

14047

Sample 14047 was collected at station B, 330 m NE of LM and 65 m NNW of the rim of Weird Crater. It was placed in documented bag 5N and returned in ALSRC 1006.

PHYSICAL CHARACTERISTICS

Mass	Dimensions
242. g	5.0 x 5.5 x 20 cm

This sample is a brownish-gray, blocky, subangular, fine-grained clastic rock with a hackly surface. One side is concave. The rock is very friable and fragile.

SURFACE FEATURES

Approximately 30% of the irregular surface of sample 14047 is covered with glass spatter, which appears to be the cementing agent of the hackly fragments on the surface. There are no microcraters on the glassy spatter, but they are present elsewhere on the surface, ranging in size from less than 0.1 to 1.5 mm. Glass lined zap pits have small raised rims.

The rock is highly fractured, with approximately twenty non-planar fractures occurring in two sets. The fractured segments are held together in part by glass spatter.

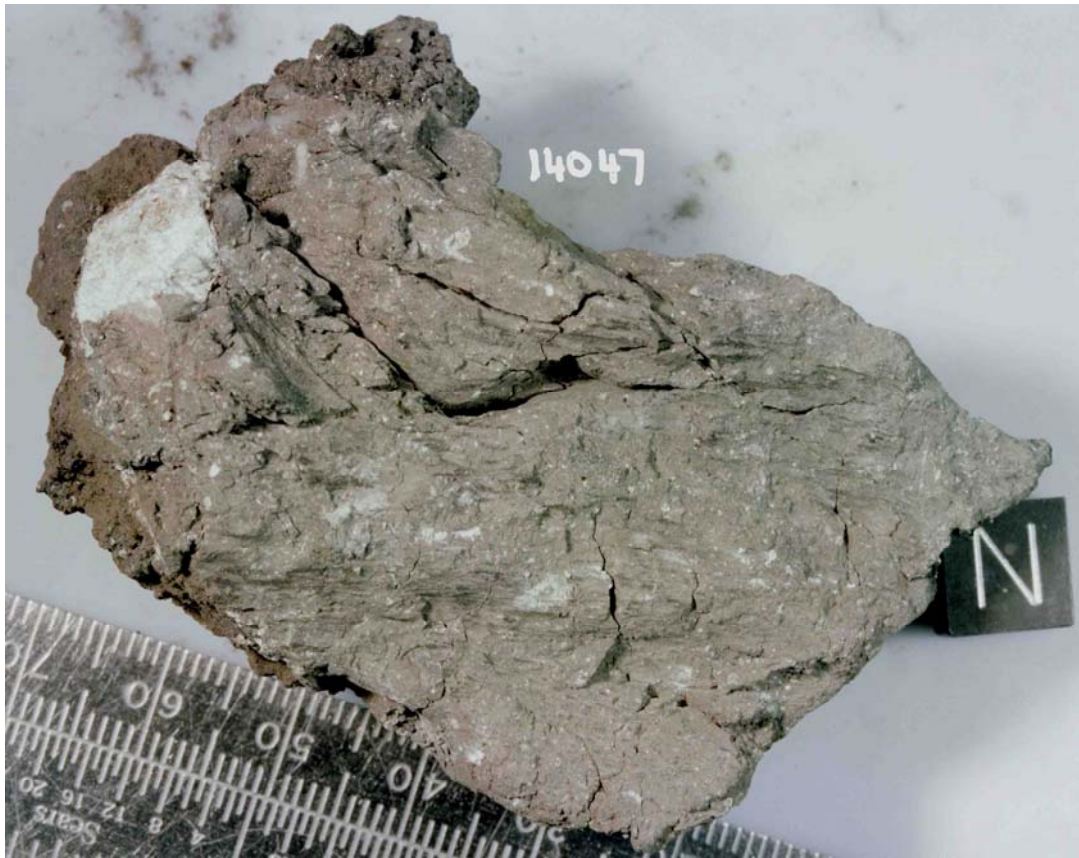
Only the pits on the rounded side of the rock have a glass lining. The fractured side may be the bottom of the rock.

PETROGRAPHIC DESCRIPTION

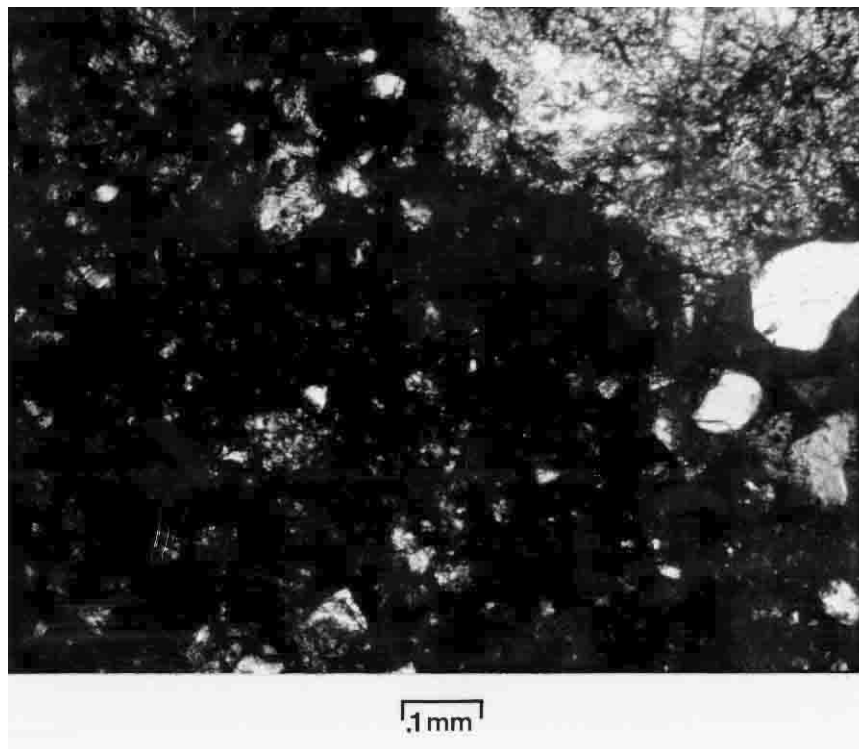
This rock crumbles easily when handled. It has a homogeneous texture with an average grain size of less than 0.1 mm. One of the leucocratic lithic clasts on the N face is 14 mm in size.

Thin section 14047,53 shows two main types of clasts. The first is a crystalline breccia with large pyroxene and plagioclase shards. The second type is large shards of partly devitrified to fresh yellowish glass. Where devitrification has taken place the crystals are dendritic and scattered along fractures and near the boundary of the glass. One large mass of glass shows residual pyroxene granules showing a skeletal pattern isolated in the glass. In hand specimen there appears to be no glass or mineral fragments present; however, in thin section they are abundant. In the thin section, there is approximately 30% glass in the matrix. The glass is a "dirty" yellow brown and discontinuous. Several spheres of yellow glass are also present. The unusual feature of the section is the large amount of fresh glass.

Megascopically, 1% of the fragments are greater than 1 mm. Leucocratic lithic fragments compose 20% of the rock. These white fragments have olive brown spots. (Not so abundant in thin section.) The opaque content is extremely low, consisting of angular to subrounded clasts of ilmenite with subordinate metallic iron in a fine grained silicate matrix. In order of decreasing abundance, ilmenite, metal, troilite and a few small (10 μ m) grains of chromian spinel are present.



S76-23341



14047, 53

DISCUSSION

Sample 14047 was described as friable with leucocratic clasts and placed in their F₁ category by Wilshire and Jackson (1972). It was described as being low grade metamorphic and placed in group 1 of Warner (1972). Chao et al. (1972) described it as an unshocked porous regolith microbreccia, placing it in his la category. Simonds et al. (1977) classify it as a VMB. Silver (1972), Laul et al., (1972), and Wakita et al., (1972) suggest that 14047 is merely compacted soil; however, the agglutinate content is very low for even a submature surface soil (Simonds, 1978, Personal Communication).