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(Music)

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00:00:04,000 --> 00:00:09,000
I'm Ashwin Vasavada, deputy project scientist for the Mars Science Laboratory

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00:00:09,000 --> 00:00:12,000
and this is your Curiosity Rover Report.

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It's been a fantastic 300 sols. Actually, the discoveries began even before landing.

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On the way to Mars, Curiosity's Radiation Assessment Detector, or RAD,

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measured the high-energy radiation from within the capsule that enclosed the rover.

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These measurements will help NASA protect astronauts

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when they fly within spacecraft and are exposed to deep space radiation.

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It turns out that it's equivalent to getting a full-body CT scan every five or six days.

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By using Curiosity's data, NASA will learn how much shielding is needed to reduce the risk to astronauts.

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After touching down on Mars, Curiosity drove away from Bradbury Landing toward a region called Glenelg,

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where three types of terrain come together. We were hoping that one of these terrains, consisting of

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light-toned and fractured bedrock, might teach us something about an ancient dry riverbed

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that we spotted from orbit. This river appeared to have started high on the rim of Gale Crater

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and flowed toward the site where Curiosity landed, spreading sediment in a fan across the crater floor.

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Even before we got to Glenelg, we began to see slabs of a rock called a conglomerate.

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By studying the size of the pebbles within the conglomerate, and by noting how rounded they had become,

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the team was able to conclude that they were carried by water ankle-deep to hip-deep,

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flowing at about walking speed and extending for at least a few miles.

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Curiosity actually set her wheels within an ancient stream bed.

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Getting back to the present, Curiosity just finished drilling her second rock in Yellowknife Bay,

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in order to confirm the remarkable discovery of an ancient habitable environment,

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and to see if there is any variation among the rocks within Yellowknife Bay.

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We're now headed in the direction of our ultimate destination, Mount Sharp, five miles and several months away

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Along the journey, the science team will continue to explore for evidence

