

EP WELLS DAILY OPERATIONS REPORT

Report 8

07/14/2017

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	5.94
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	06/19/2017	Days Since Spud	5.56
Est. Days	21.00	Contractor	ENSIGN		
Work Unit	ENSIGN 775	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	TRAMPUS STEWART	Measured Depth(ft)	10,907.00
Engineer	BRANDON FOOTE	TVD(ft)	10,862.44
Other Supervisor	TREVOR KELLEY	24 Hr Progress(ft)	1,478.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,799.10 / 2,771.10	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	0/0	Last Casing MD	9.625in@4,879.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@12,236.00ft
Actual cost to date/AFE	628,378/2,503,951.00	Current MW / BH EMW(ppg)	/
Actual divided by AFE	0.25	LOT/FIT EMW(ppg)	
Daily Cost	42,172	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	654	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	5 5 1500
Safety Comments:							
313 MAN HOURS							

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	07/11/2017	3	JSA's/Toolbox Talks	16
Last BOP function test	06/28/2017	16	Days Since Last Drill	7
Last BOP Test	07/19/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
POOH T/BHA. C/O BIT & MOTOR. TIH T/ 9429'. DRILL F/9429' T/10907'
Update Since Report Time
DRILL T/ KOP @ 11060. POOH T/6000'
24 Hour Forecast
POOH T/ BHA. P/U CURVE ASSY. TIH. DRILL CURVE.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	2.50	INT1	TOH		9,429.00	0		POOH F/7193' T/1072'
2:30	0.50	INT1	TOH		9,429.00	0		PULL ROT HEAD & INSTALL TRIP NIPPLE
3:00	0.50	INT1	TOH		9,429.00	0		R/B DC & HWDP
3:30	0.50	INT1	BHA		9,429.00	0		L/O DIR BHA
4:00	1.00	INT1	BHA		9,429.00	0		BIT GRADE BIT #3: 8-3-BT-N-X-4-CT-PR P/U MOTOR & NEW BIT & M/U DIR BHA
5:00	4.00	INT1	TIH		9,429.00	0		TIH T/8411'
9:00	0.50	INT1	TIH		9,429.00	0		INSTALL ROT HEAD
9:30	0.50	INT1	TIH		9,429.00	0		TIH F/8411' T/9394'
10:00	0.50	INT1	TIH		9,429.00	0		WASH F/9394' T/9429' @600 GPM, 2270 PSI, 20 RPM
10:30	1.00	INT1	DRL		9,483.00	0		DRILL F/9429' T/9483' (54' @ 54 FPH) WOB:38-40K RPM: SURF 20 MOTOR 168 BIT 188 PSI & FLOW: SPP 2150 GPM 600 DIFF 570 STRING WT: P/U 310 S/O 265 ROT 285 TORQUE: ON BTM 12-15K OFF BTM 5K MW: 9.2 PPG MOTOR: .28 REVS/GAL GAS: BG 0 CG 0
11:30	6.50	INT1	DRL		10,300.00	0		DRILL F/9483' T/10300' (817' @ 125.7 FPH) WOB:38-40K RPM: SURF 60 MOTOR 210 BIT 270 PSI & FLOW: SPP 3440 GPM 750 DIFF 500-725 STRING WT: P/U 350 S/O 285 ROT 300 TORQUE: ON BTM 12-15K OFF BTM 5K MW: 9.3 PPG MOTOR: .28 REVS/GAL GAS: BG 0 CG 0
18:00	6.00	INT1	DRL		10,907.00	0		DRILL F/10300' T/10907' (607' @ 101.2 FPH) WOB:38-40K RPM: SURF 60 MOTOR 210 BIT 270 PSI & FLOW: SPP 3250 GPM 750 DIFF 400-600 STRING WT: P/U 355 S/O 285 ROT 305 TORQUE: ON BTM 16-18K OFF BTM 5-8K MW: 9.3 PPG MOTOR: .28 REVS/GAL GAS: BG 0 CG 0
Total	24.00							

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
10,124.00	1.63	262.77	10,079.70	-740.39	-194.50	-658.37	0.20	PTW MWD+HDGM_2016
10,302.00	1.21	234.49	10,257.65	-741.80	-198.54	-658.62	0.45	PTW MWD+HDGM_2016
10,491.00	2.03	238.68	10,446.57	-744.70	-203.02	-660.17	0.44	PTW MWD+HDGM_2016
10,660.00	1.49	247.22	10,615.49	-747.11	-207.60	-661.22	0.35	PTW MWD+HDGM_2016
10,838.00	1.06	197.90	10,793.45	-749.57	-210.24	-662.87	0.64	PTW MWD+HDGM_2016

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Fluid Details

Mud type	NaCl Brine	Oil/Water (%)		pH/Pm (cc)	
MD (ft)		TS/HGS/LGS (%)		Pf/Mf (cc)	
Mud Density (ppg)		Sand (%)		Ca+ (ppm)	
Vis (s/qt)				Cl- (ppm)	
PV/YP (cp/lbf/100ft ²)		MBT (lbm/bbl)			
Gels 10 s/m (lbf/100ft ²)		LCM (lbm/bbl)			
API/HTHP WL (cc/30min)		ECD (ppg)		R600/300 (°)	
FC/HTHP FC (32nd")		H2S (gas unit)		R200/100 (°)	
FL temp. (°F)		KCl (%)		R6/3 (°)	
		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 INTERNA	XS716			JN1394	7x16	4,912.00	9,429.00	8-3-BT-N-X-I-CT-PR

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	270	8,493.99	5.000		4.276				RIG
(12 JTS) HWDP	12	360.68	6.500		3.250	4-1/2 IF			RIG
CROSSOVER SUB	1	2.34	6.700		2.810	4 1/2 IF			NESXO675548
(15 JTS) DC'S	15	445.77	6.500		2.500	4 1/2 XH			RIG
FILTER SUB	1	3.16	6.500		3.250	4-1/2 XH			DR27053
STABILIZER	1	5.91	8.500		2.870	4-1/2 XH			DR34214
NON-MAG SLICK COLLAR	1	30.79	6.750		2.870	4-1/2 XH			NESNM675637
STABILIZER	1	5.90	8.500		2.870	4-1/2 XH			DR34216
GAP SUB	1	3.59	6.625		2.870	4-1/2 XH			VG650134P TS
CENTRALIZER COLLAR	1	8.54	6.625		4.490	4-1/2 IF			VC650021
LANDING SUB	1	3.55	6.625		3.780	4-1/2 IF			VL650121
CROSSOVER SUB	1	1.56	6.500		2.750	4-1/2 XH			VX650075
NON-MAG PONY SLICK COLLAR	1	15.23	6.500		2.870	4-1/2 XH			PXGPC6501068
STABILIZER	1	5.92	8.500		2.870	4-1/2 XH			DR34217
CROSSOVER	1	2.09	6.560		3.250	4-1/2 XH			DR26769
7" SCIENTIFIC MUD MOTOR, 7/8 LOBES, 9.4 STG. FIXED @ 1.50°.	1	38.98	8.500			5-1/2 FH			SD1700007
BIT #2 RUN #1 SMITH XS716 , SN: JN1394. 7x16's	1	1.00	8.750	8.750					JN1394

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
07/12/2017 00:05	07/14/2017 04:00	2	935.01		DRILL 8.75" INTERMEDIATE SECTION

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
3	8.750	ULTERRA	U716M			35779	7x16	9,429.00		-----

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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	270	9,970.27	5.000		4.276				RIG
(12 JTS) HWDP	12	360.68	6.500		3.250	4-1/2 IF			RIG
CROSSOVER SUB	1	2.34	6.700		2.810	4 1/2 IF			NESXO6755 48
(15 JTS) DC'S	15	445.77	6.500		2.500	4 1/2 XH			RIG
FILTER SUB	1	3.16	6.500		3.250	4-1/2 XH			DR27053
STABILIZER	1	5.91	8.500		2.870	4-1/2 XH			DR34214
NON-MAG SLICK COLLAR	1	30.79	6.750		2.870	4-1/2 XH			NESNM6756 37
STABILIZER	1	5.90	8.500		2.870	4-1/2 XH			DR34216
GAP SUB	1	3.59	6.625		2.870	4-1/2 XH			VG650134P TS
CENTRALIZER COLLAR	1	8.54	6.625		4.490	4-1/2 IF			VC650021
LANDING SUB	1	3.55	6.625		3.780	4-1/2 IF			VL650121
CROSSOVER SUB	1	1.56	6.500		2.750	4-1/2 XH			VX650075
NON-MAG PONY SLICK COLLAR	1	15.23	6.500		2.870	4-1/2 XH			PXGPC6501 068
STABILIZER	1	5.92	8.500		2.870	4-1/2 XH			DR34217
CROSSOVER	1	2.09	6.560		3.250	4-1/2 XH			DR26769
7" SCIENTIFIC MUD MOTOR, 7/8 LOBES, 9.4 STG. FIXED @ 1.50°.	1	40.70	8.500			5-1/2 FH			SD1700017
BIT #3 RUN #1 ULTERRA U716M. SN: 35779. 7x16's	1	1.00	8.750	8.750					35779

Drillstring Details

Date/Time in	Date/Time out	BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
07/14/2017 05:00		3	1,871.74		DRILL 8.75" INTERMEDIATE 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: 12720 GAL
FUEL USED: 2120 GAL