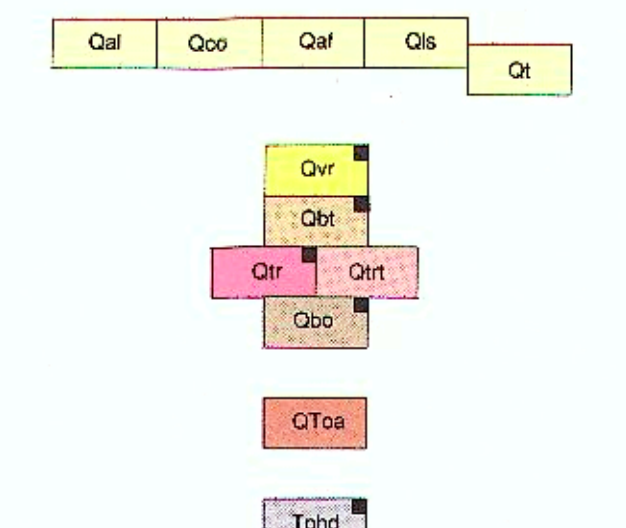


CORRELATION OF UNITS

Black square indicates dated unit



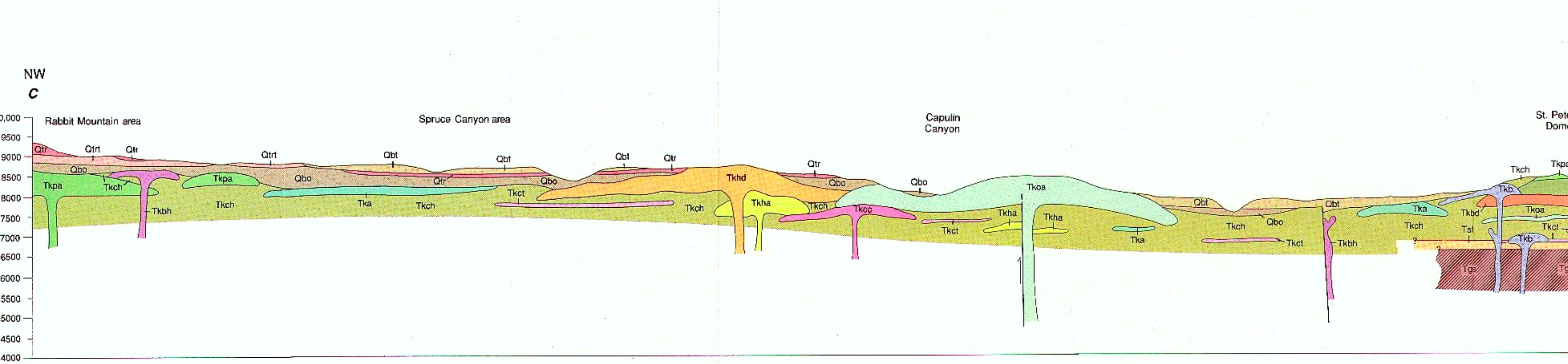
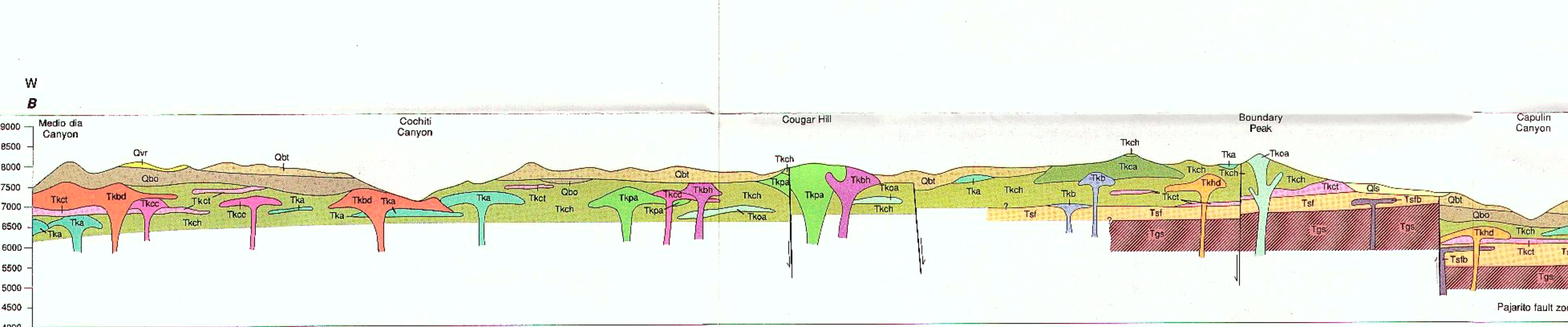
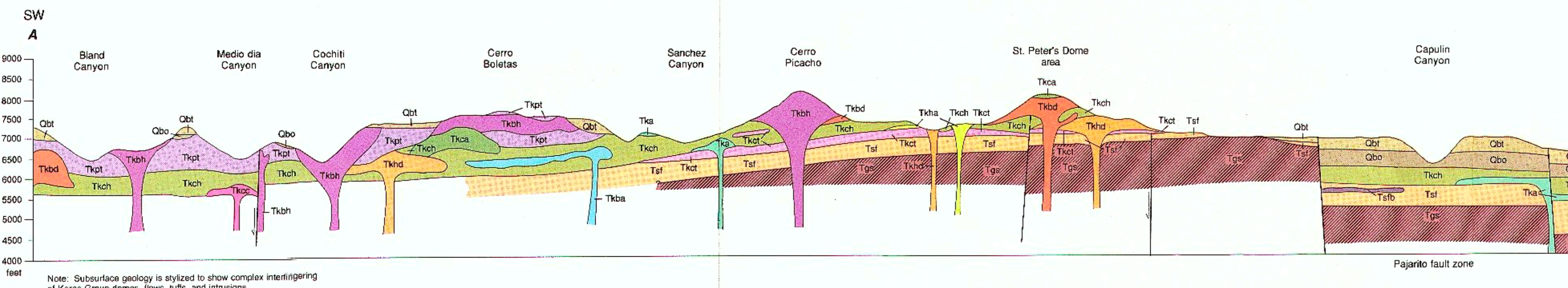
DESCRIPTION OF UNITS

Note: Descriptions of map units are listed in approximate order of increasing age. Formal stratigraphic names are described in Bailey et al. (1969) with usage revised in Gardner et al. (1986). Unabbreviated K-Ar ages are listed in Table 1.

- Aluminum - Older deposits of gravel, sand, silt, and clay now undergirding stream; typically pink due to reworked Santa Fe Group...
Dacite (Paliza Canyon Formation) - Single dike-like intrusion of black, glassy, flow-banded dacite in upper Capulin Canyon...
Hornblende dacite (Techicola Canyon Formation) - Siliceous dome of gray, massive to sheeted porphyritic dacite containing phenocrysts of plagioclase and hypersthene...
Peralta Tuff (Bearhead Rhyolite) - White to tan, lithic-rich ash-tuff; pumice fragments contain phenocrysts of quartz, potassium feldspar, biotite, zircon, and clinopyroxene...

TABLE 1.—Potassium-argon dates of volcanic units in map area. All dates calculated with the following constants where possible: lambda\_0 = 0.58 x 10^-10 yr^-1, lambda\_1 = 4.962 x 10^-11 yr^-1, K/K\_0 = 1.167 x 10^-4 method of reporting error varies from lab to lab. Abbreviations: san=sandstone, fld=feldspar, plg=plagioclase, W/R=whole rock, R=rock, N=normal.

Table with columns: Unit, Map symbol, Location, Rock type, Mag. polarity, Mat. type, K, K/K\_0, Age, Ma, Comments, Reference. Lists various volcanic units like Tewa Group, Polvaderra Group, Keres Group, and Santa Fe Group with their respective locations and dates.



text continued from Sheet 1 at 16.5 Ma at the top, indicates recurrent movement along the southwest fault play for the last 16 Ma (Gardner and Goff, 1984). No rate of displacement can be estimated with assurance for the time period between 16 and 1.1 Ma along the southern segment of the Pajarito fault zone. Maximum displacement is estimated at not less than 300 m, but the movement probably has been recurrent. Since 1.1 Ma ago when the Tshirege Member of the Banderler Tuff was erupted a maximum average rate of displacement was 200 m/1.1 Ma or 0.182 m/yr.

HYDROTHERMAL ALTERATION Weak to moderate hydrothermal alteration is present in lower Keres Group rocks, particularly in canyon bottoms. The intensity and rank of alteration increases from east to west in the direction of the Cochiti mining district. Virtually no hydrothermal alteration was observed at St. Peter's Dome. Where observed to the west, alterations consist of carbonates, silica, clays, and chlorite that are replacing plagioclase and groundmass glass in the volcanic rocks. Altered rocks vary in color from purple to green. Near Bland, white argillite alterations were observed but were not studied in any detail.

REFERENCES Bailey, R. A., Smith, R. L., and Rose, C. S., 1969, Stratigraphic nonconformity of volcanic rocks in the Jemez Mountains, New Mexico. U.S. Geological Survey Bulletin 1274-P, 19 pp. Dairymple, G. B., Cox, A., Deel, R. R., and Gromme, S. C., 1967, Potassium-argon ages and geology of rhyolites and associated rocks of the Valles Caldera, New Mexico. Studies in volcanology—monograph in honor of Howard Williams. Geological Society of America, Memoir 116, pp. 211-248.