

Figure F1. Site map. Red = Site U1595, yellow = other sites. Inset: location map. See Figure F1 in the Site U1589 chapter (Druitt et al., 2024a) for citations for the swath data on which this map is based. KVC = Kolumbo volcanic chain.

Figure F2. Top: seismic profile across the Santorini caldera with Seismic Units S1–S4, Sites U1594–U1597. Depths in meters. TWT = two-way traveltime. Bottom left: profile of Sites U1594 and U1595. Right: locations of the four intracaldera sites. Red = Site U1595, yellow = other sites.

Figure F3. Lithostratigraphic summary, Site U1595. Unit color = dominant lithology.

Figure F4. Relative percentages of volcanic, tuffaceous, and nonvolcanic lithologies, Site U1595. Unit I is volcanic dominated.

Figure F5. Grain size distribution of volcanic, tuffaceous, and nonvolcanic sediments, Site U1595. Length of colored bars = relative grain size (ash = <2 mm, lapilli = 2–64 mm, mud = <63 μm , 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 U1595. A. Fall-in. B. Uparching. C. Mixed sediment. D. Soupy. E. Sediment flowage.

Figure F7. Common lithologies, Holes U1595A and U1595B. A. Ash interval. B. Lapilli-ash with subangular gray pumice. C. Intercalated thin ash layers with tuffaceous mud. D. Lapilli-ash. E. Lithic lapilli.

Figure F8. Common lithologies, Hole U1595A. Subunit 1c: (A) tuffaceous mud and (B) ash with crystals. Subunit 1d: (C) tuffaceous mud with organic material and (D) ash.

Figure F9. Correlation between lithologies, Holes U1595A–U1595C. Intervals of colorful tuffaceous mud are closely intercalated with (A) extensive grayish brown pumice, (B) ash, and (C) lithic lapilli.

Figure F10. Selected XRD spectra of Subunit 1a–1c lithologies, Site U1595. Volcanic ash in (A) Subunit 1a and (B) Subunit 1b, characterized by an amorphous hump at low 2θ and the presence of Ca-rich plagioclase and clay minerals of the illite group. (C) Tuffaceous mud and (D) volcanic ash in Subunit 1c. Tuffaceous mud shows many similarities to the ash sample, with an amorphous hump at low 2θ and the presence of Ca-rich plagioclase. In addition, a small amount of a silica phase (quartz) was identified. Il = illite, Pl = Ca-rich plagioclase, Qtz = quartz, Hal = halite.

Figure F11. WRMSL-derived MS data, Holes U1595A–U1595C. Note that MS data are on the CCSF-A depth scale and the spliced section (right) is on the CCSF, Method D (CCSF-D), scale.

Figure F12. Splice, Site U1595. cps = counts per second.

Figure F13. CCSF-A versus CSF-A core top depths, Holes U1595A–U1595C. Lines fit through the core top depths of all holes give an estimate of the core expansion. At Site U1595, this is estimated to be 1%.

Figure F14. Dip data, Site U1595.

Figure F15. Benthic foraminifer *Bulimina aculeata* (398-U1595A-2H-CC, 17–19 cm).

Figure F16. Planktonic foraminifer *Globoturbotalita rubescens* (398-U1595C-1H-CC, 14–18 cm).

Figure F17. Calcareous nannofossils *Emiliania huxleyi* (Lohmann) Hay and Mohler (398-U1595B-1H-CC, 8–13 cm).

Figure F18. Left: Alternating field demagnetization of archive-half sections, Hole U1595A. Solid circles = projection onto horizontal plane, open circles = projection onto vertical plane. NRM = natural remanent magnetization. Right: archive-half section magnetic inclinations, Hole U1595A. Open symbols = principal component analysis inclinations from 15–25 mT demagnetization, solid symbols = Fisher mean inclinations from 15–25 mT demagnetization, crosses = inclinations after 25 mT demagnetization. Red dashed line = geocentric axial dipole inclinations expected at this site.

Figure F19. Physical properties, Site U1595. Dots = whole-round measurements of bulk density, P -wave velocity, MS, and NGR. Open symbols = discrete sample MAD bulk density and x -direction P -wave velocity. cps = counts per second.

Figure F20. Discrete measurements, Site U1595. Dashed line = AVS measurement limit, solid lines = PP measurement limits.

Figure F21. ICP-AES analyses of selected volcanoclastic units used to discriminate between potential volcanic sources, Site U1595. 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 F22. IW salinity, alkalinity, and pH values, Site U1595. Lithostratigraphic Unit I is described in Lithostratigraphy.

Figure F23. IC and ICP-AES concentrations of Br, Cl, B, Na, K, Mg, Ca, and SO_4^{2-} in IW samples, Site U1595. Lithostratigraphic Unit I is described in Lithostratigraphy.

Figure F24. ICP-AES concentrations of Li, Fe, Mn, Ba, Si, and Sr in IW samples, Site U1595. Lithostratigraphic Unit I is described in Lithostratigraphy.

Figure F25. TOC and carbonate, Site U1595. Lithostratigraphic Unit I is described in Lithostratigraphy. Sapropel conventions follow Kidd et al. (1978).