

Daily Coring and Scientific Report for IODP Expedition 389 Hawaiian Drowned Reefs



21th September 00:00 - 24:00 HST Hawaii Standard Time (UTC -10)

1. Location at 24:00

Position 19°50.0593N, 156°05.4701W
Water Depth: approximately 130 m

2. Operations Report

The repaired seafloor corer was deployed on KAW-02Ca in the early hours and coring progressed slowly. Attempts to case and wash bore the borehole were abandoned as the tools could not progress beyond 1.2 mbsf, however coring was possible and therefore continued. Unfortunately at 6.4 mbsf during routine core barrel change, an over-torqued tool joint caused the hole to be abandoned and the corer recovered to deck.



3. Science Report

MSCL logging and lithological descriptions of M98A were completed. Curation of core from M99A is also complete and the core is equilibrating to temperature prior to MSCL logging. Processing of geochronology and aDNA samples by the geochemistry team from M96F and M99A are in process.

4. Core Recovery Details

Hole	M99A
Cores recovered	6
Drilled length (Coring, m)	6.44
Drilled length (Open hole, m)	N/A
Recovered length (m)	4.29
Recovery (%)	66.61
Depth at midnight (mbsf)	N/A

5. Time Breakdown

00:00 – 01:55 (continued) Prepare seabed corer for KAW-02Ca
01:55 – 02:39 Launch and landing of seabed corer
02:39 – 15:00 Coring operations, interrupted due to technical issue on seabed corer
15:00 – 15:15 Seabed corer recovery
15:15 – 17:40 Unload core barrels from M99A and carry out maintenance on seabed corer
17:40 – 17:58 Launch seabed corer to start KAW-02Cb
17:58 – 22:30 Coring operations at M99B. Over-torqued rod joint caused hole to be abandoned.
22:30 – 00:00 Assessing how best to recover corer with a 3 rod string and a casing sub in the ground.

6. Hours – no contractual implications can be made from these figures

In port	0.0
Transiting	0.0
Operating	17.17
Technical downtime	6.83
Weather downtime	0.0
Mobilisation	0.0

7. Weather

Partially cloudy, reasonable visibility. Wind squalls between 21:00 and 23:00. Wave heights of 1.3 – 1.8 m and swell 0.4 – 0.6 m; wind direction northeasterly at 10 – 12 kts, gusting 12 - 25 kts; Temperature 25 - 26°C.

8. Planned Activity for the next 24 hours

- Recover seabed corer.
- Bump over on KAW-02C and resume coring operations.

9. Health and Safety and Environmental

- Toolbox talks at 11:30 and 23:30 for all on shift. EPMs and Ops Manager attended Contractor Toolbox talk at 11.45 and EPMs at 23:50. Information disseminated to remainder of Science Party.

10. Photo(s) of the day



ESO Data Manager Mary Mowat assisting with the coreflow of M99A core from the curation container into the MSCL container. Photo by MarleyParker@ECORD_IODP.