

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



29th May 00:00 - 24:00 JST Japan Standard Time (UTC+9)

1. Location at noon

Position 39° 14.854' N, 144° 12.309' E

IODP-MSP borehole: M0094 Prospectus borehole: JTPN-01A

Water Depth: 7469 m

3. Operation

The ship arrived at Site JTPN-01A by 0100 hrs and conducted an MBES/SBP survey. The 30 m GPC operation began at 0830 hrs. The GPC assembly was deployed at 0920 hrs and run down with winch speed at 1.1 m/s after setting the inclinometer on a winch cable at 20 m above the GPC weighthead. Running was suspended at 7600 m depth in cable length at 1225 hrs and held for 3 minutes for stabilization and resumed with winch speed at 0.3 m/s. Holes M0094 A and B were spudded-in and released at 7722 m of cable length at 1139 hrs. The GPC assembly was run back to surface with winch speed at 1.1 m/s and recovered to deck at 1515 hrs. Soon after recovery, the Trigger corer was dismantled, and BW and sediment at the bottom were sampled, while the deck crew and GPC operations team started withdrawing and cutting core into 5 m segments. The science party began cutting the 5 m segments into 1 m sections while sampling from each section bottom end at 1500 hrs. Sectioning and sampling were completed by 1600 hrs, and then curation and IW sampling began. Making up the 30 m GPC assembly was completed by 1815 hrs. The ship started sailing to south to conduct 30 m GPC at Site JTPC-01A, JTPS-10A or JTPS-05B, the decision to be based on where surface current flowed at less than 2.5 knot.

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) | 0.805 | 18.28 |
| Curated length (m) | 0.805 | 18.28 |
| Recovery (%) | 100 | 100 |
| Number of sections | 2 | 19 |

5. Time Breakdown

- 00:00 Continue to sail to Site JTPN-01A.
- 01:00 Arrive at Site JTPN-01A. Conduct MBES/SBP survey at the site.

From Lat: 39°13.4847' N, Long: 144°12.3771' E to Lat: 39°16.5566' N, Long: 144°11.5980' E

- 01:45 Completed MBES/SBP survey. Stand-by at the site.
- 08:30 Prepare running 30 m GPC
- 09:00 Set Trigger corer to GPC assembly
- 09:20 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 1.1 m/s
- Hold running the GPC assembly for 3 minutes at 7550 m depth in cable length for stabilization. Resume running the GPC assembly down at 0.3 m/s.
- 11:39 Spud-in and released from Holes M0094 A and B at 7722 m in cable depth (tension before: 4.4 tonf, 5.2 tonf, overpull 8.5 tonf).
- 11:45 Run GPC back to surface with winch speed at 1.1 m/s.
- 13:40 Recover Trigger corer on deck
- 14:30 Recover GPC assembly on deck.

Dismantle Trigger corer, cut core and collect BW.

Start withdrawing and cutting core into 5 m segments.

- 15:00 Start cutting core into 1 m sections while collecting sediment samples from each bottom end
- 16:00 Complete cutting core into 1 m sections.
- 18:15 Complete making up 30 m GPC assembly.

Set sail southwards.

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

| In port | 35.0 |
|--------------------------|--------|
| Transiting | 168.5 |
| Operating | 557.75 |
| Technical downtime | 4.0 |
| Weather downtime | 318.5 |
| Other downtime (specify) | 34.25 |

7. Weather

Cloudy with occasional showers in the morning, turning fine with some clouds, and warm (~18 degC) all day. Southeasterly wind blew ~12 m/s and wave heights were 2 m. Surface current flowed ~2 kt to west northwest.

8. Planned Activity for the next 24 hours

Sail to south. Conduct 30 m GPC at Site JTPC-01A or JTPS-10A or JTPS-05B.

9. Health and Safety and Environmental

Toolbox talk before the operation

10. Photo of the day



1) Core cutting stands (photo by LMaeda@ECORD/IODP/JAMSTEC)



2) Core catchers; after use, reborn as new (photo by LMaeda@ECORD/IODP/JAMSTEC)



ECORD/IODP/JAMSTEC

3) No. 3 laboratory during night shift (photo by NOkutsu@ECORD/IODP/JAMSTEC)



4) Fingers crossed for the last GPC operation (photo by NOkutsu@ECORD/IODP/JAMSTEC)