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Quaternary history and landscape evolution of a high-altitude intermountain basin at the western end of the Himalayan-Tibetan orogen, Waqia Valley, Chinese Pamir

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ABSTRACT

Quaternary valley fills and landforms in the Waqia valley of the Chinese Pamir were examined using geomorphic mapping, geomorphic and sedimentological analysis of landforms and sediments, and cosmogenic ¹⁰Be surface exposure dating. Six sets of moraines (M-1 to M-6) are identified and date to the penultimate or an older glacial cycle (M-1), penultimate glacial cycle (M-2), early last glacial and probably Marine Oxygen Isotope Stage (MIS) 4 (M-3), MIS 2 (M-4), Late Glacial (M-5), and early

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