

Curiosity Rover Report: Rover Walkabout

Transcript:

Hi, I'm Aileen Yingst.

I'm the Deputy Principal Investigator for the Mars Hand Lens Imager and this is your Curiosity Rover Report.

For the past several months, Curiosity has been exploring an area called Pahrump Hills. Up until now, we've been using a linear approach. We always go forward, we don't go back. This allows us to cover the most territory in the least amount of time. That's not how a typical geologist would do it on Earth.

On Earth, we'd use a walkabout. That is we'd walk the site first to get a better idea of what it looks like and use that information to pick the best places for us to do our science. That's what we've done at Pahrump Hills.

Curiosity is our robotic avatar on Mars and as such, she uses her instruments in much the same way we would use our eyes and our hands during a walkabout.

She has her cameras on the mast that allow us to get an idea of the area around us. We can use that information to pick a good site for contact science.

Once we have that, we can use the MAHLI and the APXS to decide if that site is a good site to take a sample, which we can then put into our onboard laboratory.

This more traditional approach has really allowed my camera MAHLI to shine. And I mean that literally because MAHLI has her own light source. Two banks of LEDs allow us to illuminate a target in any way and from any angle we choose including letting us take images at night.

Daytime images showed us some things but nighttime images were even better because they illuminated features that were all but lost in the changing glare of the sun. You can see one bank and then the other of the MAHLI LEDs come on in these images.

This outcrop called "Pink Cliffs", which is an area of interest for us because it has blade shaped crystals in it. These might've formed when water came through and left behind the chemicals for these crystals to form and grow. MAHLI is the perfect instrument for us to get a great look at these features.

The walkabout at this point is now a tool in our toolbox that we can use as we continue our climb up Mount Sharp.

This is Aileen Yingst and this has been your Curiosity rover report. Be sure to check back for more updates.