

**15436**  
Impact melt  
3.5 grams



Figure 1: Photo of 15436. Scale is 1 cm. S78-25485.

**Introduction**

15436 was a < 1 cm particle sieved from the soil collected along with the “pedestal” sample at Spur Crater (see 15431). It is a round black and white rock with a chalky white dust covering (figure 1).

**Petrography**

15436 is a vesicular, fine-grained melt with include mineral grains and lithic fragments (figure 2). According to Ryder and Spudis (1987), 15436 has a groundmass with a “granular texture but with many lathy plagioclases and tiny ilmenite blades”. Interstitial glass is common. Clasts include plagioclases and lithic fragments up to 600 microns across.

**Chemistry**

Ryder and Spudis (1987) give the only analysis (figure ). Warren and Wasson (1977) refused to analyze the piece of glass that they were issued, because it was not representative.

**Radiogenic age dating**

Dalrymple and Ryder (1987) tried, but were unable to obtain a flat Ar/Ar plateau for 15436.

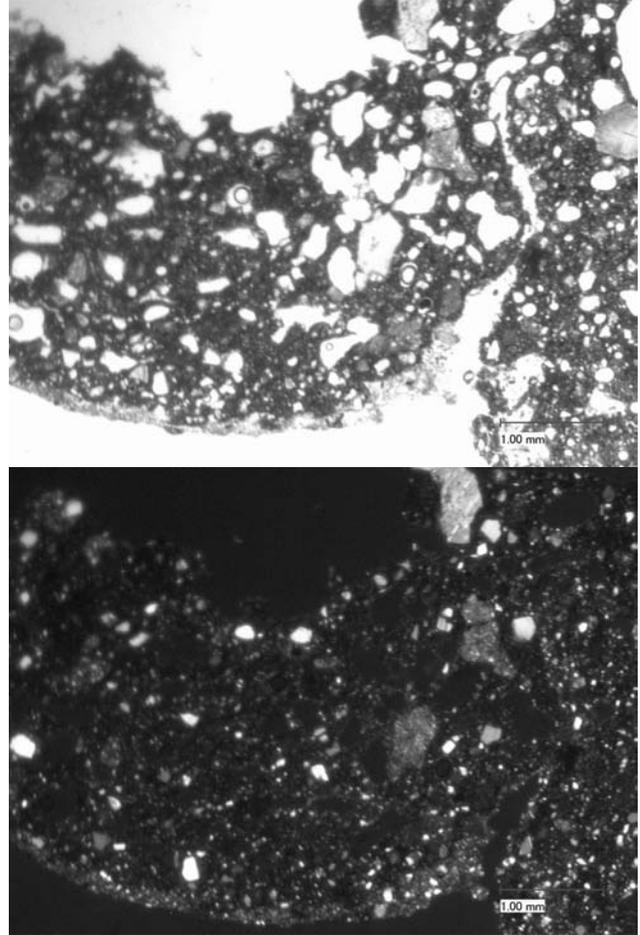


Figure 2: Transmitted and cross-polarized light photomicrographs of thin section 15436,4 @ 50x by C Meyer.

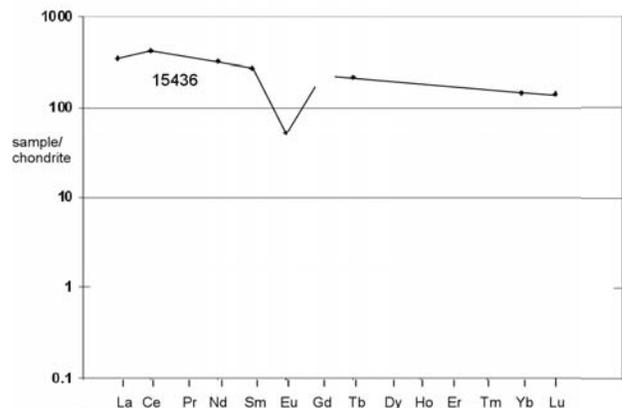
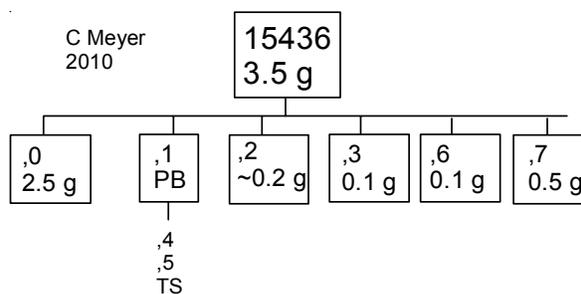


Figure 3: Normalized REE diagram for 15436.

**Table 1. Chemical composition of 15436**

reference weight	Ryder87	
SiO <sub>2</sub> %	49.2	(a)
TiO <sub>2</sub>	2.41	(a)
Al <sub>2</sub> O <sub>3</sub>	16.7	(a)
FeO	9.3	(a)
MnO	0.15	(a)
MgO	8.6	(a)
CaO	10.7	(a)
Na <sub>2</sub> O	0.775	(a)
K <sub>2</sub> O	1.09	(a)
P <sub>2</sub> O <sub>5</sub>	0.89	(a)
S %		
sum		
Sc ppm	17.7	(a)
V		
Cr	1220	(a)
Co	20.5	(a)
Ni	98	(a)
Cu		
Zn		
Ga		
Ge ppb		
As		
Se		
Rb	20	(a)
Sr		
Y		
Zr	680	(a)
Nb		
Mo		
Ru		
Rh		
Pd ppb		
Ag ppb		
Cd ppb		
In ppb		
Sn ppb		
Sb ppb		
Te ppb		
Cs ppm	0.98	(a)
Ba	740	(a)
La	80.8	(a)
Ce	252	(a)
Pr		
Nd	146	(a)
Sm	39.7	(a)
Eu	2.9	(a)
Gd		
Tb	7.8	(a)
Dy		
Ho		
Er		
Tm		
Yb	23.5	(a)
Lu	3.4	(a)
Hf	29.2	(a)
Ta	3.1	(a)
W ppb		
Re ppb		
Os ppb		
Ir ppb		
Pt ppb		
Au ppb		
Th ppm	12.3	(a)
U ppm	3.4	(a)
technique:	(a) INAA	



**References for 15436**

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