

IODP Expedition 346: Asian Monsoon

Week 9 Report (22–27 September 2013)

Operations

Due to excellent success throughout the expedition with high core recovery, stratigraphic correlation, and operations, and enjoying the benefit of highly advantageous weather, we had the unusual opportunity to return to several of the previously occupied Expedition 346 sites for additional coring. After extensive discussions with the shipboard science party, technical support staff, and the operations superintendent, it was deemed most appropriate to return to Sites U1427 and U1425. The order in which we returned to the two sites was dictated by scientific priority, the most efficient use of transit times, and consideration of end-of-expedition requirements. The science party and Sample Allocation Committee anticipated that there will be many sample requests for those two sites, and that additional coring there would be highly beneficial.

The 182 nmi transit from Site U1430 to Site U1427 took 17.2 h at an average speed of 10.6 kt. By 0900 h the vessel was stabilized and rig floor operations began. Hole U1427C was started at 1200 h on 22 September. The first core barrel recovered 8.05 m of core establishing a sea floor depth of 337.5 m DRF. APC coring continued using full-length non-magnetic core barrels through Core U1427C-10H to 93.5 m CFS-A. A single half-length APC core was then taken to adjust the core depths to optimize recovery in the three holes at this site. APC coring then continued using full-length core barrels through Core U1427C-25H to 224.2 m CSF-A. Coring continued from that point using APC half-barrels through Core U1427C-52H to a total depth of 351.1 m CSF-A. Total recovery for Hole U1427C was 367.8 m of core (105%). All cores from Hole U1427C were measured for physical properties and described. No shipboard samples were taken from this hole. Hole U1427C was displaced with weighted mud, and the drill string was pulled clear of the sea floor at 1710 h on 23 September. The sea voyage to the Site U1425 started at 1900 h on 23 September.

The 212 nmi transit to Site U1425 took 19.5 h at an average speed of 10.9 kt. The sea passage ended at 1430 h on 24 September 2013. The ship was positioned 15 m east of Hole U1425A and Hole U1425E was spudded at 1945 h on 24 September. The first core barrel recovered 5.69 m of core establishing a sea floor depth of 1920.2 m DRF. APC coring continued using full-length non-magnetic core barrels through Core U1425E-13H to a total depth of 113.1 m CSF-A. Total recovery for Hole U1425E was 107.75 m (95%). All cores from Hole U1425E were measured for physical properties and described. No shipboard samples were taken from this hole. The drill string was pulled out of the hole, the rig floor was secured for transit, and the transit to Busan, Korea started at 1012 h on 25 September.

The transit to Busan was completed without incident and the vessel arrived at the pilot station at 0600 h on 27 September. The Asian Monsoon Expedition 346 officially ended with the first line ashore at 0651 h on 27 September.

It seems fitting that on this research voyage—the last of this phase of the Integrated Ocean Drilling Program (IODP)—that Expedition 346 set the record for the most amount of core recovered during any single research cruise by the IODP. That the recovery of 6,135 m of sediment occurred during only ~6 weeks of drilling operations makes this accomplishment even

more remarkable. In combination with the record achieved of acquiring the deepest piston core (and deepest continually piston cored sequence, at Site U1427), these achievements speak of the commitment to excellence, teamwork, and, to be direct, impressively hard work, of men and women dedicated to applying ocean drilling to the pursuit of scientific knowledge about Planet Earth.