

**Thursday, March 10, 2011**  
**POSTER SESSION II: THE MEDUSAE FOSSAE FORMATION**  
**6:00 p.m. Town Center Exhibit Area**

Scheidt S. P. Zimbelman J. R.

[\*Preliminary Geologic Map of the MC-16 NW Quadrangle, Mars: Subdivisions of the Lower and Middle Members of the Medusae Fossae Formation\*](#) [#2631]

This abstract describes the preliminary mapping results of the MC-16 NW quadrangle of Mars, where a large portion of the area is a Medusae Fossae Formation (MFF). We look more in depth at the subdivisions of the MFF units.

Zimbelman J. R.

[\*Preliminary Geologic Map of the MC-23 NW Quadrangle, Mars: Lower Member of the Medusae Fossae Formation\*](#) [#1840]

Mapping at 1:2 M scale reveals that MFF was once much more extensive in areal coverage than would be inferred from global mapping.

Kerber L. Head J. W.

[\*A Progression of Induration in Transverse Aeolian Ridges: Evidence for Ancient Aeolian Bedforms and Extensive Reworking in the Medusae Fossae Formation\*](#) [#1628]

Evidence of degraded bedforms in the Medusae Fossae Formation suggests that the deposit may undergo a recycling process whereby depositional features are indurated to the point where they may be eroded again, forming more depositional features.

Figueroa M. Amara S. Das S. Nagarajan S. Prasad T.

[\*Analysis of Patterns of Aeolian Processes in the Medusa Fossae Region\*](#) [#1249]

The team proposes an indirect method to quantify the wind effects on Mars' surface. We look to measure the dimensions of yardangs, to determine whether characteristics of aeolian processes are related to the characteristics of yardangs in the Medusa Fossae region.

Harrison S. K. Balme M. R. Hagermann A. Murray J. B.

[\*Observation and Interpretation of an Inverted Channel Feature in the Middle Member of the Medusae Fossae Formation, Equatorial Mars\*](#) [#1691]

We present new mapping and analysis of an unusual set of inverted channel features located on the central lobe of the Medusae Fossae Formation, centered at roughly 5°S, 179°E.

Lefort A. Burr D. M. Beyer R. A. Howard A. D.

[\*Topographic Post-Formation Modifications of Inverted Fluvial Features in the Western Medusa Fossae Formation, Mars\*](#) [#2418]

Topographic analyses of sinuous ridges in the western Medusa Fossae Formation (MFF) show gradients locally reversing direction of slope along the presumed flow direction, interpreted as indication of differential settling of the western MFF.

Burr D. M. Zimbelman J. R. Qualls F. B. Chojnacki M. Murchie S. L. Michaels T. I.

[\*The Western Medusae Fossae Formation, Mars: A Possible Source for Dark Aeolian Sand\*](#) [#1582]

Dark sand dunes are observed in the western Medusae Fossae Formation (MFF). The preponderance of data suggest that the MFF itself is the source of this sand.