Your PLANETS
Science Data Packet

for:

Worlds Apart!
Remote Sensing of Mars

Activity 5
Mars Landing Site Topography
(*Level Up!* with Four Sites)

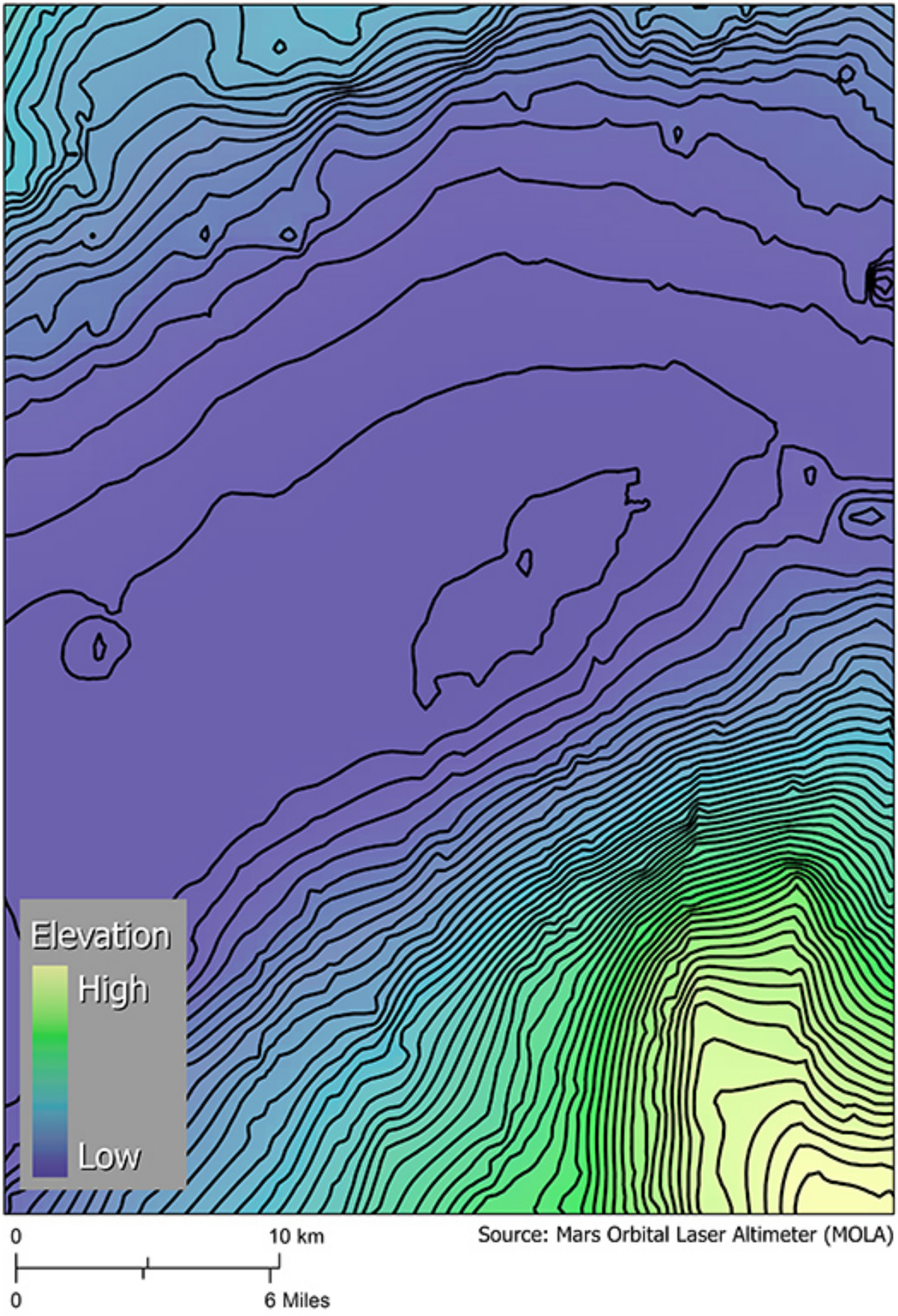
Gale Crater: Topography

Topography data of **Gale Crater** gathered by the Mars Orbiter Laser Altimeter (MOLA) on Mars Global Surveyor. Color shows height, and lines are spaced every 50 meters (165'). Areas where lines are closer together are steeper.

Near the northern edge of the image the foothills of the crater rim are visible. The center of the image is the crater floor, which is low elevation and flat other than a few craters. The southern portion of the image has very closely spaced lines and a spectrum of colors that go from teal to green to yellow. This is the steep terrain of the mountain of layered rock in the center of the crater.

See next page for image.

Gale - Topography



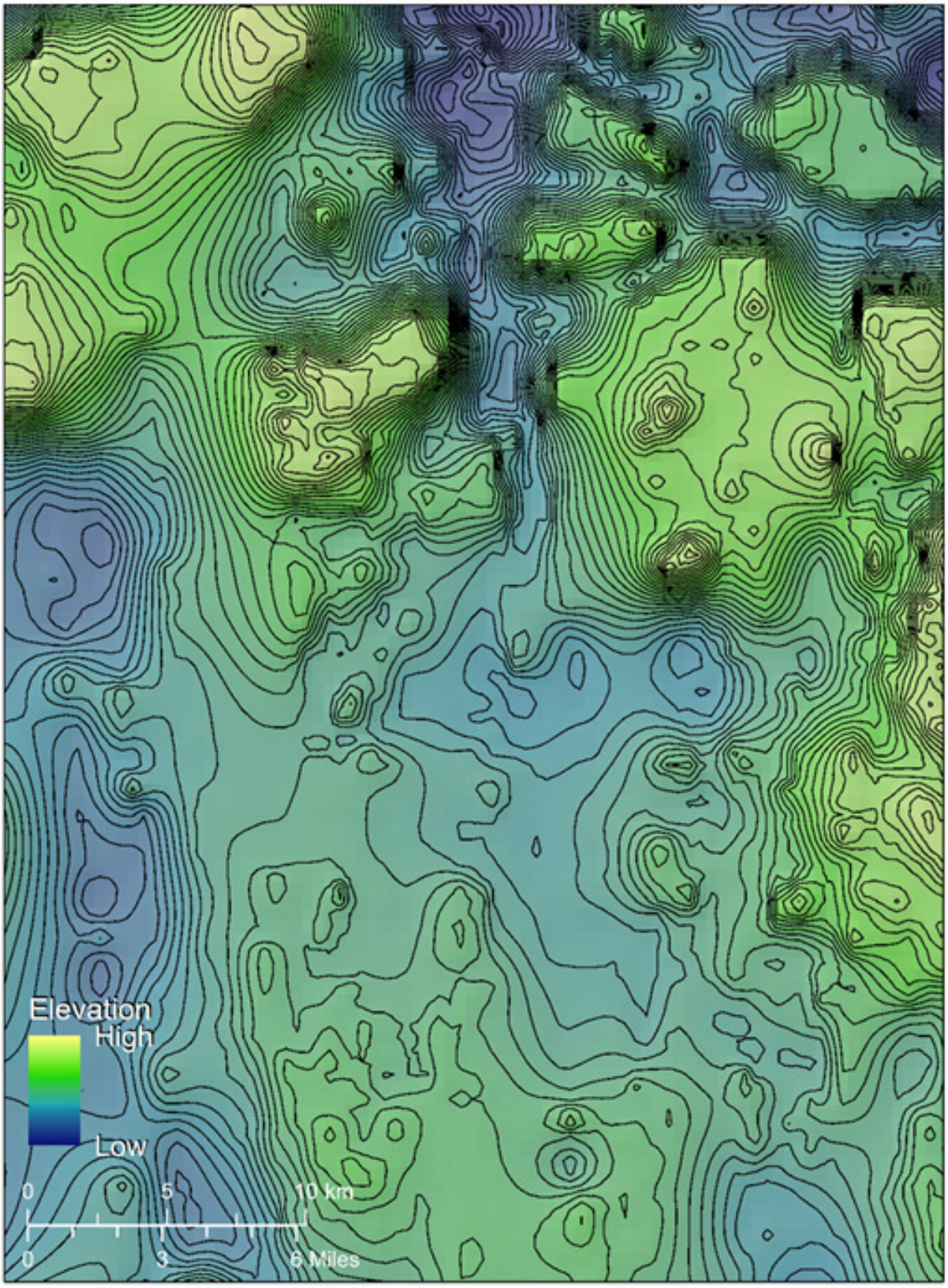
Iani Chaos: Topography

Topography data of **Iani Chaos** gathered by the Mars Orbiter Laser Altimeter (MOLA) on Mars Global Surveyor. Color shows height, and lines are spaced every 50 meters (165'). Areas where lines are closer together are steeper.

The northern area of the landing site has canyons, indicated by closely spaced lines and many shades of green, blue, and yellow. The middle of the image is flatter than the canyons but still has many hills and mesas, indicated by topography lines that trace concentric circles and ovals.

See next page for image.

Iani Chaos - Topography



Source: Mars Orbital Laser Altimeter (MOLA)

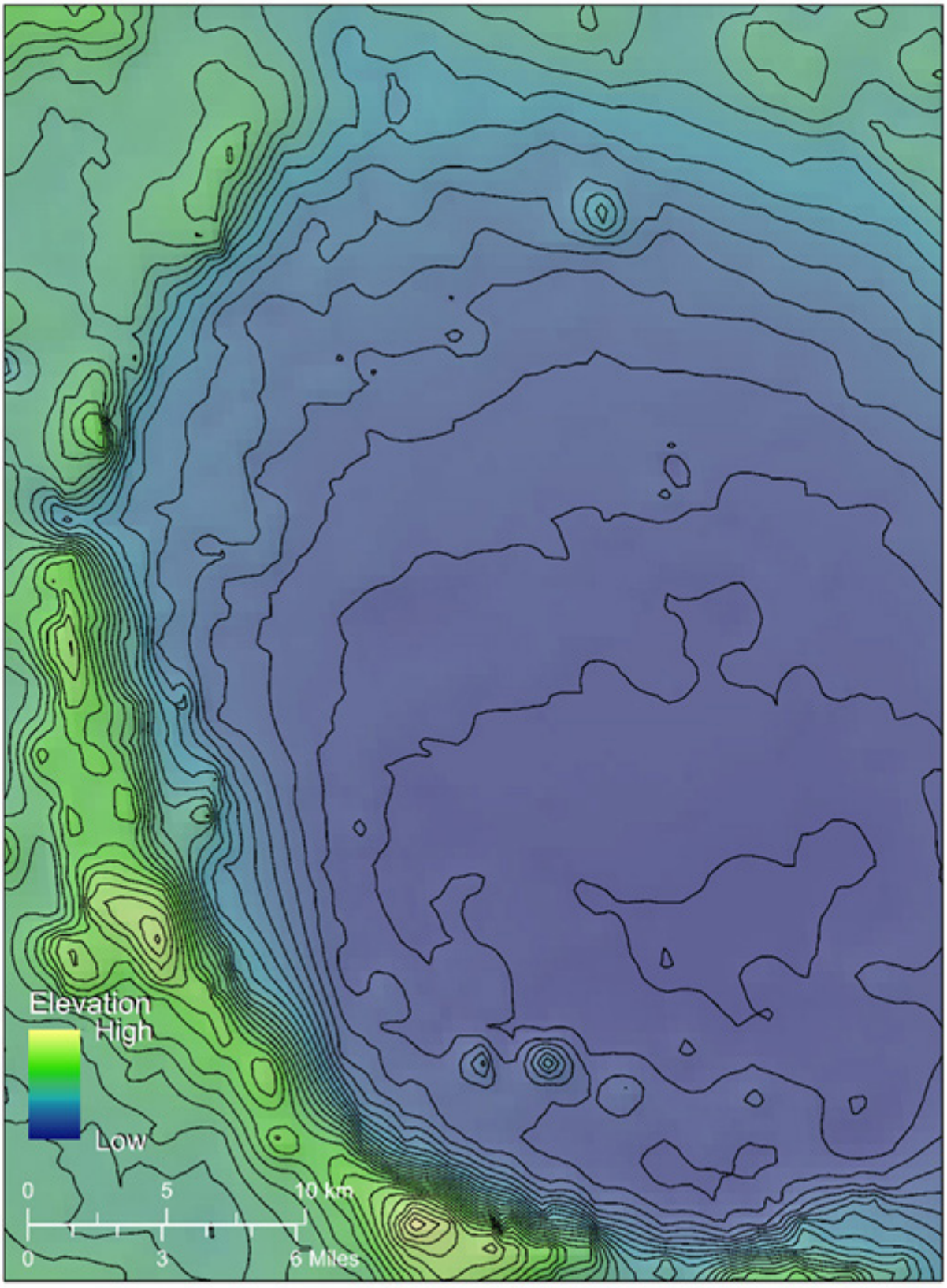
Jezero Crater: Topography

Topography data of **Jezero Crater** gathered by the Mars Orbiter Laser Altimeter (MOLA) on Mars Global Surveyor. Color shows height, and lines are spaced every 50 meters (165'). Areas where lines are closer together are steeper.

The crater rim in the western part of the image shows up as a curved ridge of closely spaced lines and higher elevation. There is a gap in the crater rim near the left edge of the image where the elevation is lower. This is a river valley. The crater floor is lower elevation and has widely spaced lines, indicating that it is pretty flat.

See next page for image.

Jezero - Topography



Source: Mars Orbital Laser Altimeter (MOLA)

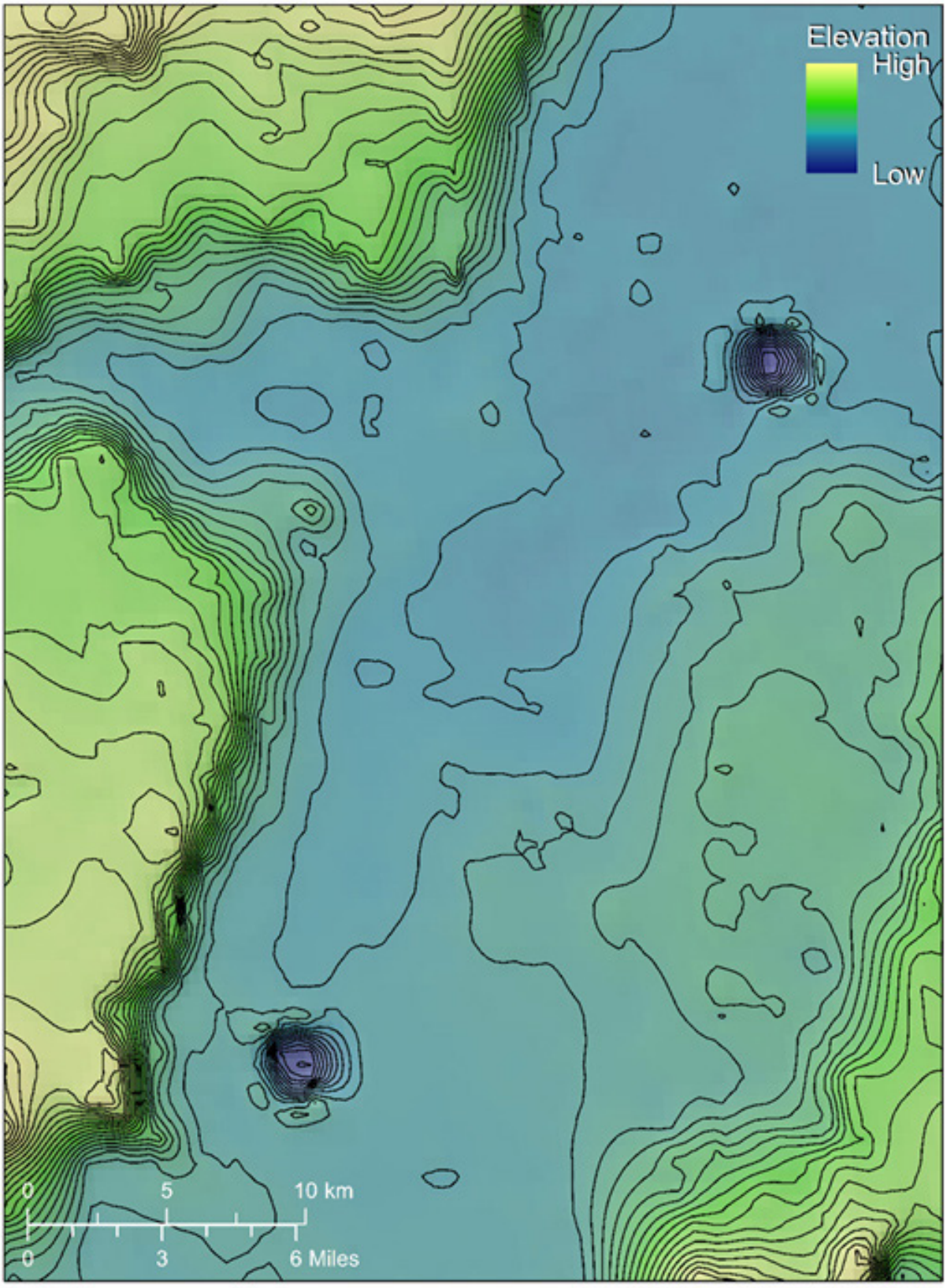
Nili Fossae: Topography

Topography data of **Nili Fossae** gathered by the Mars Orbiter Laser Altimeter (MOLA) on Mars Global Surveyor. Color shows height, and lines are spaced every 50 meters (165'). Areas where lines are closer together are steeper.

At the north and west, there are high elevation but somewhat flat or slightly hilly areas. These are surrounded by cliffs where the elevation drops rapidly, indicated by the change in color and very narrowly spaced lines. The area where the straight cliff has been eroded is clearly visible as a lower elevation area that separates the northern and southern high elevation areas. The floor of Nili Fossae is mostly flat, except for a couple of large, steep-sided craters.

See next page for image.

Nili Fossae - Topography



Source: Mars Orbital Laser Altimeter (MOLA)