72736

Micropoiklitic Impact Melt Breccia

28.73 grams

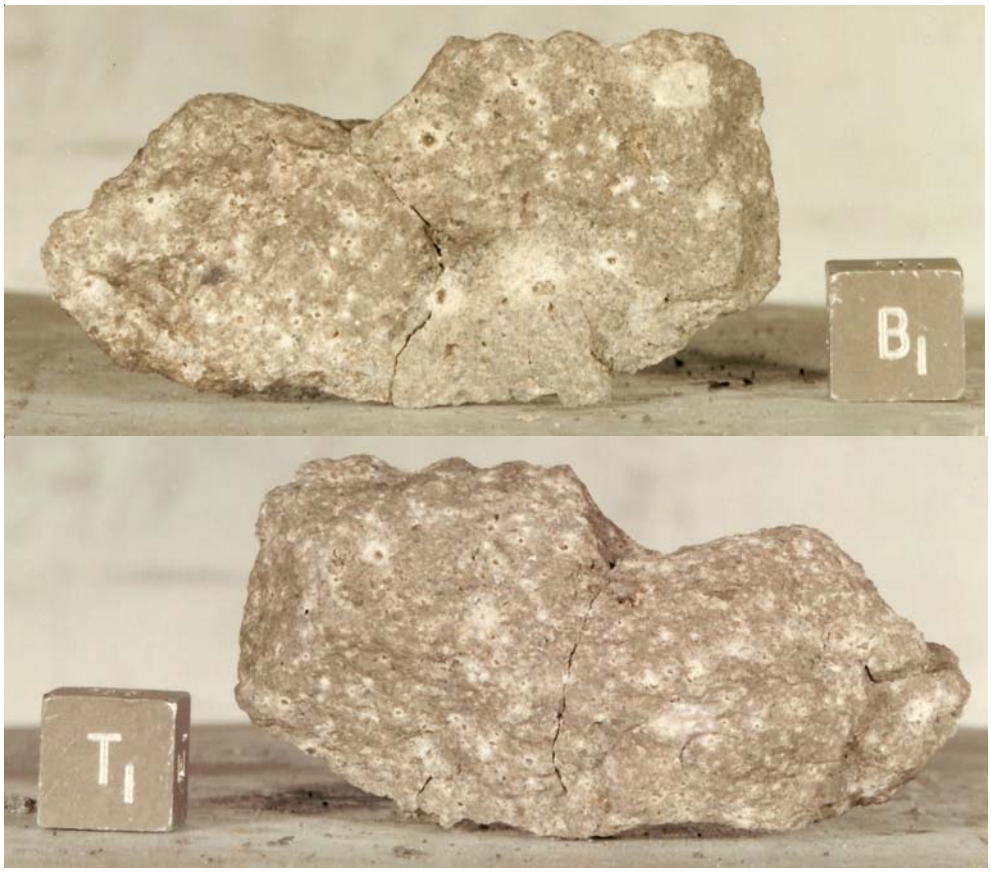


Figure 1: Photos of top and bottom of 72736, showing zap pits on all surfaces. S73-19433 and 438. Cube is 1 cm.

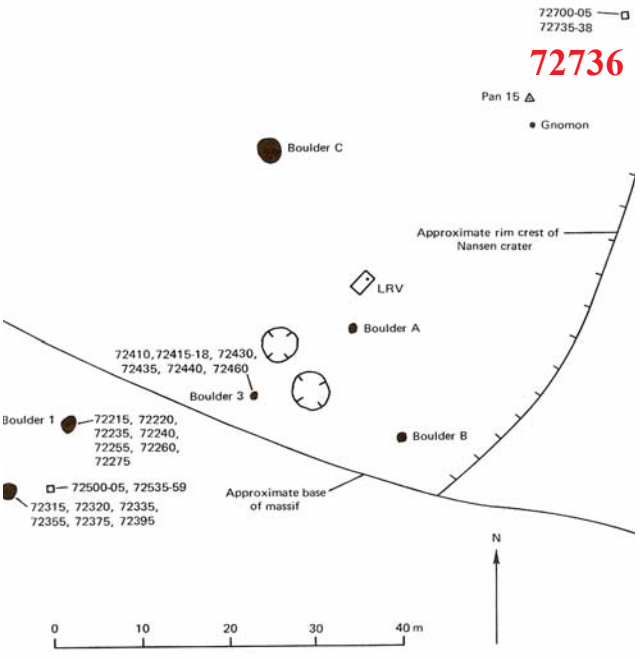
Introduction

72736 was collected as a rake sample form the rim of Nanson Crater (see map). It has a lot of zap pits (figure 1). It is an impact melt rock rather typical of others found at Apollo 17.

The age of this fragment has not been determined.

Petrography

72736 has a matrix with a micropoikilitic texture (figure 2). The matrix includes numerous plagioclase and or anorthosite clasts. Warner et al. (1978) determined the mode and mineral chemistry (figure 3). Some grains of pink spinel have reaction corona.



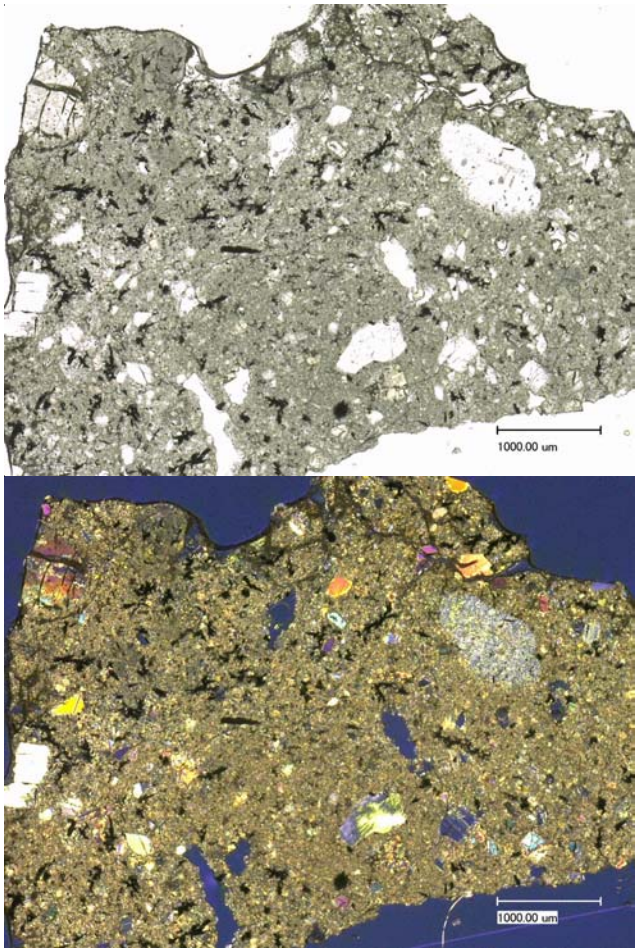


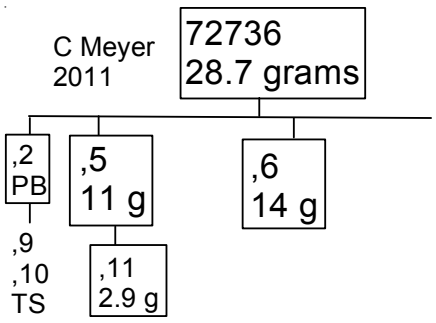
Figure 2: Photomicrographs of thin section 72736,9 by C Meyer @50x.

Chemistry

The chemical composition of 72736 is like that of other Apollo 17 impact melt rocks. Trace elements have not been determined.

Processing

72736 broke in half (figure 1). This fragment has not been sawn. There are 4 thin sections.



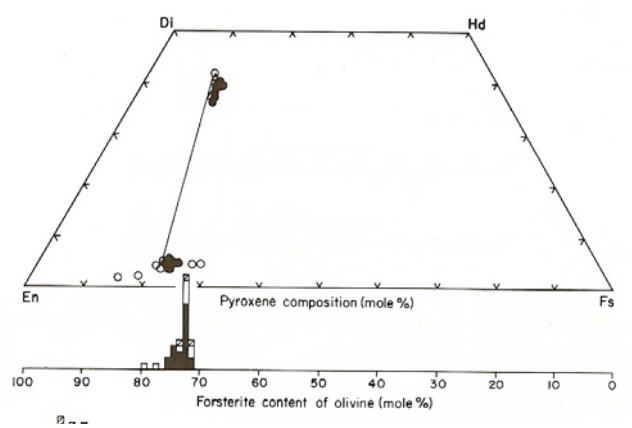


Figure 3: Olivine and pyroxene composition of 72736 (Warner et al. 1977).

Mineral Mode (Warner et al. 1977)

	Vol. %
Matrix	72.2
Mineral clasts	12
Lithic clasts	15.8
Mineral clasts	
Plagioclase	8.1
Olivine/Pyroxene	3.8
Opaque	tr.
Metal/troilite	0.1
Other	
Lithic Clasts	
ANT	0.9
Devit. Anorthosite	7.8
Breccia	7.1
Other	tr.
Percent of matrix	
Plagioclase	50.3
Olivine/pyroxene	46.2
Opaque	2.1
Metal/troilite	0.6
Other	0.8

Table 1. Chemical composition of 72736

reference		
weight		
SiO2 %	47.5	(a)
TiO2	0.67	(a)
Al2O3	19.3	(a)
FeO	7.7	(a)
MnO	0.13	(a)
MgO	11.6	(a)
CaO	11.9	(a)
Na2O	0.72	(a)
K2O	0.26	(a)
P2O5	0.27	(a)
S %		
sum		
Cr ppm	1095	(a)

References for 72736

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Keil K., Dowty E. and Prinz M. (1974) Description, classification and inventory of 113 Apollo 17 rake samples from stations 1A, 2, 7 and 8. Curator's Catalog, pp. 149.

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