U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

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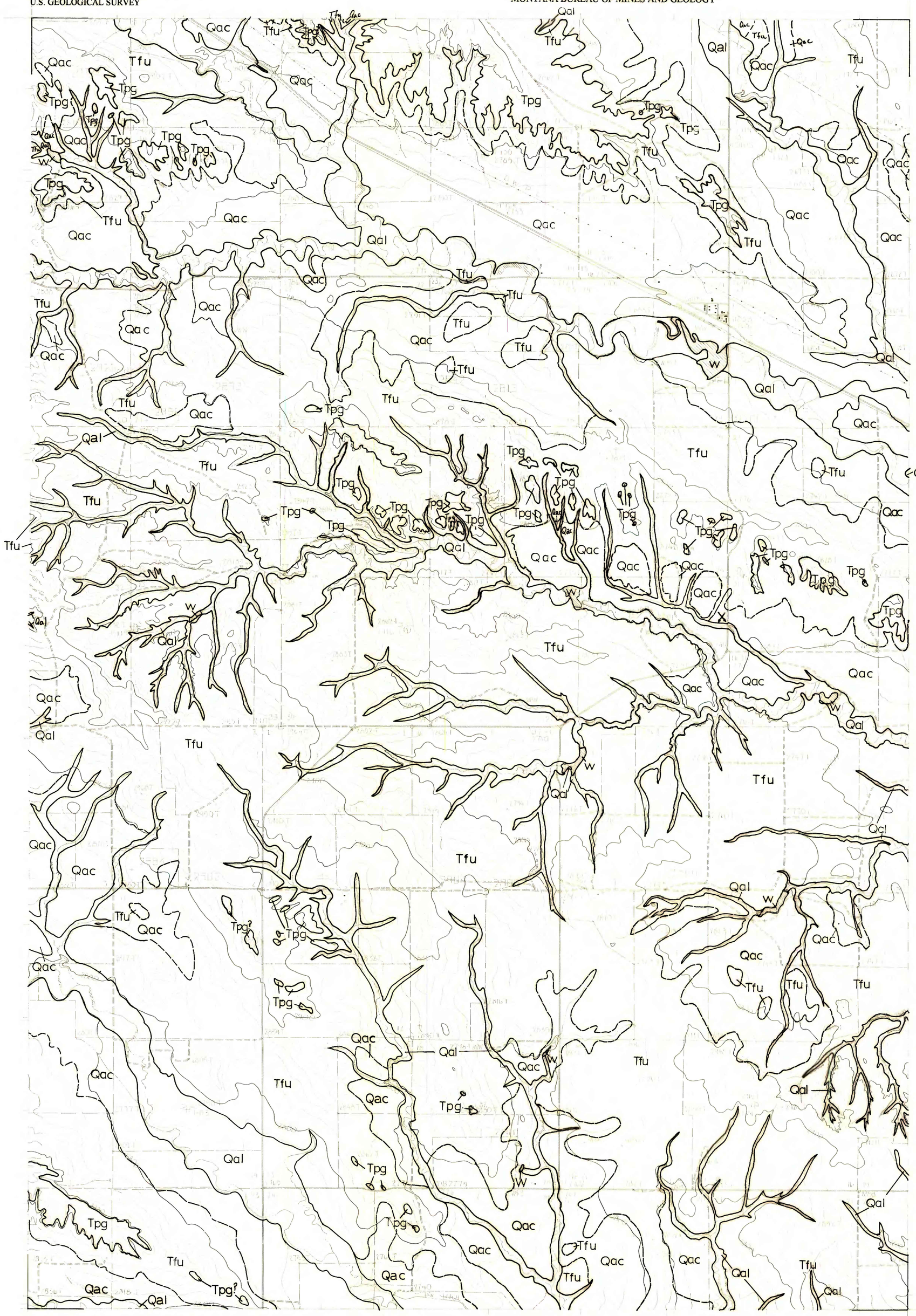
OPEN-FILE REPORT 88-614



Base from U. S. Geological Survey

Geology mapped in 1980 and 1981

SCALE 1:24 000

1 ½ 0 1 MILE

1 .5 0 1 KILOMETER

CORRELATION OF MAP UNITS

Qal, Qac	Holocene	QUATERNARY	
Tpg	Pliocene	TERTIARY	
Unconformity			
Tfu	Paleocene		

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 (20 ft) thick under the flood plain of Upper Sevenmile Creek but only a few meters thick under flood plains of 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 well-stratified clay, silt, sand, and gravel deposited by slope wash and gravity processes. 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

Tpg **Sand and gravel, undivided (Pliocene)**--Light-brown to light-gray, well-stratified and well-sorted sand and gravel. Thickness is as much as 12 m (40 ft), but generally less than 3 m (10 ft). Remnants of unit are generally limited to altitudes between 908 m (2,980 ft) and 841 m (2,760 ft). May contain some Pleistocene sand and gravel

Tfu **Tongue River Member (Collier and Knechtel, 1939) of Fort Union Formation (Paleocene)**--Yellowish- and light-brown shale and sandstone containing numerous lignite beds. Estimated thickness of formation remaining under highest parts of quadrangle is more than 153 m (500 ft)

w **Water**

Contact--Dashed where approximately located

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.

47°30' 106° 106° 47°30'

JOHNSON COULEE EAST 88-610	BROCKWAY NE 88-631	YOUNGQUIST MINE 88-627	CIRCLE 88-630	WOODWORTH HILL 88-626	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 93-521	BIG SHEEP MOUNTAIN NW 88-622	BEARSHACK CREEK 88-634	DIAMOND Q BUTTE NW 88-607	UNION SCHOOL 88-617	LINDSAY 88-614	WOODROW 88-626
HEITZ SCHOOL 88-608	WATKINS SE 88-624	BIG SHEEP MTN 93-529	BECKER DAM 88-633	NORTH COULEE 88-619	DIAMOND Q BUTTE 88-635	LINDSAY SW 88-615	UPPER CRACKER BOX SCHOOL 88-612

47° 106° 106° 47°

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

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American stratigraphic code. Any use of trade, product, or firm names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

GEOLOGIC MAP OF THE LINDSAY QUADRANGLE, DAWSON COUNTY, MONTANA

By

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1994