EP WELLS DAILY OPERATIONS REPORT

Report 18 11/30/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 D 0904H
Wellbore	UNIVERSITY 19 D 0904H
WBS No/API No	30266560 / 4230133226.00

Event Summary

Event Type	Completion only	Event Start Date	10/31/2017	Days on Location	18.00
Objective	Install Completion	Original Spud Date	06/19/2017		
Est. Days	65.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Andrew Veroba	Measured Depth(ft)	
Engineer	Bobby Ramos	TVD(ft)	
Other Supervisor	M. Hank Persaud	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,799.10 / 2,771.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	982,803/3,746,244.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.26	LOT/FIT EMW(ppg)	
Daily Cost	16,482	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:

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP function test			Days Since Last Drill	17
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary

Update Since Report Time

24 Hour Forecast

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.92	FRAC	WLT			0		Open well with 4500 psi. RIH. "Stage #13 Plug and Perf RIH with (4) 1' Keane guns: 2.75"" OD HSC at 6SPF with 60* phased perforating guns and Downhole Technology Boss Hog composite frac plug. Tie into liner top @ 10990'. Bring on pumps at 11600'. Pump down as follows: 3 bpm @ 4300 psi 6 bpm @ 4600 psi 9 bpm @ 4800 psi 11 bpm @ 5300 psi Max: 11 bpm. Max: 6550 psi. Set plug @ 16346' Perforate as follows: 16321' - 16322' 16276' - 16277' 16231' - 16232' 16186' - 16187' Stabilized pressure after perforating: 4715 psi Pump down volume: 87 bbl" POOH Shut in well with 4500 psi. Bleed off.
1:55	0.17	FRAC	WLF			0		Break lubricator. All shots fired. MU night cap. LD tools. Secure crown and wing valves. Handover from WL to Frac.
2:05	0.42	FRAC	WLF			0		WOCO.
2:30	2.00	FRAC	FRT			0		Stage 13 Summary University 19 D 0904H Interval 16186 - 16321 Open Well Pressure 4,301 psi Max Treating Pressure 9,265 psi Max Slurry Rate 55.9 bpm Average Treating Pressure 8,735 psi Average Slurry Rate 48.5 bpm Breakdown Pressure 7,476 psi Breakdown Rate 9.5 bpm Breakdown Volume 517 gal Avg HHP 10,384 hp Final ISIP 5,695 psi Frac Gradient 0.922 psi/ft Pad Volume 1,163 gal Main Body Volume 200,376 gal Flush Volume 27,090 gal 100 M AZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 47,960 lbs 100 M Sand Pumped 372,980 lbs Proppant in Formation 420,940 lbs Avg Proppant Concentration 2.43 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover (incl. pumpdown) 4,858 bbls Load to Recover w/o Acid 4,851 bbls 15% HCL Spearhead 300 gal Slickwater Fluid Pumped 4,684 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 87 bbls pump down rate 11.0 bpm Max pump down pressure 6,568 psi Fluid Temp 72.0 ?F Total Pump Time 1:49 hr:min Pumps Lost During Job 1 Treatment Start Time 2:38 0:00 0:00 Treatment End Time 4:27 0:00 0:00 Diverter Slurry bbls - Proppant was pumped with a ramp of 0.50 - 2.50 PPA, then steps

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								of 2.50 PPA, 3.00 PPA, 3.50 PPA. - Ran 300 gal of 15% HCl - Ran 2 shots of gel with a 20 bbl spacer. - A ball in place plug was utilized. Time for Prop on Perfs 23.0 minutes Time between Stages (TBF) 0:49 Hours/min
4:30	2.80	FRAC	FWL			0		WOCO.
7:18	0.18	FRAC	FWL			0		Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 8kpsi. Open well with 4630 psi. RIH to 200'. Conduct switch checks.
7:29	1.78	FRAC	WLT			0		Stage 14 Plug and Perf RIH with (4) 1' Keane guns: 2.75" OD HSC at 6SPF with 60* phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Tie into liner top @ 10,990'. Bring on pumps at 11,650'. Pump down as follows: 3bpm @ 4500 psi 6bpm @ 4600 psi 9bpm @ 4700 psi 10bpm @ 5200 psi Max pressure = 5900 psi Set plug @ 16,166ft Perforate as follows: 16,138' – 16,139' 16,096' – 16,097' 16,051' – 16,052' 16,006' – 16,007' Stabilized pressure after perf: 5004 psi Pump down volume: 89 bbl POOH to 1000'. Conduct Pause. Pull to 200' and wait on frac.
9:16	0.12	FRAC	WLT			0		Bump up and SIW. Bled off pressure and break lubricator/BOP's. Lowered Perf guns out of lubricator and confirmed all shots fired. N/U nightcap and close crown valve. L/D perf guns and setting tool. Greased UMV/LMV. HO to Frac.
9:23	1.03	FRAC	WLT			0		While moving wireline from 904 to 910 well worker noted drip from goat head. Conduct hazard hunt. Found drip in frac iron between zipper manifold and goat head, on a dead end 4" hammer union on goat head and loose stud on 7 1/16" 15Kpsi to 4 1/16" flange. Held PAUSE with personnel.
10:25	2.33	FRAC	WLT			0		Conduct wireline run.on 910 well while doing frac pump maintenance. Rig out wireline for re-head and unit maintenance.
12:45	0.50	FRAC	WLT			0		Repair deficiencies as above.
13:15	0.35	FRAC	WLT			0		Wait on concurrent operations. Wireline move onto the 903 well.
13:36	1.00	FRAC	WLT			0		Prime pumps and PTest to 9500 psi. Fluid passing into bleed down line. Grease valves and retest.
14:36	1.80	FRAC	FRT			0		Stage 14 Summary University 19 D 0904H Interval 16006 - 16142 Open Well Pressure 4,092 psi Max Treating Pressure 9,270 psi Max Slurry Rate 60.3 bpm Average Treating Pressure 8,755 psi Average Slurry Rate 50.2 bpm Breakdown Pressure 7,981 psi Breakdown Rate 6.8 bpm Breakdown Volume 336 gal Avg HHP 10,772 hp Final ISIP 5,585 psi Frac Gradient 0.913 psi/ft Pad Volume 2,646 gal Main Body Volume 201,438 gal

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Flush Volume 26,838 gal 100 M AZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 326,360 lbs 100 M Sand Pumped 95,040 lbs Proppant in Formation 421,400 lbs Avg Proppant Concentration 2.55 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover (incl. pumpdown) 4,885 bbls Load to Recover w/o Acid 4,878 bbls 15% HCL Spearhead 300 gal Slickwater Fluid Pumped 4,709 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 89 bbls pump down rate 10.0 bpm Max pump down pressure 5,900 psi Fluid Temp 72.0 ?F Total Pump Time 1:48 hr:min Pumps Lost During Job 1 Treatment Start Time 14:36 0:00 0:00 Treatment End Time 16:24 0:00 0:00 Diverter Slurry bbls - Proppant was pumped with a ramp of 0.50 - 2.50 PPA, then steps of 2.50 PPA, 3.00 PPA, 3.50 PPA. - Ran 300 gal of 15% HCl - Ran 2 shots of gel with a 20 bbl spacer. - A ball in place plug was utilized. -Pump 10086 was taken out during the stage due to a mechanical issue. Time for Prop on Perfs 26.0 minutes Time between Stages (TBF) 5:22 Hours/min
16:24	0.32	FRAC	FWL			0		SIW and wait on concurrent operations.
16:43	0.25	FRAC	FWL			0		Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 8kpsi. Open well with 4930 psi. RIH to 200'. Conduct switch checks.
16:58		FRAC	WLT			0		Stage 14 Plug and Perf RIH with (4) 1' Keane guns: 2.75" OD HSC at 6SPF with 60* phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Tie into liner top @ 10,979'. Bring on pumps at 11,550'. Pump down as follows: 3bpm @ 4800 psi 6bpm @ 5000 psi 10bpm @ 5300 psi Max pressure = 6100 psi Set plug @ 15,986ft Perforate as follows: 15,961' – 15,962' 15,916' – 15,917' 15,871' – 15,872' 15,826' – 15,827' Stabilized pressure after perf: 5288 psi Pump down volume: 87 bbl POOH to 1000'. Conduct Pause. Wait at 200' for frac.
Total	**16.97**							