

Executive Summary

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Presenter's Name: Charles Shearer
Presenter's Title: Sr. Research Scientist, Research Professor
Presenter's Organization/Company: Institute of Meteoritics, University of New Mexico

Presentation Title

Exploring the Moon with Samples.
Scientific and Exploration Importance of Sample Return
and Buying Down Risk and Cost of Sample Return Missions.

Key Ideas

- (1) Overview of Session
- (2) Sample return is an exceedingly important component of lunar exploration.
- (3) Samples provide a unique data set that is critical for understanding the Moon.
- (4) Information about large scale planetary-solar system processes can be extracted from the robotic return of small sample volumes.
- (5) Sample science and sample return has a symbiotic relationship with orbital science, surface science, and resource utilization.
- (6) Samples placed within a planetary and geologic context by orbital and human observations is extremely valuable.
- (7) Sample return fits within a variety of architectures for human exploration of the Moon.
- (8) Risk and cost of sample return missions are perceived as being more expensive than other planetary missions. How can we buy down risk and cost?