

14049

Sample 14049 was collected during the second EVA from station Bg. It was placed in bag 6N by the astronauts who said they collected it from a crater rim. The lunar location and orientation are not documented by lunar surface photographs.

PHYSICAL CHARACTERISTICS

Mass

200.13 g

Dimensions

8.0 x 5.0 x 4.0 cm

This fragmental rock has less than 0% subrounded leucocratic clasts in a medium gray matrix and is extremely friable and soft.

SURFACE FEATURES

Sample 14049 is lacking in zap pits and has no cavities or fractures visible on the surface.

PETROGRAPHIC DESCRIPTION

The rock is very fine grained and appears homogeneous. Mineral grains that were identified include transparent feldspar, greenish and brownish glass, and one dark brown spherule. No fragments are greater than 1 mm. There are no opaques in the matrix except for several ragged metal grains up to 100 μm in diameter.

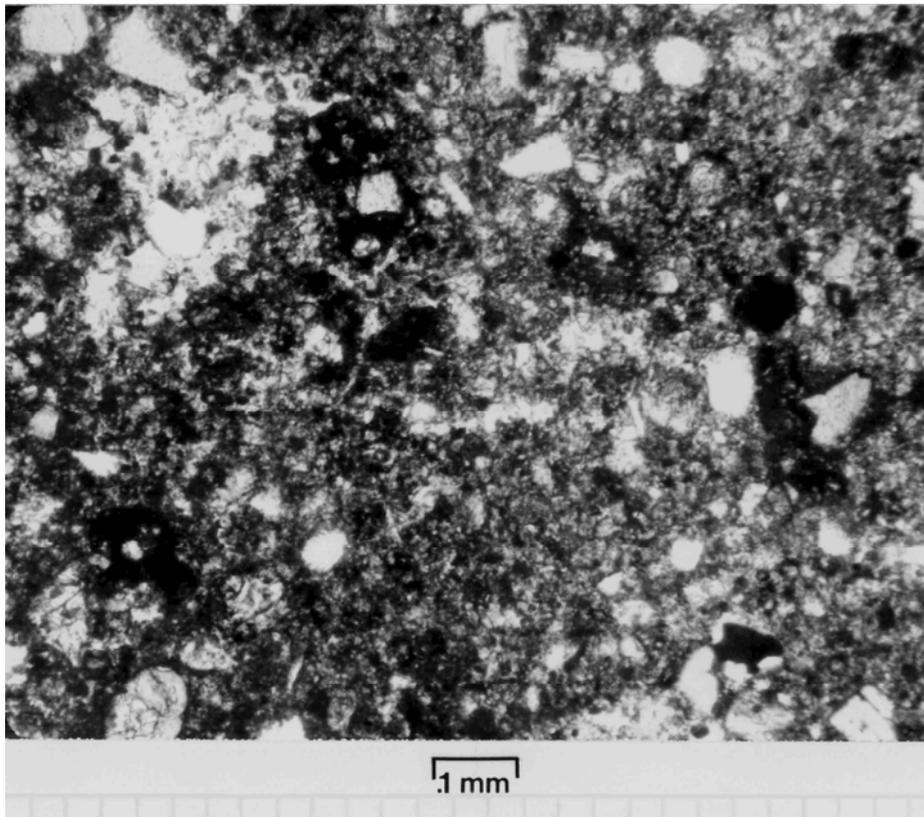
Thin section 14049,0 is somewhat similar to 14047,53 in that there is a large amount of fresh glass shards in the matrix. There is approximately 20% yellow glass in the bonding material that holds the clasts and fragments. There is one large elongate glass glob with several rounded and eroded pyroxene crystals in it. There are no lithic or mineral clasts present. There is at least two different matrix fabrics present with a sharp dividing line between them. Unlike 14047,53, some of the glass has undergone some devitrification. The only lithic fragments present are plagioclase-rich microbreccias and pyroxene-rich microbreccias. The mineral fragments are about equal amounts of pyroxene and plagioclase.

DISCUSSION

This is one of the softest rocks of the Apollo 14 mission. A shocked basaltic fragment consisting of diaplectic plagioclase glass and pyroxene with lamellae were found in sample 14049 and reported by von Engelhardt et al. (1972), who classify the sample as a glass rich regolith breccia. It is classified as an F₁ by Wilshire and Jackson (1972) and as Warner's group 2 (Warner, 1972). Chao et al. (1972) describe it as an unshocked porous regolith microbreccia. Simonds et al. (1977), classify the rock as a vitric matrix breccia (VMB). Sample 14049 has the greatest agglutinate content (3% by volume) of any Apollo 14 breccia that they studied.



Width of image is approximately 9 cm; S-71-20985



14049,40