GEOLOGIC MAP AND SECTIONS OF THE HANNA AND CARBON BASINS, WYOMING

Base from U. S. Geological Survey maps of Walcott, Hanna, and Saddleback Hills quadrangles

Scale 1:62500

Contour interval 25 feet.
Datum is mean sea level.

1929

Geology by C. F. Bowen; reviewed by C. E. Dobbin and H. W. Hoots

EXPLANATION

SEDIMENTARY ROCKS

	Qal — Alluvium	QUATERNARY
	Qt — Terrace gravel	
Miocene (?)	Tnp — North Park formation (White unconsolidated sand and clay with thin interstratified beds of limestone in some places; conglomeratic at base)	TERTIARY
	UNCONFORMITY	
Eocene	Th — Hanna formation (Alternating beds of dark-gray, yellowish, and brown shale and sandstone; conglomerate and numerous beds of coal)	
	UNCONFORMITY	
Eocene (?)	Tf — Ferris formation (Light-colored or dark-gray carbonaceous shale; buff to brown sandstone; pockets, lenses, and thin beds of conglomerate in lower part; numerous beds of coal)	
	KTmb — Medicine Bow formation (Light-colored to gray carbonaceous shale, gray to brown sandstone, and thin irregular beds of coal)	TERTIARY (?)
	Kl — Lewis shale (Predominantly dark-gray shale with thin intercalated beds of shaly sandstone and some beds of light-colored massive to heavy-bedded sandstone)	
	Kmv — Mesaverde formation (As upper member of whitish sandstone and gray shale; a middle member of brown to gray sandstone and thin irregular beds of coal; a lower member of gray to white sandstone and gray shale)	
	Ks — Steele shale (Dark-gray shale with intercalated beds of sandstone and shaly sandstone)	
Upper Cretaceous	Kn — Niobrara formation (Light to dark-colored calcareous shale)	CRETACEOUS
	Kcl — Carlile shale (Dark-gray to black shale with some thin sandy layers)	
	Kf — Frontier formation (An upper member (Wall Creek ? sandstone member) of gray sandstone and gray to black carbonaceous shale with thinner beds of shale and a lower member composed of dark-gray shale)	
	Km — Mowry shale (Dark-brown fissile shale weathering to silver-gray or white)	
	Kt — Thermopolis shale (Dark-gray shale with thin sandy layers)	
Lower Cretaceous	Kcv — Cloverly formation (An upper member of sandstone, a middle member of shale, and a lower member of conglomeratic sandstone)	
Upper (?) Jurassic	Jmo — Morrison formation (Shale, mostly gray or greenish, alternating with sandy shale)	CRETACEOUS (?)
	Js — Sundance formation (Green, slate-brown, and drab shales with a few interstratified beds of sandstone)	JURASSIC
	Rc — Chugwater formation (Red shale with intercalated red, buff, and yellow sandstone)	TRIASSIC
	C — Carboniferous undifferentiated (Limestone, dolomite, sandstone, and shale of variable thickness and color)	CARBONIFEROUS (PENNSYLVANIAN)
	UNCONFORMITY	
	Igneous and metamorphic rocks	PRE-CAMBRIAN

Fault

Axis of anticline

Axis of syncline

Outcrop of coal bed (Line dashed where outcrop is uncertain. Figures in bbs. are the numbers of beds. Figures in black refer to measured sections discussed in text)

Strike and dip of strata

Strike of vertical strata

Strike and dip of overturned strata

Mine

Oil well

Gas well

Dry hole

HANNA BASIN

CARBON BASIN

Sections along lines A-B to O-P