63548 – 1.1 grams
63539 – 0.4 grams
63586 – 2 grams
Impact Melt Breccia

Figure 1: Photo of 63548. Mm scale. S80-37443

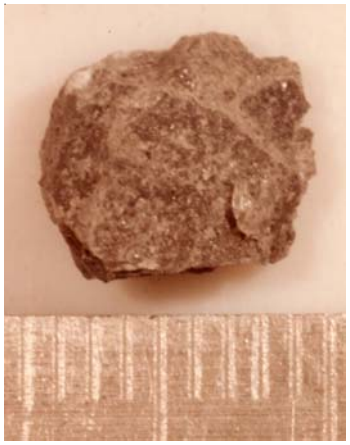


Figure 2: Photo of 63539. Mm scale. S80-37437

Figure 3: Photo of 63586 with mm scale. S80-37439

Introduction

63548, and its cousins 63539 and 63586, were collected as rake samples from station 13, near North Ray Crater. They are fragments of fine-grained, coherent impact melt.

Petrography

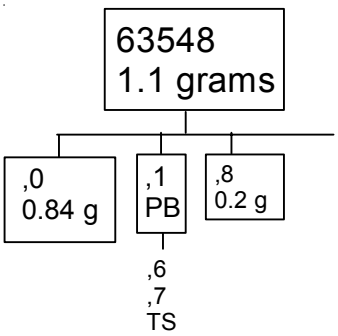
Phinney and Lofgren (1973) and Ryder and Norman (1980) briefly described the samples. They have abundant, rounded clasts of anorthite set in an aphanitic matrix (figures 4 and 5).

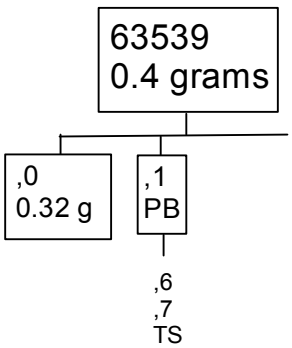
Chemistry

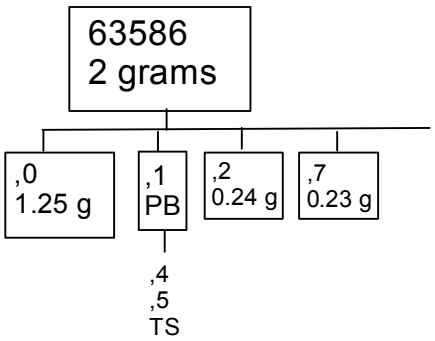
Stoffler et al. (1985) reported the chemical composition (table 1), which is highly aluminous.

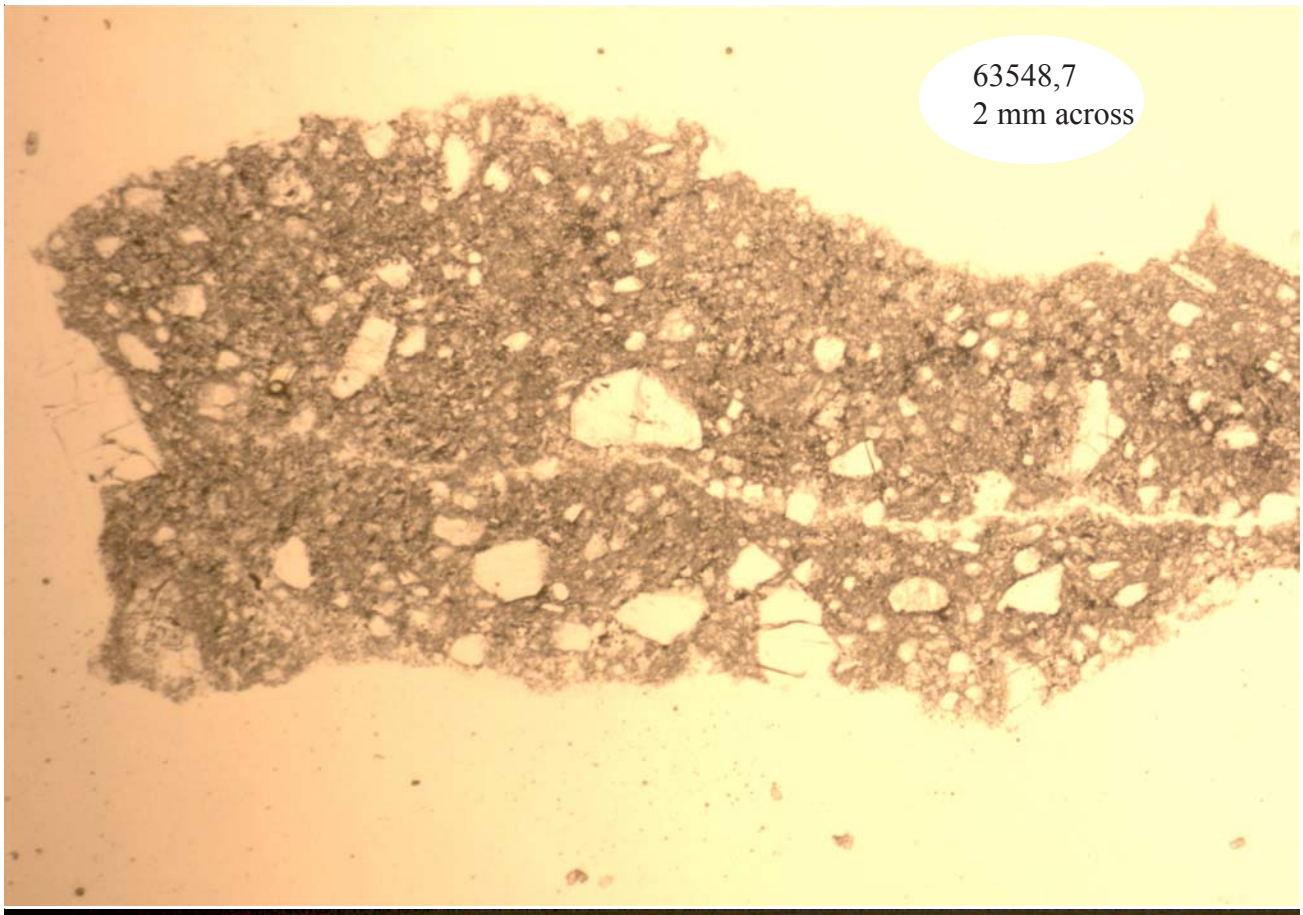
Processing

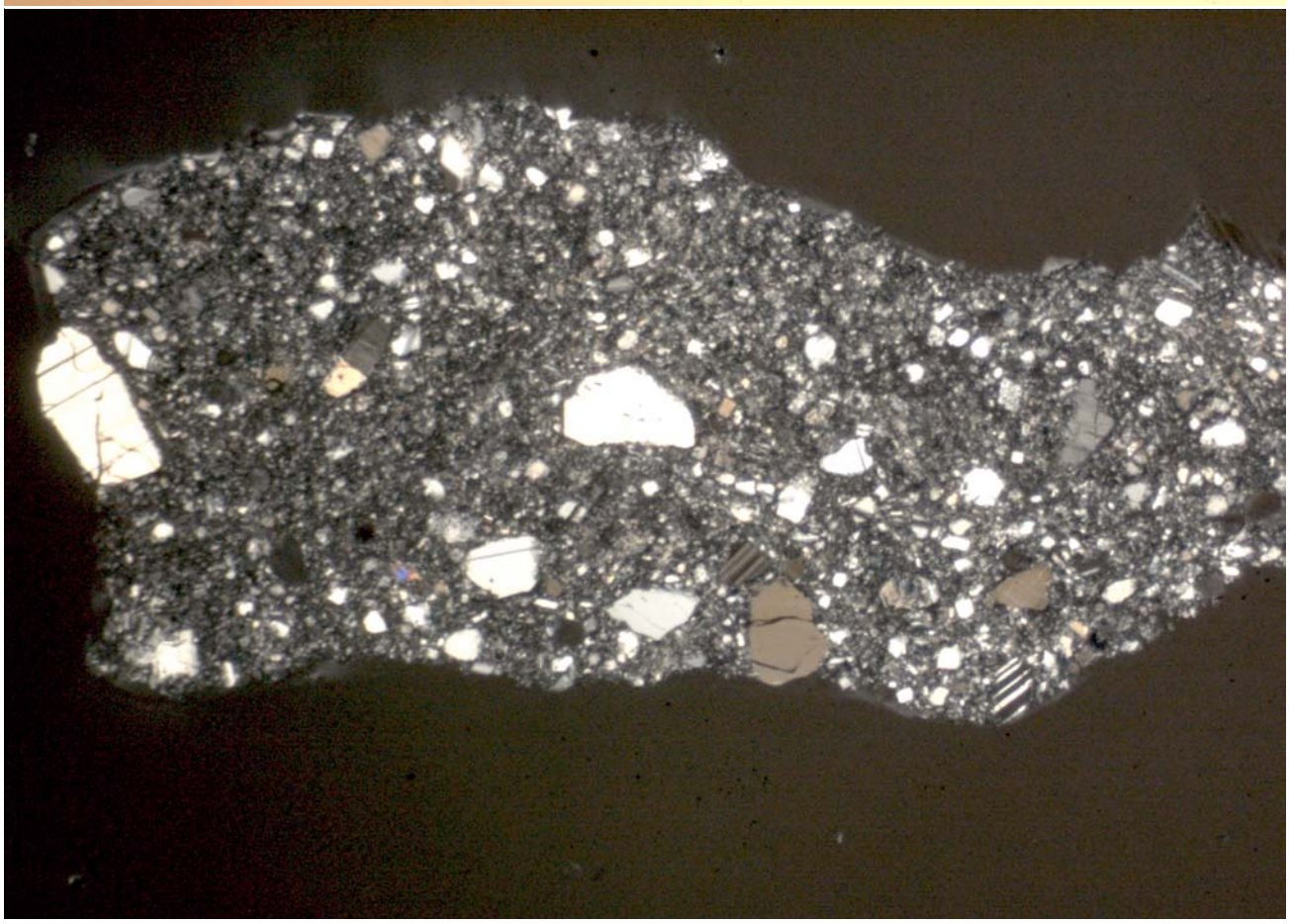
There are 2 thin sections of each sample.

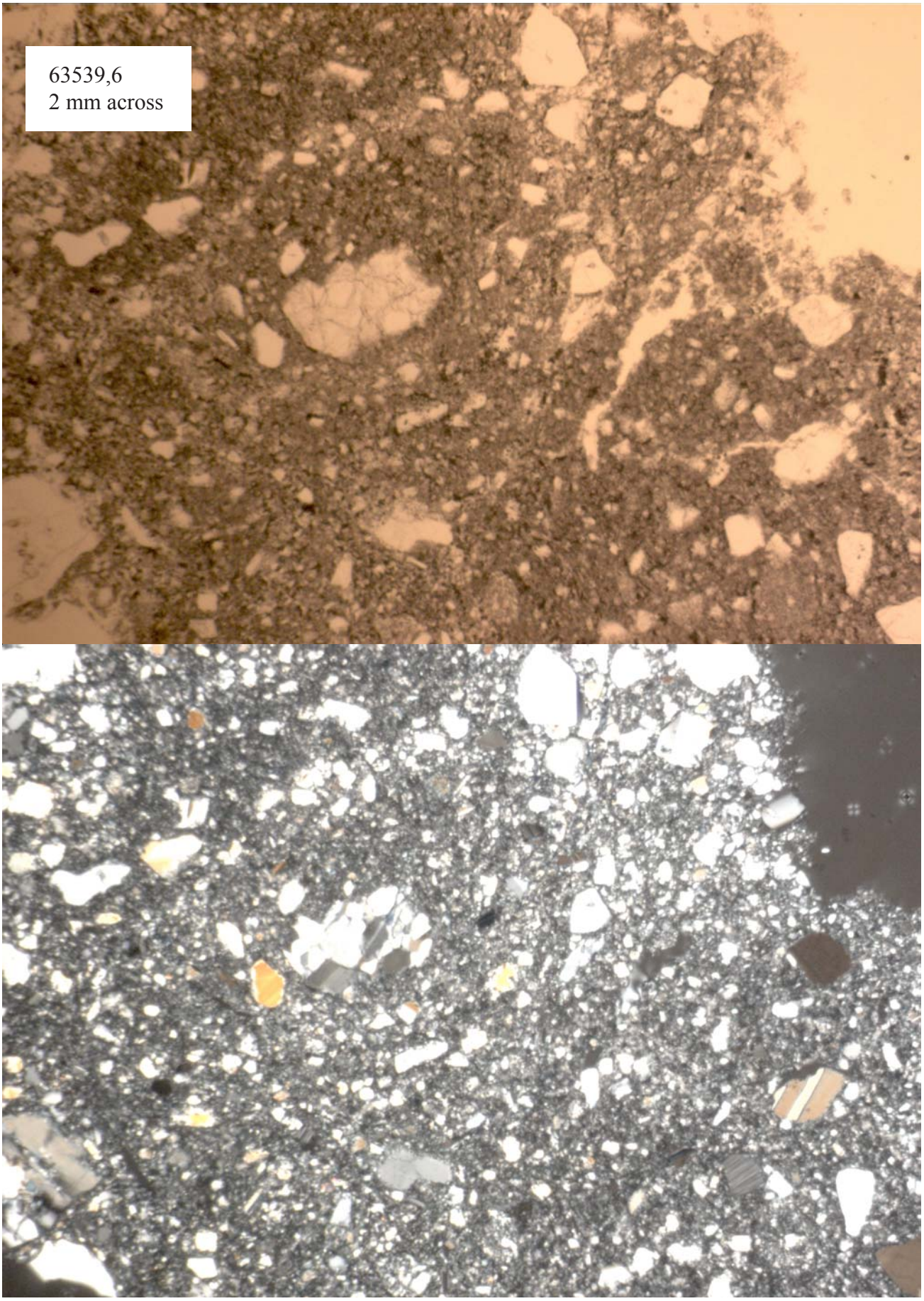


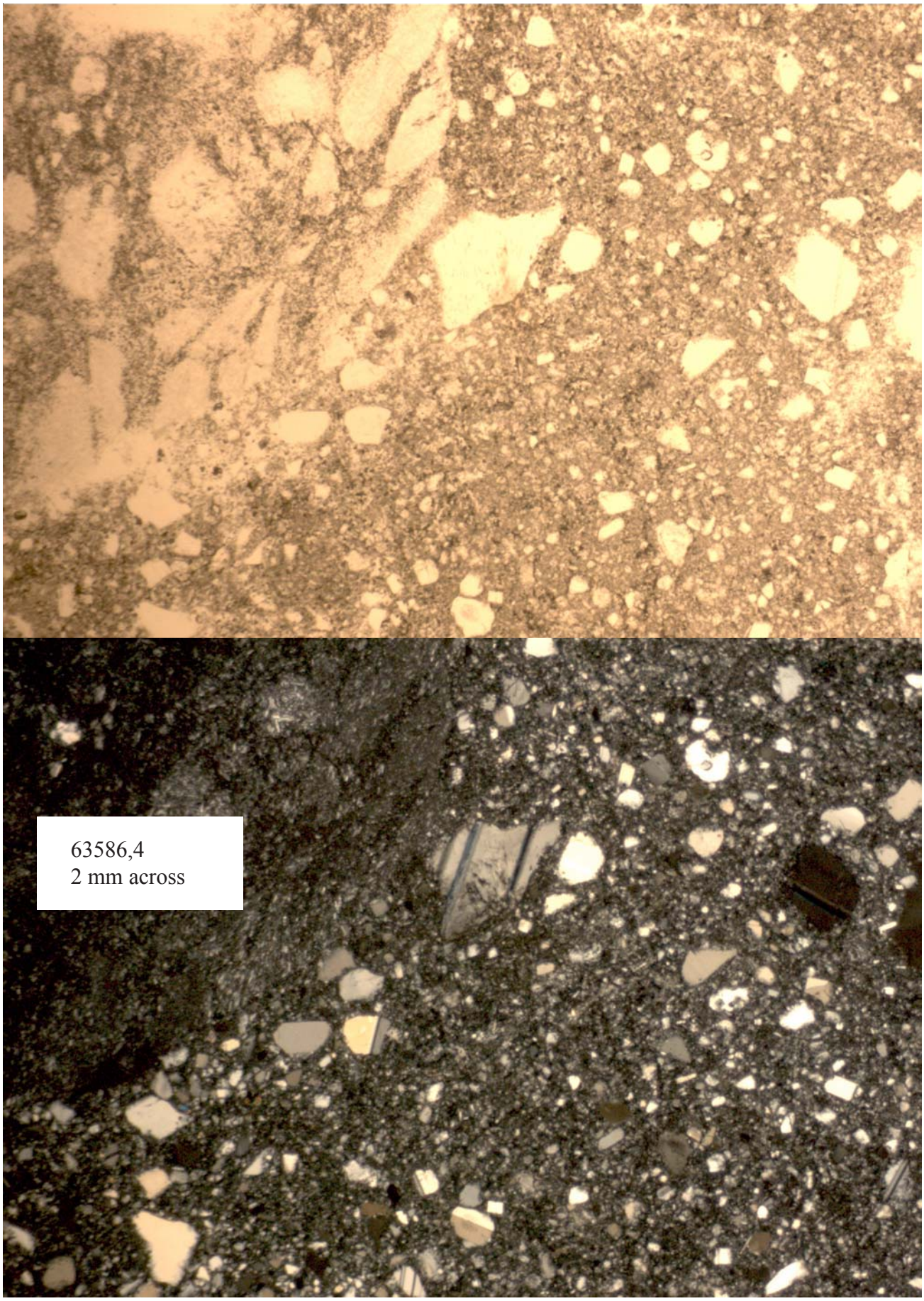





63548,7
2 mm across




63539,6
2 mm across


63586,4
2 mm across

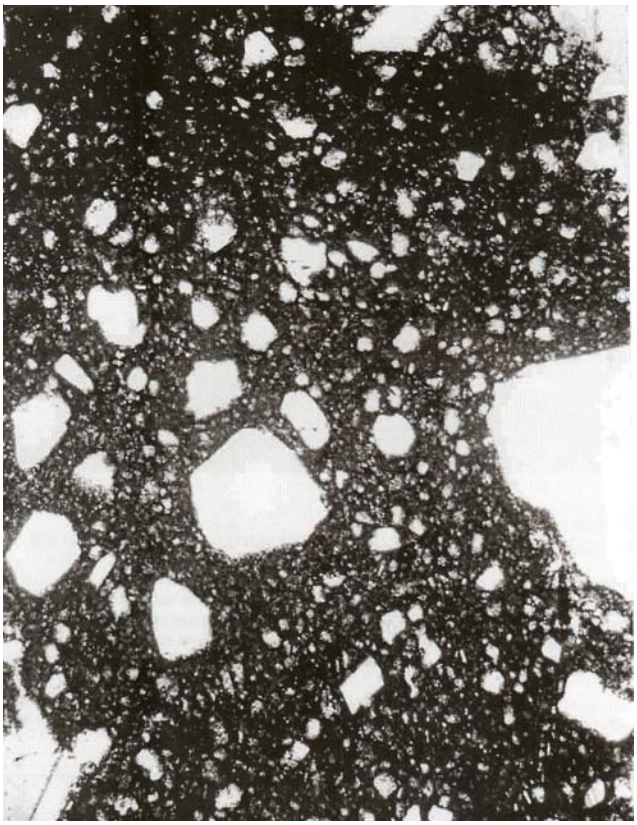


Figure 4: Photomicrograph of thin section 63548,6. Width 2 mm. From Ryder and Norman 1980.

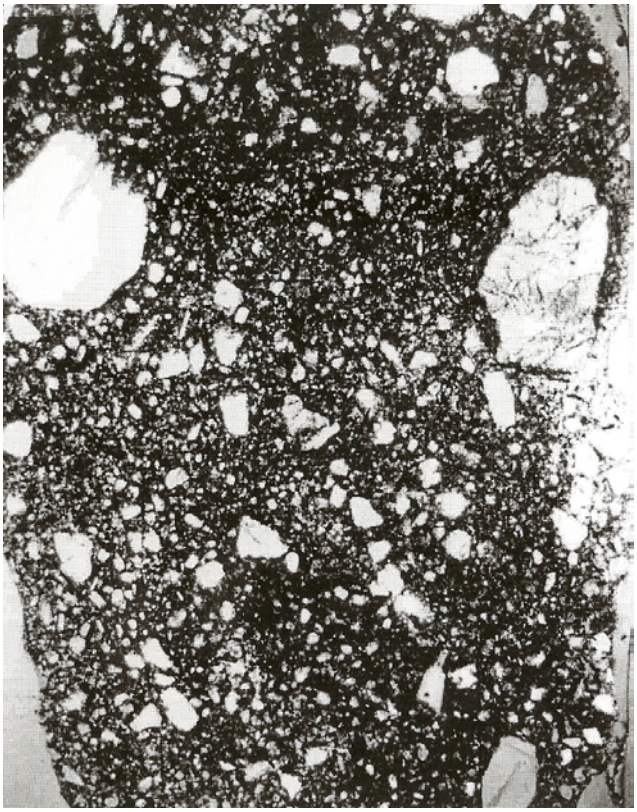


Figure 5: Photomicrograph of thin section 63539,7. Width 2 mm. From Ryder and Norman 1980.

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Table 1. Chemical composition of 63548

	63548	63539	63586	
reference	Stoffler85			
weight				
SiO2 %	43.3	44.5	43.8	(a)
TiO2	0.43	0.33	0.42	(a)
Al2O3	31.6	31.7	32.2	(a)
FeO	3.5	2.8	3.2	(a)
MnO	0.02	0.04	0.05	(a)
MgO	3.2	2.47	2.8	(a)
CaO	17.2	17.5	16.9	(a)
Na2O	0.55	0.52	0.54	(a)
K2O	0.04	0.04	0.04	(a)
P2O5	0.05	0.06	0.03	(a)