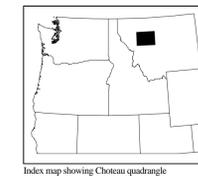


Explanation	
	Qa - alluvial and colluvial deposits
	Qs - landslide deposits
	Qg - glacial deposits
	Ql - lake deposits
	QTog - older gravel
	Ql - lake deposits
	Kamr - St. Mary River Formation
	Kh - Horseshoe Sandstone and Bearpaw-Horseshoe transition unit
	Ku - Upper and Lower Cretaceous rocks undivided; includes Two Medicine Formation, Virgelle Sandstone, Telegraph Creek Formation, Marias River Shale, and Blackleaf, Kootenai, and Mount Pablo Formations
	Ktm - Two Medicine Formation
	Ktv - volcanic-rich sedimentary rocks, flows, and tuffs
	Kvt - Virgelle Sandstone and Telegraph Creek Formation
	Km - Marias River Shale
	KJ - Lower Cretaceous and Jurassic rocks undivided
	Pr - Paleozoic rocks, includes part or all of Mississippian, Devonian, and Cambrian sequences
	Mu - Upper and Lower Mississippian rocks undivided
	Du - Upper and Middle Devonian rocks undivided
	Cu - Cambrian rocks undivided
Belt Supergroup	
	Ygr - Garnet Range Formation
	Ybe - McNamara Formation, Bonner Quartzite, and Mount Shields, Shepard, Snowslip, Helena, Empire, and Spokane Formations
	Ym - McNamara Formation
	Ymi - Bonner Quartzite and Mount Shields, Shepard, and Snowslip Formations, undivided
	Yb - Bonner Quartzite
	Yms - Mount Shields Formation
	Ysh - Shepard Formation
	Ysn - Snowslip Formation
	Yh - Helena Formation
	Yse - Spokane and Empire Formations undivided
	Ye - Empire Formation
	Ys - Spokane Formation
	Yg - Greyson Formation
Igneous rocks younger than Early Tertiary thrust faulting	
	Tb - basalt
	Td - dacite
	Tm - hornblende monzonite
	Tmp - monzonite porphyry
	Ta - biotite trachyandesite and andesite
Igneous rocks older than Early Tertiary thrust faulting	
	Tva - Adel Mountain Volcanics of Lyons (1944)
	TKI - trachyandesite
	TKR - rhyolite
	TKp - quartz monzonite porphyry
	KI - latite
	Zd - diorite sills and local dikes
	Ydi - andesite, basaltic andesite, and dacite
	Tm - hornblende monzonite dikes and sills
	Tmp - monzonite porphyry dikes and sills
	Ks - diorite sills
	Ydi - andesite, basaltic andesite, and dacite sills
	Contact; dotted where concealed
	Contact; scratch boundary
	Fault, unknown offset; dotted where concealed
	Normal fault; dotted where concealed, Bar and ball on downthrown side
	Right-lateral strike-slip fault; dotted where concealed
	Left-lateral strike-slip fault; dotted where concealed
	Thrust; dotted where concealed, Teeth on upper plate
	Anticline; dotted where concealed; arrow head on axis line indicates plunge direction
	Syncline; dotted where concealed; arrow head on axis line indicates plunge direction
	Overturned anticline; dotted where concealed
	Horizontal monocline; dotted where concealed
	Overturned syncline
	Monocline



map projection: Transverse; units: Meters
spheroid: Clarke 1866; datum: NAD27

Geology mapped by Mudge and others (1982). Digital database by S.R. Munts (Information Systems Support, Inc.) and J.T. Silkwood (U.S. Forest Service), 1999-2001. Database approved for publication May 18, 2001.

Geology

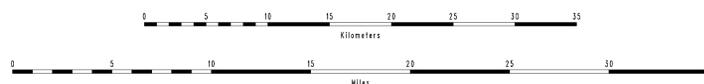
Geologic and Structure Map of the Choteau 1° x 2° Quadrangle, Western Montana: A Digital Database

By
M. R. Mudge, R. L. Earhart, J. W. Whipple and J. E. Harrison

Digital database by
Steven R. Munts and Jeffery T. Silkwood
2001

(map originally published in 1982)

Scale 1:250,000



References

Lyons, J.B., 1944. Igneous rocks of the Northern Big Belt Range, Montana. *Geological Society of America Bulletin*, v. 55, no. 4, pp. 445-472.

Mudge, M.R., Earhart, R.L., Whipple, J.W., and Harrison, J.E., 1982. Geologic and structure map of the Choteau 1° x 2° quadrangle, western Montana: U.S. Geological Survey Miscellaneous Investigations Series Map I-1300, 2 sheets, scale 1:250,000.

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