Figure F1. IODP recovery and naming conventions used during Expedition 364. * = cores are not representative of the numbered core but only illustrate the naming conventions described.

Figure F2. IODP depth scales used during Expedition 364. DSF = drilling depth below seafloor, mbsf = meters below seafloor (curated core depth), WSF = wireline log depth below seafloor, CCSF-A = core composite depth below seafloor (reference depth for CT data).

Figure F3. Drill site location map. Site bathymetry modified from Goff et al., (2016). Regional bathymetry from Amante et al., (2009).

Figure F4. *L/B Myrtle* on site at Site M0077. The drilling rig is visible, cantilevered off the bow. (Image courtesy of L. Perez-Cruz.)

Figure F5. Layout of containerized laboratories on the *L/B Myrtle*. (Image courtesy of D. Smith.)

Figure F6. Drilling rig. (Image courtesy of D. Smith.)

Figure F7. Final configuration, Hole M0077A.

Figure F8. Layout of the *L/B Myrtle* working deck and offshore core flow. Cores arrived (1) on deck and were transferred to (2) the core bench for initial core curation. Final curation occurred in (3) the curation container, where samples for IODP standard measurements and postexpedition research were taken. After curation, cores were transferred to (4) the petrophysics container for MSCL and NGR measurements. Later, cores were stored in (5) the reefer.

Figure F9. Onshore core flow and IODP standard measurements undertaken during the Expedition 364 OSP. CT scanning was conducted prior to arrival at the BCR.

Figure F10. Expedition 364 core scanning at Weatherford Laboratories.

Figure F11. Unprocessed high- and low-energy CT images of the hundredth slice from the interval between 697.09 and 698.09 m CCSF-A. CT number values are in Hounsfield units.

Figure F12. Explanation of the orientation of core CT images and the cylinder unwrap from the CT volumes.

Figure F13. Virtual Core visualization software. Left to right: Mini-Map (navigation tool), CT density, sonic well log and MSCL density, CT XZ slice, CT unwrapped, acoustic borehole image, and CT cleaned histogram.

Figure F14. XZ slice images of ρ_b and Z_{eff} for CT depth range 697.09–698.09 m CCSF-A. These values are not yet calibrated for Expedition 364 cores; calibration will be completed as part of the postexpedition research.

Figure F15. Legend for offshore visual core description, Expedition 364.

Figure F16. Sample onshore sedimentary rock visual core description (VCD) sheet, Expedition 364. From left to right, the sheet has a line-scan image of the core with a scale in centimeters and columns for unit numbers as defined by the VCD team, lithology, veins and alteration, structures, burrows, ichnofabric index (Droser and Bottjer, 1991), fossils, core disturbance, and general description.

Figure F17. Patterns for lithologies and symbols for sedimentary structures, burrows, fossils, postdepositional alteration products, and core disturbance, Expedition 364.

Figure F18. Carbonate rock classification (adapted from Dunham [1962] as modified by Embry and Klovan [1972]).

Figure F19. Examples of sorting in suevite in the Upper Peak Ring (Unit 2), Site M0077. A. 40R-2. B. 41R-1. C. 57R-3. D. 65R-1.

Figure F20. Examples of clast shapes in suevite in the Upper Peak Ring (Unit 2), Site M0077. A. 73R-2. B–E. 71R-1.

Figure F21. Grain and matrix-supported suevite in the Upper Peak Ring (Unit 2), Site M0077. A. 82R-1. B. 71R-1.

Figure F22. Alteration and structural modification, Site M0077. A. White veins cutting across a shear fault in granitoid. B. White vein in felsite with an altered mafic xenolith. C. Vug along vein partially filled with quartz (inset = magnified view). D. Vein of cataclastic material, possibly with melt rock. E. Vein of cataclastic material. F. Fault plane cutting through the sawn surface of a half core. G. Fault surface with striations through a half core. H. Shatter cone in felsite. G and F are perspective photos; scale can be determined from core diameter (86 mm).

Figure F23. Shock features in basement rocks (granite Sample 364-M0077A-125R-3, 61–63 cm; cross-polarized light). A. Multiple sets of planar deformation features in quartz. B. Kinked biotite.

Figure F24. Combined planktic foraminifer and calcareous nannoplankton biozones and magnetic polarity reversals for the middle Eocene (Ypresian) to basal Paleocene (Danian). *P. eugubina* = *Parvularugoglobigerina eugubina*. Modified from TSCreator 7.0 (**http://www.tscreator.org**).

Figure F25. A. Orientation of the paleomagnetic plug with respect to the Expedition 364 drill core with orthogonal coordinate axes defined. B. Orientation of the paleomagnetic plug on the sample handler of the magnetometer at MARUM relative to the magnetometer internal coordinate system.

Figure F26. Logging summary, Hole M0077A.

Figure F27. Stand-alone slimline logging tools used during Expedition 364.

Figure F28. Stackable slimline logging tools used during Expedition 364. Modified from **http://www.alt.lu**.

Figure F29. Slimline tool strings used during Expedition 364.

Figure F30. Depth setup during downhole logging operations, Expedition 364.

Figure F31. VSP operations during Expedition 364. A. The five SlimWave sondes with locking arms extended during predeployment test. The red bar on the right side of the image is a weight (not used for Expedition 364). B. Geovista winch and controller box. C. Sercel Mini GI air gun deployed from crane. D. Main (right) and backup (left) compressors and air tank reservoir on deck of the *L/B Myrtle*. E. Sercel surface panels during a VSP deployment. F. Two recording laptops operated with Sercel surface panels to right.

Figure F32. VSP system configuration during field deployment, Expedition 364.

Figure F33. Core data (mbsf) and wireline downhole logging data (WSF) that show vertical offsets between the two data sets, Site M0077.