

ANALOGUE SITES FOR MARS MISSIONS: MSL AND BEYOND

March 5–6, 2011

List of Contributed Abstracts

- [Rover Science Operations: Lessons from Rocky 7 and FIDO Field Experiments and Mars Exploration Rover Flight Operations](#)
R. E. Arvidson6016
- [The Cold Seep Emplaced Golden Deposit as an Analogue for Sulfate Deposits on Mars](#)
M. M. Battler, G. R. Osinski, D. S. S. Lim, A. F. Davila, F. A. Michel, G. F. Slater, A. G. Fairén, and N. R. Banerjee6031
- [The Stable Isotopic Composition of Biogenic Methane in Mars Analogue Hypersaline Environments](#)
B. M. Bebout, A. M. Tazaz, C. A. Kelley, J. Poole, A. F. Davila, and J. P. Chanton6013
- [Calcium-Magnesium Carbonate Cements in the Del Puerto Ophiolite, CA: Microbial Biosignatures Associated with Alkaline Springs in Phyllosilicate-Rich Ultramafic Rocks](#)
J. G. Blank6030
- [The Ubehebe Volcanic Field \(Death Valley, CA\): A High-Fidelity Analog Site Supporting MSL11 Integrated Science Mission Goals. Clay Cycle and Habitability Potential Under Arid Hydroclimatic Conditions](#)
R. Bonaccorsi, C. P. McKay, G. Valdre', and D. Willson6014
- [Lava Tubes as Analog Repositories for Life, Geochemistry, and Climate Records on Mars](#)
P. J. Boston, J. G. Blank, D. E. Northup, and M. Deans6027
- [Mass Spectrometry on Future Mars Landers](#)
W. B. Brickerhoff, P. R. Mahaffy, MSL/SAM Investigation Team, and the ExoMars/MOMA Investigation Team6038
- [MSL and Beyond — Analog Sites for the Exploration of Mars Habitability and Life Potential in the Atacama, Altiplano, and Andes \(AAA\)](#)
N. A. Cabrol and D. S. Wettergreen6034

<u>The East German Creek, Manitoba Hypersaline Springs: Analogue for “Last Refuge” of Life on Mars</u>	
<i>E. Cloutis, P. Badiou, D. Bailey, G. Berard, R. Bezys, M. Craig, G. Goldsborough, S. Grasby, W. Last, F. Last, K. Londry, P. Mann, and J. Stromberg</i>	.....6008
<u>The Gypsumville-Lake St. Martin Impact Structure: Shocked Carbonates, Intracrater Evaporites, and Cryptoendoliths</u>	
<i>E. A. Cloutis, G. Berard, P. Mann, and J. Stromberg</i>	.....6009
<u>Jeffrey Mine, Asbestos, Quebec, Canada: Analogue Site for a Mars Methane Mission</u>	
<i>E. A. Cloutis, H. Vronis, A. Qadi, L. Whyte, C. Samson, A. Tremblay, B. Wing, K. Strong, A. Ellery, R. Kruzelecky, J. F. Bell III, A. Boivin, J. Stromberg, P. Mann, and G. Berard</i>	.....6010
<u>Upheaval Dome, An Analogue Site for Gale Crater</u>	
<i>P. G. Conrad and J. L. Eigenbrode</i>	.....6025
<u>Salt Flats in Terra Sirenum — A Site to Search for Extant and Extinct Life on Mars</u>	
<i>A. F. Davila and C. P. McKay</i>	.....6028
<u>Terrestrial Serpentinizing Systems as Mineralogical, Geochemical (and Biological?) Analogues for Mars</u>	
<i>B. L. Ehlmann, D. Cardace, T. Hoehler, D. Blake, and P. Kelemen</i>	.....6021
<u>Aqueous Alteration of Basaltic Lavas in Iceland: An Analogue for Noachian Mars</u>	
<i>B. L. Ehlmann, J. F. Mustard, and D. L. Bish</i>	.....6020
<u>Long-Term Preservation of Biological Information in the Río Tinto Mars Analog: Importance for Site Selection in the Astrobiological Exploration of Mars</u>	
<i>D. C. Fernández-Remolar</i>	.....6012
<u>Utah Desert Analogue Sites for Mars Research and Missions</u>	
<i>B. H. Foing, C. Stoker, P. Ehrenfreund, and the EuroGeoMars/DOEX/EuroMoonMars Teams</i>	.....6029
<u>Potential Habitability in Martian Landing Sites: Tiu Valles Mouth as a Previous Example, Comparison with Earth Analogues</u>	
<i>F. Gómez, J. A. Rodríguez-Manfredi, R. Amils, and J. Gómez-Elvira</i>	.....6043

<u>Periglacial Landscapes on Svalbard: Terrestrial Analogues for Cold-Climate Landforms on Mars</u>	
<i>E. Hauber, M. Ulrich, D. Reiss, and H. Hiesinger</i>	6011
<u>A Balloon-Borne Mars Analog Platform for ‘Field’ Tests of <i>In Situ</i> Instruments</u>	
<i>T. L. Hudson, E. Neidholdt, and D. Banfield</i>	6037
<u>Small, Fresh Craters at the Nevada Test Site</u>	
<i>L. E. Kirkland and K. C. Herr</i>	6023
<u>Garwood Valley, Antarctica: An Analog Site for Exploring Cold Desert Fluvial Deltas and Channels, Biogeochemical Stratigraphy, and Permafrost-Modified Mantles</u>	
<i>J. S. Levy, A. G. Fountain, and J. E. O’Connor</i>	6022
<u>Characteristic Investigation by Robotic Landings on Mars</u>	
<i>Yas. Miura</i>	6001
<u>The Tablelands Ophiolite of Newfoundland: A Mars Analogue Site of Present-Day Serpentinization</u>	
<i>P. M. Morrill, N. Szponar, W. J. Brazelton, M. O. Schrenk, D. M. Bower, and A. Steele</i>	6017
<u>Mars-Like Soils in the Driest Core of the Atacama Desert in Northern Chile: The Yungay Area</u>	
<i>R. Navarro-González and C. P. McKay</i>	6005
<u>Lunar Crater, India: A Natural Analog for MSL Landing Sites</u>	
<i>H. E. Newsom and S. P. Wright</i>	6026
<u>The Ibn Battuta Centre (Marrakech, Morocco) for Testing Lander Science, Operations and Landing Systems</u>	
<i>G. G. Ori, K. Taj-Eddine, and I. Dell’Arciprete</i>	6006
<u>The Search for Life on Mars: Impact Craters as Prime Habitats and Exploration Targets</u>	
<i>G. R. Osinski, C. S. Cockell, J. Parnell, N. Banerjee, H. Henry, A. Pontefract, H. Sapers, and G. Southam</i>	6019
<u>Hydrated Silicates on Mars: Lessons Learned from Terrestrial Impact Craters</u>	
<i>G. R. Osinski and L. L. Tornabene</i>	6033
<u>Microbial Habitability in Periglacial Soils of Kilimanjaro</u>	
<i>A. Ponce, R. C. Anderson, and C. P. McKay</i>	6018

<u>The Mojave Desert: A Martian Analog Site for Future Astrobiology Themed Missions</u>	
<i>E. Salas, W. Abbey, R. Bhartia, and L. W. Beegle</i>	6042
<u>Ophiolites as Source of Abiotic Methane on Earth: Analogue Mission Potential Sites for Methane Flux Measurements on Mars</u>	
<i>M. Schoell and G. Etiope</i>	6036
<u>Network of Inner Space Observatories (NISO) as Terrestrial Analogs for the Subsurface of Mars (and Other Planetary Bodies)</u>	
<i>B. Sherwood Lollar, T. L. Kieft, and T. C. Onstott</i>	6039
<u>The Cuatro Ciénegas Basin in Coahuila, Mexico: An Astrobiological Precambrian Park and Mars Analogue</u>	
<i>V. Souza, J. Siefert, J. T. Elser, and L. E. Eguiarte</i>	6007
<u>Svalbard as a Mars Analogue Site and the Arctic Mars Analogue Svalbard Expedition (AMASE) Analogue Sites</u>	
<i>A. Steele, H. E. F. Amundsen, and AMASE Teams 2003–2011</i>	6041
<u>The Todilto Formation and Science Goals at North Meridiani</u>	
<i>D. T. Vaniman</i>	6004
<u>Early Archaean Terranes as Analogues for Noachian/Hesperian Landing Sites on Mars</u>	
<i>F. Westall, T. Zegers, F. Foucher, N. Bost, A. Meunier, S. Petit, A. Hofmann, J. Vago, and M. Viso</i>	6015
<u>Microbial Communities in Subzero Saline Spring Environments in the Canadian High Arctic: Martian Analogue Studies</u>	
<i>L. G. Whyte, N. C. S. Mykytczuk, T. D. Niederberger, N. N. Perreault, B. Sherwood Lollar, D. T. Andersen, C. W. Greer, and W. Pollard</i>	6035
<u>Large Mars Chamber for Testing Sample Acquisition and Handling Technologies</u>	
<i>K. Zacny</i>	6002