

Figure F1. Site map. Red = Site U1600, yellow = other sites. Inset = location map. See Figure F1 in the Site U1589 chapter (Druitt et al., 2024a) for the swath data on which this map is based. KVC = Kolumbo volcanic chain.

Figure F2. Profile across the Anhydros Horst along Seismic Line HH06-17. Insets: location of Site U1600 and Holes U1600A–U1600C. Depths in meters. TWT = two-way travelttime.

Figure F3. Lithostratigraphy, Site U1600. Unit color = dominant lithology.

Figure F4. Relative percentages of volcanic, tuffaceous, and nonvolcanic lithologies, Site U1600. Unit I is volcanic and tuffaceous, and Units II and III are nonvolcanic dominated.

Figure F5. Grain size distributions of volcanic, tuffaceous, and nonvolcanic sediments. Length of colored bars = relative grain size (ash = <2 mm; lapilli = 2–64 mm; mud = <63 μ m; sand = 0.063–2 mm), with separate scales shown for volcanic grain size (top) and nonvolcanic grain size (bottom; used for tuffaceous and nonvolcanic sediments). Mixed lithologies such as lapilli-ash (dark pink) that have relative grain sizes between two categories are plotted between ticks.

Figure F6. Core disturbances, Site U1600. A. Uparching. B. Fall-in. C. Mixed sediments. D. Sediment flowage. E. Midcore flow-in. F. Cracks. G. Brecciation. H. Bisecting.

Figure F7. Common lithologies from Unit I, Site U1600. A. Lapilli-ash with underlying calcareous tuffaceous mud. B. Tuffaceous gravel with shells with underlying organic-rich calcareous mud. C. Lapilli-ash. D. Bioclastic tuffaceous sand with lapilli. E. Calcareous tuffaceous sand with shells. F. Mica and amphibole-rich lapilli.

Figure F8. Common lithologies, Holes U1600A and U1600B. A. Ash (Subunit Ia); note the biotite, bottom center. B. Calcareous tuffaceous mud with organic material (Subunit Ia). C. Calcareous tuffaceous sand with shells (Subunit Ic). D. Calcareous tuffaceous sand with shells (Subunit Ic).

Figure F9. Representative lithologies from Units II and III, Hole U1600C. A. Organic-rich calcareous mud with shells. B. Thinly laminated organic-rich calcareous mud. C, D. Serpentinized peridotite.

Figure F10. Close-up image of a brachiopod from Subunit Ie, Site U1600.

Figure F11. Ultramafic rocks from Unit III, Hole U1600C (cross-polarized light [XPL]). A–C. Dark gray serpentinized peridotite: (A) entire sample; (B) orthopyroxene porphyroblast; and (C) close-up of quartz vein with calcite, serpentine minerals, talc, and opaques. D–F. Grayish green heavily serpentinized peridotite (serpentinite): (D) entire sample, (E) heavily serpentinized peridotite with olivine completely replaced by serpentine minerals, and (F) serpentinite and carbonate parts of the sample with a quartz vein at the contact.

Figure F12. Correlations between Holes U1600A and U1600B. A. Gray ash layer near the top of both holes (~0.17 mbsf). B. Lithic lapilli overlying calcareous tuffaceous mud (Hole U1600A: 9.27 mbsf; Hole U1600B: 8.79 mbsf). C. Double ash layer (Hole U1600A: 26.11 mbsf; Hole U1600B: 25.19 mbsf). D. Rarely observed organic-rich tuffaceous ooze (Hole U1600A: 59.47 mbsf; Hole U1600B: 63.86 mbsf).

Figure F13. XRD spectra of representative lithologies, Site U1600. A. Organic-rich tuffaceous ooze (Subunit Ia). B. Bioclastic tuffaceous sand with organic material (Subunit Ia). C. Calcareous tuffaceous sand with shells (Subunit Ic). D. Calcareous sand with shells (Subunit Ie). E. Organic-rich dolomitic mud (Unit II). F. Calcareous sand with shells (Unit II). Cc = calcium carbonate (calcite, aragonite), Qtz = quartz, Pl = Ca-rich or Na-rich plagioclase, Cpx = clinopyroxene, Px = pyroxene, Il = illite, Dol = dolomite, Hal = halite, Gl = glauconite, Mu = muscovite, Pyr = pyrite.

Figure F14. WRMSL-derived MS data, Holes U1600A–U1600C. MS data are on the CCSF-A depth scale, and the splice (right) is on the CCSF-D scale.

Figure F15. Splice, Site U1600. cps = counts per second.

Figure F16. CCSF-A versus CSF-A core top depths, Holes U1600A–U1600C. Lines fit through the core top depths of all holes give an estimate of the core expansion. At Site U1600, this is estimated to be 2%.

Figure F17. Dip data, Site U1600. Lithostratigraphic subunits are described in Lithostratigraphy.

Figure F18. Box plots of bedding dip distribution, Site U1600. The minimum (P5), first quartile (P25), and median value (P50), third quartile (P75), and maximum (P95) are shown. Only the first outlier smaller than P5 and larger than P95 is plotted as a dot. Md = median dip. N = number of samples. P = percentile. Lithostratigraphic subunits are described in Lithostratigraphy.

Figure F19. A, B. Mineral veins and breccia (A: 398-U1600C-13R-1, 61–73 cm; B: 13R-1, 78–88 cm). Quartz-crystal growth was identified in the hollow. Talc coatings along the brecciated surfaces and in situ brecciation of these coatings were identified.

Figure F20. Age-depth plot, Hole U1600A. Integrated biochronology and magnetostratigraphy are shown. CN = calcareous nannofossil. PF = planktonic foraminifer. Biohorizons correspond with those in Tables T5 and T6. Biohorizons denoted with a question mark are not fully constrained and are interpolated.

Figure F21. Calcareous nannofossils. 1. *Emiliania huxleyi* (Lohmann) Hay and Mohler (398-U1600A-2H-CC, 30–31 cm). 2. *Reticulofenestra asanoi* Sato and Takayama (398-U1600B-11F-CC, 13–15 cm). 3. *Gephyrocapsa* spp. large form (>5.5 μ m) (13F-CC, 12–14 cm). 4. *Calcidiscus macintyre* (Bukry and Bramlette) Loeblich and Tappan (19F-CC, 16–18 cm). 5. *Discoaster brouweri* Tan Sin Hok (398-U1600C-6R-CC, 13–18 cm). 6. *Discoaster tamalis* Kamptner (11R-CC, 0–5 cm).

Figure F22. Foraminiferal oceanicity and paleowater depth estimates, Site U1600. Blue colors show relationship between oceanicity index and paleowater depth. Observers: AW = Adam Woodhouse, OK = Olga Koukousioura.

Figure F23. Biostratigraphic summary, Site U1600. CN = calcareous nannofossil, PF = planktonic foraminifer. Interpreted oceanicity: solid line/red points = interpreted oceanicity of Hayward et al. (1999), dashed line = extrapolation through barren/unreliable sample data. Interpreted paleowater depths: light blue points/shading = shallower paleowater depth interpretation, dark blue points/shading = deeper paleowater depth interpretation.

Figure F24. Planktonic foraminifera. A. *Globorotalia bononiensis* (398-U1600C-6R-CC, 13–18 cm). B. *Neogloboquadrina atlantica* (sinistral) (9R-CC, 11–14 cm). C. *Sphaeroidinellopsis seminulina* (398-U1600A-11R-CC, 0–5 cm). D. *Globoturbotalita apertura* (398-U1600C-7R-CC, 13–18 cm). E. *Globigerinoides extremus* (6R-CC, 13–18 cm). F. *Globigerinoides obliquus* (13–18 cm).

Figure F25. Archive-half section magnetic inclinations, Site U1600. Red dashed lines = geocentric axial dipole inclinations expected at this site. Solid/open circles = normal/reversed polarity of discrete samples, dark blue/white = normal/reversed polarity magnetozones, gray shading = no available paleomagnetic data. GPTS = geomagnetic polarity timescale.

Figure F26. AF demagnetization of discrete samples and archive-half sections, Site U1600. Solid circles = projection onto horizontal plane, open circles = projection onto vertical plane. NRM = natural remanent magnetization.

Figure F27. Physical properties, Site U1600. Dots = whole-round measurements, open symbols = discrete measurements. cps = counts per second.

Figure F28. Discrete physical properties measurements, Site U1600. Shear strength: dashed/solid lines = AVS and PP measurement limits, respectively. Thermal conductivity: solid line = linear fit over the depth range of included data, dashed line = greater depths. P-wave velocity and MS are plotted on logarithmic scales.

Figure F29. ICP-AES analyses of selected volcanoclastic units used to discriminate between potential volcanic sources, Hole U1600A. A. Total alkali vs. SiO_2 plot with the rock nomenclature of Le Maitre et al. (2002) overlain used for sample naming. Ol = olivine. B. Ba/Y vs. Ba/Zr plot used to correlate samples.

Figure F30. IW salinity, alkalinity, and pH, Site U1600. Lithostratigraphic Units I and II are described in Lithostratigraphy.

Figure F31. IC and ICP-AES concentrations of Br, Cl, B, Na, K, Mg, Ca, and SO_4^{2-} in IW samples, Site U1600. Lithostratigraphic Units I and II are described in Lithostratigraphy.

Figure F32. ICP-AES concentrations of Li, Sr, Mn, Ba, and Si in IW samples, Site U1600. Lithostratigraphic Units I and II are described in Lithostratigraphy.

Figure F33. TOC and carbonate, Site U1600. Lithostratigraphic Units I and II are described in Lithostratigraphy. Sapropel units follow Kidd et al. (1978).