



**Figure 11.** Mosaic of target Kahu from the rock Whatanga, taken on sol 310 with target partly shadowed (contrast reduced). Laminae are continuous through most of this target, punctuated by spherules and broken fragments of clasts presumed to be spherules. Laminae are bisected in several places (arrows); the explanation for this is unclear.

[24] In addition to rocks and fragments that are part of, or clearly derived from, the outcrops, the Opportunity MI also imaged a number of cobbles on the surface of Meridiani Planum. The cobbles can be divided into a single sample of iron meteorite and a series of exotic cobbles of broadly basaltic character.

[25] MI observations are summarized in Table A1 (see Appendix A). The terms used in Table A1 to describe images taken before and after abrasion by the Rock Abrasion Tool (RAT) are “preRAT” and “postRAT” [Gorevan *et al.*, 2003], respectively. Similarly, “prebrush” is used to describe images taken before brushing (without abrasion) by the RAT. One rock, with its associated targets (“Heatshield,” originally named “SpongeBob”) is classified separately as a meteorite and officially recognized as “Meridiani Planum” [Connolly *et al.*, 2006]. Two targets are not easily placed into this classification scheme:

“Barberton” (observed on sol 121) and “Tennessee” (observed on sol 139). The target Tennessee has been identified as an upper member of the Burns formation upper unit [Grotzinger *et al.*, 2005; McLennan *et al.*, 2005], and it has been suggested that Barberton is a stony meteorite [Schröder *et al.*, 2008].

#### 4.1.1. Laminar Rock Surfaces

[26] The laminar class of targets is characterized chiefly by distinctive millimeter- to submillimeter-scale laminations visible to a greater or lesser extent for each target. Target surfaces are microscopically coarse and irregular. There are millimeter-scale spherules scattered throughout, some embedded within the rock, others lying on the surface. The spherules often stand higher than the surrounding surfaces, indicating greater resistance to the sandblasting that affects outcrop surfaces. This rock class is relatively homogeneous in reflectance, while embedded clasts such as spherules are