

INTRODUCTION: 60115 is a tough, angular sample with many fractures (Fig. 1). It is dominantly glassy but complex. The glassy matrix is variable in color and vesicularity, and glass veins cut it. Plagioclase and light gray porphyritic clasts are prominent as well as dark, glassy clasts. Clasts boundaries are commonly indistinct.

60115 was collected approximately 60 m southwest of the Lunar Module where it was slightly buried. Its orientation is known. Very few zap pits are present.



FIGURE 1. S-72-40396

PETROLOGY: Thin sections dominantly show angular fragments of dark aphanitic impact melt engulfed in a colorless shock-melted anorthosite (Fig. 2). Relics of shocked anorthosite, grading into the swirly glass, are abundant. The glass penetrates the dark clasts (Fig. 2). In a few places the dark clasts are strung out and melted, causing the host anorthositic glass to have a brown color. The dark aphanitic impact melts contain few clasts, but have metal grains.

The porphyritic clasts contain small (<500 μm) elongate mafic mineral phenocrysts and some plagioclases set in a groundmass of spherulitic plagioclase laths, mafic minerals, and glass (Fig. 2). Metal is present.

CHEMISTRY: Clark and Keith (1973) show that the bulk rock is low in K (0.054%), Th (1.46 ppm) and U (0.35 ppm) from γ -ray counting. Data on radionuclides (^{26}Al , etc.) are also given, but it cannot be decided whether the surface is saturated in ^{26}Al or not (Yokoyama et al., 1974).

PROCESSING AND SUBDIVISIONS: 60115 has been split along a natural fracture into two main pieces, ,1 and ,2, and a few small pieces, but has not been extensively subdivided.

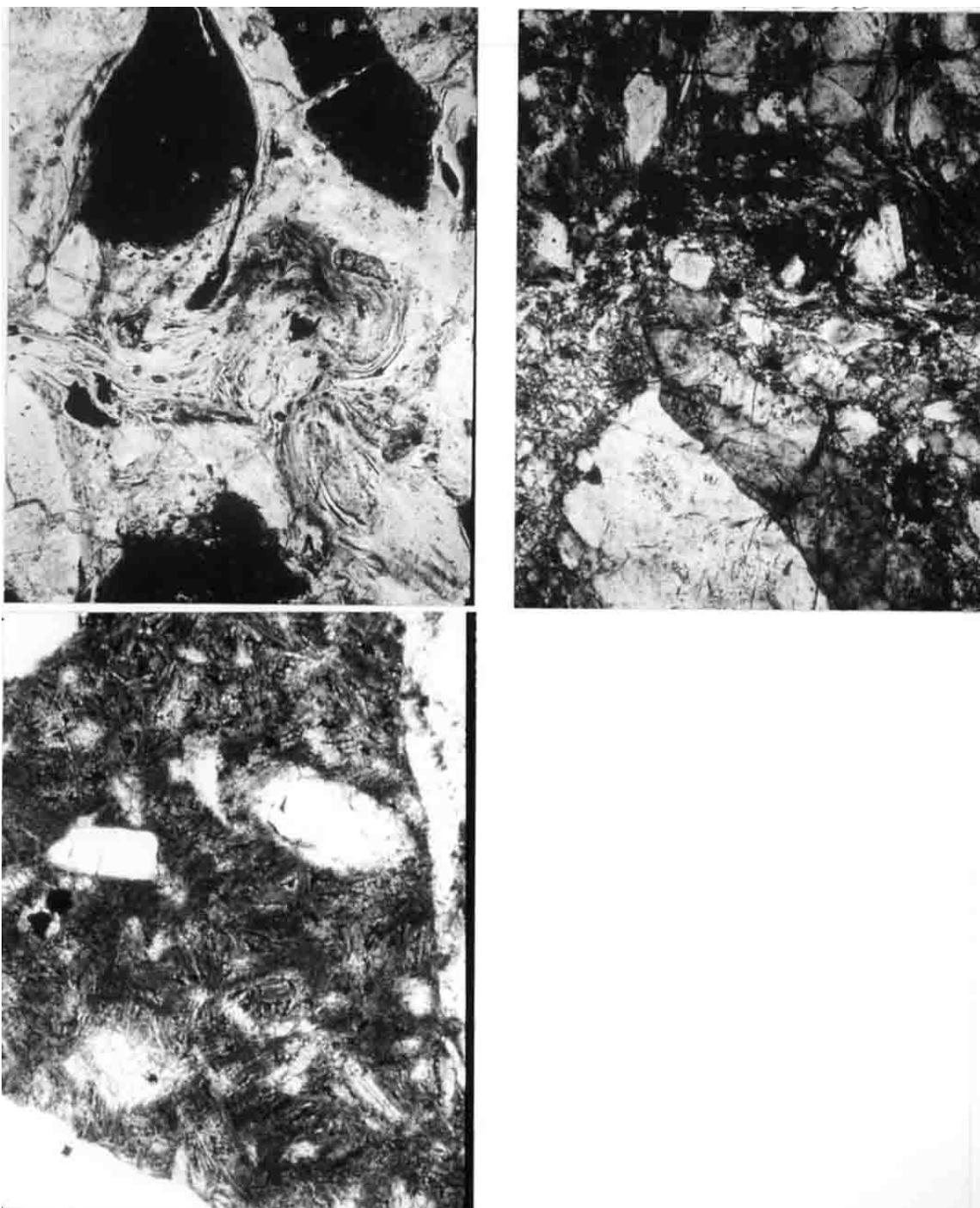


FIGURE 2.

- a) 60115,8. Shock-melted anorthosite and aphanitic clasts, ppl. Width 2 mm.
- b) 60115,8. Relict shocked anorthosite, xpl. Width 2 mm.
- c) 60115,14. Plagioclase porphyritic clast, ppl. Width 2 mm.