Tuesday, March 21, 2017 **[T335]**
POSTER SESSION I: GEOLOGY AND CHEMOSTRATIGRAPHY OF GALE CRATER
6:00 p.m. Town Center Exhibit Area

Wiens R. C. Mangold N. Gasnault O. Payre V.
Stack-Morgan K. et al. ***POSTER LOCATION #509***
Bimbe and Related Blocky Geomorphic Units in Gale Crater: Heterogeneous Compositional Units Overlying Murray and Stimson Formations **[#2573]**
The Bimbe unit, which overlaps lacustrine Murray unit on Mt. Sharp, contains a surprising variety of float rocks, some of which are related to rocks 15 km away.

Newsom H. E. Jackson R. Wiens R. C. Frydenvang J. Gasda P. et al. ***POSTER LOCATION #510***
Increasing Occurrence of Sandstone Cemented with Calcium Sulfate on Mount Sharp, Gale Crater, Mars **[#2495]**
The abundance of cemented calcium sulfate sandstone in the Murray formation in Gale Crater has greatly increased since the rover reached the Murray Buttes.

Schieber J. Stein N. Grotzinger J. P. Newsom H. Williams R. et al. ***POSTER LOCATION #511***
A Sand-Lens in the Upper Murray Formation at Gale Crater, Mars: A Likely Lowstand Deposit of a Dynamic Ancient Lake **[#2311]**
A sandy lowstand deposit records fluctuating water levels and indicates dynamic nature of Gale Crater lake.

Kronyak R. E. Kah L. C. Fedo C. M. Stack K. M. Edgett K. S. et al. ***POSTER LOCATION #512***
Capping Units of the Murray Formation, Gale Crater, Mars: Salsberry Peak as a Pre-Stimson Formation Caprock **[#1523]**
We examine veins in the Murray formation and capping units to understand the relationship of veins to caprock lithologies and the timing of vein formation.

Sacks L. E. Edgar L. A. Edwards C. S. Anderson R. B. ***POSTER LOCATION #513***
Grain Scale Analyses of the Murray and Stimson Formations Using Data from the Mars Science Laboratory Mars Hand Lens Imager and the ChemCam Remote Micro Imager **[#2595]**
Grain-scale analyses in Gale Crater, Mars test camera and software abilities and support current depositional theories for the Murray and Stimson formations.

Forni O. Meslin P.-Y. L'Haridon J. Rapin W. Nachon M. et al. ***POSTER LOCATION #514***
Detection of Fluorine-Rich Phases, Phosphates, and Halite in the Stimson-Murray Units, Gale Crater, Mars **[#1838]**
We report a summary of the fluoride, phosphate, and chloride detections by ChemCam in the Murray formation of Gale in relationship with their geological context.

Mangold N. Cousin A. Meslin P.-Y. Payré V. Dehouck E. et al. ***POSTER LOCATION #515***
Chemcam Analysis of Aqueous Processes on Polygonal Cracks at Gale Crater, Mars **[#1908]**
We report preliminary results from the ChemCam instrument on putative mud cracks observed by Curiosity. The chemistry indicates a significant role of brines.

L'Haridon J. Mangold N. Rapin W. Forni O. Meslin P.-Y. et al. ***POSTER LOCATION #516***
Identification and Implications of Iron Detection within Calcium Sulfate Mineralized Veins by ChemCam at Gale Crater, Mars **[#1328]**
Recent detection of iron within calcium sulfate mineralized veins by Chemcam at Gale Crater hints at complex diagenetic fluid(s) chemistry.

(Clark) Hogancamp J. V. Ming D. W. McAdam A. C. Archer P. D.
Morris R. V. et al. ***POSTER LOCATION #517***
Identification of Phyllosilicates in Mudstone Samples Using Water Releases Detected by the Sample Analysis at Mars (SAM) Instrument in Gale Crater, Mars **[#1620]**
Water releases detected by the SAM instrument were used to constrain the types of phyllosilicates present in the Marimba and Oudam samples from Gale Crater.

McAdam A. C. Sutter B. Franz H. B. Hogancamp J. V.
Knudson C. A. et al. ***POSTER LOCATION #518***
Constraints on the Mineralogy of Gale Crater Mudstones from MSL SAM Evolved Water **[#1853]**
MSL SAM instrument data can constrain the identity and abundances of phyllosilicates and other hydrated/ hydroxylated materials in Gale Crater mudstones.

VanBommel S. J. Gellert R. Berger J. A. Desouza E. D.
O'Connell-Cooper C. D. et al. ***POSTER LOCATION #519***
Refined Chemical Composition of the Murray Formation, Gale Crater, Mars, as Modeled with Observations by the Alpha Particle X-ray Spectrometer **[#1630]**
Refined characteristic Murray formation composition deconvolved through least-squares removal of dust, Mg-, and Ca-sulfate signals.

Johnson J. R. Cloutis E. Fraeman A. A. Wiens R. C. Maurice S. et al. ***POSTER LOCATION #520***
ChemCam Passive Reflectance Spectroscopy of Recent Murray Formation Drill Tailings: Oudam, Marimba, Quela, Sebina **[#1310]**
ChemCam spectra of recent drill fines consistent with hematite, but also suggest variable ferric phases, oxidation, crystallinity, grain size, and/or mixing.

Wellington D. F. Bell J. F. III Johnson J. R. Rice M. S.
Fraeman A. A. et al. ***POSTER LOCATION #521***
VIS/NIR Spectral Differences of Materials Within Gale Crater, Mars: Parameterization of MSL/Mastcam Multispectral Observations **[#2885]**
Mastcam's ability to distinguish specific surface materials with subsets of filters is demonstrated, with implications for analysis and operational efficiency.

Horgan B. Fraeman A. A. Rice M. S.
Bell J. F. III Wellington D. et al. ***POSTER LOCATION #522***
New Constraints from CRISM and Mastcam Spectra on the Mineralogy and Origin of Mt. Sharp Geologic Units, Gale Crater, Mars **[#3021]**
Iron trapped in rocks / Colors reveal minerals / Ancient microbe food?

Fernando J. McEwen A. Byrne S. Douté S. Delamere A. et al. ***POSTER LOCATION #523***
Surface Units to Be Explored by Curiosity: Insights Using HiRISE Color Measurements **[#1641]**
Surface albedos and color ratios have been estimated using HiRISE images at the MSL landing site. Results can be used to support operations and interpretations.

Edgar L. A. Calef F. J. Thomson B. J. Anderson R. B. ***POSTER LOCATION #524***
Geologic Mapping of Northwestern Aeolis Mons, Gale Crater, Mars: Context for the Mars Science Laboratory Extended Mission Traverse **[#2412]**
Geologic map / Of lower Aeolis Mons / For rover context.

Stack K. M. Cofield S. M. Fraeman A. A. ***POSTER LOCATION #525***
Geologic Map of the MSL Curiosity Rover Extended Mission Traverse of Aeolis Mons, Gale Crater, Mars **[#1889]**
In this study we construct a 1:500 scale geologic map of the MSL Curiosity extended mission traverse using HiRISE images.

Horvath D. G. Andrews-Hanna J. C. ***POSTER LOCATION #526***
Implications for the Past Climate and Hydrogeology at Gale Crater, Mars from Hydrological Modeling of Lakes **[#2158]**
Hydrological modeling of the Gale Crater lake and observations of past lake stands in Gale Crater provide constraints for the past climate and hydrogeology.

Anderson R. B. Dundas C. M. Gasnault O. Le Mouelic S.
Wiens R. C. et al. ***POSTER LOCATION #527***
Change Monitoring on Aeolis Mons Using ChemCam RMI and HiRISE **[#2312]**
We compared long distance Remote Micro Imager (RMI) observations with HiRISE images of Aeolis Mons to watch for changes. No new features have been seen to date.

Rodriguez Sanchez-Vahamonde C. M. Rivera-Valentin E. G. ***POSTER LOCATION #528***
Geomorphological Study of Small-Scale Mass Movement Events at Gale Crater, Mars **[#2229]**
Are flows within Gale? / Small, but still consequential. / Is liquid the cause?