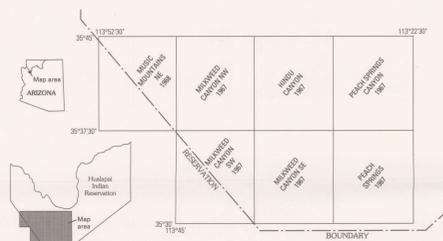


CLASSIFICATION OF COLLAPSE FEATURES AND BRECCIA PIPES

- Collapse feature or Breccia Pipes—Selected features and pipes have one or more of the following alphanumeric symbols. Features and pipes also have identification numbers (identification number range is from 200 to 1,365, assigned in order of field discovery). Numbers correspond to those used for geochemical analyses (K.J. Wenrich, unpub. data, 1992-94)
- B—Brecciated rock (indicating the structure is a breccia pipe)
 - M—Mineralized rock containing copper minerals or surface radiation greater than 2.5 times background
 - C1—Radially inward-dipping beds and alteration (bleaching or limonite staining)
 - C2—Radially inward-dipping beds, no alteration
 - C3—Visible alteration, no dipping beds
 - C4—Circular topography or circular vegetation or soil pattern, no alteration or dipping beds
 - C7—Questionable circular feature. Few recognizable inward-dipping beds and (or) little alteration, vegetation change, or topographic change. Feature appears vaguely circular
 - S—Sinkhole

- Fault—Dashed where approximately located, dotted where concealed; ball and bar on downthrown side; R, reverse fault; number indicates estimated displacement in feet; predate alluvium and colluvium where shown bounding these units
- Folds—Showing trace of axial plane and direction of plunge where known; dashed where approximately located, dotted where concealed
- + Monocline—Axial trace located approximately midway between anticlinal and synclinal hinges of fold. Distance between arrows indicates approximate map distance between fold hinges
- + Syncline
- + Anticline
- Strike and dip of beds
- Strike and dip of schistosity
- * Volcanic vent



INDEX MAPS SHOWING LOCATION OF THE MAP AREA AND 7 1/2-MINUTE QUADRANGLES THAT MAKE UP THE MAP AREA

CONVERSION FACTORS

Multiply	By	To obtain
inches (in.)	2.54	centimeters (cm)
feet (ft)	0.3048	meters (m)
miles (mi)	1.609	kilometers (km)

Base from U.S. Geological Survey, 1:24,000
Hualapai Canyon, Milwood Canyon NW, Milwood Canyon SE, Milwood Canyon SW, Peach Springs, Peach Springs Canyon, 1987; Moic Mountains NE, 1988



CONTOUR INTERVALS 20 AND 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1989



**MAP B. BRECCIA-PIPE LOCATION MAP
BRECCIA-PIPE AND GEOLOGIC MAP OF THE SOUTHWESTERN PART OF THE HUALAPAI INDIAN RESERVATION AND VICINITY, ARIZONA**

By
G.H. Billingsley, K.J. Wenrich, P.W. Huntoon, and R.A. Young
1999