

65925, 65926 and 65927

Soil Breccia

3.82, 3.03 and 0.72 grams



Figure 1: Photo of 65925. Tick marks at bottom are 1 mm apart. S72-48068

Introduction

The section on 65901 discusses the location of these samples. They are rounded, friable soil breccias (figures 1 – 3).

Petrography

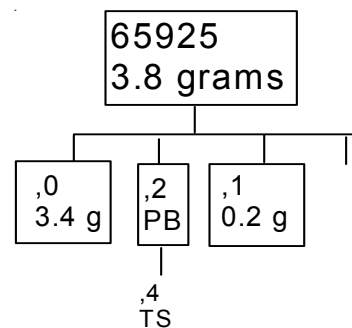
Keil et al. (1972) described these rake samples as soil breccias. Thin sections show they have seriate grain size distribution with occasional white clasts. Jerde et al. (1983) and Joy et al. (2012) reported the maturity index $I_s/FeO = 41$ (submature) for 65925.

Chemistry

Jerde et al. (1983) determined the composition.

References for 65925, 926 and 927

Butler P. (1972a) Lunar Sample Information Catalog Apollo 16. Lunar Receiving Laboratory. MSC 03210 Curator's Catalog. pp. 370.



Jerde E.A., Warren P.H., Morris R.V., Heiken G.H. and Vaniman D.T. (1987) A potpourri of regolith breccias: "New" samples from the Apollo 14, 16 and 17 landing sites. *Proc. 17th Lunar Planet. Sci. Conf.* in *J. Geophys. Res.* 92, E526-E536.

Joy K.H., Kring D.A., Bogard D.D., McKay D.S. and Zolensky M.E. (2012) Re-examination of the formation ages of the Apollo 16 regolith breccias. *Geochem. Cosmochim. Acta* doi: 10.1016

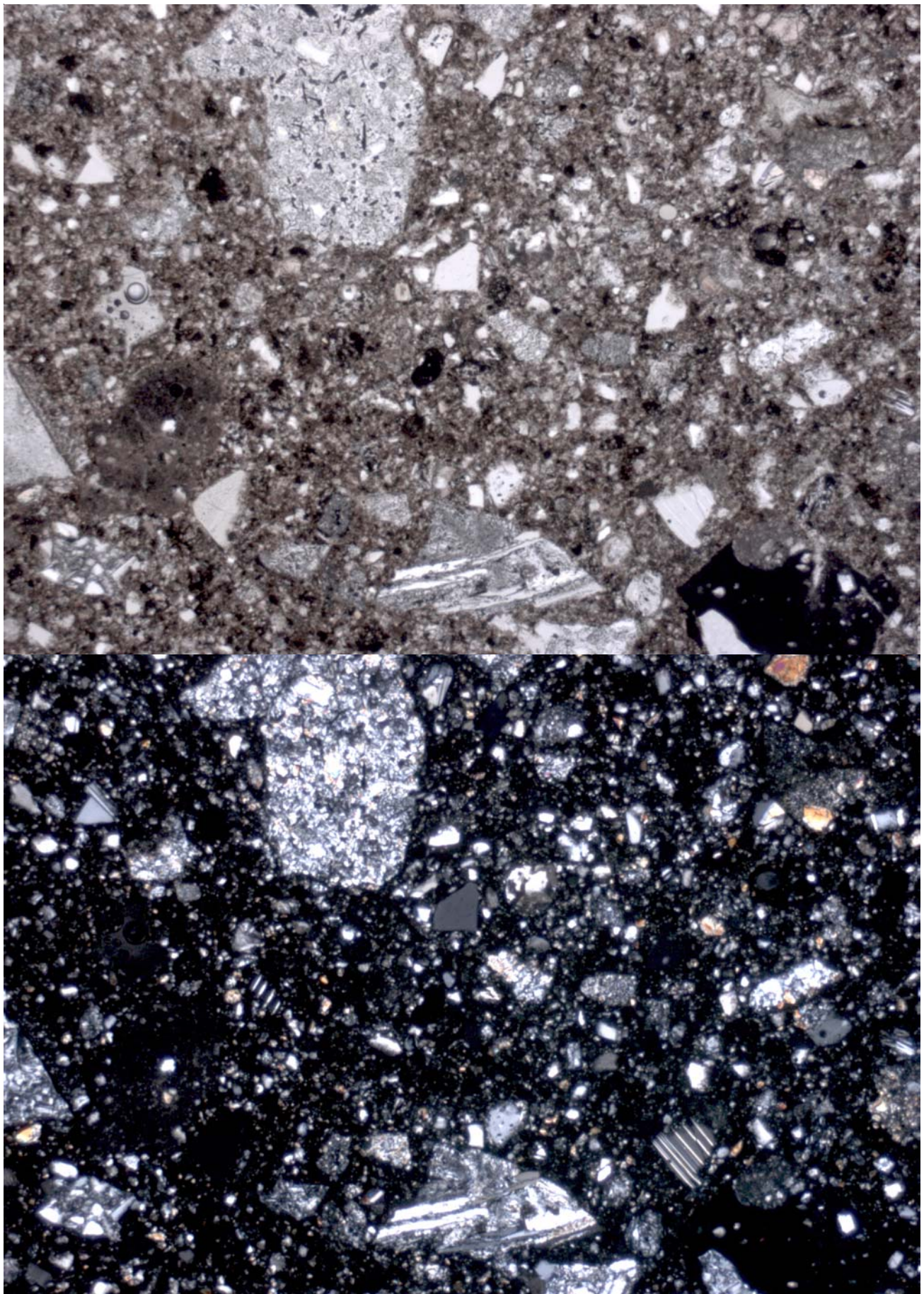


Table 1. Chemical composition of 65925

reference weight	Jerde86	
SiO2 %	45.4	(a)
TiO2	0.62	(a)
Al2O3	24.9	(a)
FeO	5.65	(a)
MnO	0.08	(a)
MgO	7.81	(a)
CaO	14.3	(a)
Na2O	0.46	(a)
K2O	0.12	(a)
P2O5		
S %		
sum		
Sc ppm	10.3	(a)
V		
Cr	840	(a)
Co	34.2	(a)
Ni	500	(a)
Cu		
Zn		
Ga	4.1	(a)
Ge ppb		
As		
Se		
Rb	4.6	(a)
Sr	200	(a)
Y		
Zr	300	(a)
Nb		
Mo		
Ru		
Rh		
Pd ppb		
Ag ppb		
Cd ppb		
In ppb		
Sn ppb		
Sb ppb		
Te ppb		
Cs ppm	0.37	(a)
Ba	130	(a)
La	12.6	(a)
Ce	31	(a)
Pr		
Nd	19	(a)
Sm	5.5	(a)
Eu	1.12	(a)
Gd		
Tb	1.14	(a)
Dy	6.9	(a)
Ho		
Er		
Tm		
Yb	3.9	(a)
Lu	0.6	(a)
Hf	4	(a)
Ta	0.43	(a)
W ppb		
Re ppb		
Os ppb		
Ir ppb	12.7	(a)
Pt ppb		
Au ppb	8	(a)
Th ppm	2.49	(a)
U ppm	0.63	(a)
technique:	(a) INAA	



Figure 2: Photo of 65926. Mm scale. S72-48069

Keil K., Dowty E., Prinz M. and Bunch T.E. (1972) Description, classification and inventory of 151 Apollo 16 rake samples from the LM area and station 5. Curator's Catalog, JSC.

LSPET (1973b) The Apollo 16 lunar samples: Petrographic and chemical description. *Science* **179**, 23-34.

LSPET (1972c) Preliminary examination of lunar samples. In Apollo 16 Preliminary Science Report. NASA SP-315, 7-1—7-58.

Ryder G. and Norman M.D. (1980) Catalog of Apollo 16 rocks (3 vol.). Curator's Office pub. #52, JSC #16904

Sutton R.L. (1981) Documentation of Apollo 16 samples. In Geology of the Apollo 16 area, central lunar highlands. (Ulrich et al.) U.S.G.S. Prof. Paper 1048.



Figure 3: Photo of 65927 with mm scale. S72-48062

