

EP WELLS DAILY OPERATIONS REPORT

Report 9

06/16/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 PW UNIT 1406H
Wellbore	UNIVERSITY 19 PW UNIT 1406H
WBS No/API No	30264949 / 4230133213.00

Event Summary

Event Type	Drilling only	Event Start Date	04/26/2017	Days on Location	8.54
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	04/30/2017	Days Since Spud	4.00
Est. Days	25.00	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	DENNIS MORGAN	Measured Depth(ft)	7,275.00
Engineer	YERMEK TYNYSHBAYEV	TVD(ft)	7,254.04
Other Supervisor	TANNER MANUEL / YU LIU	24 Hr Progress(ft)	2,339.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,793.00 / 2,767.00	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,921.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@11,992.00ft
Actual cost to date/AFE	805,783/2,664,436.41	Current MW / BH EMW(ppg)	9.40/
Actual divided by AFE	0.30	LOT/FIT EMW(ppg)	
Daily Cost	50,901	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	10/12/2016	247	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
MAN HRS: 247							

HSE Drills

Drills/Tests	Date	Days Since Last	JSA's/Toolbox Talks Days Since Last Drill	8
Last Derrick Inspection	06/15/2017	1		
Last BOP function test	06/15/2017	1		
Last BOP Test	07/06/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
P/U BHA. TIH F/ SURFACE - T/ 4821'. TAGGED CMT @ 4821'. DRILL OUT DV TOOL @ 1171'. DRILL CEMENT FROM 4821' - T/ 4936'. ROTATE DRILL F/ 4936' - T/ 7275'.
Update Since Report Time
DRILL F/ 7275' - T/ 7863'.
24 Hour Forecast
CONTINUE DRILLING INTERMEDIATE SECTION.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	1.50	INT1	BHA		4,936.00	0		P/U & M/U DIRECTIONAL BHA.
1:30	0.50	INT1	SVC		4,936.00	0		RIG SERVICE: GREASE TOPDRIVE, BLOCKS, & DRAW WORKS.
2:00	1.00	INT1	TIH		4,936.00	0		TIH F/ SURFACE - T/ 1171'.
3:00	1.50	INT1	TIH		4,936.00	0		FILL PIPE. FILL GAS BUSTER. DRILL OUT DV TOOL @ 1171'. 320 GPM, 20 RPM.
4:30	1.50	INT1	TIH		4,936.00	0		TIH F/ 1171' - T/ 4480'.
6:00	1.50	INT1	CUT		4,936.00	0		SLIP & CUT (90').
7:30	0.50	INT1	SVC		4,936.00	0		RIG SERVICE: GREASE TOP DRIVE
8:00	0.50	INT1	SVC		4,936.00	0		C/O SWIVEL PACKING
8:30	1.00	INT1	TIH		4,936.00	0		TIH F/ 4480' - T/ 4821'.
9:30	2.00	INT1	DCM		4,936.00	0		DRILL SHOE TRACK F/ 4821' - T/ 4919'. RPM 20, WOB 15, GPM 320.
11:30	6.50	INT1	DRL		6,098.00	0		ROTATE DRILL F/ 4936' - T/ 6098' (1162' @ 181.4 FT/HR) RPM SURFACE 75 MOTOR 145 BIT 220 WOB 40 K SPP 3560 PSI GPM 600 TORQUE ON BTM 14 K TORQUE OFF BTM 6 K P/U 210 K S/O 160 K ROT 185 K MUD 9.4+ PPG MOTOR REV: .242 GAS: 200 UNITS FLARE: NONE
18:00	5.00	INT1	DRL		7,078.00	0		ROTATE DRILL F/ 6098' - T/ 7078' (980' @ 196 FT/HR) RPM SURFACE 75 MOTOR 145 BIT 220 WOB 40 K SPP 3560 PSI GPM 600 TORQUE ON BTM 18 K TORQUE OFF BTM 9 K P/U 260 K S/O 160 K ROT 210 K MUD 9.5 PPG MOTOR REV: .242 BACKGROUND GAS: 280 UNITS BTMS UP GAS: 568 UNITS FLARE: NONE
23:00	1.00	INT1	DRL		7,275.00	0		ROTATE DRILL F/ 7078' - T/ 7275' (197' @ 197 FT/HR) RPM SURFACE 20 MOTOR 145 BIT 165 WOB 40 K SPP 3450 PSI GPM 600 TORQUE ON BTM 18 K TORQUE OFF BTM 9 K P/U 260 K S/O 160 K ROT 210 K MUD 9.5 PPG MOTOR REV: .242 BACKGROUND GAS: 280 UNITS BTMS UP GAS: 568 UNITS FLARE: NONE
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
6,570.00	0.93	322.70	6,549.29	381.97	-242.68	-434.73	0.09	PTW MWD+HDGM_2016
6,748.00	1.42	320.85	6,727.25	384.83	-244.94	-438.11	0.28	PTW MWD+HDGM_2016
6,926.00	1.45	302.96	6,905.20	387.77	-248.23	-441.85	0.25	PTW MWD+HDGM_2016
7,104.00	1.65	288.70	7,083.13	389.81	-252.54	-445.02	0.24	PTW MWD+HDGM_2016
7,193.00	1.89	269.12	7,172.09	390.20	-255.23	-446.15	0.73	PTW MWD+HDGM_2016

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Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/93.20	pH/Pm (cc)	7.00/0.05
MD (ft)	4,936.00	TS/HGS/LGS (%)	0.40//	Pf/Mf (cc)	0.01/0.02
Mud Density (ppg)	9.40	Sand (%)	0.05	Ca+ (ppm)	
Vis (s/qt)	28.00			Cl- (ppm)	111,000
PV/YP (cp/lbf/100ft²)	1.00/3.000	MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft²)	1.000/1.000	LCM (lbm/bbl)			
API/HTHP WL (cc/30min)	100.0/	ECD (ppg)	9.480	R600/300 (°)	
FC/HTHP FC (32nd")	1.0/	H2S (gas unit)		R200/100 (°)	
		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
2	8.750	SMITH BITS	XS716			JM9438	7x11	4,936.00		-----

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)
6,098.00	40.0/40.0	75	600.0	3,560.00	738.47	20.74	258.47	6.50	1,162.00	178.8	6.50	1,162.00	178.8
7,078.00	40.0/40.0	75	600.0	3,560.00	738.47	20.74	258.47	5.00	980.00	196.0	11.50	2,142.00	186.3
7,275.00	40.0/40.0	20	600.0	3,450.00	738.47	21.40	258.47	1.00	197.00	197.0	12.50	2,339.00	187.1

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DRILL PIPE	202	6,340.82	5.000		4.276	4 1/2 IF			RIG
HWDP	12	374.06	5.000		2.875	4 1/2 IF			RIG
X/O SUB	1	3.45	5.000			4 1/2 IF			RIG
DRILL COLLARS	15	443.71	6.500			4 1/2 XH			RIG
SCREEN SUB	1	2.63	6.250		3.250	4-1/2 XH			DR21586
STABILIZER	1	6.07	8.500		3.188	4 1/2 XH			DR30857
NMDC	1	28.64	6.280		2.875	4 1/2 XH			NESNM650235
STABILIZER	1	5.23	8.500		2.938	4 1/2 XH			DR28753
GAP SUB	1	3.50	6.600			4 1/2 IF			VG650023P TS
650 CENTRALIZER COLLAR VELOCITY	1	8.54	6.680			4 1/2 IF			VC650023
650 LANDING SUB VELOCITY	1	3.52	6.630			4 1/2 IF			VL650114
650 X/O SUB VELOCITY	1	1.52	6.500			4 1/2 XH			VX650006
NMPC	1	15.15	6.500		2.880	4 1/2 XH			PXGPC6501066
STABILIZER	1	4.55	8.500		2.875	4 1/2 XH			DR32107
PHX MUD MOTOR FBH 7/8 LOBE. STAGE 5.7 SET @ 1.50°	1	32.36	7.250			4-1/2 XH			24XH-67553 6-PTS
BIT #2 RUN #1 SMITH XS716 (7X11's) SN: JM9438	1	1.25	8.750	8.750		4 1/2 REG			JM9438

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Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
06/16/2017 00:30				2	934.18		DRILL 8.75" INTERMEDIATE 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)
6,098.00	210.0	160.00	185.00	25.00	14,000.0	6,000.0	1,162.00
7,078.00	260.0	160.00	210.00	50.00	18,000.0	9,000.0	980.00
7,275.00	260.0	160.00	210.00	50.00	18,000.0	9,000.0	197.00

Remarks

DIESEL ON LOCATION: 11965 GAL
DIESEL DELIVERED: GAL
DIESEL USED: 1406 GAL
LNG USED: 410.80 GAL