Figure F1. Andaman Sea map with location of Site U1448. Map was generated using GeoMapApp (**http://www.geomapapp.org**).

Figure F2. Summary sketch after Singh et al. (2013) showing the subduction zone through the back-arc basin to ~40 km depth. DF = Diligent fault, NAB = Nicobar-Andaman Basin, ANF = Andaman-Nicobar fault.

Figure F3. Seismic lines showing location of Site U1448. TWT = two-way traveltime.

Figure F4. Lithostratigraphic summary, Site U1448. All unit divisions are plotted relative to Hole U1448A. Details of each core are available in the visual core description logs.

Figure F5. Lithostratigraphic summary with selected physical property and geochemical data from Holes U1448A–U1448C plotted against depth. MS = magnetic susceptibility, NGR = natural gamma radiation.

Figure F6. Smear slide data, Holes U1448A and U1448C.

Figure F7. Line-scan images of main lithologies, Site U1448. A. Nannofossil-rich clay with foraminifers, Subunit Ia. B. Foraminifer-rich clay, Subunit Ib. C. Nannofossil-rich clay with foraminifers, Unit II. D. Clay with nannofossils, Unit III. E. Clayey biosiliceous ooze, Unit IV.

Figure F8. Photomicrographs of lithologic types, Site U1448. A. Nannofossil-rich clay, Unit II. B. Clayey biosiliceous ooze, Unit IV. C. Volcanic ash, Subunit Ia. D. Volcanic ash including iron sulfides, Unit II. PPL = plane-polarized light.

Figure F9. Line-scan images of minor lithologies, Site U1448. A. Volcanic ash likely associated with the Toba eruption, Subunit Ia. B. Light gray volcanic ash, Subunit Ia. C. Pinkish gray volcanic ash, Unit II. D. Thin turbidite composed of black to dark gray bioclastic silt with foraminifers, Unit II. E. Very thin turbidite composed of greenish black bioclastic sand with silt, Unit II. F. Pyrite nodule, Unit II. G. Microfault offsetting mottled brown and greenish gray sediments, Unit IV.

Figure F10. Line-scan images of Miocene hiatus interval near the Unit III/IV boundary, Hole U1448A. A. Nannofossil-rich clay, Unit III. B. Clay with nannofossils, Unit III. C. Inclined boundary between clay with nannofossils (Unit III) and clayey biosiliceous ooze (Unit IV). Dark green nodules containing glauconite and iron sulfides. Burrows in the upper few centimeters of Unit IV contain clay with nannofossils, similar to the lithology at the base of Unit III. D. Clayey biosiliceous ooze (Unit IV) with the Unit III/IV boundary, and the bottom few centimeters of clay with nannofossils (Unit III). E. Nannofossil-rich biosiliceous ooze, Unit IV. F. Clayey biosiliceous ooze with nannofossils, Unit IV.

Figure F11. Summary of biostratigraphic events identified in Hole U1448A. T = top (last occurrence), B = bottom (first occurrence), Tc = top common. For biozonation schemes used, see **Biostratigraphy** in the Expedition 353 methods chapter (Clemens et al., 2016a).

Figure F12. Biostratigraphic- and magnetostratigraphic-based age-depth plot, Hole U1448A. Vertical error bars show the depth range of the identified biostratigraphic events (e.g., between two core catchers or two core sections). Colored boxes show the upper and lower age constraints on the sedimentary unit below the hiatus for each fossil group. Color shading shows the ages of the Pleistocene, Pliocene and Miocene.

Figure F13. Biostratigraphic ages of several horizons above and below the hiatus at 379.11 m CSF-A, Hole U1448A.

Figure F14. Headspace methane concentrations, Hole U1448A.

Figure F15. Calcium carbonate and TOC contents, Hole U1448A.

Figure F16. Pore water alkalinity, SO_4^{2-}, Ba, Mn, Br^-, NH_4^+, PO_4^{3-}, B, Fe, Ca, Mg, K, Cl^-, Si, Sr, and Li, Hole U1448A. Error bars represent two standard deviations of repeated measurements of IAPSO seawater or a pore water sample (see **Geochemistry** and Tables **T5** and **T6**, all in the Expedition 353 methods chapter [Clemens et al., 2016a]).

Figure F17. Downhole variations in declination, inclination, and intensity, Hole U1448A. Gray and black symbols = before and after 10 mT AF demagnetization, respectively.

Figure F18. Downhole variations in declination, inclination, and intensity, Hole U1448B.

Figure F19. Speculative magnetostratigraphy, Holes U1448A and U1448B. Dashed blue lines = transitions in declination values. The unreliable intervals (orange bands) are largely caused by flux jumps in the *y*-axis superconducting quantum interference device.

Figure F20. Downhole variations in mass-normalized ARM acquired on Hole U1448A discrete samples.

Figure F21. Stepwise demagnetization results for discrete Sample 353-U1448A-56X-5W, 118–120 cm.

Figure F22. High-resolution (2 cm) section measurements across the hiatus (~379.2 m CSF-A), showing NRM, NRM after 5 and 10 mT AF demagnetization, and NRM after demagnetization normalized by the original NRM.

Figure F23. Physical properties showing downhole variability in magnetic susceptibility from WRMSL, STMSL, and point SHMSL; density from WRMSL, STMSL, and MAD (red points); porosity; and NGR, Hole U1448A.

Figure F25. Physical properties showing downhole variability in magnetic susceptibility from WRMSL and point SHMSL, density from STMSL, and NGR, Hole U1448C.

Figure F26. L*, a*, and b* data, Hole U1448A.

Figure F27. L*, a*, and b* data, Hole U1448B.

Figure F28. L*, a*, and b* data, Hole U1448C.

Figure F29. SHIL RGB color data, Hole U1448A.

Figure F30. SHIL RGB color data, Hole U1448B.

Figure F31. SHIL RGB color data, Hole U1448C.

Figure F32. Downhole temperature data, Hole U1448B.

Figure F33. Core alignment shown using (A) RGB blue (used in lieu of green due to availability of outlier-cleaned data), (B) NGR, and (C) MS profiles, Holes U1448A–U1448C. Spliced profile is also shown. Splice tie points are indicated by black vertical lines. Original KaleidaGraph files are available in STRATCOR in **Supplementary material**.