## 60635 BASALTIC IMPACT MELT 15.05 g

<u>INTRODUCTION</u>: 60635 is a medium gray, coherent, coarse-grained, basaltic impact melt (Fig. 1). Vugs and vesicles are abundant. It is a rake sample collected about 70 m west southwest of the Lunar Module. Zap pits are rare.



FIGURE 1. S-73-20489.

<u>PETROLOGY</u>: Dowty et al. (1974b) and Warner et al. (1976b) provide petrographic descriptions. This is a coarse-grained rock with abundant phenocrystic laths and prisms of plagioclase (0.6-2.5 mm long) and smaller grains of plagioclase and pyroxene confined to interstices (Fig. 2). Olivine is absent and clasts are very rare. Mineral compositions are shown in Figure 3 and tabulated by Dowty et al. (1976). Minor phases include nearly pure ulvospinel, Fe-metal, troilite and K-feldspar.

<u>CHEMISTRY</u>: A defocussed electron beam analysis (DBA) is presented by Dowty et al. (1974b) reproduced by Warner et al. (1976b) and here as Table 1.

This analysis shows 60635 to be compositionally similar to local mature soils but with a higher Fe/Mg and lower  $TiO_2$ .

<u>PROCESSING AND SUBDIVISIONS</u>: During initial processing at JSC 60635 fell into two pieces. In 1973 a single chip (,1) was removed and allocated to Keil for petrography.



FIGURE 2. 60635,2. General view, partly ppl. Width 3 mm.

TABLE 1.	Chemistry	of 60635	(DBA).
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510 <sub>2</sub>	45.8
T102	0.34
A1203	27.6
Cr203	0.07
FeO	4.7
MnO	0.04
Mg0	4.1
CaO	15.8
Na <sub>2</sub> 0	0.54
K20	0.09
P205	. 0.09



FIGURE 3. Mineral compositions; metals from Dowty et al. (1974b), silicates from R. Warner et al. (1976b).