



GEOLOGY MAP OF THE BASALT QUADRANGLE, MINERAL COUNTY, NEVADA

by
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1981

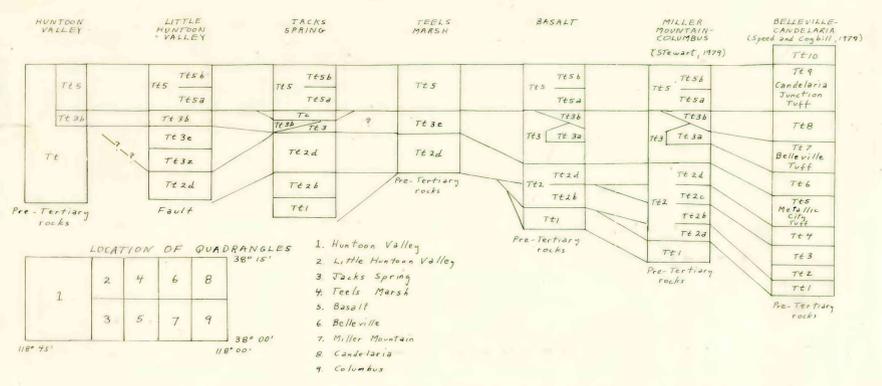


Figure 1—CORRELATION DIAGRAM FOR OLIGOCENE AND MIOCENE TUFF UNITS SHOWING MAP SYMBOLS USED IN QUADRANGLES IN SOUTHWESTERN PART OF WALKER LAKE 2° QUADRANGLE. THICKNESSES NOT TO SCALE

CORRELATION OF MAP UNITS

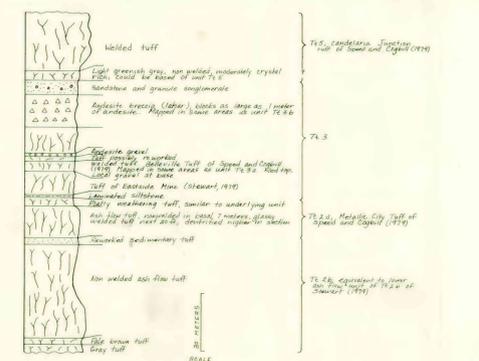
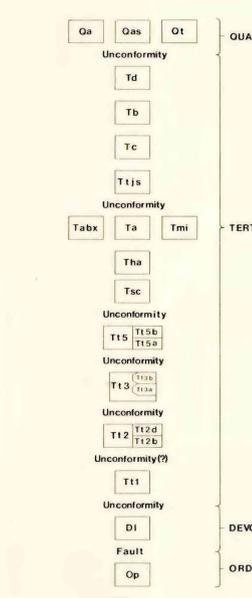


Figure 1—Section of Tertiary rocks, Lat 38°52'N, Long 118°21'25" W, 2.5 km N. 86 W. of Kandelaria Mine

DESCRIPTION OF MAP UNITS
(Petriography of Cretaceous volcanic rocks in part by F. T. Robinson)

Qa ALLUVIAL DEPOSITS—Mostly alluvial fan and pediment gravels

Oas ALLUVIAL DEPOSITS OF MODERN INTERMITTENT STREAMS

O1 TALUS DEPOSITS

Td DIABYRITE AND DIABYRITIC MUDSTONE—See Stewart (1979) for further description

Tb BASALT—Light to medium gray; highly vesicular; phenocrysts of olivine 1 to 2 mm across make up 5 to 10 percent of rock; fewer phenocrysts of plagioclase and pyroxene; groundmass intergranular to interstitial composed of plagioclase laths, granular pyroxene, olivine, iron oxides, alkali feldspar, and biotite (Crouder and others, 1972)

Tc ORGONITE—Composed of rounded granites to boulders of welded tuff (consists of Kandelaria Junction Tuff, unit T1j), mafic vesicular lava, granitic rock, quartzite (Ordovician), and other rock types and sand matrix

T1ja TUFF OF JACKS SPRING—Ash-flow tuff, crystal rich, not studied petrographically but abundant sandstone and sparse biotite can be identified with hand lens, and calcic oligoclase probably also is a component as it occurs in correlative rocks in the Huntington Valley quadrangle to the west (Gilbert and others, 1968, p. 285). Sparse fine-grained lithic fragments. Dark-colored vitrophyre commonly occurs near base. Correlative rocks in the Huntington Valley quadrangle are 11.1 to 11.7 my. on the basis of K-Ar dating (Gilbert and others, 1968)

Tabx ANDESITE BRECCIA (LABAR)—Composed of angular blocks of andesite lava as much as 40 cm in diameter set in poorly sorted silty to sandy matrix. Occurs in 1- to 10-m-thick massive units. Includes layers of laminated to thin-bedded and cross-laminated sandstone and conglomerate composed primarily of volcanic debris

Ta ANDESITE FLINTS—Brownish gray to reddish brown; laths of plagioclase; locally flow banded

Tai MAFIC INTERLIVE(?) ROCK—Finely crystalline mafic rock with laths of plagioclase. May include both intrusive rocks and flows. Difficult to distinguish from unit Tc to which it is probably related. Separation from unit Tc may not be valid

Tha BURNED ANDESITE—Needle-shaped crystals of hornblende as much as 1 cm long in an aphanitic matrix

Tsc SANDSTONE AND CONGLOMERATE—Conglomerate contains rounded to subrounded clasts, mostly of Kandelaria Junction Tuff (unit T1j), as much as 5 cm long; locally contains large blocks (2.5 m) of Kandelaria Junction Tuff at top

T5a CANDELARIA JUNCTION TUFF OF SPEED AND COGHILL (1979)—Ash-flow tuff, patterned to grayish-red, 18 percent crystals; plagioclase, amide, quartz in approximate proportions 2:2:2; sparse biotite; common flattened punice; cliff forming; 22 to 24 my. old based on K-Ar dating (Speed and Coghill, 1979). See Speed and Coghill (1979) and Stewart (1979) for further description. Locally two cooling units (T5a and T5b) are mapped separately; elsewhere these two cooling units are combined and mapped as T5a. In some areas of continuous outcrop, units T5a or T5b are mapped in some places and unit T5c is undivided in other places. In these areas the symbols alone show where the unit is subdivided and where it is not

T5b Upper cooling unit of T5a

T5c Lower cooling unit of T5a

T6a ASH-FLOW TUFF, SEDIMENTARY TUFF, AND VOLCANIC BRECCIA (LABAR)—In ascending order, includes the tuff of Eastside Mine (Stewart, 1979), the Belleville Tuff of Speed and Coghill (1979), and andesite breccia (Fig. 1). The Belleville Tuff is mapped locally as T6a and the andesite breccia as T6b, but elsewhere all three units, as well as associated sedimentary tuff and andesite tuff are grouped together and mapped as T6. Where T6a and T6b are mapped, the symbol T6 is used for rocks below T6a and above T6b or older rocks. Descriptions of subunits follow:

T6b Andesite breccia (labar)—Composed of slightly rounded fragments of mafic lava as much as 1 m in diameter set in a fine to coarse-sand matrix

SYMBOLS

--- Contact—Dashed where approximately located

--- Fault—Dashed where inferred or approximately located; queried where uncertain; dotted where concealed. Bar and ball on downthrown side

--- Strike and dip of stratified rock

--- Vertical bedding

--- Anticline

--- Syncline

--- Fossil locality

REFERENCES

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This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.