Chikyu DAILY MORNING REPORT

Mission No. : CK18-04 **Exp. No. :** Exp 358 **Report No. :** 58

Site Name: C0002 Hole Name: C0002Q Lat. 33° 18.0507'N Long. 136° 38.2029'E Seabed Depth : 1,967.5 mBRT RT-MSL : 28.5 m **Report Date :** 4/Dec/2018

Depth : @24:00 5,037.0 mBRT 3069.5 mbsf Progress : 45.0 m Drilling/Coring/Underreaming Hrs. : 24.00 hrs Last BOP PT: 11/15/2018 Next BOP PT: 12/6/2018

Depth : @06:00 5,048.5 mBRT 3081.0 mbsf LAST CASING : 11-3/4" x 2,922.50 mbsf(4,890.0 mBRT) Last BOP FT: 11/29/2018 Next BOP FT: 12/6/2018

Summary of Operation on 3-Dec : Drill 8-1/2" x 12-1/4" hole from 4,992mBRT to 4,995mBRT. Ream up and take survey. Continue to drill to 5,037.5mBRT

Last Glycol 35gal Inj. 11/27/2018

Present Operation @ 06:00 on 4-Dec : Cont. drill 8-1/2" x 12-1/4" hole to 5048.5mBRT.

mBRT: meter below rotary table

mbsf: meter below sea floor

Time Breakdown (00:00 - 24:00 on 3-Dec)

From	To	Hrs	Code	Depth(mBRT)	Detail of Operation
0:00	1:00	1:00	DRL	4,995.0	Drill 8-1/2" x 12-1/4" hole from 4,992mBRT to 4,995mBRT.
					WOB: 100-110kN, HPS: 110rpm x 17-27kN, MP: 600gpm x 19.2MPa, Downhole WOB: 45-70kN, Downhole torque: 1.5-2.5kNm, ECD 1.422-1.427sg
					Ave. ROP 3.0 m/hr
1:00	1:45	0:45	W&R	4,995.0	Ream up to 4,961mBRT.
					HPS: 60rpm x 15.5-22kNm, MP: 600gpm x 19.3MPa. Observe no excess drag.
1:45	3:30	1:45	TRIP	4,995.0	Take survey every 5m from 4,961mBRT to 4,931mBRT.
					Observe torque increase to 27kNm at 4,952mBRT, 34kNm at 4,946.5mBRT, 34kNm at 4,944.5mBRT&4,943mBRT w/60rpm while ream up to survey points.
3:30	4:15	0:45	TRIP	4,995.0	Ream up to 4,910mBRT and run back to 4,995mBRT.
					Observe no excess drag while ream up to 4,910mBRT.
					Observe 100-150kN drag while run back w/o pumping to 4,995mBRT.
					Start pumping w/150gpm to prevent plug nozzels from 4,966mBRT.
					Taking weight of 300kN at 4,969mBRT, and start rotation w/60rpm x 13-16kNm to 4,995mBRT.
4:15	17:30	13:15	DRL	5,024.0	Drill 8-1/2" x 12-1/4" hole from 4,995mBRT to 5,024mBRT.
					WOB: 100-125kN, HPS: 110rpm x 16.5-32kNm, MP: 600gpm x 20.3MPa.
					(04:15-06:00) Downhole WOB: 40-70kN, Downhole torque: 2.5-3.5kNm, ECD 1.424-1.432sg, Ave. ROP 2.5m/hr
					(06:00-08:00) Downhole WOB: 35-90kN, Downhole torque: 3.0-3.5kNm, ECD 1.426-1.43sg, Ave. ROP 2.6m/hr
					(08:00-09:15) Downhole WOB: 40-95kN, Downhole torque: 3.0-3.5kNm, ECD 1.424-1.431sg, Ave. ROP 3.0m/hr
					(09:15-09:30) Calibrate Downhole torque and WOB. Take survey at 5,006.2mBRT (Bit depth).
					(09:30-10:15) NSD connection.
					(10:15-12:00) Downhole WOB: 25-55kN, Downhole torque: 1.0-2.0kNm, ECD 1.424sg, Ave. ROP 1.5m/hr
					(12:00-15:30) Downhole WOB: 15-40kN, Downhole torque: 1.0-2.0kNm, ECD 1.420sg, Ave. ROP 1.9m/hr
					(15:30-16:45) Increase RPM from 110 to 150 in 10 increament.
					ROP at 120RPM: 1.6m/hr ROP at 130RPM: 2.9m/hr ROP at 140RPM: 3.3m/hr ROP at 150RPM: 4.3m/hr
					Pump 3m3 12ppb fracseal.
17:30	18:30	1:00	RR	5,024.0	Observe faulty SCADA system on DCIS - DCIS monitor on AD chair freezed.
					Troubleshoot and disconnect OSM (Optical Switch Module) on C circuit and system recovered.
					Pick up string to 5,019mBRT and circulate well while troubleshooting.
					Pump $3m^3$ 12ppb Fracseal.
18:30	0:00	5:30	DRL	5,037.0	Drill 8-1/2" x 12-1/4" hole from 5,024mBRT to 5,037.5mBRT.
					WOB: 110-130kN, HPS: 150rpm x 20-32kNm, MP: 600gpm x 20.1MPa.
					(18:30-24:00) Downhole WOB: 20-60kN, Downhole torque: 1.0-2.4kNm, ECD 1.420-1.426sg, Ave. ROP 2.5m/hr
					Max. ROP: 4.90 m/hr @5,020.5 m/hr, min ROP: 1.31 m/hr @5,011.5mBRT.
					Offline Activities
					- Clean thread and install O-ring to 9-5/8"ESET.
					Ditch magnet: 2.0kg (Total 149.3kg)

Survey data (Depth: Telescope sensor depth)

#	Depth (mBRT)	Inc (deg	Azi (deg)
1	4,948.523	4.02	58.62
2	4,943.658	3.88	59.60
3	4,938.475	3.72	58.86
4	4,933.356	3.88	59.37
5	4,928.407	3.90	60.90
6	4,923.524	3.92	62.15
7	4,918.211	3.97	64.53

Survey data (Depth: Telescope sensor depth)

Depth (mBRT)	Inc (deg	Azi (deg)
4,994.519	4.33	56.05

Time Breakdown (00:00 - 06:00 on 4-Dec) * The data on 00:00 - 06:00 is unofficial.

From	To	Hrs.	Code	Depth(mBRT)	Detail of Operation
0:00	4:15	4:15	DRL	5,048.0	Drill 8-1/2" x 12-1/4" hole from 5,037.5mBRT to 5,048mBRT.
					WOB: 110-145kN, HPS: 150rpm x 20-30kN, MP: 600gpm x 20.1MPa, Downhole WOB: 25-50kN, Downhole torque: 1.5-2.0kNm, ECD 1.424-1.426sg
					Ave. ROP 2.6 m/hr
					(04:00 - 04:15) Calibrate Downhole Torque and WOB.
					Take a survey.
4:15	4:45	0:30	RS	5,048.5	Grease up HPS gear box.
					Bit at 2m off bottom w/40rpm x 16-17kNm and 600gpm x 20.2MPa.
4:45	5:15	0:30	OTHER	5,048.5	NSD connection.
5:15	6:00	0:45	DRL	5,048.5	Resume drill 8-1/2" x 12-1/4" hole from 5,048mBRT to 5,048.5mBRT.
					Pump 3m3 12ppb fracseal.
					WOB: 100-140kN, HPS: 150rpm x 23-25kN, MP: 600gpm x 20.1MPa, Downhole WOB: 35-60kN, Downhole torque: 1.5-2.5kNm, ECD 1.425-1.426sg

Survey data (Depth: Telescope sensor depth)

Depth (mBRT)	Inc (deg)	Azi (deg)
5,032.477	4.82	56.07

Bit Record @24:00

Bit No.	Size (in)	MFR	Type	IADC Code	S/No.	Nozzles	Depth (mBRT) From	Depth (mBRT) To	Meter-age	Hrs.	WOB (kN) Min.	WOB (kN) Max.	rpm Min.	rpm Max.	Total Rev. (krev)	ROP (m/hr)	Dull Condition Inner	Outer	Dull	Loc.	B	G	O.D.	RP
RR4b	8.5	Smith	Axeblade X616	M323	QF3233	3x12/32, 3x13/32	4,990.0	5,037.0	47.0	19.68	100	130	110	150	139.4	2.4								
RR4b	8.5 x 12.25	Drillstar	Z-Reamer850	NA	52763	1x 7/32, 2x 8/32	4894.00	5,008.00	114.0	79.11	75	110	90	150	440.9	1.4								

BHA Record @24:00

#13	8.5"x12.25" HO	8-1/2" Bit x Bit sub w/non-ported x XO x arcVision675 x TeleScope675 x XO x 8-1/4"Stabilizer x 6-3/4"DC (1) x Z-Reamer x Float sub w/non-ported float x 6-3/4"DC (11) x XO x 6-3/4"Coring DC (3) x XO x 8-1/2"DC (3) x 8"Jar x 8-1/2"DC (3) x XO x 5.68"HWDP (3stds) x XO

Hook Wt. (knt) @24:00 5,037.5 mBRT

Hook Load	3,100
BHA	360
Below HWDP	290
below Jar	230
HPS & Traveling block	620
Hook + RRT	-
Hook block	-

Jar Rotating time 24 S/N: 1762-5074

Today	18.72	Total	102.11	hrs

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
KNPP	1:00	4,995	1.37	65	23	37	13	13	19	3.9	0.6	10.0	0.1	128,000	0.80		17.0	1.25	11	8	22,000	0.39	4.38	3.40	21	83
KNPP	14:00	5,014	1.37	66	23	37	13	12	19	3.9	0.6	10.0	0.1	128,000	0.75		17.0	1.25	11	8	21,400	0.39	4.38	3.40	18	120

Cutting skip @24:00

Empty	Full	Total
44	1	45

Mud Pumps : 14-P-220 5.00 gallon/stroke @97%

No.	Liner Size	SPM	GPM	Press. (MPa)	Ann. Vel. (m/min) 6.75"DC	5.5"DP
1	6"	60	300	20.3	54	67
2	6"	60	300			
3	6"(Booster)	90	450			

Personnel @24:00

CDEX	9
MQJ Crew	103
MQJ (Other)	0
MWJ	15
Scientist	14
Telnite	2
Oceaneering	6
SLB Cementing	2
SLB WL	0
Geoservices	6
M-I SWACO	4
SLB Underreamer	2
SLB LWD	2
SLB Seismic	0
AFGlobal	2
ENVENTURE	1
SLB DD	0
Franks	4
Total	172

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

Item	Received	Used	Stock
Barite (Bulk)		14,500	596,000
Caustic Soda			1,200
Lime			200
Soda Ash			1,550
Caustic Potash			1,575
Tel-Polymer DX / L / H			1820/1500/0
XCD-Polymer		100	1,525
Lignate NC			4,500
Clean Lube W			9,000
Tel Clean W			6,400
Astex-S			5,300
Deformer 30C			368
Tell DD			3,200
Bi-Carbonate			1,250
Citric Acid			2,275
Tan Cal M / F / FF			1,020 / 210 / 510
Telnite GXL			684
Treat-HS			9,200
Mud Seal P			130
Tel Plug C / M / F			500 / 500 / 500
Tel Stop P / G			500 / 260
Balolift			105
Driscal D			0
Tel Flow P			0
Poro Seal			2,310
Steel Seal 50		1,000	1,750
KCl		3,000	6,000
NaCl		8,000	12,000
Fracseal		3,000	1,000
Stopseal			8,000
Bentonate(Bulk)			46,000

ROV @24:00

Status	On deck
Last Dive	12/3/2018
Injection Skid	135 /135 gal

Geologic Information @24:00

From	To	Lithology of cuttings

Heli Information @24:00

Flt. No.	Time Arrived	Time Departed	Passenger Are.	Passenger Dept.
1				
2				
3				
4				

Shale Shaker @24:00 Centrifuge: hrs

No.1	30, 50 x 2ea	No.4	20, 80 x 2ea	No.1	off
No.2	20, 50 x 2ea	No.5	30, 50 x 2ea	No.2	off
No.3	30, 80 x 2ea	No.6	20, 50 x 2ea	No.3	off

Safety (HSE) and other information

Incident	Last Incident	No. LTA
LTA		
HUNS cards	24	

Remarks

Materials Stock on Board @24:00

Item	Unit	Stock	Used	Received
Fresh Water	m3	283.0	84.5	101.5
Potable Water	m3	261.0	5.4	0.0
Drill Water	m3	1,714.0	16.0	0.0
Fuel	m3	6,453.5	52.6	0.0
Lube, Oil	Ltrs	107,000	0.0	0.0
Heli Fuel	Ltrs	0.0	0.0	0.0
Cement "GWC"	ton	186.0	0.0	0.0
Cement "G"	ton	97.0	0.0	0.0

Mud volume@24:00

Mud Volume (m3)	
KNPP mud (1.37)	411
Slug mud	16
KNP mud (1.35)	55
total	482

Marine Information @24:00

Heave (m)	0.4
Pitch (deg)	0.2
Roll (deg)	0.1
Vessel Heading (deg)	170
Riser Tension (kN)	9600.0
V.D. Load (ton)	15236
Max Draught (m)	9.0
Thruster (kW)	600

Boat Information @24:00

Boat Name	Status	Time @Chikyu Departed	Arrived
#8 Meiji-maru	Chikyu		
Akatsuki	Shingu	11:05	
Shincho-maru	Chikyu		11:05

Weather Information

Time	Weather	Temp. (degC) Air	SW	Barometer (hPa)	Wind Speed (m/s)	Dir. (deg)	Gust (m/s)	Wave Height (m)	Dir. (deg)	Period (s)	Current Speed(knt)	Dir. (deg)	Visibility (km)
24:00	o	20.0	20.6	1022.1	7.7	163	8.4	1.2	110	5.2	0.4	260	22.0

Today's Schedule: Cont. Drill 8-1/2"x12-1/4" hole to 5,667.5mBRT.

Reported by : A. Suzuki / T. Yokoyama

Approved by : T. Ikawa