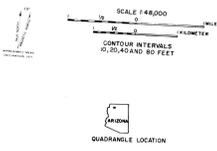


BRECCIA PIPE LOCATION MAP OF THE NORTHEASTERN HUALAPAI INDIAN RESERVATION AND VICINITY, ARIZONA

By

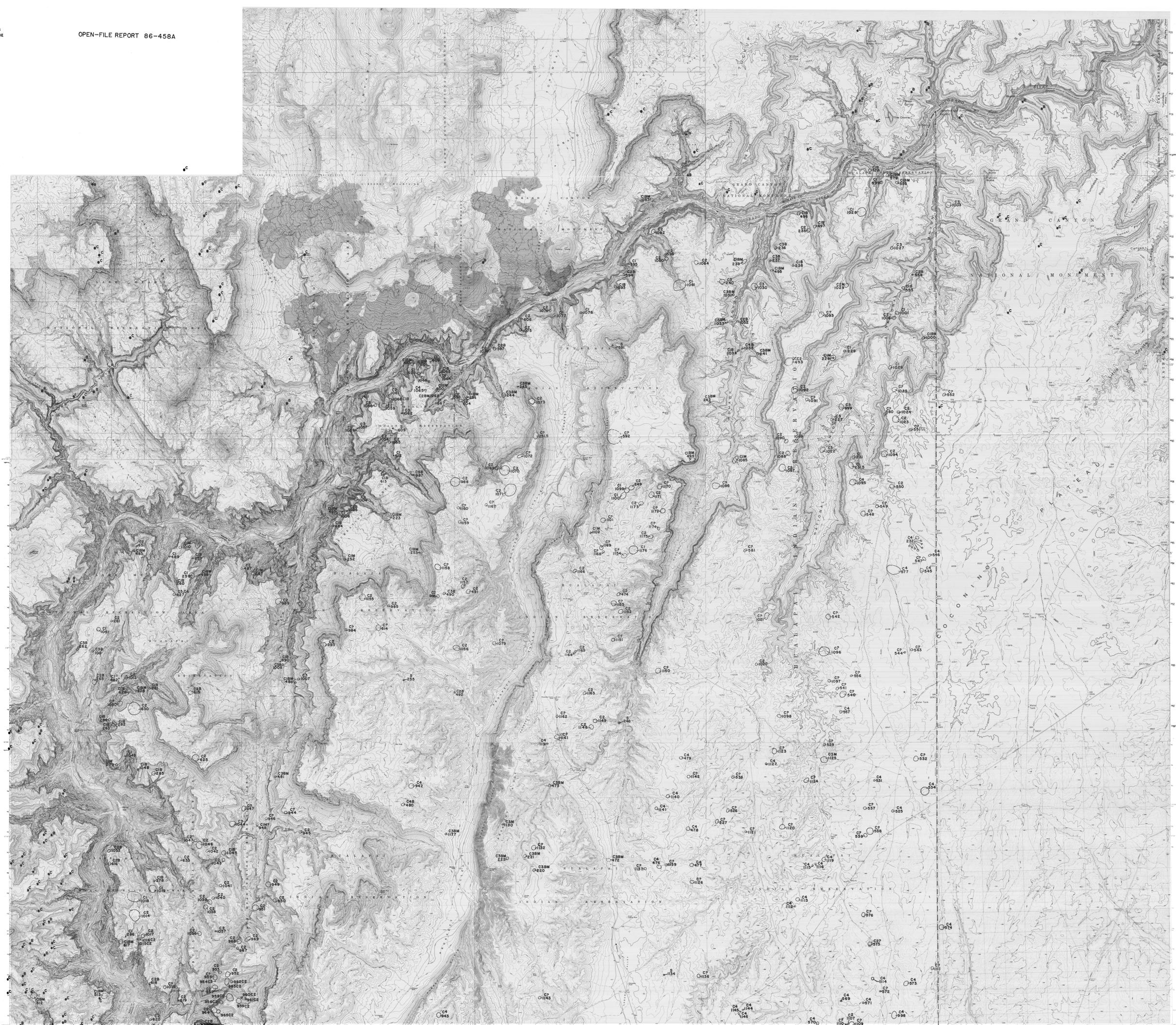
K. J. Wenrich, G. H. Billingsley, and H. B. Sutphin

1986



COLLAPSE FEATURE CLASSIFICATION

- S Sinkhole
- B Brecciated rock observed in the field
- M Mineralized rock (either visible copper minerals or surface radiation 1/2 time background) present
- C1 Concentricity inward dipping beds and visible alteration (bleaching of limestone staining)
- C2 Concentricity inward dipping beds; no visible alteration
- C3 Visible alteration; no visible dipping beds
- C4 Distinctly circular feature, either due to vegetation or topography, no visible alteration or dipping beds
- C7 Questionable. A circular feature appears to be present, but with no obvious dipping beds, alteration, vegetation change or topography delineation
- B Breccia pipes mapped by Hutton and Billingsley, 1981, Billingsley and Hutton, 1983 and this map
- C Collapse features mapped by Hutton and Billingsley, 1981, Billingsley and Hutton, 1983, and this map
- 776 Identification number of collapse feature. Assigned in order of field discovery



This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. (Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.) (Released in response to a freedom of information act request.)

See from U.S. Geological Survey 1:24,000 Granite
Park (1967), Muddy Puck Spring (1967), Mt. Logan (1967),
Mt. Wheeler (1967), National Park (1967), Prosser
Point (1967), Sage Combs (1981), Volcanic Trench (1967),
Volcanic Trench SE (1967), Volcanic Trench SW (1967),
Whitman Point (1967), Whitman Point SE (1967),
Whitman Point (1967), 1182,500 National Canyon
(1967), and Tuckey Canyon (1967), Arizona.