MID-ATLANTIC SEA-LEVEL TRANSECT - ODP Leg 174A

PART A - Profiles and Electric Logs

Drilled intervals (white columns) and gamma-ray log measurements (red lines) at COST-B2 and ODP Sites 1071, 1072, and 1073, located along Oc270 seismic Lines 885 (left) and 32 (right). Sequence boundaries pp3(s), pp4(s), m0.5(s), and m1(s) are traced in yellow on dip Line 885; flooding surface pp5(s) is green. Preliminary ties to sequence boundaries pp1(s), pp3(s), pp4(s), and m5.6(s) are likewise traced on Line 32; the remaining surfaces on Line 32, defined as stratigraphic breaks based on local seismic character, are traced in green. Scale bars in lower right of each profile are 1 km in length. Drill site locations are shown on the accompanying map. All gamma-ray log data have been converted to two-way traveltime using Hole 1072B checkshot data merged with sonic log measurements. The COST-B2 logs were acquired with wireline tools through casing to 207 mbsf (~355 ms); no log data were collected at ODP Site 1071, Holes A through E, which were roughly 950 m northeast of COST-B2. Line 885 passes through Hole 1071A. Maximum TD of 256.9 mbsf at this site was in Hole C. Logging-while-drilling (LWD) data were acquired to 88 mbsf at Hole 1071G, 900 m downdip from COST-B2 / 1071A-E and projected 600 m southwest onto Line 885. TD in this hole was 424.2 mbsf. LWD data were acquired to 366 mbsf at Hole 1072D, 150 m northeast of Line 885 and 3.5 km southeast of Hole 1071A. The maximum TD of 358.6 mbsf at Site 1072 was in Hole B. Site 1073 was drilled to 663.6 mbsf on the continental slope; wireline spectral gamma-ray log data were acquired to 652 mbsf.

PART B - Lithostratigraphy and Electric Logs

Each column is a composite of the lithostratigraphy obtained at each site. Where multiple holes at the same site were combined, the respective hole and core numbers are indicated. The colors and patterns representing the different lithologies are shown in the legend. Where partial core recovery was obtained, the core is placed at the top of the drilled interval by standard ODP convention. Where cores were longer than the drilled interval (core expansion or depth errors), the core section was scaled to fit the drilled interval. No attempts were made at this stage to shift the core depths to match the electric logs or adjacent holes. The electric logs at Site 1071 represent a composite section, with LWD logs from Hole 1071G at the top and COST-B2 wireline logs for the lower section. Interpreted locations of sequence boundaries are shown on lithostratigraphic and log columns. For additional details on the location of interpreted surfaces, the reader is referred to the “Summary and Conclusions” section for each site chapter.

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