GEOLOGICAL SURVEY OF WYOMING
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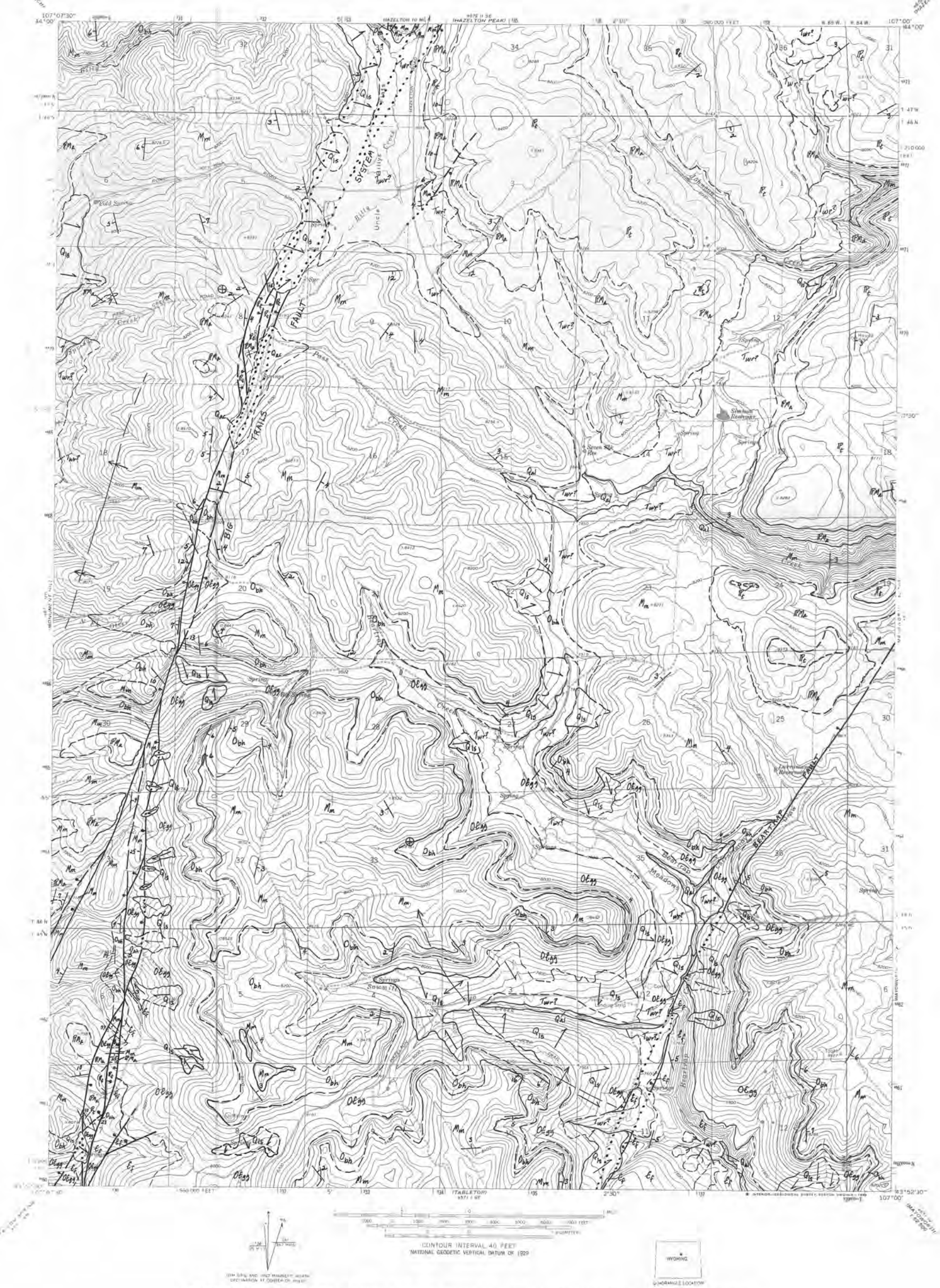
OPEN FILE REPORT 91-4



EXPLANATION

QUATERNARY

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.

TERTIARY

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.

PENNSYLVANIAN

Pt **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 ranges from 250 to 300 feet.

PENNSYLVANIAN AND MISSISSIPPIAN

PMa **Amsden Formation (Pennsylvanian and Upper Mississippian)**
Includes from top to bottom: Ranchester 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 ranges from 200 to 250 feet.

MISSISSIPPIAN

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 karst surface at the top. Lower portion mainly dolomite and dolomitic limestone. Entire formation is fossiliferous. Thickness is 400 to 500 feet.

ORDOVICIAN

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 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 from 150 to 200 feet, thinning to the southeast.

CAMBRIAN

OEgg **Gallatin Limestone (Lower Ordovician and Upper Cambrian) and Gros Ventre Formation (Middle Cambrian) undivided.**
Upper most 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 bed 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 is near 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 is 300 to 400 feet.

Formation contact
Dashed where approximately located

Fault
Dashed where approximately located. Dotted where concealed. Bar and ball on dowthrown block.

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 beds, showing angle of dip
(⊕ = horizontal beds)

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

By
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