



**Daily Drilling and Scientific Report for IODP Expedition 386
Japan Trench Paleoseismology, 2021**



20th May 00:00 – 24:00 JST Japan Standard Time (UTC+9)

1. Location

Position 37° 24.741' N, 143° 43.741' E
IODP-MSP borehole: M0091
Prospectus borehole: JTPS-07A
Water Depth: 7812 m

3. Operation

MBES/SBP around M0091 continued until 0300 hrs, when the ship stood-by at the GPC deployment point. After setting the inclinometer on the winch cable at 20 m above the GPC weighthead, the 40 m GPC assembly was deployed into the water at 0945 hrs and run down with winch speed at 1.0 m/s. Running the GPC assembly was suspended at 7900 m depth in cable length at 1200 hrs for stabilization, and resumed after holding for 3 minutes with winch speed set to 0.3 m/s. The GPC assembly spudded-in Holes M0091 C and D at 8064 m in cable length at 1212 hrs, and was run back to surface at 1.0 m/s, and recovered to deck at 1515 hrs. The Trigger corer was dismantled and sampled after the GPC was recovered, while the deck crew and GPC operation team began withdrawing and cutting the core into 5 m segments. At 1545 hrs the cutting of the 5 m segments into 1 m sections and sampling from each section bottom began, and were complete by 1900 hrs. Preparing the GPC assembly was suspended at 1900 hrs to sail to Miyako Bay for WOW.

3. Science Report

N/A

4. Core Recovery Details

Hole	C (Trigger corer)	D (GPC main)
Barrel length (m)	1.5	40
Cored length (m)	0.765	31.12
Curated length (m)	0.765	31.12
Recovery (%)	100	100
Number of sections	2	32

5. Time Breakdown

00:00 Continue MBES/SBP survey around Site M0091
#2(S-N): From Lat: 37°20.3856' N, Long: 143°42.4973' E to Lat: 37°28.8877' N, Long: 143°45.3372' E
#3(E-W): From Lat: 37°29.3007' N, Long: 143°47.1182' E to Lat: 37°26.4911' N, Long: 143°42.7909' E
03:00 Stand-by at Site M0091
08:00 Continue monitoring wind and surface current condition
09:00 Prepare 40 m GPC for operation
09:45 Run GPC into water. Set inclinometer on a winch cable at 20 m above the GPC weighthead, and run down with winch speed at 1.0 m/s.
12:00 Hold running GPC for 3 minutes at 7900 m depth in cable length for stabilization. Resume running GPC assembly at 0.3 m/s.
12:12 Spud-in and release from Holes M0091 C and D at 8064 m in cable length (tension before: 5.2 tonf; after: 6.0 tonf; overpull: 10.0 tonf)
12:15 Run GPC assembly back to surface at 1.0 m/s.
14:35 Recover Trigger corer on deck.
15:15 Recover GPC assembly on deck. Dismantle Trigger corer and begin sampling.
Start withdrawing and cutting core into 5 m segments while preparing GPC assembly for the next run.
15:45 Start cutting 5 m segments into 1 m sections and sampling from each section bottom end
18:45 Complete cutting core into 1 m sections. Start curation and IW sampling
19:00 Suspend to make up the GPC assembly. Set sail for Miyako Bay for WOW

6. Hours (inc. cumulative total) – no contractual implications can be made from these figures

In port	35.0
Transiting	128.15
Operating	452.25
Technical downtime	0.0
Weather downtime	286.65
Other downtime (specify)	0.0

7. Weather

Cloudy and warm (~20 degC), becoming overcast in the evening. Steady northwesterly wind (<7 m/s), with 2 m waves from 0900 hr, and surface current flowing ~2 knot to the northeast.

8. Planned Activity for the next 24 hours

WOW at off Miyako.

9. Health and Safety and Environmental

Toolbox talk before the operation

10. Photo of the day



1) No wind, no swell, though ~2.0 knot of surface current (photo by KIkahara@ECORD/IODP/JAMSTEC)



2) Offshore Assistant EPM Takahiro Yokoyama checking the trigger hook condition (photo by LMaeda@ECORD/IODP/JAMSTEC)



3) A member of GPC operation team leading GPC main rope into the assembly (photo by LMaeda@ECORD/IODP/JAMSTEC)



4) IW sampling from the Trigger core (photo by LMaeda@ECORD/IODP/JAMSTEC)



5) Various sample vials for IW... the most complicated hole sampling plan (photo by LMaeda@ECORD/IODP/JAMSTEC)