

EP WELLS DAILY OPERATIONS REPORT

Report 38

05/24/2017

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	38.00
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	West Garver/Dennis McKoy	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/%)	7.10/29.71	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	3,657,181/5,609,575.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.65	LOT/FIT EMW(ppg)	
Daily Cost	89,876	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 hours-1245							

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	9

Operations Summary

24 Hour Summary
Frac stage 40
Update Since Report Time
Frac stage 41
24 Hour Forecast
Frac stages 42-43

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.97	FRAC	OPO			0		Wait on other PAD operations
0:58	1.27	FRAC	WLT			0		00:58Pick up lubricator.Remove night cap. 01:01PU guns/plug. Stab lubricator. 01:03Fill lubricator. PT lubricator to 8kpsi. 01:06 Open well with 4402psi.
1:55	0.67	FRAC	WLT			0		Pooh E/lie toolstring t/200' ELM
2:14		FRAC	WLT			0		Stage #41 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: 3bpm @ 4400psi @11232' 6bpm @ 4700psi @11332' 9bpm @ 5100psi @11501' 12bpm @ 5500psi @11671' Max Rate 12bpm w/ 5900psi Set plug @ 15093ft Perforate as follows: 15074' - 15075' 15032' - 15033' 14982' - 14983' 14938' - 14939' Stabilized pressure after perf: 4582psi Pump down volume: 85bbl
3:01	0.10	FRAC	WLT			0		Bump up and SIW @ 4375 psi. Bled off pressure and break lubricator. Lowered Perf guns out of lubricator and confirmed all shots fired. Drop ball on UMW, N/U nightcap and close crown valve. L/D perf guns, Grease Lower master
3:07	1.13	FRAC	GRS			0		Re-gen E-line truck, re-head E-line, and grease zipper manifold.
4:15	0.17	FRAC	FRP			0		Prime pumps and prep.
4:25	0.52	FRAC	FRP			0		Pressure test iron and pumps t/ 9500 psi. (Good Test)
4:56	1.77	FRAC				1		****NPT START****KEANE WL****Having issues with the WL regen, waiting on new truck from town. Open well @ 4260 psi. Frac Stage #41 Stage 41 Summary University 19 PW Unit 1507H Interval 14938 - 15072 Open Well Pressure 4,260 psi Max Treating Pressure 9,156 psi Max Slurry Rate 59.6 bpm Average Treating Pressure 8,419 psi Average Slurry Rate 57.6 bpm Breakdown Pressure ` psi Breakdown Rate 9.1 bpm Breakdown Volume 20,454 gal Avg HHP 11,886 hp Final ISIP ` psi Frac Gradient 0.895 psi/ft Pad Volume 20,286 gal Main Body Volume 189,164 gal Flush Volume 25,452 gal 30/50 AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 401,300 lbs Proppant in Formation 401,300 lbs Avg Proppant Concentration 2.83 lb/gal

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								Max Proppant Concentration 4.01 lb/gal Load to Recover 4,504 bbls Load to Recover w/o Acid 4,492 bbls 15% HCL Spearhead 500 gal Slickwater Fluid Pumped 4,366 bbls 20# Linear Fluid Pumped 40 bbls 20# Crosslink Fluid Pumped 0 bbls Pump down volume 86 bbls pump down rate 12.0 bpm Max pump down pressure 5,900 psi Fluid Temp 72.0 ?F Total Pump Time 1:46 hr:min Pumps Lost During Job 0 Treatment Start Time 4:56 0:00 0:00 Treatment End Time 6:42 0:00 0:00 Diverter Slurry bbls All Proppant pumped, Pumped 500 gals of 15% HCL. Pumped sand in Ramp from a 0.5 PPA to 3.0 PPA and stepped up from 3.0 PPA to 4.0 PPA with 0.5 increments.
6:42	0.05	FRAC				1		SIW, bleed off presure. Wait on WL truck.
6:45	3.00	FRAC				2		*****HSE INCIDENT***** Water suppport truck caught on fire, still under investigation. 08:13: Keane Frac Coordinator informed OSR's, a work truck was on fire up lease road. 08:15: Initiate ERP call tree, OSR to lease road where truck was on fire. 08:20: Medic was alerted, no personal was hurt. 08:25: Emergency trucks confirmed headed to Anderson ranch road G-7 Sent Frac supervisor to Anderson Ranch RD to lead in fire trucks 08:32: Field sup updated 08:35: Fire dispatch confirmed. 09:06: Emergency trucks on Anderson Ranch RD 09:43: Fire contained 09:45: Field sup updated.
9:43	0.28	FRAC				1		Continue to wait on WL truck.
10:00	0.25	FRAC				1		WL truck arrives on location, spot truck.
10:15	0.25	FRAC				1		Safety pause, discuss differences with truck and operations getting rigged up.
10:30	1.50	FRAC				1		RU WL truck, prep for stg 41 WL run on the 1508H.
12:00	1.00	FRAC				0		***NPT STOP*** KEANE WL, TRUCK READY TO GO. Safety stand down, discussed fire incident with crew. Discussed ERP's, chain of command, potential fire hazards with our operation and procedures.
13:00	3.75	FRAC				0		Wait on other pad ops.
16:45	2.25	FRAC				0		Restraint company on location. Restraints need adjustment.
19:00	2.50	FRAC				0		Wait on other wells.
21:30	0.25	FRAC	WLT			0		Pick up lubricator and guns and make up to well, pressure test good.
21:45	0.72	FRAC	WLT			0		Stage #42 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

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								plug. Tie into liner top @10,911'. Bring on pumps at 11,200'. Pump down as follows: 3bpm @ 4200psi @11200' 6bpm @ 4700psi @11350' 9bpm @ 5500psi @11450' 12bpm @ 5800psi @11650' Max Rate 12bpm w/ 6425psi Set plug @ 14916ft Perforate as follows: 14894' - 14895' 14850' - 14851' 14806' - 14807' 14762' - 14763' Stabilized pressure after perf: 4370psi Pump down volume: 84bb
22:28	1.52	FRAC	WLT			0		Pooh with wireline assembly. Wait on other pad operations.
Total	23.90							

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
05/24/2017 04:56	KEANE FRAC LP	Wait On Truck			EN	Elect W/L Surface Equipment	4.07	7.07		OPEN
Description: WAITING ON WL TRUCK. WL TRUCK WOULDNT REGEN						Title: WOE				
05/24/2017 06:45	SHELL	Wait On Incident/Accident			N		3.00	3.00		OPEN
Description: WATER SUPPORT TRUCK CAUGHT ON FIRE. UNDER INVESTIGATION						Title: HSE INCIDENT				
Total							7.07	10.07		