UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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OFR 64-91

Base by U.S. Geological Survey, 1959

Geology mapped in 1960 and 1963

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GEOLOGIC MAP OF THE SQUAW SPRING QUADRANGLE, ALBANY, CARBON, CONVERSE, AND NATRONA COUNTIES, WYOMING

By
E. N. Harshman
1964

55084 PLEASE REPLACE IN POCKET IN BACK OF BOUND VOLUME

This map is preliminary and has not been edited or reviewed for conformity with U. S. Geological Survey standards and nomenclature.

EXPLANATION

This is a master explanation for open-file geologic maps of the Squaw Spring and Chalk Hills quadrangles. An asterisk (*) precedes the explanation for symbols not present in this quadrangle.

QUATERNARY

Pleistocene and Recent

Qal
Alluvium
Stream alluvium and terrace gravels

Qls
Landslide material
May be in part of late Tertiary age

TERTIARY

Oligocene

Twru / Twrl
White River Formation
Twru, upper member; interbedded tan siltstone and conglomerate;
Twrl, lower member; tan tuffaceous siltstone

Middle and upper Eocene

Tcs
Claystone and sandstone
Light-green silicified bentonitic claystone and arkosic sandstone. May be lower part of White River Formation

Lower Eocene

Twdr
*Wind River Formation
Variegated siltstone and claystone, and gray sandstone; conglomeratic locally at base

Paleocene or lower Eocene

Tls
Landslide material
Some slides reactivated in Quaternary time

UNCONFORMITY

CRETACEOUS

Upper Cretaceous

Kn
*Niobrara Formation
Gray limy shale and shaly limestone

Kf
*Frontier Formation
Gray shale and sandstone; bentonitic near base; Wall Creek Sandstone Member at top

Kmt
*Mowry and Thermopolis Shales
Mowry Shale is gray siliceous shale containing thin bentonite beds and abundant fish scales; weathers silvery yellow. Underlying Thermopolis Shale is thin-bedded dark-gray shale with Muddy Sandstone Member about 50 feet above base

Lower Cretaceous

Kcv
Cloverly Formation
Buff to light-gray cressbedded sandstone and thin-bedded black carbonaceous shale; chart-pebble conglomerate about 15 feet above base

JURASSIC

Upper Jurassic

Jm
Morrison Formation
Variegated claystone with nodular limestone and lenticular silty sandstone

UNCONFORMITY(?)

Js
Sundance Formation
Upper part is greenish-yellow glauconitic shale and siltstone; middle part is green shaly sandstone and red sandy siltstone; lower part is massive yellowish-white cressbedded friable sandstone. Calcareous throughout

UNCONFORMITY

TRIASSIC

Upper Triassic

TRj
Jelm Formation
Buff even-bedded sandstone in upper part; red siltstone interbedded with sandstone in lower part

UNCONFORMITY(?)

Lower Triassic

TRc
Chugwater Formation
Red shale and siltstone; includes Alcova Limestone Member at top

TRPg
Goose Egg Formation
Red siltstone and shale and gray limestone; contains gypsum beds in some areas

UNCONFORMITY

PENNSYLVANIAN AND PERMIAN

Middle and Upper Pennsylvanian and Lower Permian

PIPc
Casper Formation
Tan massive cressbedded sandstone and reddish-brown quartzite in upper part; pink or gray limestone and dolomite, and calcareous sandstone in lower part

UNCONFORMITY

MISSISSIPPIAN

Lower Mississippian

Mm
Madison Limestone
Predominantly gray massive limestone and dolomite; considerable chert near top; arkosic sandstone and conglomerate at base

UNCONFORMITY

PRECAMBRIAN

Diabase dike

Quartz vein

p€g
Granite

Contact
Dashed where approximately located

High-angle fault
Dashed where approximately located. U, upthrown side; D, downthrown side

Landslide area
Age uncertain where no symbol shown

Dip and strike of beds