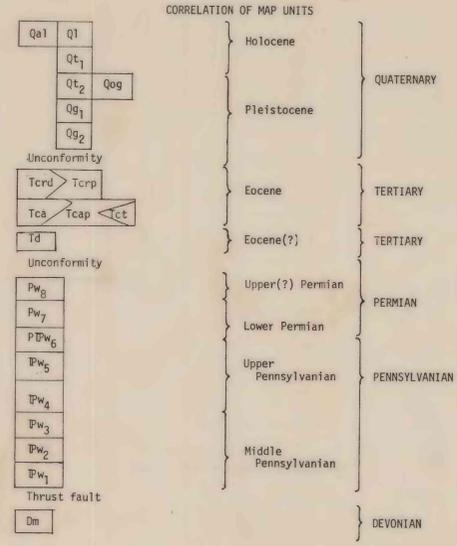


BASE BY THE U. S. GEOLOGICAL SURVEY, 1967.



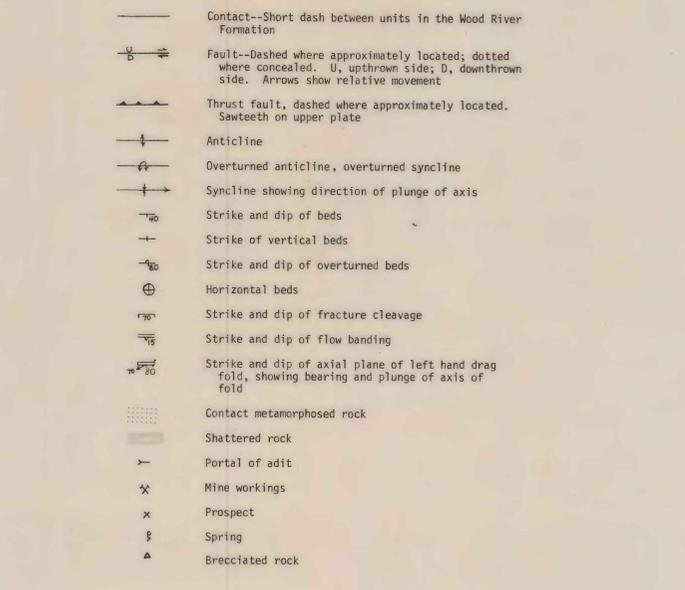
- DESCRIPTION OF MAP UNITS**
- Qa1** ALLUVIAL DEPOSITS - Includes unconsolidated silt, sand and gravel along rivers and tributary streams, alluvial fans, and talus (Holocene).
 - Q1** LANDSLIDE DEPOSITS - Unconsolidated landslide deposits mostly in the Challis Volcanics (Holocene).
 - Qt1** LOW TERRACE DEPOSITS - Includes terraces 10 to 20 feet above recent stream deposits in the Big Wood River Valley and tributary streams (Holocene).
 - Qt2** HIGH TERRACE DEPOSITS - Sand and gravel in eroded valley side terraces 30 to 40 feet above recent stream deposits in the Big Wood River Valley and in Trail Creek (Pleistocene?).
 - Qog** OLD FANGLOMERATE AND STREAM GRAVELS - Old fanglomerate and stream gravels tributary to the Big Wood River and at grade with Qt2 (Pleistocene?).
 - Qg1** GLACIAL OUTWASH - Characterized by abundant float of large rounded white quartzite boulders exotic to the Wood River Valley. Deposits are localized on the east side of the Wood River graben near Sun Valley and Elkhorn Village (Pleistocene).
 - Qg2** GLACIAL OUTWASH - Characterized by abundant float of large rounded white quartzite boulders exotic to the Wood River Valley. Occurs in erosion remnants 200 to 400 feet above present stream drainages (Pleistocene).

- CHALLIS VOLCANICS (EOCENE)**
- Tcrd** RHYODACITE AND DACITE - Gray or pinkish-gray porphyritic thick flows with prominent phenocrysts of plagioclase, biotite, hornblende 6 mm long and in some cases minor quartz or augite in an aphanitic or glassy groundmass. Includes some undifferentiated crystal tuff and breccia. Tops of flows commonly amygdaloidal and silicified or filled with chalcedony.
 - Tcrp** RHYODACITE AND DACITE PYROCLASTICS - Agglomerate, crystal tuff, and breccia of rhyodacite and dacite composition.
 - Tca** PYROXENE ANDESITE - Dark-gray porphyritic rock with an aphanitic groundmass. Phenocrysts of plagioclase, pyroxene, and amphibole 1- to 2-mm long in a microcrystalline groundmass with a pilotaxitic texture. Locally the andesite is highly altered to celadonite.
 - Tcap** ANDESITE PYROCLASTICS - Consists of agglomerate, lapilli-tuff, fine ash that is commonly silicified, and breccias of andesitic composition.
 - Tct** TUFF - White or light greenish-gray epiclastic tuff beds and lenses interbedded mostly in pyroxene andesite flows. The beds are poorly consolidated and are susceptible to massive erosion. Most of the landslides in the area are in this unit.

- INTRUSIVE ROCKS (EOCENE?)**
- Td** HYPABYSSAL INTRUSIVE ROCKS - Dikes, lenses and sills, mostly mafic in composition, in the Triumph-Independence-Parker areas. They are interpreted to be related to a buried Eocene intrusive body below the lead-silver ore bodies.

- WOOD RIVER FORMATION**
- Pw8** UNIT 8 (LATE(?) PERMIAN) - Gray, reddish-gray, dark-gray siltite, siltstone, sandy limestone, and quartzite. Weathers dark brown to reddish-brown. Contains thin black shale beds with abundant worm tracks identified by Bill Morgan (written Commun., 1977) as *Scalariiduba*. Beds are 2-1/2 to 45 cm thick. The thickness of the unit is estimated to be 1770 m. This unit has not been dated but is considered to be late(?) Permian because of its position above Unit 7.
 - Pw7** UNIT 7 (EARLY PERMIAN) - Banded dark-gray chert, siltite, and gray sandy limestone in beds 2- to 5-cm thick. Coarse crinoidal limestone widespread near top of unit. Measured section is 525 m thick. Age is Wolfcampian and Leonardian(?) (Hall, Batchelder, and Douglass, 1974). Thin sections from limestone at the top of the unit contain nodosariids. Bernard Mamet of the University of Montreal (oral commun. to Betty Skipp, 1975) said the assemblage looks post-carboniferous, possibly Late Permian or Early Triassic.
 - Pw6** UNIT 6 (EARLY PERMIAN AND LATE PENNSYLVANIAN) - Chiefly gray and light-brown, fine-grained calcareous sandstone and sandy limestone that weathers dark brown, and lesser fine-grained quartzite and bioclastic limestone. Crossbedding, convolute structures, and load casts are common in the limy sandstones. Douglass (in Hall, Batchelder, and Douglass, 1974) on the basis of fusulinid identifications reports that the upper part is Wolfcampian (Early Permian) and the lower part is Virgilian (Late Pennsylvanian). The thickness is 1740 m.

- Pw5** UNIT 5 (LATE PENNSYLVANIAN) - Predominantly thick-bedded to massive, fine grained, light-brown quartzite with some interbedded fine-grained limy quartzite, calcareous sandstone, and sandy limestone. The quartzite is characteristically shattered to approximately equidimensional blocks 2 to 5 cm on a side. Douglass (in Hall, Batchelder, and Douglass, 1974) reports the age as Virgilian (Late Pennsylvanian). The thickness is 165 m.
- Pw4** UNIT 4 (LATE PENNSYLVANIAN) - Light- to medium gray, fine-grained calcareous sandstone, sandy limestone, and micritic limestone that weathers dark brown to grayish-brown. Crossbedding is present locally. The age is Virgilian (Late Pennsylvanian) on the basis of fusulinid determinations by Douglass (in Hall, Batchelder, and Douglass, 1974). The thickness is 212 m.
- Pw3** UNIT 3 (MIDDLE PENNSYLVANIAN) - Thin-bedded, pink and gray shaly limestone and medium- to thick-bedded bluish-gray limestone. The unit is Des Moinesian (Middle Pennsylvanian) (Hall, Batchelder, and Douglass, 1974). The unit is 220 m thick.
- Pw2** UNIT 2 (MIDDLE PENNSYLVANIAN) - Medium- to thick-bedded, fine-grained, bluish-gray limestone, locally bleached and recrystallized to white marble. Contains abundant crinoidal debris, bryozoa and brachiopod fragments, and sparse fusulinids. W. J. Sando, J. T. Dutro, Jr., and R. C. Douglass (written commun., 1971) report a Des Moinesian age. The unit is 15 m thick.
- Pw1** UNIT 1 (HAILLEY CONGLOMERATE MEMBER, MIDDLE PENNSYLVANIAN) - Consists chiefly of conglomerate with rounded clasts of chert, fine-grained quartzite, and locally silty limestone and interbeds of gray and greenish-gray quartzite and brown, silty limestone. Bostwick (1955) reports an early Des Moinesian age. The thickness is 120 m in a measured section 4.3 km east of Bellevue. Most exposures of the Hailley Conglomerate in the Wood River area are boudins in the Wood River thrust fault zone. Named the Hailley Conglomerate member of the Wood River Formation by Thomasson (1959).
- Dm** MILLIGEN FORMATION (DEVONIAN) - Consists predominantly of interbedded dark-gray siliceous argillite, fine-grained quartzite, siltite, and micritic limestone and some brown silty dolomite, limestone, dark-gray chert, and grit. The upper part contains more limestone, silty dolomite, and siltite, and the lower part dark-gray argillite, fine-grained quartzite, and micritic limestone. Conodonts in limestone in the upper part of the formation are early Frasnian (early Late Devonian) and conodonts from micritic limestone near the middle of the formation are Eifelian (early Middle Devonian) (Sandberg, Hall, Batchelder, and Axelsen, 1975). The formation is estimated to be 1200 m thick.



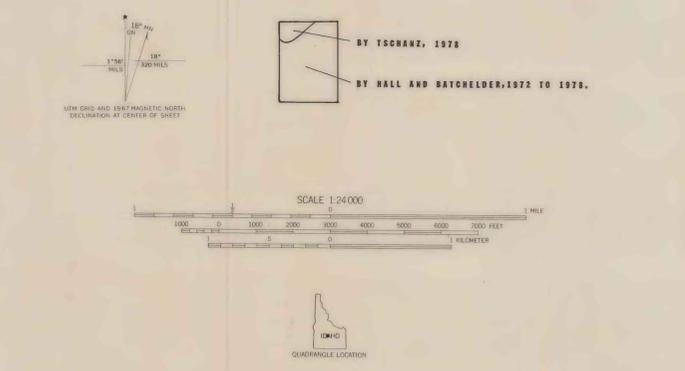
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This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards and nomenclature.

PRELIMINARY GEOLOGIC MAP OF THE SUN VALLEY 7 1/2-MINUTE QUADRANGLE, IDAHO

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