

# 70050

## BSLSS Residue

2223 grams

### Introduction

70050 is the residue from the large BSLSS bag and is made up of many fragments off of several rock samples (Butler 1973). This sample contains chips off of the loose rock samples and well as soil that was adhering to them when they were collected. 79035 was a very friable soil breccia, which was found broken in rounded pieces in the BSLSS, so one can assume that much of the residue is from this rock. The Teflon bag containing 76335 must have spilled, because a large number of distinctive white pieces of this anorthosite were also found in the residue of the BSLSS (some were renumbered). The other large coherent samples in this BSLSS were found broken, giving evidence that the BSLSS had been handled roughly, somewhere along its return.

This sample has been sieved and various pieces were assigned to the rock they clearly came from.

### Petrography

For some incomprehensive reason, this sample is better characterized by rare gas analysis than by any petrography (Bogard et al. 1974). There were 57 grams of 4 – 10 mm coarse-fines in this bag (Meyer 1973).

The BSLSS (EVA #3) contained large loose rocks 70017, 70215, 76055, 77035 and 79035. It also contained the core tube 70012 and two bags of documented samples (70075 and 76335).

70053, was a “picking pot” for coarse fines.

### Chemistry

Rhodes et al. (1974) reported an analysis which was intermediate between highland and mare (figure 1). However, it is meaningless, because the material was derived from only a few rocks.

### Other Studies

This sample was used for physical measurements (Talwani et al. 1974).

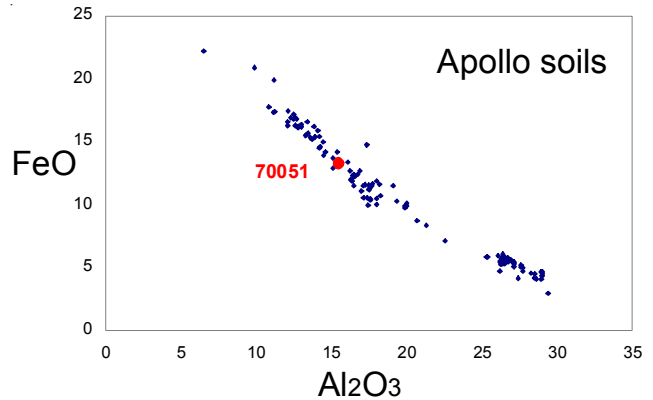


Figure 1: Composition of 70051 compared with other Apollo soil samples.

### Processing

It is reported that the Apollo 17 BSLSS was found sitting in ¼ in. of water for up to 10 hrs. after the CM was retrieved (Butler 1973, pages 38 and 39). The outer bag was replaced and it was flown to Houston where it was outgassed in a dry N<sub>2</sub> cabinet. After 4 days, the O<sub>2</sub> pressure was low, but the H<sub>2</sub>O pressure was still high.

note: I can not find pictures of this bag

**Table 1. Chemical composition of 70051**

reference weight	Rhodes74	
SiO <sub>2</sub> %	42.05	(a)
TiO <sub>2</sub>	5.04	(a)
Al <sub>2</sub> O <sub>3</sub>	16.15	(a)
FeO	12.81	(a)
MnO	0.19	(a)
MgO	10.25	(a)
CaO	11.87	(a)
Na <sub>2</sub> O	0.43	(a)
K <sub>2</sub> O	0.1	(a)
P <sub>2</sub> O <sub>5</sub>	0.06	(a)
S %	0.08	(a)
sum		
Sc ppm		
V		
Cr	2258	(a)
Co		
Ni	169	(a)
Cu		
Zn	34	(a)
Ga		
Ge ppb		
As		
Se		
Rb	1.8	(a)
Sr	150	(a)
Y	49	(a)
Zr	169	(a)
Nb	14	(a)
Mo		
Ru		
Rh		
Pd ppb		
Ag ppb		
Cd ppb		
In ppb		
Sn ppb		
Sb ppb		
Te ppb		
Cs ppm		
Ba		
La		
Ce		
Pr		
Nd		
Sm		
Eu		
Gd		
Tb		
Dy		
Ho		
Er		
Tm		
Yb		
Lu		
Hf		
Ta		
W ppb		
Re ppb		
Os ppb		
Ir ppb		
Pt ppb		
Au ppb		
Th ppm		
U ppm		
technique:	(a) XRF	

**References for 70051**

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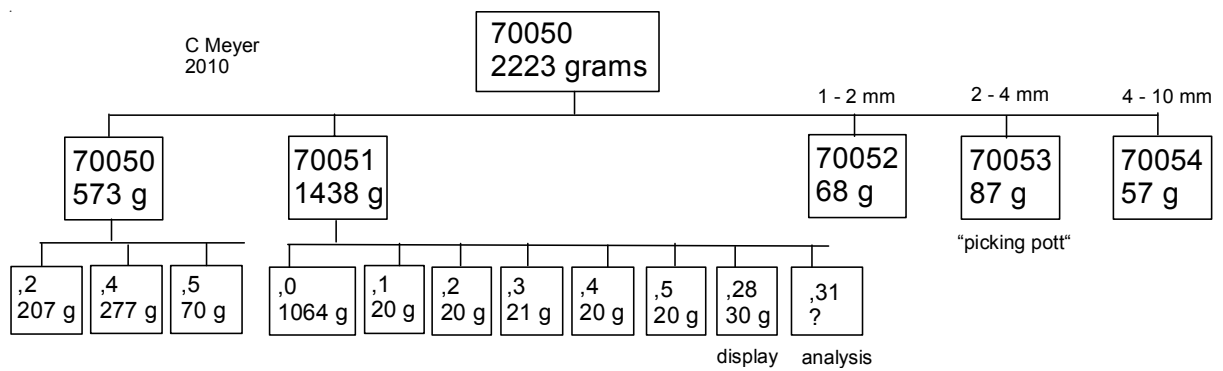
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*note: portions of 70050 remain unsieved*

*note 2: samples greater than 1 cm were sorted and fitted to the large rocks found in this sample bag.*

*note 3: portions of 70054 were renumbered if they could be assigned to large rocks in this bag*

*note 4: the BSLSS bag must have experienced a great deal of trauma, as it was found sitting in 1/4 in. of water after 10 hrs in Command Module, and the large coherent samples in this bag were broken in pieces !*