

EP WELLS DAILY OPERATIONS REPORT

Report 9

05/26/2017

Company	PERMIAN
Well Type	Development
Well	UNIVERSITY 19 H 0908H
Wellbore	UNIVERSITY 19 H 0908H
WBS No/API No	30257350 / 4230133234.00

Event Summary

Event Type	Drilling only	Event Start Date	05/08/2017	Days on Location	9.00
Objective	Drill - Wolfcamp B1 Shale	Original Spud Date	05/08/2017	Days Since Spud	7.77
Est. Days	22.00	Contractor	PRECISION		
Work Unit	PRECISION 559	Days To Release			
		Rig Phone/FAX No.			

Well Status

Supervisor	DENNIS JOHNSON	Measured Depth(ft)	12,111.00
Engineer	YERMEK TYNYSHBAYEV	TVD(ft)	11,668.15
Other Supervisor	ASHLEY HRIVNAK	24 Hr Progress(ft)	551.00
Depth Ref/Grd Elev/Water Depth(ft)	DFE: 2,792.80 / 2,766.80	Hole size(in)	8.750
THF Datum			
Daily NPT(hr/%)	9.00/37.50	Last Casing MD	9.625in@5,020.00ft
Days Ahd(-) Bhnd(+)(50/50)		Next Casing MD	7.000in@
Actual cost to date/AFE	598,745/2,467,033.93	Current MW / BH EMW(ppg)	9.65/
Actual divided by AFE	0.24	LOT/FIT EMW(ppg)	
Daily Cost	37,797	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	226	TRCF LWCF Safety Cards - Safe Safety Card - Unsafe SSE% Last casing pressure(psi)	
Safety Comments:							
MAN HOURS: 301							

Drills

Drill Category	Drill Type	Detection (sec)	Complete (sec)	Crew drilled	Pass / Fail	PIC	Comments
Well Control Crew	Trip		40.00	Night	Pass		

HSE Drills

Drills/Tests	Date	Days Since Last		
Last Derrick Inspection	05/21/2017	5	JSA's/Toolbox Talks	0
Last BOP function test	05/21/2017	5	Days Since Last Drill	
Last BOP Test	06/11/2017			
Next BOP Test				

Operations Summary

24 Hour Summary
DRILLED F/ 11,560' T/ SECTION TD @ 12,111'. PUMPED SWEEP. WORKED STUCK PIPE AND PULLED 5 STANDS. WASHED BACK TO BOTTOM. PUMPED SWEEP. PULLED 9 STANDS. CLOSED IN WELL. ATTEMPTED T/ KILL WELL W/ 122 BBL OF 12.5 PPG - WELL FLOWING. BUILT MORE KILL MUD AND BULLHEADED. POOH T/ BHA. L/D BHA.
Update Since Report Time
FINISHED L/D BHA. PULLED WEAR BUSHING. R/U CASING CREW. RAN 7" T/ 372'.

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24 Hour Forecast

FINISH RUNNING CASING T/ 12,096'. R/D CASING EQUIPMENT. R/U CEMENT EQUIPMENT. PUMP 7" CEMENT JOB. INSTALL BPV AND PACKOFF. N/D BOPE.

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Time Summary

Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
0:00	0.50	INT1	DRL		11,609.00	0		SLIDE DRILL F/ 11,560' - T/ 11,609' (49' @ 98 FT/HR) RPM MOTOR 273 BIT 273 WOB 20 K SPP 2600 PSI GPM 550 P/U 330 K S/O 210 K MUD 9.7 PPG MOTOR REV: .497 GAS: 180 FLARE: NONE
0:30	0.50	INT1	SVC		11,609.00	0		RIG SERVICE.
1:00	1.00	INT1	DRL		11,723.00	0		ROTATE DRILL F/ 11,609' - T/ 11,723' (114' @ 114 FT/HR) RPM SURFACE 20 MOTOR 273 BIT 293 WOB 30K SPP 3,000 PSI GPM 550 TORQUE ON BTM 18 K TORQUE OFF BTM 8 K P/U 300 K S/O 213 K ROT 190 K MUD 9.7 PPG MOTOR REV: .497 GAS: 150 FLARE: NONE
2:00	0.50	INT1	DRL		11,744.00	0		SLIDE DRILL F/ 11,723' - T/ 11,744' (21' @ 42 FT/HR) RPM MOTOR 273 BIT 273 WOB 20 K SPP 2600 PSI GPM 550 P/U 330 K S/O 210 K MUD 9.7 PPG MOTOR REV: .497 GAS: 180 FLARE: NONE
2:30	3.00	INT1	WSS		11,744.00	1		NPT: PRESSURED UP. WELL PACKED OFF. CIRCULATE SWEEP AROUND. DOWN LINK MWD TOOL
5:30	0.50	INT1	DRL		11,787.00	0		SLIDE DRILL F/ 11,744' - T/ 11,787' (43' @ 86 FT/HR) RPM MOTOR 273 BIT 273 WOB 20 K SPP 2600 PSI GPM 550 P/U 330 K S/O 210 K MUD 9.7 PPG MOTOR REV: .497 GAS: 180 FLARE: NONE
6:00	0.50	INT1	DRL		11,807.00	0		ROTATE DRILL F/ 11,787' - T/ 11,807' (20' @ 40 FT/HR) RPM SURFACE 20 MOTOR 273 BIT 293 WOB 20K SPP 3,400 PSI GPM 550 TORQUE ON BTM 22 K TORQUE OFF BTM 12 K P/U 300 K S/O 213 K ROT 190 K MUD 9.7 PPG MOTOR REV: .497 GAS: 302 FLARE: NONE
6:30	0.50	INT1	DRL		11,876.00	0		SLIDE DRILL F/ 11,807' - T/ 11,876' (69' @ 138 FT/HR) RPM MOTOR 273 BIT 273 WOB 40 K SPP 3400 PSI GPM 550 P/U 333 K S/O 209 K MUD 9.7 PPG MOTOR REV: .497 GAS: 271 FLARE: NONE
7:00	0.50	INT1	DRL		11,907.00	0		ROTATE DRILL F/ 11,876' - T/ 11,907' (31' @ 62 FT/HR) RPM SURFACE 20 MOTOR 273 BIT 293 WOB 15K SPP 3,250 PSI GPM 550 TORQUE ON BTM 24 K TORQUE OFF BTM 9 K P/U 334 K S/O 209 K ROT 257 K MUD 9.7 PPG

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Start	Hours	PH	OPN	Detail	Drilled Depth (ft)	NPT level	Rig Rate	Description
								MOTOR REV: .497 GAS: 450 FLARE: NONE
7:30	0.50	INT1	DRL		11,966.00	0		SLIDE DRILL F/ 11,907' - T/ 11,966' (59' @ 118 FT/HR) RPM MOTOR 273 BIT 273 WOB 50 K SPP 2900 PSI GPM 550 P/U 334 K S/O 205 K MUD 9.7 PPG MOTOR REV: .497 GAS: 353 FLARE: NONE
8:00	0.50	INT1	DRL		11,986.00	0		ROTATE DRILL F/ 11,966' - T/ 11,986' (20' @ 40 FT/HR) RPM SURFACE 20 MOTOR 273 BIT 293 WOB 20K SPP 3,400 PSI GPM 550 TORQUE ON BTM 24 K TORQUE OFF BTM 11 K P/U 358 K S/O 211 K ROT 262 K MUD 9.7 PPG MOTOR REV: .497 GAS: 860 FLARE: NONE
8:30	2.50	INT1	DRL		12,111.00	0		SLIDE DRILL F/ 11,986' - T/ 12,111' (125' @ 50 FT/HR) RPM MOTOR 273 BIT 273 WOB 50 K SPP 3300 PSI GPM 550 P/U 364 K S/O 200 K MUD 9.7 PPG MOTOR REV: .497 GAS: 547 FLARE: NONE
11:00	1.00	INT1	CBU		12,111.00	0		PUMP HIGH VIS SWEEP. PRESSURE AND TORQUE UP.
12:00	1.00	INT1	CBU		12,111.00	1		NPT: WORK STUCK PIPE. PULL 5 STANDS.
13:00	1.00	INT1	CBU		12,111.00	1		NPT: WASH TO BOTTOM W/ NO ROTARY.
14:00	1.00	INT1	CBU		12,111.00	1		NPT: PUMP 45 BBL HIGH VIS SWEEP AND CIRCULATE.
15:00	1.00	INT1	TOH		12,111.00	1		NPT: PUMP OUT 9 STANDS W/ NO ROTARY.
16:00	0.50	INT1	TOH		12,111.00	1		NPT: CLOSE IN WELL. KILL WELL W/ 122 BBL OF 12.5 PPG - WELL FLOWING.
16:30	1.00	INT1	TOH		12,111.00	1		NPT: BUILD MORE KILL MUD AND BULLHEAD.
17:30	0.50	INT1	TOH		12,111.00	1		POOH F/ 11,332' T/ 10,743'.
18:00	5.50	INT1	TOH		12,111.00	0		POOH F/ 10,743' T/ BHA. TALKED T/ AUDRY OPERATOR #2 ABOUT UPCOMING CASING AND CEMENT JOB.
23:30	0.50	INT1	TOH		12,111.00	0		L/D BHA.
Total	24.00							

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NPT Summary

Start Date/Time	Responsible Company	NPT Code	Failure MD (ft)	Ops Code	Type*	Equipment Type	Net time (hr)	Gross time (hr)	Severity	Status
05/26/2017 02:30	SHELL	Well Control	11,744.00	WSS	N		3.00	3.00		OPEN
Description: PRESSURED UP. WELL PACKED OFF. CIRCULATE SWEEP AROUND. DOWN LINK MWD TOOL						Title: WELL PRESSURE				
05/26/2017 12:00	SHELL	Well Control	12,110.00	CBU	N		6.00	6.00		OPEN
Description: WORK STUCK PIPE. WASH TO BOTTOM.PUMP SWEEP. PUMP OUT 9 STANDS. CLOSE IN WELL. KILL WELL W/122 BBLs OF 12.5 PPG MUD. BUILD MORE KILL MUD AND BULLHEAD						Title: WELL TROUBLE				
Total							9.00	9.00		

Deepest 5 Surveys

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V.Sec (ft)	DLeg (°/100ft)	Tool
11,822.00	59.18	350.09	11,578.50	135.11	828.07	-102.44	12.99	PTW MWD_2016
11,912.00	65.55	356.91	11,620.26	214.24	819.20	-24.00	9.75	PTW MWD_2016
12,001.00	73.50	355.46	11,651.37	297.36	813.63	57.35	9.06	PTW MWD_2016
12,057.00	81.29	354.27	11,663.58	351.75	808.73	110.93	14.06	PTW MWD_2016
12,111.00	89.00	355.00	11,668.15	405.28	803.71	163.72	14.34	PTW MWD_2016

Fluid Details

Mud type	NaCl Brine	Oil/Water (%)	0.00/91.50	pH/Pm (cc)	8.00/0.10
MD (ft)	12,023.00	TS/HGS/LGS (%)	1.10//	Pf/Mf (cc)	0.05/0.10
Mud Density (ppg)	9.65	Sand (%)	0.20	Ca+ (ppm)	
Vis (s/qt)	29.00			Cl- (ppm)	128,000
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)	9.820	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
4	8.750	HALLIBURTON	GTC64C			1033446	6x12	10,639.00		-----

Bit Operations

MD (ft)	WOB Min/Max (kip)	Current RPM (rpm)	Flow rate (gpm)	SPP (psi)	P bit (psi)	% @ Bit	HPH (hp)	Hours (hr)	Footage (ft)	ROP (ft/hr)	Hours cum (hr)	Footage cum. (ft)	ROP cum. (ft/hr)
11,609.00	20.0/20.0	0	550.0	2,600.00	612.20	23.55	196.42	0.50	49.00	98.0	15.00	970.00	64.7
11,723.00	30.0/30.0	20	550.0	3,000.00	612.20	20.41	196.42	1.00	114.00	114.0	16.00	1,084.00	67.7
11,744.00	20.0/20.0	0	550.0	2,600.00	612.20	23.55	196.42	0.50	21.00	42.0	16.50	1,105.00	67.0
11,787.00	20.0/20.0	0	550.0	2,600.00	612.20	23.55	196.42	0.50	43.00	86.0	17.00	1,148.00	67.5
11,807.00	20.0/20.0	20	550.0	3,400.00	612.20	18.01	196.42	0.50	20.00	40.0	17.50	1,168.00	66.7
11,876.00	40.0/40.0	0	550.0	3,400.00	612.20	18.01	196.42	0.50	69.00	138.0	18.00	1,237.00	68.7
11,907.00	15.0/15.0	20	550.0	3,250.00	612.20	18.84	196.42	0.50	31.00	62.0	18.50	1,268.00	68.5
11,966.00	50.0/50.0	0	550.0	2,900.00	612.20	21.11	196.42	0.50	59.00	118.0	19.00	1,327.00	69.8
11,986.00	20.0/20.0	20	550.0	3,400.00	612.20	18.01	196.42	0.50	20.00	40.0	19.50	1,347.00	69.1
12,111.00	50.0/50.0	0	550.0	3,300.00	612.20	18.55	196.42	2.50	125.00	50.0	22.00	1,472.00	66.9

Drillstring Components

Item description	# Jts	Length (ft)	OD (in)	Max OD (in)	ID (in)	Connection Name	Weight (ppf)	Grade	Serial no.
5" DRILL PIPE	289	10,567.24	5.000		4.276	4 1/2 IF			RIG

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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.
HWDP	12	374.06	5.000		2.875	4 1/2 IF			RIG
5" DRILL PIPE	24	1,067.33	5.000		4.276	4 1/2 IF			RIG
X/O SUB	1	3.45	5.000		5.000	4 1/2 IF			RIG
FLOAT SUB	1	3.49	6.500		2.875	4-1/2 XH			DR24146
SCREEN SUB	1	3.26	6.250		3.250	4-1/2 XH			DR27729
NMDC	1	30.57	6.280		2.880	4 1/2 XH			PXGFC6501111
GAP SUB	1	3.50	6.600		4.500	4-1/2 XH			VG650023PTS
650 CENTRALIZER COLLAR VELOCITY	1	8.54	6.680			4-1/2 XH			VC650023
650 LANDING SUB VELOCITY	1	3.52	6.630			4-1/2 XH			VL650114
650 X/O SUB VELOCITY	1	1.52	6.500			4 1/2 XH			VX650006
NMPC	1	15.15	6.500		275.000	4 1/2 XH			PXGPC6501066
MUD MOTOR 4/5 LOBE, STAGE 7. SET @ 2.38° SN:	1	28.47	7.470			4-1/2 XH			24XH-675490-PTS
BIT #4 RUN #1 8.75" HALLIBURTON GTD64C (6X12's)	1	0.90	8.750	8.750		4 1/2 REG			1033446

Drillstring Details

Date/Time in		Date/Time out		BHA no.	BHA Length (ft)	Min. ID (in)	Purpose
05/24/2017 22:00				4	476.43		DRILL 8.75" CURVE 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)
11,609.00	330.0	210.00	0.00	330.00	0.0	0.0	49.00
11,723.00	300.0	213.00	190.00	110.00	18,000.0	8,000.0	114.00
11,744.00	330.0	210.00	0.00	330.00	0.0	0.0	21.00
11,787.00	330.0	210.00	0.00	330.00	0.0	0.0	43.00
11,807.00	300.0	213.00	190.00	110.00	22,000.0	12,000.0	20.00
11,876.00	333.0	209.00	0.00	333.00	0.0	0.0	69.00
11,907.00	334.0	209.00	257.00	77.00	24,000.0	9,000.0	31.00
11,966.00	334.0	205.00	0.00	334.00	0.0	0.0	59.00
11,986.00	358.0	211.00	262.00	96.00	24,000.0	11,000.0	20.00
12,111.00	364.0	200.00	0.00	364.00	0.0	0.0	125.00

Remarks

DIESEL ON LOCATION: 13,567 GAL
DIESEL DELIVERED: 0 GAL
DIESEL USED: 1,140 GAL
LNG USED: 226.79 GAL