

**76286****Impact Melt Breccia****1.704 g, 1.5 x 1 x 1 cm****INTRODUCTION**

This small rock fragment was collected from a trench in the soil between the blocks of the big boulder at Station 6. Although it was called a "brecciated troctolite" in the original catalog, it is instead a typical impact melt breccia (Fig. 1).

**PETROGRAPHY**

The binocular description by Butler (1973) indicated that this rock

originally had a relatively coarse grain size (1 to 3 mm?). However, the thin section allocated to Warren et al. (1978) showed a "fine-grained, polymict texture" that is very similar to the boulder samples 76215 and 76015 (Fig. 2). This vesicular poikilitic impact melt breccia is reported by Warren et al. to have about 51% plagioclase (An<sub>85-95</sub>), 26% orthopyroxene (Wo<sub>3-5</sub>En<sub>72-77</sub>Fs<sub>19-25</sub>), and ~13% olivine (Fo<sub>70</sub>)

**WHOLE-ROCK CHEMISTRY**

Warren and Wasson (1978) analyzed a piece of 76286 and found that it had a composition very similar to the samples of the big boulder at Station 6 (Fig. 3). Sample 76286 had high Ir and is nonpristine (Table 1).

There are no other data on this small fragment



Figure 1: Poikilitic matrix, blue-grey impact melt rock 76286. Cube for scale = 1 cm. S73-20181.

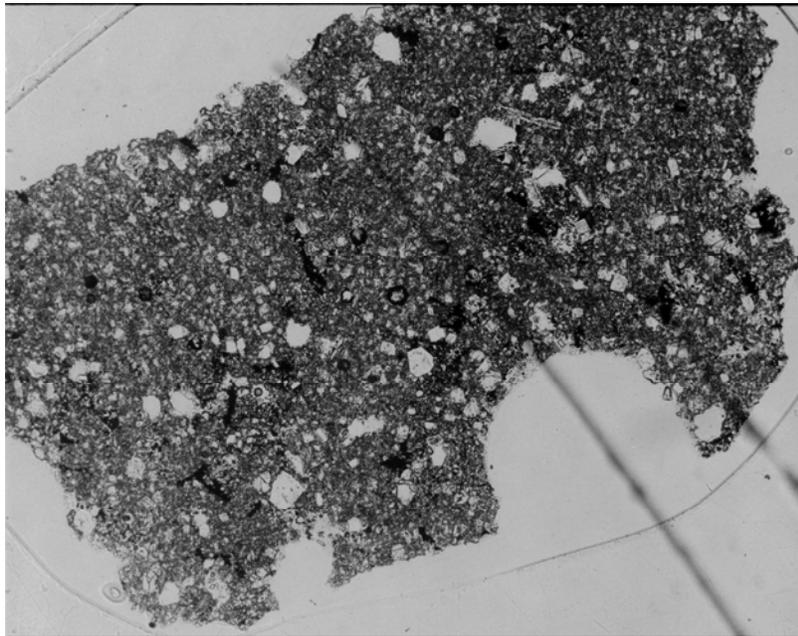


Figure 2: Photomicrograph of 76286, 3, illustrating clastic poikilitic texture and large vesicle. Field of view is 4 x 5 mm.

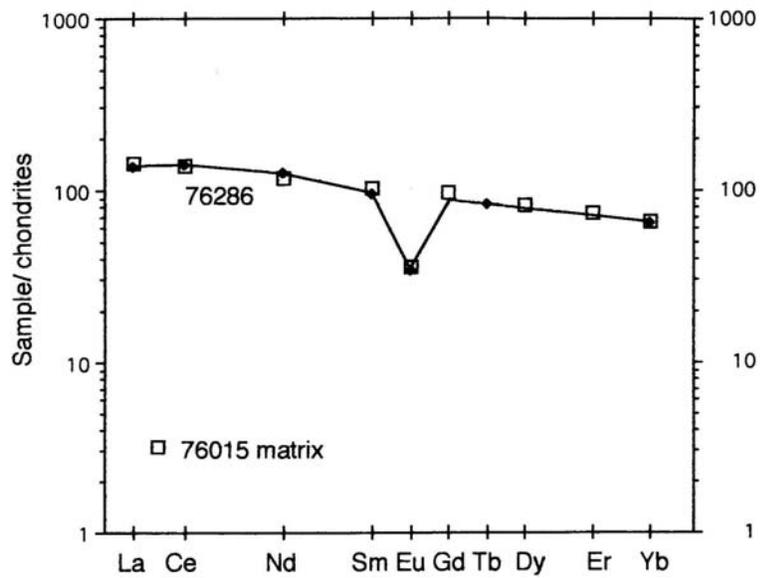


Figure 3: Normalized rare earth element diagram for 76286, with data from 76015 for comparison.

**Table 1: Chemical data for 76286.**  
From Warren and Wasson (1978).

	<b>Sample 76286,1</b>
Na (%)	0.499
Mg (%)	7.55
Al (%)	9.53
Si (%)	22
K (%)	0.232
Ca (%)	7.8
Sc (ppm)	16.7
Ti (%)	0.94
Cr (ppm)	1330
Mn (ppm)	917
Fe (%)	7.1
Co (ppm)	13.8
Ni (ppm)	57
Zn (ppm)	2.44
Ga (ppm)	4.82
Ge (ppb)	445
Zr (ppm)	500
Cd (ppm)	8.4
In (ppm)	<50
Ba (ppm)	384
La (ppm)	32.1
Ce (ppm)	83
Nd (ppm)	56
Sm (ppm)	14
Eu (ppm)	1.92
Tb (ppm)	3
Yb (ppm)	10.4
Lu (ppm)	1.45
Hf (ppm)	11.3
Ta (ppm)	1.34
Re (ppb)	0.27
Ir (ppb)	1.4
Au (ppb)	0.77
Th (ppm)	5.2
U (ppm)	1.5