

76505**Micropoikilitic Impact Melt Breccia****4.69 g, 1.6 x 1.4 x 1.5 cm****INTRODUCTION**

The original catalog by Butler (1973) describes 76505 as a "light greenish-grey breccia" and the rake sample catalog by Phinney et al. (1974) describes 76505 as an "annealed crystalline breccia." *Simonds and Warner (1981) and Simonds et al. (1975) mistakenly claim that 76505 is a "vitric matrix soil breccia," but correctly report that it has high Al and low Ti.*

PETROGRAPHY

Sample 76505 was sieved from highlands soil 76501. It is a coherent, light grey fragment

(Fig. 1). Thin sections of sample 76505 show that it is a very fine-grained, micropoikilitic impact melt rock with only a trace of ilmenite (Fig. 2). The mode is roughly 55% plagioclase and 45% low-Ca pyroxene. Section ,8 also has a small patch of "granitic melt" surrounding a small vesicle.

WHOLE-ROCK CHEMISTRY

Simonds and Warner (1981) report a preliminary analysis of 76505 by fused bead electron microprobe analysis (Table 1) (*these unpublished analyses are suspect because fusion may not have been complete*).

CLAST ?

The original catalog reported a second, darker lithology, but this turned out to be nothing more than some soil packed in a large vesicle of the feldspathic impact melt rock (Fig. 1).

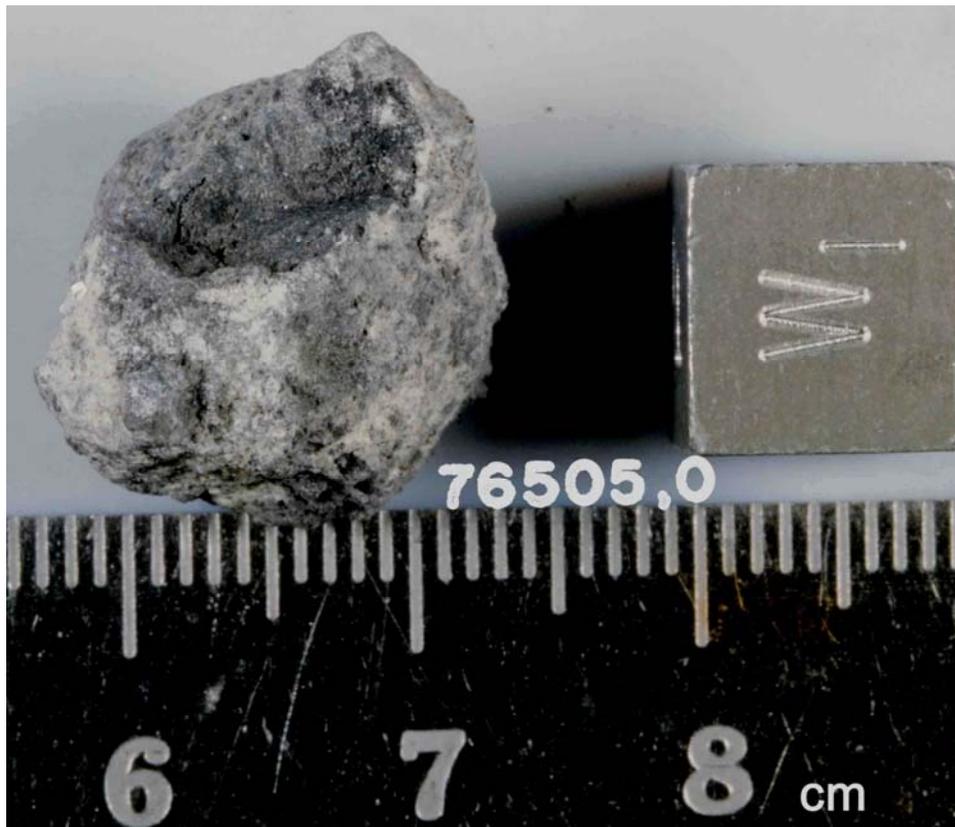


Figure 1: Photograph of light grey sample 76505. Scale bar is marked in 1 mm. S74-20167.

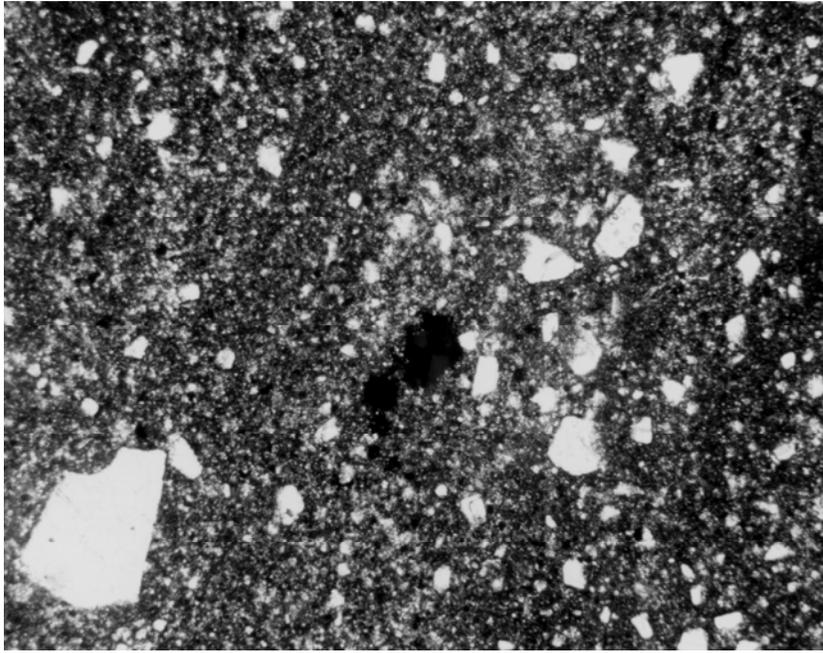


Figure 2: Photomicrograph of a portion of thin section 76505,8. Field of view is 2 x 3 mm.

Table 1: Whole-rock chemistry of 76505.

From Simonds and Warner (11981).

(Cautionary note: These preliminary analyses were made by fused bead electron microprobe analyses, R. Brown, analyst.)

Split Technique	,2 EMP
SiO ₂ (wt%)	46.85
TiO ₂	1.54
Al ₂ O ₃	18.64
Cr ₂ O ₃	0.19
FeO	7.82
MnO	
MgO	11.13
CaO	11.26
Na ₂ O	0.88
K ₂ O	0.29
P ₂ O ₅	