

INTRODUCTION: 15332 is a dark agglutinate with abundant vesicles (Fig. 1). Pale clasts are visible within it, and a 1-mm zap pit occurs on one such clast. The sample was collected as part of the rake sample from the north-east rim of Spur Crater.

PETROLOGY: 15332 is an agglutinate (Fig. 2), consisting of a brownish and grayish glass which is very vesicular and enclosing small lithic clasts and many mineral clasts (Dowty et al., 1973b). The glass is faintly banded and contains minute Fe-metal spherules. Hlava et al. (1973) tabulated glass compositions. The agglutinate glass is aluminous, essentially low-K Fra Mauro (Table 1). Other glasses (spherules, etc.) include high-alumina highlands and low-alumina mare varieties. Hlava et al. (1973) also reported analyses of plagioclase in an ANT fragment (An about 90) and in a high-alumina basalt fragment (An about 95); they wrongly listed the An contents as Ab contents.

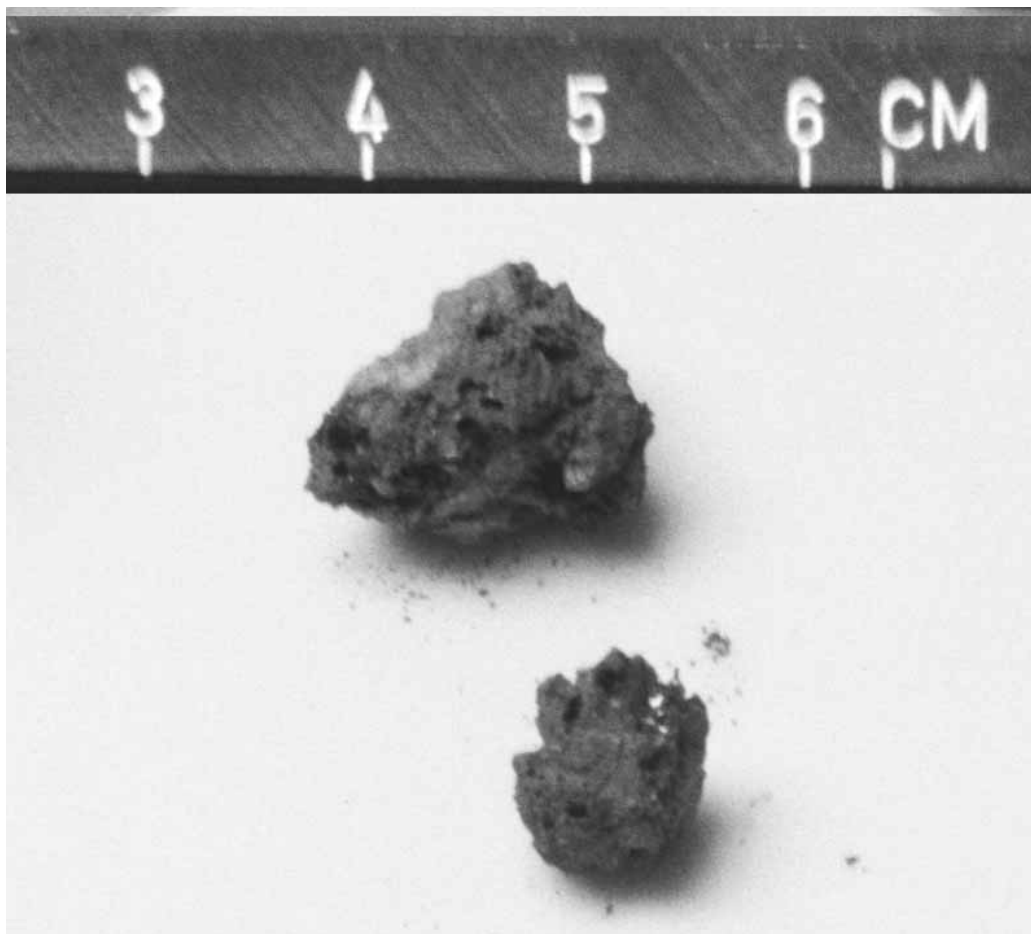


Figure 1. Post-split view of 15332. S-71-57219

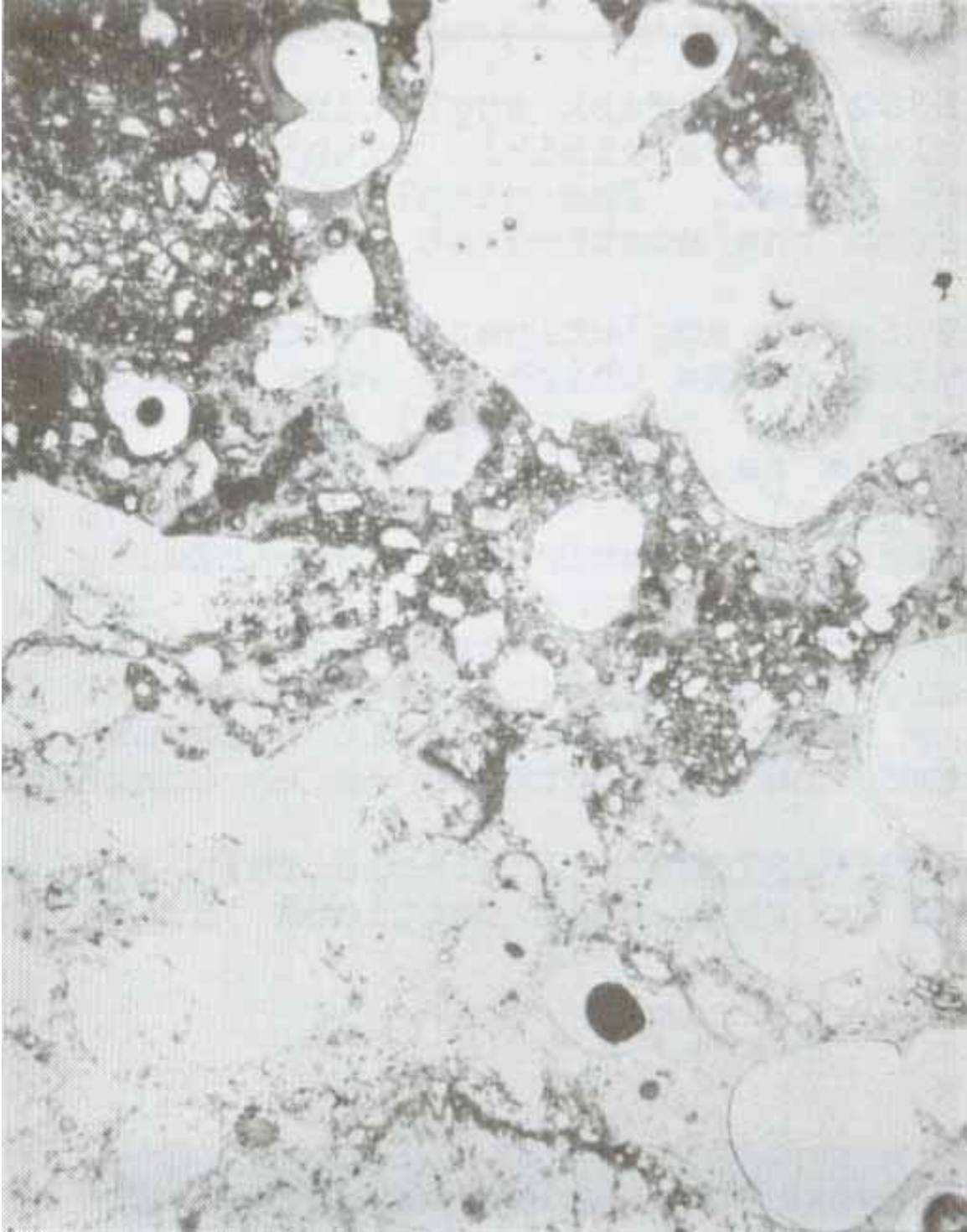


Figure 2. General view of 15332,3. Transmitted light.
Width about 2mm. The vesicles are prominent.

PROCESSING AND SUBDIVISIONS: A single chip (,1) was taken (Fig. 1) and partly used to make thin sections ,3; ,4; and ,5.

TABLE 15332-1. Compositions of matrix glass in 15332 (Hlava et al., 1973)

	Melt Matrix			Spherule and fragmental inclusions									
	12	10	8	16	15	13	6	4	5	9	1	2	3
SiO ₂	46.7	46.4	46.8	50.0	50.8	51.4	50.5	49.7	49.4	50.6	46.3	43.2	44.2
TiO ₂	1.39	1.40	1.43	1.53	1.75	2.04	2.98	1.72	1.74	4.2	.38	13.5	3.2
Al ₂ O ₃	16.9	16.5	16.5	16.5	15.6	14.8	14.1	13.8	13.8	9.9	7.1	7.1	8.5
Cr ₂ O ₃	.19	.20	.12	.18	.23	.24	.11	.21	.22	.10	.41	.48	.33
FeO	10.8	11.1	11.4	9.1	9.4	9.7	11.3	12.0	12.1	15.4	19.8	21.0	21.0
MnO	.18	.19	.14	.17	.19	.17	.20	.22	.23	.24	.35	.33	.36
HgO	10.2	10.4	10.4	8.9	8.5	8.7	7.0	10.0	11.1	6.1	17.0	11.7	11.5
CaO	11.3	11.3	11.1	10.5	9.9	9.7	9.8	10.4	9.9	9.0	8.5	8.1	9.2
BaO	.07	.04	.09	.09	.10	.11	.21	.07	.09	.21	.03	.12	.08
Na ₂ O	.59	.49	.56	.63	.79	.64	.93	.63	.59	1.03	.07	.51	.36
K ₂ O	.27	.24	.24	.49	.64	.51	.82	.41	.48	1.05	.03	.15	.09
P ₂ O ₅	.26	.25	.26	.24	.20	.22	.22	.25	.23	.21	.20	.17	.22
ZrO ₂	.08	.08	.21	.17	.17	.33	.14	.09	.58	.15	.03	.09	.09
Total	98.93	98.59	98.85	98.48	98.27	98.40	98.50	99.55	100.03	98.72	100.40	99.45	99.21
CIPW Molecular Norms													
q	--	--	--	6.35	5.74	7.81	6.65	2.44	.96	7.70	--	--	--
z	.08	.08	.20	.15	.16	.16	.32	.13	.14	.56	.03	.09	.09
or	1.45	1.45	1.45	3.85	3.91	3.12	5.07	2.48	2.88	6.62	.18	.96	.56
ab	5.40	4.50	5.12	1.58	7.33	5.95	8.73	5.78	5.37	9.87	.64	4.93	3.40
an	43.54	43.06	42.54	43.84	38.33	37.25	33.33	34.33	34.01	20.57	19.16	17.89	22.37
di	9.56	10.13	9.56	6.86	8.97	9.01	13.13	13.46	11.49	20.80	17.73	19.48	19.35
hy	31.72	32.13	30.55	34.48	32.39	33.04	27.85	38.20	42.00	26.97	35.86	22.38	34.39
ol	5.54	5.93	7.91	--	--	--	--	--	--	--	25.02	13.15	14.22
cm	.22	.23	.14	.21	.27	.28	.13	.24	.25	.12	.46	.57	.39
il	1.98	2.00	2.03	2.21	2.52	2.94	4.34	2.45	2.46	6.36	.54	20.21	4.80
ap	.56	.54	.56	.52	.44	.48	.49	.54	.49	.47	.43	.39	.49
Group	AHAB	AHAB	AHAB	AHAB	AHAB	AHAB	AHAB	AHAB	AHAB	MISC	FP	IOB	PIC