DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN FILE
SHEET 1 OF 2

105°07'30" 05' 02'30" 105°00'00"
36°52'30" 50'00" 47'30" 36°45'00"

Rock Creek
CASTLE ROCK PARK
Matys Lake
VAN BREMMER PARK
HARRY BREMMER CANYON
VAN BREMMER CANYON
JUAN BACA CANYON
GACHUPIN CANYON
POOLER CANYON
CERROSOSO
WHITEMAN VEGA
LOOKOUT CANYON
HART CANYON
GRAVEYARD CANYON
VALDEZ CANYON
McCrystal Creek
North Ponil Creek
SEALLY CANYON
HIGHLAND CANYON

Base from U.S. Geological Survey
unedited advance print, 1962

Geology mapped in 1966-70

Scale 1:24,000 (Approx.)

CONTOUR INTERVAL 20 FEET

1 0 1 KILOMETER
0 1/2 1 2 MILES

U.S. Geological Survey
OPEN FILE REPORT
This map is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.

NEW MEXICO
QUADRANGLE LOCATION

CORRELATION OF MAP UNITS

Qa	Qaf	Ql	Holocene and (or) Pleistocene	QUATERNARY
	Qa1		Pleistocene	
	Qa2			
	Qa3			
	Ti		Miocene(?)	TERTIARY
Trp	Tpc		Paleocene	
	Tr	jb, up, p		

DESCRIPTION OF MAP UNITS

Qa ALLUVIUM (HOLOCENE AND/OR PLEISTOCENE)--Unconsolidated silt, sand, and gravel deposits in and adjacent to modern stream channels

Qaf ALLUVIUM AND FAN DEPOSITS (HOLOCENE AND/OR PLEISTOCENE)--Locally includes debris-flow, talus, and slopewash deposits

Ql LANDSLIDE DEPOSITS (HOLOCENE AND/OR PLEISTOCENE)--Debris-flow deposits, composed of angular blocks of sandstone mixed with soil and clay on steep slopes; mostly in Gachupin Canyon

PEDIMENT DEPOSITS (PLEISTOCENE)--Thin gravelly alluvium composed predominantly of round to angular boulders, cobbles, and pebbles of rhyolite from Ash Mountain dike to the west mantling planar surfaces cut on bedrock. Pediment surfaces slope gently eastward away from the mountain front

Qa1 Youngest and lowest pediment deposit--Occurs about 50-60 feet (15-18 m) above modern stream levels

Qa2 Intermediate level pediment deposit--Occurs about 70-80 feet (21-24 m) above modern stream levels

Qa3 Oldest and highest pediment deposit--Occurs about 110-120 feet (34-36 m) above modern stream levels

Ti INTRUSIVE IGNEOUS ROCKS (MIOCENE?)--Intrusive dike of fine-grained medium-gray diorite porphyry. Phenocrysts are euhedral to subhedral and consist predominantly of plagioclase (An_{25-35}) together with augite, biotite, and orthoclase. Feldspars are extensively altered. Groundmass feldspar appears to be predominantly orthoclase. Dike forms persistent conspicuous wall across southwestern part of quadrangle

Tpc POISON CANYON FORMATION (PALEOCENE)--Sandstone and sandy claystone. Sandstone is medium grained to granule sized, conglomeratic in upper part, coarsens to the west. Light gray to yellowish gray, weathers grayish orange and yellow with stains of red, pink, and brown. Thick bedded; forms massive ledges. Sandy claystone is medium gray to grayish yellow; weathers to grayish-orange or dark-yellowish-orange soil. Forms slopes between and intertongues with ledge-forming sandstones. Contact with underlying Raton Formation, where divided, is generally indefinite and gradational through a transition zone as thick as 150-200 feet (45-60 m)

Tr RATON FORMATION (PALEOCENE)--Very fine to medium grained sandstone interbedded with siltstone, claystone, and mudstone, and beds of carbonaceous shale and coal. Exposures generally poor; upper part of formation intertongues with the Poison Canyon Formation. Sandstone is light gray to yellowish gray, weathers grayish yellow to grayish orange, is locally calcareous and carbonaceous, and forms ledges. Coal beds are single beds or composite zones consisting of coal and partings of carbonaceous shale and bony or impure coal. Major coal beds are shown

—jb— Juan Baca coal bed--Underlies flats and ridge crests at heads of Juan Baca and Pooler Canyons; about 2 feet (0.6 m) thick in quadrangle. Thickens to a zone 9 feet (2.7 m) thick with about 5 feet (1.5 m) of coal 1 mile (1.6 km) north of quadrangle at the head of Juan Baca Canyon

—up— Upper Pooler coal bed--Crops out in valley walls at head of Pooler Canyon; 4-4.5 feet (1.2-1.35 m) thick; mostly a single bed, difficult to trace

—p— Lower Pooler coal bed--Appears to be more extensive than upper bed; crops out about 50 feet (15 m) below Upper Pooler coal bed. Generally contains a thin shale parting in lower 1 foot (0.3 m) of bed. Coal bed is mostly about 4 feet (1.2 m) thick

Trp POISON CANYON AND RATON FORMATIONS UNDIVIDED (TERTIARY)--A stippled pattern indicates the zone of lateral intertonguing of rocks of Raton lithology with rocks of Poison Canyon lithology (arbitrarily drawn). West of the stippled zone the exposed rocks are largely of Poison Canyon lithology and individual tongues of Raton are difficult or impossible to identify and trace in the field

CONTACT--Approximately located

STRIKE AND DIP OF BEDS

61 [6] —p— 51 COAL BED--Approximately located. Dashed where inferred. Major coal beds designated by letter symbol. Numerals show thickness of coal bed (in inches) at measured coal section locations excluding partings more than 3/8 in. thick; bracketed numerals show thickness of coal zone (in feet)

GEOLOGY

GEOLOGIC AND STRUCTURE CONTOUR MAPS OF THE UTE CREEK I SE QUADRANGLE, COLFAX COUNTY, NEW MEXICO

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