

INTRODUCTION: 15325 is a glassy regolith breccia, conspicuous by the vesicular pale green glass coat which covers more than half its surface (Fig. 1a). Most of the breccia surface exposed is slicken-sided, and small patches of the glass coat overlie, hence post-date, the slickensides (Fig. 1b). The breccia itself contains glass, mineral, and debris in a glassy matrix. Some of the glass coat has zap pits, especially 100 micron diameter pits at one end, but no pits are present outside the glass area. 15325 was collected as part of the rake sample from the northeast rim of Spur Crater.

PETROLOGY: 15325 is a glassy breccia (Fig. 2) with a dense glassy matrix with a porosity lower than most Spur Crater regolith breccias. It has a vaguely foliated or sheared appearance in thin sections. It contains abundant glass debris, including green, colorless, yellow, and red. Lithic clasts are small and include varied feldspathic breccias, glassy breccias, and KREEP basalts. The glass coat does not appear in thin sections.



Fig. 1a



Fig. 1b

Figure 1. Pre-chip photos of 15325. Area marked with arrow on 1b is source of ,1 and ,2.
(a) S-76-26844; b) S-76-26840

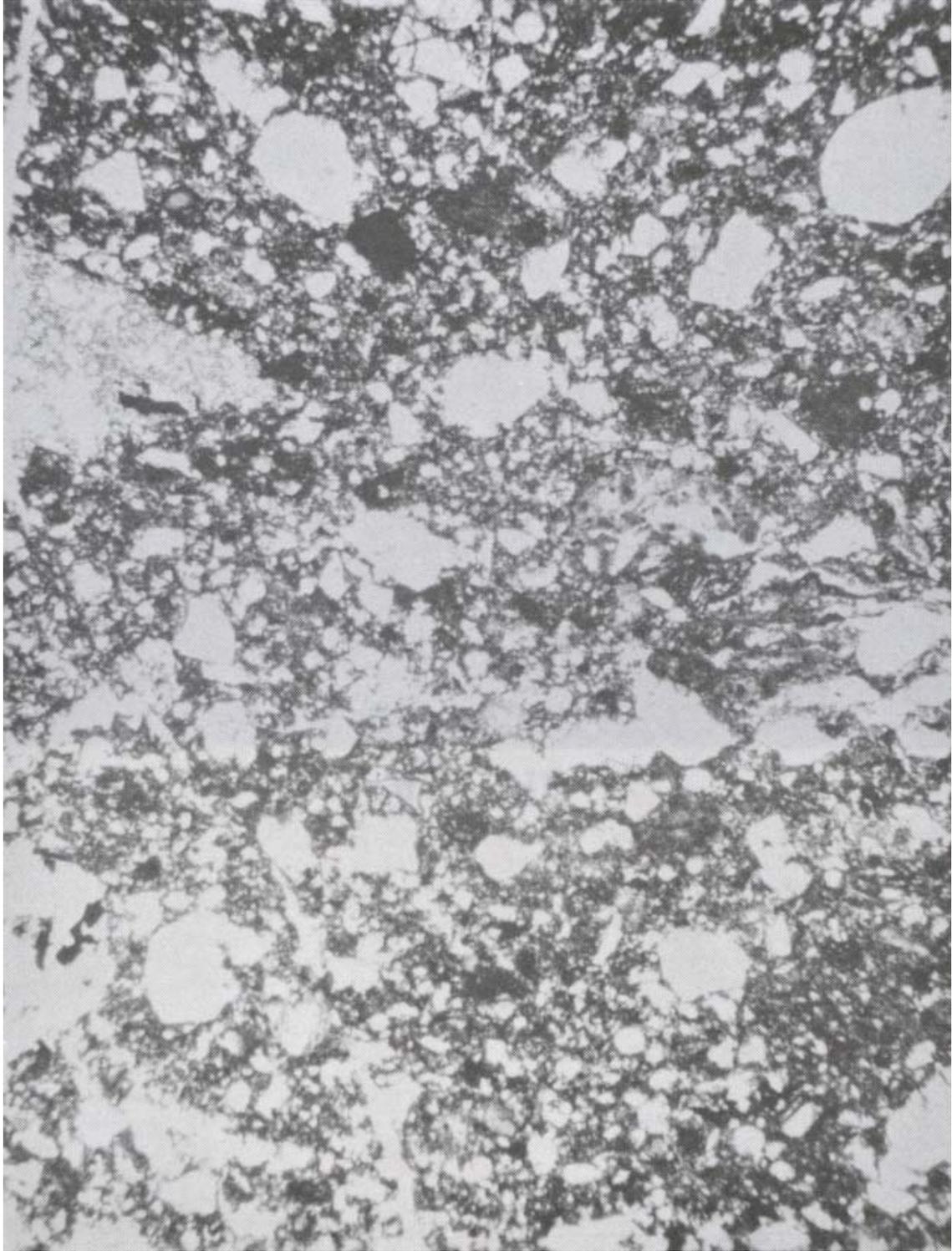


Figure 2. Photomicrograph of general matrix in 15325,4.
Transmitted light. Width about 2mm.

CHEMISTRY: Wanke et al. (1977) reported an analysis of the bulk breccia, including major, minor, and trace elements (Table 1, Fig. 3). The composition is not unusual for a Spur Crater regolith breccia.

PROCESSING AND SUBDIVISIONS: ,1 and ,2 were chipped from the slickensided area indicated in Figure 1. ,1 was partly used in producing thin sections ,4 and ,5. ,2 was used for the chemical analysis. The glass coat has not been allocated.

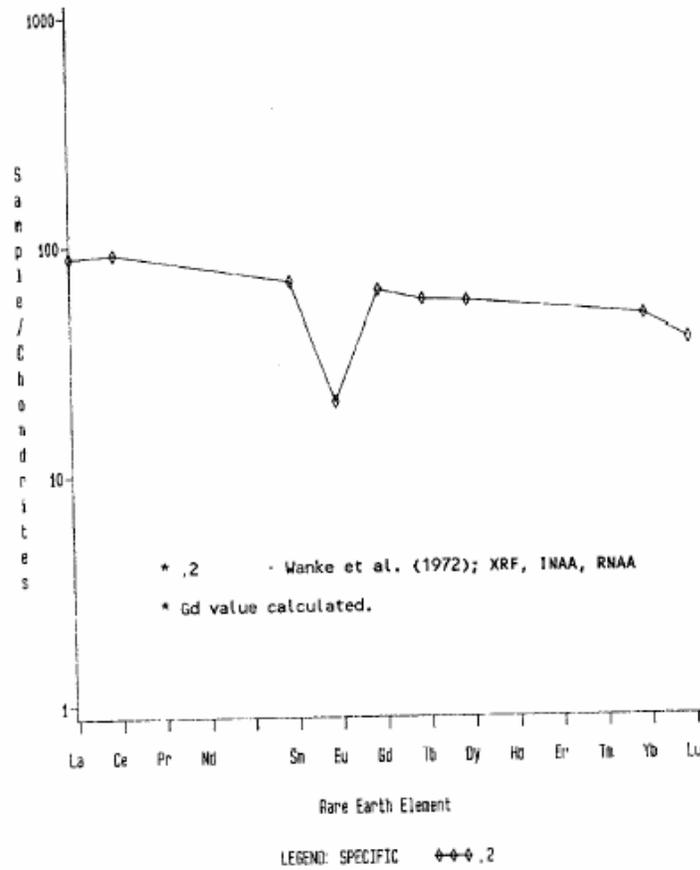


Figure 3. Rare earths in bulk rock 15325 (Wanke et al., 1977).

TABLE 15325-1. Bulk chemical analysis

		.2	
Wt %	SiO ₂	48.4	
	TiO ₂	1.28	
	Al ₂ O ₃	16.5	
	FeO	12.7	
	MgO	10.8	
	CaO	11.1	
	Na ₂ O	0.510	
	K ₂ O	0.246	
	P ₂ O ₅	0.247	
	(ppm)	Sc	23.3
		V	77.4
Cr		2270	
Mn		1225	
Co		35.7	
Ni		180	
Rb			
Sr		138	
Y		96	
Zr		405	
Nb		29	
Hf		10.0	
Ba		290	
Th		4.68	
U			
Pb			
La		29.5	
Ce		81.1	
Pr			
Nd			
Sm		12.6	
Eu		1.45	
Gd			
Tb		2.71	
Dy		18.0	
Ho			
Er			
Tm			
Yb		9.76	
Lu		1.32	
Li			
Be			
B			
C			
N			
S	450		
F			
Cl			
Br			
Cu			
Zn			
(ppb)	I		
	At		
	Ga		
	Ge		
	As		
	Se		
	Mo		
	Tc		
	Ru		
	Rh		
	Pd		
	Ag		
	Cd		
	In		
	Sn		
	Sb		
	Te		
	Cs		
	Ta	1270	
	W		
	Re		
	Os		
	Ir		
	Pt		
	Au		
	Hg		
	Tl		
Bi			

References and methods:

- (1) Wanke et al. (1972);
XRF, INAA, RNAA.