Chikyu DAILY MORNING REPORT

Mission No. : CK18-04 **Exp. No. :** Exp 358 **Report No. :** 100

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 :** 15/Jan/2019

Depth : @24:00 4,880.0 mBRT 2912.5 mbsf Progress : 0.0 m Drilling/Coring/Underreaming Hrs. : 0.00 hrs Last BOP PT: 1/5/19 Next BOP PT: 1/26/19

Depth : @06:00 4,880.0 mBRT 2912.5 mbsf LAST CASING : 9-5/8" x 11-3/4" ESET x 2,850.50 mbsf(4,818.0 mBRT) Last BOP FT: 1/12/19 Next BOP FT: 1/19/19

Summary of Operation on 14-Jan : RIH expandable CSG to 4,818mBRT. 9-5/8" ESET CMTG. Expand CSG. Circulate BTMs up. POOH launcher assy'. Last Glycol 35gal Inj. 1/8/19

Present Operation @ 06:00 on 15-Jan : Troubleshoot hydraracker #1 due to severe oil leaking from main arm hose.

mBRT: meter below rotary table

Time Breakdown (00:00 - 24:00 on 14-Jan) mbsf: meter below sea floor

From	To	Hrs	Code	Depth(mBRT)	Detail of Operation
0:00	6:30	6:30	CSG	4,880.0	RIH 9-5/8" x 11-3/4" Expandable casing from 3,596mBRT to 4,797mBRT
					Continue fill up as normal fill at 3,596mBRT
					Conduct circulation at 3,859mBRT(Above 11-3/4" liner) and 4353mBRT.
					Pump string volume w/350gpm x 4.6MPa
					Observe increase trip tank volume properly and confirm flapper valve close condition by trip tank
					Connect HPS and record parameter at 4,750mBRT prior to running into open hole.
					MP: 350gpm x 5.8MPa, 400gpm x 7.0MPa. PU:2,840kN, SO: 2,670kN (with pumping 350gpm).
					Resume RIH into open hole. Take weight slightly 10kN at bottom of window 4,862mBRT and pass through the window.
					Take weight 60kN at 4,797mBRT.
6:30	7:30	1:00	CSG	4,880.0	Wash down to 4,818mBRT.
					Start pumping at 350gpm x 4.8MPa. Obeserve drag 200kN from 4,803mBRT to 4,807mBRT.
					WOB decrease sharply at 4,807mBRT. Suspect pass through tight spot.
					Continue to wash down and observe drag 100kN from 4,807mBRT to 4,818mBRT.
					Take weight 200kN at 4,818mBRT.
					Attempt to pass through obstacle with several parameter, 400gpm x 6.9MPa, 500gpm x 9.2MPa and 600gpm x 12.5MPa. Maximu slack off weight: 400-500kN.
					Turn 1/2 top string and pick up 10m above. Lower string, but take weight 50kN at 4,818mBRT. Total of 10 times attempt were conducted without success.
					Make decision to set casing at 4,818mBRT, concerning metal contact at window leading cause of rature while expansion
7:30	11:00	3:30	CMT	4,880.0	Prepare for cementing.
					Prepare mixing fluid in chemical tank.
					Lay out 2 jts of 6-5/8" DP UD-165 and make up cementing stand. Run back bottom with 100kN take weight at 3810mBRT and dropped into hole again
					Connect cementing hose from cementing stand to cementing line and test line.
					Mean while circurate at 350gpm x 5.4MPa with 80kN WOB and CMC on
11:00	12:00	1:00	CMT	4,880.0	Pressure test for cementing line and test line.
					Flush test line and CMT line and conduct pressure test against Lo-torq valve on CMT head. 5,000psi x 5min. Good test.
					Test against Lo-Torq valve on both CMT line and test line. 2,000psi x 5min. Good test.
12:00	12:30	0:30	CMT	4,880.0	Hold TBRA for pump 9-5/8" x 11-3/4" ESET liner cement
12:30	13:00	0:30	CMT	4,880.0	Continue prepare mixing fluid. Keep circulation through inner string w/350gpm x 5.7MPa and tagging casing shoe on bottom w/70-100kN WOB and CMC
13:00	13:15	0:15	CMT	4,880.0	Pump Mud push by rig pump w/ 225gpm x 3.2-1.3MPa
13:15	13:30	0:15	CMT	4,880.0	Mixing cement, build up density to 1.85sg
13:30	14:30	1:00	CMT	4,880.0	Pump cement 121.6bbls(surface volume 1.6bbls) w/5bpm x 370psi
14:30	16:15	1:45	CMT	4,880.0	Displace cement
					Drop dart. Pump clean mud 1bbl and confirm dart pass cement head properly by indicator
					Drop form ball. Continue pump clean mud and confirm form ball pass cement head properly by indicator
					Continue displacing by clean mud w/6bpm x 260psi. Observe pressure increase from 290bbls x 400psi and stepping increase to 720psi(327bbls)
					Observe pressure up to 1,600psi(328bbls) then stop pump. Observe pressure drop to 50psi.
					PU off bottom ESET considering possibility of unexpected rapture of rapture disk. But return is coming back by pumping without increase pressure.
					Re-start pump w/6bpm x 700psi then stop pump without increasing pressure. Confirmed dart is not landing properly
					Continue pump w/6-8bpm x 900psi(352bbls). Observe pressure increase to 2,200psi(353bbls). Stop pump and hold pressure 10min. Confirm dart seated. OK
					Bleeding taking 30seconds to 0psi and observe no return. Rig down cement hose at rigfloor
16:15	18:30	2:15	CSG	4,880.0	Expand 9-5/8" x 11-3/4" ESET liner
					Pick up and adjust Expandable casing shoe depth at 4,814.5mBRT(3.5m off bottom)
					Apply 34MPa w/40gpm for rupture the rupture disk. Observe pressure drop from 34MPa to 22.5MPa and WOB increase from -100kN to 180kN suddenly. OK
					Confirm rapture of rapture disk
					Expanding from 4,814.5mBRT to 4,804mBRT
					After rupture disk. Start expanding immediately by controlled speed <1.7m/min w/cement stand.
					Maintain parameter 40gpm x 15-20MPa, WOB:0-80kN. Stop at 4804mBRT for connection and increase pressure to 20Mpa and HK2550kN (200kN)
					Bleed off pressure slowly taking 30seconds and HK2700kN (WOB0kN). Lower 2m for connection and rack back cement stand
					Expanding from 4,804mBRT to liner top
					Connect HPS, start pumping with 100gpm and confirm return from top of liner at surface.
					Then pick up 1.5m and wait until pressure increase to 20Mpa / HK2550 (WOB 200kN)
					Start picking up maintaining PU speed monitoring pressure 14-18Mpa. Observed reduction of pressure and WOB at ESET connection
					Before break connection, keep pumping until pressure increase from 13MPa to 20MPa. Confirm tag bottom by WOB:100-150kN then bleed off pressure.
					Lower 2m after the bleed off and proceed for connection operation
					Cone passage through window does not change any expansion parameter.
					Before entering packer seal area, reduce flow rate from 100gpm to 50gpm. Continue picking up w/50gpm x 17-19MPa.
					Observe Hookload gradually increase from 2,500kN to 2,600kN while passing packer seal area from 4,608mBRT to 4,606mBRT.
					After pass first seal w/50gpm x 16.5MPa. Reduce flowrate to 25gpm x 15MPa then start bleed off. Keep pumping w/25gpm x 0MPa until 4,601mBRT.
					After pass last seal, observe overpull 100kN from 4,606mBRT to 4,604mBRT then suddenly drop after pass 4,604mBRT
					Confirm top of liner depth. Tag w/50kN at 4,604mBRT at MSL (Casing shoe locate at 4,818mBRT)
18:30	21:00	2:30	CSG	4,880.0	Circulation bottoms up at 4,600mBRT
					Drop form ball and circulation 1time w/850gpm x 19.5MPa on string, 450gpm x 4.3MPa on booster. Confirm no cement coming back on return line. OK
21:00	22:30	1:30	TRIP	4,880.0	POOH 9-5/8" x 11-3/4" ESET launcher assembly to 4,274mBRT
22:30	22:45	0:15	OTHER(N)	4,880.0	Troubleshoot hydraracker #1 due to severe oil leaking from main arm hose. Change out to hydraracker #2
22:45	24:00	1:15	TRIP	4,880.0	POOH 9-5/8" x 11-3/4" ESET launcher assembly to 3,972mBRT
					Meanwhile: Troubleshoot hydraracker #1 due to severe oil leaking from main arm hose, ongoing. Dress junk mill OD by SLB at welding shop, ongoing

Time Breakdown (00:00 - 06:00 on 15-Jan) * The data on 00:00 - 06:00 is unofficial.

From	To	Hrs.	Code	Depth(mBRT)	Detail of Operation
0:00	4:15	4:15	TRIP	4,880.0	Continue to POOH 9-5/8" x 11-3/4" ESET launcher assembly from 3,972mBRT to xxxxmBRT
					Meanwhile: Dress junk mill OD by SLB at welding shop, confirm ring gauge pass through smoothly.
4:15	6:00	1:45	RR	4,880.0	Troubleshoot hydraracker #1 due to severe oil leaking from main arm hose.
					Change out bkoken hose (on going).

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

	9-5/8" x 11-3/4" ESET	Launcher assembly x 9-5/8" x 11-3/4" ESET (20jts) x Anchor hanger x Taper guide
	Inner string	Safety joint x XO#1 x Debris catcher (2 jts) x XO#2 x 5" DP S140 (3m pup) x 5"DP S140 (5stds) x XO #4 x Debris catcher (1jt) x XO #5 x5"DP S140 (7stds) x 5-1/2"DP S140 (22stds) x XO #7 x 5-1/2" DP S-150 (70stds) x XO #8 x 6-5/8" DP Z-140 (12stds) x 6-5/8" DP UD-165

Hook Wt. (knt) @24:00	3,972.0	mBRT
Hook Load		2,140
BHA		75
Below DC		-
below Jar		-
HPS & Traveling block		615
Hook + RRT		-
Hook block		-

Jar Rotating time 2< S/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	2:00	Pit	1.39	65	24	28	10	9	18	7.3	1.1	9.5	0.1	120,700	0.20		19.0	2.25	11		20,300	0.42	3.38	6.40	-	-
KNPP	12:30	4,818	1.39	65	24	30	10	9	18	7.3	1.1	9.5	0.1	120,700	0.20		19.0	2.25	11	9	20,300	0.45	2.70	6.40	-	-

Cutting skip @24:00

Empty	Full	Total
46	0	46

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

No.	Liner Size	SPM	GPM	Press. (MPa)	Ann. Vel. (m/min) 6.75"DC	Ann. Vel. (m/min) 5.5"DP
1	6"	0	0	0.0	0	0
2	6"	0	0			
3	6"(Booster)	0	0			

Personnel @24:00

CDEX	8
MQJ Crew	101
MWJ	15
Scientist	10
Telnite	2
Oceaneering	6
SLB Cementing	3
SLB WL	0
Geoservices	6
M-I SWACO	4
SLB Underreamer	2
SLB LWD	2
SLB Seismic	0
AFGlobal	2
ENVENTURE	3
SLB DD	1
Franks	2
Total	167

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

Item	Received	Used	Stock
Barite (Bulk)		9,000	385,000
Caustic Soda			1,200
Lime			200
Soda Ash			625
Caustic Potash			2,025
Tel-Polymer DX / L / H			2,160/2,240/0
XCD-Polymer			725
Lignate NC			4,500
Clean Lube W			0
Tel Clean W			5,800
Astex-S			4,400
Deformer 30C			512
Tell DD			3,200
Bi-Carbonate			1,000
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
Barolift (lbs)			1,935
Driscal D			0
Tel Flow P			0
Poro Seal			0
Steel Seal 50 (lbs)			1,000
KCl			6,000
NaCl			15,000
Fracseal (lbs)			8,000
Stopseal (lbs)			0
Bentonate(Bulk)			46,000

ROV @24:00

Status	Dive
Last Dive	1/14/19
Injection Skid	Dive w/135 gal skid

Geologic Information @24:00

From	To	Lithology of cuttings

Shale Shaker / Centrifuge @24:00

No.1	30, 230	No.4	30, 230	#1-#3 Centrifuge running time
No.2	30, 230	No.5	30, 230	
No.3	30, 230	No.6	30, 230	

Heli Information @24:00

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

Safety (HSE) and other information

Incident	Last Incident	No. LTA
LTA		
HUNS cards	25	

Remarks

Materials Stock on Board @24:00

Item	Unit	Stock	Used	Received
Fresh Water	m3	326.1	79.1	99.1
Potable Water	m3	246.4	4.6	0.0
Drill Water	m3	1,264.8	74.3	0.0
Fuel	m3	4,385.8	46.2	0.0
Lube, Oil	Ltrs	80,000	0.0	0.0
Heli Fuel	Ltrs	0.0	0.0	0.0
Cement "GWC"	ton	161.9	24.1	0.0
Cement "G"	ton	97.0	0.0	0.0

Mud volume@24:00

Mud Volume (m3)	
KNPP mud (1.39)	401
KNPP (Fracseal)	204
KNPP (BAROLIFT)	50
KNP mud (1.33)	47
KNP mud (1.13)	105
STOPLOSS(1.37)	54
Slug mud (1.70)	9
total	870

Marine Information @24:00

Heave (m)	0.3
Pitch (deg)	0.3
Roll (deg)	0.1
Vessel Heading (deg)	050
Riser Tension (kN)	9750.0
V.D. Load (ton)	13352
Max Draught (m)	9.0
Thruster (kW)	1000

Boat Information @24:00

Boat Name	Status	Time @Chikyu Departed	Time @Chikyu Arrived
#8 Meiji-maru	Chikyu		
Akatsuki	Chikyu		
Shincho-maru	Chikyu		19:30

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	11.0	17.3	1024.1	7.2	24	8.9	1.4	30	6.3	0.6	238	22.0

Reported by : N.Sakurai / T.Nishiyama

Today's Schedule: Continue to POOH 9-5/8" x 11-3/4" ESET launcher assembly to surface. RIH 9.851" DOC assembly.

Approved by : T.Saruhashi