolite. Groundmass consists partly of elongated, welded shards, partly of devitrified fibrous areas. Interpreted as an ignimbrite.

Tru — Rustler Canyon basalt
Basalt or olivine andesite flows and flow breccias.

Tbc — Box Canyon rhyolite
Massive, cream, porphyritic rhyolite with groundmass of welded, deformed shards. Interpreted as an ignimbrite.

Tmp, Tmpg, Tmps, Tmpt — Mimbres Peak rhyolite
Tmp-*banded, pink and gray, fine-grained rhyolite flows, dome like intrusive bodies and minor dikes*
Tmpt-*bedded pumiceous rhyolite tuff*
Tmpg-*perlite*
Tmps-*bedded red and cream tuffs, locally grading into perlitic glass zones*

Twe — White Eagle rhyolite
Porphyritic rhyolite flows, sills and dikes. Confined to the northern part of Cooks Range. Stratigraphic position unknown, but possibly equivalent to Mimbres Peak rhyolite

Tf — Faywood rhyolite
Fine-grained rhyolite in dome like intrusive bodies and minor flows. Stratigraphic position unknown but possibly equivalent to Mimbres Peak formation

Tkn — Kneeling Nun rhyolite
Massive purplish-gray, porphyritic rhyolite with spherulitic groundmass. Interpreted as an ignimbrite.

Tst, Tsp — Sugarlump rhyolite and latite
Tst-*bedded tuffs, sandy and conglomeratic tuffs. Mostly white, pink, cream or green. Latitic or rhyolitic at the base, rhyolitic near the top*
Tsp-*massive tuffs. Mainly vitric crystal tuffs, some with welded shards in the groundmass. Interpreted as ignimbrites. Interbedded with bedded tuffs.*

Trp — Rubio Peak andesite and latite
Purple, brown, gray and green flows, flow breccia, agglomerate and tuffs. Interfingers with Sugarlump rhyolite (Tst) near Mimbres Peak

Lower volcanic series

Tv — Vista monzonite or granodiorite
Altered gray-green granodiorite or monzonite intrusive in northern Cooks Range.

Tgp — Granodiorite porphyry
Gray-green granodiorite porphyry with andesine and hornblende phenocrysts. Forms a stock or laccolith in southern Cooks Range.

TERTIARY

Ks — Sarten-Beartooth quartzite
Gray quartzite with hematite stains, sandstone and minor limestones.

CRETACEOUS

Pl — Lobo-Abo redbeds
Sandstone, conglomerate and shale, largely red

PERMIAN

IPm — Magdalena limestone
Limestone; becoming silty toward the top.

PENNSYLVANIAN

Mlv — Lake Valley limestone
Gray limestones, largely silty, shaly, cherty, or biohermal

MISSISSIPPIAN

Dp — Percha shale
Gray shale with calcareous nodules (Box member) on top; black fissile shale (Ready Pay member) at the base.

DEVONIAN

Sf — Fusselman limestone
Gray limestone and dolomite, locally fractured, silicified, and mineralized.

SILURIAN

Oe — El Paso group
Bluish-gray dolomites and limestones, commonly with sandy partings between beds.

ORDOVICIAN

Cb — Bliss quartzite
Hematitic quartzite and sandstone, greenish, glauconitic sandy shale and minor red conglomerate

CAMBRIAN

pCs, pCg — Precambrian
pCs-*greenstone schist*
pCg-*granite gneiss and granite pegmatite*

PRECAMBRIAN

TERTIARY?

DIKES

Tds — Minor silicic dikes

Tdi — Minor intermediate dikes

Tdb — Minor basic dikes

TERTIARY

Contact *Dashed where inferred*

Fault *Dashed where inferred*
U-*Upthrown side*
D-*Downthrown side*

Intermittent stream

Strike and dip of beds

Mining area

Approximate mean declination 1950 — True North, Magnetic North, 13°

Base map from U.S. Soil Conservation Service sheet 413

Geology by W.E. Elston, Columbia University. Surveyed 1950–1952 as part of the Field Assistance Fellowship program

Index Map showing Dwyer Quadrangle

Scale 1/48000

0 1 2 3 MILES