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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.

Meadow-Hatton area faults (Class A) No. 2466

Last Review Date: 2004-07-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: **Black, B.D., Hylland, M.D., and Hecker, S., compilers, 2004, Fault number 2466, Meadow-Hatton area 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 02:54 PM.**

Synopsis	Poorly understood zone of Holocene faulting in the Meadow-Hatton area in the Black Rock Desert.
Name comments	**Fault ID:** Refers to fault number 9-18 of Hecker (1993 #642).
County(s) and State(s)	MILLARD COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE
Reliability of	Good

location	Compiled at 1:100,000 scale. *Comments:* Mapped or discussed by Oviatt (1991 #4552), Hintze and Davis (2003 #6741), and Hintze and others (2003 #6756). Fault traces from 1:100,000-scale mapping of Oviatt (1991 #4552).
Geologic setting	Northeast-trending normal faults in the Black Rock Desert northeast of Cove Creek dome [2462] and east of the Beaver Ridge faults [2464]. Geology of the area is dominated by Quaternary basalt flows and Pleistocene Lake Bonneville deposits. The faults are on the eastern edge of a zone of late Quaternary deformation and faulting that includes Cove Creek dome, and the Beaver Ridge and Pavant [2438] faults.
Length (km)	4 km.
Average strike	N19°E
Sense of movement	Normal
Dip Direction	NW; E
Paleoseismology studies	
Geomorphic expression	Faults are west of and parallel to a large spring mound (tufa), which developed from increased ground-water discharge along a linear fracture system, probably during Lake Bonneville (mainly Provo or post-Provo) time. The faults apparently displace lacustrine deposits of Lake Bonneville.
Age of faulted surficial deposits	Holocene and late Pleistocene.
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 ka) *Comments:* The faults apparently displace lacustrine deposits of Lake Bonneville (<15 ka) and are considered Holocene by Hecker (1993 #642).
Recurrence	

interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	2004 Bill D. Black, Utah Geological Survey Michael D. Hylland, 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. #6741 Hintze, L.F., and Davis, F.D., 2003, Geology of Millard County, Utah: Utah Geological Survey Bulletin 133, 305 p. #6756 Hintze, L.F., Davis, F.D., Rowley, P.D., Cunningham, C.G., Steven, T.A., and Willis, G.C., 2003, Geologic map of the Richfield 30' x 60' quadrangle, southeast Millard County and parts of Beaver, Piute, and Sevier Counties, Utah: Utah Geological Survey Map 195, scale 1:100,000. #4552 Oviatt, C.G., 1991, Quaternary geology of the Black Rock Desert, Millard County, Utah: Utah Geological and Mineral Survey Special Studies 73, 23 p., scale 1:100,000.