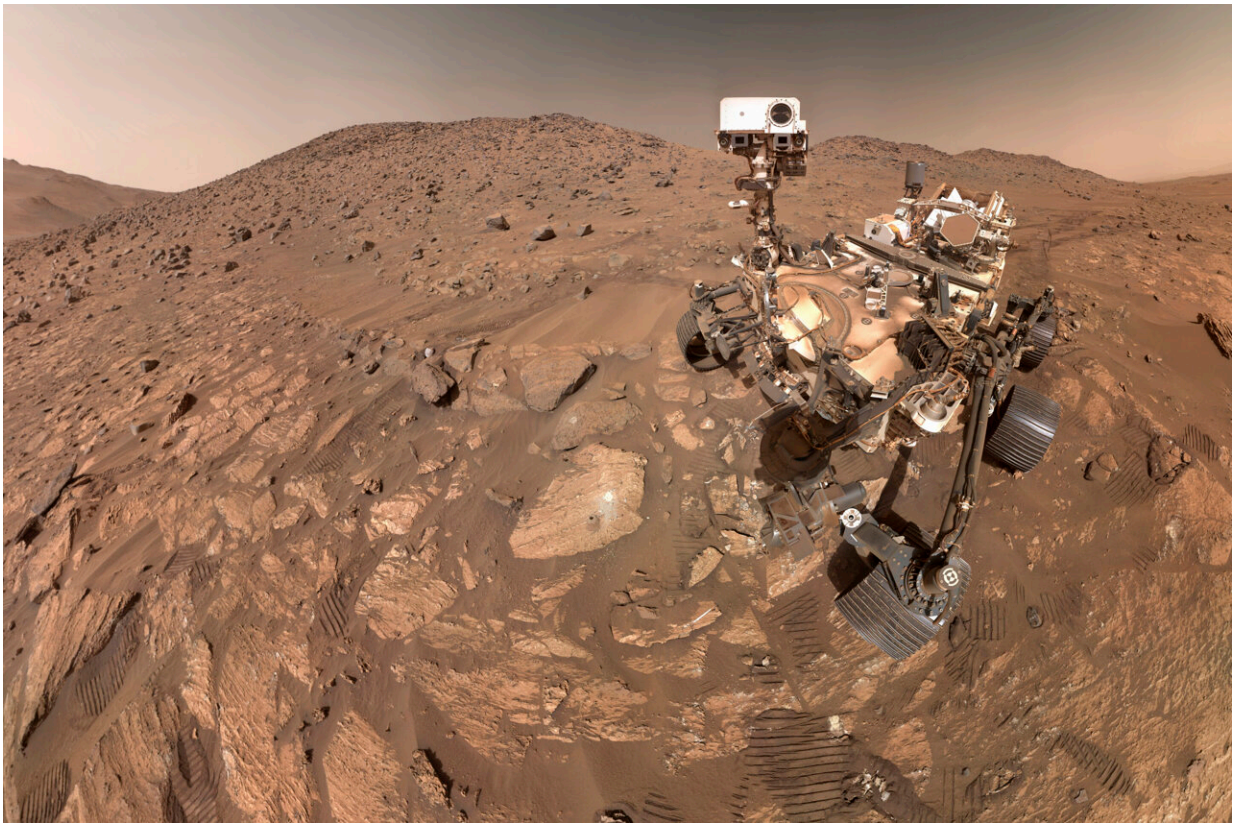
NASA's Perseverance rover on Mars begins steep climb to rim of a crater

August 28 2024, by Adithi Ramakrishnan



This image provided by NASA, shows a selfie of their Perseverance Mars rover, on July 23, 2024. The image is made up of 62 individual images that were stitched together. Credit: NASA via AP

NASA's Perseverance rover is tackling a steep new challenge on Mars.

The six-wheeled rover has spent the last 3 1/2 years roaming around the bottom of a crater. On Tuesday, it began climbing to the top.

The rover will go up 1,000 feet (305 meters) to the rim of Jezero Crater to dig up rock samples. Since landing on the red planet in 2021, Perseverance has collected 22 rock core samples from the floor of the crater, which was once filled with water.

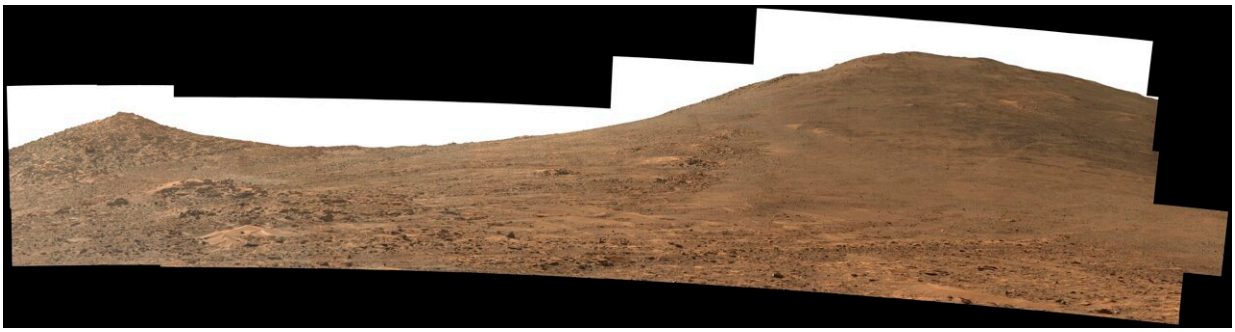
The rover's samples may help scientists piece together what the planet's climate looked like billions of years ago—and learn whether any ancient Martian life lurked. NASA is exploring ways to bring the rock samples to Earth.

The bedrock at the rim of the crater might yield clues as to how rocky planets like Mars and Earth came to be, said Steven Lee with NASA's Jet Propulsion Laboratory in California.

But the road ahead won't be easy. Perseverance will scale rocky terrain and slopes of up to 23 degrees on the monthslong journey.

"Perseverance has certainly been a real trooper," said Lee. The rover has logged around 18 miles (29 kilometers) during its exploration.

The rock at the top of the crater may have come from past hydrothermal vents—sites where heated water and dissolved minerals spewed out after cycling underneath the planet's surface. On Earth, similar sites—like at Yellowstone National Park—are considered a cradle for life.



This image provided by NASA, taken by their Perseverance Mars rover, looks south towards the rim of Jezero Crater on Aug. 4, 2024. The panorama, which encompasses 80 degrees, is made up of 59 individual images stitched together after being sent back to Earth. The color has been enhanced to bring out subtle details. Credit: NASA via AP

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