National Aeronautics and Space Administration

Curiosity's Two Years of Discovery on Mars

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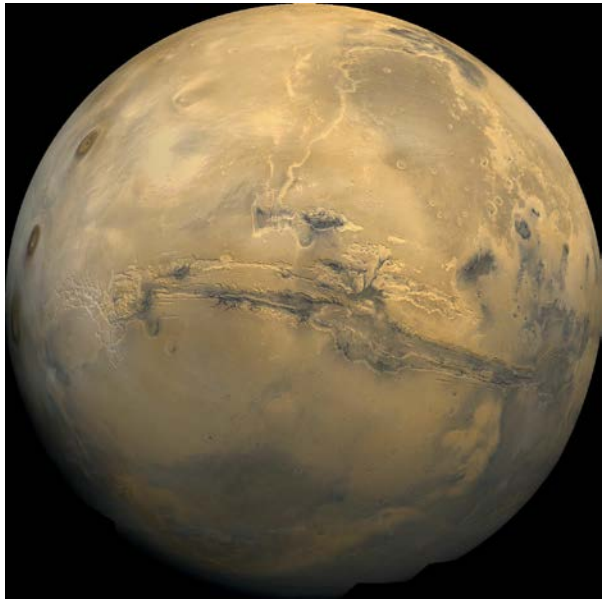
Curiosity's Mission Objectives?

- **Curiosity's Overall Scientific Goal**

  "Explore and quantitatively assess a local region on Mars' surface as a potential for life, past or present" – Pete Theisinger

- **Biological Potential**
- **Geology and geochemistry**
- **Water and geochemistry**
- **Radiation hazards**



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How did Curiosity get to Mars?

How hard is it to land a spacecraft the size of a Mini Cooper into an area of 37.7 square miles on Mars?

NASA/JPL-Caltech

Curiosity's Mission Story

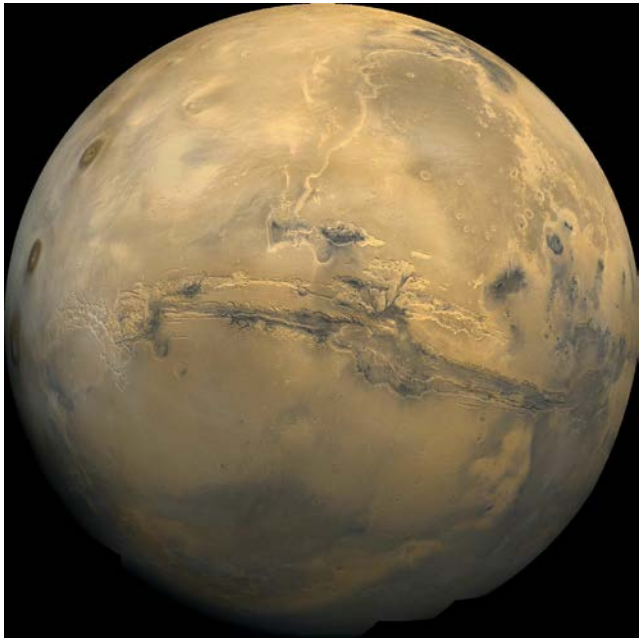
3D Glasses On

Curiosity's Mission Story

3D Glasses Off

What did Curiosity Find on Mars?

- A suitable home for life
- Evidence of an ancient streambed
- Lack of methane (so far)
- Major diversity of environments near the landing area
- Radiation could pose health risks for humans



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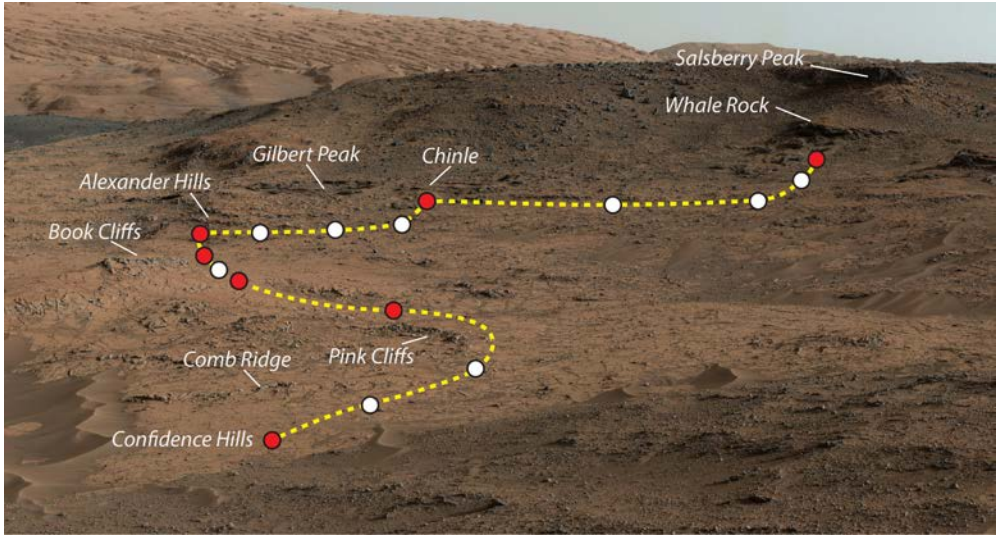
NASA/JPL-Caltech/MSSS

What did Curiosity Find on Mars?

- Mars once had liquid water on its surface
- Scientists have been able to age some Martian rocks
- Scientists have developed a timeline of geological change in local regions on Mars



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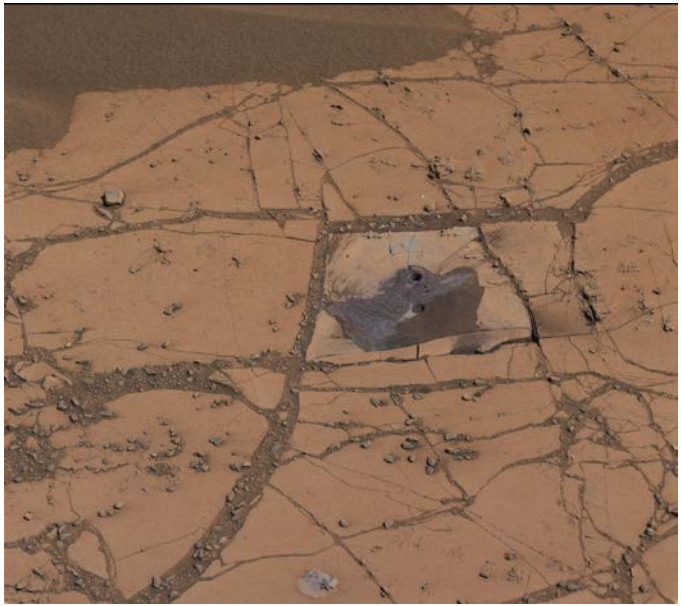

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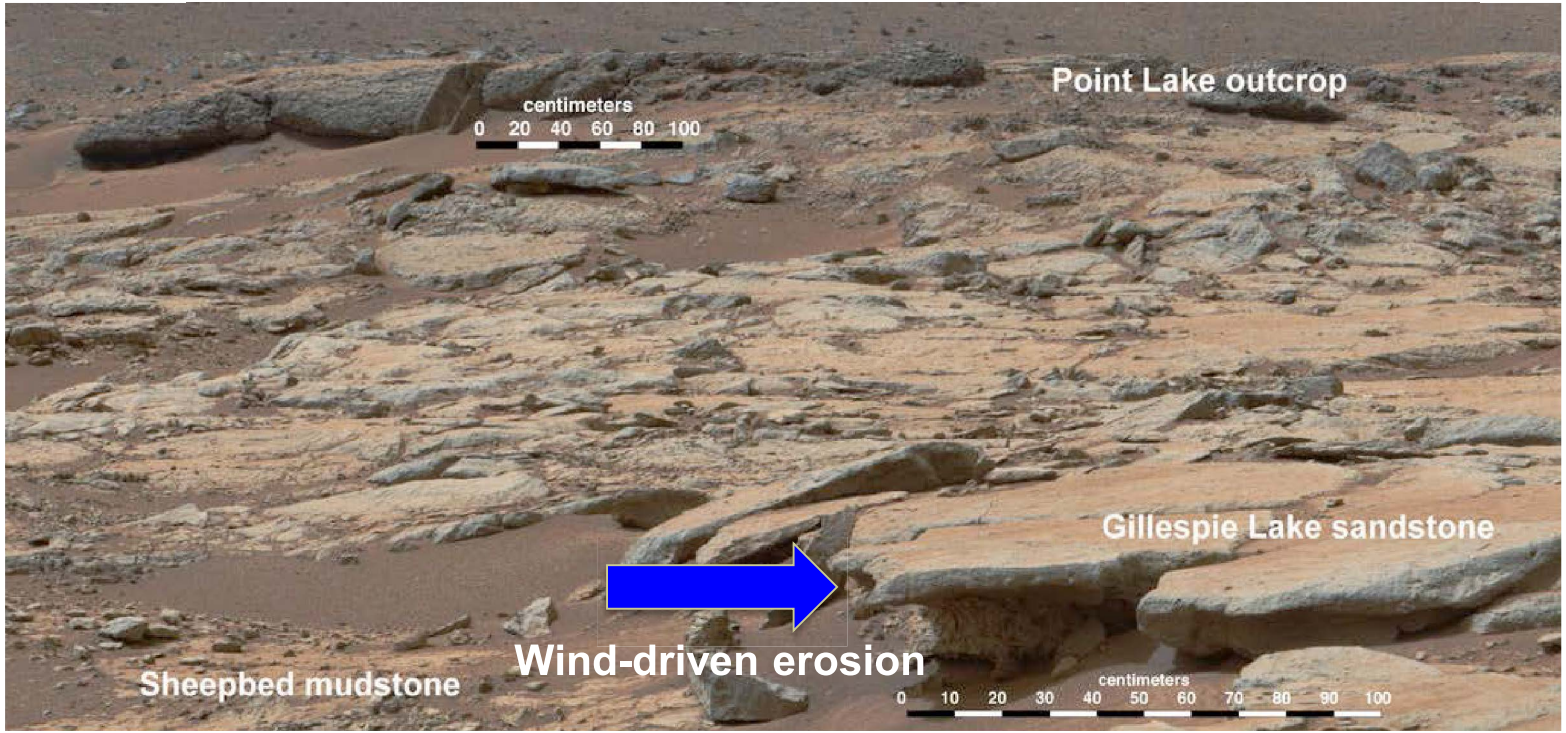
What did Curiosity Find on Mars?



First in-place surface exposure age determination on another planet

NASA/JPL-Caltech/Goddard

What did Curiosity Find on Mars?

NASA/JPL-Caltech/MSSS

NASA/JPL-Caltech

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Self-Portrait by Curiosity- NASA/JPL-Caltech/Malin Space Science Systems

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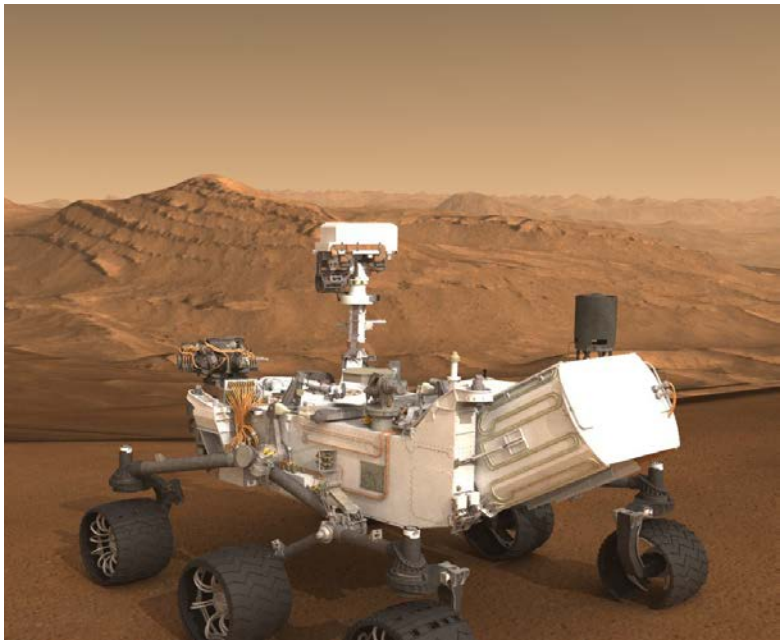

Artist's Concept - *NASA/JPL-Caltech*