



Daily Operations Report

Report No.: 15.0

Date: 6/25/2020

DFS: 13.81

DOL: 15.00

Planned DOW: 29.50

Well Name: RT-P1

Wellbore Name: Sidetrack 1

Spud Date 4/25/2020 04:30	Depth Progress (m) 0.00	Current Depth (mKB) 2,009.00	Current Depth (TVD) (...) 2,008.80	Authorized MD (mKB) 2,009.00	Water Depth (m) 1,189.00	Orig KB Elev (m) 24.00	KB-MudLn (m) 1,213.00
PTTEP Field Name Rotan		Block H	Country Malaysia	State/Province Sabah	District Malaysia	Latitude (°) 7° 21' 3.323" N	Longitude (°) 115° 51' 44.974" E
Contractor Seadrill Ltd		Rig Name/No West Carina		Rig Phone/Fax Number +603 7490 7577		BHA Hrs of Service (hr) 0.00	
Leak Off Equivalent Fluid Density (lb/gal) 10.60		Last Casing String Intermediate, 1,970.30mKB		Next Casing String			

Last Survey

Wellbore Name Sidetrack 1	Measured Depth (mKB) 2,009.00	TVD (mKB) 2,008.80	Inclination (°) 0.76	Azimuth (°) 163.52
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Team Leader, Supervisor, & Engineers

Title	Job Contact
Manager, Drilling Project (Development)	Adrian Young
Manager, Completion and Intervention	Kasim Selamat
Intervention Engineer	Intiran Raman
Drilling Supervisor	Scott Caldwell
Drilling Supervisor	Cole Lucky
Completion Supervisor	Malcolm Martin
Completion Supervisor	Indhran Sinnathamby

AFE & Field Estimated Cost

WBS/AFE Number 401-00157.01.01.01 / 401.00129.03.03	Total WBS/AFE Amount (Cost) 30,173,144.37	Supp Amt (Cost)	Total WBS/AFE + Supp Amount (Cost) 30,173,144.37
Permit #/Well License #	Daily Cost (Cost) 964,635.56	Cum Daily Cost (Cost) 12,999,826.85	Daily Mud (Cost) 37,191.29
		Cum Daily Mud (Cost) 2,591,436.60	

Safety

Days Since Lost Time Incident (days) 166.00	Days Since Reportable Incident (days) 166.00	
Type	Last Date	Next Date
BOP Function Test	6/23/2020	6/30/2020
BOP Pressure Test	6/18/2020	7/9/2020
Safety Drill	6/23/2020	6/30/2020
Safety Meeting	6/21/2020	6/28/2020

Observation Card Summary

PE/Stop Type	Count
STAR Observation Cards	193
Tool Box Risk Assessment (TBRA)	14
Permit to Work	14

Safety Comments

Comment

No Accidents / No Incidents / No Pollution / No First Aid Cases / No Near Misses

Days since Last Drop: 76 day

Days since First Aid Cases: 109 days

STAR Observation Card Summary: Positive – 158; TOFS – 9; Unsafe Act –20; Unsafe Condition – 15; Near Misses - 0.

Pre-Tour Safety Topic :: Priority for backload of equipment. If in doubt STOP and Re-assess with PTTEP Rep.

Comment

COVID-19 Issues :

- From June 1, 2020, expatriates will be required to obtain a letter of undertaking for the QT hotel prior to traveling to Malaysia
- Labuan Point hotel excess rooms have been released as per PETRONAS instructions
- PETRONAS met with authorities and Labuan restrictions have eased
- Expatriates still need 14 days quarantine for those flying by chopper as per ministry of transport directive
- Received letter of support from MPM for technical employees from PTTEP, EP Engineering, NUV Engineering
- EXPRO and other service companies without valid work permits were not supporting
- Discussion with MPM drilling on expatriate movements held on the 19th of June
- Immigration authorities have allowed category 1 visas and talent residence visa holders into the country without pre-approval
- Minister of Health considering travel bubbles with Japan, South Korea, New Zealand, Australia, Singapore and Brunei subject to mutual and reciprocal agreements
- COVID-19 drilling costs being finalized for end of campaign



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Operations Summary

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POOH with tree bore protector, R/U and run upper completions on RT-P1, P/U packer, Chemical injection mandrel, Gauge mandrel, Make terminations, TIH with 5 1/2" tubing to safety valves and methanol chemical injection mandrel, Make terminations.

24 Hr Forecast

Make terminations at chemical injection mandrel, TIH with 5 1/2" tubing, P/U TH and make terminations at TH, P/U THRT and TIH with 7" landing string.

Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
00:00	02:00	2.00	Production, Run Comp	TOH		P	POOH with WBCO tools. - L/O 2 7/8" tubing - R/D Franks handling equipment - R/U to handle drill pipe
02:00	04:30	2.50	Production, Run Comp	TIH		P	Recover HXT bore Protector. - P/U MRT stand racked in derrick - RIH from surface to 40m - P/U single from RCWM - Install PS-15 slips - RIH from 40m to 1175m - Connect TDX - Open / balance CMC - Jet BP w/ 600gpm/270psi (3 passes) - Land MRT in BP at 1206m w/ 20k down - Check index 1207.60m - Work clear with 30 to 40k O/Pull - Pressurize backside thru IWOCS to 2267psi - Pull BP from 1206m while jetting tree at 600gpm/270psi
04:30	07:00	2.50	Production, Run Comp	TOH		P	Recover HXT bore protector. - POOH with XMT bore protector on 5 7/8" drill pipe from 1207 to 29m - Remove auto slips insert bushings - Lay out single to skate - Remove XMT bore protector from tool and break out jet sub, rack back in derrick - 16" of MRT seals missing
07:00	08:30	1.50	Production, Run Comp	TUBING	TBGRUN	P	Rig up to run 5 1/2" production string. - Change BX inserts to 5 1/2" tubing - Install rotator on BX Elevators - Rig up Frank's hyd tong, FMS, & manipulator arm - Position Halliburton flat pack clamps - Function test all equipment - Spot Haliburton reels in position. - Boost riser / filter brine at 400gpm/260psi
08:30	10:00	1.50	Production, Run Comp	TUBING	TBGRUN	P	Pick up Upper Completion assemblies from RCWM and RIH to 28.71m. Assembly #1 (HHC-0663-L) - Wireline Entry Guide - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - 4.188" RPT Nipple Landing Profile - Flow Coupling - 5-1/2" 23# JFE Lion 13Cr-L80 - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - HHC Hydrostatic Set Packer (Pip tag installed in bottom sub) - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint Assembly #2 (CIV-0056-L) - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Chemical Injection Mandrel 3/8" FMJ Connection (Scale) - 23# JFE Lion 13Cr-L80 Pup Joint Assembly # 3 (PDG-0160-L) - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Permanent Gauge Mandrel - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint



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Wellbore Name: Sidetrack 1

Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
10:00	13:30	3.50	Production, Run Comp	TUBING	TBGRUN	P	Make up 15 foot pup joint of 5-1/2" 23# JFELion 13%Cr L-80 tubing joint on top of Assembly #3. - Make up cable termination to permanent gauge mandrel and chemical injection mandrel - Pressure test against cable termination to 16,000psi - Downhole gauge readings. Pressure 14.92 psi/Temp 29.25deg celcius - Prepare & connect 3/8" line to CIV - Pressure test external fittings 1000psi/1mins 10000psi/10mins - Pressure up internally @ 1000psi increments to 6200psi to burst rupture disc - Injection pressure after burst 200psi - Secure control line to SCMLA
13:30	15:30	2.00	Production, Run Comp	TUBING	TBGRUN	P	TIH with upper completions assemblies from 28m to 329m. - 25 joints 5 1/2" 23# JFE Lion 13cr L80 tubing - Install flat pack clamps at each coupling
15:30	18:30	3.00	Production, Run Comp	TUBING	TBGRUN	P	TIH with Upper Completion assemblies from 329m to 339m. Assembly #4 TRSV 0432-L - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Flow Coupling - 5-1/2" 23# JFE Lion 13Cr-L80 - Depth-Star TRSSSV (Lower) - Flow Coupling - 5-1/2" 23# JFE Lion 13Cr-L80 - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Install control line protector to coupling - Confirm NAS 6 fluid sample from each line. - Strip back and connect the Dual Control Line to the DepthStar - M/up 1/4" control line HiF fittings & test internally to 10000psi/15mins - Open/closing pressures & return volume - Cycle 1 Open 2500psi/Closed 1800psi Vol Return 380ml - Cycle 2 Open 2500psi/Closed 1800psi Vol Return 370ml - Cycle 3 Open 2500psi/Closed 1800psi Vol Return 370ml (Hold for 15mins) - Internally test 1/4" Lower TRSSSV balance line and fittings to 7,500psi/15mins -690ml returned - Pump up TRSV open line to 5,000psi and balance line to 1,000psi for TIH
18:30	21:30	3.00	Production, Run Comp	TUBING	TBGRUN	P	RIH with Upper Completion assemblies from 339m to 361m. Assembly #5 TRSV-0431-L - 1 x single joint 5-1/2" 23# JFE Lion 13cr L80 Tubing - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Flow Coupling - 5-1/2" 23# JFE Lion 13Cr-L80 - Depth-Star TRSSSV (Upper) - Flow Coupling - 5-1/2" 23# JFE Lion 13Cr-L80 - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Confirm NAS 6 fluid sample from each line. - Strip back and connect the Dual Control Line to the DepthStar - M/up 1/4" control line HiF fittings & test to 10000psi/15mins - Open/closing pressures & return volume - Cycle 1 Open 2500psi/Closed 1200psi Vol Return 280ml - Cycle 2 Open 2500psi/Closed 1250psi Vol Return 260ml - Cycle 3 Open 2500psi/Closed 1500psi Vol Return 270ml (Hold for 15mins) - Internally test 1/4" Lower TRSSSV balance line and fittings to 7,500psi/15mins -1240mls returned - Pumped open upper TRSV open line to 5,000psi and balance line to 1,000psi for TIH



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21:30	00:00	2.50	Production, Run Comp	TUBING	TBGRUN	P	TIH with Upper Completion assemblies from 361m to 367m. Assembly #6 CIV-0055-L - 5 1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Chemical Injection Mandrel 1/2" FMJ Connection - 5-1/2" 23# JFE Lion 13Cr-L80 Pup Joint - Flush the line with HW 540 (NAS 8 specification) from the spooling unit - Install the 1/2" line to the connector of the valve - Externally pressure test chemical injection line to 10,000psi/10 minutes - Pressure up 1/2" control line in 1,000psi increments to 6350psi to burst rupture disc - Establish injection rate of 50psi Record power on & off check for PDG-0160-L - ROC 006688 - Add 042 Power on check - Current 7.76mA - Voltage 44.72Vdc - Pressure 613.25psi - Temp 11.42degc Power off check - +Resistance 1.417MOhm - -Resistance OL - +Diode OL - -Diode OL - Capacitance 76.1nF

Time Log Total Hours (hr)

24.00

Offline Activity Dates

Description	Start Date	End Date
Operations at Report Time		

Operations Summary

Operations Next Report Period

Offline Activity Time Logs

Start Time	End Time	Dur (hr)	Activity	Sub Activity	Wellbore	Operation

00:00 - 06:00 Update

Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
00:00	01:30	1.50	Production, Run Comp	TUBING	TBGRUN	P	TIH with upper completions assemblies from 367m to 668m. - 25 joints 5 1/2" 23# JFE Lion 13cr L80 tubing - Install flat pack clamps at each coupling - Total clamps used = 56
01:30	02:30	1.00	Production, Run Comp	TUBING	TBGLNDHGR	P	R/Up to handle TH. - Remove Franks RS 350 slips - Install manual bushings - Change elevator inserts to 7" - P/U TH from cradle & connect saver sub - M/U TH assy to string - R/D Franks casing tong - Reposition flat pack manipulator arm



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00:00 - 06:00 Update

Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
02:30	06:00	3.50	Production, Run Comp	TUBING	TBGLNDHGR	P	TIH with Upper Completion from 668m to 672m. Assembly #7 (Tubing hanger assembly 367653.001) - Land tubing hanger on RCWM and install RT - Pick up inspect and make up to production string in rotary - String wt. = 55K - Position assembly as necessary to terminate control lines - Power down gauge - Assembly control # PDG-0160-L - ROC-006688 - Add:042 - Power on Check - Current = 7.78mA - Voltage = 44.72Vdc - Pressure = 1149.90psi - Temp = 7.60 degC - Power off Check - +Resistance = 1.443MOhm - -Resistance = OL - +Diode = OL - -Diode = OL

Mud Data

Mud Base Type Brine	Density (lb/gal) 10.20	ECD - Manual Entry (l...	Electric Stab (V)	Funnel Viscosity (s/qt)	PV Override (cP)	YP Override (lb/100ft²)	Solids (%)
Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Filtrate (mL/30min)	HTHP WL (mL/30min)	Filter Cake (1/32")	H2O (%)	Oil (%)	Oil Water Ratio
Sand (%)	LGS (%)	LGS by Weight (lb/bbl)	Avg SG of Solids (sg/h...	Chlorides (mg/L)	Calcium (mg/L)	Max H2S (ppm)	KCl (lb/bbl)

Remarks

- Boosting riser and circulate well clean at 400gpm via bypass return line
- Return form well lineup to Pit #10 and continuously filtering brine to Pit #11

Active Pit #11: Brine in (NTU 68 / TSS 0%)

0.5 x BU sample brine out NTU 71 / TSS-0

0.75 x BU sample brine out NTU 58 / TSS-0

1 x BU sample brine out NTU 43 / TSS-0

1.5 x BU sample brine out NTU 51 / TSS-0

- Prepare 200 bbl of 10.4 ppg Packer fluid in Slug #1 and #2
- Prepare 100 bbl of 10.4 ppg Suspension fluid in Chem Pit #1
- Prepare 49 bbl of 12.3 ppg NaBr slug in Chem Pit #2
- Backloaded partially excess chemicals onboard to SK.Atlantik

Fann Data

Vis 3rpm	Vis 6rpm	Vis 100rpm	Vis 200rpm	Vis 300rpm	Vis 600rpm
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Pump / Hydraulics

Pump #	Make	Model	Stroke (in)	Liner Size (in)
1	National Oilwell Varco (NOV)	14-P-220	14.00	6 1/2
2	National Oilwell Varco (NOV)	14-P-220	14.00	6 1/2
3	National Oilwell Varco (NOV)	14-P-220	14.00	6 1/2
4	National Oilwell Varco (NOV)	14-P-220	14.00	6 1/2
Pump #	Eff (%)	P (psi)	Strokes (spm)	Q Flow (gpm)

Bits

Bit Run	Size (in)	Make	Model	SN	Nozzles (1/32")	Depth In (mKB)	Date In	Bit Dull

BHA #<stringno>, <des>

Date In	Date Out	String Length (m)	Max Nominal OD (in)
End Depth (mKB)	String Weight Up (1000lbf)	String Wt Down (1000lbf)	String Wt Rot (1000lbf)
Drag (1000lbf)	Torque On Bottom	Torque Off Bottom	

Assembly Components

Component Type	# of Jts	Len (m)	OD (in)	ID (in)	Connections	Mass/Len (lb/ft)	Cum Wt (1000lbf)	Com



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MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Personnel

Vendor	Vendor Note	Count
PTTEP	Operator	8
Aker Solutions	Tree	6
Halliburton	Baroid - Mud Engineer	2
Halliburton	Cementing	2
Reach Coach	Performance Coach	1
Selaut Oiltools	TRS	6
Oceaneering	ROV	6
Schlumberger	Completion	1
Expro	Welltest & Subsea	23
Coretrax	Wellbore Clean-out	1
Geoservices	NDT Inspection	1
Seadrill	Rig Contractor	49
Seadrill	Rig Subcontractor - Connect Energy	10
Seadrill	Rig Subcontractor - OVE	24
Seadrill	Rig Subcontractor - ISOS	1
Seadrill	Rig Subcontractor - Sodexo	16
Halliburton	Upper Completion	7
Schlumberger - Dowell	Nitrogen	3
Geowell	Slickline	5
Uzma	Filtration	4
Schlumberger - Wellog	E-Plug	1
Schlumberger - Wellog	Wireline	3
Halliburton	Tronic	1

Head Count

181.0

Material - Bulk

Product Name	Unit Label	Received	Consumed	Cum On Loc
Pacific Hawk Base Oil	bbl	0.0	0.0	0.0
Pacific Hawk Brine	bbl	0.0	0.0	0.0
Pacific Hawk Brine	bbl	0.0	0.0	0.0
Pacific Hawk Diesel	L	0.0	0.0	0.0
Pacific Hawk Potable Water	bbl	0.0	0.0	0.0
Pacific Hawk Surface Blend Cement	MT	0.0	0.0	0.0
Pacific Hornbill Base Oil	bbl	0.0	0.0	800.0
Pacific Hornbill Brine	bbl	0.0	0.0	0.0
Pacific Hornbill Diesel	L	550,000.0	5,000.0	647,049.0
Pacific Hornbill Potable Water	bbl	0.0	62.9	4,214.18
SK Atlantik Base Oil	bbl	0.0	0.0	25.0
SK Atlantik Bentonite	sacks	0.0	0.0	0.0
SK Atlantik Brine	bbl	0.0	0.0	1,021.0
SK Atlantik Diesel	L	0.0	15,019.0	305,135.0
SK Atlantik Drill Water	bbl	0.0	0.0	362.0
SK Atlantik MB-DIF	bbl	0.0	0.0	0.0
SK Atlantik MB-DIF	bbl	0.0	0.0	0.0
SK Atlantik Potable Water	bbl	0.0	31.45	332,515.65
West Carina Barite	sacks	0.0	0.0	829.76
West Carina Base Oil	bbl	0.0	0.0	1,113.0
West Carina Bentonite	sacks	0.0	0.0	0.0
West Carina Brine	bbl	0.0	256.0	2,513.0
West Carina Diesel	L	0.0	41,000.0	2,987,000.0
West Carina Drill Water	bbl	0.0	125.8	5,258.52
West Carina MB-DIF	bbl	0.0	0.0	0.0
West Carina Potable Water	bbl	415.13	333.36	6,120.5
West Carina Production Blend Cement	MT	0.0	0.0	113.8
West Carina Surface Blend Cement	MT	0.0	0.0	525.11

Weather

Time 00:00	Wind Speed (knots) 9.0	Wind Direction 202.5	Wave Height (m) 0.30	Swell Height (m) 0.30	Swell Direction (°) 225.00	Swell Period (s) 4.00
Current Speed (knots) 12.0	Current Direction (°) 202.50	Visibility (km) 11.3	Heave (m) 0.10	Pitch (°) 0.10	Roll (°) 0.10	Temperature - High (°C) 28.0
						Temperature - Low (°C) 27.0



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Anchor Tension

Pos Type	Des	Tension (kips)	Dir

Support Vessels

Vessel Name	Vessel Type	Arrival Date	Note	Depart Date
Pacific Hawk	Supply Vessel		Onhire 19 February 2020 16:30 Hours Offhire 21 May 2020 12:00 Hours	
Sea Gull	Supply Vessel		Onhire 27 February 2020 18:00 Hours Offhire 13 April 2020 12:00 Hours	
SK Atlantik	Supply Vessel	6/22/2020	Onhire 7 February 2020 00:00 hrs	6/21/2020
Pacific Hornbill	Supply Vessel	6/26/2020	Onhire 21 May 2020 16:00 Hours	6/25/2020

Remarks

Remarks

Days on PTTEP Contract: 116.0 days (Rig on-hire 02 03 2020, 21:00 hrs)
Days on RT-P1: 15.0 days

Total AFE for Block H Campaign = \$129,480,424
Total Expenditure for West Carina Rig Mob Demob = \$10,807,688.94

Total Expenditure for RT-P1 = \$12,999,826.49
Total Drilling Expenditure for RT-P1 = \$5,316,634.80
Total Completion Expenditure for RT-P1 = \$7,683,191.69

Total Expenditure for RT-P2 = \$21,285,556.04
Total Drilling Expenditure for RT-P2 = \$8,439,293.57
Total Completion Expenditure for RT-P2 = \$12,846,262.47

Total Expenditure for RT-P3 = \$23,548,791.21
Total Drilling Expenditure for RT-P3 = \$8,438,388.78
Total Completion Expenditure for RT-P3 = \$15,110,402.55

Total Expenditure for BL-P1 = \$30,114,718.46
Total Drilling Expenditure for BL-P1 = \$12,271,647.00
Total Completion Expenditure for BL-P1 = \$17,843,071.46

Total Expenditure for Block H Phase 1A Campaign = \$98,756,581.14

Project WBS No

401-00129.03.03 Rotan Support Vessel (\$400,000.00)
401-00151.03.01 Buluh Support Vessel (\$400,000.00)

"MPM Status - GREEN"

Rig Position (Timbalai Datum):

Latitude: 07° 20' 59.550" N
Longitude: 115° 51' 55.380" E
Heading: 080.00° (True)

RKB – MSL: 24 m

Water Depth: 1,189.0 m

RKB - Mudline: 1,213.0m MD

RKB- 18 3/4" LPWHP: 1,210.53m MD

RKB - 18 3/4" HPWHP: 1,209.63m MD

RKB – 18 3/4" x 10 3/4" Casing Hanger: 1,211.17m MD

RKB – 18 3/4" x Lock Down Bushing: 1,210.50m MD

Vessel Movements:

SK Atlantik = At West Carina

Pasifik Hornbill = In Transit To West Carina (ETA 26 06 2020 @ 13:30 Hours)