

EP WELLS DAILY OPERATIONS REPORT

Report 13

09/06/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 D 0904H
Wellbore	UNIVERSITY 19 D 0904H
WBS No/API No	30265147 / 4230133226.00

Event Summary

Event Type	Drilling only	Event Start Date	06/19/2017	Days on Location	10.23
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	06/19/2017	Days Since Spud	9.82
Est. Days	21.00	Contractor	ENSIGN		
Work Unit	ENSIGN 775	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	BIM JOHNSON	Measured Depth(ft)	13,614.00
Engineer	BRANDON FOOTE	TVD(ft)	11,629.57
Other Supervisor	TREVOR KELLEY/TANNER MANUEL	24 Hr Progress(ft)	1,674.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,799.10 / 2,771.10	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	7.000in@11,925.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@18,415.00ft
Actual cost to date/AFE	1,304,483/2,503,951.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.52	LOT/FIT EMW(ppg)	
Daily Cost	56,266	Lithology	
		Formation/MD Top	

HSE Summary

Last Incident	Date	Days	Last Incident	Date	Days	KPI's	
LWC RWC MTC FAC Last casing pressure test	06/23/2017		PSI NII HPI GOAL ZERO DAYS PS BARRIER EVENT PS barrier bowtie review	09/29/2015	708	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1500
Safety Comments:							
274 MAN HOURS							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	07/11/2017	57	JSA's/Toolbox Talks Days Since Last Drill	12
Last BOP function test	06/28/2017	70		
Last BOP Test	07/19/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
ROTATE & SLIDE DRILL F/11940' T/13614'
Update Since Report Time
DRILL T/13975'
24 Hour Forecast
DRILL AHEAD IN LATERAL. TD EST @ 18415'

EP WELLS DAILY OPERATIONS REPORT

Report 13

09/06/2017

Well UNIVERSITY 19 D 0904H
Wellbore UNIVERSITY 19 D 0904H

Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.50	MNH1	TIH		11,940.00	0		DISPLACE BRINE T/ 13.4 PPG OBM
1:30	1.00	MNH1	DCM		11,940.00	0		DRILL SHOE TRACK F/11831' T/11940'
2:30	4.50	MNH1	DRL		12,248.00	0		ROTARY DRILL F/11940' T/12248' (308' @ 68.4 FPH) WOB: 20-30K RPM: SURF 80 MOTOR 243 BIT 323 PSI & FLOW: SPP 4800 GPM 304 DIFF 900 STRING WT: P/U 230 S/O 185 ROT 190 TORQUE: ON BTM 9K OFF BTM 4K MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 100 CG 1000
7:00	1.00	MNH1	DRL		12,278.00	0		SLIDE DRILL F/12248' T/12278' (30' @ 30 FPH) WOB: 22-25K RPM: SURF MOTOR 243 BIT 243 PSI & FLOW: SPP 4834 GPM 304 DIFF 900 STRING WT: P/U 230 S/O 185 ROT TORQUE: ON BTM OFF BTM MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 100 CG 1000
8:00	3.00	MNH1	DRL		12,531.00	0		ROTARY DRILL F/12278' T/12531' (253' @ 84.3 FPH) WOB: 20-30K RPM: SURF 80 MOTOR 243 BIT 323 PSI & FLOW: SPP 4900 GPM 304 DIFF 900 STRING WT: P/U 230 S/O 185 ROT 190 TORQUE: ON BTM 9K OFF BTM 4K MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 100 CG 1000
11:00	1.00	MNH1	DRL		12,563.00	0		SLIDE DRILL F/12531' T/12563' (32' @ 32 FPH) WOB: 30K RPM: SURF MOTOR 243 BIT 243 PSI & FLOW: SPP 4900 GPM 304 DIFF 900 STRING WT: P/U 230 S/O 185 ROT TORQUE: ON BTM OFF BTM MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 100 CG 1000
12:00	10.00	MNH1	DRL		13,478.00	0		ROTARY DRILL F/12563' T/13478' (915' @ 91.5 FPH) WOB: 25-30K RPM: SURF 80 MOTOR 243 BIT 323 PSI & FLOW: SPP 4900 GPM 304 DIFF 900 STRING WT: P/U 230 S/O 185 ROT 190 TORQUE: ON BTM 9K OFF BTM 4K MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 100 CG 1000
22:00	1.00	MNH1	DRL		13,503.00	0		SLIDE DRILL F/13478' T/13503' (25' @ 25 FPH) WOB: 30K RPM: SURF MOTOR 243 BIT 243 PSI & FLOW: SPP 4900 GPM 304 DIFF 900 STRING WT: P/U 230 S/O 185 ROT TORQUE: ON BTM OFF BTM MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 100 CG 1000
23:00	1.00	MNH1	DRL		13,614.00	0		ROTARY DRILL F/13503' T/13614' (111' @ 111 FPH) WOB: 30K RPM: SURF 80 MOTOR 243 BIT 323 PSI & FLOW: SPP 4900 GPM 304 DIFF 1000 STRING WT: P/U 230 S/O 185 ROT 190 TORQUE: ON BTM 9K OFF BTM 4K MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 100 CG 1000

EP WELLS DAILY OPERATIONS REPORT

Report 13

09/06/2017

Well UNIVERSITY 19 D 0904H
Wellbore UNIVERSITY 19 D 0904H

Total 24.00

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
13,226.00	87.68	341.42	11,617.79	1,036.35	-611.22	1,164.47	0.35	PTW MWD+HDGM_2016
13,321.00	87.35	340.61	11,621.91	1,126.10	-642.10	1,259.25	0.92	PTW MWD+HDGM_2016
13,415.00	87.05	342.69	11,626.50	1,215.21	-671.65	1,353.05	2.23	PTW MWD+HDGM_2016
13,510.00	89.76	344.20	11,629.15	1,306.23	-698.71	1,448.00	3.27	PTW MWD+HDGM_2016
13,605.00	89.76	344.14	11,629.54	1,397.62	-724.62	1,543.00	0.06	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	POM (cc)
MD (ft)		TS/HGS/LGS (%)	CaCl2 (%)
Mud Density (ppg)		Sand (%)	Caom/Clom (ppm)
Vis (s/qt)		Oil/Water Ratio (%)	ACT
PV/YP (cp/lbf/100ft²)			XS Lime(lbm/bbl)
Gels 10 s/m (lbf/100ft²)		LCM (lbm/bbl)	ES (Volts)
API/HTHP WL (cc/30min)		ECD (ppg)	R600/300 (°)
FC/HTHP FC (32nd")		H2S (gas unit)	R200/100 (°)
WPS (ppm)		KCl (%)	R6/3 (°)
FL temp. (°F)		Ditch Magnet in Last 24hrs/Cum. (gm)	

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
5	6.125	BAKER HUGHES	TD405FX			5271315	5x16	11,940.00		-----

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)

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
4" DP	297	9,359.83	4.000		3.340	XT-39			RIG
SHOCK SUB	1	11.15	5.000			XT-39			SHTLO500-0061
(78 JTS) DP	78	2,459.91	5.250		3.250	XT-39			RIG
AGITATOR 1.40 PLATE & SHOCK SUB	1	22.36	5.000			XT-39			W1665958-1
(53 JTS) DP	53	1,667.63	5.250		3.250	XT-39			RIG
CROSSOVER SUB	1	1.95	5.000		2.750	XT-39			DR18060
SCREEN SUB	1	3.98	4.880		2.750	3-1/2 IF			DR31955
FLOAT SUB	1	2.96	4.750		2.750	4-1/2 XH			NESFS475151
NON-MAG SLICK COLLAR	1	29.12	4.500		2.560	3-1/2 IF			NESNM475445
VELOCITY GAP SUB	1	3.79	5.125		3.250	3-1/2 IF			VG475120P TS
VELOCITY CENTRALIZER SUB	1	8.33	5.125		4.250	3-1/2 IF			VC475049
VELOCITY LANDING SUB	1	3.42	5.000		3.000	3-1/2 IF			VL475093
VELOCITY CROSSOVER	1	1.64	5.000		2.750	3-1/2 IF			X475112
SLICK PONY COLLAR	1	11.01	4.630		2.750	3-1/2 IF			DR31741

EP WELLS DAILY OPERATIONS REPORT

Report 13

09/06/2017

Well UNIVERSITY 19 D 0904H
Wellbore UNIVERSITY 19 D 0904H

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" PHOENIX 24XMUD MOTOR, 6/7 LOBES. 6.4 STG. FIXED @	1	25.92	5.375			3-1/2 IF			24XH513010
BIT #5 RUN #1 BAKER TD405FX, SN: 5271315. 5x16's	1	1.00	6.125	6.125					5271315

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
09/05/2017 15:30		5	126.63		DRILL 6.125" PRODUCTION SECTION

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		GARDENER-DENVER / PZ-11-1600	11.00						
2		GARDENER-DENVER / PZ-11-1600	11.00						

Remarks

FUEL ON LOCATION: 20564 GAL
FUEL DELIVERED: 4000 GAL
FUEL USED: 4876 GAL