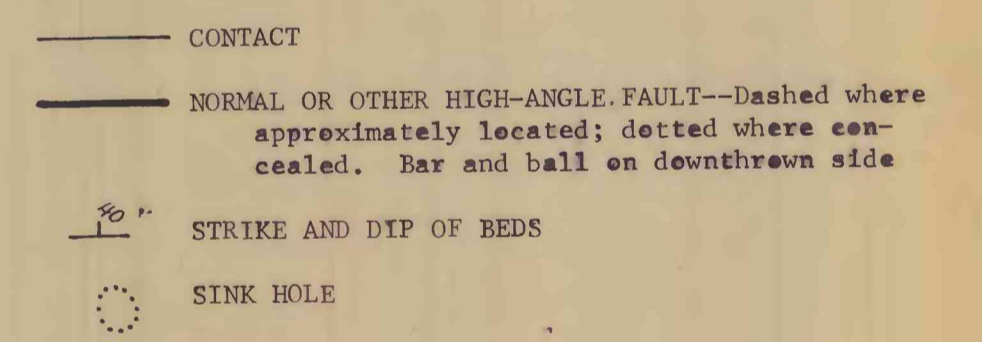




EXPLANATION

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| <p><b>QUATERNARY</b></p> <p><b>Qag</b> ALLUVIAL GRAVEL (HOLOCENE)—Gravel of rounded clasts along and near present level of major streams</p> <p><b>Qf</b> ALLUVIAL-FAN DEPOSITS (HOLOCENE)—Fan-shaped deposits of water-laid gravel, sand, silt, and clay spreading out from mouths of ravines and canyons; show linear sorting along distributaries; debris becomes progressively finer down fan</p> <p><b>Qsf</b> TALUS, ROCKFALL, INTRAMONTANE ALLUVIAL FAN, AND COLLUVIAL DEPOSITS (HOLOCENE)—Locally derived coarse angular rock fragments that accumulate on steep slopes and at the base of cliffs within mountains</p> <p><b>Qs</b> SWAMP DEPOSITS (HOLOCENE)—Clay, silt, and fine sand, dark-gray and brown; rich in vegetal debris</p> <p><b>Qla</b> LANDSLIDE DEBRIS (HOLOCENE)—Chaotically mixed boulders and finer rock debris emplaced by mass movement</p> <p><b>Qe</b> COLLUVIUM (HOLOCENE)—Slope wash of silt- to boulder-sized fragments derived from underlying and adjacent formations</p> <p><b>Qlg</b> LANDSLIDE AND GLACIAL DEBRIS (HOLOCENE AND PLEISTOCENE)—Landslide and glacial debris so completely intermixed that they cannot be mapped separately</p> <p><b>Qjlm</b> MORAINAL DEBRIS OF JACKSON LAKE GLACIATION (PLEISTOCENE)—Till that is part of the Jackson Lake moraine or that accumulated nearby at the same time; composed largely of locally derived rock fragments</p> <p><b>Qbrm</b> MORAINAL DEBRIS OF BURNED RIDGE GLACIATION (PLEISTOCENE)—Till believed to be contemporaneous with the Burned Ridge moraine that was deposited across Jackson Hole 8 miles to the south; slightly older than the Jackson Lake moraine</p> <p><b>Qg</b> UNDIFFERENTIATED GLACIAL DEBRIS (PLEISTOCENE)—Morainal debris deposited by southward-moving ice from area of Yellowstone National Park or eastward-moving ice from the Teton Range; debris at higher elevations has more subdued topography than the Jackson Lake moraine; probably much is contemporaneous with Burned Ridge morainal debris</p> <p><b>Qsi</b> RED CLAY, SILT, SAND AND CONGLOMERATE SEQUENCE (PLEISTOCENE)—Lacustrine and fluvialite sequence similar to that near Shooting Iron Ranch in Jackson quadrangle (Love and Albee, 1972, U.S. Geol. Survey Misc. Inv. Map I-769-A; conglomerate is chiefly of rhyolite and granite fragments. Sequence involved in tectonic movement along Teton fault. Thickness at least 20 feet; base not exposed</p> <p><b>Qst</b> GRAY SILT, TILL, LOESS, AND CLAY SEQUENCE (PLEISTOCENE)—Lacustrine, fluvialite, and glacial deposits of uncertain correlation, but probably early Pleistocene; involved in tectonic movement along Teton fault. Thickness at least 30-50 feet; top eroded</p> <p><b>Qb</b> <b>Qhb</b> HUCKLEBERRY RIDGE TUFF (PLEISTOCENE)—Welded rhyolitic ash flows<br/><b>Qha</b> <b>Qhb</b>, member B—Light-brown to gray welded rhyolitic ash flows with abundant large quartz phenocrysts; near top are two layers of crystallized pumice; at base is gray and pink pumice and perlite. Thickness about 100 feet<br/><b>Qha</b>, member A—Brown welded rhyolitic ash flows; black vitrophyric welded tuff at base; above this the rock has 40-50 percent phenocrysts which decrease in abundance upward; widespread less densely welded zone at top. Major unconformity at base. Thickness about 150 feet</p> <p><b>Kb</b> BACON RIDGE SANDSTONE (UPPER CRETACEOUS)—Tan to gray, thick bedded, fine grained except for quartzite roundstone zone near base; interbedded with gray and black shale; several coal and bentonite beds in lower part; abundant marine fossils. Thickness about 1,000 feet</p> <p><b>Kc</b> CODY SHALE (UPPER CRETACEOUS)—Dull gray, interbedded with lesser amounts of gray siltstone and gray fine-grained slabby sandstone; marine. Thickness about 1,400 feet</p> | <p><b>CRETACEOUS</b></p> <p><b>Kf</b> FRONTIER FORMATION (UPPER CRETACEOUS)—Sandstone, gray, fine- to coarse-grained, pebbly and highly glauconitic near top; interbedded with gray and black shale; bentonite beds in lower part; largely marine. Thickness about 1,000 feet</p> <p><b>Kmr</b> MOWRY SHALE (LOWER CRETACEOUS)—Dark gray to black, weathering silvery gray, very hard, brittle, silicified, thin bedded; several cream-colored bentonite beds; silicified fine-grained laminated sandstone common. Thickness about 650 feet</p> <p><b>TRIASSIC</b></p> <p><b>Rr</b> RED PEAK MEMBER OF CHUGWATER FORMATION (TRIASSIC)—Siltstone and shale, brick-red, interbedded with fine-grained red sandstone. Thickness about 800 feet</p> <p><b>Td</b> DIMWOODY FORMATION (LOWER TRIASSIC)—Siltstone and shale, brown, hard, thin-bedded, dolomitic, marine. Thickness about 200 feet</p> <p><b>PERMIAN</b></p> <p><b>Pp</b> PHOSPHORIA FORMATION (PERMIAN)—Dolomite, gray, cherty, sandy; some black shale and phosphate beds; petroliferous; marine. Thickness about 200 feet</p> <p><b>MISSISSIPPIAN</b></p> <p><b>PMca</b> TENSLEEP SANDSTONE (PENNSYLVANIAN) AND AMSDEN FORMATION (PENNSYLVANIAN AND MISSISSIPPIAN)—Tensleep Sandstone is light gray, fine grained, hard, brittle, cherty, marine; thickness about 380 feet. Amsden Formation is white to tan dolomite, red and green shale, chert, and sandstone; marine; thickness about 230 feet</p> <p><b>Mm</b> MADISON LIMESTONE (MISSISSIPPIAN)—Blue gray, hard, porous, cavernous in part, marine; zone of red shale, sandstone, and limestone 50-100 feet thick at top. Thickness about 1,100 feet</p> <p><b>DEVONIAN</b></p> <p><b>Dd</b> DARBY FORMATION (DEVONIAN)—Dolomite, dark-gray to brown, fetid, hard; and yellow, brown, and black shale; thin sandstone interbeds; marine. Thickness about 250 feet</p> <p><b>ORDOVICIAN</b></p> <p><b>Ob</b> BIGHORN DOLOMITE (ORDOVICIAN)—Light gray, siliceous, very hard; white brittle leigh Dolomite Member at top. Composite thickness about 400 feet</p> <p><b>EGgp</b> GALLATIN LIMESTONE AND PARK SHALE MEMBER OF GROS VENTRE FORMATION (CAMBRIAN)—Gallatin Limestone is blue gray mottled with yellow patches, hard; forms cliffs; thickness 200-250 feet. Park Shale is green soft fissile shale interbedded with thin blue-gray limestone; thickness about 240 feet</p> <p><b>CAMBRIAN</b></p> <p><b>Edc</b> DEATH CANYON LIMESTONE MEMBER OF GROS VENTRE FORMATION (CAMBRIAN)—Limestone, dark-blue-gray, very hard; forms two cliffs separated by a soft green shale 25 feet thick. Upper limestone is about 225 feet thick and lower limestone about 65 feet thick. Total thickness about 315 feet</p> <p><b>Swf</b> WOLSEY SHALE MEMBER OF GROS VENTRE FORMATION AND FLATHEAD SANDSTONE (CAMBRIAN)—Wolsey Shale is greenish gray, soft, containing interbeds of purple and green sandstone near base; thickness about 75 feet, with basal beds grading into Flathead Sandstone. Flathead Sandstone is brown, maroon, and white, and contains thin green shale beds in upper part; thickness about 150 feet. Regional unconformity at base</p> <p><b>PRECAMBRIAN</b></p> <p><b>pCr</b> PRECAMBRIAN ROCKS—Layered gneiss, schist, and migmatite cut by dikes of aplite and pegmatite; includes a few small bodies of ultramafic rock</p> |
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PRELIMINARY GEOLOGIC MAP OF THE COLTER BAY QUADRANGLE, TETON COUNTY, WYOMING

By  
J. D. Love and John C. Reed, Jr.

Base from U.S. Geological Survey, unedited advance print

SCALE 1:24,000

CONTOUR INTERVAL 40 FEET  
DATUM IS MEAN SEA LEVEL

1 MILE  
1 KILOMETER

Geology by J. C. Reed, Jr., 1970, and J. D. Love, 1949, 1968, 1972.