

Martian Meanders and Scroll-Bars

ESP_020673_1750





Channels become inverted when the sediments filling them become more resistant to erosion than the surrounding material. Here, the most likely process leading to hardening of the channel material is chemical cementation by precipitation of minerals. Once the surrounding material erodes, the channel is left standing as a ridge. The series of curvilinear lineations are ancient scroll-bars, which are features typical of river meanders (bends) in terrestrial fluvial channels.

