



Where *Opportunity* knocked

For 683 Martian days—more than a full Martian year and almost two Earth years—NASA's Mars Exploration Rover *Opportunity* explored Victoria Crater, both from its rim and from partway down the crater slope. The crater is about 730 meters wide and 6 kilometers from *Opportunity*'s landing site.

This recent image of Victoria Crater, by the High Resolution Imaging Science Experiment aboard the *Mars Reconnaissance Orbiter*, is taken at an oblique angle that reveals the geologic strata of the crater's walls. The camera was aimed 22° east of vertical, comparable to the angle at which one might look out of an airplane to see landscape below. East is at the top, and the Sun illuminates the scene from the west. The colors have been enhanced to highlight subtle differences.

Opportunity's investigations showed that the bright white band seen here at the top of the crater wall was formed by diagenesis—chemical and physical changes in sediments after deposition. The band separates bedrock below from deposits of ejecta from the crater impact. Dunes of windblown sand and material eroded from the crater walls cover the crater floor. Some of *Opportunity*'s tracks are faintly visible to the north (left) of the crater. (Image courtesy of NASA/JPL–Caltech/University of Arizona.)

To submit candidate images for Back Scatter, visit <http://www.physicstoday.org/backscatter.html>.