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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.

Faults near Clear Creek (Class B) No. 759

Last Review Date: 1998-03-23

citation for this record: **Pierce, K.L., compiler, 1998, Fault number 759, Faults near Clear Creek, 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 02:02 PM.**

Synopsis	North-trending lineaments in glacial deposits, which are inferred to be related to faults at depth, near Clear Creek, in the area on the eastern side of Yellowstone Lake. No detailed studies have been conducted; these features are recognized mainly on aerial photographs. We classify these features as Class B because the lineaments have not been proven as having a tectonic origin.
Name comments	
County(s) and State(s)	PARK COUNTY, WYOMING
Physiographic province(s)	MIDDLE ROCKY MOUNTAINS
Reliability of location	Good Compiled at 1:125,000 scale.

	Comments: Mapped at 1:62,500 scale by Richmond and Pierce (1972 #2277) and compiled at 1:125,00 scale from U.S. Geological Survey (1972 #1057) mapping. Traces recompiled at 1:125,000-scale on map with topographic base.
Geologic setting	The mapped lineaments are 3-5 km east of the Yellowstone caldera margin, along the northern extension of the Upper Yellowstone Valley faults [761] and Brimstone Basin faults [760].
Length (km)	9 km.
Average strike	N12°E
Sense of movement	Normal
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	Described as lineaments on aerial photographs. Richmond and Pierce (1972 #2277) stated that "North of Brimstone Basin, well-defined fault lineaments cut across Pinedale kame deposits and continue northward to Cub Creek, where altered areas and pools of cool acidic water occur."
Age of faulted surficial deposits	Pinedale glacial recessional deposits, if faulted.
Historic earthquake	
Most recent prehistoric deformation	latest Quaternary (<15 ka) *Comments:* Not studied in field, based strictly on aerial photo study of lineaments. Lineaments are reported to be on Pinedale kame deposits (<15 ka).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* No offset noted or measured in field; thus, a low slip-

	rate category is assigned.
Date and Compiler(s)	1998 Kenneth L. Pierce, U.S. Geological Survey, Emeritus
References	#2277 Richmond, G.M., and Pierce, K.L., 1972, Surficial geologic map of the Eagle Peak quadrangle: U.S. Geological Survey Miscellaneous Geologic Investigations I-637, scale 1:62,500. #1057 U.S. Geological Survey, 1972, Surficial geologic map of Yellowstone National Park: U.S. Geological Survey Miscellaneous Geologic Investigations I-710, 1 sheet, scale 1:125,000.