

**76031**  
Soil  
181 grams

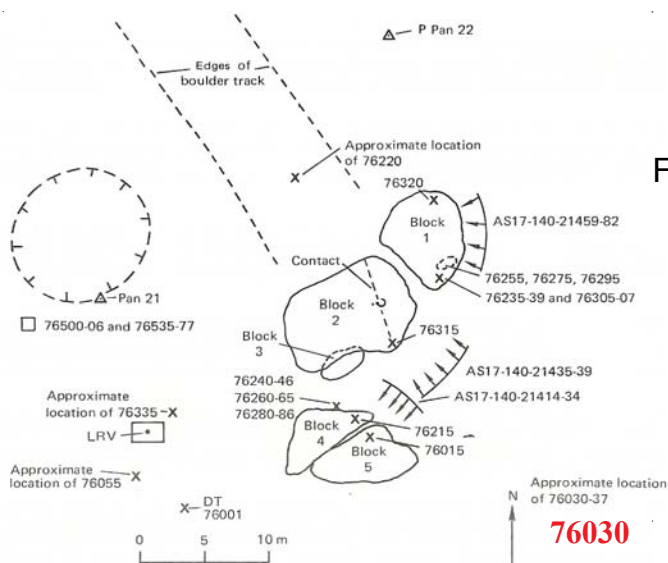


Figure 1: Map of station 6, Apollo 17.

**Introduction**

76030 was collected downslope from the big boulder at station 6, Apollo 16 (figure 1). It had increased FeO and Sc content indicating a large proportion of mare material.

**Petrography**

Morris (1978) determined the maturity index ( $I_s/FeO = 64$ ).

Meyer (1973) found that 76034 included several interesting anorthosite particles.

76035 is a large piece of impact melt rock described in Meyer (1994).

**Chemistry**

Korotev and Kremser (1992) determined the chemical composition (figures 2 and 3).

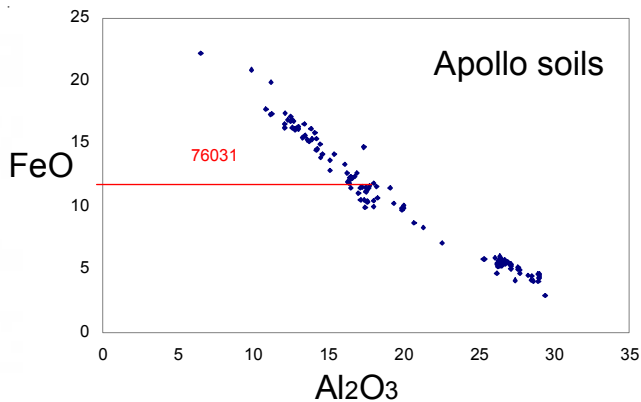


Figure 2: FeO content of 76031 compared with composition of other Apollo soils.

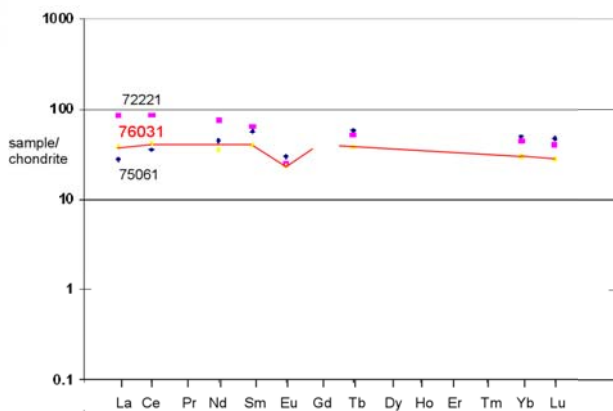


Figure 3: Normalized rare-earth-element diagram for 76031 compared with mare and highland soil samples.

**Table 1. Chemical composition of 76031.**

reference	Korotev92		
weight			
SiO <sub>2</sub> %			
TiO <sub>2</sub>			
Al <sub>2</sub> O <sub>3</sub>			
FeO	12	10.9	(a)
MnO			
MgO			
CaO			
Na <sub>2</sub> O	0.373	0.381	(a)
K <sub>2</sub> O			
P <sub>2</sub> O <sub>5</sub>			
S %			
sum			
Sc ppm	32.1	29.4	(a)
V			
Cr	2036	1973	(a)
Co	88.7	33.6	(a)
Ni	990	220	(a)
Cu			
Zn			
Ga			
Ge ppb			
As			
Se			
Rb			
Sr	150	170	(a)
Y			
Zr	170	250	(a)
Nb			
Mo			
Ru			
Rh			
Pd ppb			
Ag ppb			
Cd ppb			
In ppb			
Sn ppb			
Sb ppb			
Te ppb			
Cs ppm			
Ba	130	126	(a)
La	8.91	9.08	(a)
Ce	25.2	24.6	(a)
Pr			
Nd	16	16	(a)
Sm	5.78	5.96	(a)
Eu	1.25	1.33	(a)
Gd			
Tb	1.37	1.39	(a)
Dy			
Ho			
Er			
Tm			
Yb	4.81	4.88	(a)
Lu	0.667	0.686	(a)
Hf	7.78	5.01	(a)
Ta	0.73	0.75	(a)
W ppb			
Re ppb			
Os ppb			
Ir ppb	32	10.5	(a)
Pt ppb			
Au ppb	15	5.1	(a)
Th ppm	1.45	1.43	(a)
U ppm	0.33	0.45	(a)

technique: (a) INAA

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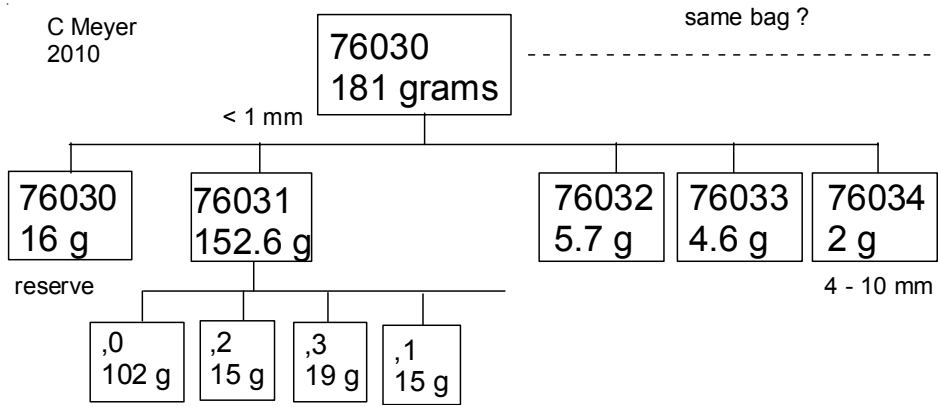
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C Meyer  
2010



76035 - 376 g - bx.  
76036 - 4 g - bx.  
76037 - 2.5 g - bas.