

EP WELLS DAILY OPERATIONS REPORT

Report 16

09/09/2017

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	13.10
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	06/19/2017	Days Since Spud	12.85
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)	18,580.00
Engineer	BRANDON FOOTE	TVD(ft)	11,639.18
Other Supervisor	TANNER MANUEL	24 Hr Progress(ft)	1,070.00
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	1,654,856/2,503,951.00	Current MW / BH EMW(ppg)	13.80/
Actual divided by AFE	0.66	LOT/FIT EMW(ppg)	
Daily Cost	224,933	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	711	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	1500
Safety Comments:							
NO HSE ISSUES							
MAN HRS: 251							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	07/11/2017	60	JSA's/Toolbox Talks Days Since Last Drill	15
Last BOP function test	06/28/2017	73		
Last BOP Test	07/19/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
ROTATE DRILL F/ 17510' - T/ 18580'. PUMP CLEAN UP CYCLE. POOH WORKING THRU TIGHT SPOTS F/ 18580' - 15378'. CIRCULATE BTMS UP. PUMP OUT OF HOLE F/ 15387' - T/ 14087'. POOH F/14087' - T/13697'. CIRCULATE BTMS UP. POOH F/ 13697' - T/ 9992.
Update Since Report Time
CONTINUE POOH F/ 9922' - T/ BHA.
24 Hour Forecast
LAY DOWN BHA. RUN 4.5" LINER. P/U & M/U PACKER. RIH WITH DRILL PIPE TO 18580'. CEMENT LINER. SET PACKER. CIRCULATE OUT CEMENT. TEST PACKER. DISPLACE WELL TO BRINE. POOH RACKING BACK DRILL PIPE.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	10.50	MNH1	DRL		18,580.00	0		ROTARY DRILL F/17510' T/18580' (1070' @ 102 FPH) WOB: 30K RPM: SURF 80 MOTOR 243 BIT 323 PSI & FLOW: SPP 5800 GPM 304 DIFF 1000 STRING WT: P/U 245 S/O 185 ROT 190 TORQUE: ON BTM 10-11K OFF BTM 4K MW: 13.4 PPG MOTOR: .8 REV/GAL GAS: BG 600 CG 1800
10:30	4.00	MNH1	CBU		18,580.00	0		PUMP CLEAN UP CYCLE. 120 RPM, 300 GPM, WORKING FULL STAND.
14:30	0.50	MNH1	CDM		18,580.00	0		TAKE FINAL SURVEY. PUMP SLUG.
15:00	2.00	MNH1	TOH		18,580.00	0		POOH F/ 18580' - T/ 15387'. WASH & BACK REAM THRU TIGHTS SPOTS.
17:00	1.50	MNH1	CBU		18,580.00	0		CIRCULATE BOTTOMS UP. PUMP SLUG.
18:30	3.00	MNH1	TOH		18,580.00	0		PUMP OUT OF HOLE F/ 15387' - T/ 14087' DUE TO TIGHT HOLE CONDITIONS. POOH WET F/14087' - T/13697' (5 STANDS) WITHOUT PUMPING NEEDED.
21:30	1.00	MNH1	CBU		18,580.00	0		CIRCULATE BTMS UP. PUMP SLUG.
22:30	1.50	MNH1	TOH		18,580.00	0		POOH F/ 13697' - T/ 9922'.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
18,235.00	91.79	346.18	11,641.82	5,838.86	-2,002.33	6,164.37	2.31	PTW MWD+HDGM_2016
18,329.00	91.04	345.45	11,639.49	5,929.97	-2,025.36	6,258.29	1.11	PTW MWD+HDGM_2016
18,424.00	90.98	345.77	11,637.82	6,021.97	-2,048.96	6,353.24	0.34	PTW MWD+HDGM_2016
18,532.00	88.72	344.70	11,638.10	6,126.40	-2,076.48	6,461.21	2.32	PTW MWD+HDGM_2016
18,580.00	88.72	344.70	11,639.18	6,172.68	-2,089.15	6,509.20	0.00	PTW MWD+HDGM_2016

Fluid Details

Mud type	Invermul	Oil/Water (%)	57.50/14.00	POM (cc)	
MD (ft)	18,580.00	TS/HGS/LGS (%)	27.00/18.70/8.30	CaCl2 (%)	
Mud Density (ppg)	13.80	Sand (%)	0.20	Caom/Clom (ppm)	
Vis (s/qt)	61.00	Oil/Water Ratio (%)	80.40/19.60	ACT	
PV/YP (cp/lbf/100ft²)	24.00/12.000	LCM (lbm/bbl)		XS Lime(lbm/bbl)	3.88
Gels 10 s/m (lbf/100ft²)	13.000/16.000	ECD (ppg)	13.800	ES (Volts)	525.0
API/HTHP WL (cc/30min)	/9.0	H2S (gas unit)		R600/300 (°)	
FC/HTHP FC (32nd")	/4.0	KCl (%)		R200/100 (°)	
WPS (ppm)	255,341			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)
18,580.00	30.0/30.0	80	304.0	5,800.00	118.33	2.04	20.98	10.50	1,070.00	101.9	79.50	6,640.00	83.5

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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.
4" DP	455	14,325.83	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			VG475120PTS
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
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
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)
18,580.00	245.0	185.00	190.00	55.00	11,000.0	4,000.0	1,070.00

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

Remarks

FUEL ON LOCATION: 18232 GAL
FUEL DELIVERED: 7100 GAL
FUEL USED: 4344 GAL