Figure F1. Location of Hole U1558A (30°53.7728′S, 24°50.4970′W) in the central South Atlantic Ocean, west of the Mid-Atlantic Ridge. The base map was generated in MATLAB R2025b using the 0 m contour from the built-in topo.mat global topography dataset (NOAA).

Figure F2. Core recovery, core images, lithology, paleomagnetic (Pmag) interpretation, planktonic foraminiferal biozones (this study), color reflectance parameters (L*, a*, and b*), magnetic susceptibility (MS), and positions of samples examined in this study (390C-U1558A-13X and 14X). Shipboard data are from Teagle et al. (2024). Red arrow = highest (last) occurrence of *Globigerinatheka index* identified in this study. Pmag polarity: black = normal, white = reversed, gray = undetermined polarity, crossed boxes = intervals of no core recovery.

Plate P1. *Globigerinatheka index* from late Eocene Zone E15 (390C-U1558A-14X-2, 22–24 cm). A–F show the same specimen, and G–L show the same specimen. Shown are z-stacked images (A–C and G–I) and corresponding SEM images (D–F and J–L), with each triplet showing umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.

Plate P2. *Globigerinatheka index* from late Eocene Zone E15. A–F. 390C-U1558A-14X-2, 67–69 cm (same specimen). G–L. 390C-U1558A-14X-3, 75–77 cm (same specimen). Shown are z-stacked images (A–C and G–I) and corresponding SEM images (D–F and J–L), with each triplet showing umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.

Plate P3. *Globigerinatheka index* from late Eocene Zone E15. A–F. 390C-U1558A-14X-4, 8–10 cm (same specimen). G–L. 390C-U1558A-14X-4, 105–107 cm (same specimen). Shown are z-stacked images (A–C and G–I) and corresponding SEM images (D–F and J–L), with each triplet showing umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.

Plate P4. A–E. *Globigerinatheka index* (390C-U1558A-14X-5, 53–55 cm; same specimen) and F–I. *Globigerinatheka* cf. *index* (390C-U1558A-14X-5, 3–5 cm; same specimen) from late Eocene Zone E15. A–C. Z-stacked images show (A) the umbilical view, (B) the edge view, and (C) the spiral view. D, E. SEM images show (D) the umbilical view and (E) the spiral view. F–H. Z-stacked images show (F) the umbilical view, (G) the edge view, and (H) the spiral view. I. SEM image shows the umbilical view. Scale bars = 100 µm.

Plate P5. A–E. *Globigerinatheka* cf. *index* from late Eocene Zone E15 (390C-U1558A-14X-5, 53–55 cm; same specimen). A, B. Z-stacked images show (A) the umbilical view and (B) the edge view. C–E. SEM images show (C) the umbilical view, (D) the edge view, and (E) the spiral view. F–K. *Globigerinatheka korotkovi* from late Eocene Zone E15 (390C-U1558A-14X-3, 13–15 cm; same specimen). Shown are z-stacked images (F–H) and corresponding SEM images (I–K), with each triplet showing umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.

Plate P6. *Globigerinatheka luterbacheri* from late Eocene Zone E15. A–F. 390C-U1558A-14X-2, 118–120 cm (same specimen). G–L. 390C-U1558A-14X-3, 107–109 cm (same specimen). Shown are z-stacked images (A–C and G–I) and corresponding SEM images (D–F and J–L), with each triplet showing umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.

Plate P7. *Globigerinatheka subconglobata* from late Eocene Zone E15. A–D. 390C-U1558A-14X-2, 22–24 cm (same specimen). E–J. 390C-U1558A-14X-2, 67–69 cm (same specimen). Z-stacked images (A, B) and corresponding SEM images (C, D) show umbilical and edge views, respectively. Z-stacked images (E–G) and corresponding SEM images (H–J) show umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.

Plate P8. *Globigerinatheka subconglobata* from late Eocene Zone E15. A–F. 390C-U1558A-14X-2, 118–120 cm (same specimen). G–K. 390C-U1558A-14X-3, 107–109 cm (same specimen). Shown are z-stacked images (A–C) and corresponding SEM images (D–F), with each triplet showing umbilical, edge, and spiral views, respectively. Z-stacked images show (G) the umbilical view, (H) the edge view, and (I) the spiral view. SEM images show (J) the umbilical view and (K) the edge view. Scale bars = 100 µm.

Plate P9. *Globigerinatheka tropicalis* from late Eocene Zone E15. A–F. 390C-U1558A-14X-2, 22–24 cm (same specimen). G–L. 390C-U1558A-14X-2, 67–69 cm (same specimen). Shown are z-stacked images (A–C and G–I) and corresponding SEM images (D–F and J–L), with each triplet showing umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.

Plate P10. *Globigerinatheka tropicalis* from late Eocene Zone E15. A–F. 390C-U1558A-14X-4, 105–107 cm (same specimen). G–L. 390C-U1558A-14X-CC, 10–12 cm (same specimen). Shown are z-stacked images (A–C and G–I) and corresponding SEM images (D–F and J–L), with each triplet showing umbilical, edge, and spiral views, respectively. Scale bars = 100 µm.