

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](#).

East Kamas fault (Class A) No. 2391

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 2391, East Kamas fault, 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 bounding the eastern side of Kamas Valley appear to have been last active before 130-140 ka.
Name comments	Fault ID: Refers to fault number 12-11 of Hecker (1993 #642).
County(s) and State(s)	SUMMIT COUNTY, UTAH
Physiographic province(s)	MIDDLE ROCKY MOUNTAINS

Reliability of location	Good Compiled at 1:250,000 scale. <i>Comments:</i> Fault traces from mapping of Sullivan and others (1988 #4508).
Geologic setting	Generally north-trending range-front normal faults along the eastern side of Kamas Valley on the western edge of the Uinta Mountains.
Length (km)	15 km.
Average strike	N1°E
Sense of movement	Normal
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	Range-front escarpment. Alluvial deposits that are estimated to be 130-140 ka (Sullivan and others, 1988 #4508) cross the inferred trace of the fault and appear to be unfaulted. Degraded scarps on old alluvial-fan remnants could be the result of faulting, but the presence of a parallel scarp (terrace riser) cut by the Weber River suggests an erosional origin is more likely.
Age of faulted surficial deposits	Quaternary(?); deposits that are estimated to be 130-140 ka (Sullivan and others, 1988 #4508) appear to be unfaulted.
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Based on range-front morphology and soil development, Sullivan and others (1988 #4508) reported no evidence for late Quaternary faulting.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr

	<i>Comments:</i> Unfaulted 130-140 ka deposits (Sullivan and others, 1988 #4508) indicate a low slip rate.
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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