

EP WELLS DAILY OPERATIONS REPORT

Report 21

06/28/2017

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	20.54
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	04/30/2017	Days Since Spud	16.00
Est. Days	25.00	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	DENNIS JOHNSON	Measured Depth(ft)	19,615.00
Engineer	YERMEK TYNYSHBAYEV	TVD(ft)	11,698.50
Other Supervisor	ASHLEY HRIVNAK, THERON KNIGHT	24 Hr Progress(ft)	0.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,793.00 / 2,767.00	Hole size(in)	6.125
THF Datum			
Daily NPT(hr/%)	24.00/100.00	Last Casing MD	7.000in@11,968.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	4.500in@19,578.00ft
Actual cost to date/AFE	1,886,236/2,664,436.41	Current MW / BH EMW(ppg)	13.80/
Actual divided by AFE	0.71	LOT/FIT EMW(ppg)	
Daily Cost	42,731	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	259	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
MAN HOURS: 283							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection			JSA's/Toolbox Talks	
Last BOP function test	06/15/2017	13	Days Since Last Drill	3
Last BOP Test	06/15/2017	13		
Next BOP Test	07/06/2017			

Operations Summary

24 Hour Summary
M/U BHA. TIH W/ REAMER ASSEMBLY T/ 4,465'. TIH F/ 4,465' T/10,569' CIRCULATED PILL OUT AS NEEDED. INSTALLED IBOP BETWEEN STAND 117 AND 118. TIH F/ 10,569' T/ 11,375' CIRCULATED PILL OUT AS NEEDED. TIH F/ 11,375' T/ 11,975'. REAMED F/ 11,975' T/ 12,008'.
Update Since Report Time
TIH F/ 12,008' T/ 13,359'. CBU AND WORK PIPE. TIH f/ 13,359' T/ 13,857'. WASHED AND REAMED AS NEEDED.
24 Hour Forecast
TIH T/ 19,615'. WASHING AND REAMING AS NEEDED. PUMP CLEAN UP CYCLES. POOH T/ RUN 4.5" LINER.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	MNH1	TOH		19,615.00	1		NPT: CLEAN AND CLEAR RIG FLOOR (SMITH SN: JM9909 X516: 3-1-CT-N-X-0-PN-TD).
0:30	1.00	MNH1	WTR		19,615.00	1		NPT: M/U BHA #5 (SMITH SN: JM9909 X516 RE-RUN BIT)
1:30	4.50	MNH1	WTR		19,615.00	1		NPT: TIH W/ REAMER ASSEMBLY T/ 4,465'.
6:00	1.00	MNH1	WTR		19,615.00	1		NPT: TIH F/ 4,465' T/ 5,275' @ 30'/MIN.
7:00	0.50	MNH1	CDM		19,615.00	1		NPT: CIRCULATE OUT 16.8 PPG PILL @ 5,275'.
7:30	1.00	MNH1	WTR		19,615.00	1		NPT: TIH F/ 5,275' T/ 6,000' @ 30'/MIN.
8:30	0.50	MNH1	CDM		19,615.00	1		NPT: CIRCULATE OUT 16.8 PPG PILL @ 6,000'.
9:00	1.00	MNH1	WTR		19,615.00	1		NPT: TIH F/ 6,000' T/ 7,000' @ 36'/MIN.
10:00	1.50	MNH1	CDM		19,615.00	1		NPT: CIRCULATE OUT 16.8 PPG PILL @ 7,000'.
11:30	0.50	MNH1	WTR		19,615.00	1		NPT: TIH F/ 7,000' T/ 7,700' @ 36'/MIN.
12:00	1.50	MNH1	CDM		19,615.00	1		NPT: LOWER MW IN PITS F/ 13.8 PPG T/ 13.6 PPG. CIRCULATE 13.6 PPG @ 7,700'.
13:30	0.50	MNH1	WTR		19,615.00	1		NPT: TIH F/ 7,700' T/ 8,500' @ 36'/MIN.
14:00	1.00	MNH1	CDM		19,615.00	1		NPT: CIRCULATE OUT 16.8 PPG PILL @ 8,500'.
15:00	0.50	MNH1	SVC		19,615.00	1		NPT: TOP DRIVE.
15:30	0.50	MNH1	WTR		19,615.00	1		NPT: TIH F/ 8,500' T/ 9,500' @ 36'/MIN.
16:00	1.50	MNH1	CDM		19,615.00	1		NPT: CIRCULATE OUT 16.8 PPG PILL @ 9,500'.
17:30	0.50	MNH1	WTR		19,615.00	1		NPT: INSTALL ROTATING HEAD.
18:00	1.00	MNH1	WTR		19,615.00	1		NPT: TIH F/ 9,500' T/ 10,569' @ 35'/MIN.
19:00	2.00	MNH1	CDM		19,615.00	1		NPT: CIRCULATE OUT 16.8 PPG PILL @ 10,569'. INSTALL IBOP BETWEEN STAND 117 AND 118.
21:00	1.00	MNH1	WTR		19,615.00	1		NPT: TIH F/ 10,569' T/ 11,375' @ 35'/MIN.
22:00	1.00	MNH1	CDM		19,615.00	1		NPT: CIRCULATE OUT 16.8 PPG PILL @ 11,375'.
23:00	0.50	MNH1	WTR		19,615.00	1		NPT: TIH F/ 11,375' T/ 11,975' @ 75'/MIN.
23:30	0.50	MNH1	WTR		19,615.00	1		NPT: REAMING F/ 11,975' T/ 12,008'.
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
19,471.00	90.11	164.42	11,698.26	-7,402.02	1,913.01	7,641.41	0.43	PTW MWD+HDGM_2016
19,565.00	89.81	165.41	11,698.33	-7,492.77	1,937.47	7,735.39	1.10	PTW MWD+HDGM_2016
19,565.00	89.81	165.41	11,698.34	-7,492.95	1,936.27	7,735.22	1.10	PTW MWD+HDGM_2016
19,615.00	89.81	165.41	11,698.50	-7,541.16	1,950.07	7,785.37	0.00	PTW MWD+HDGM_2016
19,615.00	89.81	165.41	11,698.51	-7,541.34	1,948.87	7,785.20	0.00	PTW MWD+HDGM_2016

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Fluid Details

Mud type	Invermul	Oil/Water (%)	54.50/17.00	POM (cc)	1.68 452.0
MD (ft)	19,615.00	TS/HGS/LGS (%)	26.90//	CaCl2 (%)	
Mud Density (ppg)	13.80	Sand (%)	0.20	Caom/Clom (ppm)	
Vis (s/qt)	80.00	Oil/Water Ratio (%)	76.20/23.80	ACT	
PV/YP (cp/lbf/100ft²)	33.00/19.000	LCM (lbm/bbl) ECD (ppg) H2S (gas unit) KCl (%)	13.800	XS Lime(lbm/bbl)	
Gels 10 s/m (lbf/100ft²)	12.000/23.000			ES (Volts)	
API/HTHP WL (cc/30min)	0.0/			R600/300 (°)	
FC/HTHP FC (32nd")	0.0/5.0			R200/100 (°)	
WPS (ppm)	226,275			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
4	6.125	SMITH BITS	X516			JM9909	5x16	11,983.00	19,615.00	3-1-CT-N-X-I-PN-TD

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.
5" DP	474	14,911.21	5.000		4.276	XT-39			RIG
SHOCK SUB	1	11.13	5.000		2.000	XT-39			W1838010-2
64 JTS 5" DP	64	2,872.00	5.000		3.340	XT-39			RIG
AGITATOR SHOCK SUB COMBO	1	22.13	5.000		2.000	XT-39			1586707-1/A SA500-013
36 JTS 5" DP	36	1,612.00	5.000		3.340	XT-39			RIG
6" DOGLEG REAMER	1	4.26	6.000		2.750	XT-39			A1-96857
2 JTS 5" DP	2	90.00	5.000		3.340	XT-39			RIG
FLOAT SUB	1	1.58	4.625		2.687	3 1/2 IF			NESFS4752 41
FILTER SUB	1	2.88	4.687		2.250	3 1/2 IF			DR28535
NMDC	1	30.69	4.540		2.687	3 1/2 IF			NESNM4755 98
475 X/O SUB	1	1.67	4.760			3 1/2 IF			VX475041
475 LANDING SUB	1	3.42	5.080			3 1/2 IF			VL475065
475 CENTRALIZER COLLAR ASSY	1	8.37	5.110			3 1/2 IF			VC475029
475 CAP SUB	1	3.77	5.100			3 1/2 IF			VG475096P TS
NMPC	1	13.17	4.687		2.687	3 1/2 IF			NESPC4756 83
MUD MOTOR 500 NOV 513	1	25.92	5.470			3 1/2 IF			24XH-51300 1-PTS
RUN #1 BIT #4 6.125" SMITH X516 (5X16'S) SN: JM9909	1	0.80	6.125	6.125		3 1/2 IF			JM9909

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
06/20/2017 17:00	06/28/2017 00:30	4	129.79		DRILL 6.125" PRODUCTION HOLE SECTION.

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Remarks

DIESEL ON LOCATION: 13,985 GAL
DIESEL DELIVERED: 0 GAL
DIESEL USED: 1,010 GAL
LNG USED: 0 GAL