



Figure 10. Mosaic of target Wanganui, taken on sol 282 with target fully shadowed. Note discontinuity of laminae, though individual layers are still visible at lower left. This irregular structure is most prominent here, although target B305 Paikea shows it to a lesser extent as well. Ridges on this target end in nodules or septa (arrows). Mosaic is about 5 cm across.

boulders on Meridiani Planum include basalt clasts ejected from nearby craters, as well as meteorites [Schröder *et al.*, 2008; J. Zipfel *et al.*, Bounce rock: A basaltic shergottite at Meridiani Planum, Mars, submitted to *Meteoritics and Planetary Science*, 2008]. Continuing MI operations have provided new views of rock textures that confirm and extend these early discoveries.

[23] Although the Meridiani outcrops represent a coherent succession of fairly homogeneous laminated sandstones, rock surfaces examined by the MI appear to fall into several distinct textural classes. Accordingly, outcrop rock surfaces and loose fragment targets have been divided into five classes based upon visible lithology, texture, and

sediment structure: laminar, nodular, angular, massive-dark, and massive-bright. The laminar, nodular and massive-bright classes are not discrete, but rather reflect variations on the theme of sedimentary rock deposition and diagenesis established early in the mission. The common element among rock and loose fragment targets in these classes is a recrystallization texture that in terrestrial rocks would be strongly associated with secondary mineral mobilization and chemical sedimentation. This texture, which takes on various degrees and characteristics as described below, nevertheless appears consistently throughout 6.5 km of horizontal traverse.