

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](#).

Bloody Run Hills fault (Class A) No. 1509

Last Review Date: 1999-02-03

citation for this record: Adams, K., and Sawyer, T.L., compilers, 1999, Fault number 1509, Bloody Run Hills 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 02:50 PM.

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| Synopsis | This fault zone bounds the west side of the Bloody Run Hills and may be related to the Santa Rosa Range fault zone [1508]. It primarily consists of range-front faults, but piedmont faults occur in central part of the zone (Michetti and Wesnousky, 1993 #2540). Faults are apparently expressed as west-facing scarps that either are on middle to late Pleistocene alluvium or juxtapose Pleistocene alluvium against bedrock (Michetti and Wesnousky, 1993 #2540). |
| Name comments | Refers to faults mapped by Michetti and Wesnousky (1993 #2540); dePolo (1998 #2845) referred to it as the Bloody Run Hills fault. This fault zone bounds west side of the Bloody Run Hills from the northern end of the hills near Amos south to near Southwater Canyon. Fault ID: Refers to fault MD2C (Bloody Run Hills fault) of |

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| | dePolo (1998 #2845). |
| County(s) and State(s) | HUMBOLDT COUNTY, NEVADA |
| Physiographic province(s) | BASIN AND RANGE |
| Reliability of location | Good Compiled at 1:100,000 scale. <i>Comments:</i> Fault locations are based on 1:100,000-scale maps of Michetti and Wesnousky (1993 #2540) that were compiled from photogeologic analysis of 1:12,000 scale low-sun-angle aerial photography and field checked. |
| Geologic setting | This fault zone bounds west side of the Bloody Run Hills from northern end of the hills near Amos south to near Southwater Canyon. Most of the fault zone is comprised of range front faults, but piedmont faults occur in the central part of the (Michetti and Wesnousky, 1993 #2540). |
| Length (km) | 26 km. |
| Average strike | N6°W |
| Sense of movement | Normal <i>Comments:</i> (Michetti and Wesnousky, 1993 #2540; dePolo, 1998 #2845) |
| Dip Direction | W |
| Paleoseismology studies | |
| Geomorphic expression | Faults are apparently expressed as west-facing scarps that either are on middle to late Pleistocene alluvium or juxtapose Pleistocene alluvium against bedrock (Michetti and Wesnousky, 1993 #2540). dePolo (1998 #2845) indicates that there are scarps on alluvium but no basal fault facets. |
| Age of faulted surficial deposits | Quaternary. Michetti and Wesnousky (1993 #2540) mapped faults that displace Quaternary piedmont-slope deposits or juxtaposing these deposits against bedrock. |
| Historic | |

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| earthquake | |
| Most recent prehistoric deformation | middle and late Quaternary (<750 ka) <i>Comments:</i> Although timing of most recent event is not well constrained, a middle to late Pleistocene time is based on mapping by Michetti and Wesnousky (1993 #2540). |
| Recurrence interval | |
| Slip-rate category | Less than 0.2 mm/yr <i>Comments:</i> dePolo (1998 #2845) assigned a reconnaissance vertical slip rate of 0.01 mm/yr for the fault based on the presence of scarps on alluvium and the absence of basal facets. The late Quaternary characteristics of this fault (overall geomorphic expression, continuity of scarps, age of faulted deposits, etc.) support a low slip rate. Accordingly, the less than 0.2 mm/yr slip-rate category has been assigned to this fault. |
| Date and Compiler(s) | 1999 Kenneth Adams, Piedmont Geosciences, Inc. Thomas L. Sawyer, Piedmont Geosciences, Inc. |
| References | #2845 dePolo, C.M., 1998, A reconnaissance technique for estimating the slip rate of normal-slip faults in the Great Basin, and application to faults in Nevada, U.S.A.: Reno, University of Nevada, unpublished Ph.D. dissertation, 199 p. #2540 Michetti, A.M., and Wesnousky, S.G., 1993, Holocene surface faulting along the west flank of the Santa Rosa Range (Nevada-Oregon) and the possible northern extension of the central Nevada seismic belt: Geological Society of America Abstracts with Programs, v. 25, no. 5, p. 120-121. |

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