10027

Sample 10027 is a sub-rounded, grey microbreccia that originally weighed 8gm and measured 5X2X1cm. This sample was originally returned in the Contingency Sample bag.

BINOCULAR DESCRIPTION BY: Kramer and Schwarz DATE: 10-8-75

ROCK TYPE: Microbreccia SAMPLE: 10027,10 WEIGHT: 7.578gm

COLOR: Grey DIMENSIONS: 2.5 x 1.7 x 1.4 cm

SHAPE: Sub-rounded

COHERENCE: Intergranular – moderately coherent
Fracturing – absent

FABRIC/TEXTURE: Anisotropic/Microbreccia; suggestion of lineation locally (PET).

VARIABILITY: Homogeneous

SURFACE: Irregular

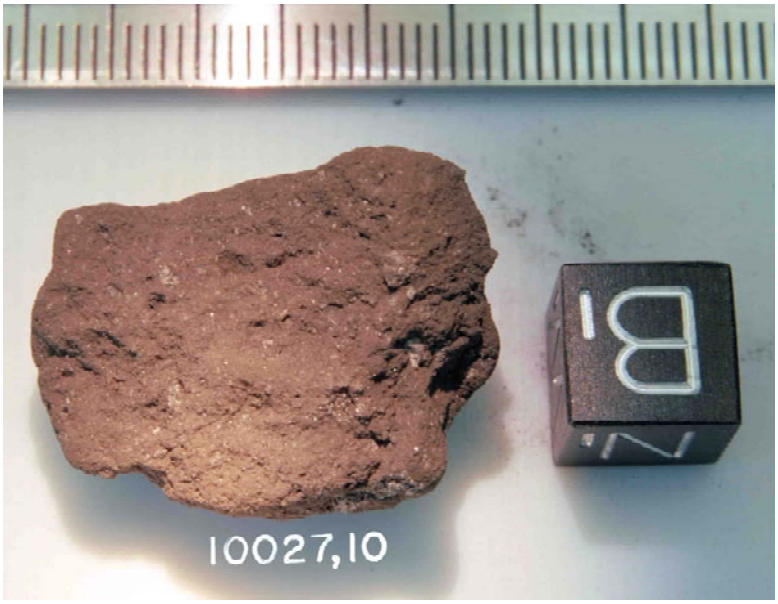
ZAP PITS: Few. Many on B_1 and N_1. Pits are irregular and occasionally frothy.

CAVITIES: Absent

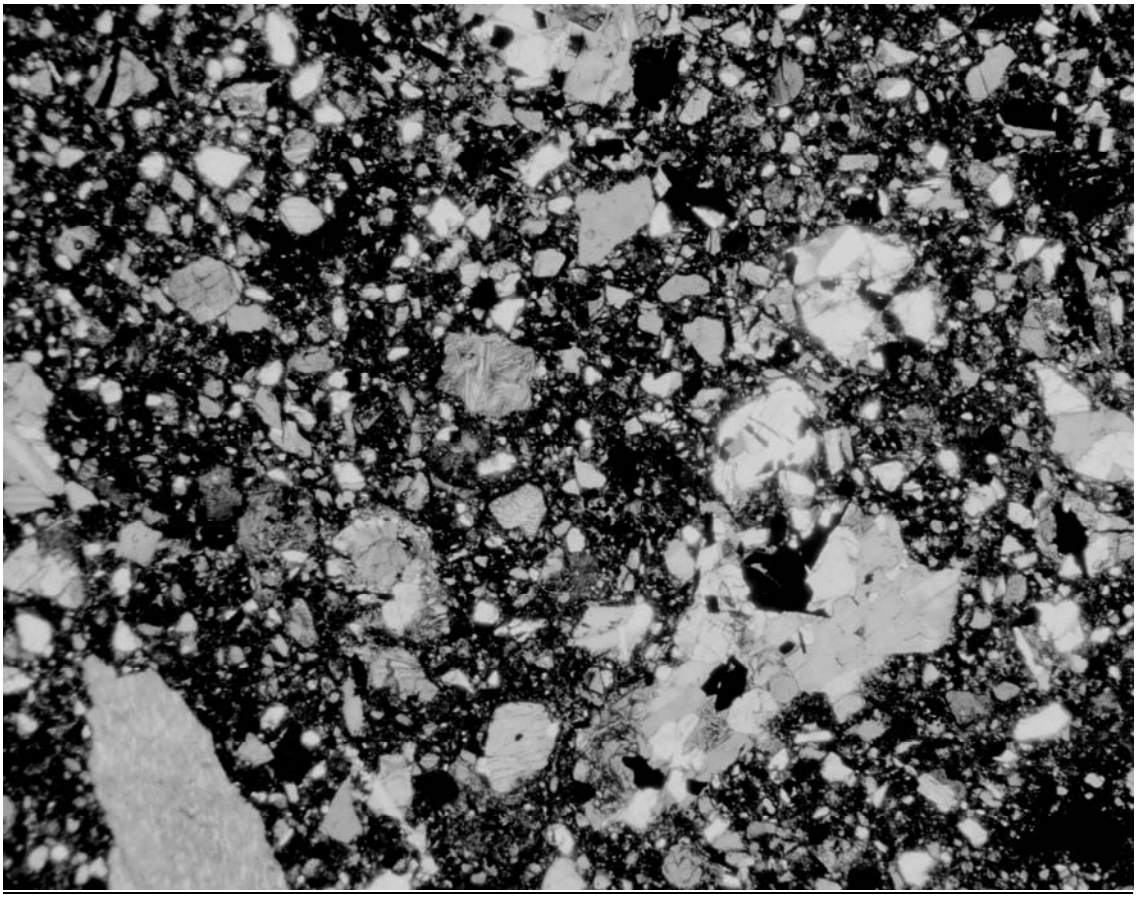
COMPONENT	COLOR	% OF ROCK	SHAPE	SIZE (MM) DOM.	RANGE
Matrix	Grey	90%	----------	------	------
White $Clast_1$	White	5%	Angular	.5	.25-1
Basalt $Clast_2$	Wh/Brn	2%	Subrounded	1	.5-5
Salt & Pepper Clast	Wh/Dark	2%	Subrounded	.5	.25-2
Glass Spheres	Black	1%	Spherical	.25	<.5
Brown $Clast_3$	Lt. to Dk. Brown	<1%	Subangular	.25	<.5

1) Plagioclase is crushed.
2) One clast of N face is elongated, approximately 5 X 2 mm. Others are smaller.
3) Occur as crystals and clasts, varying in color from light crushed clasts to darker brown crystals.

10027,0 Original PET Photo S-69-46023



10027,10 (S-75-32190)



SECTION: 10027,36 Width of field 1.39mm plane light S-76-26306

THIN SECTION DESCRIPTION BY: Walton DATE: 6/25/76

SUMMARY: Partly devitrified typical breccia with a very pale brown matrix. The color of the matrix is much lighter than for most of the other Apollo 11 breccias. Numerous mineral fragments are scattered throughout with a few lithic clasts.

Matrix 60% of Rock

Phase	% Section	Shape	Size (mm)	Comments
Lt. Brown	100%	------	< 0.001	High glass content; color varies from medium to very pale brown.

Mineral Clasts 24% of Rock

Phase	Relative Abundance	Shape	Size (mm)
$Pyroxene_1$	Very abundant	Angular to irregular	0.001-0.5
$Plagioclase_2$	Few	Blocky to irregular	0.001-0.2
$Opaques_3$	Moderate	Subhedral to skeletal	0.001-0.2

1) Most are very small and all show poor extinctions.

2) Small block crystals with fair twins.
3) Some subhedral, some blocky, a few skeletal; most in matrix, some in clasts.

Lithic Clasts 12% of Rock

Type	Relative Abundance	Shape	Size (mm)
Small	Very abundant	Rounded to irregular	0.001-1.0
Large[4]	Two present	Rounded to irregular	>1.0

4) a. Coarse-grained basalt composed of pyroxene, plagioclase and ilmenite.
   b. Coarse-grained basalt composed of pyroxene, plagioclase and ilmenite.

Glass Clasts 5% of Rock

Type	Relative Abundance	Shape	Size(mm)
Yellow-orange[5]	Very abundant	Spherical to angular	0.001-0.6
Colorless[6]	Few	Angular	0.001-0.1

5) Almost all as spheres or part spheres, a few shards.
6) Almost no devitrification; some fracturing.

HISTORY AND PRESENT STATUS OF SAMPLES – 6/25/76

10027 was removed from the Contingency Sample bag and split in PCTL. It was re-examined in RSPL and there are no pristine samples remaining.

PRISTINE SAMPLES:
None

RETURNED SAMPLES:
0 7.58 gm Piece. Pitted on three faces.

NO CHEMICAL ANALYSES OR AGE DATES.