



DESCRIPTION OF MAP UNITS

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

- Qa** ALLUVIUM (HOLOCENE)--Gravel, sand, and silt in and adjacent to streams
- QTa** HIGH-LEVEL ALLUVIUM (PLEISTOCENE AND/OR PLEISTOCENE)--Gravels preserved on ridge tops, characterized by abundant basalt boulders up to 4 feet in diameter and in places has been mapped previously as basalt of Tertiary age
- Two** WASATCH FORMATION, OHIO CREEK CONGLOMERATE (EOCENE AND PALEOCENE)--Variegated claystone, siltstone, sandstone and conglomerate; Ohio Creek Conglomerate, a sandstone about 90 feet thick and containing distinctive quartz, quartzite, and chert pebbles, forms base of map unit
- Kwa** WILLIAMS FORK FORMATION (UPPER CRETACEOUS)--Sandstone, locally conglomeratic; siltstone, mudstone, shale, and coal. Upper part of Williams Fork Formation (Kwa) about 2,300 feet thick; contact with underlying Pennine Shale Member (Ksp) gradational. As used here, Pennine Shale Member defines a sequence of coal-bearing rocks about 600 feet thick and contains the "upper coal zone" of this report; Sunshine (a coal bed forms base of (Ksp) map unit. Underlying Bowls Shale Member (Kwb), 250-1,000 feet thick, characterized by upper sandstone unit (U) at top of member, and middle sandstone unit (M). Lowest 150 feet of Bowls Shale Member contains "lower coal zone" of this report; coal bed A (A) forms base of map unit
- Kir** ILES FORMATION (UPPER CRETACEOUS)--Sandstone, siltstone, mudstone, and shale; intertongues with Mancos Shale. Rallies Sandstone Member (Kir) at top of Iles Formation, is directly overlain by lower coal zone.
- Kd**
- Kn** MANCOS SHALE (UPPER CRETACEOUS)--Chiefly dark-gray marine shale; minor amounts of limestone in lower part of formation. Basal unit (KnB) consists of black shale thought to be equivalent to the Mancos Shale of eastern Colorado
- KnB**
- CONTACT**--Dashed where indefinite
- FAULT**--V, upthrown side; D, downthrown side. Arrows show direction of relative movement
- STRIKE AND DIP OF BED**
- STRUCTURE CONTOUR**--Drawn on base of coal bed A. Contour interval 300 feet. Datum is mean sea level.
- DRILL HOLE**

Sunray DX Oil Co.
Wolf Creek unit #9
SW NE SW 36, 8S., 90W.

Sunray DX Oil Co.
Wolf Creek unit #5
NE SW NE 1, 9S., 90W.

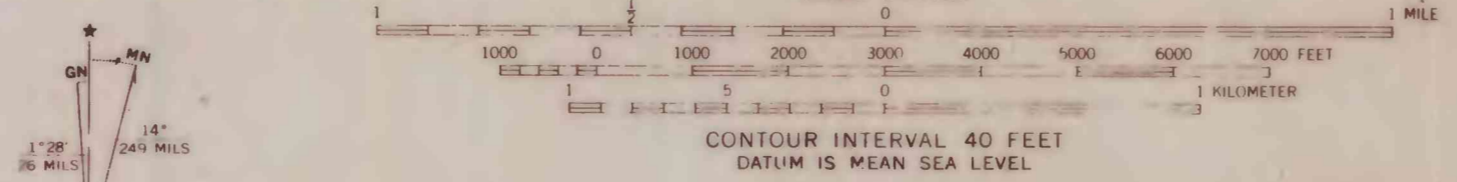
Sunray DX Oil Co.
Wolf Creek unit #6
SW SW NE 12, 9S., 90W.

Fronela Corp.
Conv. no. 11-7-89C
NE SW NW 7, 9S., 89W.

ELEVATIONS OF BASE OF COAL BED A,
AS INTERPRETED FROM WELL LOGS.
DATUM IS MEAN SEA LEVEL.

Base from U.S. Geological Survey 1963

(Geologic map of southern part continues on figure 7)



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) and Collins (1976, pl. 1)

FIGURE 6.--GEOLOGIC MAP OF THE CENTRAL PART, PART OF THE NORTHERN PART, AND PART OF THE SOUTHERN PART OF THE CARBONDALE COAL MINING AREA, GARFIELD AND PITKIN COUNTIES, COLORADO