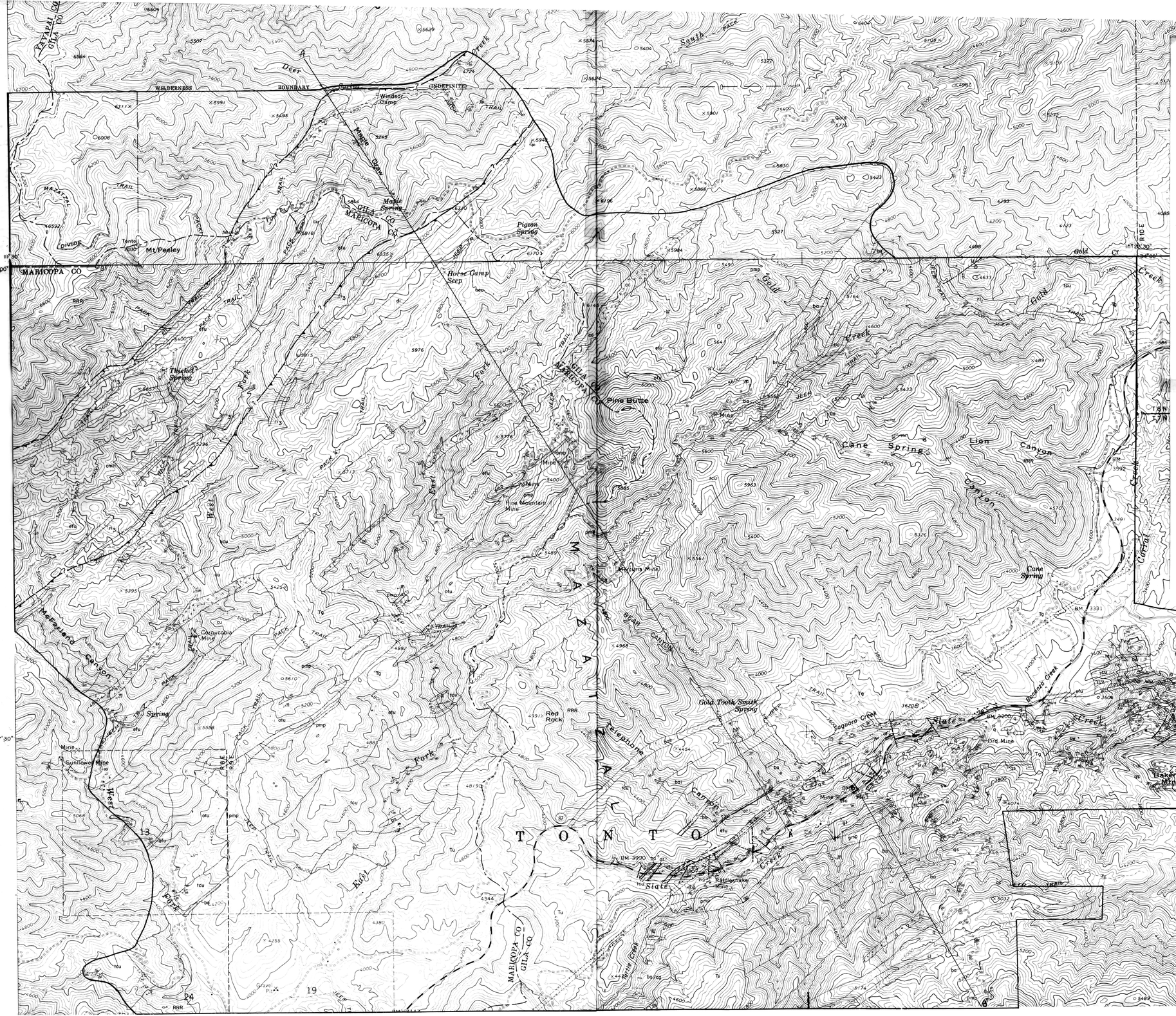

PLATE I

GEOLOGIC MAP OF THE CENTRAL MAZATZAL MOUNTAINS, CENTRAL ARIZONA

SCALE 1:10,000

0 0.5 1.0 1.5 km

0 0.5 1.0 mi.

MAPPING BY JULIE A. ROLLER 1984-1986

USGS Topographic Base (Reno Pass, Kayler Butte and Mazatzal Peak 1:24,000 maps)

Contour Interval 40 feet

16° magnetic north

N

DESCRIPTION OF MAP UNITS

TERTIARY

- **Tg** — fluvial gravels: material derived from Proterozoic basement, Proterozoic sedimentary rock and Tertiary volcanic rocks
- **Tu** — gravels and volcanic rocks, undivided

unconformity

EARLY PROTEROZOIC

- **di** — "medium-grained, dark, unfoliated dioritic dikes" (Ludwig, 1974)
- **ri_3** — "unfoliated, porphyritic quartz, plagioclase rhyodacite intrusive (Ludwig, 1974)
- **pmp** — Pine Mt Porphyry. "quartz-eye, fine-grained, gray to tan rhyodacitic intrusive sheets and dikes; foliated" (Ludwig, 1974)

RED ROCK GROUP

- **ri_1** — "fine- to coarse-grained, intrusive porphyry. Intrudes upper Telephone Canyon Unit in the Gold Creek area and is a feeder dike to Red Rock Rhyolite" (Ludwig, 1974)
- **RRR** — Red Rock Rhyolite. Pink to red ash flow tuffs, minor flows, volcanic breccias of rhyolite and rhyodacitic composition. Foliated.
- **br/rr** — br - "rhyolite breccia grading into cobble conglomerate in Telephone Canyon Unit" (Ludwig, 1974); rr - "massive rhyolitic tuffs and breccias of Telephone Canyon Unit" (Ludwig, 1974)

ALDER GROUP

- **tcu** — Telephone Canyon Unit. Pionar and trough crossbedded, white to tan quartz-rich sandstones and wackes, lithic wackes, jasper and volcanic conglomerates, and slate
- **otu** — Oneida Tuff Unit. Flattened felsic tan lithic tuff with very fine-grained sericitic matrix. Clasts include felsic volcanic rocks (pumice), and minor jasper and slate. Otu (?) on south limb of Red Rock syncline dark gray jasper and volcanic-rich conglomerate with a sandy matrix.
- **efu/eft** — efu - East Fork Unit. Maroon and blue slate, siltstone and fine-grained sandstone, with minor chert, carbonate, and granule conglomerate; eft - East Fork Tuff. "vitric tuff sub-unit" (Ludwig, 1974)
- **cu/cc/cmlt** — cu - Cornucopia Unit. Dacitic volcanic breccias, pillow basalts, red chert and minor lithic tuff; cc - "zone of bedded chert" (Ludwig, 1974); cmlt - "subaqueous lithic crystalline tuff" (Ludwig, 1974)
- **hcu** — Horse Camp Unit. Medium- to coarse-grained volcanic lithic sandstone and wacke, with minor conglomerate, limestone, dolomite, and chert

- **Tv** — volcanic rocks, undivided

unconformity

MOVEMENT ZONE LITHOLOGIES

- **ba/bn/bae/bv-cq** — ba - dark green basaltic andesitic dikes and/or flows; bn - intrusive basaltic/andesitic dikes; bae - contains abundant 1-40 cm flattened volcanic fragments in volcanic matrix; bv-cq - volcanic conglomerate interlayered with chloite-rich andesitic/basalt flows
- **SW** — Complexly interleaved and transposed lenses of quartzo-feldspathic siltstone, volcanic and quartz wacke, carbonate, specularite, multi-lithologic conglomerate, jasper-hematite breccia, tuff (in approximate order of abundance)
- White, cross-bedded, medium-grained quartzite, commonly with jasper and hematite matrix-supported conglomerate
- **qs/q** — qs - tan quartz-muscovite wacke and slate interlayers; minor granule conglomerate; q - resistant white quartzite layers; minor slate layers
- **gt(?)** — light to dark green, fine- to medium-grained tuff with graded bedding
- **sl** — brown to purple siltstone and slate
- **pg** — pyroxene-bearing (relict), coarse-grained chlorite, epidote, actinolite greenstone

SYMBOLS

- lithologic contact (known, approximate and inferred from air photos)
- high angle faults (known, approximate)
- inferred thrust faults
- upright bedding (S_0)
- overturned bedding (S_0)
- S_1 foliation (slaty cleavage and transposed layering)
- F_1 fold with map view sketch of fold asymmetry
- L_1 lineation (stretching lineation). C = stretched clast. m = elongated mineral.
- S_2 foliation (crenulation cleavage)
- F_2 fold
- contact from Ludwig (1974)
- contact from Alvis (1984)
- bedding of Ludwig (1974)
- S_1 foliation of Ludwig (1974)
- sense of shear, U=up, D=down
- conglomerate
- direction of younging

Arizona Geological Survey Contributed Map Series CM 91-F (Sheet 1 of 2)