1
00:00:01,650 --> 00:00:05,570
Hi, I’m Aileen Yingst.

2
00:00:05,570 --> 00:00:09,969
I’m the Deputy Principal Investigator for
the Mars Hand Lens Imager and this is your

3
00:00:09,969 --> 00:00:11,389
Curiosity Rover Report.

4
00:00:11,389 --> 00:00:17,400
For the past several months, Curiosity has
been exploring an area called Pahrump Hills.

5
00:00:17,400 --> 00:00:20,009
Up until now, we’ve been using a linear
approach.

6
00:00:20,009 --> 00:00:22,029
We always go forward, we don’t go back.

7
00:00:22,029 --> 00:00:26,099
This allows us to cover the most territory
in the least amount of time.

8
00:00:26,099 --> 00:00:29,330
That’s not how a typical geologist would
do it on Earth.

9
00:00:29,330 --> 00:00:31,160
On Earth, we’d use a walkabout.

10
00:00:31,160 --> 00:00:35,920
That is we’d walk the site first to get
a better idea of what it looks like and use

11
00:00:35,920 --> 00:00:38,860
that information to pick the best places for
us to do our science.

12
00:00:38,860 --> 00:00:42,010
That’s what we’ve done at Pahrump Hills.

13
00:00:42,010 --> 00:00:47,190
Curiosity is our robotic avatar on Mars and
as such, she uses her instruments in much

14
00:00:47,190 --> 00:00:52,150
the same way we would use our eyes and our
hands during a walkabout.

15
00:00:52,150 --> 00:00:56,650
She has her cameras on the mast that allow
us to get an idea of the area around us.

16
00:00:56,650 --> 00:01:00,770
We can use that information to pick a good
site for contact science.

17
00:01:00,770 --> 00:01:05,510
Once we have that, we can use the MAHLI and
the APXS to decide if that site is a good

18
00:01:05,510 --> 00:01:10,370
site to take a sample, which we can then put
into our onboard laboratory.

19
00:01:10,370 --> 00:01:14,120
This more traditional approach has really
allowed my camera MAHLI to shine.

20
00:01:14,120 --> 00:01:17,860
And I mean that literally because MAHLI has
her own light source.

21
00:01:17,860 --> 00:01:23,360
Two banks of LEDs allow us to illuminate a
target in any way and from any angle we choose

22
00:01:23,360 --> 00:01:24,841
including letting us take images at night.

23
00:01:24,841 --> 00:01:25,841
Daytime images showed us some things but nighttime
images were even better because they illuminated

24
00:01:25,841 --> 00:01:26,841
features that were all but lost in the changing
glare of the sun.

25
00:01:26,841 --> 00:01:27,841
You can see one bank and then the other of
the MAHLI LEDs come on in these images.

26
00:01:27,841 --> 00:01:29,670
This outcrop called “Pink Cliffs”, which
is an area of interest for us because it has

27
00:01:29,670 --> 00:01:31,570
blade shaped crystals in it.

28
00:01:31,570 --> 00:01:35,190
These might’ve formed when water came through
and left behind the chemicals for these crystals

29
00:01:35,190 --> 00:01:36,860
to form and grow.

30
00:01:36,860 --> 00:01:41,450
MAHLI is the perfect instrument for us to
get a great look at these features.

31
00:01:41,450 --> 00:01:46,390
The walkabout at this point is now a tool
in our toolbox that we can use as we continue

32
00:01:46,390 --> 00:01:48,640
our climb up Mount Sharp.