EP WELLS DAILY OPERATIONS REPORT

Report 33 07/13/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1504H
Wellbore	UNIVERSITY 19 PW UNIT 1504H
WBS No/API No	30265014 / 4230133171.00

Event Summary

Event Type	Completion only	Event Start Date	04/28/2017	Days on Location	32.00
Objective	Install Completion	Original Spud Date	02/02/2017		
Est. Days	25.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Bruce Smiley, Jeff Pontell	Measured Depth(ft)	
Engineer	Joddie Carlile	TVD(ft)	
Other Supervisor	Mike Reber, Damon Marsh	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,761.75 / 2,736.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	15.48/64.51	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,549,795/4,757,442.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.33	LOT/FIT EMW(ppg)	
Daily Cost	92,311	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC			PSI			TRCF	
RWC			NII			LWCF	
MTC			HPI			Safety Cards - Safe	
FAC			**GOAL ZERO DAYS**			Safety Card - Unsafe	
Last casing pressure test			**PS BARRIER EVENT**			SSE%	
			PS barrier bowtie review			Last casing pressure(psi)	

Safety Comments:

323 man hours
38 driving hours

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP function test			Days Since Last Drill	31
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary

POOH with overshot (no extensions), fish not recovered, MU overshot (9' of extension), RIH, engage fish, POOH, shut well in, bleed, break lube, no fish

Update Since Report Time

BD tools, no sign of engaging fish, make up 2-5/8" basket grapple with mill control packoff, MU lube, test, RIH

24 Hour Forecast

RIH to approximate 19,540', engage fish

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	7.38	WOR	OPO			0		Continue POOH, 17,500' current depth, PU 48K, .8 bpm / 4,000 CP / 3,825 WH / POOH at 30 ft/min, SD POP 02:00 14,000' current depth, PU 44.5K, .8 bpm / 4,055 CP / 3,850 WH / POOH at 30 ft/min 03:15 11,800' current depth, PU 39K, .8 bpm / 4,100 CP / 3,800 WH / slow speed to 20 ft/min as BHA #1 enters bottom of heel 04:00 10,770' current depth, PU 36K, .8 bpm / 4,150 CP / 3,750 WH / BHA #1 in vertical, increase speed to 90 ft/min, Shut in at choke manifold, load hole at .8 bpm pipe displacement NOTE: As crews POOH with BHA #1, significant cycling of weight occured at some intervals as follows, patterns vary with significant highs that drop off abruptly, consistent cycling over 2,000#, and straight line POOH weights, some indications dragging fish. - 16,587' to 16,520' 2,000# noticable drag - 16,090' 44K to 50K (6K) - 15,970' 49K to 52K (3K) - 15,537' 43K to 48K (5K) - 15,516' 43K to 49K (6K) - 15,345' 42K to 46K (4K) 04:30 8,200' current depth, PU 23K, .8 bpm / 4,120 CP / 3,800 WH / POOH at 90 ft/min 05:30 3,800' current depth, PU 8K, .8 bpm / 4,200 CP / 3,900 WH / POOH at 90 ft/min, indications are may have fish. 06:15 200' current depth, SD and park CT, will let guns cool before POOH and bump up 0630 Days safety meeting, make plan, review LWC-FINGER INJURY DUE TO RING, review policy, participate in feedback and discussion, discuss live gun procedure, suspended loads, line of fire, pressure pumping, hand awareness, review JSA's and open permits, crew change
7:23	1.13	WOR	OPO			0		Bump up, shut in and bleed off. SICP 3800 psi. Keane WL AOL to disarm live guns if fish at surface, write and discuss JSA. Break bottom lubricator flange, no fish. Visual inspection of grapple and bowl shows two small nicks on bowl, no visible damage or wear on grapple. Discuss plan forward with engineering, decide to run same toolstring with three extra overshot extensions to grab 2.75" OD guns instead of CCL which shows wear on fish from 1505H well (2.625" OD, should be 2.75"). Design toolstring to grab guns where fishing runs #3/4 from late June did not reach.
8:31	1.22	WOR	OPO			1		MU toolstring for BHA #2 as follows: (OD", ID", Length') - Slip Type Connector (3.125", 1.375", .99') - Dual BPV (2.875", 1", 1.42') - Accelerator (2.875", 15/16", 5.91') - Bi directional jars (2.875", 15/16", 5.61') - Hyd. Disconnect (2.875", 11/16", 2.12') - NOV Agitator (2.875", N/A, 4.32') - Rotational Hip Tripper (2.82", NA, 4.27') - XO 2-3/8" PAC 2-7/8" PAC (3.06", 1.38", 1.1') - Overshot top sub (3.75", 1.5", .82') - Overshot extension #1 (3.75", 2-15/16", 2.99') - Overshot extension #2 (3.75", 2-15/16", 3.00') - Overshot extension #3 (3.75", 2-15/16", 2.97') - Overshot w 2-3/4" spiral grapple (3.75", 2.75", 1.13') - Cut-lip overshot guide (3.75", 3.13", .60') TOTAL BHA LENGTH 37.25'

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MU lubricator to quad BOPs and torque to spec.
9:44	0.65	WOR	OPO			1		Change stripper rubbers and grease injector head, run guy lines.
10:23	0.53	WOR	OPO			1		Discuss 9QFSPT, break circulation to OTT. Pressure test stack and flow line to 500 psi low 5 min, 8000 psi high 10 min good test. Equalize to WHP 3800 psi, open well and RIH. Circ P 3800 WHP 3827.
10:55	2.73	WOR	OPO			1		RIH and perform wt checks as follows: 6000 ft CTM, 15k lbf, Circ P 3600 psi WHP 3850 psi. 10900 ft CTM, 36k lbf, Circ P 3670 psi, WHP 3950 psi.
13:39	0.85	WOR	OPO			1		At 11900 ft CTM bring on pumps at minimum rate .7 bbl/min, bbl in - bbl out Circ P 4300 psi, WHP 3800 psi. .2 gal/10 bbl pipe on pipe, .04 gal/10 bbl FR.
14:30	1.00	WOR	OPO			1		Continue RIH at 14500 ft CTM, .7 bbl/min, bbl in - bbl out Circ P 4350 psi, WHP 3860 psi. .2 gal/10 bbl pipe on pipe, .04 gal/10 bbl FR. 19k lbf RIH wt, ~55 ft/min.
15:30	0.50	WOR	OPO			1		Continue RIH at 18160 ft CTM, .7 bbl/min, bbl in - bbl out Circ P 4350 psi, WHP 3940 psi. .2 gal/10 bbl pipe on pipe, .04 gal/10 bbl FR. 15k lbf RIH wt, ~55 ft/min.
16:00	0.17	WOR	OPO			1		Continue RIH at ~45 ft/min .7 bbl/min, bbl in - bbl out. .2 gal/10 bbl pipe on pipe, .04 gal/10 bbl FR. Maintain positive wt, lose wt gradually starting approx 18500 ft CTM and see substantial fluctuations approx 19350 ft CTM. Lose all wt 19530 ft CTM approx 25' shallow of tag 7/12/17 PM. No pressure indication of tag on fish. PU to 19507', 52k lbf off btm. RIH again lose all wt 19530 ft CTM. PU to 19475 ft CTM, 53k lbf off btm. Attempt to RIH and lose all wt 19490 ft CTM.
16:10	0.18	WOR	OPO			1		Bring pump rate up to 2 bbl/min, Circ P 5300 psi WHP 3900 psi. No wt gain. POOH to 19100 ft CTM, 51k lbf pick up off btm. Attempt to RBIH, lose all wt 19105 ft CTM. Bring rate up to 2.5 bbl/min, bbl in - bbl out, Circ P 6500 psi WHP 4000 psi. Not getting wt back. Bring rate up to 3 bbl/min, bbl in - bbl out, Circ P 7050 psi WHP 3916 psi. Not getting wt back. Increase PoP from .2 gal/10 bbl to .4 gal/10 bbl. Reduce pump rate to 2 bbl/min, Circ P 7000 psi WHP 4000 psi. Decide to POOH and attempt to get wt back. POOH wt approx 58k lbf, ~8 - 10k lbf higher than POOH wt 7/12/17 PM.
16:21	0.52	WOR	OPO			1		Send 5 gal/10 bbl pill of PoP and 5 gal/10 bbl pill of nano beads and continue POOH. Stop at 18550 ft CTM, at 2 bbl/min, Circ P 6000 psi WHP 3900 psi. Lose all wt in 14 ft. PU and POOH with plan to attempt to RBIH every 500 ft increment, 56k lbf PU.
16:52	0.30	WOR	OPO			1		Stop at 18000 ft CTM, at 2 bbl/min, Circ P 5800 psi WHP 3900 psi. Lose all wt in 16 ft. PU and POOH per plan, 58k lbf PU.
17:10	0.33	WOR	OPO			1		Bead and PoP slug at end of CT. Reduce rate to 1.5 bbl/min, Circ P 5100 psi WHP 3900 psi. Stop at 17000 ft CTM, attempt to RBIH, lose all wt. Continue POOH.
17:30	0.20	WOR	OPO			1		Stop at 16400 ft CTM, at 1 bbl/min, Circ P 4300 psi WHP 3850 psi. Attempt to RBIH, lose all wt in 22 ft. PU and continue POOH.
17:42	0.27	WOR	OPO			1		Stop at 16000 ft CTM, at 1 bbl/min, Circ P 4250 psi WHP 3900 psi. Attempt to RBIH, establish ROP running between 8k lbf and 11k lbf, continue to lose wt over 68 ft. Decide to continue POOH.
17:58	0.50	WOR	OPO			1		Stop at 15500 ft CTM, at 1 bbl/min, Circ P 4350 psi WHP 3900 psi. Attempt to RBIH, able to RIH between 8k lbf and 13k lbf at 45 ft/min. Running wt on way in hole was approx 18-19k lbf. Decide to continue POOH.
18:28	0.53	WOR	OPO			1		Continue POOH without stopping at 500 ft increments. POOH wt 50k lbf, 1 bbl/min, bbl in - bbl out, P circ 4500 psi WHP 3700 psi. 18:30 Nights safety meeting, discuss plan, review live guns, suspended loads, line of fire, discuss LWC finger-jewelry incident, discuss same and hand awareness, review JSA's and open permits, crew change.
19:00	5.00	WOR	OPO			1		13,600 current depth, PU 45K, 1 bpm / 4,425 CP / 3,900 WH, continue POOH at 40 ft/min 20:15 10,800' current depth (top of liner), PU 36K, reduce rate to .6 bpm and shut in backside, 4,500 CP / 3,800 WH, load hole for pipe

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								displacement, continue POOH 90 ft/min. - Reduce speed through liner to 30 ft/min, no abnormal weight change, 37K to 36K as pulled into 7" vertical as exited the 4.5" liner with drag reduced - While POOH at 15,507' while POOH weight 47K dropped to 42K at 15,501' while POOH weight increased to 50K POOH weight reduced in normal fashion from 15,501'-50K / 13,500'-45K / 11,800-41K / 10,800-36K 21:30 3,500' current depth, PU 7K, .6 bpm / 4,200 psi / 3,875 psi (shut in, load hole) 22:15 200' current depth, SD, possible fish has live guns, take time to cool. 23:15 Shut well in 31 turns and confirm, final pressure 3,800 psi, bleed to gas buster, shut 2nd FV 31 turns and confirm. 23:30 Pro Torque to wellhead, BD 5-1/8" flange on top of 15K Quad BOP's, SD 23:40 PAUSE, 12 questions for safe lift, review lift plan, Keane WL on location, review JSA and open explosive permit, review BD live gun procedure, discus no go policy during BD if guns are present. 23:58 Prep to lift injector and lube off wellhead
Total	**24.00**							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	2.00	WOR	OPO			0	Swing 5-1/8" lube to side, lower tools, no fish, BD 3.75" overshot dressed with 2.75" spiral grapple, (3) 3" 3.75" extension sections, and the 3.75" top sub and lay down same, inspect each as follows - Inspect 2.75" grapple, no markings or signs of engaging fish, grapple did appear pushed up, but had no markings - Inspect 3.75" cut lip overshot guide, no obvious marks from this run - BD each of (3) 3 foot extensions, inspect each section internally with no indication of fish inside, this was the 4th run for the overshot top sub, extensions, bowl, and guide, no definative indication of wear from this specific run, outside diameters have cumulative run scarring. - BD and inspect the inside of the overshot top sub, no indication of the top of the fish seating in the ID of the 3.75" overshot top sub. 12:45 Discuss options with fisherman, OSR, CT sup, Shell field sup and engineer, after discussions, will proceed as follows - MU 3.75" overshot dressed with 2-5/8" basket grapple with mill control packoff, no extension 01:15 Inspect 2-5/8" basket grapple and caliper ID of mill control at 2.7285", confirm mill control packoff did slip over the same fishing cable head and CCL that was fished out of the 1505H (what we have looking up in this well), this CCL has been calipered at 2.625", with OD's measured at 2.615" to 2.640" at the top of this CCL, witness MU 3.75" overshot and RIH with BHA #3 as follows BHA #4 (OD", ID", Length') - Slip Type Connector (3.125", 1.375", .99') - Dual BPV (2.875", 1", 1.42') - Accelerator (2.875", 15/16", 5.91') - Bi directional jars (2.875", 15/16", 5.61') - Hyd. Disconnect (2.875", 11/16", 2.12') - NOV Agitator (2.875", N/A, 4.32')

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06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							- Rotational Hip Tripper (2.82", NA, 4.27') - XO 2-3/8" PAC 2-7/8" PAC (3.06", 1.38", 1.1') - Overshot top sub (3.75", 1.5", .82') - Overshot w 2-5/8" basket grapple (3.75", 2.75", 1.13') with mill control packoff - Cut-lip overshot guide (3.75", 3.13", .60') TOTAL BHA LENGTH 28.2 feet
2:00	1.25	WOR	OPO			0	PU injector to well and stab same on 15K Quad BOP's, torque per spec, secure guywire package, 02:45 PAUSE, assemble valve team, 9 questions for safe pressure test, walk lines, break circulation to gas buster, close in at choke manifold, pressure test 500 psi / low / min, 8,000 psi / high / 10 min, good tests. 03:15 Bleed to 3,800 psi, open 7-1/16" FV 31 turns and confirm, well equalized at 3,700 psi, roll pumps on at .75 bpm and start chems POP at .25/10 bbls (will exit as CT enters heel), .1/10 bbls FR
3:15	3.75	WOR	OPO			0	05:00 7,600' current depth, RIH weight 8,000#, .75 bpm / 4,200 CP / 3,900 WH, 95 ft/min 05:30 Weight check at top of liner 10,800', PU 33K, .75 bpm / 4,100 CP / 3,800 WH, .30 ft/m through curve, POP exiting now, continue RIH