



- EXPLANATION**
- Geologic Map Units—Quaternary alluvium and colluvium not shown**
- Tertiary sedimentary rocks
 - Tertiary igneous rocks
 - Mesozoic sedimentary rocks
 - Permian formations composed of shale, sandstone, chert, carbonate rocks, evaporites, and phosphorite. Not shown generally in Overthrust Belt because of scale
 - Permian and Pennsylvanian quartz sandstone. Includes minor interbedded carbonate rocks and shale. Not shown in White River Plateau, Elk Mountains, Monument Upwarp, and Grand Canyon area because of scale
 - Permian and Pennsylvanian formations composed of sandstone, shale, and interbedded carbonate rocks. Not shown in Wyoming, except in Rawlins Uplift, because of scale
 - Eagle Valley Evaporite and Paradox Member of Hermosa Formation—Bedded evaporites of Pennsylvanian age. Shown only where prominent outcrops are present
 - Belden and Molas Formations—Black shale with interbedded carbonate rocks and minor gypsum overlying a thin red shale regolith. Formations are mostly Pennsylvanian in age. Shown only where Eagle Valley Evaporite crops out in northwestern Colorado
 - Mississippian, Devonian, Ordovician, and Cambrian formations—Composed of limestone and dolomite with interbedded quartzite, sandstone, and shale
 - Precambrian sedimentary rocks and slightly metamorphosed sedimentary rocks
 - Precambrian igneous and metamorphic rocks

- Geologic Cross Section Units**
- | Sedimentary rocks | | Igneous rocks | |
|--|---|---|---|
| T | Tertiary sedimentary rocks | Tv | Tertiary volcanic rocks |
| K | Cretaceous sedimentary rocks | Ti | Tertiary intrusive rocks |
| JK | Jurassic and Triassic sedimentary rocks | Ci | Cambrian intrusive rocks |
| Mz | Mesozoic sedimentary rocks | pCg | Precambrian granitic rocks |
| PP | Permian and Pennsylvanian sedimentary rocks | pCm | Precambrian metamorphic rocks |
| Ps | Pennsylvanian Paradox Member of Hermosa Formation | pC | Precambrian igneous and metamorphic rocks |
| MC | Mississippian, Devonian, Ordovician, and Cambrian sedimentary rocks | pCs | Precambrian sedimentary rocks |

- Line Symbols**
- Fault—Barbs (in figures 5 and 6) indicate relative directions of movement
 - Geologic contact—Dashed where approximately located
- A—A' Location of geologic cross section shown on plate 2 and figures 5 and 6

The geologic map was compiled from 1:500,000-scale State geologic maps prepared by Dane and Bachman (1965), Wilson and others (1969), Tweto (1979), Hintze (1980), and Love and Christiansen (1985). Geologic cross section A-A' was prepared from reports by Richmond (1945), Rubey (1973), and Royle and others (1975), and unpublished borehole logs; sections B-B' through H-H' were modified from Hintze (1980) and Tweto (1980b); section I-I' was prepared mainly from Harshbarger and Reppinger (1954), O'Sullivan and Belkman (1963), Haynes and others (1972), and unpublished borehole logs. The intersection points of cross sections are not shown here and elsewhere in this report. The sections are taken from the work of other authors and thus represent different interpretations and generalizations. Showing the intersection points could give the misleading impression that errors were made in drawing one or both of the intersecting sections.

GENERALIZED GEOLOGY OF THE UPPER COLORADO RIVER BASIN AND VICINITY IN ARIZONA, COLORADO, NEW MEXICO, UTAH, AND WYOMING

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Base from U.S. Geological Survey U.S. base map, 1:2,500,000