These thick clouds in the western Chryse Planitia region of Mars are dust clouds. Dust storms can reach heights of 50 kilometers. Dust storms are a frequent occurrence in the early summer of the southern hemisphere of Mars. Solar heating of the surface in the early summer can result in wind velocities of 40–60 meters per second. Dust storms can also occur in the northern hemisphere, as shown here. Most storms spread only a few hundred kilometers, but occasionally dust storms can encircle the entire planet, as in 1971 when a global dust storm greeted the arrival of Mariner 9.

Location: 20.0° N, 50.0° W
Quadrangle: MC-10 (Lunae Palus)
Mission: Viking 1
Image Numbers: 467A31, 467A69