

67025
Impact Melt Breccia
16 grams



Figure 1: Photo of 67025. Cube is 1 cm. S72-40525



Figure 2: Photo of 67025. Cube is 1 cm. S72-40524

Introduction

67025 was collected from the regolith near 67016 on the rim of North Ray Crater. It is a glass-coated crystalline rock with basaltic melt surrounding xenoliths of plagioclase.

Petrography

Warner et al. (1973) termed 67025 a basalt, while Ryder and Norman (1980) termed it a basaltic impact melt. Plagioclase laths 100 microns long are surrounded and enclosed by pyroxene (figure 3). Numerous relict xenoliths of plagioclase indicated the precursor was a breccia.

Mineral compositions have not been determined.

Chemistry

The sample has high Al_2O_3 , with high Mg/Fe ratio. Ni is high

Radiogenic age dating

None

Processing

There are two thin sections, both from the same potted butt.

*Figure 3: Photos
of thin section
67025,13 by C
Meyer. 2 mm across*

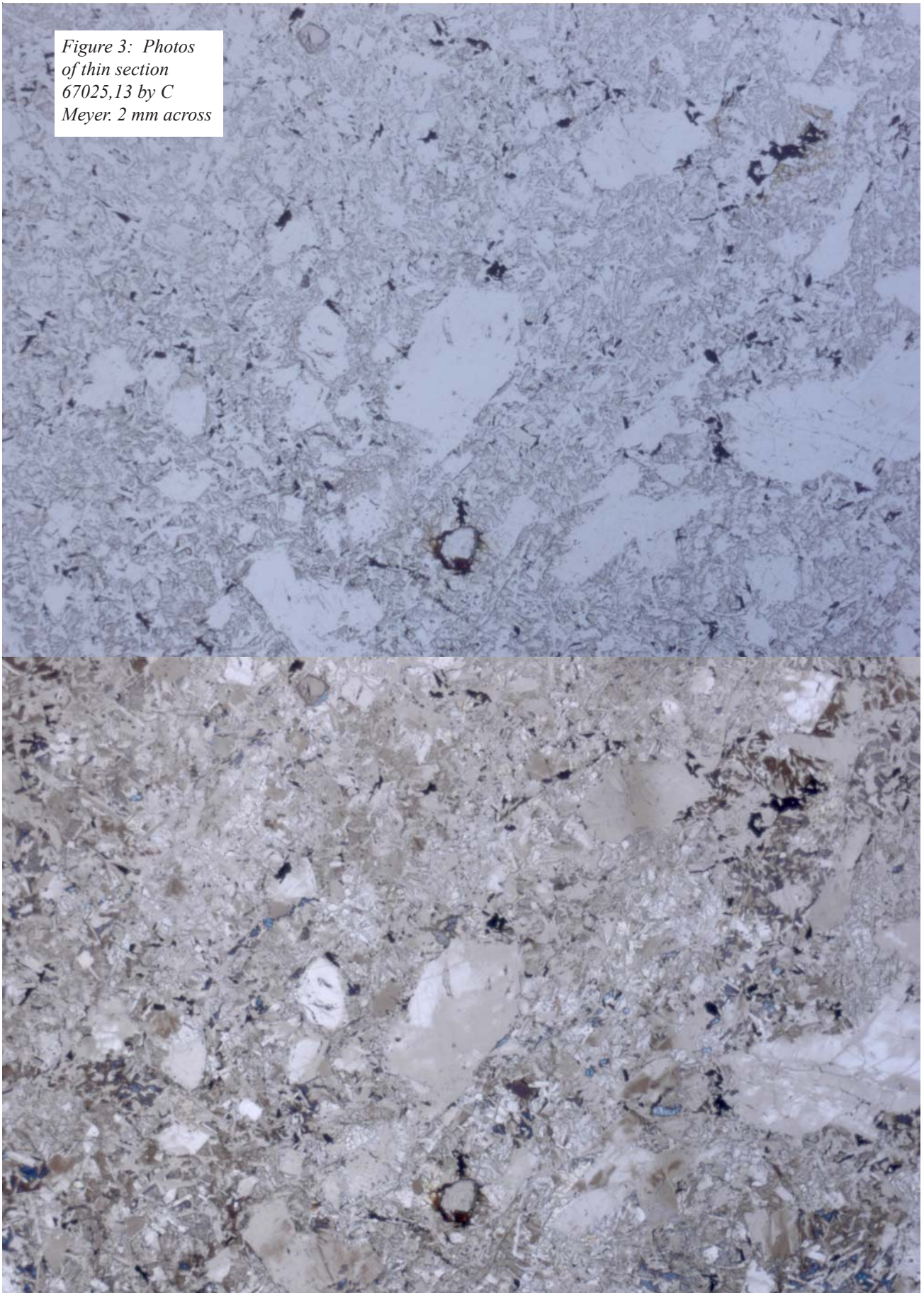
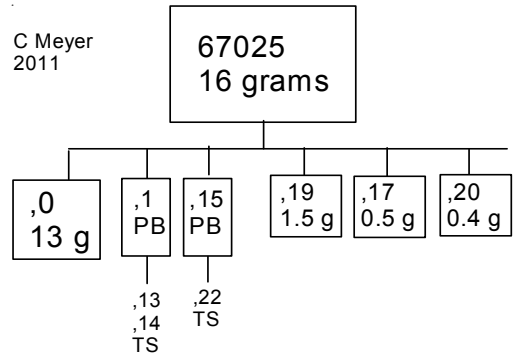


Table 1. Chemical composition of 67025

	glass		anor.			
reference	Morris87		See87		Lindstrom82	
weight	See87		See87			
SiO2 %	44.72	(b)	48.11	(b)		
TiO2	0.21		1.32	(b)		
Al2O3	32.33		21.2	(b)	26.7	27.6 (a)
FeO	1.95	(a)	5.47	(b)	3.85	5.39 (a)
MnO			0.11	(b)		
MgO	2.07		10.86	(b)	7	6.4 (a)
CaO	18.12		12.59	(b)	15.7	16 (a)
Na2O	0.46	(a)	0.48	(b)	0.56	0.42 (a)
K2O	0.08		0.11	(b)		
P2O5						
S %						
sum						
Sc ppm	5.58	(a)			7.4	5.9 (a)
V						
Cr	577	(a)			729	756 (a)
Co	42	(a)			9.6	64 (a)
Ni	613	(a)			160	1160 (a)
Cu						
Zn						
Ga						
Ge ppb						
As						
Se						
Rb						
Sr					170	183 (a)
Y						
Zr						
Nb						
Mo						
Ru						
Rh						
Pd ppb						
Ag ppb						
Cd ppb						
In ppb						
Sn ppb						
Sb ppb						
Te ppb						
Cs ppm						
Ba	124	(a)			225	120 (a)
La	9.1	(a)			21.2	12.2 (a)
Ce	24.2	(a)			58.4	32.6 (a)
Pr						
Nd						
Sm	4.09	(a)			10.3	5.74 (a)
Eu	1.18	(a)			1.33	1.07 (a)
Gd						
Tb	0.9	(a)			2.15	1.17 (a)
Dy						
Ho						
Er						
Tm						
Yb	2.88	(a)			6.92	3.9 (a)
Lu	0.4	(a)			1	0.56 (a)
Hf	2.82	(a)			7.72	4.35 (a)
Ta	0.34	(a)			0.98	0.61 (a)
W ppb						
Re ppb						
Os ppb						
Ir ppb						
Pt ppb						
Au ppb						
Th ppm	2.35	(a)			3.25	1.91 (a)
U ppm	0.64	(a)			0.87	0.47 (a)
technique:	(a) INAA, (b) DBA					



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