

Figure F1. IODP convention for naming sites, holes, cores, sections, and samples. Ship positioning while coring was primarily accomplished with only GPS data; seafloor beacons were only prepared and ready for deployment if needed.

Figure F2. APC system used during Expedition 382 (see Graber et al., 2002). ID = inside diameter.

Figure F3. XCB system used during Expedition 382 (see Graber et al., 2002).

Figure F4. RCB system used during Expedition 382 (see Graber et al., 2002). OD = outside diameter.

Figure F5. Overall flow of cores, sections, analyses, and sampling implemented during Expedition 382.

Figure F6. Example VCD, Expedition 382. cps = counts per second.

Figure F7. VCD legend used during Expedition 382.

Figure F8. Classification scheme for terrigenous clastic sediments without a gravel component used during Expedition 382 (after Mazzullo et al., 1988).

Figure F9. Classification scheme for sediments that are mixtures of pelagic biogenic and terrigenous clastic components used during Expedition 382 (Expedition 318 Scientists, 2011).

Figure F10. IODP XRI.

Figure F11. Chronostratigraphic age framework used during Expedition 382 with diatoms, radiolarians, planktonic foraminifers, and dinocyst zones for 0–24 Ma. NZ = New Zealand. Polarity: black = normal, white = reversed. FAAD = first abundant appearance datum. LAAD = last abundant appearance datum, LAD = last appearance datum. LCO = last common occurrence, FCO = first common occurrence. Upward-pointing triangles = first appearance datums, downward-pointing triangles = LADs. Bold = species used to define zones or subzones. (Continued on next page.)

Figure F11 (continued).

Figure F12. AF demagnetization of two test discrete samples measured before Expedition 382. A. AF demagnetization of NRM displaying systematic demagnetization and no acquisition at high AF steps. B. Comparison of AF demagnetization of an ARM imparted on samples on SRM and JR-6A. C. Comparison of intensities measured on SRM and JR-6A at comparable AF steps. D. Residuals of SRM intensity relative to 1:1 line.

Figure F13. Orientation of discrete cubes in KLY 45 Kappabridge during AMS measurement, Expedition 382.

Figure F14. Coordinate systems used for archive and working halves, coordinate system used for SRM (SQUID) on *JOIDES Resolution*, and orientation of discrete cube samples collected from working halves, Expedition 382.

Figure F15. Coordinate system for samples collected using extruder and push-in methods, Expedition 382. For both methods, sticker with hatched arrow is placed on stratigraphic top of sample box with hatched arrow pointing toward double line on core liner (+x-direction).

Figure F16. Extruder and push-in sample orientations during discrete sample measurement on SRM using top-away setting in SRM software, Expedition 382.

Figure F17. Extruder and push-in sample orientations during discrete sample measurements on JR-6A, Expedition 382.

Figure F18. Identified features, Holes U1536A, U1536B, and U1538A. Scales are in centimeters. A, B. Soupy interval. Millimeter- to centimeter-scale black features in B are granules and dropstones. C. Uparching of <1 cm. These intervals were retained in paleomagnetic data. D. Severe uparching. Tops of bowed layers are 3 cm higher than bases of layers. E. Asymmetric uparching. F. Vertical fabric. Round white features are inferred to be air bubbles and/or water pockets in water-rich sediment. (Continued on next page.)

Figure F18 (continued). G. Soft-sediment deformation. H. Inclined layers cut by normal fault. I. Wavy layers. J. Two APC sediment pods. K. Dropstone. Vertical lines from 52 to 58 cm delineate drag mark created when dropstone was pulled by core splitting wire. Narrow feature from 55 to 56 cm is a crack between two pieces of stiff sediment. L. Syringe scar at top of core section sampled for microbiology/DNA. M. Concentric ring structures propagating into core at gas pressure release drill holes.

Figure F19. WRMSL. Water standard measured at end of each core is for QA/QC purposes.

Figure F20. Equipment used to measure NGR. A. NGRL. B. Interior of NGRL with NaI detectors and photomultiplier tubes.

Figure F21. Shipboard station for measuring thermal conductivity on whole rounds and section halves.

Figure F22. SHMSL system.

Figure F23. SHMG for measuring *P*-wave velocity.

Figure F24. Equipment used for MAD analyses. A. Desiccator and dual balance system; drying oven is located below desiccator. B. Pycnometer used to measure volume of dry samples.

Figure F25. Depth scales used during Expedition 382. A. Cores from three holes on their drilled (CSF-A) depths (prior to postcoring expansion). B. Correlative features used to align cores relative to mudline in, for instance, Hole A postcoring expansion. C. Adjacent holes are used to create continuous splice. Black section in individual cores reflects interval used to construct continuous splice (black continuous sequence). Note the expansion in depth (affine growth) in CCSF-A and CCSF-D depth scales. CCSF-B depth scale corrects for this apparent expansion. See text for details. Modified from Jaeger et al. (2014).

Figure F26. Site U1534 MS data manipulated to illustrate how to assign splice depths to core sampled “out of the splice.” A. Data on CSF-A depth scale. B. Transformation of CSF-A depths in A to CCSF-A depth scale. In this case, Hole U1534C forms the anchor (zero depth) for generation of CCSF-A depths (so Hole U1534C CSF-A depths equal CCSF-A) and Hole U1534A depths are adjusted to CCSF-A depths using a constant offset established by connected Hole U1534A MS data to Hole U1534C using an affine tie at 1.28 m (picked based on MS features in the depth domain). If this portion of Hole U1534C is then used in the site splice, all its CCSF-A depths are equal to splice depths (CCSF-D). Distortion of the depth scale between cores (e.g., due to coring artifacts) means that only the affine tie depth is equal to CCSF-D depth scale in both holes. C. Adjustment of Hole U1534A CCSF-A depths to match those for Hole U1534C achieved by using an additional five ties (red arrows) between MS data for both holes. Only in C do all CCSF-A depths for this portion of Hole U1534A approximate well to CCSF-D splice depths. See Figure F25.

Figure F27. Quad combo downhole logging tool string used in Hole U1536E. LEH-QT = logging equipment head–q tension.