

76131
Soil
181 grams

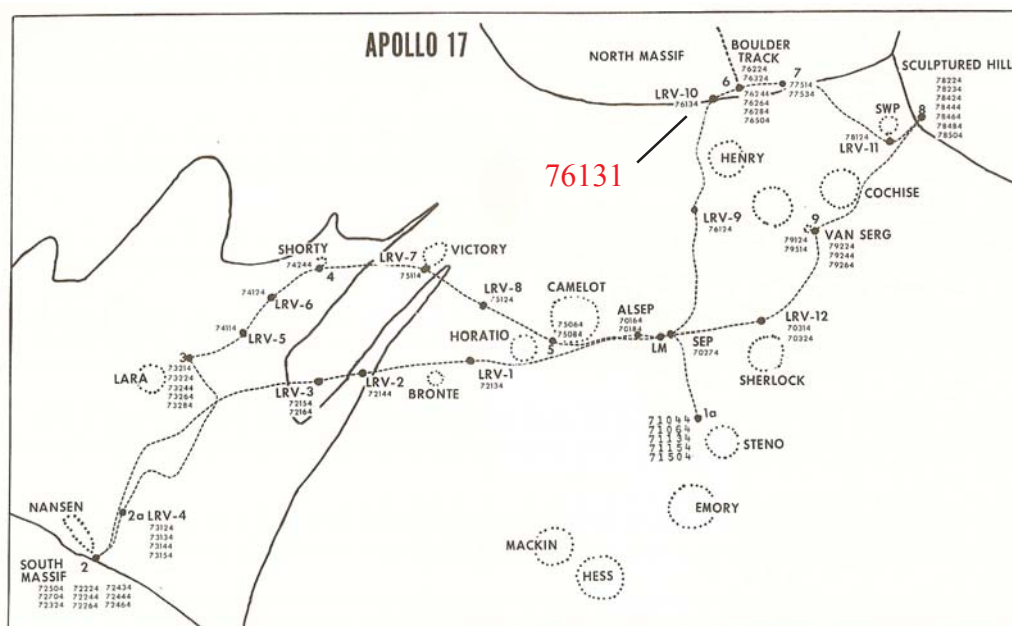


Figure 1: Location of soil sample 76130 at LRV-10 on Apollo 17 map (Meyer 1973). S73-24071

Introduction

76130 – 76137 was collected at LRV – 10 next to “turning point rock”. It included impact melt rock 76135 and olivine basalt 76136. The area is mixed mare and highland material from North Massif (figure 1).

Petrography

Morris (1978) determined the maturity index ($I_s/FeO = 70$).

Meyer (1973) cataloged 2 basalt particles, 3 dark matrix breccias and 8 vesicular impact melt breccias in the 4 – 10 mm coarse-fines from this soil.

Chemistry

Korotev and Kremser (1992) determined the composition (figure 3).

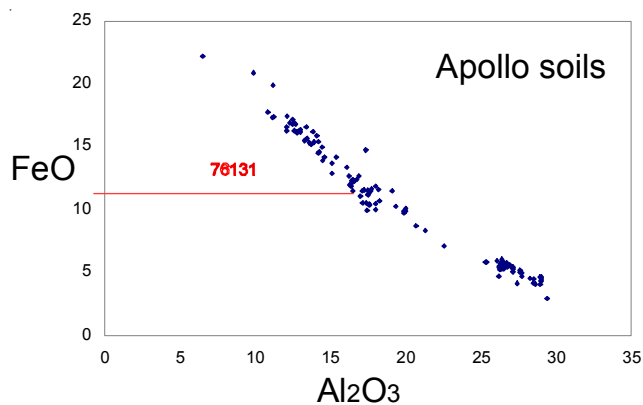


Figure 2: FeO content of 76131 compared with composition of other Apollo soils.

Table 1. Chemical composition of 76131.

reference	Korotev92	
weight		
SiO ₂ %		
TiO ₂		
Al ₂ O ₃		
FeO	11.3	(a)
MnO		
MgO		
CaO		
Na ₂ O	0.415	(a)
K ₂ O		
P ₂ O ₅		
S %		
sum		
Sc ppm	31.6	(a)
V		
Cr	2017	(a)
Co	29.3	(a)
Ni	200	(a)
Cu		
Zn		
Ga		
Ge ppb		
As		
Se		
Rb		
Sr	190	(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	144	(a)
La	11.8	(a)
Ce	32.3	(a)
Pr		
Nd	23	(a)
Sm	7.17	(a)
Eu	1.41	(a)
Gd		
Tb	1.61	(a)
Dy		
Ho		
Er		
Tm		
Yb	5.7	(a)
Lu	0.802	(a)
Hf	5.53	(a)
Ta	0.86	(a)
W ppb		
Re ppb		
Os ppb		
Ir ppb	7.1	(a)
Pt ppb		
Au ppb	1.9	(a)
Th ppm	1.87	(a)
U ppm	0.52	(a)
technique:	(a) INAA	

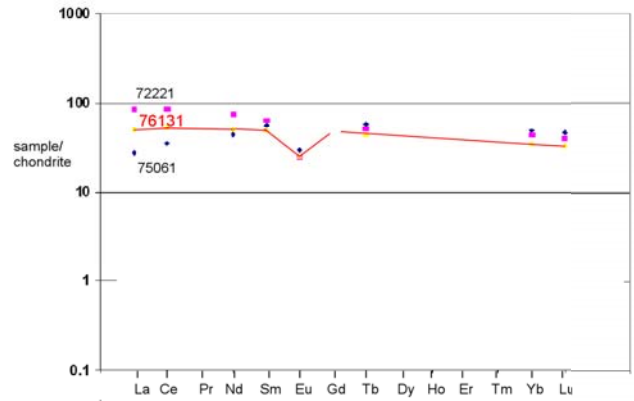
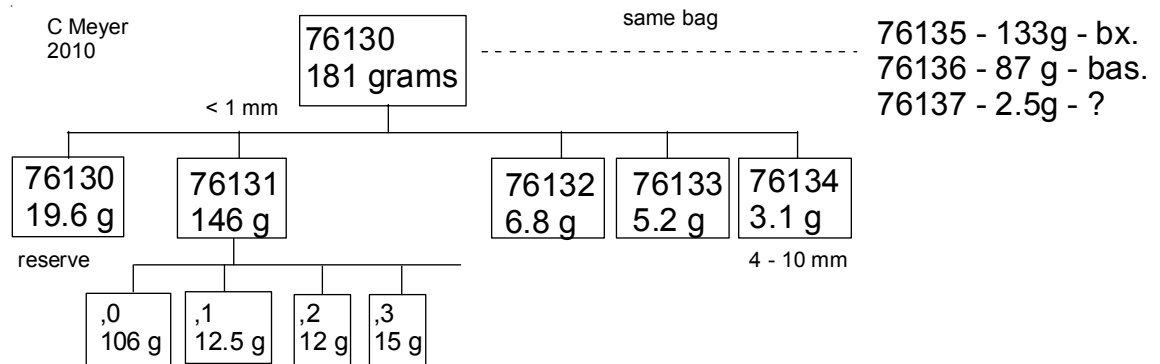


Figure 3: Normalized rare-earth-element diagram for 76131 compared with that of mare and highland soils from Apollo 17.



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