



**Scooping in Testbed
6x Speed**

1
00:00:00,000 --> 00:00:04,000
(Music)

2
00:00:04,000 --> 00:00:08,000
Hi, my name is Daniel Limonadi. I'm the surface sampling and science phase lead,

3
00:00:08,000 --> 00:00:11,000
and this is your Mars Curiosity rover update.

4
00:00:11,000 --> 00:00:13,000
Curiosity still is heading to Glenelg.

5
00:00:13,000 --> 00:00:17,000
We've just stopped at the Bathurst rock formation to check it out with the robotic arm mounted instruments:

6
00:00:17,000 --> 00:00:20,000
a hand lens imager and a spectrometer.

7
00:00:20,000 --> 00:00:22,000
We've got some great science data there for the science team

8
00:00:22,000 --> 00:00:26,000
and now we're moving to a new rover location called Rocknest.

9
00:00:26,000 --> 00:00:29,000
And we've come to Rocknest because it has nice windblown sand drifts.

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00:00:29,000 --> 00:00:35,000
At the Rocknest location we really are entering a new phase in Mars exploration with Curiosity.

11
00:00:35,000 --> 00:00:38,000
We're starting the surface sampling part of the mission.

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00:00:38,000 --> 00:00:43,000
The reason this is a one-ton rover with a 200-pound robotic arm,

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00:00:43,000 --> 00:00:47,000

is because we have these tools to acquire bits of Mars, you know,

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00:00:47,000 --> 00:00:51,000

either with a scoop or with a drill; process those samples for our very sensitive

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00:00:51,000 --> 00:00:53,000

analytical lab instruments.

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00:00:53,000 --> 00:00:59,000

So our scoop - this is not a giant backhoe on Mars - we basically have more like a oversized tablespoon

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00:00:59,000 --> 00:01:04,000

attached to the end of the arm and we grab on the order of 20 grams of material.

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00:01:04,000 --> 00:01:11,000

And we position the arm over the soil target and then we just actuate the scoop

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00:01:11,000 --> 00:01:13,000

do a little bit of vibration to kind of level out the sample

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00:01:13,000 --> 00:01:19,000

and then raise the arm up, close the scoop and carry on with our sampling activity.

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00:01:19,000 --> 00:01:25,000

Over the next two to three weeks we'll be doing the scooping and sampling analysis activities

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00:01:25,000 --> 00:01:30,000

and then from there we expect to spend a few more weeks driving over to the Glenelg area proper,

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00:01:30,000 --> 00:01:34,000

doing scratch and sniff science along the way with the robotic arm.