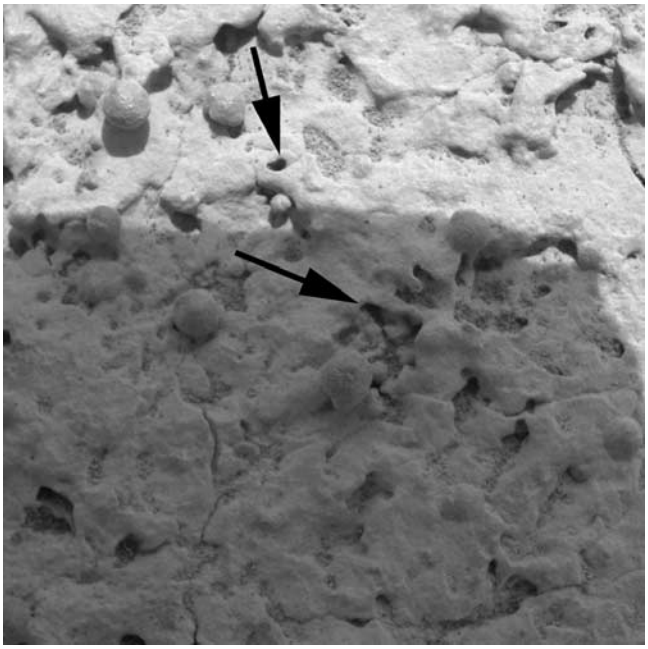

Figure 24. Focal section merge of seven MI images of target One Scoop, taken on sol 544 when target was partly illuminated from top. Cavities are scattered throughout the surface (arrowed). Area shown is 3 cm square.

structures such as cracks/veins and vugs visible in postRAT images. The shadow length in vugs is approximately 150 μm, indicating a depth no greater than this value. The depth of vugs appears to be homogeneous throughout these surfaces, which may be consistent with a surface of stratification at that depth, parallel to the image plane.

[50] Cavities are randomly distributed in several preRAT target surfaces (e.g., "One Scoop1," Figure 24). Those that have subrounded or more rounded rims average 300–400 μm in diameter. As in the massive-dark class of rocks, the smoothed texture of cavern borders may indicate weathering. Also similar to other rock classes, postRAT images show dark, larger spherules in a fine-grained matrix. However, this class contains a few spherules that are slightly elongate (some are visible in Figure 24) and more irregular in cross section (e.g., Figure 23).

4.1.5.3. Sedimentary Structure

[51] No obvious sedimentary structures are associated with this class.

4.1.6. Heatshield Rock

[52] Heatshield rock (initially named SpongeBob, before its unique nature was discovered) was imaged first on sol 347. This rock displays a highly reflective surface, mantled by dust. Postbrush image sequences show that reflectance increases greatly once mantling dust is removed. The luster is highly metallic, with some mottling likely due to variations in the location and thickness of coatings. This rock, which has been identified as an iron meteorite and officially named Meridiani Planum, is described more fully by *Schröder et al.* [2008].

4.1.7. Exotic Cobbles

[53] Three exotic cobbles found on the way to Erebus Crater were imaged by the MI on sols 551, 554, and 641. These discrete particles were originally singled out for in situ examination because they differed fundamentally in composition from surrounding outcrop, and thus represent exotics. Several hypotheses have been suggested for the

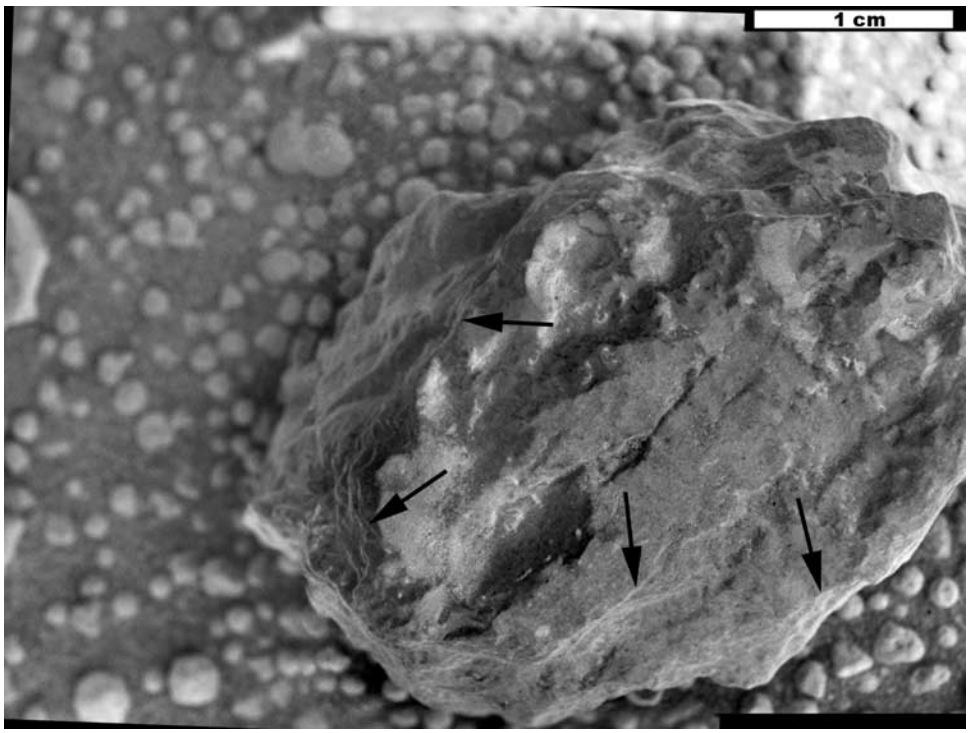

Figure 25. MI mosaic of cobble Arkansas, taken on sol 551 when target was mostly shadowed. Possible stratification indicated by arrows.