

Figure F1. Site map, Expedition 386. Bathymetric overview map of the Japan Trench (modified after Kioka et al., 2019) between the Daiichi Seamount in the south and the Erimo Seamount in the north.

Figure F2. Site M0086. Left: high-resolution bathymetric map with 5 m contours, site locations, and track lines and locations of previously acquired high-resolution subbottom profiles and short cores during the site survey cruise (Strasser et al., 2019). Right: site survey subbottom profiles showing depths (assuming 1500 m/s *P*-wave velocities) of the 20 and 40 m GPC barrels used to recover cores. Exact hole positions and depths are given in Table T1, Hydro-acoustics, and Table T1 in the Expedition 386 methods chapter (Strasser et al., 2023a). SP = shotpoint.

Figure F3. Bathymetry and grid of subbottom profile lines acquired around Site M0086 in Basin N1. Contour interval = 5 m.

Figure F4. Line 386_Underway_047, showing the acoustic character of Basin N1. SP = shotpoint.

Figure F5. Lithostratigraphic summaries, Holes M0086A and M0086B. XCT = X-ray CT, MS = magnetic susceptibility, cps = counts per second.

Figure F6. Ternary diagrams of major components, Site M0086.

Figure F7. Smear slide summaries, Holes M0086A and M0086B. The most abundant lithogenics (clay, quartz, feldspar, and pyrite) are in a brown color gradient, the volcanoclastics/vitrics are pink, and the biogenics are in a blue gradient for the siliceous biogenics (diatoms, sponge spicules, and radiolaria) and are green for the calcareous microfossils. See legend in Figure F14 in the Expedition 386 methods chapter (Strasser et al., 2023a). XCT = X-ray CT.

Figure F8. Lithologic components, Site M0086.

Figure F9. XRD mineralogy, Hole M0086B.

Figure F10. IW salinity, total alkalinity, and ammonium (NH_4^+) concentrations, Site M0086.

Figure F11. IW V, Mo, and U concentrations, Site M0086.

Figure F12. IW Li, B, Si, Mn, Fe, Sr, and Ba concentrations, Site M0086.

Figure F13. IW Cl^- , Br^- , and SO_4^{2-} concentrations, Site M0086.

Figure F14. Methane (C_1), ethane (C_2), and C_1/C_2 ratios, Site M0086.

Figure F15. Solid-phase XRF contents of Al, Ca, Fe, Mn, and Si, Site M0086. Open symbols = trigger core samples.

Figure F16. Solid-phase contents of TC, TOC, TIC, and TS, Site M0086.

Figure F17. Physical properties summary, Holes M0086A and M0086B. Bulk density: black and orange curves = MSCL, red dots = MAD. *P*-wave velocity: black and orange curves = MSCL, blue dots = laboratory-derived data with error bars of ± 50 m/s. Orange = trigger core (Hole M0086A), black = GPC core (Hole M0086B). MS = magnetic susceptibility, cps = counts per second.

Figure F18. Undrained shear strength from fall cone and AVS, Site M0086.

Figure F19. MAD data, Holes M0086A (orange) and M0086B (gray).

Figure F20. Color data, Holes M0086A and M0086B. Orange = trigger core.

Figure F21. Intensity, inclination, and declination, Hole M0086A.

Figure F22. Intensity, declination, corrected declination, and inclination, Hole M0086B.