

- DESCRIPTION OF MAP UNITS**
- Qal Alluvium (Quaternary)—Includes minor talus and landslide deposits
 - Tr Volcanic rocks (Tertiary)—Undivided on inset map
 - Td Dacite-quartz latite plug, domes, and sills (Tertiary)—24.5 Ma
 - Tc Crono Gulch Andesite (Tertiary)—Consists of stock, sills, and dikes
 - Tr Rhyolite and quartz latite plugs (Tertiary)—24.9 Ma
 - Tvy Younger volcanic rocks (Tertiary)—Consists of the Bald Mountain formation and the tuff of Peavine Creek (24.6 Ma)
 - Tdk Diamond King Formation (Tertiary)
 - Tbr Tuff-breccia dikes (Tertiary)
 - Tru Round Rock Formation (Tertiary)—About 25 Ma. Consists of:
 - Tru Upper member—Locally includes:
 - Tru Megabreccia unit of Silver Creek
 - Tru Rhyolite megabreccia
 - Tru Middle member—Locally includes:
 - Tru Rhyolite plugs and dikes
 - Tru Lower member—Locally includes:
 - Tru Megabreccia unit of Sloppy Gulch—Internal contacts bound bedded layers
 - Tru Megabreccia unit of Silver Creek
 - Trd Rhyolite dikes (Tertiary)—36 Ma
 - Pg Granite and sedimentary rocks, undivided (Cretaceous and Paleozoic) on inset map—Cretaceous granite and Paleozoic sedimentary rocks
 - Kgp Porphyritic granite (Cretaceous)
 - Ps Nonporphyritic granite (Cretaceous)—95 Ma
 - Pss Marine sedimentary rocks (Paleozoic)

- MEGABRECCIA CLAST DESIGNATIONS**
- Kg Cretaceous granite
 - Pss Permian Sandstone
 - Odz Ordovician(?) Zanzibar Limestone
 - Ozl Limestone
 - Oza Argillite
 - Cst Cambrian siltstone
 - Cq Cambrian quartzite
 - Pl Paleozoic limestone
 - Pa Paleozoic argillite
 - Pss Paleozoic schist

- Contact—Dashed where gradational or inferred; queried where uncertain
- Strike and dip of beds
- High-angle fault—Dashed where inferred, dotted where concealed, queried where uncertain; bar and ball on downthrown side; arrow shows direction of movement, in cross section
- Low-angle fault—Dotted where concealed; bar and ball on downthrown side
- Margin of Manhattan caldera
- Contour of megabreccia clasts in the megabreccia unit of Silver Creek—Showing maximum size, in meters
- Data point—Locally where megabreccia clast size was determined
- Gravity data—Isostatic residual gravity map reduced at 2.670 kg/m³. Isostatic conditions assume Airy-type compensation with a crustal thickness at sea level of 25 km, density of topography 2.670 kg/m³, and density contrast at the Moho of 400 kg/m³. See also Bol and others (1983) and Healy and others (1981)
- 26 Gravity contour—Contour interval 1 milligal
- 2.32 Specific gravity of surface sample

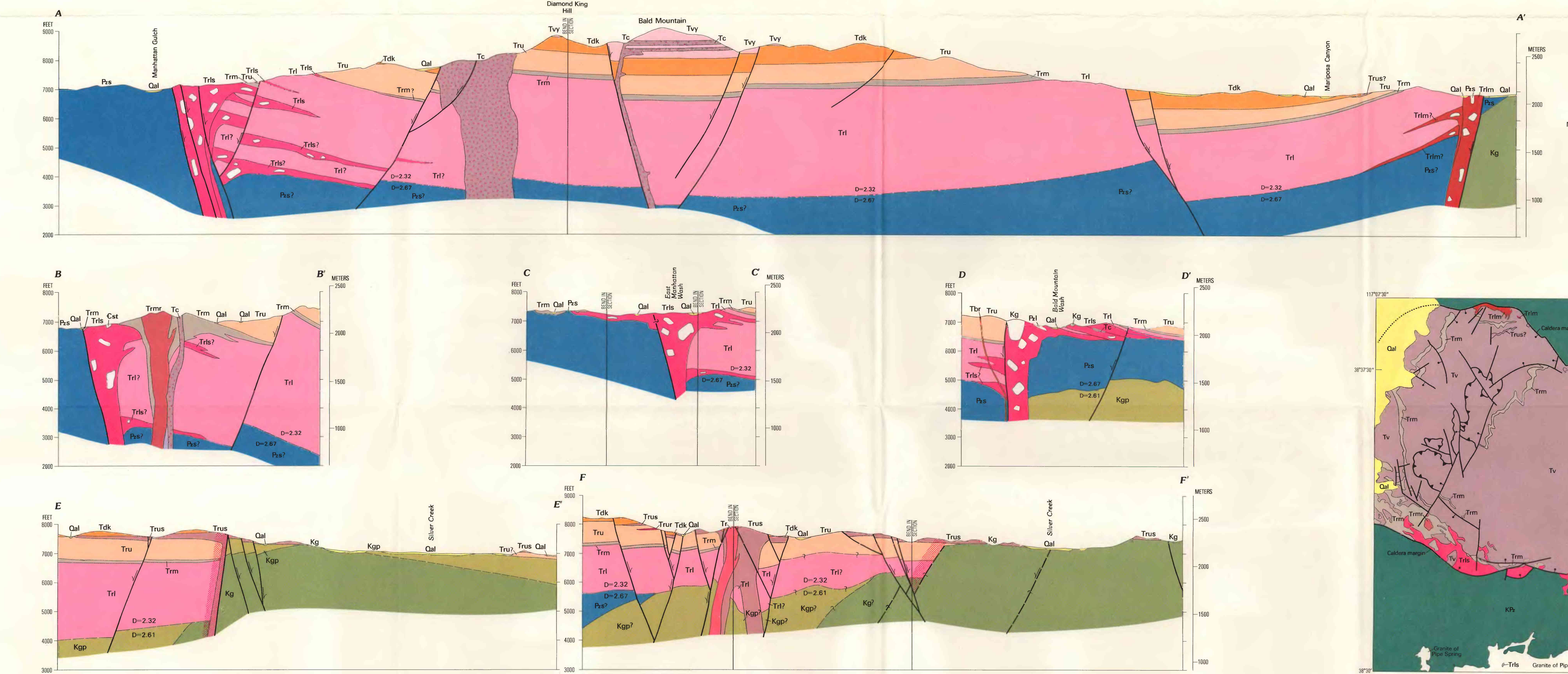
Scale from U.S. Geological Survey
Map Series, West Virginia,
and Belmont West, 1971

SCALE 1:24,000

CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1985

MAP LOCATION

Geology by D. R. Shaw, 1973-82
Gravity measurements by U.S.
Snyder, 1981-83



Note: Tr/Ps, Tr/Kgp contacts on cross sections are based on two-dimensional gravity modeling and on geologic constraints. Densities (D) used in modeling are shown on the cross sections, and are based on densities determined from surface samples collected at localities indicated on map. No vertical exaggeration on sections.

**GEOLOGIC AND GRAVITY MAP OF THE MANHATTAN CALDERA, NYE COUNTY, NEVADA,
INCLUDING GEOLOGIC CROSS SECTIONS A-A' THROUGH G-G'**

**SUMMARY MAP SHOWING GENERALIZED DISTRIBUTION OF
MEGABRECCIA UNITS AND ASSOCIATED INTRUSIVE ROCKS**