

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



27th May 00:00 – 24:00 JST Japan Standard Time (UTC+9)

1. Location at noon

Position 39° 4.909' N, 144° 13.000' E IODP-MSP borehole: M0093 Prospectus borehole: JTPC-09A Water Depth: 7454 m

3. Operation

The ship arrived at Site JTPC-09A by 0330 hrs. The 30 m GPC operation began at 0600 hrs due to forecast rough weather in the evening. The GPC assembly was deployed at 0650 hrs and run down with winch speed at 1.0 m/s after setting inclinometer on a winch cable at 20 m above the GPC weighthead. Running was suspended for 3 minutes at 7500 m depth in cable length at 0850 hrs for stabilization and resumed with winch speed at 0.3 m/s. Holes M0093 A and B were spudded-in and released at 7690 m of cable length at 0904 hrs. The GPC assembly was run back to surface at 1.0 m/s and recovered to deck at 1130 hrs. Soon after recovery, the Trigger corer was dismantled, and BW and sediment at the core bottom were sampled, while the deck crew and GPC operation team began withdrawing and cutting core into 5 m sections. The science party started cutting 5 m segments into 1 m sections while sampling from each section bottom end at 1235 hrs. Sectioning and sampling were completed by 1430 hrs, and curation and IW sampling began. Making up the 40 m GPC assembly was completed by 1600 hrs. The ship set sail for the 75 NM northwest point to avoid a passing low pressure system and prepared to WOW.

3. Science Report

N/A

4. Core Recovery Details

Hole	A (Trigger corer)	B (GPC main)
Barrel length (m)	1.5	30
Cored length (m)	0.775	26.135
Curated length (m)	0.775	26.135
Recovery (%)	100	100
Number of sections	2	27

5. Time Breakdown

- 00:00 Sailing to Site JTPC-09A.
- 03:30 Arrive at Site JTPC-09A. Stand-by at the site.
- 06:00 Prepare for running 30 m GPC
- 06:25 Set Trigger corer to GPC assembly
- 06:50 Run GPC assembly into water. Set inclinometer on a winch cable at 20 m above the GPC weighthead. Start running down the GPC assembly with winch speed at 1.0 m/s
- 08:50 Hold running the GPC assembly for 3 minutes at 7500 m depth in cable length for stabilization. Resume running the GPC assembly down at 0.3 m/s.
- 09:04 Spud-in and released from Holes M0093 A and B at 7690 m in cable depth (tension before: 4.4 tonf, 5.2 tonf, overpull 9.2 tonf).
- 09:15 Run GPC back to surface at 1.0 m/s.
- 11:05 Recover Trigger corer to deck
- 11:30 Recover GPC assembly to deck.
 - Dismantle Trigger corer, cut core and collect BW.
 - Start withdrawing and cutting core into 5 m segments.
- 12:35 Start cutting core into 1 m sections while collecting sediment samples from each bottom end
- 14:30 Complete cutting core into 1 m sections.
- 16:00 Complete making up 40 m GPC assembly.
- Move 75 NM southwest for evacuation.
- 21:00 WOW.

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

In port	35.0
Transiting	151.75
Operating	526.5
Technical downtime	4.0
Weather downtime	318.5
Other downtime (specify)	34.25

7. Weather

Cloudy and warm (~18 degC) all day. Wind blew <5 m/s from south southeast with 1.5 m waves. The surface current flowed ~1 knot to the west.

8. Planned Activity for the next 24 hours

WOW. Sail back to Sites JTPC-01A or JTPC-03B. Conduct 40 m GPC.

9. Health and Safety and Environmental

Toolbox talk before the operation

10. Photo of the day



1) GPC weighthead splashing seawater when recovered (photo by Klkehara@ECORD/IODP/JAMSTEC)



2) The 30 m GPC assembly recovered to deck (photo by LMaeda@ECORD/IODP/JAMSTEC)



3) Lab technician helping to sample from each section bottom end (photo by Klkehara@ECORD/IODP/JAMSTEC)



4) Washing the deck after core cutting (photo by LMaeda@ECORD/IODP/JAMSTEC)