Table 2.--Generalized correlation chart of selected geologic and aquifer units for Montana

84-4173

Erathem	System	Series	Northwestern Montana Plains	North-central Montana Plains	Eastern Montana and western North Dakota	Southwestern Montana Plains	Southeastern Montana Plains
Cenozoic	Quaternary	Holocene	Alluvium and colluvium; Terrace deposits; Glacial deposits	Alluvium and colluvium; Terrace deposits; Glacial deposits	Alluvium and colluvium; Terrace deposits; Glacial deposits	Alluvium and colluvium; Terrace deposits	Alluvium and colluvium; Terrace deposits
		Pleistocene		Wiota Gravel	Wiota Gravel		
	Tertiary	Pliocene		Flaxville Formation	Flaxville Formation		
		Miocene					Arikaree Formation
		Oligocene		igneous rocks			White River Formation or Group
		Eocene				Wasatch Formation; Absaroka volcanics	Wasatch Formation
		Paleocene	Willow Creek Formation		Fort Union Formation: Sentinel Butte Member; Tongue River Member; Ludlow Member: Lebo Shale Member; Tullock Member	Fort Union Formation	Fort Union Formation: Tongue River Member[1]; Ludlow Member: Lebo Shale Member; Tullock Member
Mesozoic	Cretaceous	Upper Cretaceous	St. Mary River Formation; Montana Group: Horsethief Sandstone; Bearpaw Shale; Two Medicine Formation; Virgelle Sandstone; Telegraph Creek Formation; Marias River Shale	Montana Group: Hell Creek Formation; Fox Hills Sandstone; Bearpaw Shale; Judith River Formation; Claggett Shale; Eagle Sandstone; Virgelle Sandstone Member; Telegraph Creek Formation; Colorado Group or Shale (where undivided): Niobrara Formation; Bowdoin ss.[2]; Carlile Shale; Greenhorn Formation; Mosby Sandstone Member; Belle Fourche Shale	Hell Creek Formation; Fox Hills Sandstone; Fox Hills-lower Hell Creek aquifer; Montana Group: Pierre Shale; Colorado Group: Niobrara Formation; Carlile Shale; Greenhorn Formation; Belle Fourche Shale; Mowry Shale	Hoppers Formation; Billman Creek Formation; Livingston Group: Sedan Formation: Miner Creek Formation; Coleadole Formation; Volcanic rocks, equivalent to Livingston Group; Eagle Sandstone; Telegraph Creek Formation; Cody Shale; Frontier Formation; Boulder River Sandstone Member; Mowry Shale	Hell Creek Formation; Fox Hills-lower Hell Creek aquifer; Fox Hills Sandstone; Montana Group: Bearpaw Shale; Judith River Formation; Parkman Sandstone; Claggett Shale; Eagle Sandstone; Shannon Sandstone Member[2]; Telegraph Creek Formation; Gammon Shale[2]; Colorado Group: Niobrara Formation; Carlile Shale; Greenhorn Formation; Belle Fourche Shale
		Lower Cretaceous	Blackleaf Formation: Bootlegger Member; Vaughn Member; Taft Hill Member; Flood Member; Kootenai Formation: Moulton Member; Sunburst Sandstone Member; Cut Bank Sandstone Member	Colorado Group or Shale (where undivided): Muddy Sandstone; Skull Creek Shale; Basal silt[2]; First Cat Creek sandstone[2]; Kootenai Formation: Second Cat Creek sandstone[2]; Third Cat Creek sandstone[2]	Newcastle or Muddy Sandstone; Skull Creek Shale; Basal silt[2]; Fall River Sandstone; Fuson Shale; Lakota Sandstone	Muddy Sandstone; Thermopolis Shale equivalent (Skull Creek Shale); First Cat Creek sandstone[2]; Graybull Sandstone Member equivalent of Cloverly Formation equivalent; Kootenai Formation; Third Cat Creek sandstone[2]	Newcastle or Muddy Sandstone; Skull Creek Shale; Basal silt[2]; "Dakota"—Fall River Sandstone; Cloverly Formation equivalent (Kootenai Formation): Fuson Shale Member; Lakota Sandstone
	Jurassic	Upper Jurassic	Morrison Formation; Ellis Group: Swift Formation	Morrison Formation; Ellis Group: Swift Formation	Morrison Formation; Ellis Group: Swift Formation	Morrison Formation; Ellis Group: Swift Formation	Morrison Formation; Sundance Formation (upper part)
		Middle Jurassic	Ellis Group: Rierdon Formation; Sawtooth Formation	Ellis Group: Rierdon Formation; Piper Formation; Nesson Formation	Ellis Group: Rierdon Formation; Piper Formation; Nesson Formation	Ellis Group: Rierdon Formation; Piper Formation	Sundance Formation (lower part); Gypsum Spring Formation
	Triassic			Quadrant Formation	Spearfish Formation; Minnekahta Limestone; Opeche Formation; Minnelusa Sandstone; Tyler Formation	Chugwater Formation; Dinwoody Formation; Phosphoria Formation; Quadrant Formation; Tensleep Sandstone; Amsden Group	Chugwater Formation; Spearfish Formation; Minnekahta Limestone; Opeche Formation; Tensleep Sandstone; Amsden Group
Paleozoic	Permian			Amsden Group: Devils Pocket Formation; Alaska Bench Limestone; Tyler Formation			
	Pennsylvanian			Big Snowy Group: Heath Formation; Otter Formation; Kibbey Sandstone	Big Snowy Group: Heath Formation; Otter Formation; Kibbey Sandstone	Big Snowy Group, undivided	
	Mississippian		Madison Group: Sun River Member; Castle Reef Dolomite; Mission Canyon Limestone; Allan Mountain Limestone; Lodgepole Limestone	Madison Group: Charles Formation; Mission Canyon Limestone; Lodgepole Limestone	Madison Group: Charles Formation; Mission Canyon Limestone; Lodgepole Limestone	Madison Group: Charles Formation; Mission Canyon Limestone; Lodgepole Limestone	Madison Group, undivided
Devonian to Precambrian, undifferentiated							

1. Contains Harmon lignite bed of Leonard and Smith (1909)
2. Of subsurface usage

Modified from Balster (1980), Rice (1976 a,b), and Rice and others (1982)