

## EP WELLS DAILY OPERATIONS REPORT

Report 16

11/28/2017

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	16.00
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	610,369/3,746,244.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.16	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 RWC MTC FAC Last casing pressure test			PSI NII HPI <b>GOAL ZERO DAYS</b> <b>PS BARRIER EVENT</b> <b>PS barrier bowtie review</b>			TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							

## HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection Last BOP function test Last BOP Test Next BOP Test			JSA's/Toolbox Talks Days Since Last Drill	15

## Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

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Wellbore UNIVERSITY 19 D 0904H

## Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.08	FRAC	WLF			0		Break lubricator. All shots fired. MU night cap. LD tools. Secure crown and wing valves. Handover from WL to Frac.
0:05	2.92	FRAC	WLF			0		WOCO.
3:00	1.92	FRAC	FRT			0		<p>Stage 8 Summary University 19 D 0904H Interval 17041 - 17177</p> <p>Open Well Pressure 4,184 psi Max Treating Pressure 9,346 psi Max Slurry Rate 57.8 bpm Average Treating Pressure 8,791 psi Average Slurry Rate 51.2 bpm Breakdown Pressure 8,179 psi Breakdown Rate 8.8 bpm Breakdown Volume 307 gal Avg HHP 11,032 hp Final ISIP 5,532 psi Frac Gradient 0.908 psi/ft Pad Volume 2,398 gal Main Body Volume 203,218 gal Flush Volume 27,426 gal 100 M AZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 329,380 lbs 100 M Sand Pumped 95,180 lbs Proppant in Formation 424,560 lbs Avg Proppant Concentration 2.57 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover (incl. pumpdown) 4,950 bbls Load to Recover w/o Acid 4,940 bbls 15% HCL Spearhead 400 gal Slickwater Fluid Pumped 4,749 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 111 bbls pump down rate 11.0 bpm Max pump down pressure 6,350 psi Fluid Temp 72.0 ?F Total Pump Time 1:47 hr:min Pumps Lost During Job 0 Treatment Start Time 3:05 0:00 0:00 Treatment End Time 4:52 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, 4.00 PPA. - Ran 400 gal of 15% HCl - Ran 2 shots of gel with a 20 bbl spacer. - A ball in place plug was utilized.</p> <p>Time for Prop on Perfs 23.0 minutes Time between Stages (TBF) 0:46 Hours/min</p>
4:55	0.25	FRAC	FWL			0		WOCO.
5:10	0.27	FRAC	FWL			0		<p>Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 8kpsi. Open well with 4950 psi. RIH to 200'. Conduct switch checks.</p>
5:26	2.02	FRAC	WLT			0		<p>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 11,550'. Pump down as follows: 3bpm @ 4950 psi 6bpm @ 5500 psi 9bpm @ 5740 psi</p> <p>Set plug @ 17,021ft Perforate as follows: 16,996' – 16,997'</p>

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## Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								16,951' – 16,952' 16,906' – 16,907' 16,861' – 16,862' Stabilized pressure after perf: 5132 psi Pump down volume: 104 bbl POOH to 1000'. Conduct Pause. Pull to 200' and wait on frac.
7:27	0.22	FRAC	WLF			0		Bump up and SIW @ 4500 psi. 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 hydraulic and wing valves. HO to Frac.
7:40	3.33	FRAC	WLF			0		Wait on concurrent operations.
11:00	0.33	FRAC	FRT			0		Prime pumps and pressure test to 9500 psi. Equalize and open well.
11:20	1.63	FRAC	FRT			0		Stage 9 Summary University 19 D 0904H Interval 16861 - 16997 Open Well Pressure 4,139 psi Max Treating Pressure 9,390 psi Max Slurry Rate 60.3 bpm Average Treating Pressure 8,817 psi Average Slurry Rate 52.9 bpm Breakdown Pressure 7,619 psi Breakdown Rate 4.0 bpm Breakdown Volume 252 gal Avg HHP 11,432 hp Final ISIP 5,465 psi Frac Gradient 0.903 psi/ft Pad Volume 3,066 gal Main Body Volume 188,770 gal Flush Volume 27,510 gal 100 MAZ Sand Pumped 0 lbs 100 M Brown Sand Pumped 140,700 lbs 100 M Sand Pumped 283,380 lbs Proppant in Formation 424,080 lbs Avg Proppant Concentration 2.78 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover (incl. pumpdown) 4,599 bbls Load to Recover w/o Acid 4,589 bbls 15% HCL Spearhead 400 gal Slickwater Fluid Pumped 4,405 bbls 20# Linear Fluid Pumped 80 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 104 bbls pump down rate 10.0 bpm Max pump down pressure 5,600 psi Fluid Temp 72.0 ?F Total Pump Time 1:38 hr:min Pumps Lost During Job 0 Treatment Start Time 11:20 0:00 0:00 Treatment End Time 12:58 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.  Time for Prop on Perfs 20.0 minutes Time between Stages (TBF) 1:38 Hours/min
12:58	0.03	FRAC	FWL			0		SIW and bleed down iron. HO to wireline.
13:00		FRAC	FWL			0		Wait on concurrent operations.
<b>Total</b>	<b>13.00</b>							