



CORRELATION OF MAP UNITS			
Qa1	Qa2	Holocene	QUATERNARY
Qa3	Qa4	Pleistocene	
UNCONFORMITY			
Tub	Tu	Upper and Middle Eocene	TERTIARY
Im	Im	Upper Jurassic	
UNCONFORMITY			
Tu3	Tu2	Upper Triassic	TRIASSIC
Tu1	Tu	Lower Triassic	
Pp	Pp	Upper and Lower Permian	
UNCONFORMITY			
Pt	Pt	Middle Pennsylvanian	PENNSYLVANIAN
Pna	Pna	Lower Pennsylvanian	
UNCONFORMITY			
Mm	Mm	Upper Mississippian	MISSISSIPPIAN
Ml	Ml	Lower Mississippian	
UNCONFORMITY			
Ob	Ob	Upper Ordovician	ORDOVICIAN
UNCONFORMITY			
Cg	Cg	Upper Cambrian	CAMBRIAN
Cgv	Cgv	Middle Cambrian	
Cf	Cf	Lower Cambrian	
UNCONFORMITY AND UPLIFT			
Xd	Xd	Precambrian X ¹	PRECAMBRIAN
Wqm	Wqm	Precambrian W ¹	
UNCONFORMITY AND UPLIFT			
Wng	Wng	Precambrian W ²	PRECAMBRIAN

- DESCRIPTION OF MAP UNITS
- Qa1 ALLUVIUM (UPPER HOLOCENE)--Sand silt in contemporary arroyos and other stream courses
 - Qa2 OLDER ALLUVIUM (LOWER HOLOCENE AND PLEISTOCENE)--Oxidized sand, silt, and minor clay with included fragments of unweathered bedrock deposited as fans and bajadas
 - Qa3 GRAVEL (HOLOCENE AND PLEISTOCENE)--Gravel derived mostly from Paleozoic and Precambrian terranes and deposited as caps on a group of dissected pediments
 - Tub WAGON BED FORMATION (UPPER AND MIDDLE EOCENE)--Volcanic ash, sand, and minor porphyritic andesitic cobbles with admixed locally derived detrital materials including boulder trains at the foot of highland areas. Probably in large part air-fall and mudflow deposits. Partly sulfatized in places
 - Im MORRISON FORMATION (UPPER JURASSIC)--Yellowish-gray sandstone
 - Tu3 SUNDANCE FORMATION, UPPER PART (UPPER JURASSIC)--Yellowish-gray clayey siltstone and dark-brown silty limestone. Fossiliferous
 - Tu1 SUNDANCE FORMATION, LOWER PART (UPPER JURASSIC)--Friable yellowish-gray sandstone and gray claystone. Sparingly fossiliferous
 - Tu2 CROW MOUNTAIN FORMATION (UPPER TRIASSIC)--Orange-red sandstone with thin brick-red siltstone seams. Some white, yellowish-white, and pale brown sandstone beds near top and near base
 - Pp ALGONA LIMESTONE (LOWER TRIASSIC)--Gray, somewhat organic limestone with abundant small algal structures
 - Pt1 RED PEAK FORMATION (LOWER TRIASSIC)--Red sandstone and sandy siltstone with thin brick-red siltstone seams
 - Pt2 DUNMOODY FORMATION (LOWER TRIASSIC)--Yellow siltstone
 - Pna PARK CITY FORMATION (UPPER AND LOWER PERMIAN)--Light-gray limestone
 - Pt TENSLEEP SANDSTONE (MIDDLE PENNSYLVANIAN)--Light-gray to buff sandstone. Thin sandy limestone lenses near top
 - Pna AMSDEN FORMATION (MIDDLE AND LOWER PENNSYLVANIAN AND UPPER MISSISSIPPIAN)--Three units, not everywhere observable: an upper yellow argillaceous and sandy dolomite, a middle red shale, and a basal reddish-brown sandstone
 - Mm MADISON LIMESTONE (UPPER AND MIDDLE MISSISSIPPIAN)--Light-gray limestone and dolomitic limestone. Sandy in places
 - Ob HIGHORN DOLOMITE (UPPER ORDOVICIAN)--Light-gray sandy, saccharoidal, siliceous dolomite
 - Cg GALLAPIN FORMATION (UPPER CAMBRIAN)--Upper part maroon-weathering gray and yellowish-brown limestone cliff with such edgewise limestone pebble conglomerate; middle part mostly gray to pink limy shale; lower part cliff-forming brown-weathering gray to tan limestone
 - Cf CROSS VENTRE FORMATION (MIDDLE CAMBRIAN)--Grayish-green micaceous shale with minor sandstone and limestone beds. Maroon-weathering glauconitic zone about one-third of total thickness above base
 - Cf FLATHEAD SANDSTONE (MIDDLE CAMBRIAN)--Brown and maroon ferruginous sandstone and gritstone. Conglomerate and breccia conglomerate at base in some places
 - Xd DIABASE DIKES (PRECAMBRIAN X¹)--Dark green to black chloritized and slickensided
 - Wqm QUARTZ MONZONITE (PRECAMBRIAN W¹)--Pink to orange. Average modal composition of 30 point-counted specimens in 34 percent microcline, 34 percent sodic plagioclase, and 32 percent quartz, with minor quantities of muscovite, biotite, and accessories
 - Wng METASEDIMENTS (PRECAMBRIAN W²)--Mostly if not wholly of sedimentary origin. Consists largely of amphibole schists and amphibole-quartz-mica schists with abundant garnet, andalusite and other accessory minerals. In some places, quartzite, and marble. Includes slightly metamorphosed gabbroic dikes and sills

- CONTACT
- FAULT--Dotted where concealed
- MINOR ANTICLINE--Showing crestline and direction of plunge
- MINOR SYNCLINE--Showing troughline and direction of plunge

An interim scheme for subdivision of Precambrian time recently adopted by the U.S. Geological Survey:

- Precambrian Z - base of Cambrian to 800 m.y.
- Precambrian Y - 800 m.y. to 1,600 m.y.
- Precambrian X - 1,600 m.y. to 2,500 m.y.
- Precambrian W - older than 2,500 m.y.

Base from U.S. Geological Survey, 1952

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



PRELIMINARY GEOLOGIC MAP OF THE DE PASS QUADRANGLE, FREMONT AND HOT SPRINGS COUNTIES, WYOMING

By
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