



EXPLANATION

Geologic unit symbols from Workman and others (2002):

- Qc Channel alluvium (Quaternary)
- Qay Young alluvium (Quaternary)
- Qayf Young fine-grained alluvium (Quaternary)
- QTb Basaltic lava flows (Quaternary and Tertiary)
- Tmt Tuffs of the Timber Mountain Group (Tertiary, 11.4 - 11.8 Ma)
- Tpt Tuffs of the Paintbrush Group (Tertiary, 12.7 - 12.8 Ma)
- Tw Waterline and Sayer Formations (Tertiary volcanics)
- OCp Poppo Group (Ordovician and Cambrian limestone)

Geologic contacts from Workman and others (2002)

Faults from Workman and others (2002)

Faults from 3D Geologic Model: Ticks indicate down-thrown side. Locations are approximate.

Faults interpreted from magnetic data, mainly using the analytic signal method. Ticks on down-thrown side.

Approximate edge of the shallow basalt flow as estimated from magnetic data using the Horizontal Gradient (HG), Multiple-source Werner (MSW), and Analytic Signal (AS) methods.

Magnetic profile baseline location (brown line with labels) and amplitude (blue line; scale = 50 nT/mm). Red fill indicates positive anomalies; blue fill indicates negative anomalies.

Shallow magnetic contact solutions from the analytic signal method. A green dot indicates significant magnetization contrast. Actual strikes are unknown.

Shallow magnetic contact solutions with significant magnetization contrast from the horizontal gradient method. Vertical dips are assumed. Actual strikes are unknown.

Magnetic feature (diamond - labeled as fault or basalt) or seismic fault (X) from previous study (Carr and others, 1975).

Selected wells, with names and basalt content indicated. The colored circles indicate the depth of the basalt using the depth estimate color scale below.

Estimated Depths (feet) of Basalt Edges

- Circle = HG, Wells, or Carr and others, 1975;
- Octagon = MSW; Square = AS

- > 1500
- 1200 - 1500
- 900 - 1200
- 600 - 900
- 300 - 600
- < 300

Estimated Depths (feet) of Other Magnetic Sheet Edges within Alluvium

- Circles = HG or Carr and others, 1975;
- Octagons = MSW; Squares = AS

- 1800
- 1500
- 1200
- 900
- 600
- 300

Scale: 0 500 1000 1500 2000 2500 3000 feet

U.S. Geological Survey

Frenchman Flat ground-based magnetic survey showing unfiltered magnetic profile data and interpreted faults (black) and edge of basalt (red)