

79121
Soil
374 grams

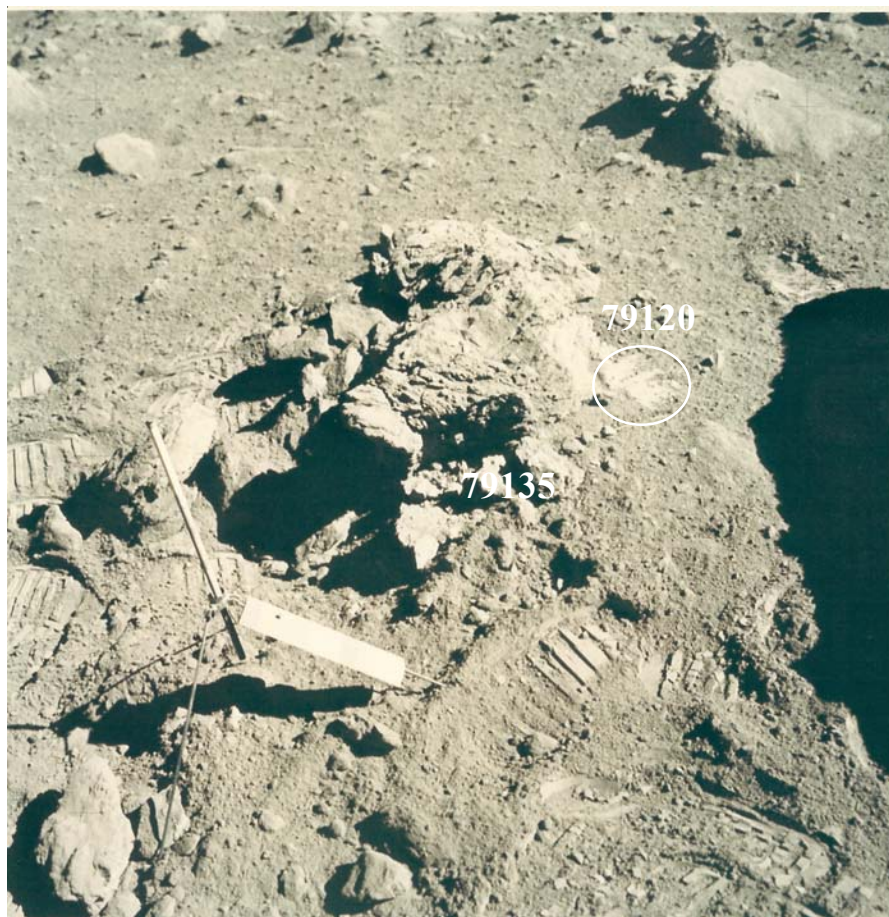


Figure 1: Photo of boulder on edge of Van Serg Crater with location of soil sample 79120. AS17-146-22415.

Introduction

Lunar soil sample 79120 was collected adjacent to the boulder where 79135 was collected (figure 1). The location is on the rim of Van Serg Crater (figure 2). The soil from the rake sample, 79510, collected nearby, has the same chemical composition.

Petrography

The maturity index of 79121 is $I_s/FeO = 57$ (Morris 1978). A small breccia sample, 79125, was found during sieving. The coarse-fine particles, 79124, were documented by (Meyer 1973) and are mostly Van Serg Breccia like 79135.

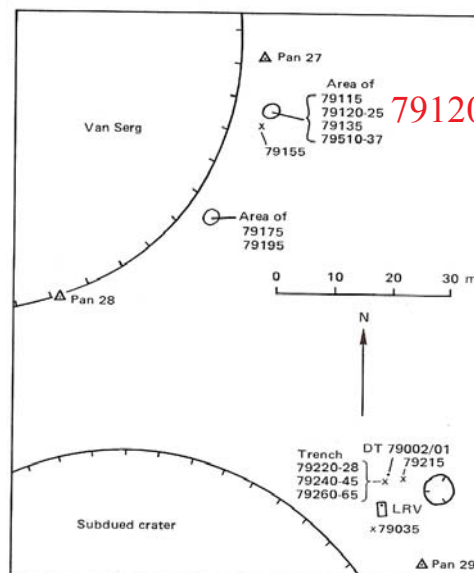


Figure 2: Map of station 9, Apollo 17.

Table 1. Chemical composition of 79121

reference	Korotev92	
weight		
SiO ₂ %		
TiO ₂		
Al ₂ O ₃		
FeO	15.7	(a)
MnO		
MgO		
CaO		
Na ₂ O	0.418	(a)
K ₂ O		
P ₂ O ₅		
S %		
sum		
Sc ppm	49.3	(a)
V		
Cr	2780	(a)
Co	43.2	(a)
Ni	310	(a)
Cu		
Zn		
Ga		
Ge ppb		
As		
Se		
Rb		
Sr	210	(a)
Y		
Zr	230	(a)
Nb		
Mo		
Ru		
Rh		
Pd ppb		
Ag ppb		
Cd ppb		
In ppb		
Sn ppb		
Sb ppb		
Te ppb		
Cs ppm		
Ba	120	(a)
La	8.79	(a)
Ce	26.1	(a)
Pr		
Nd	20	(a)
Sm	7.44	(a)
Eu	1.56	(a)
Gd		
Tb	1.81	(a)
Dy		
Ho		
Er		
Tm		
Yb	6.32	(a)
Lu	0.875	(a)
Hf	6.01	(a)
Ta	1.06	(a)
W ppb		
Re ppb		
Os ppb		
Ir ppb	8	(a)
Pt ppb		
Au ppb	4	(a)
Th ppm	1.07	(a)
U ppm	0.26	(a)
technique:	(a) INAA	

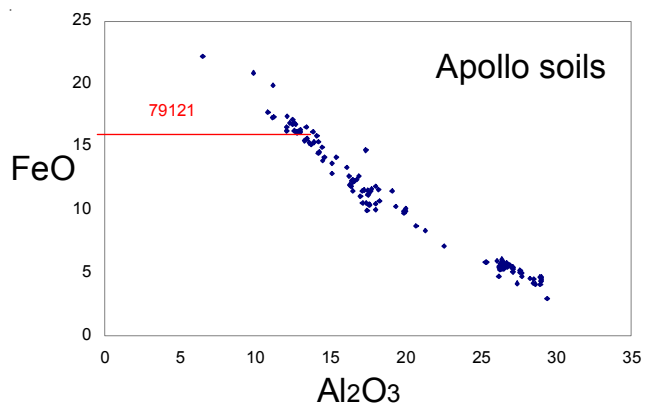


Figure 3: FeO content of 79120 compared with composition of Apollo soil samples.

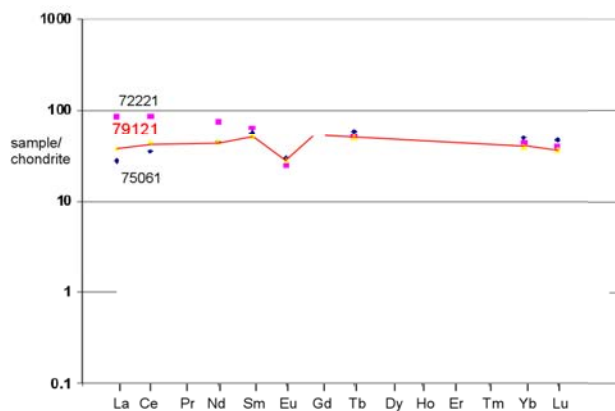
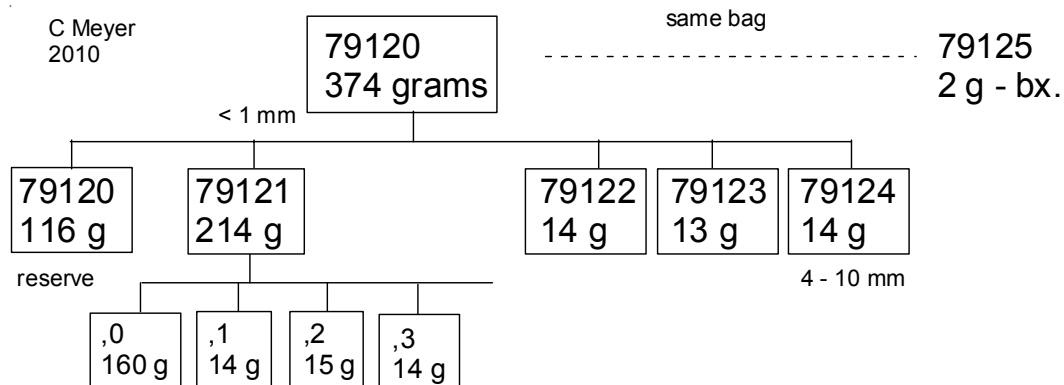


Figure 4: Normalized rare-earth-element diagram for 79121 compared with mare and highland soils.

Chemistry

The composition of 79121 was determined by Korotev and Kremser (1992) (figures 3 and 4).



References for 79121

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