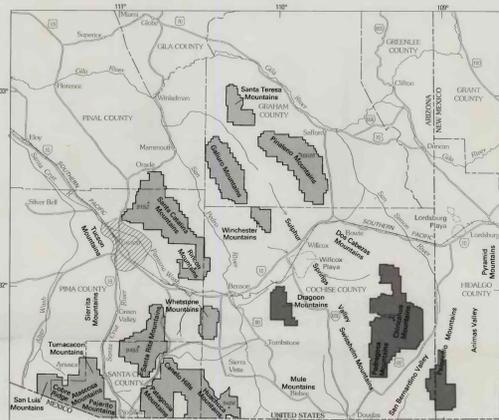


Base from U.S. Geological Survey 1:250,000
Douglas, 1959 (revised 1978); Tucson, 1956 (revised 1978);
Silver City, 1954 (revised 1978); Tucson, 1956 (revised 1978)
Transverse Mercator projection

Dragon Forest unit

APPROPRIATE NORTH
SIGNALMENT 198



INDEX MAP SHOWING LOCATION OF CORONADO NATIONAL FOREST (GRAY AREAS).
Forest units shown on this plate are dark gray.



CORRELATION OF MAP UNITS AND MINERALIZATION

Rocks	Mineralization ¹	Time
QTg		Quaternary
OTb		Quaternary
Tiv	Unconformity	Miocene
Tr	Tr	Oligocene
TKv	TKv	Pliocene
Kv	Kv	Upper Cretaceous
Kb	Kb	Lower Cretaceous
Klx	Klx	Lower Cretaceous
Jg	Jr	Jurassic
Jlca	Jlca	Upper Triassic
PPn	PPn	Lower Permian
Ms	Ms	Permian
PH	PH	Permian
RYm	RYm	Permian
Ya	Ya	Middle Proterozoic
Yg	Yg	Middle Proterozoic
Xm	Xm	Early Proterozoic
Xp	Xp	Early Proterozoic

¹Width of bar shows relative importance; the wider the bar, the more important, as based on a balance between total production and frequency of occurrence

DESCRIPTION OF MAP UNITS

- (All units may not appear on all maps)
- QTg** Gravel, sand and conglomerate (Holocene to Miocene)—Alluvium filling intermontane basins, on sediments, in alluvial aprons and stream terraces, and along water-courses
 - OTb** Basalt (Pliocene to Miocene)—Lava flows and cinder deposits
 - Tiv** Sedimentary and volcanic rocks, undivided (Miocene to Eocene)—Rhyolitic to andesitic lava and tuff, and some interbedded conglomerate, sandstone, and shale
 - Tr** Rhyolitic rocks (Miocene and Oligocene)—Includes lava flows, tuffs, and tuffaceous sandstone
 - TKv** Rhyolitic tuffs (Miocene and Oligocene)—Airfall tuff, ash-flow tuff, tuff breccia, welded tuff, and some sedimentary rock
 - Trf** Rhyolitic lava flows (Miocene and Oligocene)—May include some intrusive bodies
 - TKv** Intrusive rocks (Miocene and Oligocene)
 - TKv** Rhyolite (Miocene and Oligocene)—Dikes and plugs
 - Tg** Granite (Oligocene)—Stocks
 - TKv** Andesitic rocks (Oligocene)—Lava flows, breccia deposits, and interbedded sedimentary rocks
 - TKv** Intrusive rocks (Eocene to Late Cretaceous)—Mainly Eocene to Late Cretaceous granite, monzonite, granodiorite, and diorite; some Oligocene to Late Cretaceous peridotite, ilmenite, and garnet-bearing granite. Includes Copper Creek Granodiorite
 - TKv** Volcanic and sedimentary rocks (Eocene to Upper Cretaceous)—Andesitic lava flows and breccia sheets, rhyolitic tuff and welded tuff, and volcanoclastic sedimentary rocks
 - TKv** Andesite (Eocene to Late Cretaceous)—Plugs, dikes, and stocks
 - TKv** Rhyolite (Eocene to Late Cretaceous)—Plugs and dikes
 - Kv** Sedimentary and volcanic rocks, undivided (Upper Cretaceous)—Volcanoclastic conglomerate, sandstone, lacustrine shale, and some andesite and rhyolite tuff
 - Kv** Rhyolite (Upper Cretaceous)—Lava flows, tuffs, and interbedded conglomerate, sandstone, and shale
 - Kv** Rhyolite tuff (Upper Cretaceous)—Includes airfall and ash-flow tuff, tuff breccia, welded tuff, and sedimentary rocks
 - Kv** Rhyolite lava flows (Upper Cretaceous)—Includes some tuff and sedimentary rocks
 - Kv** Andesite (Upper Cretaceous)—Lava flows, breccia sheets, and interbedded conglomerate and sandstone
 - Kv** Bishop Group (Lower Cretaceous)—Mainly gray shale and siltstone, and some sandstone, conglomerate, and limestone
 - Kb** Basaltic andesite and andesite (Lower Cretaceous)—Lava flows, cinder deposits, and some diorite, sill, and plug
 - Klx** Batholith and Tonalite Formations, undivided (Lower Cretaceous)—Andesitic to rhyolitic rocks, conglomerate, and sandstone
 - Jg** Intrusive rocks (Jurassic)
 - Jr** Granite stocks
 - Jlca** Rhyolite plugs
 - Jlca** Volcanic and sedimentary rocks (Jurassic to Upper Triassic)—Rhyolitic welded tuff and lava flows, andesitic lava flows, columnar sandstone, and rhyolite. Includes Walnut Gap Formation, Carvelo Hills Volcanics, and Gardner Canyon and Wilgosh Formations
 - PPn** Metamorphic rocks (Paleozoic or Middle Proterozoic)—Metagranite, hornfels, and calc-silicate contact rocks
 - Ms** Naco Group (Lower Permian and Pennsylvanian)—Mainly limestone and dolomite; some siltstone, sandstone, and marlstone
 - PH** Sedimentary rocks (Mississippian)—Generally only Escabrosa Limestone; in the east unit also includes Paradise Formation, mostly shale
 - PH** Lower Paleozoic formations, undivided (Upper Devonian to Middle Cambrian)—Mainly limestone and dolomite; some sandstone, shale, and conglomerate. Includes Percha Shale, Portal, Swadlow, Martin, El Paso, and Abrigo Formations, Coronado Sandstone, and Bolca Quartzite
 - Ya** Diabase (Middle Proterozoic)—Includes some metadiorite, sill, dikes, and plugs; line shows more acidic rock
 - Yg** Apache Group (Middle Proterozoic)—Sandstone, shale, argillite, some conglomerate, and possibly some limestone
 - Yg** Intrusive rocks (Middle Proterozoic)—Granite, granodiorite, and some absolute, andesite, and lamprophyre
 - Xm** Gneissic rocks (Middle and Early Proterozoic)—Metamorphosed granite and older schist or gneiss
 - Xp** Pinal Schist (Early Proterozoic)—Schist, phyllite, metaquartzite, melange, and metagneissic rocks

- Contact**—Dotted where concealed, queried where uncertain
- Fault**—Showing dip; dotted where concealed or intruded, queried where uncertain. Where solid line becomes dotted line within a map unit, that unit is a composite of several formations, of which a younger one conceals faulting in an older one
- Normal fault**—Ball and bar on downthrown side, dotted where concealed, queried where uncertain
- Thrust fault**—Sawtooth on upper plate
- Glide fault**—Open sawtooth on glide plate
- Complex fault**—Earlier thrust fault on which later glide (gravity) fault took place
- Strike-slip fault**—Arrow couple shows relative movement, queried where uncertain
- Oligo-slip fault**—Composite of strike-slip and normal movement likely, but either type of movement may have occurred without the other
- Fold axis**—Dotted where concealed, arrow shows direction of plunge
- Anticline**
- Anticline in foliation**
- Overturned anticline**—Side of closure of arrow ends is side of fold crest relative to fold axis
- Syncline**
- Syncline in foliation**
- Overturned syncline**—Side of closure of arrow ends is side of fold trough relative to fold axis
- Strike and dip of beds**
- Horizontal**
- Inclined**
- Vertical**
- Overturned**
- Strike and dip of foliation**
- Inclined**
- Vertical**
- Cinder cone**—Queried where uncertain



Base from U.S. Geological Survey 1:250,000
Douglas, 1959 (revised 1978); Silver City, 1954 (revised 1978);
Transverse Mercator projection

APPROPRIATE NORTH
SIGNALMENT 198

COMPLETE BOUGUER-GRAVITY-ANOMALY MAPS OF THE SOUTHEASTERN PART OF CORONADO NATIONAL FOREST AND ADJACENT AREAS, SOUTHEASTERN ARIZONA AND SOUTHWESTERN NEW MEXICO

Compiled by
Mark E. Gettings
1996

Peloncillo and Chiricahua-Pedregosa Forest units

Geology compiled by Harold Drewes 1991