

Summary MER Landing Site Ranking Criteria

Major Questions/Criteria:

Science Criteria

	<i>Hematite</i>	<i>Gusev</i>	<i>Isidis</i>	<i>Melas</i>	<i>Eos</i>	<i>Athabasca</i>
Evidence for Water Activity	●	●	●	●	●	●
Address Climate/Geologic History	●	●	●	●	●	●
Preserve Biotic/Prebiotic Materials	●	●	●	●	●	●
Definitive Testing of Hypothesis(es)	●	●	●	●	●	●
Accessible Diversity Within the Site	●	●	●	●	●	●
Site Diversity (for MER's)	●	●	●	●	●	●
Site Diversity (from VL and MPF)	●	●	●	●	●	●
Materials for Athena Analyses	●	●	●	●	●	●
Rock Abundance (pro and con)	●	●	●	●	●	●
Trafficability	●	●	●	●	●	●
Amount of Dust Obscuration	●	●	●	●	●	●
Mission Lifetime	●	●	●	●	●	●
Relief at Scale of Rover Traverse	●	●	●	●	●	●
Potential Useful Earth Analogs	●	●	●	●	●	●

Safety Criteria

1 km Slope	●	●	●	●	●	●
100 m Slope	●	●	●	●	●	●
10 m Slope	●	●	●	●	●	●
Relief (Craters, Hills)	●	●	●	●	●	●
Rock Abundance/Trafficability	●	●	●	●	●	●
Potentially Hazardous Rocks	●	●	●	●	●	●
Horizontal Winds (Shear/Turbulence)	●	●	●	●	●	●
Horizontal Winds (Sustained Mean)	●	●	●	●	●	●
Vertical Winds	●	●	●	●	●	●
Temperature at Site	●	●	●	●	●	●
Dust	●	●	●	●	●	●
Load Bearing Surface	●	●	●	●	●	●
Elevation	●	●	●	●	●	●
Radar Reflectivity	●	●	●	●	●	●

Public Engagement

Aesthetics (Views/Relief)	●	●	●	●	●	●
Differs from VL or MPF Sites	●	●	●	●	●	●
Habitability for Life (Past or Present)	●	●	●	●	●	●
Explainable to Public (Good Story)	●	●	●	●	●	●

Landing Sites: