

2470, ELSINORE FAULT (FOLD)

Structure number: 2470.

Comments: Hecker's (1993) fault number 9-7.

Structure name: Elsinore fault (fold).

Comments:

Synopsis: Poorly understood fault(?) and/or monoclinical fold along the eastern flank of the Pavant Range.

Date of compilation: 10/99.

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State: Utah.

County: Sevier.

1° x 2° sheet: Richfield.

Province: Colorado Plateaus.

Reliability of location: Good

Comments: Mapped or discussed by Callaghan and Parker (1961), Anderson and others (1978), Willis (1988), and Anderson and Barnhard (1992). Mapping from Cunningham and others (1983), Willis (1988), and Steven and others (1990).

Geologic setting: Northeast-trending range-front fault and/or monoclinical fold along the eastern flank of the Pavant Range. Orientations and slip directions of bedrock faults along the Pavant Range front between Joseph and Richfield are incompatible with the existence, as has been inferred from physiography and geology, of a major range-front fault (identified as the Elsinore fault by Callaghan and Parker, 1961). Instead, a mapped southeast-facing monocline (which may overlie a major buried fault) appears to be the principal range-front structure (Anderson and Barnhard, 1992).

Sense of movement: N.

Comments:

Dip: No data.

Comments:

Dip direction: SE.

Geomorphic expression: A short, 12-meter-high fault scarp at the south end of the monoclinical structure (Anderson and others, 1978) is within an area of local late Quaternary deformation at the juncture with the Dry Wash fault. On trend with the north end of the structure, Tertiary to Quaternary pediments appear to be unfaulted but are tilted (up to 20-25 degrees) eastward, showing progressively more tilt with age (Willis, 1988). Willis (1988) believes the structure is primarily a fault.

Age of faulted deposits: Quaternary.

Paleoseismology studies: None.

Timing of most recent paleoevent: (5) Quaternary (<1.6 Ma).

Comments:

Recurrence interval: No data.

Comments:

Slip rate: Unknown, probably <0.2 mm/yr.

Comments:

Length: End to end (km): 28
Cumulative trace (km): 29
Average strike (azimuth): N33°E

REFERENCES

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- Willis, G.C., 1988, Geologic map of the Aurora quadrangle, Sevier County, Utah: Utah Geological and Mineral Survey Map 112, 21 p. pamphlet, 1:24,000 scale.