Figure F1. Andaman Sea map with location of Site U1447. 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 U1447.

Figure F4. Lithostratigraphic summary, Site U1447. All unit divisions are plotted relative to Hole U1447A. 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 U1447A–U1447C plotted against depth. MS = magnetic susceptibility, NGR = natural gamma radiation.

Figure F6. Line scan images of main lithologies, Site U1447. A. Clayey nannofossil ooze with foraminifers, Unit I. B. Foraminifer-rich nannofossil ooze with clay, Unit II. C. Clayey nannofossil ooze with glauconite, Unit III. D. Clayey nannofossil ooze with glauconite, with minor drilling disturbance, Subunit IVa. E. Biosilica-rich clay with nannofossils, Subunit IVb.

Figure F7. Photomicrographs of the main lithologies, Site U1447. A. Foraminifer-rich nannofossil ooze with clay, Unit I. B. Authigenic carbonate-rich nannofossil ooze with foraminifers, Unit II. C. Clay with nannofossils, Unit III. D. Biosilica-rich clay with nannofossils, Unit IV. E. Volcanic ash, Unit I. F. Bioclastic sand, Unit II. PPL = plane-polarized light, XPL = cross-polarized light.

Figure F8. Smear slide data, Holes U1447A and U1447C.

Figure F9. Line scan images of minor lithologies, Site U1447. A. Volcanic ash likely associated with the Late Pleistocene Toba eruption, Unit I. B. Gray volcanic ash with clay, Unit I. C. Light gray bleb of volcanic ash with glauconite, Unit III. D. Very dark gray volcanic ash, Unit III. E. Thick turbidite with coarse sand, shell fragments, and foraminifers, Unit I. F. Bioclastic sandy blebs and thin bioclastic turbidite layers, Unit II. G. Dark patches of plant debris, Unit I.

Figure F10. XRD analyses, Site U1447. A. Serpentinite (lizardite) fragment from a coarse-sand bioclastic turbidite, Unit I. B. Foraminifer-rich nannofossil ooze with clay, Unit II. C, D. Bioclastic sand turbidite, Unit II.

Figure F11. Turbidite abundance, thickness, and composition over the upper 400 m CSF-A, Hole U1447A (Units I and II). Qz = quartz.

Figure F12. Summary of biostratigraphic events identified in Hole U1447A. T = top (last occurrence), B = bottom (first occurrence), Tc = top common, Bc = base common, FO = first occurrence, LO = last occurrence. For biozone schemes used, see **Biostratigraphy** in the Expedition 353 methods chapter (Clemens et al., 2016a).

Figure F13. Biostratigraphic- and magnetostratigraphic-based age-depth plot, Hole U1447A. Vertical error bars show the depth range of the identified biostratigraphic events (e.g., between two core catchers or two core sections). Color shading along the *x*-axis shows the ages of the Pleistocene, Pliocene and Miocene. For magnetostratigraphy, the two different symbols represent ages determined using Class 1 (more conservative) and Class 2 data sets. See **Magnetostratigraphy** for more discussion.

Figure F14. Headspace methane concentrations and void gas methane, ethane, and hydrogen sulfide concentrations, Hole U1447A.

Figure F15. Calcium carbonate and TOC contents, Hole U1447A.

Figure F16. Pore water alkalinity, Ba, SO_4^{2-}, Li, Fe^{2+}, Mn, NH_4^+, Br, Ca, Mg, K, B, Sr, and Si, Holes U1447A and U1447B. Error bars represent two standard deviations of repeated measurements of IAPSO seawater or a pore water sample (see **Geochemistry** and Tables **T5**, **T6**, all in the Expedition 353 methods chapter [Clemens et al., 2016a]).

Figure F17. Downhole variations in declination, inclination, and intensity, Hole U1447A. Gray and black symbols = before and after 10 mT AF demagnetization, respectively.

Figure F18. Downhole variations in declination, inclination, and intensity, Hole U1447C. Gray and black symbols = before and after 10 mT AF demagnetization, respectively.

Figure F19. A–B. Representative stepwise AF demagnetization results, Hole U1447A discrete samples. For the orthogonal vector plot, red symbols = points used in PCA, and blue lines = calculated ChRM direction.

Figure F20. A. Class 1 depth variations of PCA declination and inclination from discrete samples compared with section data for Hole U1447A. B. Class 2 depth variations in declination and inclination from discrete samples after 10 mT AF demagnetization. Magnetostratigraphy is also shown based on both classes.

Figure F21. Depth variation in mass-normalized ARM, Hole U1447A. Dashed gray lines = lithostratigraphic unit boundaries.

Figure F22. 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 U1447A.

Figure F23. Physical properties showing downhole variability in magnetic susceptibility from WRMSL, STMSL, and point SHMSL; density from WRMSL and STMSL; and NGR, Hole U1447B.

Figure F24. Physical properties showing downhole variability in magnetic susceptibility from WRMSL, STMSL, and point SHMSL; density from WRMSL and STMSL; and NGR, Hole U1447C.

Figure F25. L*, a*, and b* data, Hole U1447A.

Figure F26. L*, a*, and b* data, Hole U1447B.

Figure F27. L*, a*, and b* data, Hole U1447C.

Figure F28. SHIL RGB color data, Hole U1447A.

Figure F29. SHIL RGB color data, Hole U1447B.

Figure F30. SHIL RGB color data, Hole U1447C.

Figure F31. Downhole temperature data, Hole U1447A.

Figure F32. 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 U1447A–U1447C. Spliced profile is also shown. Splice tie points are indicated by black vertical lines. Original KaleidaGraph files are available in STRATCOR in **Supplementary material**.