

Quaternary Fault and Fold Database of the United States

As of January 12, 2017, the USGS maintains a limited number of metadata fields that characterize the Quaternary faults and folds of the United States. For the most up-to-date information, please refer to the [interactive fault map](#).

Parleys Park faults (Class B) No. 2388

Last Review Date: 1999-10-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: Black, B.D., and Hecker, S., compilers, 1999, Fault number 2388, Parleys Park faults, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, <https://earthquakes.usgs.gov/hazards/qfaults>, accessed 12/14/2020 02:57 PM.

Synopsis	Poorly understood Quaternary(?) faults in southeastern Snyderville Basin in the Wasatch Range. The eastern and southern margins of the basin are bounded by steep dip slopes that meet at right angles. This morphology may be due to faulting rather than fluvial erosion. However, recent geologic investigations for ground-water resources in the area found no evidence indicating that this bedrock/alluvium contact is a fault. On the basis of this conflicting evidence, we consider the fault to be a Class B structure
Name	Fault ID: Refer to fault number 12-10 of Hecker (1992 #642)

comments	Fault ID: Refers to fault number 12-10 of Hecker (1995 #042).
County(s) and State(s)	SUMMIT COUNTY, UTAH
Physiographic province(s)	MIDDLE ROCKY MOUNTAINS
Reliability of location	Poor Compiled at 1:250,000 scale. <i>Comments:</i> Mapping from Sullivan and others (1988 #4508). Fault traces from J.T. Sullivan (unpublished U.S. Bureau of Reclamation mapping, 1988, scale 1:250,000).
Geologic setting	Arcuate-shaped west- and north-trending faults bounding the southeastern margin of Snyderville Basin in the Wasatch Range. The faults are about 5 km northwest of the Frog Valley fault [2389]. The Snyderville Basin is one of several discontinuous valleys in the Wasatch Hinterlands east of the Wasatch Range.
Length (km)	3 km.
Average strike	N42°W
Sense of movement	Normal
Dip Direction	W; N
Paleoseismology studies	
Geomorphic expression	Range-front faults forming the southeastern corner of the Snyderville Basin. The eastern and southern margins of the valley are bounded by steep dip slopes that meet at right angles. Sullivan and others (1988 #4508) suggested this morphology is likely due to faulting rather than fluvial erosion. However, recent geologic investigations for ground-water resources in the area by F.X. Ashland (Utah Geological Survey, oral communication, August 2000) found no evidence indicating that this bedrock/alluvium contact is a fault. On the basis of this conflicting evidence, we consider the fault to be a Class B structure.
Age of faulted surficial deposits	Quaternary (?)

Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Based on range-front morphology (Sullivan and others, 1988 #4508).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	#642 Hecker, S., 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 157 p., 6 pls., scale 1:500,000. #4508 Sullivan, J.T., Nelson, A.R., LaForge, R.C., Wood, C.K., and Hansen, R.A., 1988, Central Utah regional seismotectonic study for USBR dams in the Wasatch Mountains: Bureau of Reclamation Seismotectonic Report 88-5, 269 p.

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