

Chikyu DAILY MORNING REPORT

Mission No. :CK24-01

Exp. No. :405

Report No. :70

Site NameJTCT-01AHole NameC0019MLat.37°56.3417'NLong.143°54.8167'ESeabed Depth :6,905.0 mBRTRT-MSL :28.5 m

Depth : @24:007,010.0 mBRT105.0 mbsfProgress :49.5 mDrilling/Coring/Underreaming Hrs. :23.50 hrs

Depth : @06:007,019.5 mBRT114.5 mbsfLAST CASING :x mbsf(mBRT)

Summary of Operation on14-Nov :Cut HPCS core #8 - #10, Cut ESCS core #11-#13

Present Operation @ 06:00 on15-Nov :POOH

Time Breakdown ( 00:00 - 24:00 on14-Nov )

mBRT: meter below rotary table

mbsf: meter below sea floor

From	To	Hrs	Code	Depth(mBRT)	Detail of Operation
0:00	1:15	1:15	CORE	6,972.5	Cut #8 HPCS core (C0019M-8H) from 6,964.0 to 6,972.5mBRT (59.0 - 67.5mbsf) Run #8 HPCS inner barrel (C0019M-8H). Pump 200gpm and shoot HPCS on bottom, partial penetration with 18.9MPa. Bleed off pressure. Pick up by coreline with 15kN OP and assist by DW with 400kN OP, but fail to recover inner barrel.
1:15	2:15	1:00	CORE	6,972.5	Overdrill from 6,964.0 to 6,971.0mBRT (59.0 - 66.0mbsf, 7.0m, 3times) Lower bit to bottom w/o pumping and rotation. Start pumping, rotation and CMC once reach to bottom. After finish each overdrill section, stop pumping, rotation and lock CMC. [1st overdrill] 6,964.0 - 6,967.5mBRT (59.0 - 62.5mbsf), MP 50gpm x 1.1-5.1MPa, HPS 25rpm x 0.1-4.0kNm, WOB 0-40kN, Ave. ROP 10m/hr Attempt to pick up inner barrel with DW assist, but fail to pick up same with 400kN DW assist. [2nd overdrill] 6,967.5 - 6,969.0mBRT (62.5 - 64.0mbsf), MP 50gpm x 1.1-3.0MPa, HPS 30rpm x 0.1-5.0kNm, WOB 0-40kN, Ave. ROP 11m/hr Attempt to pick up inner barrel with DW assist, but fail to pick up same with 400kN DW assist. [3rd overdrill] 6,969.0 - 6,971.0mBRT (64.0 - 66.0mbsf), MP 55gpm x 1.1-2.4MPa, HPS 30rpm x 0.1-5.0kNm, WOB 0-50kN, Ave. ROP 30m/hr Pick up inner barrel with 335kN of DW assist. Start to pick up coreline w/o OP at the same time as OP of DW is released.
2:15	3:30	1:15	CORE	6,972.5	Recover HPCS inner barrel (C0019M-8H). (9.55m/8.5m 112.4% recovered)
3:30	3:45	0:15	DRL	6,972.5	Drill down from 6,971.0 to 6,972.5mBRT (66.0 - 67.5mbsf, 1.5m). MP 200gpm x 1.6-2.3MPa, HPS 20rpm x 0.1-4.0kNm, WOB 0-40kN, Ave. ROP 15m/hr
3:45	5:00	1:15	CORE	6,979.0	Cut #9 HPCS core (C0019M-9H) from 6,972.5 to 6,979.0mBRT (67.5 - 74.0mbsf) Run #9 HPCS/APCT-3 inner barrel (C0019M-9H). Pump 200gpm and shoot HPCS at 0.5m off bottom, partial penetration with 19.1MPa. Bleed off pressure and wait 10min for APCT-3 measurement. Pick up by coreline with 15kN OP and assist by DW with 400kN OP, but fail to recover inner barrel.
5:00	5:30	0:30	DRL	6,979.0	Overdrill from 6,972.5 - 6,977.0mBRT (67.5 - 72.0mbsf) Lower bit to bottom w/o pumping and rotation. Start pumping, rotation and CMC once reach to bottom. MP 50gpm x 1.0-1.8MPa, HPS 30rpm x 0.1-5.0kNm, WOB 0-50kN, Ave. ROP 13m/hr Pick up inner barrel with 288kN of DW assist. Start to pick up coreline w/o OP when bit depth is 6,966.5mBRT (6.0m off bottom).
5:30	6:45	1:15	CORE	6,979.0	Recover HPCS/APCT-3 inner barrel (C0019M-9H). (7.7m/6.5m 118.5% recovered) Lay out AFT sinker bar due to damage above sinker bar socket then switch to FWD winch.
6:45	7:15	0:30	DRL	6,979.0	Drill down from 6,977.0 - 6,979.0mBRT (72.0 - 74.0mbsf, 2.0m) MP 250gpm x 3.2-3.3MPa, HPS 30rpm x 0.1-4.0kNm, WOB 0-40kN, Ave. ROP 20m/hr
7:15	10:00	2:45	CORE	6,981.5	Cut #10 HPCS core (C0019M-10H) from 6,979.0 to 6,981.5mBRT (74.0 - 76.5mbsf) Load sinker bar and run #10 HPCS inner barrel (C0019M-10H). Pump 200gpm and shoot HPCS on bottom, partial penetration with 21.1MPa. Bleed off pressure. Pick up inner barrel with 250kN of DW assist. Start to pick up coreline w/o OP at the same time as OP of DW is released. The decision is made to switch from HPCS to ESCS, because advance of following HPCS coring would be low from advance of #10 core. Recover inner barrel to surface (9.82m/2.5m 398.2% recovered).
10:00	10:30	0:30	DRL	6,981.5	Drill down from 6,979.0 - 6,981.5mBRT (74.0 - 76.5mbsf) MP 250gpm x 2.1-3.1MPa, HPS 30rpm x 0.1-5.0kNm, WOB 0-50kN, Ave. ROP 17m/hr Bottom up with 650gpm x 11.1MPa
10:30	11:45	1:15	CORE	6,981.5	Drop #11 ESCS core(C0019M-11X) inner barrel. Drop inner barrel and confirm inner barrel landing by increasing pressure from 2.4 to 7.1MPa w/275gpm 31min after dropping. After landing, check pressure:150 / 200 / 300 / 400 / 500 gpm x 2.7 / 4.0 / 8.2 / 13.8 / 20.5MPa.
11:45	16:00	4:15	CORE	6,991.0	Cut #11 ESCS core(C0019M-1X) core from 6,981.5 - 6,991.0mBRT (76.5 - 86.0mbsf) MP 300gpm x 7.9-8.5MPa, HPS 90rpm x 0.1-6.0kNm, WOB 20-80kN, Auto ROP 90m/hr Load and run sinker bar. Recover inner barrel (Core recovery 0.54m/5.7%). Unload sinker bar and lay out single. Make up a stand.
16:00	16:45	0:45	CORE	6,991.0	Drop #12 ESCS core(C0019M-12X) inner barrel. Drop inner barrel and confirm inner barrel landing by increasing pressure from 2.2 to 7.1MPa w/275gpm 34min after dropping.
16:45	20:30	3:45	CORE	7,000.5	Cut #12 ESCS core(C0019M-12X) core from 6,991.0 - 7,000.5mBRT (86.0 - 95.5mbsf) MP 400gpm x 13.3-14.0MPa, HPS 80rpm x 0.1-7.7kNm, WOB 20-60kN, Auto ROP 60-50m/hr Load and run sinker bar. Recover inner barrel (Core recovery 3.74m/9.5m 39.4%). Unload sinker bar Observe coreline grease attached to sinker bar and inner barrel.  Meanwhile, Push out the remain core liner (C0019M-9H) inside upper inner core tube by the pump. Retrieve core liner and observe the liner deformed badly.
20:30	21:00	0:30	C&C	7,000.5	Circulate 1 string volume for cleaning the inside DP with 700gpm x 13.0-15.7MPa Observe torque and pressure increasing from 6,996.0mBRT to 7,000.5mBRT while circulating. HPS: 10-30rpm x 0.1-5.2kNm, MP: 700gpm x 13.0-16.0MPa
21:00	21:45	0:45	CORE	7,000.5	Drop #13 ESCS core(C0019M-13X) inner barrel. Drop inner barrel and confirm inner barrel landing by increasing pressure from 2.2 to 7.0MPa w/275gpm 32min after dropping.
21:45	24:00	2:15	CORE	7,010.0	Cut #13 ESCS core(C0019M-13X) core from 7,000.5 - 7,010.0mBRT (95.5 - 105.0mbsf) MP 400gpm x 13.3-13.9MPa, HPS 80rpm x 0.1-6.8kNm, WOB 20-65kN, Auto ROP 50m/hr Load and run sinker bar. Recover inner barrel, ongoing.  (19:45-20:00) Advisory status due to the APRS monitor of No 2 DP console freeze and reboot.

FromToHrsCodeDepth(mBRT)Detail of Operation

0:001:301:30CORE7,010.0Continue to recover inner barrel (C0019M-13X, Core recovery 4.90m/9.5m 51.6%).

1:302:301:00CORE7,010.0Drop #14 ESCS core(C0019M-14X) inner barrel.  
Drop inner barrel and confirm inner barrel landing by increasing pressure from 2.2 to 6.6MPa w/275gpm 34min after dropping.  
Bottom up with 500gpm x 19.5MPa

2:305:453:15CORE7,019.5Cut #14 ESCS core(C0019M-14X) 7,010.0 - 7,019.5mBRT (105.0 - 114.5mbsf).  
MP 450gpm x 15.5-16.3MPa, HPS 80rpm x 0.0-7.0kNm, WOB 0-40kN, Auto ROP 40m/hr  
Load and run sinker bar. Recover inner barrel (Core recovery 2.46m/9.5m 25.9%). Unload sinker bar

5:456:000:15TRIP7,019.5POOH to 6,959mBRT, on going.

Bit Record @24:00

Bit No.	Size (in)	MFR	Type	IADC Code	S/No.	Nozzles	Depth (mBRT)	Meter-age	Hrs.	WOB (kN)	rpm	Total Rev. (krev)	ROP (m/hr)	Dull Condition							
							FromTo			Min. : Max.	Min. : Max.			Inner	Outer	Dull	Loc.	B	G	O.D.	RP
6	10.625	AAI	SC513	-	202369	5 x 17	6,905.06,911.5	6.5	-	-	-	-	-								
RR6a	10.625	AAI	SC513	-	202369	5 x 17	6,905.07,010.0	105.0	4.50	0	80	0	90	7.32	23.3						

BHA Record @24:00

		110-5/8" Core bit x Long Bit sub x Seal bore Outer Core Barrel x Landing saver sub x Top sub x Head sub x 8-1/2" Coring Collar(2std) x XO#1 x 5" DP V-150 (23stds) x XO#2 x 5" DP S-140 (66stds) x 5-1/2" DP S-140 (22stds) x XO#3 x 5-1/2" DP S-150 (25stds) x XO#4 x 5-1/2" DP UD-165 (30stds) x XO#5 x 6-5/8" DP Z-140 (13stds) x 6-5/8" DP UD-165
8	HPCS	

Mud Properties @24:00

Mud Type	Time	Depth (mBRT)	MW	VIS	PV	YV	6rpm	Gel St. (10", 10')	API	Cake	pH	Pf	Cl-	Sand	Oil	Solid	MBC	Temp In	Temp Out	K+	n	K	LGS	FIT 20/40 (mm) 0 min 5min

Mud Pumps : 14-P-220

No.	Liner Size	SPM	GPM	Press. (MPa)	Ann. Vel. (m/min)
1	6"				
2	6"	70	350	16.0	DC 5" DP
4	6"	70	350		196 111

Materials Stock on Board @24:00

Item	Unit	Stock	Used	Received
Fresh Water	m3	297.8	58.9	87.7
Potable Water	m3	270.0	3.0	0.0
Drill Water	m3	891.7	4.2	0.0
Fuel	m3	4,030.0	40.5	0.0
Lube, Oil	Ltrs	111,500	0.0	0.0
Helix Fuel	Ltrs	0.0	0.0	0.0

Weather Information

Time	Weather	Temp. (degC)	Barometer	Wind	Wave	Current	Visibility
		Air : SW	(hPa)	Speed (m/s) : Dir. (deg) : Gust (m/s)	Height (m) : Dir. (deg) : Period (s)	Speed(knt) : Dir. (deg)	(km)
24:00	bc	18.0 : 23.7	1022.5	8.8 : 184 : 10.1	1.5 : 120 : 6.6	0.5 : 154	22.0

Today's Schedule: POOH to surface.

Personnel @24:00

MarE3	7
MOJ Crew	100
MWJ	19
Scientist	29
JAMSTEC PR	1
JAMSTEC Executive	1
MOJ Executive	1

Mud Materials on Board @24:00hrs (unit: kg)

Item	Received	Used	Stock
Barite			100,000
Tel-Gel			118,000
Caustic soda			5,025
Lime			5,200
Flowzan			25

Mud volume

PHG (m3)	280
Kill mud (m3)	46
SWG (m3)	127
Pre-Mix (m3)	60

Marine Information @24:00

Heave (m)	0.5
Pitch (deg)	0.3
Roll (deg)	0.1
Vessel Heading (deg)	155
Riser Tension (kN)	-
V.D. Load (ton)	12496
Max Draught (m)	9.0
Thruster (kW)	460

Hel Information @24:00

Flt. No.	Time Arrived	Time Departed	Passenger Are.	Passenger Dept.
1	09:35	09:43	4	
2				

Boat Information @24:00

	Status	Chikyu
Akatsuki (Supply boat)		
Ibuki (Guard boat)		

HSQE and other information

Incident	Last Incident	No. LTI
LTI	11/14/19	
HUNS cards	27	

Remarks

Well Cost (1,000 Yen) based on the cost by

Daily

Cumulative

Reported by : T.Yokoyama, Y.Oishi

Approved by : T.Saruhashi