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Massachusetts
+1.413.597.2297
geolsoc@williams.edu

Robert Holdsworth
Durham University
+44.191.33.42299
r.e.holdsworth@durham.ac.uk

Brendan Murphy
St. Francis Xavier University
+1.902.867.2481
bmurphy@stfx.ca

James Spotila
Virginia Tech
+1.540.231.2109
spotila@vt.edu

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Yale University
+1.203.432.5928
Fax +1.203.432.3134
ellen.thomas@yale.edu

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COVER: Field photo of the Mesoarchean Keonjhar Paleosol, eastern India. The paleosol now occurs as a pale-colored thick horizon dominantly composed of pyrophyllite. It formed by intensive chemical weathering of a 3.29 Ga granite and is unconformably overlain by a succession of shallow-marine quartzarenite sandstones and interbedded conglomerates. The paleosol preserves chemical evidence for the oldest known example of oxidative weathering in a terrestrial environment. See "Oxygenation of the Archean atmosphere: New paleosol constraints from eastern India" by Mukhopadhyay et al., p. 923–926.

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