Chikyu DAILY MORNING REPORT

Mission No. : CK18-04 **Exp. No. :** Exp 358 **Report No. :** 74

Site Name C0002 **Hole Name** C0002R **Lat.** 33° 18.0507'N **Long.** 136° 38.2029'E Seabed Depth : 1,967.5 mBRT RT-MSL : 28.5 m **Report Date :** 20/Dec/2018

Depth : @24:00 4,772.0 mBRT 2804.5 mbsf Progress : 10.0 m Drilling/Coring/Underreaming Hrs. : 0.00 hrs Last BOP PT: 12/14/2018 Next BOP PT: 1/4/2019

Depth : @06:00 4,772.0 mBRT 2804.5 mbsf LAST CASING : 11-3/4" x 2,922.50 mbsf(4,890.0 mBRT) Last BOP FT: 12/14/2018 Next BOP FT: 12/21/2018

Summary of Operation on 19-Dec : RIH Tri-Mill assembly to 4,746mBRT. Mill 10-1/2" window. Drill rat hole to 4,772mBRT. Circulate well. Work string. Last Glycol 35gal Inj. 12/18/2018

Present Operation @ 06:00 on 20-Dec : Continue to work string. Conduct FIT. POOH back up Tri-mill assembly to 3,840mBRT

mBRT: meter below rotary table

Time Breakdown (00:00 - 24:00 on 19-Dec) mbsf: meter below sea floor

From	To	Hrs	Code	Depth(mBRT)	Detail of Operation
0:00	3:30	3:30	TRIP	4,762.0	RIH back up 10-1/2" Tri-Mill assembly from 3,700mBRT to 4,746mBRT.
					Break circulation at 4,200mBRT w/150gpm x 3.2MPa
					Fill string every 15 stands
					Boost riser at 450gpm x 4.1MPa
					Change out shaker screens from API270 x 4, API230 x 1, API170 x 1 to API120
3:30	4:00	0:30	OTHER	4,762.0	Take SCR.
4:00	5:00	1:00	OTHER	4,762.0	Conduct break Circulation and take parameters at 4,742m.
					Parameter: SPP: 700, 750, 800gpm x 23.0, 25.5, 28.0MPa (MP#1 and MP#3). Keep monitoring Active pit, confirm no loss
					HK: PU/SO 2,870kN/2840kN (pump and rotation), 2,915kN/2,800kN (pump and no rotation), 2,980kN/2,830kN (no pump and no rotation)
					Free Torque: 40rpm x 11kNm
					Observe MP#2 motor tripped while break circulation x 2times due to belt shipping, change out from MP#2 to MP#3: OK, Select MP#2 to Booster: OK
5:00	15:30	10:30	OTHER	4,772.0	Mill the 10-1/2" window.
					Slowly lowering the mill and tag whipstock top w/40kN at 4,757mBRT(Tide: 1.2m)
					Parameter at whipstock top, Torque: 40rpm x 12-15kNm, 800gpm x 27.5-28MPa
					Keep lowering from 4,757mBRT w/WOB:20-30kN, HPS: 40rpm x 12-25kNm, SPP: 800gpm x 25-28MPa and take weight w/59kN at 4,760.7mBRT
					Observe pressure drop gradually from 28 to 25MPa while lowering from 4,757mBRT to 4,760.7mBRT
					From 4,760.7mBRT to 4,762.5mBRT (Pump 5m3 sweep Barolift every 30min)
					WOB: 40-70kN, HPS: 80rpm x 12-25kNm (Stall >40kNm x 2times), 800gpm x 23-25.5MPa
					Observe pressure drop gradually from 25.5 to 23MPa
					From 4,762.5mBRT to 4,763.5mBRT (Pump 5m3 sweep Barolift every 30min)
					WOB: 30-50kN, HPS: 80rpm x 10-25kNm, 800gpm x 23-24MPa
					From 4,763.5mBRT to 4,764.5mBRT (Pump 5m3 sweep Barolift every 30min)
					WOB: 15-30kN, HPS: 80rpm x 10-20kNm (Stall >40kNm x 3times), 800gpm x 23-24MPa
					From 4,764.5mBRT to 4,765.5mBRT (Pump 5m3 sweep Barolift every 30min)
					WOB: 20-35kN, HPS: 80rpm x 10-30kNm, 800gpm x 23-24MPa
					From 4,765.5mBRT to 4,766.5mBRT (Pump 5m3 sweep Barolift every 30min, Fracseal 10m3)
					WOB: 20-60kN, HPS: 110rpm x 17-38kNm(Stall >40kNm x 2times), 600-700gpm x 15-19MPa
					Pick up to 4,755mBRT and circulation 30min w/10rpm x 10-12kNm, 800gpm x 24.7MPa
					From 4,766.5mBRT to 4,768.0mBRT (Pump 5m3 sweep Barolift and Fracseal 3m3 alternately every 30min)
					WOB: 10-30kN, HPS: 80-90rpm x 15-26kNm, 600-700gpm x 15-19MPa
					From 4,768.0mBRT to 4,772.0mBRT (Tide corrected) (Pump 5m3 sweep Barolift and Fracseal 3m3 alternately every 30min)
					WOB: 0-50kN, HPS: 80rpm x 15-40kNm, 600gpm x 15-16MPa (Stall >40kNm x 3 times)
15:30	21:45	6:15	C&C	4,772.0	Circulate hole clean at 850gpm x 29.4MPa, 10rpm x 8-10kNm.
					Pump 5m3 sweep Barolift and 5m3 Fracseal at 500gpm. Start pumping out to 4,750mBRT after Barolift and
					Fracseal sweeps enter the annulus. Circulate well with reciprocating the string w/850gpm x 29.6MPa. Boost riser at 450gpm x 2.1MPa.
					Confirm even mud weight 1.37sg in and out.
21:45	24:00	2:15	W&R	4,772.0	Reciprocate string through 10-1/2" window with and without rotation/pumping several times.
					Ream down with 40rpm / 400gpm from 4,756mBRT to 4,772mBRT. Observe 30-50kN hung up weight and torque fluctuation 12-28kNm at 4,765-4,772mBRT
					Backream from 4,772mBRT to 4,757mBRT.
					Ream/Backream at 4,756-4,769mBRT several times - Take 30-50kN hung up weight at 4,765-4,769mBRT at each reaming downs.
					Wash down with 400-500gpm at 4,756-4,769mBRT several times - Take <100kN hung up weight at 4,760-4,762mBRT at each washing downs.
					Take 50kN overpull after washing down with <100kN hung up weight. Release string with rotation/pumping/picking up the string.
					Ditch magnet: 31.5kg (Total 76.5kg)

Time	Cuttings Vol.[cm]
06:30	0.4
07:30	1.5
08:30	10.0
09:30	10.0
10:30	14.0
11:30	11.0
12:30	21.0
13:30	13.0
14:30	12.0
15:30	9.0
16:30	11.0
17:30	10.0
18:30	16.0
19:30	14.0
20:30	9.0
21:30	5.0

Time Breakdown (00:00 - 06:00 on 20-Dec) * The data on 00:00 - 06:00 is unofficial.

From	To	Hrs.	Code	Depth(mBRT)	Detail of Operation
0:00	0:45	0:45	W&R	4,772.0	Continue to reciprocate string
					(From 4,759mBRT to 4,763.5mBRT) Reciprocate w/Pump and Rotation, no observe any hung up and overpull at 4,761.5mBRT
					Parameter: HPS:100rpm x 14-15kNm, PUMP:500gpm x 11-12MPa, HK(UP/DOWN):2,920-2,935kN/2,900-2,910kN
0:45	2:45	2:00	EVAL	4,772.0	Conduct FIT at 11-3/4" whipstock window(window top 4,756mBRT)
					Pick up and make up SES assembly. Install Lo-Torc valve and cement hose. Line up surface lines. Flush test lines (4.7bbls choke line, 4.0bbls cement hose)
					Pressure test lines to 1,000psi for 5mins, OK. Space out string(5m stick out). Close BOP (Lower annular)
					Pressure up to 610psi w/0.25bpm from Cement unit. FIT result: 1.46sg EMW (610psi at surface with 1.37sg)
					Stop pumping. Pressure stabilize at 510psi (1.445sg EMW) after 16min. Bleed off pressure - 3.3bbls pumped, 3.1bbls returned.
2:45	3:30	0:45	OTHER	4,772.0	Flow check at 4,743mBRT: No loss and gains. Confirm well static.
3:30	6:00	2:30	TRIP	4,772.0	POOH back up 10-1/2" Tri-Mill assembly from 4,743mBRT to 3,840mBRT.
					Change out shaker screens from API120 to API270 x 4, API230 x 1, API170 x 1
					Boost riser at 450gpm x 4.3MPa (On Booster line)
					Offline: Maintenance MP#1 and MP#2, check Motor belt and cleaning suction/discharge strainers. Ongoing

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

BHA Record @24:00

#16	10-1/2" Tri-Mill	10-1/2" OD Trill mill x 8" OD Running Tool x 6-5/8" HWDP (1 jt, provided by SLB) x XO #1 x XO #2 x Float sub w/ non-ported float x XO #3 x XO #4 x 8-1/2" Coring DC (4 stds) x XO #4 x 5.68" HWDP (3 stds) x XO #5 x 5" DP S-140 (23 stds) x XO #6 x 5-1/2" DP S-150 (70 stds) x XO #7 x 6-5/8" DP Z-140 (22 stds) x 6-5/8" DP UD-165

Hook Wt. (knt) @24:00 4,761.0 mBRT

Hook Load	2,900
BHA	220
Below HWDP	270
below Jar	-
HPS & Traveling block	600
Hook + RRT	-
Hook block	-

Jar Rotating time 24S/N:

Today | Total | 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	FIT 20/40 (mm) 5min
KNPP	7:00	4,757	1.37	67	25	32	13	11	18	5.2	0.8	10.0	0.1	124,000	0.20		17.0	1.50	13	10	21,400	0.40	3.89	3.60	-	-
KNPP	14:00	4,770	1.37	65	23	34	13	11	18	5.2	0.8	10.0	0.1	124,000	0.20		17.0	1.50	13	10	21,400	0.44	3.14	3.60	15	Over

Cutting skip @24:00

Empty	Full	Total
40	4	44

ROV @24:00

Status	Dive
Last Dive	12/18/2018
Injection Skid	130 gal

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

No.	Liner Size	SPM	GPM	Press. (MPa)	Ann. Vel. (m/min) 4.75"DC	Ann. Vel. (m/min) 5.5"DP
1	6"	50	0	11.5		
2	6"(Booster)	90	450			
3	6"	50	250			

Personnel @24:00

CDEX	8
MQJ Crew	102
MWJ	15
Scientist	4
Telnite	2
Oceaneering	6
SLB Cementing	1
SLB WL	0
Geoservices	6
M-I SWACO	4
SLB Underreamer	2
SLB LWD	2
SLB Seismic	0
AFGlobal	0
ENVENTURE	0
SLB DD	0
Franks	0
Total	152

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

Item	Received	Used	Stock
Barite (Bulk)			525,000
Caustic Soda			1,200
Lime			200
Soda Ash		175	325
Caustic Potash		450	1,100
Tel-Polymer DX / L / H		800/200/0	4220/900/0
XCD-Polymer		50	1,075
Lignate NC			4,500
Clean Lube W			0
Tel Clean W			6,400
Astex-S			0
Deformer 30C			336
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
Baloilift	225	30	225
Driscal D			0
Tel Flow P			0
Poro Seal			0
Steel Seal 50			3,000
KCl	10,000	3,000	11,000
NaCl	20,000	8,000	26,000
Fracseal			20,500
Stopseal			0
Bentonate(Bulk)			46,000

Heli Information @24:00

Flt. No.	Time Arrived	Time Departed	Passenger Are.	Passenger Dept.
1	9	9	9:11	9:27
2	9	10	11:22	11:37
3	2	2	13:35	13:46
4				

Geologic Information @24:00

From	To	Lithology of cuttings
4762.0	4772.0	Claystone20-40% Silty claystone 60-80% Cement trace, Metal trace

Shale Shaker @24:00 Centrifuge:3.5 hrs

No.1	20, 120	No.4	30, 120	No.1	off
No.2	20, 120	No.5	30, 120	No.2	off
No.3	30, 120	No.6	30, 120	No.3	off

Safety (HSE) and other information

Incident	Last Incident	No. LTA
LTA		
HUNS cards	26	

Remarks

Materials Stock on Board @24:00

Item	Unit	Stock	Used	Received
Fresh Water	m3	248.0	79.1	93.2
Potable Water	m3	264.5	5.7	0.0
Drill Water	m3	1,609.0	15.0	0.0
Fuel	m3	5,646.2	52.4	0.0
Lube, Oil	Ltrs	93,300	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)	453
Slug mud	9
KNP mud (1.30)	35
KNP mud (1.13)	254
STOPLOSS(1.37)	47
total	798

Marine Information @24:00

Heave (m)	0.2
Pitch (deg)	0.2
Roll (deg)	0.1
Vessel Heading (deg)	290
Riser Tension (kN)	9600.0
V.D. Load (ton)	14790
Max Draught (m)	9.0
Thruster (kW)	1800

Boat Information @24:00

Boat Name	Status	Time @Chikyu Departed	Time @Chikyu Arrived
#8 Meiji-maru	NE 5mile		
Akatsuki	Chikyu		14:30
Shincho-maru	Shingu		

Weather Information

Time	Weather	Temp. (degC) Air	Temp. (degC) SW	Barometer (hPa)	Wind Speed (m/s)	Wind Dir. (deg)	Wind Gust (m/s)	Wave Height (m)	Wave Dir. (deg)	Wave Period (s)	Current Speed(knt)	Current Dir. (deg)	Visibility (km)
24:00	bc	13.5	18.9	1023.0	13.2	276	14.7	1.6	250	5.4	1.4	211	22.0

Today's Schedule: Cont. POOH back up Tri-mill assembly to surface. Check back up Tri-mill assembly condition. MU and RIH 10-5/8" window mill assembly.

Reported by : A. Suzuki / N. Sakurai

Approved by : T. Saruhashi