



Daily Operations Report

Report No.: 17.0

Date: 6/27/2020

DFS: 15.81

DOL: 17.00

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	Alistair Gauld

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) 798,399.35	Cum Daily Cost (Cost) 14,712,284.43	Daily Mud (Cost) 15,953.75
			Cum Daily Mud (Cost) 2,623,344.10

Safety

Safety

Days Since Lost Time Incident (days) 168.00	Days Since Reportable Incident (days) 168.00	
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	189
Tool Box Risk Assessment (TBRA)	19
Permit to Work	19

Safety Comments

Comment

Near Misses : Personnel were working in a work basket above the rig floor to secure the umbilical in the Expro cased wear joint using an air ratchet. During the operation an air regulator/lubricator, weighting 1.34kg became detached from its frame which was secured and fell 10.9m to the rig floor. Safety Stand Down was held with crew on rig floor after incident and also with crew prior to coming on tour at 12:00. Investigation ongoing - No Injury to Personnel.

Days since Last Drop: 0 day

Days since First Aid Cases: 111 days

STAR Observation Card Summary: Positive – 152; TOFS – 4; Unsafe Act – 20; Unsafe Condition – 17; Near Misses - 1.

Pre-Tour Safety Topic :: Safety Stand Down

- Dropped objects and working at height
- Red Zone area and Importance of Barriers
- Stay Focused and Continue with great job the team are doing

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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Wellbore Name: Sidetrack 1

Operations Summary

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TIH with 7" landing string, P/U upper and lower lubricator valves, P/U CTLF, and flow head, land, latch and test TH, perform inflow test.

24 Hr Forecast

Spot packer fluid, set and test packer, Recover isolation sleeve, set nipple protector, cycle open FIV, flow well for clean up.

Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
00:00	03:00	3.00	Production, Tubing Hanger	TUBING	TBGRUN	P	TIH w/ SSTT / TH assy. <ul style="list-style-type: none">- TIH on 7" landing string from 1322m to 1838m- At a controlled speed of 4mins/std- With C/K lines vented to strip / TT- Install umbilical clamps every other connection- Total clamps = 49- Double clamps = 1
03:00	04:30	1.50	Production, Tubing Hanger	TUBING	TBGRUN	P	P/Up upper and lower lubricator assembly. <ul style="list-style-type: none">- Space out with landing pup joints- Function test SSLV per Expro procedures- Flush SSLV chemical injection line with HW540- Pressure test Upper Lubricator Valve- Open line 5000psi/5mins- Close line 6000psi/5mins- Pressure test Lower Lubricator Valve- Open line 5000psi/5mins- Close line 6000psi/5mins
04:30	10:30	6.00	Production, Tubing Hanger	TUBING	TBGRUN	P	P/Up CTLF and Surface Tree. <ul style="list-style-type: none">- P/Up CTLF to rig floor from RCWM, latch into elevator- Install 6' bails- P/Up surface tree and landing joint assembly- M/Up cement hose to kill wing valve c/w 2 low torque valves- P/Up to the vertical position- Install 7" saver pup on btm of 7" landing joint assembly.- M/up landing joint assembly to landing string,- Install EXPRO umbilical lines into riser protection guard on STT landing joint.- Remove RS350 slips- Install master bushings- P/up wt 384kips.- S/off wt 380kips.
10:30	12:00	1.50	Production, Tubing Hanger	TUBING	TBGLND HGR	P	Land TH in XMT. <ul style="list-style-type: none">- Review valve status- Open (IWOCs) - AAV, AMV, PMV and XOV- Open (ROV) HRV, and PVV- Confirm THRT latch and TH unlock each have 5,000psi at Expro reel- Pump from IWOCs via AMON line and HRV 2 liters/min- Line up tree valves- Confirm vessel offset- Slack off string while monitoring indicators- Observed increase in pressure on Amon line (stopped pumping)- Applied 20k weight down,- Confirm index line- Apply an additional 10K down weight- Close 9 5/8" UPR rams with 17.1 gallons w/500psi BOP manifold pressure- Apply 1,000psi down kill line between 9 5/8" rams and TH 0.6bbls pumped.- Lock TH to XT w/ 5000psi- Bleed off pressure (0.6bbl return) No communication observed with the Expro unit- Open UPR w/ 16.9gal- O/Pull to 100k- Slack off maintaining 25K overpull on landing string- Close UPR w/ 15.5gal
12:00	13:00	1.00	Production, Tubing Hanger	TUBING	TBGLND HGR	P	Test tubing hanger with cement unit. <ul style="list-style-type: none">- Pressure up down the kill line with UPR closed- Test tubing hanger from above to 500psi/5 minutes and 5000psi/15 minutes- Volume pumped 1.25bbls volume returned 1.25bbls- Engage H-Pen with ROV Total Turns = 22.5 Max Torque = 832 Nm. Confirm communication with Downhole Gauge 3309 psi/43.0 degree C



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Well Name: RT-P1

Wellbore Name: Sidetrack 1

Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
13:00	16:00	3.00	Production, Tubing Hanger	TUBING	TBGLND HGR	P	Test Gallery seals. - Confirm valve status - Test upper & middle gallery seals via PVV with 500/ 5000psi-5/25mins - Volume pumped 1.07, returned 1.07 - Configure tree to test bore seals - Test bore seals w/ cement unit with 500/5000psi-5/15mins - Volume pumped 1.33, returned 1.33
16:00	17:00	1.00	Production, Tubing Hanger	TUBING	TBGLND HGR	P	Pressure test Surface lines and 7" Landing string. - Line up cement unit to string - Open AMV & AAV - Flush w/ 5bbl 10.2ppg brine - Close kill wing & pressure test surface lines with 500/5000psi-5/10mins - Volume pumped .13bbls / return .13bbls - Bleed pressure & open kill wing - Close retainer valve - Pressure test L/String with 500/5000psi-5/10mins - Volume pumped 3.7bbl / return 3.7bbl Offline - Position Geowell slickline equip. on RCWM bridge - R/U Geowell slick line lubricator and test to 500/5,000psi 5/10 minutes - R/U coflex hose to STT flow wing valve
17:00	18:00	1.00	Production, Tubing Hanger	TUBING	TBGLND HGR	P	Perform inflow test of SCSSV's. - Pressure test surface lines to 5000psi/5mins w/ 10.2ppg brine - Align cement unit to kill line - Open AMV - Close PMV, XOY, & lower SCSSV - Flush 3bbls 10.2ppg brine through lines - Close lower SCSSV - Pressure test lower SCSSV to 750psi/15mins - (1.0bbl pumped / returned) - Bleed pressure - Open lower SCSSV - Break circulation with 3bbls - Close upper SCSSV - Pressure test upper SCSSV to 750psi/15mins - 1.0bbl pumped / returned - Open upper SCSSV & break circulation
18:00	19:00	1.00	Production, Tubing Hanger	DIS		P	Spot 35bbl base oil in kill line. - Align cement unit to kill line - Pump 35bbl 6.7ppg base oil at 64gpm/114psi - Align rig pumps to kill line - Spot base oil by displacing with 42bbl 10.2ppg brine at 170gpm/120psi
19:00	20:30	1.50	Production, Tubing Hanger	DIS		P	Spot packer fluid / displace string to base oil. - Pump 20bbl 10.4ppg MEG at 170gpm/180psi - Pump 200bbl 10.4ppg packer fluid at 170gpm/190psi - Pump 210bbl 6.7ppg base oil at 170gpm/195psi - Stop pumps & close upper LBV w/ 980psi below - Bleed pressure & close master valve
20:30	23:00	2.50	Production, Tubing Hanger	PKR		P	Prep / set packer. - Flush surface lines w/ 17bbl 10.2ppg brine - Open master valve - Equalize above upper LBV w/ 980psi & open same - Pump 8.0bbl base oil close auto-choke - Pressurize to 1200psi (+200psi) - Pressurize string to 4500psi to set packer / hold for 15mins - Bleed pressure from annulus (1.1bbl returned) - Maintain 4500psi/15mins in string - Bleed off to 980psi (3.5bbl returned) - Close upper LBV / bleed off - Close master valve



Daily Operations Report

Well Name: RT-P1

Wellbore Name: Sidetrack 1

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Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
23:00	00:00	1.00	Production, Tubing Hanger	PKR		P	Test packer from above & TH from below. - Close KVV - Align cement unit to choke line - Test with 1500psi/15mins 1.2bbl pumped / returned) Concurrently - Install NRV at KVV

Time Log Total Hours (hr)

24.00

Offline Activity Dates

Description	Start Date	End Date
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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
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00:00 - 06:00 Update

Start Time	End Time	Dur (hr)	Phase	Activity	Sub Activity	Type	Operation
00:00	05:00	5.00	Production, Tubing Hanger	SLICKOP	SLKPLUG	P	Slickline Operations. - Equalize pressure and open SV - RIH recover isolation sleeve and POOH to surface - L/Out isolation sleeve - M/Up Nipple Protector - Test quick sub to 3,500psi - Equalize pressure across lower lubricator with cement unit, open lubricator valve - TIH from surface to 1207m - Set and jar off Nipple Protector - POOH from 1207m to surface - Close lubricator - Equalize pressure across KVV to 980psi - Bleed off pressure - Close master valve
05:00	06:00	1.00	Production, Tubing Hanger	WELLHEAD	WHDST	P	Test Surface Equipment. - Close PWV, open SV - Test from well test choke manifold to PWV with N2

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/100ft ²)	Solids (%)
Gel 10 sec (lb/100ft ²)	Gel 10 min (lb/100ft ²)	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

- Pumped 20 bbl 10.4 ppg NaBR/30% MEG, 200 bbl 10.4 ppg Packer fluid and 210 bbl Base oil
- Flush and clean Brine Tank #1, #2 and #3 offline
- Sack room empty of chemicals

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)



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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

Surveys								
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
Uzma	Filtration	2
Seadrill	Rig Contractor	49
Seadrill	Rig Subcontractor - Connect Energy	13
Seadrill	Rig Subcontractor - OVE	30
Seadrill	Rig Subcontractor - ISOS	1
Seadrill	Rig Subcontractor - Sodexo	15
Halliburton	Upper Completion	7
Schlumberger - Dowell	Nitrogen	3
Geowell	Slickline	5
Schlumberger - Wellog	E-Plug	1
Schlumberger - Wellog	Wireline	3
Halliburton	Tronic	1

Head Count
185.0

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	0.0	4,492.0	483,422.0
Pacific Hornbill Potable Water	bbl	0.0	44.03	4,126.12
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	3,427.0
SK Atlantik Diesel	L	0.0	13,290.0	177,671.0
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	332,446.46
West Carina Barite	sacks	0.0	0.0	829.76
West Carina Base Oil	bbl	0.0	80.0	913.0
West Carina Bentonite	sacks	0.0	0.0	0.0
West Carina Brine	bbl	0.0	0.0	0.0
West Carina Diesel	L	150,000.0	37,000.0	3,162,000.0
West Carina Drill Water	bbl	0.0	44.03	5,208.2



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Material - Bulk

Product Name	Unit Label	Received	Consumed	Cum On Loc
West Carina MB-DIF	bbl	0.0	0.0	0.0
West Carina Potable Water	bbl	415.13	345.94	6,258.88
West Carina Production Blend Cement	MT	0.0	0.0	31.5
West Carina Surface Blend Cement	MT	0.0	0.0	525.11

Weather

Time 00:00	Wind Speed (knots) 22.0	Wind Direction 202.5	Wave Height (m) 1.00	Swell Height (m) 1.00	Swell Direction (°) 270.00	Swell Period (s) 5.00
Current Speed (knots) 24.0	Current Direction (°) 202.50	Visibility (km) 8.1	Heave (m) 0.20	Pitch (°) 0.20	Roll (°) 0.10	Temperature - High (°C) 26.0
						Temperature - Low (°C) 25.0

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: 118.0 days (Rig on-hire 02 03 2020, 21:00 hrs)
Days on RT-P1: 17.0 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 = \$14,712,284.07
Total Drilling Expenditure for RT-P1 = \$5,316,634.80
Total Completion Expenditure for RT-P1 = \$9,395,649.27

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 = \$100,469,038.72

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" LPWHH: 1,210.53m MD
RKB - 18 3/4" HPWHH: 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 = At West Carina