

## EP WELLS DAILY OPERATIONS REPORT

Report 18

09/27/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1804H
Wellbore	UNIVERSITY 19 PW UNIT 1804H ST01
WBS No/API No	30269397 / 4230133264.01

## Event Summary

Event Type	Drilling only	Event Start Date	08/09/2017	Days on Location	18.88
Objective	Drill - Wolfcamp	Original Spud Date	08/10/2017	Days Since Spud	17.13
Est. Days	23.00	Contractor	PRECISION		
Work Unit	PRECISION 563	Days To Release			
		Rig Phone/FAX No.			

## Well Status

Supervisor	KEVIN BERGERON	Measured Depth(ft)	11,360.00
Engineer	ROBERT HAHN	TVD(ft)	11,275.67
Other Supervisor	ROSS GRAHAM	24 Hr Progress(ft)	47.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,788.55 / 2,762.90	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,261.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@20,210.00ft
Actual cost to date/AFE	1,604,909/3,161,561.00	Current MW / BH EMW(ppg)	13.15/
Actual divided by AFE	0.51	LOT/FIT EMW(ppg)	
Daily Cost	42,862	Lithology	
		Formation/MD Top	

## HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test			PSI NII HPI <b>GOAL ZERO DAYS</b> <b>PS BARRIER EVENT</b> <b>PS barrier bowtie review</b>	10/31/2016	331	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	09/15/2017	12	JSA's/Toolbox Talks Days Since Last Drill	18
Last BOP function test	09/25/2017	2		
Last BOP Test	10/16/2017			
Next BOP Test				

## Operations Summary

24 Hour Summary
TIME DRILL FROM 11313' TO 11360'.
Update Since Report Time
@ 04:00 - TIME DRILLING AT 11385'.
24 Hour Forecast
CONTINUE TO SIDETRACK.

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## Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	12.50	MNH1	TDLU		11,325.00	0		TIME DRILL AT 1.0 FPH FROM 11313' TO 11325'. TF @ 150° LEFT.
12:30	3.50	MNH1	TDLU		11,333.00	0		TIME DRILL AT 2.0 FPH FROM 11325' TO 11333'. TF @ 150° LEFT.
16:00	5.00	MNH1	TDLU		11,348.00	0		TIME DRILL AT 3.0 FPH FROM 11333' TO 11348'. TF @ 150° LEFT.
21:00	3.00	MNH1	TDLU		11,360.00	0		TIME DRILL AT 4.0 FPH FROM 11348' TO 11360'. TF @ 150° LEFT.
<b>Total</b>	<b>24.00</b>							

## Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,271.00	18.79	148.29	11,192.66	809.46	170.17	719.87	0.00	PTW MWD_2016
11,315.00	23.16	144.08	11,233.74	796.42	178.97	715.90	10.49	PTW MWD_2016
11,337.00	21.50	140.00	11,254.09	789.83	184.10	714.34	10.32	PTW MWD_2016
11,346.00	20.40	138.00	11,262.49	787.40	186.21	713.92	14.58	PTW MWD_2016

## Fluid Details

Mud type	Invermul	Oil/Water (%)	54.00/20.00	POM (cc)	2.59 247.0
MD (ft)	11,340.00	TS/HGS/LGS (%)	23.80/15.80/8.00	CaCl2 (%)	
Mud Density (ppg)	13.15	Sand (%)	0.00	Caom/Clom (ppm)	
Vis (s/qt)	78.00	Oil/Water Ratio (%)	73.00/27.00	ACT	
PV/YP (cp/lbf/100ft²)	27.00/8.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	4.000/6.000	ECD (ppg)	13.170	ES (Volts)	
API/HTHP WL (cc/30min)	/10.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	KCl (%)		R200/100 (°)	
WPS (ppm)	253,203	Ditch Magnet in Last 24hrs/Cum. (gm)		R6/3 (°)	
FL temp. (°F)					

## Bit Details

Bit no.	Size (in)	Manufacturer	Model no.	Class	IADC code	Serial no.	Size (32nd")	MD in (ft)	MD out (ft)	IADC Dull Grade
6	6.125	BAKER HUGHES	STX-30			5274949	3x16	11,301.00		-----

## Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HHP (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
11,325.00					0.00		0.00	12.50	12.00	1.0	26.50	24.00	0.9
11,333.00					0.00		0.00	3.50	8.00	2.3	30.00	32.00	1.1
11,348.00					0.00		0.00	5.00	15.00	3.0	35.00	47.00	1.3
11,360.00					0.00		0.00	3.00	12.00	4.0	38.00	59.00	1.6

## Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
4" DRILL PIPE	291	9,173.28	4.000		3.340	XT-39			RIG
SHOCK SUB/AGITATOR	1	22.35	5.000		2.875	XT-39			W1885763-8
(46 JTS) 4" DRILL PIPE	46	2,057.63	4.812		2.687	XT-39			RIG
CROSSOVER	1	2.94	4.937		2.687	3-1/2 IF			SD112640
FILTER SUB	1	5.95	4.750		2.250	3-1/2 IF			SD117021
NM FC	1	30.29	4.875		2.750	3-1/2 IF			SD53930
ACCUMP	1	27.91	4.750		2.687	3-1/2 IF			C4003

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## Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
NM PC	1	15.04	4.750		2.312	3-1/2 IF			SD3855
NDS 4.75" MUD MOTOR, LOBES: 7/8, STAGE: 3.8, SET @	1	23.86	4.750			3-1/2 IF			RY37824
BIT #6 RUN #1 6.125" BAKER STX-30 (3X16) SN: 5274949	1	0.75	6.125	6.125		3 -1/2 REG			5274949

## Drillstring Details

Date/Time in	Date/Time out			BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
09/26/2017 08:00				6	129.09		DRILL 6.125" PRODUCTION SECTION
MD (ft)	SW Up (kip)	SW Down (kip)	SW Rotn (kip)	Drag (kip)	Tq On Btm (ft-lbf)	Tq Off Btm (ft-lbf)	Footage (ft)
11,325.00				0.00			12.00
11,333.00				0.00			8.00
11,348.00				0.00			15.00
11,360.00				0.00			12.00

## PUMP/HYDRAULIC DATA

Pump No.	Type	Make/Model	Stroke (in)	Liner size (in)	Efficiency (%)	Pressure (psi)	SPM (spm)	Output (gpm)	Kill SPM/Pressure/Depth (spm/psi/ft)
1		JJMMC / F-1600	12.00						
2		JJMMC / F-1600	12.00						

## Remarks

FUEL ON HAND: 10733 GALS  
FUEL USED: 2924 GALS