



SCALE 1:48 000
0 1 2 3 4 5 MILES

EXPLANATION FOR CHRIS MOUNTAIN AND PAGOSA SPRINGS QUADRANGLES

Holocene and Pleistocene	Qal	Qpg	Qls	QUATERNARY
	Alluvium Valley-bottom alluvial deposits and low-lying terrace gravels	Pediment gravels	Landslide deposits	
Upper Cretaceous	K1	Kmv		CRETACEOUS
	Lewis Shale Dark-gray clay shale; contains rusty-weather- ing concretionary mass- es; thin sandstone beds near top	Lewis Shale and Mesaverde Formation undifferentiated		
	Kmv			
Lower Cretaceous	Kmu	Kml		CRETACEOUS
	Mesaverde Formation Interbedded sandstone, shaly sandstone, and dark clay shale	Mancos Shale Kmu, upper part. Mostly dark shale; contains calcareous shale and argillaceous limestone (Niobrara equivalent) within about 560 ft above base; also contains sandy limestone and argillaceous sandstone (Juana Lopez Member) at base Kml, lower part. Mostly dark shale; contains thin calcareous shale and lime- stone (Greenhorn equivalent) within 150 ft above base		
Upper Jurassic	Kdb	Jmw		JURASSIC
	Dakota Sandstone and Burro Canyon Formation undifferentiated Dakota disconformably overlies Burro Canyon. Dakota Sandstone is light- gray to brown sandstone with interbedded siltstone and carbonaceous shale; commonly contains chert-pebble conglomerate or conglomeratic sandstone at base. Burro Canyon Formation is lenticular chert-pebble conglomerate and green and gray claystone	Morrison Formation and Wanakah Formation undifferentiated Morrison conformably overlies Wanakah. Morrison Formation comprises two members: upper is Brushy Basin Member consisting mostly of varicolored claystone and mudstone; lower is Salt Wash Member consisting of sandstone with interbedded claystone and mudstone. Wanakah Formation comprises three members: Junction Creek Sandstone Member (questionably present in these quadrangles), a middle member, and the Pony Express Member. Junction Creek Sandstone Member is light-gray cross-bedded sandstone; middle member is limy shale, siltstone, and sandstone; Pony Express Member is dark-gray bi- tuminous limestone, locally containing gypsum. Base of Wanakah not exposed in these quadrangles		

Contact
Approximately located
U
Fault
Approximately located;
dotted where concealed;
U, upthrown side
D, downthrown side
Strike and dip of beds

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been edited or reviewed for conformity
with Geological Survey standards.