

Figure F1. IODP convention for naming sites, holes, cores, sections, and samples, Expedition 397. 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 397 (Graber et al., 2002).

Figure F3. XCB system used during Expedition 397 (Graber et al., 2002).

Figure F4. Overall flow of cores, sections, analyses, and sampling implemented during Expedition 397. WRMSL = Whole-Round Multisensor Logger, NGR = natural gamma radiation, SHMG = Section Half Measurement Gantry, ICP-AES = inductively coupled plasma-atomic emission spectroscopy, IC = ion chromatography, SP = spectrophotometry, TC = total carbon, TOC = total organic carbon, TN = total nitrogen, TS = total sulfur, CaCO₃ = calcium carbonate, XRD = X-ray diffraction, ICP = inductively coupled plasma spectroscopy. * = Expedition 397 sections and samples were shipped to the IODP Bremen Core Repository in Bremen, Germany, for the sample party and permanent storage.

Figure F5. Example VCD, Expedition 397.

Figure F6. VCD legend, Expedition 397.

Figure F7. Correlation of GPTS (Lourens et al., 2004), biostratigraphic zonation, and biohorizons used during Expedition 397. [1] Wade et al., 2011; [2] Wei, 1994; [3] BouDagher-Fadel et al., 2015; [4] Spezzaferri et al., 2018; [5] Lourens et al., 2004; [6] Wade et al., 2018; [7] Kennett and Srinivasan, 1983; [8] Chaisson and Pearson, 1997; [9] Balestra et al., 2015; [10] Gradstein et al., 2020; [11] Raffi et al., 2006. Magnetic polarity: n = normal, r = reversed. s = sinistral, d = dextral.

Figure F8. Section-half SRM noise level tested through repeated measurements of the continuous sample tray as a section-half section sample, Expedition 397.

A. Drift- and background-corrected magnetic moment along the X-, Y-, and Z-axes. B. Total intensity.

Figure F9. Discrete cube SRM noise level tested through repeated measurements of the discrete sample tray with seven empty cubes, Expedition 397. A. Drift- and background-corrected magnetic moment along the X-, Y-, and Z-axes. B. Total intensity.

Figure F10. SRM sensor response function estimated through repeated measurements of the JR-6A calibration sample, Expedition 397. A. Experiment set-up (viewing toward SRM). B. Top of a 3-D printed holder for accurate positioning of the JR-6A calibration sample. C. Estimated SRM sensor response function. Gray dots = original measurement data, colored curves = mean values.

Figure F11. SRM and JR-6A spinner magnetometer sample measurement coordinates, Expedition 397. Orientation of (A) archive half and (B) cube sample from working half are shown. C. SRM coordinates for archive-half and working-half samples. D. Orientation of cube samples in the JR-6A spinner magnetometer sample holder relative to the JR-6A measurement coordinates.

Figure F12. GPTS used during Expedition 397. Age estimates from Ogg (2020).

Figure F13. Catwalk geochemistry sampling. EOH = end of hole.

Figure F14. Downhole logging string schematics. LEH-QT = logging equipment head-Q tension, EDTC = Enhanced Digital Telemetry Cartridge, HNGS = Hostile Environment Natural Gamma Ray Sonde, HLDS = Hostile Environment Litho-Density Sonde, HRLA = High-Resolution Laterolog Array, MSS = Magnetic Susceptibility Sonde.