

(Divisions of Williams Fork and Iles Formations follow those used by Collins (1976))

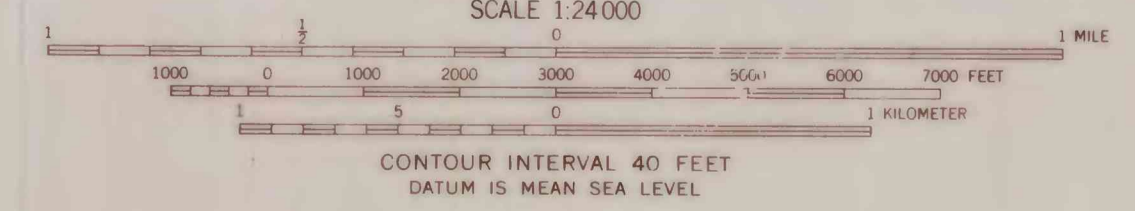
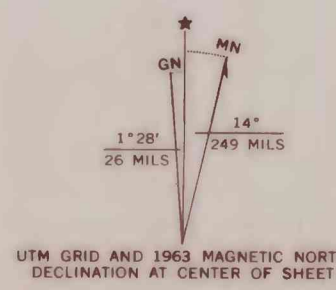
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

(Geologic map of southern part continues on figure 6)



- Qa** ALLUVIUM (HOLOCENE)--Gravel, sand, and silt in and adjacent to streams
- Tm1** MIDDLE TERTIARY INTRUSIVE ROCKS (OLIGOCENE; 26-38 m.y.)--Granodiorite and quartz monzonite; in dikes and irregular bodies
- Two** WASATCH FORMATION, OHIO CREEK CONGLOMERATE (EOCENE AND PALEOCENE)--Variegated claystone, siltstone, sandstone and conglomerate. Ohio Creek conglomerate, a sandstone containing distinctive chert, quartzite, and quartz pebbles, forms base of map unit
- Kwu** WILLIAMS FORK FORMATION (UPPER CRETACEOUS)--Sandstone, locally conglomeratic; siltstone, mudstone, shale, and coal. Undivided upper part of Williams Fork (Kwu) also includes Pabnia Shale Member (not mapped) in lowermost part of map unit; lowermost part contains "upper coal zone" of this report. Underlying Bowie Shale Member (Kwb), 600-800 feet thick, characterized by upper sandstone unit (U) at top, and middle sandstone unit (M); middle sandstone unit overlain by "middle coal zone" of this report. Lowermost 150 feet of Bowie Shale Member contains "lower coal zone" of this report; coal bed A (A) forms base of map unit
- Kir** ILES FORMATION (UPPER CRETACEOUS)--Represented here only by Rollins Sandstone Member (Kir), directly overlain by lower coal zone
- Kn** MANCOS SHALE (UPPER CRETACEOUS)--Chiefly dark-gray marine shale; thin sandstone and siltstone units in upper part and minor amounts of limestone in lower part. Basal unit (Knb) consists of black shale thought to be equivalent to the Benton Shale of eastern Colorado
- Kd** DAKOTA SANDSTONE (LOWER CRETACEOUS)--Light-gray and tan sandstone or quartzite; interbedded dark shale and shaly sandstone
- pKd** Pre-DAKOTA SEDIMENTARY ROCKS--Undifferentiated
- CONTACT**--Dashed where indefinite
- FAULT**--U, upthrown side; D, downthrown side
- THRUST FAULT**--Saw tooth on upper plate
- ANTICLINE**--Showing crestline
- SYNCLINE**--Showing troughline
- STRIKE AND DIP OF BED**
- STRIKE AND DIP OF OVERTURNED BED**
- COAL MINE**

Base from U.S. Geological Survey 1963



Geologic map compiled 1977 from geology mapped by J.R. Donnell, W.E. Hallgarth, and E.R. Landis, USGS (1952-53), and modified from Donnell (1962), Hanks (1962), and Collins (1976, pl. 1)

PLACITA, COLO.  
N3907.5-W10715.75

1963

AMS 4562 III NE--SERIES 9877

FIGURE 7.--GEOLOGIC MAP OF PART OF THE SOUTHERN PART OF THE CARBONDALE COAL MINING AREA, PITKIN AND GUNNISON COUNTIES, COLORADO.