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Lunar Sample Curator

### Safe Storage of the Sample Collection

Over the past 9 months we have undertaken the move of a large portion of the lunar sample collection into secure storage vaults away from the main Curatorial Facility. This has involved a significant effort in the laboratory, repackaging samples so they could be safely moved. Storage containers (cabinets) and new bolt-top cans were designed and tested, and procedures for moving the samples were formulated and simulated, prior to the move. A static mode of storage in dry nitrogen, as distinguished from our normal mode of continuous flushing with nitrogen, has been developed which we believe will be beneficial to the samples over very long storage times. The newly designed bolt-top cans seal reproducibly with leak rates of  $10^{-10}$  cc/sec He or less; the cabinets maintain a satisfactory water and oxygen content (<50 ppm) with only occasional flushing with new nitrogen.

### PI Requests

During this period, we have generally managed to keep up with the flow of sample requests and, for the most part, are providing short turnaround times between the receipt of a request and the distribution of samples. The review process which involves the Lunar Sample Analysis Planning Team has been carried out expeditiously; informing PI's of deadlines for submittal of requests appears to have a beneficial effect. The number of sample requests received recently has been low, averaging about 10 letters a month.

### Core Allocations

We will be distributing samples from the Apollo 16 drill core 60003 and the Apollo 17 drill core 70009 this month. The allocation from 60003 completes the allocation of Apollo 16 drill core material for first-round studies. Work in the Core Lab is progressing on the Apollo 16 drive tube 60009, which is now approximately 30% complete. As soon as the documentation of 70009 has been completed, core 70007 will be opened and dissected. A steady stream of core materials is being made available for study; in general, the recognition of complexity in the cores is increasing with time and the need for integrated studies is growing.

### Past and Current Sample Distribution

If you ever wonder who has worked on a sample or who has portions of a sample now, please contact us. A new computer listing, which we call "all samples ever out," lists all PI's who have ever had portions of each sample (generic number), including those provided by the Curator and those obtained by transfer from other investigators. We will be happy to provide a listing for any specific sample number. We also can provide a current listing of the location of all subsamples of any sample, which will list all the PI's currently with portions of the sample in their possession. We encourage the use of these lists by PI's, especially where they lead to the joint use of samples (sample transfers). The joint use of samples is conservative of sample material and commonly leads to better understanding of complex samples.

### New Sample Requests

The next deadline for receipt of sample requests for prompt review is August 22.