

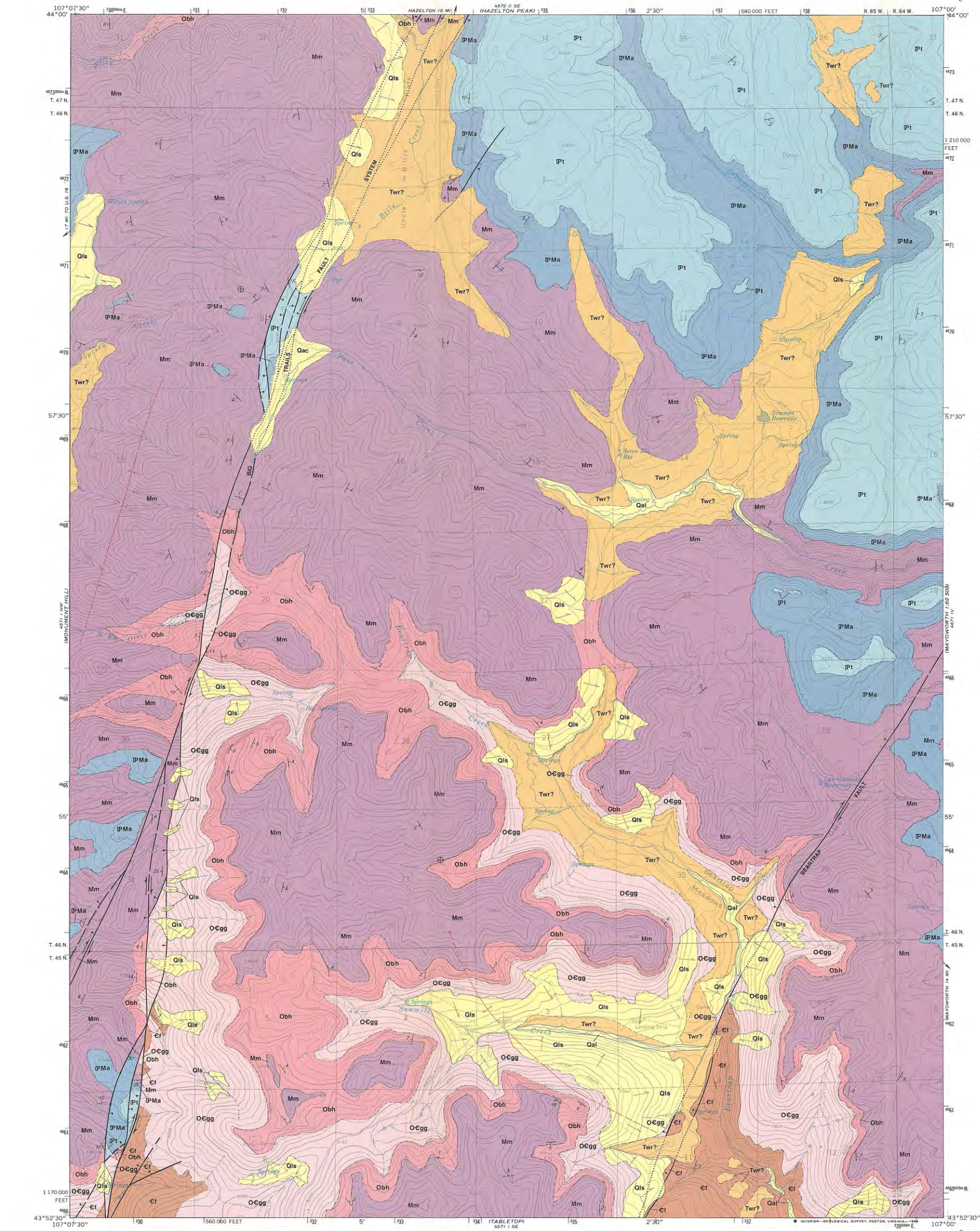
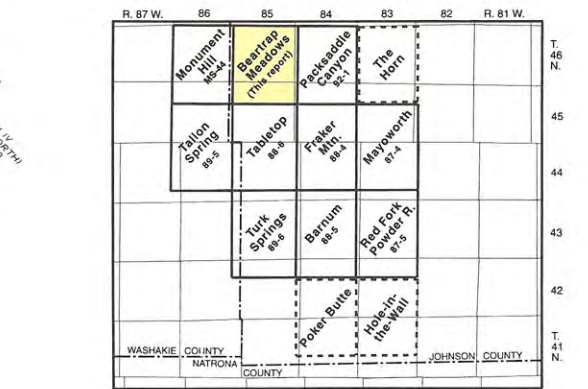
EXPLANATION

- SEDIMENTARY ROCKS AND SURFICIAL DEPOSITS**
- Qal** Alluvium
Unconsolidated deposits of alluvium along stream valleys at or near present stream levels.
 - Qac** Mixed alluvium and colluvium
Unconsolidated tributary stream alluvium and colluvium.
 - Qls** Landslide deposits
Blocks of bedrock or loose slope debris; arrows point in the inferred direction of movement.
 - Twr?** White River Formation (?) (Oligocene)
White, gray, pink, and brown tuffaceous claystone interbedded with lenticular gravel or conglomerate beds. Deposited in pre-Oligocene valleys cut into Paleozoic rocks. Thickness less than 100 feet.
 - IPt** Tensleep Sandstone (Pennsylvanian)
White to gray, medium- to fine-grained massive sandstone interbedded with thin limestone and dolomite beds, especially toward the base. Sandstones are often characterized by large-scale crossbeds. Thickness 250 to 300 feet.
 - IPMa** Amsden Formation (Pennsylvanian and Upper Mississippian)
Includes from top to bottom: Rancheater Limestone Member—gray to purplish limestone and dolomite, interbedded with red shale, siltstone, and sandstone; Horseshoe Shale Member—reddish brown to maroon shale and siltstone with thin beds of sandstone and limestone interbedded; and Darwin Sandstone Member—gray to buff, fine- to medium-grained sandstone often stained red to rusty red, crossbedded, and quite variable in thickness. Total thickness 200 to 250 feet.
 - Mm** Madison Limestone (Upper and Lower Mississippian)
Alternating units of light tan to gray limestone and dolomite; chert lenses and nodules common. Upper portion bluish gray limestone with paleokarst surface at the top. Lower portion mainly dolomite and dolomitic limestone. Entire formation is fossiliferous. Thickness 400 to 550 feet.
 - Obh** Bighorn Dolomite (Upper Ordovician) and Harding Sandstone (Middle Ordovician) undivided
Gray massive cliff-forming siliceous dolomite with a 5-foot light gray to yellowish brown siliceous sandstone at base. Some zones of the dolomite and the lower sandstone of the Bighorn Dolomite are quite fossiliferous. Highly pitted weathered surface characteristic of the dolomite member. Basal light gray to red, fine- to medium-grained, siliceous sandstone approximately 30 feet thick. Locally, this unit contains primitive fish bones and plates and is referred to as the Harding Sandstone. Total thickness 150 to 200 feet, thinning to the southeast.
 - OCgg** Gallatin Limestone (Lower Ordovician and Upper Cambrian) and Gros Ventre Formation (Middle Cambrian) undivided
Uppermost unit (Gallatin Limestone) contains resistant grayish red limestone and thin beds of flat-pebble conglomerate underlain by olive green to yellowish brown, glauconitic shale and siltstone. The middle unit (Gros Ventre Formation) includes light gray limestone, silty and glauconitic, interbedded with soft grayish green shale and beds of flat-pebble conglomerate. The basal unit (Gros Ventre Formation) consists of yellowish brown to reddish brown, friable, medium- to coarse-grained glauconitic sandstone. The two formations are not distinguishable for mapping purposes in this area. Landslides are quite common to this unit. Total thickness nearly 500 feet.
 - Ef** Flathead Sandstone (Middle Cambrian)
Tan, brown, and reddish gray quartz sandstone; medium- to coarse-grained and crossbedded to planar bedded. Thin interbeds of green, maroon, and tan siltstone, mainly in the upper portion; arkosic conglomerate in lower part. Thickness 300 to 400 feet.

- MAP SYMBOLS**
- Formation contact**
Dashed where approximately located.
 - Fault**
Dashed where approximately located, dotted where concealed. Bar and ball on downthrown block; arrows indicate relative direction of oblique-slip movement.
 - Anticline**
Trace of axial plane and direction of plunge determined by field dip measurements and by photo interpretations. Dashed where approximately located. Short arrow denotes steeper dipping limb of asymmetrical anticline.
 - Monocline**
Trace of axial plane as determined by field measurements and by photo interpretation. Dashed where approximately located. Short arrow denotes steeper dipping limb.
 - Strike and dip of beds, showing angle of dip**
(⊕ = horizontal beds)

- REFERENCES**
- Darton, N.H., 1906, Geology of the Bighorn Mountains: U.S. Geological Survey Professional Paper 51, 129 p., plate 47, scale 1:250,000.
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- Ver Ploeg, A.J., and Greer, P.L., 1991, Preliminary geologic map of the Beartrap Meadows Quadrangle, Johnson County, Wyoming: Geological Survey of Wyoming Open File Report 91-4, scale 1:24,000.

Geologic quadrangle maps of the southern Bighorn Mountains available from the Wyoming State Geological Survey. (Open file maps are annotated with the year and number of each map, i.e., 88-5.) MS indicates Map Series.



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CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Base map from U.S. Geological Survey
Cartography by Phyllis A. Ranz

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GEOLOGIC MAP OF THE BEARTRAP MEADOWS QUADRANGLE, JOHNSON COUNTY, WYOMING

by
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1995