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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.

Long Ridge (northwest side) fault (Class A) No. 2422

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 2422, Long Ridge (northwest side) 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 02:55 PM.**

Synopsis	Poorly understood Quaternary(?) fault along the northern side of Long Ridge in southern Goshen Valley.
Name comments	**Fault ID:** Refers to fault number 13-4 of Hecker (1993 #642).
County(s) and State(s)	UTAH COUNTY, UTAH
Physiographic province(s)	BASIN AND RANGE

Reliability of location	Good Compiled at 1:24,000 scale. *Comments:* Discussed by Sullivan and others (1987 #4531). Fault traces from mapping of Davis (1983 #4537) and Jensen (1984 #4535).
Geologic setting	Generally northeast-trending range-front fault along the northern side of Long Ridge in southern Goshen Valley. Long Ridge is in a transitional area between the Basin and Range and Colorado Plateaus provinces characterized by Cenozoic normal faulting superimposed on older thrust faulting. Long Ridge exposes both Paleozoic and Mesozoic strata and is likely underlain by the thrust-fault system.
Length (km)	21 km.
Average strike	N31°E
Sense of movement	Normal
Dip Direction	NW
Paleoseismology studies	
Geomorphic expression	Range-front escarpment. West of Mona Reservoir, the fault is expressed as discontinuous, eroded scarps on unconsolidated alluvial-fan deposits.
Age of faulted surficial deposits	Quaternary (?).
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Based on range front morphology.
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	#4537 Davis, F.D., 1983, Geologic map of the southern Wasatch Front, Utah: Utah Geological and Mineral Survey Map 55-A, scale 1:100,000. #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. #4535 Jensen, M.E., 1984, Geologic map and section of the Slate Jack Canyon quadrangle, Juab and Utah Counties, Utah: Brigham Young University Geology Studies, v. 33, pt. 1, p. 1-19. #4531 Sullivan, J.T., Foley, L.L., Baltzer, E.M., and C.K., K., 1987, Seismic sources, maximum credible earthquakes, and related seismic hazards for Monks Hollow damsite: U.S. Bureau of Reclamation Seismotectonic Report 87-2, 35 p.