

EP WELLS DAILY OPERATIONS REPORT

Report 41

05/27/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1507H
Wellbore	UNIVERSITY 19 PW UNIT 1507H
WBS No/API No	30265017 / 4230133144.00

Event Summary

Event Type	Completion only	Event Start Date	04/15/2017	Days on Location	41.00
Objective	Install Completion	Original Spud Date	01/22/2017		
Est. Days	21.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Wes Garver/Dennis McKay	Measured Depth(ft)	
Engineer	ALEJANDRO VILEGAS	TVD(ft)	
Other Supervisor	Matt J./Matt R.	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,769.50 / 2,743.50	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	1.75/7.31	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	4,234,283/5,609,575.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.75	LOT/FIT EMW(ppg)	
Daily Cost	214,082	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 GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review			TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
Total man hours: 1184							

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	12

Operations Summary

24 Hour Summary
Frac operations
Update Since Report Time
Complete stage 49.
24 Hour Forecast
Frac operations

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.25	FRAC	FRT			0		Frac stage #47 Stage 47 Summary University 19 PW Unit 1507H Interval 13879 - 14011 Open Well Pressure 4,350 psi Max Treating Pressure 9,089 psi Max Slurry Rate 60.8 bpm Average Treating Pressure 8,372 psi Average Slurry Rate 57.8 bpm Breakdown Pressure 7,621 psi Breakdown Rate 12.5 bpm Breakdown Volume 16,590 gal Avg HHP 11,860 hp Final ISIP 4,943 psi Frac Gradient 0.859 psi/ft Pad Volume 16,464 gal Main Body Volume 185,766 gal Flush Volume 24,780 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 427,160 lbs Proppant in Formation 427,160 lbs Avg Proppant Concentration 2.89 lb/gal Max Proppant Concentration 4.03 lb/gal Load to Recover 4,423 bbls Load to Recover w/o Acid 4,411 bbls 15% HCL Spearhead 504 gal Slickwater Fluid Pumped 4,316 bbls 20# Linear Fluid Pumped 40 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 55 bbls pump down rate 12.5 bpm Max pump down pressure 6,045 psi Fluid Temp 72.0 ?F Total Pump Time 1:39 hr:min Pumps Lost During Job 1 Treatment Start Time 23:32 0:00 0:00 Treatment End Time 1:11 0:00 0:00 Diverter Slurry bbls All Proppant placed, Pumped 500 gals of 15% HCL. Pumped 0.50 PPA to 3.00 PPA ramp, 3.00 PPA, 3.50 PPA, and 4.00 PPA. Lost pump 10043 - D-Ring
1:15	0.25	FRAC	FWL			0		Handover from frac to wireline. Pick up lubricator. Remove night cap. PU tools.
1:30	0.08	FRAC	FWL			0		Stab lubricator. Fill lubricator. Pressure test lubricator to 8000 psi
1:35	0.03	FRAC	WLT			0		Equalize, OW, and RIH.
1:37	0.67	FRAC	WLT			0		Stage #48 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 @10,911'. Bring on pumps at 11,200'. Pump down as follows: 4bpm @ 4800psi @11450' 8bpm @ 5300psi @11600' 12bpm @ 6200psi @11700' Max Rate 12bpm w/ 6650psi Set plug @ 13857ft Perforate as follows: 13835' - 13836' 13790' - 13791' 13746' - 13747' 13702' - 13703'

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								Stabilized pressure after perf: 4553psi Pump down volume: 68bb
2:17	0.52	FRAC	WLT			0		pooh with wireline assembly.
2:48	0.50	FRAC	WLT			0		Out of hole with wireline assembly, wait on other pad activity.
3:18	0.13	FRAC	WLF			0		Shut in well and bleed off lubricator, lay down guns and verify shots fired. Drop ball and wait on other pad activity.
3:26	3.07	FRAC	WLF			0		Wait on other operations.
6:30	0.50	FRAC	WLF			0		Safety meeting go over jsa's and permits, 12 LSR's, L&H, process safety, hand placements, potential drops, good communicaiton and stop the job authority.
7:00	1.00	FRAC	WLF			0		Blender still being fixed.
8:00	1.75	FRAC	WLF			1		*****NPT START****Logistics, had MVI with two trucks on locaiton. Logistics doing investigation.
9:45	3.92	FRAC	WLF			0		*****NPT STOP**** Continue frac operations.
13:40	0.17	FRAC	WLF			0		Prime up and equalize pressure, gather valve team and open well. Frac stg 48
13:50	1.73	FRAC	WLF			0		Stage 48 Summary University 19 PW Unit 1507H Interval 13707 - 13835 Open Well Pressure 4,028 psi Max Treating Pressure 9,168 psi Max Slurry Rate 59.5 bpm Average Treating Pressure 8,412 psi Average Slurry Rate 56.3 bpm Breakdown Pressure 7,205 psi Breakdown Rate 10.2 bpm Breakdown Volume 15,414 gal Avg HHP 11,608 hp Final ISIP 5,361 psi Frac Gradient 0.895 psi/ft Pad Volume 15,792 gal Main Body Volume 188,534 gal Flush Volume 23,940 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 421,640 lbs Proppant in Formation 421,640 lbs Avg Proppant Concentration 2.86 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,489 bbls Load to Recover w/o Acid 4,477 bbls 15% HCL Spearhead 500 gal Slickwater Fluid Pumped 4,380 bbls 20# Linear Fluid Pumped 40 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 57 bbls pump down rate 12.0 bpm Max pump down pressure 6,235 psi Fluid Temp 72.0 ?F Total Pump Time 1:44 hr:min Pumps Lost During Job 0 Treatment Start Time 1:50 0:00 0:00 Treatment End Time 3:34 0:00 0:00 Diverter Slurry bbls `All Proppant placed, Pumped 500 gals of 15% HCL. Pumped 0.50 PPA to 3.00 PPA ramp, 3.00 PPA, 3.50 PPA, and 4.00 PPA.
15:34	0.03	FRAC	WLF			0		SIW, bleed off pressure, HO well to WL.
15:36	0.32	FRAC	WLT			0		Pick up lubricator. Remove night cap. PU guns/plug. Stab lubricator. Fill lubricator. PT lubricator to 1k-8kpsi. Open well with 4900psi.
15:55	0.87	FRAC	WLT			0		Stage #1507-#49 Plug and Perf RIH with (4) 1' Keane guns: 2.75"" OD HSC at 6SPF with 60* phased

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								perforating guns and Downhole Technology Boss Hog composite frac plug. Tie into liner top @. Bring on pumps at 11400'. Pump down as follows: 3bpm @ 4700psi @11400 6bpm @ 4800psi @11450 9bpm @ 5000psi @11500 12bpm w/ 5200psi @11550 12.5bpm w/ 6080psi @11550 Set plug @ 13687ft Perforate as follows: 13658' - 13659' 13614' - 13615' 13570' - 13571' 13526' - 13527' Stabilized pressure after perf: 4730psi Pump down volume: 48bbl
16:47	1.22	FRAC	WLT			0		POOH to 200' - Wait on adjacent well operations.
18:00	1.00	FRAC	WLT			0		POOH Shut in well with 4500 psi. Bleed off. Break lubricator. All shots fired. Drop ball. MU night cap. LD tools and lub. Secure crown and wing valves. Rehead, grease swab and HCR. Handover from WL to frac.
19:00	2.25	FRAC	WLT			0		Wait on adjacent well operations.
21:15	1.72	FRAC	FRT			0		Frac stage #49 Stage 49 Summary University 19 PW Unit 1507H Interval 13526 - 13658 Open Well Pressure 4,925 psi Max Treating Pressure 9,195 psi Max Slurry Rate 60.8 bpm Average Treating Pressure 8,437 psi Average Slurry Rate 57.4 bpm Breakdown Pressure 7,480 psi Breakdown Rate 12.3 bpm Breakdown Volume 15,078 gal Avg HHP 11,870 hp Final ISIP 5,087 psi Frac Gradient 0.872 psi/ft Pad Volume 14,994 gal Main Body Volume 189,878 gal Flush Volume 24,570 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 413,500 lbs Proppant in Formation 413,500 lbs Avg Proppant Concentration 2.82 lb/gal Max Proppant Concentration 4.01 lb/gal Load to Recover 4,521 bbls Load to Recover w/o Acid 4,509 bbls 15% HCL Spearhead 500 gal Slickwater Fluid Pumped 4,421 bbls 20# Linear Fluid Pumped 40 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 48 bbls pump down rate 12.5 bpm Max pump down pressure 6,080 psi Fluid Temp 72.0 ?F Total Pump Time 1:42 hr:min Pumps Lost During Job 0 Treatment Start Time 21:16 0:00 0:00 Treatment End Time 22:58 0:00 0:00 Diverter Slurry bbls All Proppant placed, Pumped 500 gals of 15% HCL. Pumped 0.50 PPA to 3.00 PPA ramp, 3.00 PPA, 3.50 PPA, and 4.00 PPA.

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23:00	0.17	FRAC	FWL			0		Handover from frac to wireline. Pick up lubricator. Remove night cap. PU tools.
23:10	0.17	FRAC	FWL			0		Stab lubricator. Fill lubricator. Pressure test lubricator to 8000 psi
23:20	0.03	FRAC	WLT			0		Equalize, OW, and RIH.
23:22	0.60	FRAC	WLT			0		"Stage #50 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 @11019. Bring on pumps at 11400'. Pump down as follows: 4bpm @ 4500psi @11400 8bpm @ 4900psi @11700 12bpm @ 5300psi @11800 Set plug @ 13503ft Perforate as follows: 13481' - 13482' 13437' - 13438' 13393' - 13394' 13349' - 13350' Stabilized pressure after perf: 4510psi Pump down volume: 45bbl"
23:58	0.02	FRAC	WLT			0		pooh with wireline assembly.
Total	23.95							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.48	FRAC	WLT			1	pooh with wireline assembly.
0:29		FRAC	WLT			1	Out of hole with wireline. Wait for other well activity.

NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
05/27/2017 08:00	SHELL	Wait On Other		WLF	N		1.75	1.75		OPEN
Description: LOGISTICS HAD MVI WITH TWO TRUCKS ON LOCATION. INVESTIGATING						Title: WOO				
Total							1.75	1.75		