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Stromatolites, Floods and Regional Correlation in the Navajo Sandstone

Conglomeratic fluvial sandstone up to 40m thick is present in a large erosive channel in the Navajo Sandstone near Blanding, Utah. The channel was incised into partly cemented eolian cross beds, and the fluvial deposits are overlain by a thick, wet-interdune section. These channel deposits record a significant fluvial incursion into the Navajo erg after a period of dune inactivity and cementation. To the west and north of Blanding, outcrops at Horseshoe Canyon and Capitol Reef, Utah may have been deposited during the same depositional episode. At those sites large stromatolites, thick, wet-interdune deposits and flood deposits occur in erosive depressions in the Navajo Sandstone at approximately the same stratigraphic position as those at Blanding. If these unusual, isolated outcrops are indeed all from the same depositional episode, they could make a significant contribution to the understanding of Navajo depositional architecture, regional correlation and depositional history.