

10009

Sample 10009 is a microbreccia which originally weighed 112gm, and measured 5 X 5 X 4 cm. Sample is medium dark grey in color and hemipyramidal in shape. Sample was returned in ALSRC 1004 (Documented Sample Container). No PET description was generated for this sample.

BINOCULAR DESCRIPTION BY: Twedell DATE: 9-4-75

ROCK TYPE: Microbreccia SAMPLE: 10009,0 WEIGHT: 95gm

COLOR: Medium dark grey DIMENSIONS: 5 x 5 x 4 cm.

SHAPE: Hemi-pyramidal, irregular

COHERENCE: Intergranular – friable
Fracturing – absent

FABRIC/TEXTURE: Anisotropic/Microbreccia

VARIABILITY: Homogeneous

SURFACE: Hackly, has appearance of a shatter cone.

ZAP PITS: Glassy splitting on surface, but no apparent pits.

CAVITIES: Absent

COMPONENT	COLOR	% OF ROCK	SHAPE	SIZE (MM)	
				DOM.	RANGE
Matrix	Med.Dk.Grey	98%	Irregular	-----	-----
White Clast	White	1%	Rounded	.15mm	.1-2mm
Salt & Pepper	Blk. & White	1%	Rounded	.5mm	.1-1mm

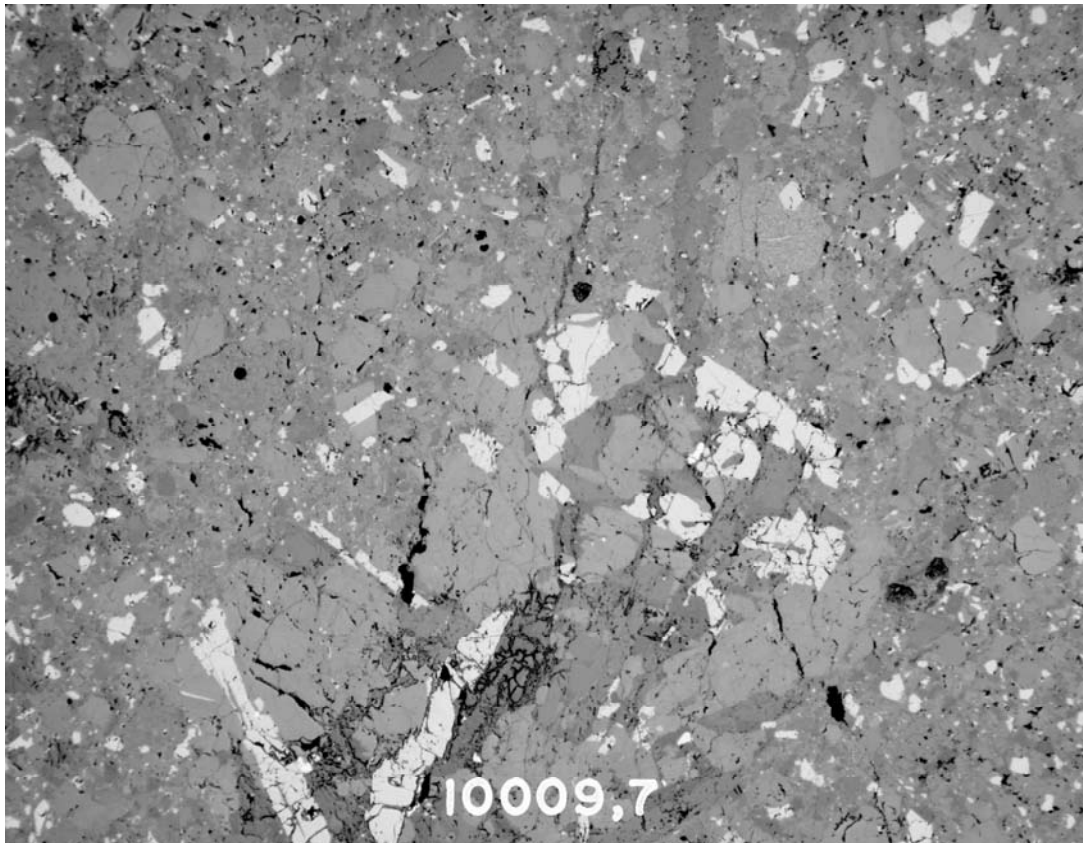
SPECIAL FEATURE: The hackly surface seems to project from a point.
Sample is probably a shatter zone.



10009,0 Display Photo (S-72-41336)



10009,0 (S-75-31108)



S-76-25830 SECTION: 10009,7 width of Field: 2.72mm plane light

THIN SECTION DESCRIPTION BY: Walton DATE: 6/22/76

SUMMARY: Highly devitrified typical breccia with a high glass-clast content. Some anorthositic clasts are present and contain small anhedral pyroxene crystals. Lithic clasts are relatively rare.

Matrix 41% of Rock

<u>Phase</u>	<u>% Section</u>	<u>Shape</u>	<u>Size (mm)</u>	<u>Comments</u>
Dark Brown	100%	-----	< 0.001	Abundant cryptocrystalline

Mineral Clasts 21% Rock

<u>Phase</u>	<u>Relative Abundance</u>	<u>Shape</u>	<u>Size (mm)</u>
Clinopyroxene ₁	Very abundant	Angular	0.001-0.3
Plagioclase ₂	few	Blocky	0.001-0.05
Opagues ₃	few	Blocky to Skeletal	0.001-0.0810009

- 1) Poor optical properties; approximately 85% of clasts
- 2) Few scattered; poorly formed approximately 5% of clasts
- 3) Most in clasts; few isolated blocky; 10% of clasts

Lithic Clasts 17% of Rock

<u>Type</u>	<u>Relative Abundance</u>	<u>Shape</u>	<u>Size (mm)</u>
Small	Very abundant	Rounded to irregular	0.001-1.0
Large ₄	Two present	Irregular	>1.0

4) a. Coarse-grained basalt with large pyroxene crystals, tabular plagioclase with minor ilmenite.
b. Polygranular plagioclase with small olivine/pyroxene crystals; typical anorthositic fragment.

Glass Clasts 21% of Rock

<u>Type</u>	<u>Relative Abundance</u>	<u>Shape</u>	<u>Size(mm)</u>
Yellow-orange ₅	Very abundant	Spherical to irregular	0.001-0.4
Colorless ₆	few	Angular	0.001-0.1
Brown orange ₇	few	Irregular	0.1 -0.4

- 5) Mostly spherical; partly devitrified
6) Some devitrification
7) Some crystal fragments included

HISTORY AND PRESENT STATUS OF SAMPLES – 10/7/76

10009 was not split during early processing in the Vac Lab or SPL. It was first subdivided in SSPL on 9-5-75 during re-examination.

PRISTINE SAMPLES:

0	90.77 gm	Rock. See binocular description.
1	12.19 gm	Three chips. No pits were observed on any, but could have easily been eroded away. The largest chip has one vuggy glass surface.
2	7.39 gm	Chips and fines. No pits observed on any chips.

NO RETURNED SAMPLES.

NO CHEMICAL ANALYSES OR AGE DATES.