Westbrook, G.K., Carson, B., Musgrave, R.J., et al., 1994
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3. OPERATIONS AT HOLE 857D[1]

Shipboard Scientific Party [2]

HOLE 857D—MIDDLE VALLEY OF JUAN DE FUCA RIDGE

Hole 857D was drilled on Leg 139, and an instrumented borehole seal (CORK) was installed during that leg to provide a long-term monitor of temperature and pressure conditions in this hole. The total depth in Hole 857D had been deeper than anticipated; consequently, the prefabricated sensor string installed on Leg 139 was too short to reach the lower part of the hole. Because Hole 857D lies close to the operations area of Leg 146, a return to Hole 857D was scheduled after completing operations at Site 889 for the purpose of replacing the data logger and thermistor string.

Leg 146 operations at Hole 857D began when a beacon was launched at 1915 local time (L) 22 October 1992 (0315 Universal Time Coordinated [UTC] on 23 October). To replace the thermistor string and data logger, it was necessary to remove the CORK from the casing and reentry cone. A running tool was lowered over the CORK; however, rough seas caused excessive weight to be applied to the drill string as the CORK was engaged, and the CORK was severely damaged as a consequence. The upper section of the outer CORK housing was broken off, and an inspection with the television camera showed the CORK mandrel and data logger lying against the side of the submersible/remotely operated vehicle platform opening, suggesting that the mandrel had failed and the seal to the borehole might have been broken.

As scheduled operating time was running out and no special tools were on board to repair the damage, the drill string as well as the upper portion of the CORK within the running tool were recovered. The ship departed Site 857 at 2100 UTC, 23 October 1992.

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[1] Westbrook, G.K., Carson, B., Musgrave, R.J., et al., 1994. *Proc. ODP, Init. Repts.,* 146 (Pt. 1): College Station, TX (Ocean Drilling Program).
[2] Shipboard Scientific Party is as given in the list of participants preceding the contents.