

EP WELLS DAILY OPERATIONS REPORT

Report 5

03/28/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	5.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Jeannine Snyder	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor		24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	217,797/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	51,990	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:							

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	4

Operations Summary

24 Hour Summary
Rig up frac stack and zipper manifold
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 5

03/28/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
8:30	0.50	PREW	RUF			0		Hold pre job safety meeting
9:00		PREW	RUF			0		Rig up and torque Cactus hydraulic upper master valve; flowcross; goathead & crown valve on all four wells - 2501H, 2502H, 2503H, 2504H; Spot zipper manifold and install remaining center barrel spacer; Spot accumulators and run accumulator hoses to 2501H and 2502H.
Total	0.50							

Remarks

Re-start costs for trailers, R&R combo unit, Sunbelt forklift & manbasket

EP WELLS DAILY OPERATIONS REPORT

Report 8

03/31/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	8.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Jeannine Snyder	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor		24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	199,203/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	8,288	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:							

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	7

Operations Summary

24 Hour Summary
Finish rigging up wellhead grease skid
Update Since Report Time
Released forklift, manbasket, combo unit, light plants for 1-April
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 8

03/31/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
7:00	4.00	PREW	NOA			0		Finish rigging up grase skid
Total	4.00							

Remarks

Released forklift, manbasket, combo unit, light plants for 4/1

EP WELLS DAILY OPERATIONS REPORT

Report 9

04/08/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	9.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Matt Randolph	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Nick Morrison	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	216,357/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	16,327	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:							

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	8

Operations Summary

24 Hour Summary
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 9

04/08/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	24.00	FRAC	RIF			0		Wait for equipment and spot as it arrives. Rig up CIG sand storms. RU frac iron to manifold, RU crane, Spot and rig up WL equipment, RU Extreame pressure test unit. Load sand into sand boxes. Remove night caps, Install rig lock.
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00		FRAC	RIF			0	RU frac iron to manifold, Spot and rig up WL equipment, RU Extreame pressure test unit. Load sand into sand boxes. Remove night caps, Install rig lock.

EP WELLS DAILY OPERATIONS REPORT

Report 10

04/09/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	10.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Matt Randolph	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Nick Morrison	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	232,685/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	16,327	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:							

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
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 10

04/09/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	9.75	FRAC	RIF			0		RU frac iron to manifold, Spot and rig up WL equipment, RU Extreame pressure test unit. Load sand into sand boxes. Remove night caps, Install rig lock.
9:45	6.25	FRAC	RIF			0		Shut down location for drug testing.
16:00	8.00	FRAC	RIF			0		Resume rig up risers to well and run restraints, install rig locks, function test WL BOP, Rund data cables to transducers, Set snd pressure test backside PRV,
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	4.05	PREW	PTC			0	Other pad operations,
4:03		PREW				0	Set PRV to 2800 psi and test annulus to 2700 psi. Hold for 10 minutes

EP WELLS DAILY OPERATIONS REPORT

Report 11

04/10/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	11.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Matthew "Hank" Persaud	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	249,012/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	16,327	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:							

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	10

Operations Summary

24 Hour Summary
Continue Pre work
Update Since Report Time
24 Hour Forecast
Continue with Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 11

04/10/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.05	PREW	PTC			0		Other pad operations,
4:03	0.38	PREW	PTC			0		Set PRV to 2800 psi and test annulus to 2700 psi. Hold for 10 minutes. Bleed to 0 psi.
4:26	13.07	PREW	OPO			0		Other pad operations
17:30	0.50	PREW	PTC			0		PJSM with crews
18:00	0.32	PREW	PTC			0		Prep for toe sleeve ops.
18:19	3.62	PREW	PTC			0		<p>Bleed annulus to 0 psi and leave open to vent. Open well with 0 psi. TRRC test: 6864 psi in 5 mins. Shell Integrity #1: 7531 psi in 10 mins. Shell Integrity #2: 8381 psi in 10 mins.</p> <p>Sleeve Open: 9411 psi. Stable rate and pressure on brine: 3.8 avg. @ 10,100 psi. Stable rate and pressure pre-acid: 4 - 5 bpm 10,100 psi. Stable rate and pressure post-acid (no soak): 31 @ 9600 psi. avg treating pressure.</p> <p>Stage TP Summary University 20 PW 2503H Interval #N/A 0 0 0 Open Well Pressure 0 0 0 psi Shut In Well Pressure 5,485 0 0 psi Max Treating Pressure 10,562 psi Max Slurry Rate 31.0 bpm Average Treating Pressure 9,576 psi Average Slurry Rate 3.8 bpm Average Rate w/ Prop on Bottom 0.0 bpm Breakdown Pressure 9,303 psi Breakdown Rate 1.6 bpm Breakdown Volume 672 gal Avg HHP 897 hp Final ISIP 5,537 psi Frac Gradient 0.916 psi/ft Pad Volume 21,756 gal Main Body Volume 35,750 gal Flush Volume 6,804 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 0 lbs Proppant in Formation 0 lbs Avg Proppant Concentration 0.00 lb/gal Max Proppant Concentration 0.00 lb/gal Load to Recover 851 bbls Load to Recover w/o Acid 780 bbls 15% HCL Spearhead 2,990 gal Slickwater Fluid Pumped 680 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 100 bbls Pump down volume 0 bbls pump down rate 0.0 bpm Max pump down pressure 0 psi Fluid Temp 76.4 ?F Total Pump Time 3:37 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 18:19 0:00 0:00 0:00</p>

EP WELLS DAILY OPERATIONS REPORT

Report 11

04/10/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Treatment End Time 21:56 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - Toe Port opened at 9303 psi - 100 bbls of brine was pumped - 2990 gals 15% HCl was pumped. - The stage was treated with Fresh water Time between Stages (TBF) 0:51:00 Hours : Minutes Estimated Cost from Job Packet \$
21:56		PREW	PTC			0		Other pad ops.
Total	21.93							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00		PREW	PTC			0	Other pad ops.

EP WELLS DAILY OPERATIONS REPORT

Report 12

04/11/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	12.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Matthew "Hank" Persaud	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	1.50/6.25	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	265,339/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	16,327	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:							

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	11

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 12

04/11/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	13.67	PREW	PTC			0		Other pad ops.
13:40	0.33	FRAC	WLT			0		Handover well to wireline.
14:00	1.50	FRAC	WLT			1		***NPT*** Keane: During pressure test a weep hole on a chiksan at the bottom of the riser was found to be leaking.
15:30	0.17	FRAC	WLT			0		Pressure test lubricator to 9600 psi.
15:40	1.80	FRAC	WLT			0		Open well with 5050 psi.
17:28	0.08	FRAC	WLT			0		1728 "Stage #1 pump down sub and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and 3.65" Pump down sub. Perforate as follows: 16528' - 16529' 16484' - 16485' 16441' - 16442' Stabilized pressure after perforating: 5455 psi Final pump down rate: 15 bpm Pump down volume: 235 bbl"
17:33	1.20	FRAC	WLT			0		POOH
18:45	0.17	FRAC	GRS			0		Routine UMW greasing.
18:55	0.12	FRAC	WLT			0		Shut in well with 5400 psi. Handover to Frac
19:02	4.97	FRAC	OPO			0		Other pad ops
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00		FRAC	OPO			0	Other pad ops

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
04/11/2019 14:00	KEANE FRAC LP	Stimulation		WLT	EN	Stimulation Surface Equipment	1.50	1.50	2	OPEN
Description: Keane: During pressure test a weep hole on a chiksan at the bottom of the riser was found to be leaking and had to be replaced.						Title:				
Total							1.50	1.50		

EP WELLS DAILY OPERATIONS REPORT

Report 13

04/12/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	13.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Matthew "Hank" Persaud	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	281,666/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	16,327	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:							

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 Ops
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 13 04/12/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00		FRAC	OPO			0		Other pad ops
Total								

EP WELLS DAILY OPERATIONS REPORT

Report 14

04/14/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	14.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett / Lindy	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	360,350/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	78,683	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:							

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	13

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 14

04/14/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	20.10					0		Rig Complete work and permission was given to proceed with frac ops on well
20:06	2.08	FRAC	FRT			0		<p>Stage 1 Summary University 20 PW 2503H Interval 16441 - 16528 0 0 0</p> <p>Open Well Pressure 4,433 0 0 psi Shut In Well Pressure 5,137 0 0 psi Max Treating Pressure 9,497 psi Max Slurry Rate 60.9 bpm Average Treating Pressure 8,805 psi Average Slurry Rate 54.2 bpm Average Rate w/ Prop on Bottom 56.2 bpm Breakdown Pressure 0 psi Breakdown Rate 0.0 bpm Breakdown Volume 0 gal Avg HHP 11,697 hp Final ISIP 5,402 psi Frac Gradient 0.904 psi/ft Pad Volume 15,666 gal Main Body Volume 239,798 gal Flush Volume 20,580 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 420,100 lbs Proppant in Formation 420,100 lbs Avg Proppant Concentration 2.17 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,709 bbls Load to Recover w/o Acid 5,698 bbls 15% HCL Spearhead 482 gal Slickwater Fluid Pumped 5,463 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 235 bbls pump down rate 15.0 bpm Max pump down pressure 9,100 psi Fluid Temp 76.4 ?F Total Pump Time 2:05 hr:min Pumps Lost During Job 0 0 0 0</p> <p>Treatment Start Time 20:06 0:00 0:00 0:00 Treatment End Time 22:11 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - 482 gal of 15% HCL was pumped. - Proppant was stepped from 0.5 PPA to 3.0 PPA in 0.5 PPA increments. - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 1:01:00 Hours : Minutes Estimated Cost from Job Packet \$ 34,771.41</p>
22:11	0.03	FRAC	FWL			0		ther pad ops
22:13	0.65	FRAC	WLT			0		<p>2213 Handover well to wireline. 2240 Pressure test lubricator to 9900 psi. 2252 Open well with 4800 psi.</p>
22:52	1.13	FRAC	WLT			0		Wireline RIH stage 2 2503H set plug and perform casing test
Total	24.00							

EP WELLS DAILY OPERATIONS REPORT

Report 14

04/14/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	2.00	FRAC	WLT			0	0004 "Stage #stage 2 casing test Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Performed casing test to 9900 psi good test. Set plug @ 16417' Perforate as follows: 16398' - 16399' 16355' - 16356' 16311' - 16312' 16268' - 16269' Stabilized pressure after perforating: 4200 psi Final pump down rate: 12 bpm Pump down volume: 148 bbl" 0119 POOH
2:00	0.35	FRAC	GRS			0	0200 Routine UMW greasing.
2:21	0.15	FRAC	WLF			0	0221 Shut in well with 4200 psi. 0230 Handover well to frac.
2:30		FRAC	OPO			0	Other pad ops

EP WELLS DAILY OPERATIONS REPORT

Report 15

04/15/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	15.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett / Lindy	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	381,459/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	17,864	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:							

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	14

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 15

04/15/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.00	FRAC	WLT			0		0004 "Stage #stage 2 casing test Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Performed casing test to 9900 psi good test. Set plug @ 16417' Perforate as follows: 16398' - 16399' 16355' - 16356' 16311' - 16312' 16268' - 16269' Stabilized pressure after perforating: 4200 psi Final pump down rate: 12 bpm Pump down volume: 148 bbl" 0119 POOH
2:00	0.35	FRAC	GRS			0		0200 Routine UMW greasing.
2:21	0.15	FRAC	WLF			0		0221 Shut in well with 4200 psi. 0230 Handover well to frac.
2:30	4.70	FRAC	OPO			0		Other pad ops
7:12	2.28	FRAC	FRT			0		Stage 2 Summary University 20 PW 2503H Interval 16268 - 16398 0 0 0 Open Well Pressure 3,960 0 0 psi Shut In Well Pressure 5,300 0 0 psi Max Treating Pressure 9,587 psi Max Slurry Rate 61.7 bpm Average Treating Pressure 9,203 psi Average Slurry Rate 55.9 bpm Average Rate w/ Prop on Bottom 58.1 bpm Breakdown Pressure 7,274 psi Breakdown Rate 7.6 bpm Breakdown Volume 882 gal Avg HHP 12,609 hp Final ISIP 5,522 psi Frac Gradient 0.914 psi/ft Pad Volume 17,499 gal Main Body Volume 256,965 gal Flush Volume 20,118 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 424,810 lbs Proppant in Formation 424,810 lbs Avg Proppant Concentration 2.00 lb/gal Max Proppant Concentration 2.50 lb/gal Load to Recover 6,118 bbls Load to Recover w/o Acid 6,111 bbls 15% HCL Spearhead 284 gal Slickwater Fluid Pumped 5,958 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 153 bbls pump down rate 12.0 bpm Max pump down pressure 6,200 psi Fluid Temp 76.4 ?F Total Pump Time 2:17 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 7:12 0:00 0:00 0:00 Treatment End Time 9:29 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was stepped from 0.5 PPA to 2.5 PPA

EP WELLS DAILY OPERATIONS REPORT

Report 15

04/15/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								- Ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:22:00 Hours : Minutes Estimated Cost from Job Packet \$ 34,851.45
9:29	2.43	FRAC	OPO			0		Other Pad Ops
11:55	0.17	FRAC	FWL			0		Handover well to wireline.
12:05	0.08	FRAC	FWL			0		Pressure test lubricator to 4900 psi.
12:10	1.13	FRAC	WLT			0		Open well with 4430 psi.
13:18	0.08	FRAC	WLT			0		"Stage #3 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology ECO Hybrid composite ball-drop frac plug. Set plug @ 16244' Perforate as follows: 16225' - 16226' 16180' - 16181' 16136' - 16137' 16097' - 16098' Stabilized pressure after perforating: 4700 psi Final pump down rate: 12 bpm Pump down volume: 154 bbl"
13:23	0.88	FRAC	WLT			0		POOH
14:16	0.12	FRAC	GRS			0		Routine UMW greasing.
14:23	0.17	FRAC	WLF			0		Shut in well with 4300 psi. Handover well to frac.
14:33	5.33	FRAC	OPO			0		Other Pad Ops
19:53	2.80	FRAC	FRT			0		Stage 3 Summary University 20 PW 2503H Interval 16097 - 16225 0 0 0 Open Well Pressure 4,106 0 0 psi Shut In Well Pressure 5,353 0 0 psi Max Treating Pressure 9,886 psi Max Slurry Rate 53.8 bpm Average Treating Pressure 8,973 psi Average Slurry Rate 48.3 bpm Average Rate w/ Prop on Bottom 49.8 bpm Breakdown Pressure 9,368 psi Breakdown Rate 9.8 bpm Breakdown Volume 10,416 gal Avg HHP 10,622 hp Final ISIP 5,670 psi Frac Gradient 0.927 psi/ft Pad Volume 21,000 gal Main Body Volume 301,695 gal Flush Volume 20,370 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 413,240 lbs Proppant in Formation 413,240 lbs Avg Proppant Concentration 1.74 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 7,183 bbls Load to Recover w/o Acid 7,177 bbls 15% HCL Spearhead 261 gal Slickwater Fluid Pumped 7,021 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 156 bbls

EP WELLS DAILY OPERATIONS REPORT

Report 15

04/15/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								<p>pump down rate 12.0 bpm Max pump down pressure 6,100 psi Fluid Temp 76.4 ?F Total Pump Time 2:48 hr:min Pumps Lost During Job 1 0 0 0 Treatment Start Time 19:53 0:00 0:00 0:00 Treatment End Time 22:41 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.0 PPA then stepped to 3.5 PPA. Cut sand due to high pressure and did a full flush. Stepped sand back up from 0.5 PPA to 2.5 PPA. - Ball drop style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 1:05:00 Hours : Minutes Estimated Cost from Job Packet \$ 36,058.20</p>
22:41		FRAC	OPO			0		Other Pad Ops
Total	22.68							

EP WELLS DAILY OPERATIONS REPORT

Report 16

04/16/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	16.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett / Lindy	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	635,937/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	136,147	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:							

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
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac ops.

EP WELLS DAILY OPERATIONS REPORT

Report 16

04/16/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	3.50	FRAC	OPO			0		Other Pad Ops
3:30	0.42	FRAC	WLT			0		3:30 Handover well to wireline. 3:48 Pressure test lubricator to 4500 psi. 3:55 Open well with 4400 psi.
3:55	2.08	FRAC	WLT			0		5:03 "Stage #4 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD HSC at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 16071' Perforate as follows: 16051' - 16052' 16008' - 16009' 15965' - 15966' 15922' - 15923' Stabilized pressure after perf.: 4600 psi Maximum pump down rate: 12 bpm Pump down volume: 138 bbl" 5:05 POOH
6:00	0.50	FRAC	WLT			0		6:00 Shut in well with 4400 psi. 6:30 Handover well to frac.
6:30	0.03	FRAC	OPO			0		Other pad Ops
6:32	2.55	FRAC	FRT			0		Stage 4 Summary University 20 PW 2503H Interval 15922 - 16051 0 0 0 Open Well Pressure 4,300 0 0 psi Shut In Well Pressure 5,400 0 0 psi Max Treating Pressure 9,582 psi Max Slurry Rate 53.4 bpm Average Treating Pressure 8,958 psi Average Slurry Rate 50.4 bpm Average Rate w/ Prop on Bottom 52.0 bpm Breakdown Pressure 9,366 psi Breakdown Rate 11.9 bpm Breakdown Volume 12,138 gal Avg HHP 11,066 hp Final ISIP 5,561 psi Frac Gradient 0.918 psi/ft Pad Volume 14,243 gal Main Body Volume 282,129 gal Flush Volume 20,118 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 419,960 lbs Proppant in Formation 419,960 lbs Avg Proppant Concentration 1.74 lb/gal Max Proppant Concentration 2.50 lb/gal Load to Recover 6,717 bbls Load to Recover w/o Acid 6,711 bbls 15% HCL Spearhead 282 gal Slickwater Fluid Pumped 6,573 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 138 bbls pump down rate 12.0 bpm Max pump down pressure 6,900 psi Fluid Temp 76.4 °F Total Pump Time 2:33 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 6:32 0:00 0:00 0:00 Treatment End Time 9:05 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt

EP WELLS DAILY OPERATIONS REPORT

Report 16

04/16/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								- 282 gal of 15% HCl was pumped. - Proppant was stepped from 0.5 PPA to 2.5 PPA - Ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:37:00 Hours : Minutes Estimated Cost from Job Packet \$ 35,347.04
9:05	4.17	FRAC	OPO			0		Other Pad Ops
13:15	0.28	FRAC	FWL			0		Handover well to wireline.
13:32	0.13	FRAC	FWL			0		Pressure test lubricator to 4500 psi.
13:40	0.87	FRAC	WLT			0		Open well with 4500 psi.
14:32	0.07	FRAC	WLT			0		"Stage #5 Plug and Perf. RIH with (4) 1" Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology ECO Hybrid composite ball-drop frac plug. Set plug @ 15898' Perforate as follows: 15878' - 15879' 15835' - 15836' 15792' - 15793' 15748' - 15749' Stabilized pressure after perforating: 4700 psi Final pump down rate: 12 bpm Pump down volume: 138 bbl"
14:36	0.90	FRAC	WLT			0		POOH
15:30	0.17	FRAC	GRS			0		Routine UMW greasing.
15:40	0.17	FRAC	WLF			0		Shut in well with 4500 psi. Handover well to frac.
15:50	4.40	FRAC	WLF			0		Other Pad Ops
20:14	2.48	FRAC	FRT			0		Stage 5 Summary University 20 PW 2503H Interval 15748 - 15878 0 0 0 Open Well Pressure 4,205 0 0 psi Shut In Well Pressure 5,536 0 0 psi Max Treating Pressure 9,610 psi Max Slurry Rate 56.5 bpm Average Treating Pressure 9,185 psi Average Slurry Rate 49.7 bpm Average Rate w/ Prop on Bottom 52.7 bpm Breakdown Pressure 9,108 psi Breakdown Rate 9.3 bpm Breakdown Volume 10,626 gal Avg HHP 11,198 hp Final ISIP 6,202 psi Frac Gradient 0.973 psi/ft Pad Volume 16,254 gal Main Body Volume 266,377 gal Flush Volume 20,370 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 421,300 lbs Proppant in Formation 421,300 lbs Avg Proppant Concentration 1.88 lb/gal Max Proppant Concentration 2.50 lb/gal Load to Recover 6,342 bbls Load to Recover w/o Acid 6,336 bbls 15% HCL Spearhead 265 gal Slickwater Fluid Pumped 6,196 bbls 20# Linear Fluid Pumped 0 bbls

EP WELLS DAILY OPERATIONS REPORT

Report 16

04/16/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Brine Fluid Pumped 0 bbls Pump down volume 140 bbls pump down rate 12.0 bpm Max pump down pressure 6,600 psi Fluid Temp 76.4 ?F Total Pump Time 2:29 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 20:14 0:00 0:00 0:00 Treatment End Time 22:43 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - 265 gal of 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 1.5 PPA then stepped to 2.5 PPA - Ball drop style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:07:00 Hours : Minutes Estimated Cost from Job Packet \$ 35,288.46
22:43	0.28	FRAC	OPO			0		Other pad ops
23:00	0.20	FRAC	WLT			0		23:00 Handover well to wireline. 23:05 Pressure test lubricator to 5200 psi. 23:12 Open well with 5000 psi.
23:12	0.80	FRAC	WLT			0		00:17 "Stage #6 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology ECO Hybrid composite ball-drop frac plug. Set plug @ 15725' Perforate as follows: 15705' - 15706' 15662' - 15663' 15618' - 15619' 15575' - 15576' Stabilized pressure after perforating: 4800 psi Final pump down rate: 12 bpm Pump down volume: 125 bbl" 00:21 POOH
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.35	FRAC	WLT			0	00:17 "Stage #6 Plug and Perf. 00:21 POOH
0:21	0.65	FRAC	WLT			0	POOH
1:00	0.33	FRAC	GRS			0	01:00 Routine UMW greasing.
1:20	0.17	FRAC	WLF			0	01:20 Shut in well with 4600 psi. 01:30 Handover well to frac.
1:30		FRAC	WLF			0	Other pad ops

EP WELLS DAILY OPERATIONS REPORT

Report 17

04/17/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	17.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett / Lindy	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	14.18/59.10	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	714,776/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	75,864	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:							

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	16

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 17

04/17/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.35	FRAC	WLT			0		00:17 "Stage #6 Plug and Perf. 00:21 POOH
0:21	0.65	FRAC	WLT			0		POOH
1:00	0.33	FRAC	GRS			0		01:00 Routine UMW greasing.
1:20	0.17	FRAC	WLF			0		01:20 Shut in well with 4600 psi. 01:30 Handover well to frac.
1:30	4.75	FRAC	WLF			0		Other pad ops
6:15	2.35	FRAC	WLF			1		***NPT*** Cactus: Zipper on the 2502H was not holding. When frac would pressure up on the 2503H we would see a pressure increase on the 2502H.
8:36	1.93	FRAC	FRT			0		Stage 6 Summary University 20 PW 2503H Interval 15575 - 15705 Frac A Frac B Frac C Open Well Pressure 4,179 4,408 4,300 psi Shut In Well Pressure 4,859 4,862 5,611 psi Max Treating Pressure 9,466 psi Max Slurry Rate 55.7 bpm Average Treating Pressure 8,824 psi Average Slurry Rate 49.7 bpm Average Rate w/ Prop on Bottom 52.3 bpm Breakdown Pressure 7,069 psi Breakdown Rate 9.9 bpm Breakdown Volume 14,112 gal Avg HHP 10,749 hp Final ISIP 5,820 psi Frac Gradient 0.940 psi/ft Pad Volume 28,728 gal Main Body Volume 249,636 gal Flush Volume 20,034 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 432,070 lbs Proppant in Formation 432,070 lbs Avg Proppant Concentration 2.21 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,944 bbls Load to Recover w/o Acid 5,937 bbls 15% HCL Spearhead 282 gal Slickwater Fluid Pumped 5,810 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 127 bbls pump down rate 12.0 bpm Max pump down pressure 6,600 psi Fluid Temp 76.4 ?F Total Pump Time 2:41 hr:min Pumps Lost During Job 0 Frac A Frac B Frac C Treatment Start Time 5:38 7:21 8:36 0:00 Treatment End Time 6:18 7:26 10:32 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.0 PPA then stepped to 3.0 PPA - A ball drop style plug was used - All proppant was placed and the stage was treated with Fresh water - We shut down twice before starting sand after observing the 2H well equalize to the treating pressure. We shut down to allow Cactus to grease and troubleshoot the zipper.

EP WELLS DAILY OPERATIONS REPORT

Report 17

04/17/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Time between Stages (TBF) 0:09:00 Hours : Minutes Estimated Cost from Job Packet \$ 34,636.96
10:32	1.63	FRAC	OPO			0		Other Pad Ops
12:10	11.83	FRAC	FWL			1		***NPT*** Weather: Shut down due to high winds
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.17	FRAC	WLT			0	00:00 Handover well to wireline. 00:05 Pressure test lubricator to 8500 psi. 00:10 Open well with 4200 psi.
0:10	1.67	FRAC	WLT			0	01:12 "Stage #10 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 15555' Perforate as follows: 15532' - 15533' 15489' - 15490' 15445' - 15446' 15402' - 15403' Stabilized pressure after perforating: 4900 psi Final pump down rate: 12 bpm Pump down volume: 130 bbl" 01:15 POOH
1:50	0.25	FRAC	GRS			0	01:50 Routine UMW greasing.
2:05	0.17	FRAC	WLF			0	02:05 Shut in well with 4400 psi. 02:15 Handover well to frac.
2:15		FRAC	WLF			0	

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
04/17/2019 06:15				WLF	EN			2.35	2	CLOSED
Description: Started stage 6 on the 2503H. While pumping the ball down frac seen the pressure on the 2502H pressure. Once they seen the ball seat we stopped pumping and shut the 2503H in bled off and greases the zipper on the 2502H. Pressured up on the 2503H and seen a pressure increase again on the 2502H. Bled off and greases the zipper again and then pressure tested the manual and hydraulic valves on the 2502H zipper individually. Got a good test on both.						Title: Cactus: Zipper on the 2502H was not holding. When frac would pressure up on the 2503H we would see a pressure increase on the 2502H.				
04/17/2019 12:10				FWL	EN			11.83	2	CLOSED
Description: WOW Shut down due to high winds						Title: Weather: Shut down due to high winds				
Total								14.18		

EP WELLS DAILY OPERATIONS REPORT

Report 18

04/18/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	18.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett / Lindy	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	898,870/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	183,845	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:							

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	17

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 18

04/18/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.17	FRAC	WLT			0		00:00 Handover well to wireline. 00:05 Pressure test lubricator to 8500 psi. 00:10 Open well with 4200 psi.
0:10	1.67	FRAC	WLT			0		01:12 "Stage #10 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 15555' Perforate as follows: 15532' - 15533' 15489' - 15490' 15445' - 15446' 15402' - 15403' Stabilized pressure after perforating: 4900 psi Final pump down rate: 12 bpm Pump down volume: 130 bbl" 01:15 POOH
1:50	0.25	FRAC	GRS			0		01:50 Routine UMW greasing.
2:05	0.13	FRAC	WLF			0		02:05 Shut in well with 4400 psi. 02:13 Handover well to frac.
2:13	0.02	FRAC	WLF			0		Waiting on Wireline
2:14	1.87	FRAC	FRT			0		Stage 7 Summary University 20 PW 2503H Interval 15402 - 15532 0 0 0 Open Well Pressure 4,303 0 0 psi Shut In Well Pressure 5,314 0 0 psi Max Treating Pressure 9,693 psi Max Slurry Rate 59.5 bpm Average Treating Pressure 9,154 psi Average Slurry Rate 53.3 bpm Average Rate w/ Prop on Bottom 56.3 bpm Breakdown Pressure 8,621 psi Breakdown Rate 10.0 bpm Breakdown Volume 168 gal Avg HHP 11,959 hp Final ISIP 6,065 psi Frac Gradient 0.962 psi/ft Pad Volume 2,898 gal Main Body Volume 215,586 gal Flush Volume 19,530 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 431,880 lbs Proppant in Formation 431,880 lbs Avg Proppant Concentration 2.30 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 5,133 bbls Load to Recover w/o Acid 5,133 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,000 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 133 bbls pump down rate 12.0 bpm Max pump down pressure 7,000 psi Fluid Temp 76.4 °F Total Pump Time 1:52 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 2:14 0:00 0:00 0:00 Treatment End Time 4:06 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt

EP WELLS DAILY OPERATIONS REPORT

Report 18

04/18/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								- No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.0 PPA then stepped to 3.5 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 8:48:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,801.88
4:06	5.07	FRAC	OPO			0		Other pad Ops
9:10	0.32	FRAC	FWL			0		09:10 Handover well to wireline. 09:23 Pressure test lubricator to 4400 psi. 09:29 Open well with 4200 psi.
9:29	1.68	FRAC	WLT			0		10:19 "Stage #8 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 15378' Perforate as follows: 15359' - 15360' 15315' - 15316' 15272' - 15273' 15229' - 15230' Stabilized pressure after perforating: 5246 psi Final pump down rate: 12 bpm Pump down volume: 117 bbl" 10:23 POOH
11:10	0.33	FRAC	GRS			0		Routine UMW greasing.
11:30	0.12	FRAC	WLF			0		Shut in well with psi.
11:37	3.43	FRAC	OPO			0		Handover well to frac.
11:37	3.43	FRAC	OPO			0		Other Pad Ops
15:03	1.92	FRAC	FRT			0		Stage 8 Summary University 20 PW 2503H Interval 15229 - 15359 0 0 0 Open Well Pressure 4,095 0 0 psi Shut In Well Pressure 5,350 0 0 psi Max Treating Pressure 10,220 psi Max Slurry Rate 58.1 bpm Average Treating Pressure 9,018 psi Average Slurry Rate 47.0 bpm Average Rate w/ Prop on Bottom 51.1 bpm Breakdown Pressure 9,533 psi Breakdown Rate 9.5 bpm Breakdown Volume 336 gal Avg HHP 10,388 hp Final ISIP 5,565 psi Frac Gradient 0.918 psi/ft Pad Volume 1,008 gal Main Body Volume 214,242 gal Flush Volume 20,874 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 422,440 lbs Proppant in Formation 422,440 lbs Avg Proppant Concentration 2.25 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,101 bbls Load to Recover w/o Acid 5,101 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,984 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 117 bbls pump down rate 12.0 bpm

EP WELLS DAILY OPERATIONS REPORT

Report 18

04/18/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Max pump down pressure 6,610 psi Fluid Temp 76.4 ?F Total Pump Time 1:55 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 15:03 0:00 0:00 0:00 Treatment End Time 16:58 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped to 3.0 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:26:00 Hours : Minutes Estimated Cost from Job Packet \$ 33,191.90
16:58	2.37	FRAC	FWL			0		Other Pad Ops
19:20	0.22	FRAC	WLT			0		19:20 Handover well to wireline. 19:24 Pressure test lubricator to 5000 psi. 19:33 Open well with 4300 psi.
19:33	1.77	FRAC	WLT			0		20:35 "Stage #9 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 15205' Perforate as follows: 15185' - 15186' 15142' - 15143' 15099' - 15100' 15054' - 15055' Stabilized pressure after perforating: 5400 psi Final pump down rate: 12 bpm Pump down volume: 116 bbl" 20:39 POOH
21:19	0.18	FRAC	GRS			0		21:19 Routine UMW greasing.
21:30	0.25	FRAC	WLF			0		21:30 Shut in well with 4300 psi. 21:45 Handover well to frac.
21:45	1.25	FRAC	OPO			0		Other pad ops
23:00	1.00	FRAC	OPO			0		Stage 9 Summary University 20 PW 2503H Interval 15056 - 15185 0 0 0 Open Well Pressure 4,100 0 0 psi Shut In Well Pressure 5,323 0 0 psi Max Treating Pressure 9,825 psi Max Slurry Rate 58.6 bpm Average Treating Pressure 9,313 psi Average Slurry Rate 52.2 bpm Average Rate w/ Prop on Bottom 56.1 bpm Breakdown Pressure 8,666 psi Breakdown Rate 10.0 bpm Breakdown Volume 294 gal Avg HHP 11,915 hp Final ISIP 5,910 psi Frac Gradient 0.948 psi/ft Pad Volume 1,428 gal Main Body Volume 192,444 gal Flush Volume 19,320 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 417,990 lbs Proppant in Formation 417,990 lbs

EP WELLS DAILY OPERATIONS REPORT

Report 18

04/18/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Avg Proppant Concentration 2.51 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,582 bbls Load to Recover w/o Acid 4,582 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,463 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 119 bbls pump down rate 12.0 bpm Max pump down pressure 6,900 psi Fluid Temp 76.4 ?F Total Pump Time 1:36 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 23:00 0:00 0:00 0:00 Treatment End Time 0:36 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 4.0 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:08:00 Hours : Minutes Estimated Cost from Job Packet \$ 31,964.24
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.60	FRAC	FRT			0	Stage 9 Summary University 20 PW 2503H Completed
0:36		FRAC	OPO			0	Other pad ops

EP WELLS DAILY OPERATIONS REPORT

Report 19

04/19/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	19.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett Oldenkamp	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	1,025,752/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	126,882	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:							

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	18

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 19

04/19/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.60	FRAC	FRT			0		Stage 9 Summary University 20 PW 2503H Completed
0:36	8.33	FRAC	OPO			0		Other pad ops
8:56	0.12	FRAC	FWL			0		08:50 Handover well to wireline. 08:56 Pressure test lubricator to 4500 psi. 09:03 Open well with 4025 psi.
9:03	1.65	FRAC	WLT			0		09:53 "Stage #10 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 15032' Perforate as follows: 15009' - 15010' 14970' - 14971' 14926' - 14927' 14882' - 14883' Stabilized pressure after perforating: 4980 psi Final pump down rate: 12 bpm Pump down volume: 107 bbl" 09:58 POOH
10:42	0.15	FRAC	GRS			0		Routine UMW greasing.
10:51	0.27	FRAC	WLF			0		Shut in well with 4100 psi. Handover well to frac.
11:07	0.47	FRAC	FRP			0		Frac Prep
11:35	1.45	FRAC	FRT			0		Stage 10 Summary University 20 PW 2503H Interval 14882 - 15009 0 0 0 Open Well Pressure 4,050 0 0 psi Shut In Well Pressure 5,510 0 0 psi Max Treating Pressure 9,965 psi Max Slurry Rate 62.6 bpm Average Treating Pressure 9,177 psi Average Slurry Rate 54.9 bpm Average Rate w/ Prop on Bottom 59.8 bpm Breakdown Pressure 9,441 psi Breakdown Rate 16.6 bpm Breakdown Volume 1,512 gal Avg HHP 12,348 hp Final ISIP 6,103 psi Frac Gradient 0.965 psi/ft Pad Volume 2,394 gal Main Body Volume 187,362 gal Flush Volume 19,530 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 423,790 lbs Proppant in Formation 423,790 lbs Avg Proppant Concentration 2.63 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,461 bbls Load to Recover w/o Acid 4,461 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,354 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 107 bbls pump down rate 12.0 bpm Max pump down pressure 6,280 psi Fluid Temp 76.4 ?F Total Pump Time 1:28 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 11:34 0:00 0:00 0:00

EP WELLS DAILY OPERATIONS REPORT

Report 19

04/19/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Treatment End Time 13:02 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 3.5 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:59:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,259.56
13:02	5.47	FRAC	FRT			0		Other pad ops
18:30	0.17	FRAC	WLT			0		18:30 Handover well to wireline. 18:34 Pressure test lubricator to 4800 psi. 18:40 Open well with 4600 psi.
18:40	1.83	FRAC	WLT			0		19:46 "Stage #11 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 14859' Perforate as follows: 14839' - 14840' 14796' - 14797' 14752' - 14753' 14709' - 14710' Stabilized pressure after perforating: 5200 psi Final pump down rate: 11 bpm Pump down volume: 109 bbl" 19:51 POOH
20:30	0.48	FRAC	GRS			0		20:30 Routine UMW greasing.
20:59	0.27	FRAC	WLF			0		20:59 Shut in well with 4700 psi. 21:15 Handover well to frac.
21:15	1.17	FRAC	OPO			0		Other pad ops
22:25	1.58	FRAC	OPO			0		Stage 11 Summary University 20 PW 2503H Interval 14709 - 14839 0 0 0 Open Well Pressure 4,429 0 0 psi Shut In Well Pressure 5,327 0 0 psi Max Treating Pressure 9,741 psi Max Slurry Rate 56.5 bpm Average Treating Pressure 8,885 psi Average Slurry Rate 50.0 bpm Average Rate w/ Prop on Bottom 53.7 bpm Breakdown Pressure 8,425 psi Breakdown Rate 10.0 bpm Breakdown Volume 210 gal Avg HHP 10,888 hp Final ISIP 5,795 psi Frac Gradient 0.938 psi/ft Pad Volume 1,176 gal Main Body Volume 188,706 gal Flush Volume 19,278 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 425,820 lbs Proppant in Formation 425,820 lbs Avg Proppant Concentration 2.60 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,493 bbls Load to Recover w/o Acid 4,493 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,383 bbls

EP WELLS DAILY OPERATIONS REPORT

Report 19

04/19/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 110 bbls pump down rate 11.0 bpm Max pump down pressure 6,500 psi Fluid Temp 76.4 ?F Total Pump Time 1:38 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 22:25 0:00 0:00 0:00 Treatment End Time 0:03 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 3.5 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:43:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,090.42
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00		FRAC	OPO			0	

EP WELLS DAILY OPERATIONS REPORT

Report 20

04/20/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	20.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett Oldenkamp	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	1.80/7.50	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,096,505/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	70,753	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:							

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
HSE Drills	Muster Drill	2.00	141.00	Day	Pass	Brett Oldenkamp	Crew mustered,

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP function test			Days Since Last Drill	19
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 20 04/20/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 20

04/20/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.00	FRAC	OPO			0		Other pad ops.
5:00	0.55	FRAC	FWL			0		05:00 Handover well to wireline. 05:25 Pressure test lubricator to 4500 psi. 05:33 Open well with 4200 psi.
5:33	1.70	FRAC	WLT			0		0630 "Stage #12 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 14685' Perforate as follows: 14666' - 14667' 14623' - 14624' 14579' - 14580' 14536' - 14537' Stabilized pressure after perforating: 5200 psi Final pump down rate: 12 bpm Pump down volume: 101 bbl" 06:34 POOH
7:15	0.43	FRAC	GRS			0		07:15 Routine UMW greasing.
7:41	0.23	FRAC	WLF			0		07:41 Shut in well with 4250 psi. CONDUCT MUSTER DRILL 07:55 Handover well to frac.
7:55	7.20	FRAC	OPO			0		Other pad ops.
15:07	1.80	FRAC	WLF			1		***NPT*** Keane: Pulled out 3 triplex pumps and replaced them with Quinn pumps
16:55	1.63	FRAC	FRT			0		Stage 12 Summary University 20 PW 2503H Interval 14536 - 14666 0 0 0 Open Well Pressure 4,020 0 0 psi Shut In Well Pressure 5,820 0 0 psi Max Treating Pressure 9,702 psi Max Slurry Rate 61.3 bpm Average Treating Pressure 9,020 psi Average Slurry Rate 51.8 bpm Average Rate w/ Prop on Bottom 55.8 bpm Breakdown Pressure 9,002 psi Breakdown Rate 16.0 bpm Breakdown Volume 2,226 gal Avg HHP 11,452 hp Final ISIP 5,995 psi Frac Gradient 0.955 psi/ft Pad Volume 3,024 gal Main Body Volume 221,424 gal Flush Volume 19,404 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 418,280 lbs Proppant in Formation 418,280 lbs Avg Proppant Concentration 2.15 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 5,272 bbls Load to Recover w/o Acid 5,272 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,171 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 101 bbls pump down rate 12.0 bpm Max pump down pressure 7,140 psi Fluid Temp 76.4 °F Total Pump Time 1:38 hr:min Pumps Lost During Job 0 0 0 0

EP WELLS DAILY OPERATIONS REPORT

Report 20

04/20/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Treatment Start Time 16:55 0:00 0:00 0:00 Treatment End Time 18:33 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 4.0 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 2:33:00 Hours : Minutes Estimated Cost from Job Packet \$ 33,332.28
18:33	0.20	FRAC	FRT			0		18:45 Handover well to wireline. 18:43 Pressure test lubricator to 5300 psi. 18:52 Open well with 5200 psi.
18:45	0.12	FRAC	FRT			0		Other pad ops
18:52	2.00	FRAC	FRT			0		20:04 "Stage #13 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 14512' Perforate as follows: 14493' - 14494' 14449' - 14450' 14406' - 14407' 14363' - 14364' Stabilized pressure after perforating: 5100 psi Final pump down rate: 12 bpm Pump down volume: 99 bbl" 20:07 POOH
20:52	0.17	FRAC	FRT			0		20:52 Routine UMW greasing.
21:02	0.22	FRAC	FRT			0		21:02 Shut in well with 4800 psi
21:15	2.75	FRAC	FRT			0		21:15 Handover well to frac.
								Other pad ops
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00		FRAC	FRT			0	

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
04/20/2019 15:07	KEANE FRAC LP	Stimulation		WLF	EN	Frac Pump	1.80	1.80	2	OPEN
Description: Replaced the triplex pumps with Quinn pumps so we could get more rate.						Title: Keane: Pulled out 3 triplex pumps and replaced them with Quinn pumps				
Total							1.80	1.80		

EP WELLS DAILY OPERATIONS REPORT

Report 21

04/21/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	21.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett Oldenkamp	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	5.40/22.50	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,221,619/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	121,936	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:							

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	20

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 21

04/21/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	5.58	FRAC	OPO			0		Other Pad Ops
5:35	1.57	FRAC	FRT			0		Stage 13 Summary University 20 PW 2503H Interval 14363 - 14493 0 0 0 Open Well Pressure 4,042 0 0 psi Shut In Well Pressure 5,455 0 0 psi Max Treating Pressure 9,844 psi Max Slurry Rate 63.7 bpm Average Treating Pressure 9,224 psi Average Slurry Rate 54.8 bpm Average Rate w/ Prop on Bottom 59.6 bpm Breakdown Pressure 9,070 psi Breakdown Rate 12.0 bpm Breakdown Volume 252 gal Avg HHP 12,389 hp Final ISIP 5,986 psi Frac Gradient 0.955 psi/ft Pad Volume 1,470 gal Main Body Volume 201,306 gal Flush Volume 19,446 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 422,900 lbs Proppant in Formation 422,900 lbs Avg Proppant Concentration 2.40 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,793 bbls Load to Recover w/o Acid 4,793 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,693 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 100 bbls pump down rate 12.0 bpm Max pump down pressure 6,200 psi Fluid Temp 76.4 ?F Total Pump Time 1:34 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 5:35 0:00 0:00 0:00 Treatment End Time 7:09 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 4.0 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 1:00:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,121.37
7:09	1.30	FRAC	FWL			0		06:55 Handover well to wireline. Lay down lubricator to change out packoff rubbers while frac was finishing the stage. 07:55 Pressure test lubricator to 8000 psi. 08:27 Open well with 4800 psi.
8:27	1.55	FRAC	WLT			0		"Stage #14 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 14339' Perforate as follows: 14319' - 14320' 14276' - 14277'

EP WELLS DAILY OPERATIONS REPORT

Report 21

04/21/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								14233' - 14234' 14190' - 14191' Stabilized pressure after perforating: 5400 psi Final pump down rate: 12 bpm Pump down volume: 89 bbl" 09:19 POOH
10:00	0.12	FRAC	GRS			0		Routine UMV greasing & LMV greasing.
10:07	0.13	FRAC	WLF			0		10:07 Shut in well with 4400 psi. 10:15 Handover well to frac.
10:15	2.73	FRAC	OPO			0		Other pad ops.
12:59	1.53	FRAC	FRT			0		Stage 14 Summary University 20 PW 2503H Interval 14190 - 14319 0 0 0 Open Well Pressure 4,152 0 0 psi Shut In Well Pressure 5,500 0 0 psi Max Treating Pressure 9,787 psi Max Slurry Rate 61.6 bpm Average Treating Pressure 9,370 psi Average Slurry Rate 53.5 bpm Average Rate w/ Prop on Bottom 57.6 bpm Breakdown Pressure 7,793 psi Breakdown Rate 10.1 bpm Breakdown Volume 420 gal Avg HHP 12,287 hp Final ISIP 5,840 psi Frac Gradient 0.942 psi/ft Pad Volume 1,764 gal Main Body Volume 192,024 gal Flush Volume 19,656 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 422,800 lbs Proppant in Formation 422,800 lbs Avg Proppant Concentration 2.53 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,572 bbls Load to Recover w/o Acid 4,572 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,483 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 89 bbls pump down rate 12.0 bpm Max pump down pressure 6,629 psi Fluid Temp 76.4 ?F Total Pump Time 1:32 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 12:59 0:00 0:00 0:00 Treatment End Time 14:31 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped to 4.0 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:15:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,191.58
14:31	3.82	FRAC	OPO			0		Other Pad Ops
18:20	0.27	FRAC	OPO			0		18:20 Handover well to wireline. 18:30 Pressure test lubricator to 4800 psi.

EP WELLS DAILY OPERATIONS REPORT

Report 21

04/21/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								18:36 Open well with 4700 psi.
18:36	1.15	FRAC	OPO			1		19:34 "Stage #15 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 14166' Perforate as follows: 14146' - 14147' 14103' - 14104' 14060' - 14061' 14016' - 14017' Stabilized pressure after perforating: psi Final pump down rate: 12 bpm Pump down volume: 81 bbl"
19:45	4.25	FRAC	OPO			1		NOTE: ***** NPT ***** keane wireline did not get indication of plug set pooh check tools
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.70	FRAC	WLT			1	NOTE: ***** NPT ***** keane wireline did not get indication of plug set pooh check tools
0:42	1.00	FRAC	WLT			1	00:20 Handover well to wireline. 00:30 Pressure test lubricator to 8500 psi. 00:42 Open well with 4300 psi.
1:42	0.63	FRAC	WLT			0	01:42 "Stage #15 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 14166' Perforate as follows: 14146' - 14147' 14103' - 14104' 14060' - 14061' 14016' - 14017' Stabilized pressure after perforating: 4800 psi Final pump down rate: 12 bpm Pump down volume: 81 bbl" 01:46 POOH
2:20	0.17	FRAC	GRS			0	02:20 Routine UMW greasing.
2:30	0.17	FRAC	WLF			0	02:30 Shut in well with 4400 psi. 02:40 Handover well to frac.
2:40	1.88	FRAC	FRT			0	Stage 15 Summary University 20 PW 2503H Interval 14016 - 14146 0 0 0 Open Well Pressure 4,241 0 0 psi Shut In Well Pressure 5,333 0 0 psi Max Treating Pressure 9,979 psi Max Slurry Rate 63.2 bpm Average Treating Pressure 9,362 psi Average Slurry Rate 53.5 bpm Average Rate w/ Prop on Bottom 59.0 bpm Breakdown Pressure 9,257 psi Breakdown Rate 12.0 bpm Breakdown Volume 336 gal Avg HHP 12,276 hp Final ISIP 5,597 psi Frac Gradient 0.921 psi/ft Pad Volume 10,710 gal Main Body Volume 219,870 gal

EP WELLS DAILY OPERATIONS REPORT

Report 21

04/21/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							Flush Volume 19,068 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 432,300 lbs Proppant in Formation 432,300 lbs Avg Proppant Concentration 2.37 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,235 bbls Load to Recover w/o Acid 5,235 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,053 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 182 bbls pump down rate 12.0 bpm Max pump down pressure 6,900 psi Fluid Temp 76.4 ?F Total Pump Time 1:53 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 2:40 0:00 0:00 0:00 Treatment End Time 4:33 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 3.0 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 3:06:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,952.30
4:33		FRAC	OPO			0	Other pad ops

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
04/21/2019 18:36	KEANE FRAC LP	Perforation		OPO	EN	Elect W/line Perforating Equip	7.10	7.10	1	OPEN
Description: Wireline pumped plug down to target depth attempted to set plug did not get any indication of plug setting no weight drop, no pressure increase, pooh and check tools						Title: Plug did not set				
Total							7.10	7.10		

EP WELLS DAILY OPERATIONS REPORT

Report 22

04/22/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	22.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett Oldenkamp	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	1.70/7.08	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,414,974/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	187,106	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:							

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	21

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 22

04/22/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.70	FRAC	WLT			1		NOTE: ***** NPT ***** keane wireline did not get indication of plug set pooh check tools
0:42	1.00	FRAC	WLT			1		00:20 Handover well to wireline. 00:30 Pressure test lubricator to 8500 psi. 00:42 Open well with 4300 psi.
1:42	0.63	FRAC	WLT			0		01:42 "Stage #15 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 14166' Perforate as follows: 14146' - 14147' 14103' - 14104' 14060' - 14061' 14016' - 14017' Stabilized pressure after perforating: 4800 psi Final pump down rate: 12 bpm Pump down volume: 81 bbl" 01:46 POOH
2:20	0.17	FRAC	GRS			0		02:20 Routine UMW greasing.
2:30	0.17	FRAC	WLF			0		02:30 Shut in well with 4400 psi. 02:40 Handover well to frac.
2:40	1.88	FRAC	FRT			0		Stage 15 Summary University 20 PW 2503H Interval 14016 - 14146 0 0 0 Open Well Pressure 4,241 0 0 psi Shut In Well Pressure 5,333 0 0 psi Max Treating Pressure 9,979 psi Max Slurry Rate 63.2 bpm Average Treating Pressure 9,362 psi Average Slurry Rate 53.5 bpm Average Rate w/ Prop on Bottom 59.0 bpm Breakdown Pressure 9,257 psi Breakdown Rate 12.0 bpm Breakdown Volume 336 gal Avg HHP 12,276 hp Final ISIP 5,597 psi Frac Gradient 0.921 psi/ft Pad Volume 10,710 gal Main Body Volume 219,870 gal Flush Volume 19,068 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 432,300 lbs Proppant in Formation 432,300 lbs Avg Proppant Concentration 2.37 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,235 bbls Load to Recover w/o Acid 5,235 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,053 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 182 bbls pump down rate 12.0 bpm Max pump down pressure 6,900 psi Fluid Temp 76.4 ?F Total Pump Time 1:53 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 2:40 0:00 0:00 0:00 Treatment End Time 4:33 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report.

EP WELLS DAILY OPERATIONS REPORT

Report 22

04/22/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								- FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 3.0 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 3:06:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,952.30
4:33	7.88	FRAC	OPO			0		Other pad ops
12:26	0.27	FRAC	FWL			0		12:26 Handover well to wireline. 12:36 Pressure test lubricator to 4600 psi. 12:42 Open well with 4200 psi.
12:42	1.55	FRAC	WLT			0		13:33 "Stage #16 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 13993' Perforate as follows: 13973' - 13974' 13930' - 13931' 13886' - 13887' 13843' - 13844' Stabilized pressure after perforating: 4740 psi Final pump down rate: 12 bpm Pump down volume: 77 bbl" 1337 POOH
14:15	0.23	FRAC	GRS			0		Routine UMW greasing.
14:29	0.10	FRAC	WLF			0		Shut in well with 4100 psi. Handover well to frac.
14:35	1.45	FRAC	OPO			0		Other Pad Ops
16:02	2.12	FRAC	FRT			0		Stage 16 Summary University 20 PW 2503H Interval 13843 - 13973 0 0 0 Open Well Pressure 4,075 0 0 psi Shut In Well Pressure 5,528 0 0 psi Max Treating Pressure 9,808 psi Max Slurry Rate 61.3 bpm Average Treating Pressure 9,319 psi Average Slurry Rate 49.3 bpm Average Rate w/ Prop on Bottom 55.6 bpm Breakdown Pressure 9,791 psi Breakdown Rate 12.2 bpm Breakdown Volume 546 gal Avg HHP 11,260 hp Final ISIP 6,088 psi Frac Gradient 0.964 psi/ft Pad Volume 7,140 gal Main Body Volume 229,278 gal Flush Volume 18,690 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 432,280 lbs Proppant in Formation 432,280 lbs Avg Proppant Concentration 2.16 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 5,459 bbls Load to Recover w/o Acid 5,459 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,382 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 77 bbls

EP WELLS DAILY OPERATIONS REPORT

Report 22

04/22/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								<p>pump down rate 12.0 bpm Max pump down pressure 7,264 psi Fluid Temp 76.4 °F Total Pump Time 2:07 hr:min Pumps Lost During Job 1 0 0 0 Treatment Start Time 16:02 0:00 0:00 0:00 Treatment End Time 18:09 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was initially started at a 0.5 PPA hold due to pressure then ramped from 0.5 PPA to 2.5 PPA before stepping up to 3.5 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 1:39:00 Hours : Minutes Estimated Cost from Job Packet \$ 33,547.24</p>
18:09	0.05	FRAC	OPO			0		Other pad ops
18:12	0.10	FRAC	WLT			0		<p>16:48 Handover well to wireline. 18:12 Pressure test lubricator to 5500 psi. 18:18 Open well with 5300 psi.</p>
18:18	1.85	FRAC	WLT			0		<p>19:22 "Stage #17 Plug and Perf. RIH with (4) 1" Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 13819' Perforate as follows: 13800' - 13801' 13757' - 13758' 13713' - 13714' 13670' - 13671' Stabilized pressure after perforating: 5000 psi Final pump down rate: 12 bpm Pump down volume: 72 bbl" 19:26 POOH</p>
20:09	0.08	FRAC	GRS			0		20:09 Routine UMW greasing.
20:14	0.18	FRAC	WLF			0		<p>20:14 Shut in well with 4000 psi. 20:25 Handover well to frac.</p>
20:25	0.53	FRAC	WLF			0		Other pad ops
20:57	1.98	FRAC	FRT			0		<p>Stage 17 Summary University 20 PW 2503H Interval 13670 - 13800 0 0 0 Open Well Pressure 4,225 0 0 psi Shut In Well Pressure 5,323 0 0 psi Max Treating Pressure 9,710 psi Max Slurry Rate 55.6 bpm Average Treating Pressure 9,289 psi Average Slurry Rate 47.2 bpm Average Rate w/ Prop on Bottom 50.8 bpm Breakdown Pressure 9,035 psi Breakdown Rate 12.0 bpm Breakdown Volume 294 gal Avg HHP 10,746 hp Final ISIP 5,812 psi Frac Gradient 0.939 psi/ft Pad Volume 1,890 gal Main Body Volume 220,626 gal Flush Volume 18,690 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs</p>

EP WELLS DAILY OPERATIONS REPORT

Report 22

04/22/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								100 Mesh Sand Pumped 433,140 lbs Proppant in Formation 433,140 lbs Avg Proppant Concentration 2.20 lb/gal Max Proppant Concentration 2.50 lb/gal Load to Recover 5,253 bbls Load to Recover w/o Acid 5,253 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,181 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 72 bbls pump down rate 12.0 bpm Max pump down pressure 6,800 psi Fluid Temp 76.4 °F Total Pump Time 1:59 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 20:57 0:00 0:00 0:00 Treatment End Time 22:56 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was ramped from 0.5 PPA to 2.5 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:57:00 Hours : Minutes Estimated Cost from Job Packet \$ 33,147.08
22:56	1.07	FRAC	OPO			0		Other pad ops weather in the area will continue ops when weather passes NOTE : Wireline lay down lub and rehead why weather passes
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	1.88	FRAC	WLT			0	Wireline Continue with reheading and making up Plug & Perf assembly
1:53	0.20	FRAC	WLT			0	01:53 Pressure test lubricator to 8500 psi. 02:05 Open well with 4400 psi.
2:05	1.57	FRAC	WLT			0	03:04 "Stage #18 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 13646' Perforate as follows: 13627' - 13628' 13583' - 13584' 13540' - 13541' 14497' - 14498' Stabilized pressure after perforating: 4700 psi Final pump down rate: 12 bpm Pump down volume: 61 bbl" 03:08 POOH
3:39	0.27	FRAC	GRS			0	03:39 Routine UMW greasing.
3:55	0.08	FRAC	WLF			0	03:55 Shut in well with 4400 psi. 04:00 Handover well to frac.
4:00		FRAC	WLF			0	Prep for Frac ops

EP WELLS DAILY OPERATIONS REPORT

Report 23

04/23/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	23.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Brett Oldenkamp	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Eric Brunet / Carly Haffner	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	2.12/8.82	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,599,259/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	184,285	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:							

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	22

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24 Hour Forecast
Continue Fra Ops

EP WELLS DAILY OPERATIONS REPORT

Report 23

04/23/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.88	FRAC	WLT			0		Wireline Continue with reheading and making up Plug & Perf assembly
1:53	0.20	FRAC	WLT			0		01:53 Pressure test lubricator to 8500 psi. 02:05 Open well with 4400 psi.
2:05	1.57	FRAC	WLT			0		03:04 "Stage #18 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 13646' Perforate as follows: 13627' - 13628' 13583' - 13584' 13540' - 13541' 14497' - 14498' Stabilized pressure after perforating: 4700 psi Final pump down rate: 12 bpm Pump down volume: 61 bbl" 03:08 POOH
3:39	0.27	FRAC	GRS			0		03:39 Routine UMW greasing.
3:55	0.08	FRAC	WLF			0		03:55 Shut in well with 4400 psi. 04:00 Handover well to frac.
4:00	0.42	FRAC	OPO			0		Prep for Frac ops
4:25	2.15	FRAC	FRT			0		Stage 18 Summary University 20 PW 2503H Interval 13497 - 13627 0 0 0 Open Well Pressure 4,218 0 0 psi Shut In Well Pressure 5,400 0 0 psi Max Treating Pressure 9,869 psi Max Slurry Rate 58.8 bpm Average Treating Pressure 9,149 psi Average Slurry Rate 52.3 bpm Average Rate w/ Prop on Bottom 55.3 bpm Breakdown Pressure 9,593 psi Breakdown Rate 10.0 bpm Breakdown Volume 420 gal Avg HHP 11,728 hp Final ISIP 5,620 psi Frac Gradient 0.923 psi/ft Pad Volume 13,062 gal Main Body Volume 224,784 gal Flush Volume 19,110 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 409,080 lbs Proppant in Formation 409,080 lbs Avg Proppant Concentration 2.15 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,352 bbls Load to Recover w/o Acid 5,352 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,289 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 63 bbls pump down rate 12.0 bpm Max pump down pressure 6,900 psi Fluid Temp 76.4 °F Total Pump Time 2:09 hr:min Pumps Lost During Job 1 0 0 0 Treatment Start Time 4:25 0:00 0:00 0:00 Treatment End Time 6:34 0:00 0:00 0:00

EP WELLS DAILY OPERATIONS REPORT

Report 23

04/23/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Pumped a 0.5 PPA slug to attempt to get a pressure break before starting the ramp - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped up to 3.0 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 2:33:00 Hours : Minutes Estimated Cost from Job Packet \$ 33,288.84
6:34	0.22	FRAC	FWL			0		06:34 Handover well to wireline. 06:40 Pressure test lubricator to 5400 psi. 06:47 Open well with 5100 psi.
6:47	1.83	FRAC	WLT			0		07:49 "Stage #19 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 13473' Perforate as follows: 13453' - 13454' 13410' - 13411' 13367' - 13368' 13324' - 13325' Stabilized pressure after perforating: 4952 psi Final pump down rate: 12 bpm Pump down volume: 61 bbl" 07:53 POOH
8:37	0.22	FRAC	GRS			0		Routine UMW greasing.
8:50	0.10	FRAC	WLF			0		Shut in well with 4700 psi. Handover well to frac.
8:56	0.43	FRAC	OPO			0		Other Pad Ops
9:22	2.00	FRAC	FRT			0		Stage 19 Summary University 20 PW 2503H Interval 13324 - 13453 0 0 0 Open Well Pressure 5,600 0 0 psi Shut In Well Pressure 5,300 0 0 psi Max Treating Pressure 9,807 psi Max Slurry Rate 54.1 bpm Average Treating Pressure 9,266 psi Average Slurry Rate 45.8 bpm Average Rate w/ Prop on Bottom 50.2 bpm Breakdown Pressure 9,160 psi Breakdown Rate 10.0 bpm Breakdown Volume 1,512 gal Avg HHP 10,402 hp Final ISIP 5,570 psi Frac Gradient 0.918 psi/ft Pad Volume 2,688 gal Main Body Volume 208,488 gal Flush Volume 21,294 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 427,960 lbs Proppant in Formation 427,960 lbs Avg Proppant Concentration 2.35 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,964 bbls Load to Recover w/o Acid 4,964 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,903 bbls 20# Linear Fluid Pumped 0 bbls

EP WELLS DAILY OPERATIONS REPORT

Report 23

04/23/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Brine Fluid Pumped 0 bbls Pump down volume 61 bbls pump down rate 12.0 bpm Max pump down pressure 6,333 psi Fluid Temp 76.4 ?F Total Pump Time 2:00 hr:min Pumps Lost During Job 2 0 0 0 Treatment Start Time 9:22 0:00 0:00 0:00 Treatment End Time 11:22 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Proppant was initially held at 0.5 PPA due to pressure before ramping from 0.5 PPA to 2.5 PPA then stepping up to 3.5 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:37:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,919.14
11:22	0.15	FRAC	FWL			0		11:22 Handover well to wireline. 11:25 Pressure test lubricator to 5400 psi. 11:31 Open well with 5200 psi.
11:31	1.57	FRAC	WLT			0		12:28 "Stage #20 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 13300' Perforate as follows: 13280' - 13281' 13237' - 13238' 13194' - 13195' 13150' - 13151' Stabilized pressure after perforating: 5075 psi Final pump down rate: 12 bpm Pump down volume: 53 bbl" 12:33 POOH
13:05	0.30	FRAC	GRS			0		Routine UMV greasing.
13:23	0.17	FRAC	WLF			0		Shut in well with 4700 psi. Handover well to frac.
13:33	2.68	FRAC	OPO			0		Other Pad Ops
16:14	0.77	FRAC	WLF			1		***NPT*** Keane: Pump Maintenance
17:00	0.57	FRAC	FRT			0		frac prpe to open well start stage
17:34	2.13	FRAC	FRT			0		Stage 20 Summary University 20 PW 2503H Interval 13150 - 13280 0 0 0 Open Well Pressure 4,250 0 0 psi Shut In Well Pressure 5,495 0 0 psi Max Treating Pressure 9,937 psi Max Slurry Rate 54.7 bpm Average Treating Pressure 9,011 psi Average Slurry Rate 39.8 bpm Average Rate w/ Prop on Bottom 48.6 bpm Breakdown Pressure 9,446 psi Breakdown Rate 9.2 bpm Breakdown Volume 504 gal Avg HHP 8,790 hp Final ISIP 5,808 psi Frac Gradient 0.939 psi/ft Pad Volume 1,008 gal Main Body Volume 202,398 gal

EP WELLS DAILY OPERATIONS REPORT

Report 23

04/23/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Flush Volume 17,850 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 414,420 lbs Proppant in Formation 414,420 lbs Avg Proppant Concentration 2.29 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 4,819 bbls Load to Recover w/o Acid 4,819 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,766 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 53 bbls pump down rate 12.0 bpm Max pump down pressure 6,313 psi Fluid Temp 76.4 °F Total Pump Time 2:08 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 17:34 0:00 0:00 0:00 Treatment End Time 19:42 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - A 0.5 PPA hold was pumped prior to starting the ramp due to pressure. - Proppant was ramped from 0.5 PPA to 2.5 PPA then stepped to 3.0 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 2:05:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,490.52
19:42	0.05	FRAC	WLT			0		19:45 Handover well to wireline. 19:50 Pressure test lubricator to 5500 psi.
19:45	0.30	FRAC	WLT			0		
20:03	2.28	FRAC	WLT			0		20:03 Open well with 5000 psi. 21:05 "Stage #21 Plug and Perf. RIH with (4) 1" Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 13127' Perforate as follows: 13107' - 13108' 13064' - 13065' 13020' - 13021' 12977' - 12978' Stabilized pressure after perforating: 5000 psi Final pump down rate: 12 bpm Pump down volume: 49 bbl" 21:09 POOH
22:20	0.20	FRAC	GRS			0		22:20 Routine UMW greasing.
22:32	1.35	FRAC	WLF			1		22:32 Shut in well with 4600 psi. NOTE: Start **** NPT **** Due to Weather high winds
23:53	0.12	FRAC	WLF			0		23:53 Handover to Frac
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
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EP WELLS DAILY OPERATIONS REPORT

Report 23

04/23/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.68	FRAC	FRT			0	Prep for frac ops
0:41	1.85	FRAC	WLT			0	<p>Stage 21 Summary University 20 PW 2503H Interval 12977 - 13107 0 0 0</p> <p>Open Well Pressure 4,306 0 0 psi Shut In Well Pressure 5,300 0 0 psi Max Treating Pressure 9,650 psi Max Slurry Rate 57.6 bpm Average Treating Pressure 9,003 psi Average Slurry Rate 46.4 bpm Average Rate w/ Prop on Bottom 52.2 bpm Breakdown Pressure 9,517 psi Breakdown Rate 10.0 bpm Breakdown Volume 336 gal Avg HHP 10,239 hp Final ISIP 6,058 psi Frac Gradient 0.961 psi/ft Pad Volume 2,016 gal Main Body Volume 194,292 gal Flush Volume 18,270 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 409,660 lbs Proppant in Formation 409,660 lbs Avg Proppant Concentration 2.38 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,626 bbls Load to Recover w/o Acid 4,626 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,575 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 51 bbls pump down rate 12.0 bpm Max pump down pressure 6,300 psi Fluid Temp 76.4 °F Total Pump Time 1:51 hr:min Pumps Lost During Job 2 0 0 0</p> <p>Treatment Start Time 0:41 0:00 0:00 0:00 Treatment End Time 2:32 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - When we resumed proppant was ramped from 0.5 PPA to 2.5 PPA then stepped to 3.5 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:48:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,241.62</p>
2:32	0.05	FRAC	WLF			0	Other pad ops
2:35	0.25	FRAC	WLF			0	<p>02:35 Handover well to wireline. 02:45 Pressure test lubricator to 5500 psi. 02:50 Open well with 5200 psi.</p>
2:50		FRAC	WLF			0	<p>03:53 "Stage #22 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug.</p> <p>Set plug @ 12953' Perforate as follows: 12934' - 12935' 12891' - 12892' 12847' - 12848'</p>

EP WELLS DAILY OPERATIONS REPORT

Report 23

04/23/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							12804' - 12805' Stabilized pressure after perforating: 5200 psi Final pump down rate: 12 bpm Pump down volume: 39 bbl" 03:58 POOH

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
04/23/2019 16:14	KEANE FRAC LP	Stimulation		WLF	EN	Frac Pump	0.77	0.77	2	OPEN
Description: Pulled pumps out and new pumps in. Pressure test						Title: Keane: Pump Maintenance				
04/23/2019 22:32	SHELL	Wait On Weather		WLF	N		1.35	1.35	2	OPEN
Description: Shut down wireline operations due to high winds						Title: Weather				
Total							2.12	2.12		

EP WELLS DAILY OPERATIONS REPORT

Report 24

04/24/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	24.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Nick Morrison	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Matt Randolph / Mike Parker	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	5.22/21.74	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,724,374/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	125,116	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:							
Man Hours captured on 1H							

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	23

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
22
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 24

04/24/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.68	FRAC	FRT			0		Prep for frac ops
0:41	1.85	FRAC	WLT			0		Stage 21 Summary University 20 PW 2503H Interval 12977 - 13107 0 0 0 Open Well Pressure 4,306 0 0 psi Shut In Well Pressure 5,300 0 0 psi Max Treating Pressure 9,650 psi Max Slurry Rate 57.6 bpm Average Treating Pressure 9,003 psi Average Slurry Rate 46.4 bpm Average Rate w/ Prop on Bottom 52.2 bpm Breakdown Pressure 9,517 psi Breakdown Rate 10.0 bpm Breakdown Volume 336 gal Avg HHP 10,239 hp Final ISIP 6,058 psi Frac Gradient 0.961 psi/ft Pad Volume 2,016 gal Main Body Volume 194,292 gal Flush Volume 18,270 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 409,660 lbs Proppant in Formation 409,660 lbs Avg Proppant Concentration 2.38 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,626 bbls Load to Recover w/o Acid 4,626 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,575 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 51 bbls pump down rate 12.0 bpm Max pump down pressure 6,300 psi Fluid Temp 76.4 ?F Total Pump Time 1:51 hr:min Pumps Lost During Job 2 0 0 0 Treatment Start Time 0:41 0:00 0:00 0:00 Treatment End Time 2:32 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - When we resumed proppant was ramped from 0.5 PPA to 2.5 PPA then stepped to 3.5 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:48:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,241.62
2:32	0.05	FRAC	WLF			0		Other pad ops
2:35	0.25	FRAC	WLF			0		02:35 Handover well to wireline. 02:45 Pressure test lubricator to 5500 psi. 02:50 Open well with 5200 psi.
2:50	1.13	FRAC	WLT			0		03:53 "Stage #22 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 12953' Perforate as follows: 12934' - 12935' 12891' - 12892'

EP WELLS DAILY OPERATIONS REPORT

Report 24

04/24/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								12847' - 12848' 12804' - 12805' Stabilized pressure after perforating: 5200 psi Final pump down rate: 12 bpm Pump down volume: 39
3:58	0.60	FRAC	WLT			0		POOH
4:34	0.40	FRAC	WLT			0		Routine UMW greasing and crown Shut in well with 4800 psi. Handover well to frac.
4:58	1.03	FRAC	WLF			0		Other pad operations
6:00	2.00	FRAC	FRT			1		***** Wait on Weather*****
8:00	3.22	FRAC	FRT			1		*** NPT Keane waiting on horsepower plan****
11:13	1.28	FRAC	FRT			0		GREASE ZIPPER MANIFOLD
12:30	0.50	FRAC				0		Align valves pressure test to 9800 psi. Equalize to 4500 psi. Open well with 4320 psi.
13:00	1.88	FRAC				0		Stage 22 Summary University 20 PW 2503H Interval 12804 - 12934 0 0 0 Open Well Pressure 4,322 0 0 psi Shut In Well Pressure 5,426 0 0 psi Max Treating Pressure 9,484 psi Max Slurry Rate 63.8 bpm Average Treating Pressure 9,066 psi Average Slurry Rate 50.0 bpm Average Rate w/ Prop on Bottom 50.5 bpm Breakdown Pressure 9,203 psi Breakdown Rate 8.4 bpm Breakdown Volume 378 gal Avg HHP 11,110 hp Final ISIP 5,810 psi Frac Gradient 0.939 psi/ft Pad Volume 1,680 gal Main Body Volume 212,268 gal Flush Volume 18,438 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 419,340 lbs Proppant in Formation 419,340 lbs Avg Proppant Concentration 2.20 lb/gal Max Proppant Concentration 3.65 lb/gal Load to Recover 5,054 bbls Load to Recover w/o Acid 5,054 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,013 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 41 bbls pump down rate 12.0 bpm Max pump down pressure 6,100 psi Fluid Temp 76.4 ?F Total Pump Time 1:49 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 13:02 0:00 0:00 0:00 Treatment End Time 14:51 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Sand was started at 0.5 PPA due to pressure - Sand was then ramped from 0.5 PPA to 2.5 PPA then stepped to 3.65 PPA.

EP WELLS DAILY OPERATIONS REPORT

Report 24

04/24/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								- A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 7:29:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,846.02
14:53	0.40	FRAC	FWL			0		Handover well to wireline. Pressure test lubricator to 5100 psi. Open well with 5100 psi.
15:17	1.55	FRAC	WLT			0		"Stage #23 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 12780' Perforate as follows: 12761' - 12762' 12717' - 12718' 12674' - 12675' 12631' - 12632' Stabilized pressure after perforating: 4886 psi Final pump down rate: 12 bpm Pump down volume: 33 bbl"
16:50	0.58	FRAC	WLT			0		POOH
17:25	0.35	FRAC	WLF			0		Routine UMW greasing and crown Shut in well with 4600 psi. Handover well to frac.
17:46	6.23	FRAC				0		Other pad operations
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	1.80	FRAC				0	Other pad operations
1:48	0.20	FRAC	WLF			0	WL to Frac
2:00	1.80	FRAC	FRT			0	Stage 23 Summary University 20 PW 2503H Interval 12633 - 12761 0 0 0 Open Well Pressure 4,400 0 0 psi Shut In Well Pressure 5,500 0 0 psi Max Treating Pressure 9,641 psi Max Slurry Rate 65.0 bpm Average Treating Pressure 9,276 psi Average Slurry Rate 50.8 bpm Average Rate w/ Prop on Bottom 57.8 bpm Breakdown Pressure 9,116 psi Breakdown Rate 6.0 bpm Breakdown Volume 378 gal Avg HHP 11,538 hp Final ISIP 5,781 psi Frac Gradient 0.937 psi/ft Pad Volume 2,646 gal Main Body Volume 209,801 gal Flush Volume 17,346 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 413,180 lbs Proppant in Formation 413,180 lbs Avg Proppant Concentration 2.19 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,995 bbls Load to Recover w/o Acid 4,995 bbls 15% HCL Spearhead 0 gal

EP WELLS DAILY OPERATIONS REPORT

Report 24

04/24/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							Slickwater Fluid Pumped 4,962 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 33 bbls pump down rate 12.0 bpm Max pump down pressure 5,898 psi Fluid Temp 76.4 ?F Total Pump Time 1:49 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 1:59 0:00 0:00 0:00 Treatment End Time 3:48 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCl was pumped. - Sand was held at 0.5 PPA then ramped to 2.5 PPA and stepped to 3.5 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:11:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,738.48
3:48	0.32	FRAC	FWL			0	SI well @ 5500 psi, Frac to WL Handover well to wireline. Pressure test lubricator to 5400 psi. Open well with 5100 psi.
4:07		FRAC	WLT			0	wlstage24report

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
04/24/2019 06:00	SHELL	Wait On Weather		FRT	N		2.00	2.00	2	OPEN
Description: Lightning in area						Title: Wait on weather				
04/24/2019 08:00	KEANE FRAC LP	Wait On Decision		FRT	N		3.22	3.22	2	OPEN
Description: Waiting on Horsepower plan						Title: Waiting on Decision				
Total							5.22	5.22		

EP WELLS DAILY OPERATIONS REPORT

Report 25

04/25/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	25.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Nick Morrison	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Matt Randolph / Mike Parker	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	1,850,083/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	125,709	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:							
See Man Hours on the 1H							

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	24

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
24
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 25

04/25/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.80	FRAC				0		Other pad operations
1:48	0.20	FRAC	WLF			0		WL to Frac
2:00	1.80	FRAC	FRT			0		<p>Stage 23 Summary University 20 PW 2503H</p> <p>Interval 12633 - 12761</p> <p>0 0 0</p> <p>Open Well Pressure 4,400 0 0 psi</p> <p>Shut In Well Pressure 5,500 0 0 psi</p> <p>Max Treating Pressure 9,641 psi</p> <p>Max Slurry Rate 65.0 bpm</p> <p>Average Treating Pressure 9,276 psi</p> <p>Average Slurry Rate 50.8 bpm</p> <p>Average Rate w/ Prop on Bottom 57.8 bpm</p> <p>Breakdown Pressure 9,116 psi</p> <p>Breakdown Rate 6.0 bpm</p> <p>Breakdown Volume 378 gal</p> <p>Avg HHP 11,538 hp</p> <p>Final ISIP 5,781 psi</p> <p>Frac Gradient 0.937 psi/ft</p> <p>Pad Volume 2,646 gal</p> <p>Main Body Volume 209,801 gal</p> <p>Flush Volume 17,346 gal</p> <p>100 Mesh Brown Sand Pumped 0 lbs</p> <p>100 Mesh AZ Sand Pumped 0 lbs</p> <p>100 Mesh Sand Pumped 413,180 lbs</p> <p>Proppant in Formation 413,180 lbs</p> <p>Avg Proppant Concentration 2.19 lb/gal</p> <p>Max Proppant Concentration 3.50 lb/gal</p> <p>Load to Recover 4,995 bbls</p> <p>Load to Recover w/o Acid 4,995 bbls</p> <p>15% HCL Spearhead 0 gal</p> <p>Slickwater Fluid Pumped 4,962 bbls</p> <p>20# Linear Fluid Pumped 0 bbls</p> <p>Brine Fluid Pumped 0 bbls</p> <p>Pump down volume 33 bbls</p> <p>pump down rate 12.0 bpm</p> <p>Max pump down pressure 5,898 psi</p> <p>Fluid Temp 76.4 ?F</p> <p>Total Pump Time 1:49 hr:min</p> <p>Pumps Lost During Job 0</p> <p>0 0 0</p> <p>Treatment Start Time 1:59 0:00 0:00 0:00</p> <p>Treatment End Time 3:48 0:00 0:00 0:00</p> <p>Diverter Slurry bbls</p> <p>- No incidents, accidents or spills to report.</p> <p>- FR was set at 0.75 gpt</p> <p>- No 15% HCl was pumped.</p> <p>- Sand was held at 0.5 PPA then ramped to 2.5 PPA and stepped to 3.5 PPA</p> <p>- A ball in place style plug was used</p> <p>- All proppant was placed and the stage was treated with Fresh water</p> <p>Time between Stages (TBF) 0:11:00 Hours : Minutes</p> <p>Estimated Cost from Job Packet \$ 32,738.48</p>
3:48	0.32	FRAC	FWL			0		<p>SI well @ 5500 psi, Frac to WL</p> <p>Handover well to wireline.</p> <p>Pressure test lubricator to 5400 psi.</p> <p>Open well with 5100 psi.</p>
4:07	1.78	FRAC	WLT			0		<p>"Stage #24 Plug and Perf.</p> <p>RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Eco composite ball-in-place frac plug.</p> <p>Set plug @ 12607'</p> <p>Perforate as follows:</p> <p>12588' - 12589' (Down 1')</p>

EP WELLS DAILY OPERATIONS REPORT

Report 25

04/25/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								12544' - 12545' 12501' - 12502' 12458' - 12459' Stabilized pressure after perforating: 5400 psi Final pump down rate: 11 bpm Pump down volume: 26 bbl"
5:54	0.22	FRAC	WLF			0		SI well @ 4800 psi Routine UMV greasing Handover well to frac.
6:07	7.07	FRAC	OPO			0		OPO
13:11	1.60	FRAC	FRT			0		Stage 24 Summary University 20 PW 2503H Interval 12458 - 12588 0 0 0 Open Well Pressure 4,646 0 0 psi Shut In Well Pressure 5,495 0 0 psi Max Treating Pressure 9,638 psi Max Slurry Rate 64.5 bpm Average Treating Pressure 9,219 psi Average Slurry Rate 54.9 bpm Average Rate w/ Prop on Bottom 57.2 bpm Breakdown Pressure 9,221 psi Breakdown Rate 8.0 bpm Breakdown Volume 210 gal Avg HHP 12,400 hp Final ISIP 5,693 psi Frac Gradient 0.929 psi/ft Pad Volume 2,016 gal Main Body Volume 200,550 gal Flush Volume 17,346 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 419,720 lbs Proppant in Formation 419,720 lbs Avg Proppant Concentration 2.33 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,775 bbls Load to Recover w/o Acid 4,775 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,746 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 29 bbls pump down rate 11.0 bpm Max pump down pressure 6,000 psi Fluid Temp 76.4 ?F Total Pump Time 1:33 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 13:12 0:00 0:00 0:00 Treatment End Time 14:45 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCL was pumped - Sand was ramped 0.5 PPA to 2.5 PPA then stepped to 3.5 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:09:00 Hours : Minutes Estimated Cost from Job Packet \$ 32,360.91
14:47	0.15	FRAC	FWL			0		other pad operations
14:56	0.37	FRAC	FWL			0		Handover well to wireline. Pressure test lubricator to 5800 psi. Open well with 5300 psi.

EP WELLS DAILY OPERATIONS REPORT

Report 25

04/25/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
15:18	1.12	FRAC	WLT			0		"Stage #25 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 12434' Perforate as follows: 12414' - 12415' 12371' - 12372' 12238' - 12239' 12284' - 12285' Stabilized pressure after perforating: 5645 psi Final pump down rate: 8 bpm Pump down volume: 20 bbl"
16:25	0.47	FRAC	WLT			0		POOH
16:53	0.28	FRAC	WLF			0		Routine UMW greasing and crown valve Shut in well with 5000 psi. Handover well to frac.
17:10	6.83	FRAC	WLF			0		Other pad operations
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	2.00	FRAC	NOA			0	Start NPT Frac Shack, Micor fuel filters failed, no back up filters on location. Wait on fuel filters.

EP WELLS DAILY OPERATIONS REPORT

Report 26

04/26/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	26.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Nick Morrison	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Matt Randolph / Mike Parker	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	1,867,638/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	17,519	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:							
Man hours, see 1H							

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	25

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
On NPT, Fuel
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 26

04/26/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	6.67	FRAC	NOA			0		Start NPT Frac Shack, Micor fuel filters failed, no back up filters on location. Wait on fuel filters. Grease zipper on the 3&4 wells. Change fuel filter on all 16 pumps and blender. Suck all fuel out of all the pumps and change out fuel transport.
6:40	17.08	FRAC	NOA			0		Greased LMV on the 3H & 4H, Continue to evacuate contaminated fuel from frac pumps / blender.
23:45	0.25	FRAC	NOA			0		Start, re-fueling frac pumps
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	4.75	FRAC	NOA			0	Continue NPT Frac Shack, Having issues priming up fuel cell
4:45	0.25	FRAC	NOA			0	LU fuel leads to frac pumps, prime up fuel cell, check for leaks.
5:00		FRAC	NOA			0	Start the re-fueling operation

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
04/26/2019 00:00	FRAC SHACK AMERICA INC	Stimulation		NOA	EN		0.00	0.00	2	
Description: Micro fuel filters failed, no back up on location. stand by for new filters to AOL.						Title: Frac Shack fuel cell				
Total							0.00	0.00		

EP WELLS DAILY OPERATIONS REPORT

Report 27

04/27/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	27.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Nick Morrison	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Matt Randolph / Mike Parker	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	13.00/54.17	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	1,992,171/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	124,533	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:							
Man Hours, 1H report							

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	26

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
26
24 Hour Forecast
Continue Frac Ops

EP WELLS DAILY OPERATIONS REPORT

Report 27

04/27/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	4.75	FRAC	NOA			1		Continue NPT Frac Shack, Having issues priming up fuel cell
4:45	0.65	FRAC	NOA			1		LU fuel leads to frac pumps, prime up fuel cell, check for leaks. Top off frac pumps.
5:24	7.60	FRAC	NOA			1		Refuel is complete, prime up / start up frac pumps/blender and let idle. Complete checks on all pumps
13:00	1.97	FRAC	FRT			0		<p>Pressre test to 9800 psi. Equalize open well. Frac stage 25</p> <p>Stage 25 Summary University 20 PW 2503H Interval 12284 - 12414 Frac A Frac B 0</p> <p>Open Well Pressure 3,895 5,275 0 psi Shut In Well Pressure 5,826 5,704 0 psi Max Treating Pressure 9,744 psi Max Slurry Rate 60.0 bpm Average Treating Pressure 9,248 psi Average Slurry Rate 53.8 bpm Average Rate w/ Prop on Bottom 55.0 bpm Breakdown Pressure 9,290 psi Breakdown Rate 10.2 bpm Breakdown Volume 378 gal Avg HHP 12,195 hp Final ISIP 5,835 psi Frac Gradient 0.941 psi/ft Pad Volume 12,222 gal Main Body Volume 222,306 gal Flush Volume 22,764 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 405,700 lbs Proppant in Formation 405,700 lbs Avg Proppant Concentration 2.18 lb/gal Max Proppant Concentration 3.00 lb/gal Load to Recover 5,293 bbls Load to Recover w/o Acid 5,293 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 5,273 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 20 bbls pump down rate 8.0 bpm Max pump down pressure 6,004 psi Fluid Temp 76.4 ?F Total Pump Time 1:57 hr:min Pumps Lost During Job 0 Frac A Frac B 0 Treatment Start Time 10:52 13:10 0:00 0:00 Treatment End Time 11:04 14:55 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCL was pumped - Sand was was started with a 0.5 PPA hold before ramping from 0.5 PPA to 3.0 PPA. - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water - The breakdown can be seen in the chart labeled PRC A - Shut down to address issues with the pumps before starting sand. - Lost boost pressure while cutting screws, shut down while regaining boost. Time between Stages (TBF) 35:15:00 Hours : Minutes Estimated Cost from Job Packet \$ 33,045.50</p>
14:58	0.63	FRAC	FWL			0		Pressure test pump down units.
15:36	0.10	FRAC	WLT			0		<p>Handover well to wireline. Pressure test lubricator to 5800 psi.</p>

EP WELLS DAILY OPERATIONS REPORT

Report 27

04/27/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								Open well with 4800 psi.
15:42	1.02	FRAC	WLT			0		"Stage #26 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Boss Hog composite ball-in-place frac plug. Set plug @ 12261' Perforate as follows: 12241' - 12242' 12198' - 12199' 12154' - 12155' 12111' - 12112' Stabilized pressure after perforating: 4813 psi Final pump down rate: 8 bpm Pump down volume: 17 bbl"
16:43	0.47	FRAC	WLT			0		POOH
17:11	0.27	FRAC	WLT			0		Routine UMW greasing. Shut in well with 4500 psi. Handover well to frac.
17:27	3.22	FRAC	OPO			0		Other pad operations
20:40	0.27	FRAC	WLF			0		WL to Frac, Ptest frac temp iron, EQ= 5000 psi Open Well @ 4300 psi
20:56	1.43	FRAC	FRT			0		Stage 26 Summary University 20 PW 2503H Interval 12111 - 12241 0 0 0 Open Well Pressure 4,300 0 0 psi Shut In Well Pressure 5,500 0 0 psi Max Treating Pressure 9,713 psi Max Slurry Rate 62.4 bpm Average Treating Pressure 9,287 psi Average Slurry Rate 55.2 bpm Average Rate w/ Prop on Bottom 59.1 bpm Breakdown Pressure 7,824 psi Breakdown Rate 8.0 bpm Breakdown Volume 252 gal Avg HHP 12,565 hp Final ISIP 5,704 psi Frac Gradient 0.930 psi/ft Pad Volume 1,806 gal Main Body Volume 174,560 gal Flush Volume 17,262 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 419,690 lbs Proppant in Formation 419,690 lbs Avg Proppant Concentration 2.71 lb/gal Max Proppant Concentration 3.50 lb/gal Load to Recover 4,156 bbls Load to Recover w/o Acid 4,156 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,139 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 17 bbls pump down rate 8.0 bpm Max pump down pressure 6,591 psi Fluid Temp 76.4 °F Total Pump Time 1:25 hr:min Pumps Lost During Job 0 0 0 0 Treatment Start Time 20:57 0:00 0:00 0:00 Treatment End Time 22:22 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt

EP WELLS DAILY OPERATIONS REPORT

Report 27

04/27/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								- No 15% HCL was pumped - Sand was was ramped from 0.5 PPA to 3.0 PPA then stepped to 3.5 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:23:00 Hours : Minutes Estimated Cost from Job Packet \$ 31,288.15
22:22	0.13	FRAC	FWL			0		SI well @ 5500 psi, Frac to WL Pressure test lubricator to 5200 psi. Open well with 5200 psi.
22:30	1.50	FRAC	WLT			0		"Stage #27 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Eco composite ball-in-place frac plug. Set plug @ 12087' Perforate as follows: 12068' - 12069' 12025' - 12026' 11981' - 11982' 11938' - 11939' Stabilized pressure after perforating: 5300 psi Final pump down rate: 9 bpm Pump down volume: 8 bbl" POOH 2240 hrs
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00	0.17	FRAC	WLT			0	POOH with WL, perf stage 27
0:10	0.08	FRAC	WLF			0	SI WL @ 4800 psi, WL to Frac Greased UMV / Inner / Outer Hand over to Frac
0:15	0.58	FRAC	WLF			0	Stand by, Water Transfer having pump issues.
0:50	0.58	FRAC	WLF			0	Start NPT Water Transfer, Pump issues
1:25	0.13	FRAC	WLF			0	Ptest frac temp iron, EQ=5000 psi Open Well @ 4550 psi
1:33	1.30	FRAC	FRT			0	Stage 27 Summary University 20 PW 2503H Interval 11938 - 12068 0 0 0 Open Well Pressure 4,550 0 0 psi Shut In Well Pressure 5,300 0 0 psi Max Treating Pressure 9,706 psi Max Slurry Rate 64.4 bpm Average Treating Pressure 9,187 psi Average Slurry Rate 59.4 bpm Average Rate w/ Prop on Bottom 62.5 bpm Breakdown Pressure 8,150 psi Breakdown Rate 11.0 bpm Breakdown Volume 378 gal Avg HHP 13,375 hp Final ISIP 5,416 psi Frac Gradient 0.905 psi/ft Pad Volume 1,302 gal Main Body Volume 172,653 gal Flush Volume 16,842 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 428,720 lbs Proppant in Formation 428,720 lbs

EP WELLS DAILY OPERATIONS REPORT

Report 27

04/27/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
							Avg Proppant Concentration 2.78 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,111 bbls Load to Recover w/o Acid 4,111 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,099 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 12 bbls pump down rate 8.0 bpm Max pump down pressure 5,500 psi Fluid Temp 76.4 ?F Total Pump Time 1:19 hr:min Pumps Lost During Job 1 0 0 0 Treatment Start Time 1:33 0:00 0:00 0:00 Treatment End Time 2:52 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCL was pumped - Sand was was ramped from 0.5 PPA to 3.0 PPA then stepped to 4.0 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water - Lost pump 507573 due to loads jumping Time between Stages (TBF) 1:28:00 Hours : Minutes Estimated Cost from Job Packet \$ 31,240.17
2:51	0.20	FRAC	FWL			0	SI Well @ 5300 psi, Frac to WL Ptest Lube @ 5300 psi Open Well @ 5000 psi
3:03	1.53	FRAC	WLT			0	"Stage #28 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Eco composite ball-in-place frac plug. Set plug @ 11914' Perforate as follows: 11895' - 11896' 11851' - 11852' 11808' - 11809' 11765' - 11766' Stabilized pressure after perforating: 4800 psi Final pump down rate: 3 bpm Pump down volume: 4 bbls POOH @ 0406
4:35	0.17	FRAC	WLF			0	SI well @ 4600 psi, WL to Frac Ptest Frac iron, EQ 5000 psi Open Well @ 4400 psi
4:45		FRAC	FRT			0	Enter Frac Stage 28 report here

EP WELLS DAILY OPERATIONS REPORT

Report 28

04/28/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	28.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Nick Morrison	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Matt Randolph / Mike Parker	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	Hole size(in)	
THF Datum			
Daily NPT(hr/%)	0.72/2.99	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,379,507/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	387,336	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:							
Man Hours, 1H report							

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	27

Operations Summary

24 Hour Summary
Frac Ops
Update Since Report Time
28
24 Hour Forecast
RDMO Frac Spread

EP WELLS DAILY OPERATIONS REPORT

Report 28

04/28/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.17	FRAC	WLT			0		POOH with WL, perf stage 27
0:10	0.08	FRAC	WLF			0		SI WL @ 4800 psi, WL to Frac Greased UMW / Inner / Outer Hand over to Frac
0:15	0.58	FRAC	WLF			0		Stand by, Water Transfer having pump issues.
0:50	0.58	FRAC	WLF			1		Start NPT Water Transfer, Pump issues
1:25	0.13	FRAC	WLF			1		Ptest frac temp iron, EQ=5000 psi Open Well @ 4550 psi
1:33	1.30	FRAC	FRT			0		Stage 27 Summary University 20 PW 2503H Interval 11938 - 12068 0 0 0 Open Well Pressure 4,550 0 0 psi Shut In Well Pressure 5,300 0 0 psi Max Treating Pressure 9,706 psi Max Slurry Rate 64.4 bpm Average Treating Pressure 9,187 psi Average Slurry Rate 59.4 bpm Average Rate w/ Prop on Bottom 62.5 bpm Breakdown Pressure 8,150 psi Breakdown Rate 11.0 bpm Breakdown Volume 378 gal Avg HHP 13,375 hp Final ISIP 5,416 psi Frac Gradient 0.905 psi/ft Pad Volume 1,302 gal Main Body Volume 172,653 gal Flush Volume 16,842 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 428,720 lbs Proppant in Formation 428,720 lbs Avg Proppant Concentration 2.78 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,111 bbls Load to Recover w/o Acid 4,111 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,099 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 12 bbls pump down rate 8.0 bpm Max pump down pressure 5,500 psi Fluid Temp 76.4 ?F Total Pump Time 1:19 hr:min Pumps Lost During Job 1 0 0 0 Treatment Start Time 1:33 0:00 0:00 0:00 Treatment End Time 2:52 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCL was pumped - Sand was was ramped from 0.5 PPA to 3.0 PPA then stepped to 4.0 PPA - A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water - Lost pump 507573 due to loads jumping Time between Stages (TBF) 1:28:00 Hours : Minutes Estimated Cost from Job Packet \$ 31,240.17
2:51	0.20	FRAC	FWL			0		SI Well @ 5300 psi, Frac to WL Ptest Lube @ 5300 psi Open Well @ 5000 psi

EP WELLS DAILY OPERATIONS REPORT

Report 28

04/28/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
3:03	1.53	FRAC	WLT			0		<p>"Stage #28 Plug and Perf. RIH with (4) 1' Keane guns: 2.75" OD 16g HMX at 6 SPF with 60° phased perforating guns and Downhole Technology Eco composite ball-in-place frac plug.</p> <p>Set plug @ 11914' Perforate as follows: 11895' - 11896' 11851' - 11852' 11808' - 11809' 11765' - 11766' Stabilized pressure after perforating: 4800 psi Final pump down rate: 3 bpm Pump down volume: 4 bbls</p> <p>POOH @ 0406</p>
4:35	0.08	FRAC	WLF			0		<p>SI well @ 4600 psi, WL to Frac Greased UMW / in-out wings Hand over to Frac</p>
4:40	0.08	FRAC	WLF			0		<p>Ptest frac iron, EQ=5000 psi Open well @ 4400 psi</p>
4:45	1.27	FRAC	FRT			0		<p>Stage 28 Summary University 20 PW 2503H Interval 11765 - 11895 0 0 0</p> <p>Open Well Pressure 4,400 0 0 psi Shut In Well Pressure 5,240 0 0 psi Max Treating Pressure 9,481 psi Max Slurry Rate 64.7 bpm Average Treating Pressure 8,889 psi Average Slurry Rate 61.2 bpm Average Rate w/ Prop on Bottom 63.3 bpm Breakdown Pressure 7,034 psi Breakdown Rate 4.0 bpm Breakdown Volume 84 gal Avg HHP 13,334 hp Final ISIP 5,588 psi Frac Gradient 0.920 psi/ft Pad Volume 1,134 gal Main Body Volume 171,619 gal Flush Volume 17,010 gal 100 Mesh Brown Sand Pumped 0 lbs 100 Mesh AZ Sand Pumped 0 lbs 100 Mesh Sand Pumped 405,930 lbs Proppant in Formation 405,930 lbs Avg Proppant Concentration 2.65 lb/gal Max Proppant Concentration 4.00 lb/gal Load to Recover 4,086 bbls Load to Recover w/o Acid 4,086 bbls 15% HCL Spearhead 0 gal Slickwater Fluid Pumped 4,079 bbls 20# Linear Fluid Pumped 0 bbls Brine Fluid Pumped 0 bbls Pump down volume 7 bbls pump down rate 3.0 bpm Max pump down pressure 5,000 psi Fluid Temp 76.4 °F Total Pump Time 1:15 hr:min Pumps Lost During Job 0 0 0 0</p> <p>Treatment Start Time 4:46 0:00 0:00 0:00 Treatment End Time 6:01 0:00 0:00 0:00 Diverter Slurry bbls - No incidents, accidents or spills to report. - FR was set at 0.75 gpt - No 15% HCL was pumped - Sand was ramped from 0.5 PPA to 3.0 PPA then stepped to 4.0 PPA</p>

EP WELLS DAILY OPERATIONS REPORT

Report 28

04/28/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								- A ball in place style plug was used - All proppant was placed and the stage was treated with Fresh water Time between Stages (TBF) 0:14:00 Hours : Minutes Estimated Cost from Job Packet \$ 31,198.59
6:01	0.15	FRAC	FRT			0		SI well @ 5240 psi, Grease LMV, UMW, Wings.
6:10	2.83	FRAC				0		Other pad Operations
9:00	15.00	FRAC	ROF			0		Daily Report on 1H
Total	24.00							

06.00 Update

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Description
0:00		FRAC	ROF			0	Capture Cost

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
04/28/2019 00:50	GRADY RENTALS LLC	Wait On Equipment/ Materials		WLF	N		0.72	0.72	2	OPEN
Description: Had a pump fail, Stand by						Title: Wait for new transfer pump				
Total							0.72	0.72		

EP WELLS DAILY OPERATIONS REPORT

Report 29

04/29/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 4249534183.00



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	29.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est. Days	0.00	Contractor	PERMIAN WELL SVC		
Work Unit	PERMIAN COMPLETIONS	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	Nick Morrison	Measured Depth(ft)	
Engineer	Matt Bowman	TVD(ft)	
Other Supervisor	Matt Randolph / Mike Parker	24 Hr Progress(ft)	
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,798.10 / 2,772.10	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	2,391,230/	Current MW / BH EMW(ppg)	/
Actual divided by AFE		LOT/FIT EMW(ppg)	
Daily Cost	11,723	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:							

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	28

Operations Summary

24 Hour Summary
Capture Cost
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 29 04/29/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00		FRAC	ROF			0		Capture Cost
Total								

EP WELLS DAILY OPERATIONS REPORT

Report 30

05/03/2019

Company PERMAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 42495341830000



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	30.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est.Days		Contractor			
Work Unit		Days To Release			
		Rig Phone/Fax No.			

Well Status

Supervisor	M HARRIS	Measured Depth (ft)	
Engineer	Matt Bowman	TVD (ft)	
Other Supervisor	T HURDLE	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,798.10 / 2,772.10	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	6.00 / 53.33	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,346,296 / 0.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$22,797.42	Lithology	
		Formation/MDTop	

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	JSA's/Toolbox Talks	
Last Derrick Inspection			Day's Since Last Drill	29
Last BOP Function Test				
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
PREP FOR CTU
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 30

05/03/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
05:30	0.25	COIL	SAF			0		HELD TTW MEETING
06:00	0.50	COIL	RGO			0		HELD 7 SM ND INJECTOR AND LD BHA, BHA SHOWED NORMAL WEAR
06:30	1.75	COIL	RGO			0		HELD 7 STEP, PREP TBG AND INSTALL CT CONN AND ALLOWED TO COOL - IDENTIFIED LEAK ON MANLIFT DISPATCHED MECHANIC -
08:15	0.75	COIL	RGO			0		PULL TESTED CT CONN TO 35K, PU BPV, HYDRA PULL ASSEMBLY & PT TO 2500 PSI - GOOD
09:00	5.00	COIL	RGO			0		- START NPT SUNBELT - WAITING ON MECHANIC FOR MANLIFT REPAIRS
14:00	1.00	COIL	RGO			0		MECHANIC ARRIVED - REPAIRED MANLIFT RAN FULL FUNCTION TEST - GOOD, HELD SM
15:00	0.75	COIL	RGO			0		FINISH INJECTOR HEAD SERVICE , PU 2.875 MOTOR AND 3.75 ROCK BIT , TESTED AT 2400 PSI & 3 BPM - GOOD, NU TO BOP ON THE 2502H
15:45	1.25	COIL	RGO			0		- NPT LIGHTNING -
17:00		COIL	RGO			0		- END NPT - ND BOP / INJECTOR OFF OF 2502H, MOVE OVER AND NU
Total	11.25							

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
05/03/2019 09:00				RGO	EN		6.00	6.00		
Description: MAN - OWNER SUNBELTLIFT LEAKING HYDRAULIC OIL						Title:				
05/03/2019 15:45				RGO	EN		0.00	0.00		
Description: LIGHTNING / WEATHER						Title:				
Total							6.00	6.00		

EP WELLS DAILY OPERATIONS REPORT

Report 31

05/04/2019

Company PERMAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 42495341830000



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	31.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est.Days		Contractor			
Work Unit		Days To Release			
		Rig Phone/Fax No.			

Well Status

Supervisor	M HARRIS/ R DIAZ	Measured Depth (ft)	
Engineer	Matt Bowman	TVD (ft)	
Other Supervisor	T HURDLE	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,798.10 / 2,772.10	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,101,916 / 0.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$27,789.42	Lithology	
		Formation/MDTop	

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:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Day's Since Last Drill	
Last Derrick Inspection Last BOP Function Test Last BOP Test Next BOP Test				30

Operations Summary

24 Hour Summary
Drillout plugs 4-27. Cleanout to TD. POOH. R/D CTU
Update Since Report Time
24 Hour Forecast
Other Pad Ops

EP WELLS DAILY OPERATIONS REPORT

Report 31

05/04/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.50	COIL	MIL			0		"Tag #4@ 12429' WELLHEAD=3700 CIRC PRES= 6200 PUMP RATE= 3 RETURN RATE= 3 RETURN DESCRIPTION= slight trace of sand MILL TIME = -1427 TRIP TIME BETWEEN PLUGS= 16 STALLS= 0 FR= 0.25 POP= 0.25 RIH TO NEXT PLUG"
00:30	0.42	COIL	MIL			0		"Tag #5@ 12600' WELLHEAD=3700 CIRC PRES= 6300 PUMP RATE= 3 RETURN RATE= 3 RETURN DESCRIPTION= slight trace of sand MILL TIME = 7 TRIP TIME BETWEEN PLUGS= 20 STALLS= 0 FR= 0.25 POP= 0.25 RIH TO NEXT PLUG"
00:55	0.67	COIL	MIL			0		"Tag #6@ 12777' WELLHEAD=3700 CIRC PRES= 6500 PUMP RATE= 3 RETURN RATE= 3 RETURN DESCRIPTION= slight trace of sand MILL TIME = 14 TRIP TIME BETWEEN PLUGS= 26 STALLS= 0 FR= 0.25 POP= 0.25 RIH TO NEXT PLUG"
01:35	0.50	COIL	MIL			0		"Tag #7@ 12950' WELLHEAD=3600 CIRC PRES= 6500 PUMP RATE= 3 RETURN RATE= 3 RETURN DESCRIPTION= Light Sand MILL TIME = 10 TRIP TIME BETWEEN PLUGS= 19 STALLS= 0 FR= 0.25 POP= 0.25 RIH TO NEXT PLUG"

EP WELLS DAILY OPERATIONS REPORT

Report 31

05/04/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



02:05	0.92	COIL	MIL			0	"Tag #8@ 13125' WELLHEAD=3500 CIRC PRES= 6300 PUMP RATE= 3 RETURN RATE= 3.1 RETURN DESCRIPTION= Light Sands MILL TIME = 8 TRIP TIME BETWEEN PLUGS= 49 STALLS= 0 FR= 0.25 POP= 0.25 RIH TO NEXT PLUG"
03:00	0.92	COIL	MIL			0	"Tag #9@ 13298' WELLHEAD=3600 CIRC PRES= 6500 PUMP RATE= 3 RETURN RATE= 3.1 RETURN DESCRIPTION= Heavy Sands MILL TIME = 15 TRIP TIME BETWEEN PLUGS= 39 STALLS= 0 FR= 0.25 POP= 0.25 RIH TO NEXT PLUG"
03:55	0.50	COIL	MIL			0	"Tag #10@ 13470' WELLHEAD=3700 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.1 RETURN DESCRIPTION= MILL TIME = 12 TRIP TIME BETWEEN PLUGS= 19 STALLS= 0 FR= 0.25 POP= 0.25 Medium Sands RIH TO NEXT PLUG"
04:25	0.42	COIL	MIL			0	"Tag #11@ 13646' WELLHEAD=3700 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.1 RETURN DESCRIPTION= MILL TIME = 4 TRIP TIME BETWEEN PLUGS= 21 STALLS= 0 FR= 0.25 POP= 0.25 Medium Sands RIH TO NEXT PLUG"
04:50	0.57	COIL	MIL			0	"Tag #12@ 13818' WELLHEAD=3600 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.1 RETURN DESCRIPTION= MILL TIME = 9 TRIP TIME BETWEEN PLUGS= 25 STALLS= 0 FR= 0.25 POP= 0.25 Medium Sands RIH TO NEXT PLUG"

EP WELLS DAILY OPERATIONS REPORT

Report 31

05/04/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



05:24	0.38	COIL	MIL			0	"Tag #13@ 13996' WELLHEAD=3770 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.1 RETURN DESCRIPTION= MILL TIME = 7 TRIP TIME BETWEEN PLUGS= 16 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
05:47	0.47	COIL	MIL			0	"Tag #14@ 14166' WELLHEAD=3650 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 7 TRIP TIME BETWEEN PLUGS= 21 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
06:15	0.53	COIL	MIL			0	"Tag #15@ 14343' WELLHEAD=3650 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 10 TRIP TIME BETWEEN PLUGS= 22 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
06:47	0.45	COIL	MIL			0	"Tag #16@ 14516' WELLHEAD=3600 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 6 TRIP TIME BETWEEN PLUGS= 21 STALLS= 0 FR= 0.25 POP= 0.25 Heavy Sand RIH TO NEXT PLUG"
07:14	0.63	COIL	MIL			0	"Tag #17@ 14686' WELLHEAD=3600 CIRC PRES= 6250 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 8 TRIP TIME BETWEEN PLUGS= 30 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"

EP WELLS DAILY OPERATIONS REPORT

Report 31

05/04/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



07:52	0.52	COIL	MIL			0	"Tag #18@ 14862' WELLHEAD=3600 CIRC PRES= 6300 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 8 TRIP TIME BETWEEN PLUGS= 23 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
08:23	0.35	COIL	MIL			0	"Tag #19@ 15038' WELLHEAD=3500 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 4 TRIP TIME BETWEEN PLUGS= 17 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
08:44	0.48	COIL	MIL			0	"Tag #20@ 15205' WELLHEAD=3600 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 4 TRIP TIME BETWEEN PLUGS= 25 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
09:13	0.60	COIL	MIL			0	"Tag #21@ 15385' WELLHEAD=3550 CIRC PRES= 6400 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 5 TRIP TIME BETWEEN PLUGS= 31 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
09:49	0.70	COIL	MIL			0	"Tag #23@ 15731' WELLHEAD=3500 CIRC PRES= 6250 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 6 TRIP TIME BETWEEN PLUGS= 22 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"

EP WELLS DAILY OPERATIONS REPORT

Report 31

05/04/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



10:31	0.47	COIL	MIL			0	"Tag #24@ 15904' WELLHEAD=3500 CIRC PRES= 6000 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 6 TRIP TIME BETWEEN PLUGS= 15 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
10:59	0.35	COIL	MIL			0	"Tag #25@ 16076' WELLHEAD=3500 CIRC PRES= 6200 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 8 TRIP TIME BETWEEN PLUGS= 25 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO NEXT PLUG"
11:20	1.67	COIL	MIL			0	"Tag #26@ 16251' WELLHEAD=3500 CIRC PRES= 6300 PUMP RATE= 3 RETURN RATE= 3.2 RETURN DESCRIPTION= MILL TIME = 4 TRIP TIME BETWEEN PLUGS= 25 STALLS= 0 FR= 0.25 POP= 0.25 Medium/Heavy Sand RIH TO TD"
13:00	0.35	COIL	CIR			0	Tagged toe sleeve at 16,476'. Continued down to TD 16,594'. Pumped 10-10-10 sweep. Allowed it to reach EOT.
13:21		COIL	PCT			0	POOH @ 40 FPM. Cir 6,200 psi - WH 3,600 psi. Pumped another 10-10-10 sweep at heel. Ramped up to 100 fpm at vertical.
Total	13.35						

EP WELLS DAILY OPERATIONS REPORT

Report 33

05/07/2019

Company PERMIAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 42495341830000



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	33.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est.Days		Contractor			
Work Unit		Days To Release			
		Rig Phone/Fax No.			

Well Status

Supervisor	Mike Harris / Jackie Lewis	Measured Depth (ft)	
Engineer	Matt Bowman	TVD (ft)	
Other Supervisor	Tommy Hurdle	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,798.10 / 2,772.10	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,201,350 / 0.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$12,757.00	Lithology	
		Formation/MDTop	

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	JSA's/Toolbox Talks	
Last Derrick Inspection			Day's Since Last Drill	32
Last BOP Function Test				
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
SET PKR TOP 11226', XN NIPPLE 11243', EOT 11256'
Update Since Report Time
SICP 0, PREP FOR WOR
24 Hour Forecast
WAIT ON WOR

EP WELLS DAILY OPERATIONS REPORT

Report 33

05/07/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
09:00	0.25	WINF	RGO			0		HELD 7 STEP
09:15	1.25	WINF	RGO			0		RD CLOSING UNIT, FRAC TREE
10:30	0.50	WINF	RGO			0		WAIT ON OTHERS OPS
11:00	1.00	WINF	RGO			0		LOAD OUT CLOSING UNIT & FRAC TREE
Total	3.00							

EP WELLS DAILY OPERATIONS REPORT

Report 34

05/08/2019

Company PERMAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 42495341830000



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	34.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est.Days		Contractor			
Work Unit		Days To Release			
		Rig Phone/Fax No.			

Well Status

Supervisor	Joey R.	Measured Depth (ft)	
Engineer	Matt Bowman	TVD (ft)	
Other Supervisor	Eric Brunet	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,798.10 / 2,772.10	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,215,029 / 0.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$11,692.00	Lithology	
		Formation/MDTop	

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:							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Day's Since Last Drill	
Last Derrick Inspection Last BOP Function Test Last BOP Test Next BOP Test				33

Operations Summary

24 Hour Summary
MIRU, Run Tubing
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 34

05/08/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
07:00	8.00	WINF	RGU			0		Move rig in, RU & test BOP, Test blinds: low 250 psi / 10,000 psi high, 5 min, chart record. RU/ Pipe racks, mini tripper, rack and tally pipe. Pause 7 step to mu tubing and rih.
15:00	2.00	WINF	RGU			0		MU no/go, set glm on rack, RIH, 77 jts
17:00	0.50	WINF	RGU			0		Gas bubble at surface rig up kelly hose and circ. tubing volume 20 bbls
17:30	0.50	WINF	RGU			0		PJSM with crews
18:00		WINF	RGU			0		Continue RIH with 2 7/8" L-80 6.5# EUE Tubing
Total	11.00							

EP WELLS DAILY OPERATIONS REPORT

Report 35

05/09/2019

Company PERMAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 42495341830000



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	35.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est.Days		Contractor			
Work Unit		Days To Release			
		Rig Phone/Fax No.			

Well Status

Supervisor	Joey Roth	Measured Depth (ft)	
Engineer	Matt Bowman	TVD (ft)	
Other Supervisor	Eric Brunet	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,798.10 / 2,772.10	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,228,570 / 0.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$11,692.00	Lithology	
		Formation/MDTop	

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	JSA's/Toolbox Talks	
Last Derrick Inspection			Day's Since Last Drill	34
Last BOP Function Test				
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
Space out tubing, R/U and pump packer fluid around, land hanger install production tree move to next well.
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 35

05/09/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
00:00	0.50	WOR	TBG			0		Continue RIH with 2 7/8" L-80 6.5# EUE Tubing
00:30	0.83	WOR	TBG			0		00:00 At midnight 238 joints in well shut down for lunch
01:20	0.42	WINF	RGU			0		Continue Rih with tubing
01:45	1.67	WINF	RGU			0		Tag Packer at joint 347 with On- Off tool pull 20 k over pipe weight. Space out tubing with 10.11' pup, 9.95' pup ,2.06' pup for hanger. pick up off packer.
03:25	0.33	WINF	RGU			0		R/u and Circulate packer fluid around.
03:45	0.50	WOR	TBG			0		finished pumping packer fluid 240 bbls pumped. R/D kelly hose
04:15	1.25	WINF	RGU			0		M/U hanger to tubing. Pickup landing joint with hanger setting tool. Sat down 10k for 5 minutes. Picked up 85k and held for 5 minutes to confirm the on/off tool latched on the packer. S/O to 55k and set packer in 10k compression - hanger landed. Turn landing joint to the right twice and engage lock rings for the hanger. Pull test hanger lock ring 20k over string weight (86k). Verified lock. Seal tested the hanger body seals to 10k – Test Good. Release setting tool and L/D. .
05:30	0.50	WINF	RGU			0		RD birdbath, set BPV, RD BOP, RD 15K Frac valve, install tree, test void 10k, 10min, good test, OSR witness. Shell Test Tree Chart Record , low 250 / high 10K psi, 5 min/ 10 min - good test. Install cellar grating, end caps on tree, close upper & lower mstr, swab & wing valves.
06:00	1.00	WINF	RGU			0		PJSM with crew, Haliburton, superior: Handover & 7 step plan for day.
Total	7.00							Move Rig & back yard to 2504H well.

EP WELLS DAILY OPERATIONS REPORT

Report 36

05/10/2019

Company PERMAN
 Well Type Development
 Well UNIVERSITY 20 PW 2503H
 Wellbore UNIVERSITY 20 PW 2503H
 WBS No/API No 30296779 / 42495341830000



Event Summary

Event Type	Completion only	Event Start Date	02/23/2019	Days on Location	36.00
Objective	Install Completion	Original Spud Date	12/15/2018		
Est.Days		Contractor			
Work Unit		Days To Release			
		Rig Phone/Fax No.			

Well Status

Supervisor	Joey Roth	Measured Depth (ft)	
Engineer	Matt Bowman	TVD (ft)	
Other Supervisor	Eric Brunet	24 Hr Progress (ft)	
Depth Ref/Grd Elev/Water Depth (ft)	DfE: 2,798.10 / 2,772.10	Hole Size (in)	
THF Datum			
Daily NPT (hr/%)	/ 0.00	Last Casing MD	
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	
Actual cost to date/AFE	2,525,002 / 0.00	Current MWM / BH EMW (ppg)	
Actual Divided by AFE	0.00	LOT/FIT EMW (ppg)	
Daily Cost	\$143,941.00	Lithology	
		Formation/MDTop	

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	JSA's/Toolbox Talks	
Last Derrick Inspection			Day's Since Last Drill	35
Last BOP Function Test				
Last BOP Test				
Next BOP Test				

Operations Summary

24 Hour Summary
Pressure test tubing and rupture disk.
Update Since Report Time
24 Hour Forecast

EP WELLS DAILY OPERATIONS REPORT

Report 36

05/10/2019

Well UNIVERSITY 20 PW 2503H
Wellbore UNIVERSITY 20 PW 2503H



Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT Level	Rig Rate	Description
		WINF	RGU			0		Pressure test tubing and rupture disk.
Total								