

**68035**  
Cataclastic Anorthosite  
21 grams

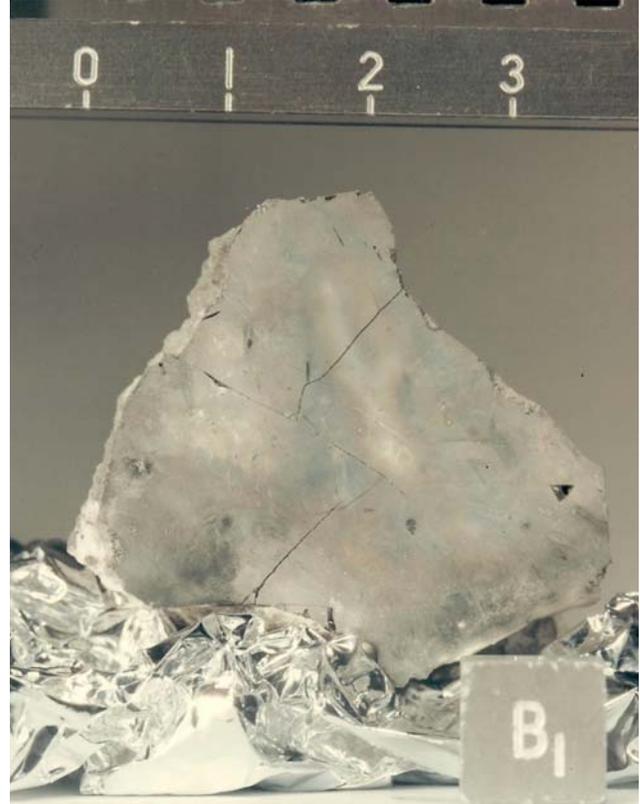
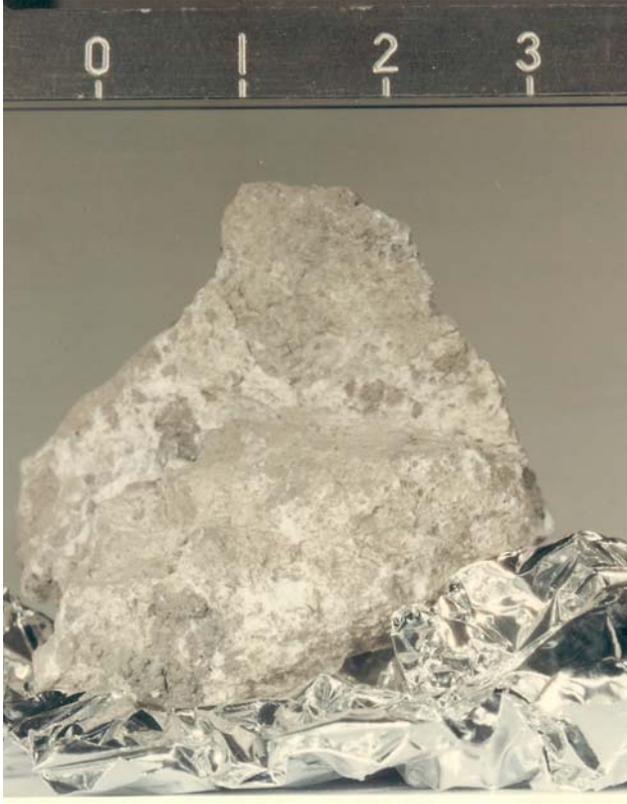


Figure 1 a, b: Front and back of 68035. Scale is in cm. S72-40517 and S72-40516.

**Introduction**

68035 was picked up separately from the surface adjacent to soil sample 68500 and rake sample 68510.

It contains a glass-coated white anorthosite, but the shiny glass coat is reported to have had a blue-green sheen to it. Micropoikilitic impact melt breccia surrounds the white anorthosite clast (figure 3). There is a thin section of each lithology – but no petrographic description nor mineral analyses.

**Chemistry**

The glass coating has been analyzed by See et al. (1986) and Morris et al. (1986) and the interior white rock has been roughly analyzed by See et al. (table).

**Radiogenic age dating**

Not

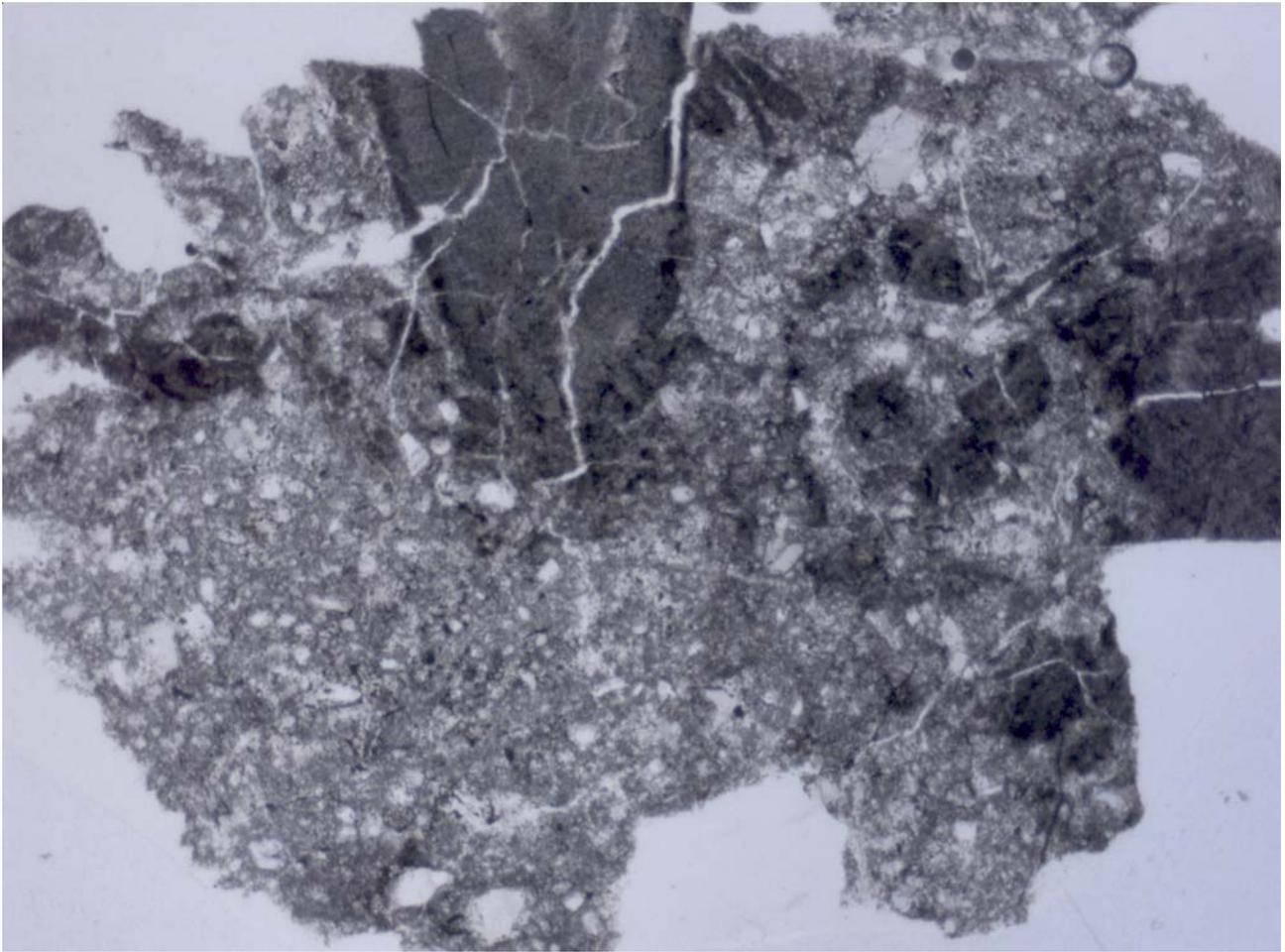
**Cosmogenic isotopes and exposure ages**

Rancitelli et al. (1973) determined the cosmic-ray-induced activity of  $^{22}\text{Na} = 74 \text{ dpm/kg.}$ ,  $^{26}\text{Al} = 211 \text{ dpm/kg.}$

**Processing**

The bulk sample is in two pieces. There are two thin section (each different).

*This thing kind of reminds me of a cheese sandwich.*



*Figure 2: Photomicrograph of thin section of 68035 by C Meyer. 2 mm across*

**Table 1. Chemical composition of 68035**

	glass		anor	
reference	Morris87	Rancitelli73	See87	See87
weight	See87			
SiO2 %	44.5 (b)		45.29 (b)	
TiO2	0.4 (a)		0.15 (b)	
Al2O3	25.91 (a)		31.87 (b)	
FeO	5.88 (a)		2.18 (b)	
MnO			0.04 (b)	
MgO	7.54 (b)		1.91 (b)	
CaO	14.5 (b)		17.77 (b)	
Na2O	0.48 (a)		0.64 (b)	
K2O	0.09 (a)	0.073 (c)	0.06 (b)	
P2O5				
S %				
sum				
Sc ppm	6.6 (a)			
V				
Cr	650 (a)			
Co	31 (a)			
Ni	5.08 (a)			
Cu				
Zn				
Ga				
Ge ppb				
As				
Se				
Rb				
Sr				
Y				
Zr				
Nb				
Mo				
Ru				
Rh				
Pd ppb				
Ag ppb				
Cd ppb				
In ppb				
Sn ppb				
Sb ppb				
Te ppb				
Cs ppm				
Ba	290 (a)			
La	7.09 (a)			
Ce	19.8 (a)			
Pr				
Nd				
Sm	3.24 (a)			
Eu	1.19 (a)			
Gd				
Tb	0.71 (a)			
Dy				
Ho				
Er				
Tm				
Yb	2.38 (a)			
Lu	0.36 (a)			
Hf	2.39 (a)			
Ta	0.33 (a)			
W ppb				
Re ppb				
Os ppb				
Ir ppb				
Pt ppb				
Au ppb				
Th ppm	1.89 (a)	0.91 (c)		
U ppm	0.52 (a)	0.23 (c)		

technique: (a) INAA, (b), (c) radiation count.

**References for 68035**

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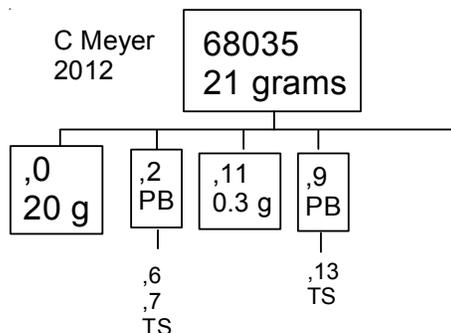




Figure 3: 68035 had a penetrating fracture down the middle. These are to two halves. S72-40518

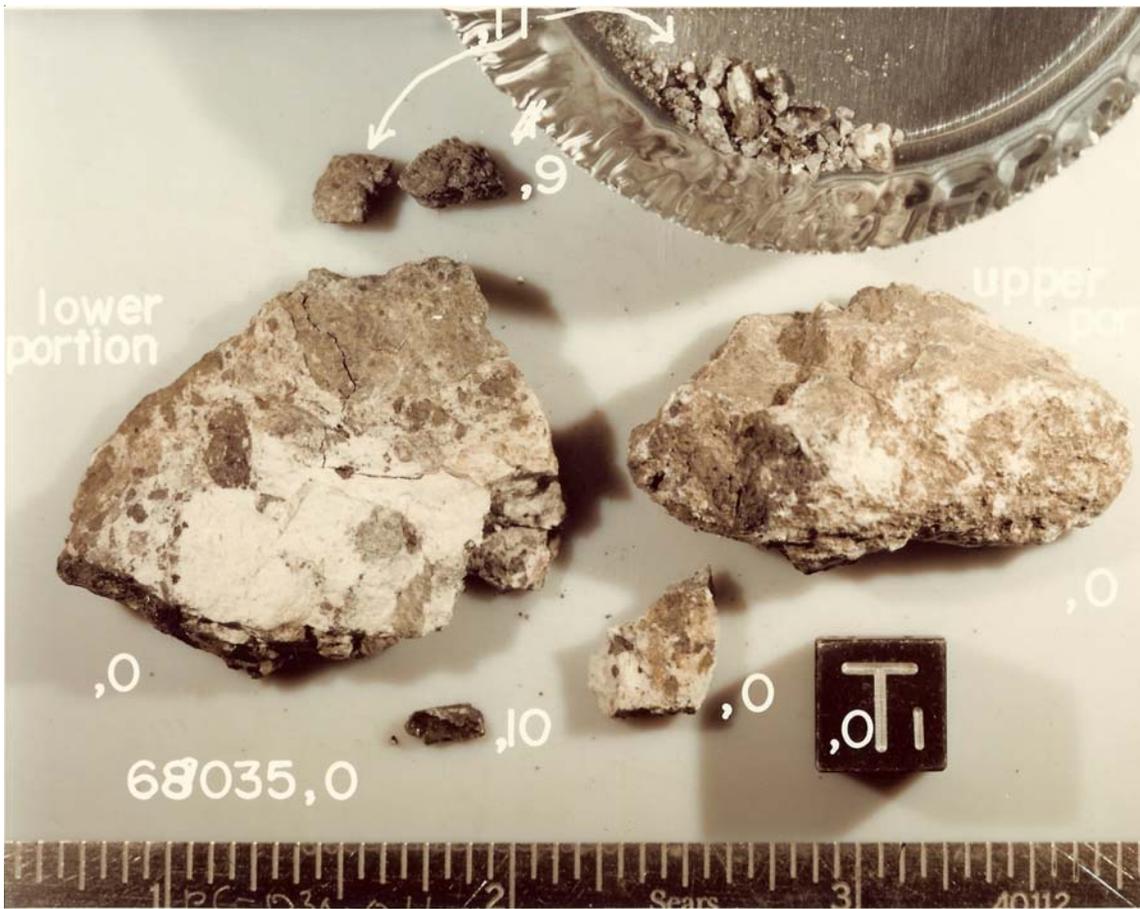


Figure 4: Processing photo of 68035. As you can see, the anorthosite clast is not very thick. Cube is 1 cm. S82-27856