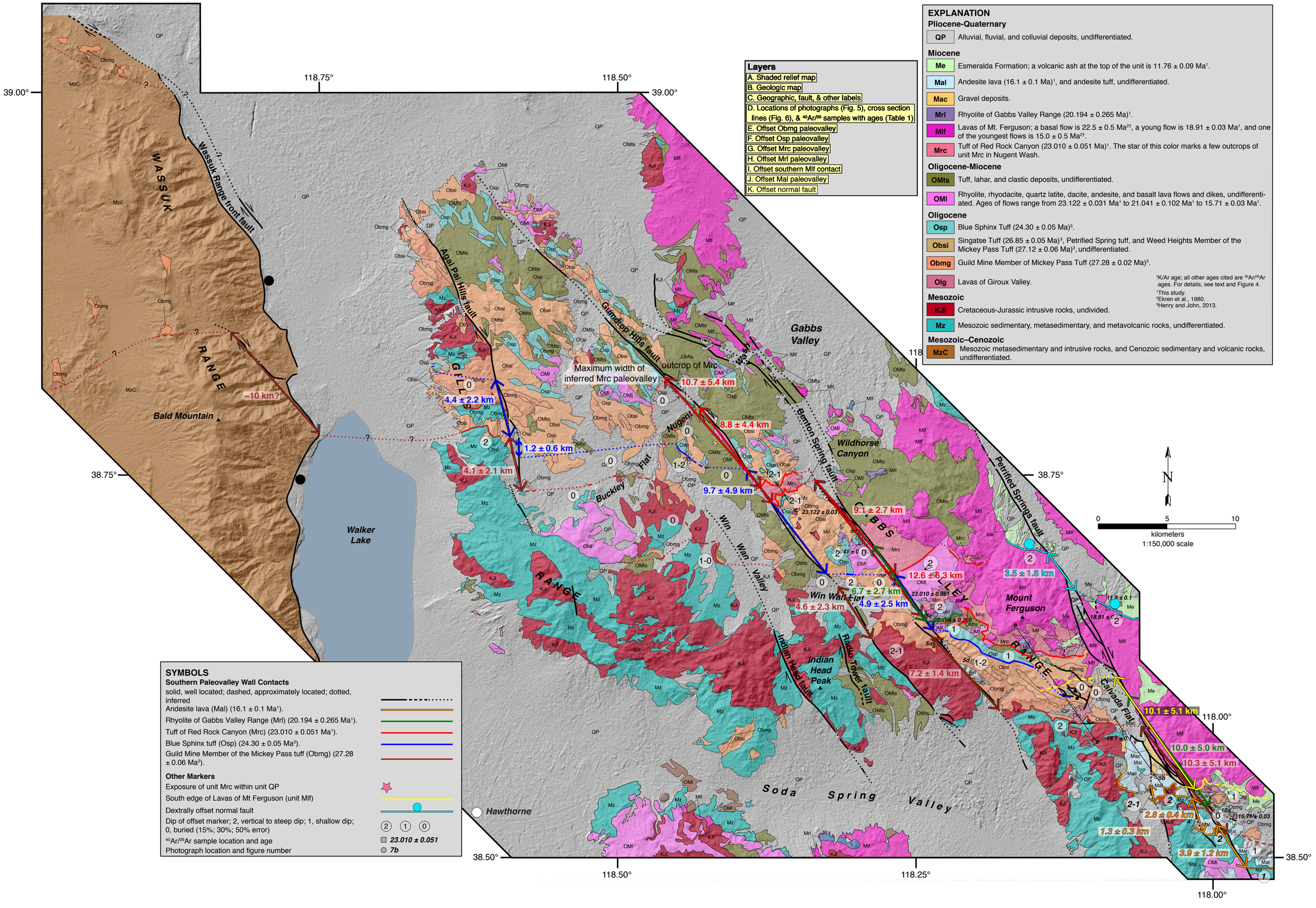

Layers

- A. Shaded relief map
- B. Geologic map
- C. Geographic, fault, & other labels
- D. Locations of photographs (Fig. 5), cross section lines (Fig. 6), & $^{40}Ar/^{39}$ samples with ages (Table 1)
- E. Offset Obmg paleovalley
- F. Offset Osp paleovalley
- G. Offset Mrc paleovalley
- H. Offset Mrl paleovalley
- I. Offset southern Mlf contact
- J. Offset Mal paleovalley
- K. Offset normal fault

EXPLANATION

Pliocene-Quaternary

- **QP** — Alluvial, fluvial, and colluvial deposits, undifferentiated.

Miocene

- **Me** — Esmeralda Formation; a volcanic ash at the top of the unit is 11.76 ± 0.09 Ma[1].
- **Mal** — Andesite lava (16.1 ± 0.1 Ma)[1], and andesite tuff, undifferentiated.
- **Mac** — Gravel deposits.
- **Mrl** — Rhyolite of Gabbs Valley Range (20.194 ± 0.265 Ma)[1].
- **Mlf** — Lavas of Mt. Ferguson; a basal flow is 22.5 ± 0.5 Ma[2†], a young flow is 18.91 ± 0.03 Ma[1], and one of the youngest flows is 15.0 ± 0.5 Ma[2†].
- **Mrc** — Tuff of Red Rock Canyon (23.010 ± 0.051 Ma)[1]. The star of this color marks a few outcrops of unit Mrc in Nugent Wash.

Oligocene-Miocene

- **OMts** — Tuff, lahar, and clastic deposits, undifferentiated.
- **OMl** — Rhyolite, rhyodacite, quartz latite, dacite, andesite, and basalt lava flows and dikes, undifferentiated. Ages of flows range from 23.122 ± 0.031 Ma[1] to 21.041 ± 0.102 Ma[1] to 15.71 ± 0.03 Ma[1].

Oligocene

- **Osp** — Blue Sphinx Tuff (24.30 ± 0.05 Ma)[3].
- **Obsi** — Singatse Tuff (26.85 ± 0.05 Ma)[3], Petrified Spring tuff, and Weed Heights Member of the Mickey Pass Tuff (27.12 ± 0.06 Ma)[3], undifferentiated.
- **Obmg** — Guild Mine Member of Mickey Pass Tuff (27.28 ± 0.02 Ma)[3].
- **Olg** — Lavas of Giroux Valley.

[1]K/Ar age; all other ages cited are $^{40}Ar/^{39}Ar$ ages. For details, see text and Figure 4.
[†]This study.
[2]Ekren et al., 1980.
[3]Henry and John, 2013.

Mesozoic

- **KJl** — Cretaceous-Jurassic intrusive rocks, undivided.
- **Mz** — Mesozoic sedimentary, metasedimentary, and metavolcanic rocks, undifferentiated.

Mesozoic–Cenozoic

- **MzC** — Mesozoic metasedimentary and intrusive rocks, and Cenozoic sedimentary and volcanic rocks, undifferentiated.

SYMBOLS

Southern Paleovalley Wall Contacts

solid, well located; dashed, approximately located; dotted, inferred

- Andesite lava (Mal) (16.1 ± 0.1 Ma[1]).
- Rhyolite of Gabbs Valley Range (Mrl) (20.194 ± 0.265 Ma[1]).
- Tuff of Red Rock Canyon (Mrc) (23.010 ± 0.051 Ma[1]).
- Blue Sphinx tuff (Osp) (24.30 ± 0.05 Ma[3]).
- Guild Mine Member of the Mickey Pass tuff (Obmg) (27.28 ± 0.06 Ma[3]).

Other Markers

- Exposure of unit Mrc within unit QP
- South edge of Lavas of Mt Ferguson (unit Mlf)
- Dextrally offset normal fault
- Dip of offset marker; 2, vertical to steep dip; 1, shallow dip; 0, buried (15%; 30%; 50% error) — ② ① ⓪
- $^{40}Ar/^{39}Ar$ sample location and age — ***23.010 ± 0.051***
- Photograph location and figure number — ***7b***