Figure F1. APC system used during Expedition 362. ID = inner diameter.

Figure F2. XCB system used during Expedition 362.

Figure F3. RCB system used during expedition 362. OD = outer diameter.

Figure F4. IODP convention for naming sites, holes, cores, sections, and samples.

Figure F5. Graphic patterns for sedimentary lithologies encountered during Expedition 362.

Figure F6. Legend for sedimentary and tectonic structures used in all Expedition 362 sediment, sedimentary rock, and igneous rock descriptions as well as identification symbols used to document sample locations that were recorded using curated depths on VCD graphic reports.

Figure F7. Example of an Expedition 362 VCD sheet for an entire core.

Figure F8. Basic lithologic groups used during Expedition 362 for sedimentary core description. Modified from the scheme of Mazullo and Graham (1988).

Figure F9. Classification of sediment based on texture only (Shepard, 1954).

Figure F10. Classification of sediment sorting and roundness using the scheme of Folk (1980).

Figure F11. Visual comparative charts used to show the ichnofabric index (a measure of bioturbation intensity) in Expedition 362 cores (from Heard et al., 2008, 2014). Core width is 6.5 cm. Panels 2/6, 3/6, and 4/6 show additional examples of index 6 bioturbation.

Figure F12. Smear slide component categories for sediment description, Expedition 362.

Figure F13. Smear slide component categories for tephra description, Expedition 362.

Figure F14. A. Summary of flow characteristics, typical deposits, and grain-support mechanisms for cohesive and frictional (noncohesive) flows modified from Mulder and Alexander (2001). B. Relative importance of particle-support mechanisms for the four varieties of sediment gravity-flows. Where orange and red symbols are superimposed, the support varies from significant to dominant. From Pickering and Hiscott (2015).

Figure F15. Protractor used to measure apparent dips, trends, plunges, and rakes on planar and linear features in a split core, Expedition 362.

Figure F16. Diagram of core reference frame and *x*-, y-, z-coordinates used in orientation data calculations, Expedition 362.

Figure F17. Lower hemisphere equal area projections showing the procedure for converting 2-D measured data to 3-D data, Expedition 362. Plane attitude determined using two apparent dips on two surfaces. Striation on the plane is also plotted. In postcruise analysis, the data may be further corrected using paleomagnetic data.

Figure F18. Calculation of plane orientation (shaded) from two apparent dips, Expedition 362. Intersections of split core surface, section perpendicular to split core surface, and section parallel to core direction with plane of interest are shown. (α_1, β_1) and (α_2, β_2) are the azimuths and dips of traces of the plane on two sections, v_1 and v_2 are unit vectors parallel to traces of the plane on two sections, and v_n is the unit vector normal to plane.

Figure F19. Apparent rake measurement of striations on a fault surface from 270° direction of split core surface trace, Expedition 362. ϕ_a = apparent rake, v_n = unit vector normal to fault plane, v_c = unit vector normal to split core surface, v_i = unit vector parallel to the intersection line between fault plane and split core surface.

Figure F20. Dip direction (α_d), right-hand rule strike (α_s), and dip (β) of a plane deduced from its normal azimuth (α_n) and dip (β_n), Expedition 362. v_n denotes the unit vector normal to plane. A. $\beta_n < 0°$. B. $\beta_n \geq 0°$.

Figure F21. Upward-arching bedding observed in APC cores (Section U1480F-15F-2) and given a drilling disturbance intensity rating of slight, moderate, or severe based on the intensity of folding (i.e., slight from 62 to 73 cm, moderate from 30 to 62 cm, and severe from 73 to 102 cm).

Figure F22. Mingling and distortion of bedding observed in APC cores (Section U1480E-9H-6), perhaps an extreme version of upward-arching beds. Drilling disturbance features are given an intensity rating of slight, moderate, or severe based on the intensity of folding and destruction of primary bedding (i.e., extreme from 100 to 135 cm).

Figure F23. Drilling biscuits (Section U1480G-14R-1) observed in XCB and RCB cores due to rotation of sediment behind coring surface and up into the core barrel (core barrel rotates with drill string in XCB but is stationary with respect to Earth in RCB). Drilling cuttings are injected between each biscuit, creating minor gouge. Drilling disturbance intensity rating was given based on the thickness of each biscuit as slight (>5 cm), moderate (2–5 cm), severe (<2 cm), and destroyed (brecciated biscuits).

Figure F24. Fall-in at top of core (Section U1480F-12F-1). Fall-in was present at the top of many cores and was given a drilling disturbance intensity rating of destroyed.

Figure F25. Soupy section in the sediment caused by drilling disturbance in which the primary structure is destroyed (Section U1480F-13F-3). Note the presence of water even after efforts to drain the core.

Figure F26. Weak, ductile material showing upward-arching beds, mingling and distortion of beds, and soupy deformation (Section U1480E-12H-3). Drilling disturbance is one of the primary criteria in assessing the strength of the material.

Figure F27. Cores rated strong and brittle in strength. Brittle fractures, abundant natural faults, and some drilling-induced biscuits are present, but sections are more coherent. A. Calcareous pelagic sediment (Section U1480G-61R-3). B. Clay-rich hemipelagic sediment. Fissile fractures are abundantly observed (Section U1480G-58R-1).

Figure F28. A. Core rated intermediate and ductile in strength. Upward-arching bedding is slight and sediments are more lithified based on use of hammer and chisel to obtain samples (Section U1480F-16F-1). B. Core rated intermediate and brittle in strength. Drilling-induced biscuiting with associated gouge was occasionally observed (Section U1480F-92X-1).

Figure F29. Example XCB drilling record for Core 362-U1480F-53X. Drilling parameters exported from RIS. TD torque defines the torque applied to the drill string by the top drive in kilo-ft-lb. Standpipe pressure (SPP) measures the hydraulic losses through the drilling system, including losses at the cutting bit. Time points (month/day/year hour:minute) annotated next to block position curve define the end of coring (sharp increase in block position) and start of coring (block position + interval drilled), which usually corresponds with change in pump rate and change in SPP. Note that in data presentations, axis ranges are kept constant to help comparison between cores, but a limited number of cores in Hole U1480G required an increase in maximum SPP plotted.

Figure F30. Expedition 362 timescale with planktonic foraminifer (PF), calcareous nannofossil (CN), diatom, and radiolarian biozones. Polarity: black = normal, white = reverse. A. 0–23 Ma. (Continued on next page.)

Figure F30 (continued). B. 23–46 Ma. C. 46–70 Ma.

Figure F31. Calcareous nannofossil biozones and biohorizons defining biozone boundaries, Expedition 362. T = top, Tc = top common, Ta = top absence, B = base, Bc = base common, Ba = base absence. A. 0–23 Ma. B. 23–46 Ma. (Continued on next page.)

Figure F31 (continued). C. 46–70 Ma.

Figure F32. Planktonic foraminiferal biozones and biohorizons defining biozone boundaries, Expedition 362. T = top, B = base. A. 0–23 Ma. B. 23–46 Ma. (Continued on next page.)

Figure F32 (continued). C. 46–70 Ma.

Figure F33. Diatom biozones and biohorizons defining biozone boundaries, Expedition 362. T = top, B = base. A. 0–23 Ma. B. 23–46 Ma. (Continued on next page.)

Figure F33 (continued). C. 46–70 Ma.

Figure F34. Radiolarian biozones and biohorizons defining biozone boundaries, Expedition 362. T = top, B = base. A. 0–23 Ma. (Continued on next page.)

Figure F34 (continued). B. 23–46 Ma. C. 46–70 Ma.

Figure F35. A. IODP coordinate systems for paleomagnetic samples (after Richter et al., 2007). B. Natsuhara-Giken sampling cubes (7 cm^3 volume) with sample coordinate system used during Expedition 362. Hatched arrow is parallel to the up arrow on the sample cube and points in the –*z*-direction. C. SRM coordinate system.

Figure F36. Positioning of discrete samples in the automatic holder of the JR-6A spinner magnetometer.

Figure F37. Relationship between IODP coordinate system, MTF of the orientation tool, and core liner.

Figure F38. APC assembly used for orientation tool testing, where the working-half double lines were aligned with a pointer that was pointing to the ship's heading.

Figure F39. A–C. Examples of good waveforms acquired in Section 362-U1480F-5H-2. Black arrows indicate locations that were picked manually as the *P*-wave arrival on each waveform.

Figure F40. Tools deployed to measure formation temperature and pore pressure during Expedition 362. A. APCT-3. B. T2P deployed with the MDHDS.

Figure F41. Wireline tool strings used during Expedition 362. A. Hole U1480G. B. Hole U1481A. See Table **T13** for tool acronyms.