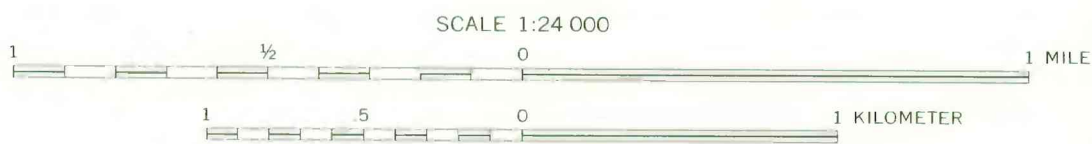




BASE BY U. S. GEOLOGICAL SURVEY

Geology mapped in 1980 and 1981

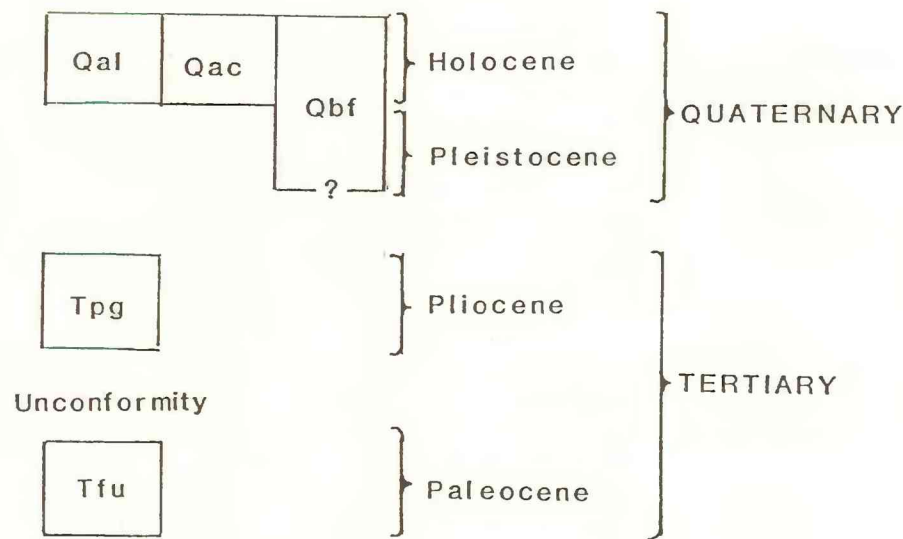


## GEOLOGIC MAP OF THE BIG SHEEP MOUNTAIN NW QUADRANGLE, McCONE AND PRAIRIE COUNTIES, MONTANA

By  
R.B. Colton, J.P. McGraw and S.L. Durst

1994

### CORRELATION OF MAP UNITS



### DESCRIPTION OF MAP UNITS

- Qal Alluvium (Holocene)**--Light-brown and gray, well-stratified and well-sorted clay, silt, sand, and gravel. As much as 6 m (16 ft) thick under the flood plains of Pasture and Tusler Creeks to less than 3 m (10 ft) under flood plains and tributaries. Unit limited to areas characterized by meander or braided patterns on aerial photographs. Surface of unit may be subject to occasional flooding
- Qac Alluvium and colluvium (Holocene)**--Light-brown and gray, poorly sorted and poorly stratified clay, silt, sand, and gravel deposited by gravity and slope wash. As much as 10 m (33 ft) thick, but generally less than 5 m (16 ft). The color and texture of the colluvium reflect the parent material upslope. May interfinger with alluvium; includes alluvial fans and much windblown clay, silt, and sand. Soil profiles range from well-developed to poorly developed
- Qbf Baked and fused bedrock (clinker) (Holocene to Pleistocene)**--Red to orange baked shale, sandstone, and siltstone of the Fort Union Formation that was heat metamorphosed by combustion of lignite to hard, dense porcellanite and, locally, black, vesicular, glassy, scoriaceous buchite, which forms linings of chimneys and veins in porcellanite. Clinker is as much as 6 m (20 ft) thick, but generally less than 3 m (10 ft)
- Tpg Sand and gravel, undivided (Pliocene)**--Light-brown to light-gray, well-stratified, and well-sorted to poorly sorted sand and gravel. Thickness as much as 10 m (33 ft), but generally less than 3 m (10 ft). Unit generally limited to altitudes between 945 m (3,080 ft) and 762 m (2,440 ft). May contain some Pleistocene sand and gravel
- Tfu Tongue River Member (Collier and Knechtel, 1939) of Fort Union Formation (Paleocene)**--Yellowish- or light-brown and gray shale and sandstone containing numerous lignite beds. Estimated thickness of unit more than 145 m (476 ft)

- w Water
- Contact--Dashed where approximately located
- ✕ Abandoned coal mine
- ✕ Gravel pit

### REFERENCE

Collier, A.J., and Knechtel, M.N., 1939, The coal resources of McCone County, Montana: U.S. Geological Survey Bulletin 905, 80 p.

JOHNSON COULEE EAST 88-610	BROCKWAY NE 88-631	YOUNGQUIST MINE 88-627	CIRCLE 88-630	WOODWORTH HILL 88-628	OLSON COULEE NORTH 88-620	JOHNSON RESERVOIR NW 88-613	JOHNSON RESERVOIR NE 88-611
BEAUTY CREEK 88-636	BROCKWAY 88-623	CIRCLE SW 88-629	QUICK RESERVOIR 88-618	MOUNT ANTELOPE 88-616	OLSON COULEE SOUTH 88-621	DEER CREEK CHURCH 88-625	JOHNSON RESERVOIR 88-609
BERRY SCHOOL 88-632	WATKINS 88-521	RIO SHEEP MOUNTAIN NW 88-622	BEARSHACK CREEK 88-634	DIAMOND G BUTTE NW 88-607	UNION SCHOOL 88-617	LINDSAY 88-614	WOODROW 88-625
HEITZ SCHOOL 88-608	WATKINS SE 88-624	RIO SHEEP MTH 88-629	BECKER DAM 88-633	NORTH COULEE 88-619	DIAMOND G BUTTE 88-635	LINDSAY SW 88-615	UPPER CRACKER BOX SCHOOL 88-612

INDEX TO QUADRANGLES IN THE CIRCLE 30' x 60' QUADRANGLE. MAPPED  
QUADRANGLE SHOWN BY STRIPES; NUMBERS ARE OPEN-FILE NUMBERS

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