14316

Unusual Regolith Breccia

38.2 grams

Figure 1: Bottom and side views of 14316 showing blueish internal color and clastic nature. Note also the zap pits on the top surface. Sample is about 2 inches long. NASA S71-29227 and 29232.

Introduction

14316 was picked up from the regolith at the "North Boulder Field" (station H) about 100 meters northwest of the LM (Swann et al. 1977). It is a subangular rock with one flat surface free of pits and the rest rounded and irregular with numerous glass-lined pits (figure 1). Planer to subplaner glass-lined fractures are parallel to the flat surface of the rock and the rock has broken along one of these. The rock is a coherent breccia with an estimated 20 percent of blocky subangular to rounded clasts in a medium gray matrix. The clasts are dominantly light. One medium gray clast itself contains white clasts, probably clastic feldspar.

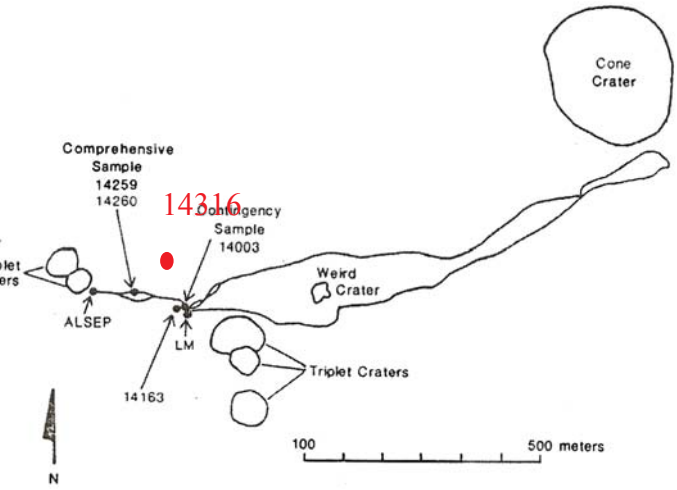


Figure 2: Location of 14316 on traverse map for Apollo 14.

Petrography

14316 consists of interlocking mixture of mineral and lithic clasts cemented together by a brownish "glassy" material (Carlson and Walton 1978). The fabric is reminiscent of 14315, but there are fewer chondrule-like bodies, and the clasts appear more digested by the matrix (figure 3).

Two prominent light-colored clasts can be seen in figure 1. James et al. (1987) list a clast from 14316 as a norite and Warren et al. (1981) analyzed another clast. Carlson and Walton noted the occurrence of pink spinel in 14316.

Chemistry

The main mass or matrix of 14316 has not been analyzed.

Processing

14316 was returned in weigh bag 1038 which was opened in the Crew Reception Area before the sample was entered into the NNPL for description. There are three thin sections of 14316.

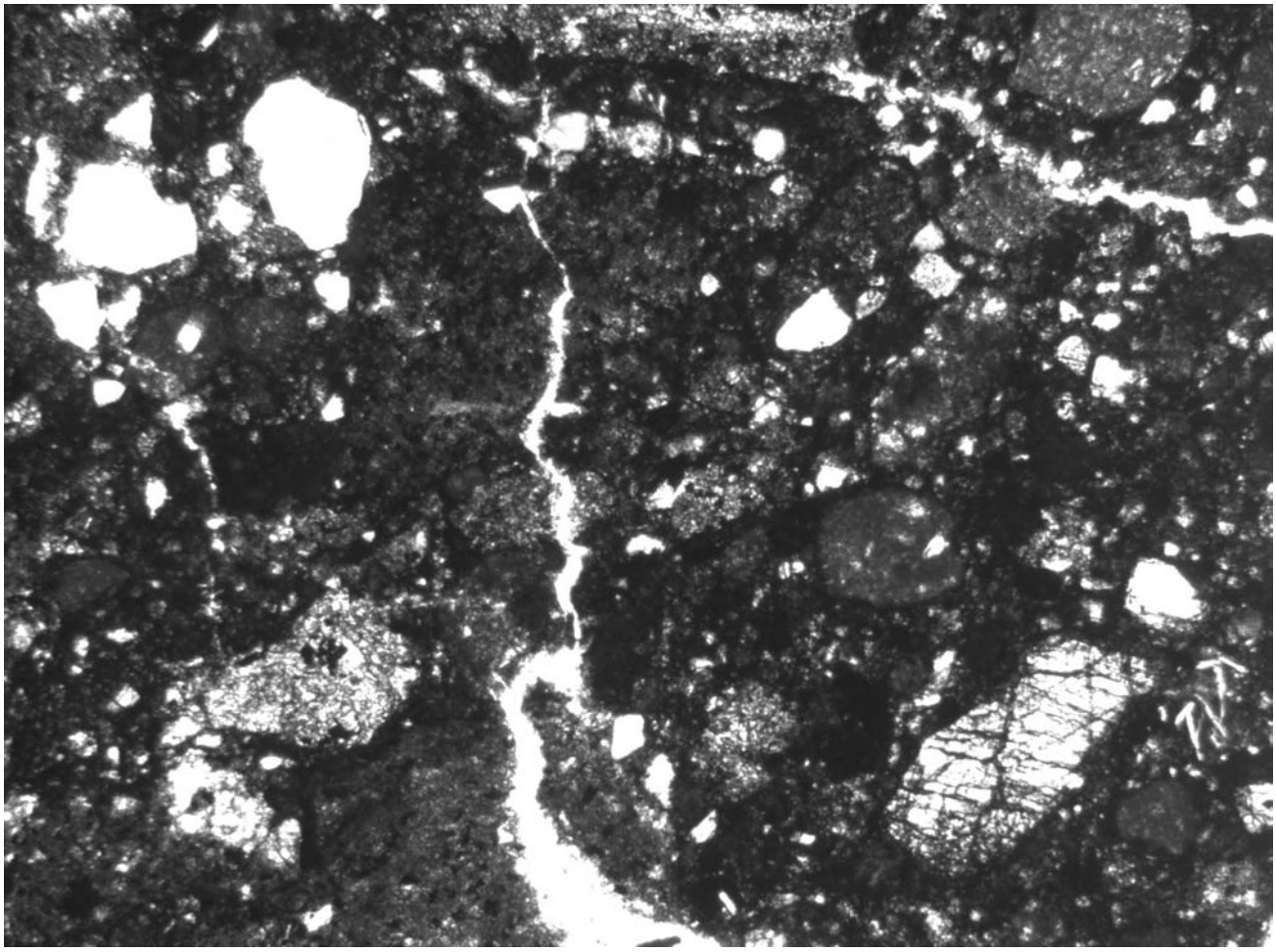
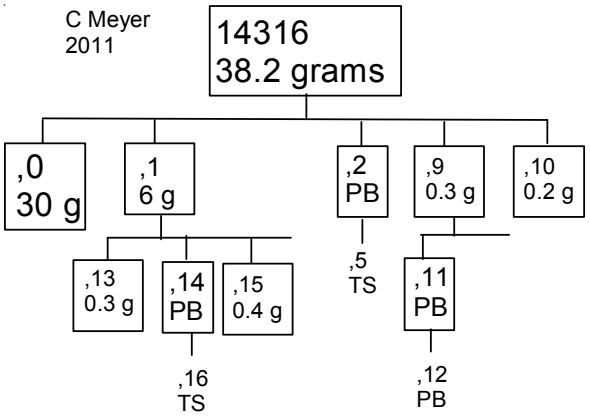


Figure 3: Photomicrograph of thin section 14316,6 by C. Meyer. Scale is 2.8 mm across.



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