

Daily Drilling Report

UNIVERSITY 3-15C 103H

INTEGRITY #1

Accept: 11/4/2018
Days Since LTI:

Release:
Days Since RI:

PERMIAN - JV SOUTHERN WOLFCAMP
Job: ODR
Report Date: 11/5/2018
Report #: 1
DFS: 0
AFE #: 9000912
Total AFE + Sup: \$4,068,828.95
Daily Field Est. (Cost): \$512,444.60

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)						
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018		TD Date					
Safety Checks												
Time	Type	Des	Tour	Com								
13:30	MEETING	JSA	DAY	Skid Rig								
17:45	MEETING	PRE-TOUR	NIGHT	OverHead Loads								
17:45	MEETING	PRE-TOUR	NIGHT	P/U BHA								
Jobs												
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status			
				ODR	11/4/2018 13:30				AFE APPROVED			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)												
Type			Subtype		Date		Note					
Type TXRRC CALL			Subtype SPUD		Date 11/4/2018		Note Rosa					
Type TXRRC CALL			Subtype CEMENT SURF		Date 11/4/2018		Note Rosa					
Daily Operations												
Footage/Meterage (ft) 110.00		Drilling Hours (hr) 3.00		% Rotating Time (%) 100.00		End Depth (ftKB) 258.5		Target Depth (ftKB)		Daily Field Est Total (Cost) 512,444.60	Cum Field Est To Date (Cost) 512,444.60	
24 HR ROP (ft/hr) 36.7		Circulating Hours (hr)		% Sliding Time (%) 0.00		End Depth (TVD) (ftKB) 258.5		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost)	Cum Mud Field Est (Cost)	Total AFE + Sup (Cost) 4,068,828.95
Daily Goal Description DRILLED FEET				Daily Goal - Last 24				Daily Goal - Next 24			Goal Comments	
Backbuild		Lateral Inclination		Last Casing String CONDUCTOR, 148.5ftKB				Next Casing String SURFACE, 1,223.7ftKB				
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00		
Operations Summary Skid Rig f/University 3-15B 102H to University 3-15C 103H.R/U Rig and PreSpud Inspection,P/U BHA. Repair,P/U BHA,Drill f/125' to 330'												
Operations Next Report Period Drill												
Operations at Report Time Drilling @ 330'												
Remarks R/U Rig and PreSpud Inspection,P/U BHA.Repair,P/U BHA,Drill												
Time Log												
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
13:30	2.5	16:00	CONST, DRL SURF	SKID	NORMAL	Skid Rig F/University 3-15B 102H to University 3-15C 103H.		148.5	148.5			
16:00	2	18:00	CONST, DRL SURF	RU MIRU	NORMAL	R/U Rig and PreSpud Inspection		148.5	148.5			
18:00	0.5	18:30	CONST, DRL SURF	PU_BHA	NORMAL	P/U 8" motor,NMDC,UBHO		148.5	148.5			
18:30	3.5	22:00	CONST, DRL SURF	RIG_RPR	NORMAL	Repair Hydraulic hose on Unit		148.5	148.5	3.50	1	
22:00	3	01:00	CONST, DRL SURF	PU_BHA	NORMAL	P/U 8" motor,NMDC,UBHO		148.5	148.5			
01:00	5	06:00	CONST, DRL SURF	DRL	NORMAL	Drilling 17 1/2 surface section from 125' to 330' (205' at 41.0 fph.) 10 on bit, 90 rpm,651 gpm 800 psi, With no losses. Spud 17 1/2" Hole @ 1:00 11/5/18		148.5	353.5			
Interval Problems												
RIG, 148.5ftKB, 11/4/2018 18:30												
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party		Comment				
1	3.50	No	CIRCULATING SYSTEM	HOSES		INTEGRITY SERVICES		Hydraulic Hose Busted on Unit				
Drill Strings												
BHA #1 , SURFACE												
Bit Run 1			Drill Bit 17 1/2in, SF65, 12881571					Bit Type PDC		Make HALLIBURTON		
Nozzles (1/32") 20/20/20/20/20/20/20/20			Bit Total Fluid Area (nozzles) (in²) 2.76		IADC Bit Dull -----		Hours Drilled By Bit (hr) 3.00		Depth Drilled By Bit (ft) 110.00			
BHA Drilling Time (hr) 3.00			BHA Depth Drilled (ft) 110.00		BHA ROP (ft/hr) 36.7		Depth In (ftKB) 148.5		Depth Out (ftKB) 258.5			
Drill String Components												
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make	
4	DRILL PIPE				4 1/2	3.00	102.00	330.94	1,693.2	29	INTEGRITY	
3	DRILL COLLAR				6	2.50	85.27	228.94	8,484.4	28	INTEGRITY	
1	SUB - XO				6 1/2	2.98	2.10	143.67	312.9	19	INTEGRITY	
3	DRILL COLLAR				8	2.75	80.30	141.57	11,971.1	19	INTEGRITY	
1	SUB - XO				8	2.98	2.85	61.27	424.9	7	INTEGRITY	
1	DRILL COLLAR - NON MAG				7 1/2	2.88	27.26	58.42	2,971.3	6	INTEGRITY	
1	SUB - UBHO				7 7/8	3.25	2.80	31.16	417.4	3	INTEGRITY	
1	MOTOR - TRUE SLICK				8	3.00	26.86	28.36	2,927.7	3	OTHER (PROVIDE DESCRIPTION)	
Daily Drilling Report												

Daily Drilling Report

Mud Motors																			
SN		Bend Angle		Bend Type		Lobe Config		# Stages		RPG		Bit To Bend							
Sensors																			
Sensor Type				Sensor-Bit (ft)						Note									
Drilling Parameters																			
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Inst (min/ft)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)		
01:00	04:00	148.5	110.00	36.7	10	90		651	800.0	1.6	39	42	26	29	2,300.0	0.0			
Hydraulic Calculations																			
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
Mud Checks																			
Time		Mud Company				Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)		T Flowline (°F)					
PV (cP)		YP (lbf/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)					
Solids (%)				Low Gravity Solids (%)				Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		PF (mL/mL)					
Chlorides (ppm)			Calcium (ppm)			CaCl (ppm)		Oil Water Ratio		Electric Stab (V)			Lime (lb/bbl)			pH			
Gel 10 sec (lbf/100ft²)						Gel 10 min (lbf/100ft²)						Gel 30 min (lbf/100ft²)							
Comment																			
Last BOP Test																			
Date		Test Type				Item Tested				Next Test Date		Com							
Leak Off and Formation Integrity Tests																			
Test Type				Depth (ftKB)						Dens Fluid (lb/gal)									
Casing Pressure Test																			
Test Type		Test Subtype				Date		Item Tested				Failed?		Time (min)		P (psi)			
Kick Offs & Key Depths																			
Date						Type						Top Depth (ftKB)							
						HEEL													
						TOE													
						KICK OFF													
Casing Strings																			
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR		148.5				20		H40		78.67									
Job Supply Amounts																			
Supply Item Des		Type		Unit Label		Received		Consumed		Returned		Note		Cum On Loc		Cum Consumed			
Mud Additive Amounts																			
Des		Type		Units		Rec		Consumed		On Loc		Cum Cons							
Pump Operations																			
Pump #		Make				Model		Liner Size (in)		Stroke (in)		Vol/Stk (bbl/stk)		P Max (psi)					
Pump Checks																			
Pump #		Depth (ftKB)		Time		P (psi)		Strokes (spm)		Q Flow (gpm)		Eff (%)							
Deviation Surveys																			
Date		Description AS DRILL SURVEY										Job ODR, 11/4/2018 13:30							
Survey Data - All surveys for 24 hr reporting period																			
MD (ftKB)		Incl (°)		Azm (°)		TVD (ftKB)		VS (ft)		NS (ft)		EW (ft)		DLS (°/100ft)					
202.50		0.26		151.17		202.50		0.44		-0.40		0.22		0.13					
229.50		0.66		182.20		229.50		0.65		-0.61		0.25		1.69					
Date		Description FINAL SURVEY										Job							
Formations																			
Formation Name						Prog Top (TVD SS) Override (ft(elv))		Prog Top MD (ftKB)		Prog Top (TVD) (ftKB)		Final Top MD (ftKB)		Final Top (TVD) (ftKB)					
222_0_DOKM_E1_SNRS_M/TOP POROUS SAND						1,986.0				747.5									
224_0_DOKM_F1_SNRS_L/BASE POROUS SAND						1,706.0				1,027.5									
SURFACE CASING						1,560.0				1,173.5									
250_0_DWLK						1,506.0				1,227.5									
251_0_RSRL						1,402.0				1,331.5									
251_0_SLDO						1,323.0				1,410.5									
255_0_TNSL_TOP_DOL						586.0				2,147.5									
256_0_YATES						515.0				2,218.5									
257_0_SEVEN RIVERS						225.0				2,508.5									
258_0_QUEEN						-445.0				3,178.5									
259_0_GRAYBURG						-1,156.0				3,889.5									
261_0_SAN ANDRES						-1,357.0				4,090.5									
263_0_SAN ANDRES SHALE						-2,431.0				5,164.5									
265_0_CLEARFORK/POP						-3,217.0				5,950.5									
Daily Drilling Report																			

Daily Drilling Report

INTEGRITY #1

Release:**Days Since RI:**

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/5/2018
Report #:	1
DFS:	0
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$512,444.60

[illegible]

Daily Drilling Report

UNIVERSITY 3-15C 103H

INTEGRITY #1

Accept: 11/4/2018 Release:

Days Since LTI: Days Since RI:

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/6/2018

Report #: 2

DFS: 1

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$6,455.00

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)											
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date											
Safety Checks																	
Time	Type	Des	Tour	Com													
06:00	MEETING	PRE-TOUR	DAY	OverHead Loads													
06:00	MEETING	PRE-TOUR	DAY	Forklift Operations													
17:45	MEETING	PRE-TOUR	NIGHT	Drilling													
17:45	MEETING	PRE-TOUR	NIGHT	Inspect all lifting Equipment.													
Jobs																	
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status								
				ODR	11/4/2018 13:30				AFE APPROVED								
Job Dates (ex. Estimated Pad Release, TXRRC Calls)																	
Type			Subtype		Date		Note										
Daily Operations																	
Footage/Meterage (ft) 635.00		Drilling Hours (hr) 18.50		% Rotating Time (%) 64.86		End Depth (ftKB) 988.5		Target Depth (ftKB)									
								Daily Field Est Total (Cost) 6,455.00									
								Cum Field Est To Date (Cost) 518,899.60									
24 HR ROP (ft/hr) 34.3		Circulating Hours (hr)		% Sliding Time (%) 35.14		End Depth (TVD) (ftKB)		Target Depth (TVD) (ftKB)									
								Daily Mud Field Est (Cost)									
								Cum Mud Field Est (Cost)									
								Total AFE + Sup (Cost) 4,068,828.95									
Daily Goal Description			Daily Goal - Last 24			Daily Goal - Next 24			Goal Comments								
Backbuild		Lateral Inclination		Last Casing String CONDUCTOR, 148.5ftKB			Next Casing String SURFACE, 1,223.7ftKB										
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00									
								Max Drill Gas 0.00									
Operations Summary Drill f/330' to 774',Repair,Drill f/774' to 965'.																	
Operations Next Report Period Drill ,LDDP,Circulate,run Casing,RDRT,																	
Operations at Report Time Drilling @ 965'																	
Remarks Drill,Repair,Drill																	
Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #						
06:00	14	20:00	CONST, DRL SURF	DRL	NORMAL	Drilling 17 1/2 surface section from 330' to 774' (444' at 31.71 fph.) 10 on bit, 90 rpm,651 gpm 800 psi, With no losses.		353.5	797.5								
20:00	1	21:00	CONST, DRL SURF	RIG_RPR	NORMAL	Repair Brake Bolts on Top Drive.		797.5	797.5	1.00	2						
21:00	9	06:00	CONST, DRL SURF	DRL	NORMAL	Drilling 17 1/2 surface section from 774' to 965' (191' at 21.22 fph.) 10 on bit, 90 rpm,651 gpm 800 psi, With no losses.		797.5	988.5								
Interval Problems																	
RIG, 797.5ftKB, 11/5/2018 20:00																	
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party		Comment									
2	1.00	No	ROTARY SYSTEM	TOP DRIVE		INTEGRITY SERVICES		Brake bolts Top Drive									
Drill Strings																	
BHA #1 , SURFACE																	
Bit Run 1			Drill Bit 17 1/2in, SF65, 12881571			Bit Type PDC		Make HALLIBURTON									
Nozzles (1/32") 20/20/20/20/20/20/20/20/20			Bit Total Fluid Area (nozzles) (in²) 2.76			IADC Bit Dull -----		Hours Drilled By Bit (hr) 23.50		Depth Drilled By Bit (ft) 840.00							
BHA Drilling Time (hr) 23.50			BHA Depth Drilled (ft) 840.00			BHA ROP (ft/hr) 35.7		Depth In (ftKB) 148.5		Depth Out (ftKB) 988.5							
Drill String Components																	
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make							
23	DRILL PIPE			4 1/2	3.00	737.00	965.94	12,234.2	40	INTEGRITY							
3	DRILL COLLAR			6	2.50	85.27	228.94	8,484.4	28	INTEGRITY							
1	SUB - XO			6 1/2	2.98	2.10	143.67	312.9	19	INTEGRITY							
3	DRILL COLLAR			8	2.75	80.30	141.57	11,971.1	19	INTEGRITY							
1	SUB - XO			8	2.98	2.85	61.27	424.9	7	INTEGRITY							
1	DRILL COLLAR - NON MAG			7 1/2	2.88	27.26	58.42	2,971.3	6	INTEGRITY							
1	SUB - UBHO			7 7/8	3.25	2.80	31.16	417.4	3	INTEGRITY							
1	MOTOR - TRUE SLICK			8	3.00	26.86	28.36	2,927.7	3	OTHER (PROVIDE DESCRIPTION)							
Mud Motors																	
SN		Bend Angle		Bend Typ	Lobe Config		# Stages	RPG	Bit To Bend								
Sensors																	
Sensor Type			Sensor-Bit (ft)			Note											
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Inst (min/ft)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	09:30	353.5	159.00	45.4	10	0		651	800.0	1.3	39	42	26	29	0.0	0.0	
09:30	15:30	512.5	285.00	47.5	10	90		651	800.0	1.6	39	42	26	29	2,300.0	0.0	
Daily Drilling Report																	

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/6/2018
Report #:	2
DFS:	1
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$6,455.00

Daily Drilling Report

INTEGRITY #1

Release:

Days Since RI:

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/6/2018
Report #:	2
DFS:	1
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$6,455.00

Job Contact	Title	Office	Mobile	Email
CASTEEL, DARRELL, FOREMAN	FOREMAN	432-571-2737	432-634-2968	DARRELL.CASTEEL@PXD.COM
PLUMLEE, LARRY, LOCATION CONSTRUCTION SUPERVISOR	LOCATION CONSTRUCTION SUPERVISOR	432-571-2878	432-634-2974	LARRY.PLUMLEE@PXD.COM

Company	Count
PIONEER NATURAL RESOURCES USA INC	1
INTEGRITY SERVICES	6

Daily Drilling Report

UNIVERSITY 3-15C 103H

INTEGRITY #1

Accept: 11/4/2018 Release:

Days Since LTI: Days Since RI:

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/7/2018

Report #: 3

DFS: 2

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$6,455.00

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)											
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date											
Safety Checks																	
Time	Type	Des	Tour	Com													
06:00	MEETING	PRE-TOUR	DAY	Cold Weather													
06:00	MEETING	PRE-TOUR	DAY	Drilling													
17:45	MEETING	PRE-TOUR	NIGHT	TOOH													
Jobs																	
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status								
				ODR	11/4/2018 13:30				AFE APPROVED								
Job Dates (ex. Estimated Pad Release, TXRRC Calls)																	
Type			Subtype		Date		Note										
Daily Operations																	
Footage/Meterage (ft) 250.00		Drilling Hours (hr) 19.50		% Rotating Time (%) 0.00		End Depth (ftKB) 1,238.5		Target Depth (ftKB)		Daily Field Est Total (Cost) 6,455.00	Cum Field Est To Date (Cost) 525,354.60						
24 HR ROP (ft/hr) 12.8		Circulating Hours (hr) 0.50		% Sliding Time (%) 100.00		End Depth (TVD) (ftKB) 1,237.9		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost)	Cum Mud Field Est (Cost)	Total AFE + Sup (Cost) 4,068,828.95					
Daily Goal Description				Daily Goal - Last 24				Daily Goal - Next 24			Goal Comments						
Backbuild		Lateral Inclination	Last Casing String CONDUCTOR, 148.5ftKB					Next Casing String									
Avg Connection Gas		Avg Trip Gas		Avg Background Gas		Max Connection Gas		Max Trip Gas		Max Drill Gas							
Operations Summary Drill f/965' to 1215',Circulate,LDDP f/1215' to 228',L/D BHA f/228' to KB,																	
Operations Next Report Period Run Casing,Cement Casing,RDRT,To Move To Ray Reed 32.																	
Operations at Report Time L/D BHA																	
Remarks XXXXXX																	
Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #						
06:00	19.5	01:30	CONST, DRL SURF	DRL	NORMAL	Drilling 17 1/2 surface section from 965' to 1215' (250' at 12.82 fph.) 10 on bit, 90 rpm,651 gpm 800 psi, With no loses		988.5	1,238.5								
01:30	0.5	02:00	CONST, DRL SURF	CIRC	NORMAL	Circulate hole clean. 647 gpm 900 psi,		1,238.5	1,238.5								
02:00	2	04:00	CONST, DRL SURF	TOOH_NONEL EV	NORMAL	TOOH f/1197' to 228"		1,238.5	1,238.5								
04:00	3	07:00	CONST, DRL SURF	L/D BHA	NORMAL	L/D BHA f/228' to KB		1,238.5	1,238.5								
Drill Strings																	
BHA #1 , SURFACE																	
Bit Run 1		Drill Bit 17 1/2in, SF65, 12881571				Bit Type PDC		Make HALLIBURTON									
Nozzles (1/32") 20/20/20/20/20/20/20/20		Bit Total Fluid Area (nozzles) (in²) 2.76		IADC Bit Dull -----TD		Hours Drilled By Bit (hr) 43.00		Depth Drilled By Bit (ft) 1,090.00									
BHA Drilling Time (hr) 43.00		BHA Depth Drilled (ft) 1,090.00		BHA ROP (ft/hr) 25.3		Depth In (ftKB) 148.5		Depth Out (ftKB) 1,238.5									
Drill String Components																	
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make							
32	DRILL PIPE			4 1/2	3.00	987.00	1,215.94	16,384.2	44	INTEGRITY							
3	DRILL COLLAR			6	2.50	85.27	228.94	8,484.4	28	INTEGRITY							
1	SUB - XO			6 1/2	2.98	2.10	143.67	312.9	19	INTEGRITY							
3	DRILL COLLAR			8	2.75	80.30	141.57	11,971.1	19	INTEGRITY							
1	SUB - XO			8	2.98	2.85	61.27	424.9	7	INTEGRITY							
1	DRILL COLLAR - NON MAG			7 1/2	2.88	27.26	58.42	2,971.3	6	INTEGRITY							
1	SUB - UBHO			7 7/8	3.25	2.80	31.16	417.4	3	INTEGRITY							
1	MOTOR - TRUE SLICK			8	3.00	26.86	28.36	2,927.7	3	OTHER (PROVIDE DESCRIPTION)							
Mud Motors																	
SN		Bend Angle		Bend Typ	Lobe Config		# Stages		RPG		Bit To Bend						
Sensors																	
Sensor Type			Sensor-Bit (ft)				Note										
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Inst (min/ft)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	01:30	988.5	250.00	12.8	10	0		651	950.0	4.7	50	54	46	40	0.0	0.0	
01:30	02:00	1,238.5	0.00		0	0		651	950.0		50	54	46	40	2,300.0	0.0	
Hydraulic Calculations																	
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)					
Daily Drilling Report											Page 1/3		Printed: Wednesday, November 7, 2018				

UNIVERSITY 3-15C 103H

INTEGRITY #1

Accept: 11/4/2018Release: Days Since LTI: Days Since RI:

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/7/2018

Report #: 3

DFS: 2

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$6,455.00

Mud Checks

Time		Mud Company			Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	T Flowline (°F)
PV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)	HTHP Temperature (°F)	HTHP Pressure (psi)		
Solids (%)		Low Gravity Solids (%)		Sand (%)	MBT (lb/bbl)	Pm (mL/mL)	Pf (mL/mL)		
Chlorides (ppm)		Calcium (ppm)	CaCl (ppm)	Oil Water Ratio	Electric Stab (V)	Lime (lb/bbl)	pH		
Gel 10 sec (lb/100ft²)				Gel 10 min (lb/100ft²)			Gel 30 min (lb/100ft²)		
Comment									

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com

Leak Off and Formation Integrity Tests

Test Type	Depth (ftKB)	Dens Fluid (lb/gal)

Casing Pressure Test

Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
	HEEL	
	TOE	
	KICK OFF	

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	148.5		20	H40	78.67		

Job Supply Amounts

Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed

Mud Additive Amounts

Des	Type	Units	Rec	Consumed	On Loc	Cum Cons

Pump Operations

Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)

Pump Checks

Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)

Deviation Surveys

Date	Description	Job
	FINAL SURVEY	
Date	Description	Job
11/5/2018	AS DRILL SURVEY	ODR, 11/4/2018 13:30

Survey Data - All surveys for 24 hr reporting period

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
1,020.50	2.95	91.06	1,020.17	17.20	1.37	17.15	0.41
1,083.50	3.21	90.27	1,083.08	20.57	1.33	20.53	0.42
1,115.50	2.95	89.91	1,115.04	22.29	1.33	22.25	0.81
1,146.50	2.81	88.33	1,146.00	23.84	1.35	23.81	0.52
1,178.50	2.61	90.27	1,177.96	25.36	1.37	25.32	0.69
1,210.50	2.81	87.37	1,209.93	26.87	1.40	26.83	0.76

Formations

Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
251_0_RSRL	1,402.0		1,331.5		
251_0_SLDO	1,323.0		1,410.5		
255_0_TNSL_TOP_DOL	586.0		2,147.5		
256_0_YATES	515.0		2,218.5		
257_0_SEVEN RIVERS	225.0		2,508.5		
258_0_QUEEN	-445.0		3,178.5		
259_0_GRAYBURG	-1,156.0		3,889.5		
261_0_SAN ANDRES	-1,357.0		4,090.5		
263_0_SAN ANDRES SHALE	-2,431.0		5,164.5		
265_0_CLEARFORK/POP	-3,217.0		5,950.5		
267_0_SPBY_U_A1/267_0_SPBY	-3,989.0		6,722.5		
267_5_SPBY_M_A1	-4,191.0		6,924.5		
268_5_SPBY_L_A1	-4,534.0		7,267.5		
268_6_SPBY_L_B1/JO MILL	-4,834.0		7,567.5		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-4,902.0		7,635.5		
269_0_DEAN	-5,331.0		8,064.5		
270_0_WFMP_A1	-5,503.0		8,236.5		
272_0_WFMP_A2	-5,596.0		8,329.5		
271_0_WFMP_A3	-5,741.0		8,474.5		
275_0_WFMP_B1	-5,833.0		8,566.5		
276_0_WFMP_B2	-5,910.0		8,643.5		
278_0_WFMP_B3	-6,173.0		8,906.5		
WFMP B3 TOT	-6,199.0		8,932.5		

Daily Drilling Report

Page 2/3

Printed: Wednesday, November 7, 2018

Daily Drilling Report

UNIVERSITY 3-15C 103H

INTEGRITY #1

Accept: 11/4/2018Release: Days Since LTI:Days Since RI:

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/7/2018

Report #: 3

DFS: 2

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$6,455.00

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
INTENDED LANDING POINT (ILP)	-6,215.0		8,948.5		
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		
Target 3	-6,250.0		8,983.5		
Target 4	-6,260.0		8,993.5		
BHL	-6,240.0		8,973.5		
Daily Contacts					
Job Contact	Title	Office	Mobile	Email	
CASTEEL, DARRELL, FOREMAN	FOREMAN	432-571-2737	432-634-2968	DARRELL.CASTEEL@PXD.COM	
PLUMLEE, LARRY, LOCATION CONSTRUCTION SUPERVISOR	LOCATION CONSTRUCTION SUPERVISOR	432-571-2878	432-634-2974	LARRY.PLUMLEE@PXD.COM	
Personnel Log					
Company				Count	
PIONEER NATURAL RESOURCES USA INC				1	
INTEGRITY SERVICES				6	

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)						
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018		TD Date					
Safety Checks												
Time	Type	Des	Tour	Com								
06:00	MEETING	PRE-TOUR	DAY	Run Casing								
11:00	MEETING	JSA	DAY	PJSM W/Cementers and Rig Crew.								
Jobs												
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status			
				ODR	11/4/2018 13:30				IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)												
Type			Subtype		Date		Note					
Daily Operations												
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 1,238.5		Target Depth (ftKB)		Daily Field Est Total (Cost) 79,063.08	Cum Field Est To Date (Cost) 604,417.68	
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 1,237.9		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost)	Cum Mud Field Est (Cost)	Total AFE + Sup (Cost) 4,068,828.95
Daily Goal Description			Daily Goal - Last 24			Daily Goal - Next 24			Goal Comments			
Backbuild	Lateral Inclination	Last Casing String SURFACE, 1,223.7ftKB						Next Casing String				
Avg Connection Gas		Avg Trip Gas		Avg Background Gas		Max Connection Gas		Max Trip Gas		Max Drill Gas		
Operations Summary Run Casing f/KB to 1200',Circulate ,Cement Casing,RDRT,To Move To Ray Reed 32.												
Operations Next Report Period RDRT To Move To Ray Reed 32.												
Operations at Report Time RDRT												
Remarks Run Casing, Circulate,Cement Casing, RDRT.												
Time Log												
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
06:00	0.5	06:30	CONST, DRL SURF	CSG_W/O ROTATION	NORMAL	PJSM w/rig crew, Rig up Make up shoe track,		1,238.5	1,238.5			
06:30	2.5	09:00	CONST, DRL SURF	CSG_W/O ROTATION	NORMAL	Run 13 3/8" 54.54# J-55 F/44' to 1200'		1,238.5	1,238.5			
09:00	0.5	09:30	CONST, DRL SURF	CSG_W/O ROTATION	NORMAL	Make up casing hanger and landing joint, land Casing.		1,238.5	1,238.5			
09:30	1.5	11:00	CONST, DRL SURF	CIRC	NORMAL	Circulate wait on Cementers.		1,238.5	1,238.5	1.50	3	
11:00	1	12:00	CONST, DRL SURF	RU_CMT	NORMAL	Hold PJSM with cementers and rig crew.Install cement head and hook up lines to head		1,238.5	1,238.5			
12:00	2	14:00	CONST, DRL SURF	CMT	NORMAL	Cement Surface Casing: Pump 20 BBL water spacer @ 4 BBL/Min.Pump 243 BBLs of lead cement @13 PPG , 6BBL/Min., Pump 160 BBLs of tail cement @ 13.6 PPG. 6 BBL/Min. Drop plug, displaced with 177 BBLs of fresh water @ 6 BBL/Min. Final Lift psi ; 400 psi 900 Held psi on plug. Plug Down @ 14:00 11/7/18 Circulate 177 BBLs cement to surface to pit		1,238.5	1,238.5			
14:00	1	15:00	CONST, DRL SURF	RD_CMT	NORMAL	R/D Cementers , Remove landing joint Install cap on casing. Rig Released @ 15:00 11/7/18		1,238.5	1,238.5			
Interval Problems												
3RD PARTY, 1,238.5ftKB, 11/7/2018 09:30												
Ref # 3	Dur (N... 1.50	Ex... No	Subtype CEMENT	Problem Descript... HUMAN ERROR	Est Cost OR (Cost)	Accountable Party PIONEER NATURAL RESOURCES USA INC		Comment casing Job shorter then Expected				
Hydraulic Calculations												
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)		
Mud Checks												
Time		Mud Company			Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)	T Flowline (°F)
PV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)		
Solids (%)		Low Gravity Solids (%)		Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)		
Chlorides (ppm)		Calcium (ppm)		CaCl (ppm)	Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)		pH	
Gel 10 sec (lb/100ft²)				Gel 10 min (lb/100ft²)				Gel 30 min (lb/100ft²)				
Comment												
Last BOP Test												
Date	Test Type			Item Tested		Next Test Date		Com				
Daily Drilling Report												

Daily Drilling Report

Leak Off and Formation Integrity Tests															
Test Type			Depth (ftKB)				Dens Fluid (lb/gal)								
Casing Pressure Test															
Test Type		Test Subtype			Date		Item Tested			Failed?		Time (min)		P (psi)	
Kick Offs & Key Depths															
Date				Type					Top Depth (ftKB)						
				HEEL											
				TOE											
				KICK OFF											
Casing Strings															
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)	
CONDUCTOR		148.5				20		H40		78.67					
SURFACE		1,223.7		1,223.1		13 3/8		J55		54.50		BTC			
Cement															
Surface Casing Cement, Casing, 11/7/2018 12:00															
Cementing End Date		Wellbore		Technical Result		Comment									
11/7/2018 14:00		ORIGINAL		SUCCESS											
Cement Stages															
Description				Final Top De...	Btm (ftKB)	Top Pl...	Btm Pl...	Q Pump Init (...)	Q Pump Fina...	Q Pump Avg...	P Pump Final...	P Plug Bump...	Float...	Recip?	Rotated?
SURFACE CASING CEMENT				31.6	1,223.7	Yes	No	6	4	5	400.0	900.0	Yes	No	No
Cement Fluids															
Fluid Type					Estimated Top (ftKB)		Est Btm (ftKB)		Class			Yield (ft³/sack)		Density (lb/gal)	
SPACER					23.5		23.5					0.00		8.30	
Fluid Type					Estimated Top (ftKB)		Est Btm (ftKB)		Class			Yield (ft³/sack)		Density (lb/gal)	
LEAD CMT					23.5		696.5		CLASS C			1.94		13.00	
Fluid Type					Estimated Top (ftKB)		Est Btm (ftKB)		Class			Yield (ft³/sack)		Density (lb/gal)	
TAIL CMT					696.5		1,223.5		CLASS C			1.71		13.60	
Fluid Type					Estimated Top (ftKB)		Est Btm (ftKB)		Class			Yield (ft³/sack)		Density (lb/gal)	
DSPLMT					23.5		1,178.5					0.00		8.30	
Job Supply Amounts															
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note				Cum On Loc		Cum Consumed		
Mud Additive Amounts															
Des		Type		Units		Rec		Consumed			On Loc		Cum Cons		
Pump Operations															
Pump #	Make			Model		Liner Size (in)		Stroke (in)		Vol/Stk (bbl/stk)			P Max (psi)		
Pump Checks															
Pump #	Depth (ftKB)		Time	P (psi)		Strokes (spm)			Q Flow (gpm)			Eff (%)			
Deviation Surveys															
Date		Description									Job				
		FINAL SURVEY													
Date		Description									Job				
11/5/2018		AS DRILL SURVEY									ODR, 11/4/2018 13:30				
Formations															
Formation Name					Prog Top (TVD SS) Override (ft(elv))		Prog Top MD (ftKB)		Prog Top (TVD) (ftKB)		Final Top MD (ftKB)		Final Top (TVD) (ftKB)		
251_0_RSRL					1,402.0				1,331.5						
251_0_SLDO					1,323.0				1,410.5						
255_0_TNSL_TOP_DOL					586.0				2,147.5						
256_0_YATES					515.0				2,218.5						
257_0_SEVEN RIVERS					225.0				2,508.5						
258_0_QUEEN					-445.0				3,178.5						
259_0_GRAYBURG					-1,156.0				3,889.5						
261_0_SAN ANDRES					-1,357.0				4,090.5						
263_0_SAN ANDRES SHALE					-2,431.0				5,164.5						
265_0_CLEARFORK/POP					-3,217.0				5,950.5						
267_0_SPBY_U_A1/267_0_SPBY					-3,989.0				6,722.5						
267_5_SPBY_M_A1					-4,191.0				6,924.5						
268_5_SPBY_L_A1					-4,534.0				7,267.5						
268_6_SPBY_L_B1/JO MILL					-4,834.0				7,567.5						
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE					-4,902.0				7,635.5						
269_0_DEAN					-5,331.0				8,064.5						
270_0_WFMP_A1					-5,503.0				8,236.5						
272_0_WFMP_A2					-5,596.0				8,329.5						
271_0_WFMP_A3					-5,741.0				8,474.5						
275_0_WFMP_B1					-5,833.0				8,566.5						
276_0_WFMP_B2					-5,910.0				8,643.5						
278_0_WFMP_B3					-6,173.0				8,906.5						
WFMP B3 TOT					-6,199.0				8,932.5						
INTENDED LANDING POINT (ILP)					-6,215.0				8,948.5						
Target 1					-6,282.0				9,015.5						
Target 2					-6,282.0				9,015.5						
Target 3					-6,250.0				8,983.5						
Target 4					-6,260.0				8,993.5						
BHL					-6,240.0				8,973.5						
Daily Drilling Report															

Daily Drilling Report

INTEGRITY #1

Release: 11/7/2018

Days Since RI:

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/7/2018
Report #:	4
DFS:	3
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$79,063.08

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
CASTEEL, DARRELL, FOREMAN	FOREMAN	432-571-2737	432-634-2968	DARRELL.CASTEEL@PXD.COM
PLUMLEE, LARRY, LOCATION CONSTRUCTION SUPERVISOR	LOCATION CONSTRUCTION SUPERVISOR	432-571-2878	432-634-2974	LARRY.PLUMLEE@PXD.COM

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	1
INTEGRITY SERVICES	6

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 148.00 Days Since RI: 148.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/16/2018

Report #: 5

DFS: 3

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$41,436.00

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)							
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date							
Safety Checks													
Time	Type	Des	Tour	Com									
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	"Patterson 251 - A contractor was mixing dry mud additives at the hopper. Asa bag of soda ash was emptied a small amount went under the safetyglasses being worn and into the right eye. First aid was provided at therig which included flushing the eye between ten and fifteen minutes."									
18:00	MEETING	PRE-TOUR	DAY	PTSM - Cementing, Trapped Pressure, Pinch Points and Body Placement, Nipple Down, Clean Tanks, Location Traffic, Hauling Mud. R2LB - #7 Driving Safety, Core Value - #7 Teamwork									
Jobs													
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status				
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS				
Job Dates (ex. Estimated Pad Release, TXRRC Calls)													
Type			Subtype		Date		Note						
Daily Operations													
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 1,238.5		Target Depth (ftKB)		Daily Field Est Total (Cost) 41,436.00	Cum Field Est To Date (Cost) 645,853.68		
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 1,237.9		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost)	Cum Mud Field Est (Cost) Total AFE + Sup (Cost) 4,068,828.95		
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 0.0			Daily Goal - Next 24 0.0			Goal Comments Goal Met				
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB				Next Casing String PROPOSED INTERMEDIATE, 6,056.0ftKB					
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00			
Operations Summary R/D F/ Giddings EST 4116H													
Operations Next Report Period Move rig F/ Giddings EST 4116H T/ University 3-15C 103H													
Operations at Report Time Moving rig F/ Giddings EST 4116H T/ University 3-15C 103H													
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 0%; Curve: 0%; Lateral 0%													
Time Log													
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com				Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
18:00	12	06:00	MOB, MOVE	RD RDMO	NORMAL	- R/D Backyard, (Mud pits, shaker skid, gas buster, choke manifold, mud pumps, hopper skid, parts house, VFD house, Gen. package, cricket leg, etc...) R/D Living quarters, meeting room, transformers, etc...				1,238.5	1,238.0		
Hydraulic Calculations													
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)			
Mud Checks													
Time		Mud Company			Type	Depth (ftKB)		Density (lb/gal)	Funnel Viscosity (s/qt)	T Flowline (°F)			
PV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)				
Solids (%)		Low Gravity Solids (%)			Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		PI (mL/mL)		
Chlorides (ppm)		Calcium (ppm)		CaCl (ppm)	Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)		pH		
Gel 10 sec (lb/100ft²)				Gel 10 min (lb/100ft²)				Gel 30 min (lb/100ft²)					
Comment													
Last BOP Test													
Date		Test Type			Item Tested		Next Test Date		Com				
Leak Off and Formation Integrity Tests													
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)					
Casing Pressure Test													
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)		
Kick Offs & Key Depths													
Date					Type				Top Depth (ftKB)				
					HEEL								
					TOE								
					KICK OFF								
Casing Strings													
Description	Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade	Wt/Len (lb/ft)		Top Thread	P LeakOff (psi)		
CONDUCTOR	148.5				20		H40	78.67					
SURFACE	1,223.7		1,223.1		13 3/8		J55	54.50		BTC			
Daily Drilling Report													

Daily Drilling Report

Job Supply Amounts									
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
Mud Additive Amounts									
Des		Type	Units	Rec	Consumed	On Loc	Cum Cons		
Pump Operations									
Pump #	Make		Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	BOMCO		F1600	5 1/2	12.00	0.088	5,000.0		
2	BOMCO		F1600	5 1/2	12.00	0.088	5,000.0		
Pump Checks									
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)			
Deviation Surveys									
Date		Description					Job		
		FINAL SURVEY							
Date		Description					Job		
11/5/2018		AS DRILL SURVEY					ODR, 11/4/2018 13:30		
Formations									
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)		
251_0_RSRL			1,402.0		1,331.5				
251_0_SLDO			1,323.0		1,410.5				
255_0_TNSL_TOP_DOL			586.0		2,147.5				
256_0_YATES			515.0		2,218.5				
257_0_SEVEN RIVERS			225.0		2,508.5				
258_0_QUEEN			-445.0		3,178.5				
259_0_GRAYBURG			-1,156.0		3,889.5				
261_0_SAN ANDRES			-1,357.0		4,090.5				
263_0_SAN ANDRES SHALE			-2,431.0		5,164.5				
265_0_CLEARFORK/POP			-3,217.0		5,950.5				
267_0_SPBY_U_A1/267_0_SPBY			-3,989.0		6,722.5				
267_5_SPBY_M_A1			-4,191.0		6,924.5				
268_5_SPBY_L_A1			-4,534.0		7,267.5				
268_6_SPBY_L_B1/JO MILL			-4,834.0		7,567.5				
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE			-4,902.0		7,635.5				
269_0_DEAN			-5,331.0		8,064.5				
270_0_WFMP_A1			-5,503.0		8,236.5				
272_0_WFMP_A2			-5,596.0		8,329.5				
271_0_WFMP_A3			-5,741.0		8,474.5				
275_0_WFMP_B1			-5,833.0		8,566.5				
276_0_WFMP_B2			-5,910.0		8,643.5				
278_0_WFMP_B3			-6,173.0		8,906.5				
WFMP B3 TOT			-6,199.0		8,932.5				
INTENDED LANDING POINT (ILP)			-6,215.0		8,948.5				
Target 1			-6,282.0		9,015.5				
Target 2			-6,282.0		9,015.5				
Target 3			-6,250.0		8,983.5				
Target 4			-6,260.0		8,993.5				
BHL			-6,240.0		8,973.5				
Daily Contacts									
Job Contact		Title	Office	Mobile	Email				
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM				
HARDIN, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM				
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM				
SPACEK, KYLE, ENGINEER		ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM				
PASSMORE, DAVID, FOREMAN		FOREMAN	432-360-4057	318-780-3935	DAVID.PASSMORE@PXD.COM				
SHELTON, GARY, FOREMAN		FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM				
RIG-PATTERSON 807, RIG PHONE		RIG PHONE	361-489-3691	432-257-6394					
Personnel Log									
Company								Count	
PIONEER NATURAL RESOURCES USA INC								2	
PATTERSON-UTI DRILLING COMPANY LLC								14	
PALADIN GEOLOGICAL SERVICES LLC								2	
TRICORPS SECURITY								2	
GYRODATA INC								4	
DWM CONSULTING								2	
AERION RENTAL SERVICES								2	
WEATHERFORD INTERNATIONAL INC								1	
BYRD OILFIELD SERVICES LLC								6	
SUPERIOR ENERGY SERVICES								2	
MAVERICK FIELD SERVICES LLC								2	
TRIFECTA OILFIELD SERVICES LLC								4	
Daily Drilling Report									

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Printed: Friday, November 16, 2018

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: H&P 429 Location: MIDKIFF 1 10H Case#: 38,415 Date: 11-14-18 Classification: Spill/Release Description: Chemical had been delivered to the rig the day before. During a walk around, it was noticed that one of the barrels of Versamod had a hole in it and the barrel had emptied onto the ground. Once spill was found remediation began.											
06:00	MEETING	PRE-TOUR	DAY	PTSM - Cementing, Trapped Pressure, Pinch Points and Body Placement, Nipple Down, Clean Tanks, Location Traffic, Hauling Mud. R2LB - #1 Safe Work Permits , Core Value - #1 Respect											
16:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed man standing between the truck that was spotting house trailer and trailer net to the one being spotted, stopped the job explained to the man that he was standing in a bad spot he needed to stand to the side not in front of the truck because if the man foot slipped off the clutch it could be fatal for him he said he understood											
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: H&P 429 Location: MIDKIFF 1 10H Case#: 38,415 Date: 11-14-18 Classification: Spill/Release Description: Chemical had been delivered to the rig the day before. During a walk around, it was noticed that one of the barrels of Versamod had a hole in it and the barrel had emptied onto the ground. Once spill was found remediation began.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Cementing, Trapped Pressure, Pinch Points and Body Placement, Nipple Down, Clean Tanks, Location Traffic, Hauling Mud. R2LB - #1 Safe Work Permits , Core Value - #1 Respect											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date		Note								
MILESTONE			ESTIMATED PAD RELEASE		11/16/2018		1st Well / 3 Well pad (Revised on 11/16/18)								
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 1,238.5		Target Depth (ftKB)		Daily Field Est Total (Cost) 51,082.74		Cum Field Est To Date (Cost) 798,798.58			
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 1,237.9		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 4,690.74		Cum Mud Field Est (Cost) 4,690.74		Total AFE + Sup (Cost) 4,068,828.95	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 0.0				Goal Comments Goal Met			
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB				Next Casing String PROPOSED INTERMEDIATE, 6,056.0ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00					
Operations Summary Move rig F/ Giddings EST 4116H T/ University 3-15C 103H Spotting Equip R/U same															
Operations Next Report Period Continue T/ Move rig F/ Giddings EST 4116H T/ University 3-15C 103H Rigging up same															
Operations at Report Time Move Rig & R/U F/ Giddings EST 4116H T/ University 3-15C 103H															
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 0%; Curve: 0%; Lateral 0%															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	0.5	06:30	MOB, MOVE	SFTY	NORMAL	PJSM on Rig Move			1,238.0	1,238.0					
06:30	23.5	06:00	MOB, MOVE	RU MIRU	NORMAL	Start loading out rig equip. F/ Giddings Estate 4116H - T/ University 3-15C 103H Spot & R/U Backyard on new location. (Mud pits, mud pumps, shaker skid, gas buster, hopper skid, parts house, VFD house, Gen. package, etc....) R/U Living quarters, meeting room, transformers, etc...			1,238.0	1,238.0					
Hydraulic Calculations															
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)					
Daily Drilling Report															

Daily Drilling Report

Mud Checks

Time 23:15		Mud Company PIONEER DRILLING FLUIDS		Type WATER BASE		Depth (ftKB) 0.0		Density (lb/gal) 0.00		Funnel Viscosity (s/qt) 0		T Flowline (°F)							
PV (cP) 0.0		YP (lb/100ft²) 0.000		Vis 3rpm 0		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)					
Solids (%)				Low Gravity Solids (%)				Sand (%)				MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)			
Chlorides (ppm) 0.000				Calcium (ppm)				CaCl (ppm)		Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)		pH			
Gel 10 sec (lb/100ft²)								Gel 10 min (lb/100ft²)						Gel 30 min (lb/100ft²)					
Comment Begin rigging down and moving rig from XBC Giddings Estate 4116H to University 3-15C 103H																			
Date	Test Type			Item Tested			Next Test Date			Com									
Test Type			Depth (ftKB)			Dens Fluid (lb/gal)													
Test Type		Test Subtype			Date		Item Tested			Failed?		Time (min)		P (psi)					
Date			Type						Top Depth (ftKB)										
			HEEL																
			TOE																
			KICK OFF																
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)												
CONDUCTOR	148.5		20	H40	78.67														
SURFACE	1,223.7	1,223.1	13 3/8	J55	54.50	BTC													
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed											
DIESEL	FUEL	GAL	1,580	0	0	Rig Fuel Transferred from' XBC GIDDINGS ESTATE 4116H'	1,580	0.0											
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons													
ENGINEERING PER MILEAGE	MISCELLANEOUS	PER MILE	200	200	0.0	200													
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	1													
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	1													
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	1													
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	1													
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	1													
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	330													
TRUCKING	MISCELLANEOUS	EA	2,000	2,000	0.0	2,000													
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)													
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0													
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0													
1	BOMCO	F1600	5 1/2	12.00	0.088	500.0													
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0													
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)													
Date	Description FINAL SURVEY	Job																	
Date 11/5/2018	Description AS DRILL SURVEY	Job ODR, 11/4/2018 13:30																	
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)														
251_0_RSRL	1,402.0		1,331.5																
251_0_SLDO	1,323.0		1,410.5																
255_0_TNSL_TOP_DOL	586.0		2,147.5																
256_0_YATES	515.0		2,218.5																
257_0_SEVEN RIVERS	225.0		2,508.5																
258_0_QUEEN	-445.0		3,178.5																
259_0_GRAYBURG	-1,156.0		3,889.5																
261_0_SAN ANDRES	-1,357.0		4,090.5																
263_0_SAN ANDRES SHALE	-2,431.0		5,164.5																
265_0_CLEARFORK/POP	-3,217.0		5,950.5																
267_0_SPBY_U_A1/267_0_SPBY	-3,989.0		6,722.5																
267_5_SPBY_M_A1	-4,191.0		6,924.5																
268_5_SPBY_L_A1	-4,534.0		7,267.5																

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Printed: Saturday, November 17, 2018

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 149.00	Days Since RI: 149.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/17/2018
Report #:	6
DFS:	4
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$51,082.74

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM
HARDIN, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM
PASSMORE, DAVID, FOREMAN	FOREMAN	432-360-4057	318-780-3935	DAVID.PASSMORE@PXD.COM
SHELTON, GARY, FOREMAN	FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394	

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
AERION RENTAL SERVICES	2
WEATHERFORD INTERNATIONAL INC	1
BYRD OILFIELD SERVICES LLC	6
SUPERIOR ENERGY SERVICES	2
MAVERICK FIELD SERVICES LLC	2
TRIFECTA OILFIELD SERVICES LLC	4

Daily Drilling Report

UNIVERSITY 3-15C 103H				PERMIAN - JV SOUTHERN WOLFCAMP	
				Job:	ODR
				Report Date:	11/18/2018
				Report #:	7
				DFS:	5
				AFE #:	9000912
				Total AFE + Sup:	\$4,068,828.95
				Daily Field Est. (Cost):	\$49,121.74
PATTERSON - UTI #807					
Accept: 11/15/2018		Release:			
Days Since LTI: 150.00		Days Since RI: 150.00			

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM - Location Traffic, Pinch Points and Body Placement, Mentoring N2I's, Overhead and Suspended Loads, LOTO. R2LB - #2 By Passing Safety Critical Equipment, Core Value - #2 Ethics and Honesty						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Completions: Sale Ranch - Two Longstar trucks were backed up parallel to each other pulling flowback water out of two frac tanks. When the outside truck was done he pulled forward and turned sharp to the left to turn around contacting his trailer about halfway down with the front of the inside truck. The truck that got hit was able to move off location but not able to drive on the road. No one was injured.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Location Traffic, Pinch Points and Body Placement, Mentoring N2I's, Overhead and Suspended Loads, LOTO. R2LB - #2 By Passing Safety Critical Equipment, Core Value - #2 Ethics and Honesty						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Completions: Sale Ranch - Two Longstar trucks were backed up parallel to each other pulling flowback water out of two frac tanks. When the outside truck was done he pulled forward and turned sharp to the left to turn around contacting his trailer about halfway down with the front of the inside truck. The truck that got hit was able to move off location but not able to drive on the road. No one was injured.						
01:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed while Standing up P-Tank W/ crane RSTB was helping he was standing between load stopped the job explained to him he was in a bad place if the crane operator was to pick up the load showed him to stand to the side and use tag lines he said he understood						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status		
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		2/14/2019	1st Well / 3 Well pad (Revised on 11/18/18)				
Daily Operations										
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 1,238.5	Target Depth (ftKB)	Daily Field Est Total (Cost) 49,121.74		Cum Field Est To Date (Cost) 847,920.32	
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 1,237.9	Target Depth (TVD) (ftKB)	Daily Mud Field Est (Cost) 2,729.74	Cum Mud Field Est (Cost) 7,420.48	Total AFE + Sup (Cost) 4,068,828.95	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0		Daily Goal - Next 24 0.0		Goal Comments 0.0		
Backbuild		Lateral Inclination	Last Casing String SURFACE, 1,223.7ftKB			Next Casing String PROPOSED INTERMEDIATE, 6,056.0ftKB				
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00	Max Drill Gas 0.00	
Operations Summary Finished R/D on Giddings 4116 and moving equipment to University 3-15C 103H set subs, pin derrick dress out same,										
Operations Next Report Period Raise derick & Sub, R/U remaining equip,										
Operations at Report Time Dressing out derrick										
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 0%; Curve: 0%; Lateral 0%										
Trucks 26, Cranes 4, Tamdium 2. Forklifts 2.										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	0.5	06:30	MOB, MOVE	SFTY	NORMAL	PJSM w/ Patterson, Rig Runner, Trifecta and PNR personel discussing rig move.	1,238.0	1,238.0		
06:30	23.5	06:00	MOB, MOVE	RU MIRU	NORMAL	Finished R/D on Giddings 4116 and moving equipment to University 3-15C 103H.All Equip off Giddings 4116H Location, R/U tanks, Set Subs, Pin derrick Dress out same, Trucks 26, Cranes 4, Tamdium 2. Forklifts 2. 100% Equipt on location 75 % Rigged up	1,238.0	1,238.0		
Hydraulic Calculations										
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)

Daily Drilling Report

Mud Checks

Time 00:00		Mud Company PIONEER DRILLING FLUIDS		Type WATER BASE	Depth (ftKB) 1,174.0	Density (lb/gal) 0.00	Funnel Viscosity (s/qt) 0	T Flowline (°F)
PV (cP) 0.0	YP (lb/100ft²) 0.000	Vis 3rpm 0	Vis 6rpm 0	Filtrate (mL/30min) 0.0	HTHP Filtrate (mL/30min)	HTHP Temperature (°F)		HTHP Pressure (psi)
Solids (%) 0.0		Low Gravity Solids (%) 0.0		Sand (%)	MBT (lb/bbl) 0.0	Pm (mL/mL) 0.000		Pf (mL/mL)
Chlorides (ppm) 0.000	Calcium (ppm) 0.000	CaCl (ppm)	Oil Water Ratio		Electric Stab (V)	Lime (lb/bbl) 0.0	pH 0.0	
Gel 10 sec (lb/100ft²) 0.000				Gel 10 min (lb/100ft²) 0.000		Gel 30 min (lb/100ft²) 0.000		
Comment Recommended Fluids Treatment: No Treatment. Drilling Fluids Activity Last 24 hrs: Rig Move-Cost Report Only. Stood up and set bulk tanks. Ordered remaining sack and bulk material to be delivered tomorrow (11/18/18) evening. Active Fluid: Drilling Parameters: Torque: WOB: RPM: ROP: Differential Pressure: Deviation (angle): Azimuth: Volumes: Pit volume total = bbls Reserve fluids = bbls WBM Frac 1 = bbls WBM Frac 2 = bbls WBM Frac 3 = bbls Premix = bbls OBM Frac 1 = 300 bbls OBM Frac 2 = 275 bbls OBM Frac 3 = 250 bbls OBM Frac 4 = 250 bbls OBM Frac 5 = 275 bbls								

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com

Leak Off and Formation Integrity Tests

Test Type	Depth (ftKB)	Dens Fluid (lb/gal)

Casing Pressure Test

Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
	HEEL	
	TOE	
	KICK OFF	

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	148.5		20	H40	78.67		
SURFACE	1,223.7	1,223.1	13 3/8	J55	54.50	BTC	

Job Supply Amounts

Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed

Mud Additive Amounts

Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
BULK TANK RENTAL	MISCELLANEOUS	EA	8	8	0.0	8
ENGINEERING PER MILEAGE	MISCELLANEOUS	PER MILE	60	60	0.0	260
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	2
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	2
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	2
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	2
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	2
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	660

Pump Operations

Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
1	BOMCO	F1600	5 1/2	12.00	0.088	500.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0

Pump Checks

Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)

Daily Drilling Report

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Printed: Sunday, November 18, 2018

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 150.00	Days Since RI: 150.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/18/2018
Report #:	7
DFS:	5
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$49,121.74

[illegible]

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 151.00 Days Since RI: 151.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/19/2018

Report #: 8

DFS: 6

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$86,641.05

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	H&P 641 - While attempting to load the forklift onto a flatbed trailer, the driver backed up on the ramps and the forklift slide off due to excessive mud on the tires. Operation was stopped and assessed. There were no injuries or property damage.											
06:00	MEETING	PRE-TOUR	DAY	PTSM - Mentoring N2I's, Overhead and Suspended Loads, Location Traffic, N/U BOP's, Pinch Points and Body Placement, LOTO. R2LB - #3 Confined Space Entryt, Core Value - #Safety											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Mentoring N2I's, N/U BOP's, Pinch Points and Body Placement, LOTO. R2LB - #3 Confined Space Entryt, Core Value - #Safety											
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	H&P 641 - While attempting to load the forklift onto a flatbed trailer, the driver backed up on the ramps and the forklift slide off due to excessive mud on the tires. Operation was stopped and assessed. There were no injuries or property damage.											
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed man working in the back yard hooking up hoses he did not have proper impact gloves on stopped him told him he was doing a good job but why didn't he have the proper impact gloves on he said he didn't have any I explained to him the impact glove would help if he was to bump his hand it would serve as a couching got him a pair of the impact gloves he thanked me and continued with his work											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status							
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS							
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype	Date	Note										
MILESTONE			ESTIMATED PAD RELEASE	2/15/2018	1st Well / 3 Well pad (Revised on 11/19/18)										
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 1,238.5		Target Depth (ftKB)		Daily Field Est Total (Cost) 86,641.05		Cum Field Est To Date (Cost) 936,145.37			
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 1,237.9		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 5,842.91		Cum Mud Field Est (Cost) 13,263.39		Total AFE + Sup (Cost) 4,068,828.95	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 0.0				Goal Comments 0			
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB				Next Casing String PROPOSED INTERMEDIATE, 6,056.0ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00					
Operations Summary Rigging up Patterson 807, C/O cactus speed head , N/U BOPE, start testing BOPE, BOPE leaking @ mud cross N/D BOPE @ Mud cross															
Operations Next Report Period N/U BOPE @ mud cross, C/O ring gasket, N/U Test BOPE, P/U BHA TIH															
Operations at Report Time N/D BOPE @ mud cross															
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 0%; Curve: 0%; Lateral 0%															
Trucks 26, Cranes 4, Tamdium 2. Forklifts 2.															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #					
06:00	0.25	06:15	MOB, MOVE	SFTY	NORMAL	PJSM w/ Patterson, Rig Runner, Trifecta and PNR personel discussing rig up.	1,238.0	1,238.0							
06:15	9.75	16:00	MOB, MOVE	RU MIRU	NORMAL	R/U Patterson 807 on University 3-15C 103H. Rig movers releaded @ 15:00 HRS, Raise derrick & subs @ 10:00 AM , run flair line, Trucks 26, Cranes 4, Tamdium 2. Forklifts 2. 100% Equipt on location 85 % Rigged up	1,238.0	1,238.0							
16:00	2.25	18:15	MOB, MOVE	NU_BOPE	NORMAL	Removed Cactus Speed Head Adapter from BOPs	1,238.0	1,238.0							
18:15	2.5	20:45	MOB, MOVE	NU_BOPE	NORMAL	N/U BOPE & choke and kill line	1,238.0	1,238.0							
20:45	2.75	23:30	MOB, MOVE	RU MIRU	NORMAL	R/U vibrator hoses t/ rig floor	1,238.0	1,238.0							
23:30	1	00:30	MOB, MOVE	TEST_BOPE	NORMAL	P/U and m/u test plug RIH set same in well head,	1,238.0	1,238.0							
00:30	1	01:30	MOB, MOVE	TEST_BOPE	NORMAL	Fill BOPE w/ water attempt to test found leak on Kill Line Flange	1,238.0	1,238.0							
01:30	1.5	03:00	MOB, MOVE	RIG_RPR	NORMAL	Replace ring gasket in Kill line, Pressured back up on BOPE leaking @ top flange on the mud cross,	1,238.0	1,238.0	1.50	4					
03:00	3	06:00	MOB, MOVE	RIG_RPR	NORMAL	N/D BOPE @ top of mud Cross. Having to N/D w/ hammer wrenches ,Trifecta torque wrench broke got a wrench on the way	1,238.0	1,238.0	3.00	4					
Daily Drilling Report											Page 1/3		Printed: Monday, November 19, 2018		

Daily Drilling Report

Interval Problems										
RIG, 1,238.0ftKB, 11/19/2018 01:30										
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment			
4		No	PRESSURE CONTROL	BOP		PATTERSON-UTI DRILLING COMPANY LLC	BOPE leaking @ top flange on mud cross			
Hydraulic Calculations										
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
Mud Checks										
Time 00:15		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE		Depth (ftKB) 1,174.0	Density (lb/gal) 0.00	Funnel Viscosity (s/qt) 0	T Flowline (°F)
PV (cP) 0.0	YP (lb/100ft²) 0.000	Vis 3rpm 0	Vis 6rpm 0	Filtrate (mL/30min) 0.0	HTHP Filtrate (mL/30min)		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 0.0		Low Gravity Solids (%) 0.0		Sand (%)		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)
Chlorides (ppm) 0.000		Calcium (ppm) 0.000		CaCl (ppm)	Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl) 0.0	pH 0.0
Gel 10 sec (lb/100ft²) 0.000				Gel 10 min (lb/100ft²) 0.000				Gel 30 min (lb/100ft²) 0.000		
Comment Recommended Fluids Treatment: No Treatment. Drilling Fluids Activity Last 24 hrs: Rig Move-Cost Report Only. Rigging Up. Received sack and bulk material. Active Fluid: Drilling Parameters: Torque: WOB: RPM: ROP: Differential Pressure: Deviation (angle): Azimuth: Volumes: Pit volume total = bbls Reserve fluids = bbls WBM Frac 1 = bbls WBM Frac 2 = bbls WBM Frac 3 = bbls Premix = bbls OBM Frac 1 = 300 bbls OBM Frac 2 = 275 bbls OBM Frac 3 = 250 bbls OBM Frac 4 = 250 bbls OBM Frac 5 = 275 bbls										
Last BOP Test										
Date	Test Type			Item Tested		Next Test Date	Com			
Leak Off and Formation Integrity Tests										
Test Type				Depth (ftKB)			Dens Fluid (lb/gal)			
Casing Pressure Test										
Test Type		Test Subtype			Date	Item Tested		Failed?	Time (min)	P (psi)
Kick Offs & Key Depths										
Date				Type			Top Depth (ftKB)			
				HEEL						
				TOE						
				KICK OFF						
Casing Strings										
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)			
CONDUCTOR	148.5		20	H40	78.67					
SURFACE	1,223.7	1,223.1	13 3/8	J55	54.50	BTC				
Job Supply Amounts										
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed	
Mud Additive Amounts										
Des		Type	Units	Rec	Consumed	On Loc	Cum Cons			
BULK TANK RENTAL		MISCELLANEOUS	EA	4	4	0.0	12			
ENGINEERING PER MILEAGE		MISCELLANEOUS	PER MILE	60	60	0.0	320			
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0	3			
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0	3			
OBM TESTING EQUIPMENT		MISCELLANEOUS	DAY	1	1	0.0	3			
PER DIEM		MISCELLANEOUS	DAY	1	1	0.0	3			
PER DIEM		MISCELLANEOUS	DAY	1	1	0.0	3			
TECH SERVICE SUPPORT		MISCELLANEOUS	DAY	330	330	0.0	990			
Daily Drilling Report										

Daily Drilling Report

Mud Additive Amounts						
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
TRUCKING	MISCELLANEOUS	EA	3,213	3,213	0.0	5,213
Pump Operations						
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
1	BOMCO	F1600	5 1/2	12.00	0.088	500.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
Pump Checks						
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)
Deviation Surveys						
Date	Description					Job
	FINAL SURVEY					
Date	Description					Job
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30
Formations						
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
251_0_RSRL	1,402.0		1,331.5			
251_0_SLDO	1,323.0		1,410.5			
255_0_TNSL_TOP_DOL	586.0		2,147.5			
256_0_YATES	515.0		2,218.5			
257_0_SEVEN RIVERS	225.0		2,508.5			
258_0_QUEEN	-445.0		3,178.5			
259_0_GRAYBURG	-1,156.0		3,889.5			
261_0_SAN ANDRES	-1,357.0		4,090.5			
263_0_SAN ANDRES SHALE	-2,431.0		5,164.5			
265_0_CLEARFORK/POP	-3,217.0		5,950.5			
267_0_SPBY_U_A1/267_0_SPBY	-3,989.0		6,722.5			
267_5_SPBY_M_A1	-4,191.0		6,924.5			
268_5_SPBY_L_A1	-4,534.0		7,267.5			
268_6_SPBY_L_B1/JO MILL	-4,834.0		7,567.5			
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-4,902.0		7,635.5			
269_0_DEAN	-5,331.0		8,064.5			
270_0_WFMP_A1	-5,503.0		8,236.5			
272_0_WFMP_A2	-5,596.0		8,329.5			
271_0_WFMP_A3	-5,741.0		8,474.5			
275_0_WFMP_B1	-5,833.0		8,566.5			
276_0_WFMP_B2	-5,910.0		8,643.5			
278_0_WFMP_B3	-6,173.0		8,906.5			
WFMP B3 TOT	-6,199.0		8,932.5			
INTENDED LANDING POINT (ILP)	-6,215.0		8,948.5			
Target 1	-6,282.0		9,015.5			
Target 2	-6,282.0		9,015.5			
Target 3	-6,250.0		8,983.5			
Target 4	-6,260.0		8,993.5			
BHL	-6,240.0		8,973.5			
Daily Contacts						
Job Contact	Title	Office	Mobile	Email		
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM		
HARDIN, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM		
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM		
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM		
PASSMORE, DAVID, FOREMAN	FOREMAN	432-360-4057	318-780-3935	DAVID.PASSMORE@PXD.COM		
SHELTON, GARY, FOREMAN	FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM		
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394			
Personnel Log						
Company					Count	
PIONEER NATURAL RESOURCES USA INC					2	
PATTERSON-UTI DRILLING COMPANY LLC					14	
PALADIN GEOLOGICAL SERVICES LLC					2	
TRICORPS SECURITY					2	
GYRODATA INC					4	
DWM CONSULTING					2	
AERION RENTAL SERVICES					2	
WEATHERFORD INTERNATIONAL INC					1	
BYRD OILFIELD SERVICES LLC					6	
SUPERIOR ENERGY SERVICES					2	
MAVERICK FIELD SERVICES LLC					2	
TRIFECTA OILFIELD SERVICES LLC					4	
Daily Drilling Report			Page 3/3		Printed: Monday, November 19, 2018	

Daily Drilling Report

P/U/WI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)						
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks												
Time	Type	Des	Tour	Com								
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	H&P 638 - While drilling the intermediate 2 section. The 12" PVC discharge cutting line running from the trough to the reserve pit stopped up. When doing so 10 barrels of brine water spilled onto the ground. Operations was stopped, the line and trough cleaned out, and operations resumed.								
06:00	MEETING	PRE-TOUR	DAY	PTSM - N/U and Test BOPs, Finish RU, Manlift Operation, Forklift Operation, PPE. R2LB - #4 Energy Isolation, Core Value - #4 Personal Accountability								
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	H&P 638 - While drilling the intermediate 2 section. The 12" PVC discharge cutting line running from the trough to the reserve pit stopped up. When doing so 10 barrels of brine water spilled onto the ground. Operations was stopped, the line and trough cleaned out, and operations resumed.								
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Finish RU, Forklift Operation, PPE, P/U BHA, TIH, Drill Out. R2LB - #4 Energy Isolation, Core Value - #4 Personal Accountability								
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed hand had his hands on the threads when trying to stab collar on stump M/U BHA. The job was stopped and talked to RTM about not putting his hands on the threads while making up pipe & also talked to him about watching out for pinch points. He understood								
Jobs												
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)												
Type			Subtype		Date		Note					
MILESTONE			ESTIMATED PAD RELEASE		2/15/2018		1st Well / 3 Well pad (Revised on 11/19/18)					
Daily Operations												
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 1,238.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 72,511.30	Cum Field Est To Date (Cost) 1,008,656.67	
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 1,237.4		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 4,210.30	Cum Mud Field Est (Cost) 17,473.69	Total AFE + Sup (Cost) 4,068,828.95
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0			Daily Goal - Next 24 800.0			Goal Comments Goal Met		
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB					Next Casing String PROPOSED INTERMEDIATE, 6,056.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00			Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00	
Operations Summary N/D Bope @ Mud cross C/O ring gasket N/U same, test bope ,C/O saver sub & swivel packing Directional P/U BHA												
Operations Next Report Period TIH drill out F/E & 10' new hole , perform FIT, Drill INT hole												
Operations at Report Time Picking up BHA												
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 0%; Curve: 0%; Lateral 0%												
Time Log												
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	5.5	11:30	MOB, MOVE	RIG_RPR	NORMAL	N/D BOPE @ top of mud Cross. Nuts were seized on and difficult to remove, Then the spool was stuck on the studs from not being removed for a long period of time. Inspected ring grooves for damage. They were ok. Installed ring gasket and re-installed Mud Cross. ? Choke and Standpipe to pumps tested off line.			1,238.0	1,238.0	5.50	4
11:30	2.5	14:00	MOB, MOVE	NU_BOPE	NORMAL	N/U BOP.			1,238.0	1,238.0	2.50	4
14:00	5.25	19:15	MOB, MOVE	TEST_BOPE	NORMAL	Test Rams and related valves to 250 / 5000 psi. Annular Preventer tested to 250 / 3500 psi. & pull test plug			1,238.0	1,238.0		
19:15	1	20:15	MOB, MOVE	RIG_RPR	NORMAL	Attempt T/ C/O savor sub on Top drive, Top drive Rotating on it own repair same			1,238.0	1,238.0	1.00	5
20:15	0.25	20:30	MOB, MOVE	SFTY	NORMAL	PJSM on C/O swivel packing & saver sub			1,238.0	1,238.0		
20:30	2.75	23:15	INT, PRE DRL	RIG_RPR	NORMAL	C/O swivel packing & saver sub			1,238.0	1,238.0		
23:15	1	00:15	INT, PRE DRL	TEST_BOPE	NORMAL	Pressure test Top drive and kelly hose back to stand pipe			1,238.0	1,238.0		
00:15	0.5	00:45	INT, PRE DRL	RU MIRU	NORMAL	R/U drill floor and handling tools			1,238.0	1,238.0		
00:45	0.5	01:15	INT, PRE DRL	WRBSH	NORMAL	Installed wear bushing and closed casing valve.			1,238.0	1,238.0		
01:15	1.25	02:30	INT, PRE DRL	SFTY	NORMAL	Pre spud check list, mud pumps would not cut on trouble shooting same			1,238.0	1,238.0		
02:30	0.25	02:45	INT, PRE DRL	RU MIRU	NORMAL	Recalibrate Block Hight			1,238.0	1,238.0		
Daily Drilling Report												
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Printed: Tuesday, November 20, 2018												

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018Release: Days Since LTI: 152.00Days Since RI: 152.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/20/2018

Report #: 9

DFS: 7

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$72,511.30

Time Log																			
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com					Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #					
02:45	0.25	03:00	INT, PRE DRL	SFTY	NORMAL	PJSM on P/U BHA					1,238.0	1,238.0							
03:00	3	06:00	INT, PRE DRL	PU_ DIR	NORMAL	P/U Directional BHA scribe & load MWD M/U BIT (Note)WhileTrouble shooting Mud Pumps Pumps still down					1,238.0	1,238.0							
Interval Problems																			
RIG, 1,238.0ftKB, 11/19/2018 01:30																			
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party					Comment								
4	12.50	No	PRESSURE CONTROL	BOP		PATTERSON-UTI DRILLING COMPANY LLC					BOPE leaking @ top flange on mud cross								
RIG, 1,238.0ftKB, 11/19/2018 19:15																			
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party					Comment								
5	1.00	No	ROTARY SYSTEM	TOP DRIVE		PATTERSON-UTI DRILLING COMPANY LLC					Top drive turning on it own repair same								
RIG, 1,238.0ftKB, 11/19/2018 20:15																			
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party					Comment								
6	2.25	Yes	DRILL STRING	SUBS		PATTERSON-UTI DRILLING COMPANY LLC					C/O swivel Packing and saver sub								
Drill Strings																			
BHA #2 , INTERMEDIATE																			
Bit Run				Drill Bit					Bit Type			Make							
2				12 1/4in, SPL616, 43786					PDC			ULTERRA							
Nozzles (1/32")				Bit Total Fluid Area (nozzles) (in²)			IADC Bit Dull			Hours Drilled By Bit (hr)			Depth Drilled By Bit (ft)						
11/11/11/11/11/10/10/10/10				0.77			-----												
BHA Drilling Time (hr)				BHA Depth Drilled (ft)			BHA ROP (ft/hr)			Depth In (ftKB)			Depth Out (ftKB)						
										1,238.0			1,238.0						
Drill String Components																			
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make								
9	DRILL PIPE				5	3.00	306.87	1,238.00	5,984.0	19									
11	HWDP				5	3.00	337.36	931.13	6,497.6	13	OTHER (PROVIDE DESCRIPTION)								
1	DRILLING JARS - HYDRAULIC				6 5/8	2.75	32.60	593.77		7	WEATHERFORD								
6	HWDP				5	3.00	182.84	561.17	6,759.6	7	OTHER (PROVIDE DESCRIPTION)								
1	SUB - XO				6 3/4	2.88	3.51	378.33		0	STABIL DRILL								
6	DRILL COLLAR				8	2.63	273.94	374.82		0	OTHER (PROVIDE DESCRIPTION)								
1	DRILL COLLAR - NON MAG				8 1/8	3.25	30.87	100.88		0	STABIL DRILL								
1	SUB (OTHER)				8 3/8	3.75	3.17	70.01		0	GYRODATA								
1	Drill Collar - Non Mag				8 1/8	3.25	28.10	66.84		0	Stabil Drill								
1	STABILIZER				8	2.75	8.00	38.74		0	STABIL DRILL								
1	Motor - Slick Sleeve				8	2.00	28.94	30.74		0	Gyrodata								
Mud Motors																			
SN		Bend Angle			Bearing Type		Lobe Config		# Stages		Lwr DefIn Type		Bit To Bend						
GDM800079		1.83			NOT SEALED		7:8		4				6.1						
Sensors																			
Sensor Type				Sensor-Bit (ft)					Note										
GAMMA				47.00															
DIRECTIONAL				58.00															
Drilling Parameters																			
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)		
03:00	06:00	1,238.0	0.00		0	0	0.0	0	0.0	0.0	150	150	150	150	0.0	0.0	0		
Hydraulic Calculations																			
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
8.40												0.0		0.0					

Daily Drilling Report

Mud Checks

Time

00:15

Mud Company

PIONEER DRILLING FLUIDS

Type

WATER BASE

Depth (ftKB)

1,238.0

Density (lb/gal)

8.40

Funnel Viscosity (s/qt)

27

T Flowline (°F)

PV (cP)

0.0

YP (lb/100ft²)

0.000

Vis 3rpm

0

Vis 6rpm

0

Filtrate (mL/30min)

0.0

HTHP Filtrate (mL/30min)

HTHP Temperature (°F)

250.0

HTHP Pressure (psi)

500.0

Solids (%)

0.0

Low Gravity Solids (%)

0.0

Sand (%)

MBT (lb/bbl)

0.0

Pm (mL/mL)

0.000

Pf (mL/mL)

Chlorides (ppm)

0.000

Calcium (ppm)

0.000

CaCl (ppm)

Oil Water Ratio

Electric Stab (V)

Lime (lb/bbl)

0.0

pH

0.0

Gel 10 sec (lb/100ft²)

0.000

Gel 10 min (lb/100ft²)

0.000

Gel 30 min (lb/100ft²)

0.000

Comment

Recommended Fluids Treatment:

Once Rigged up and drilling allow MW to increase to 10.0ppg through salt beds. Maintain with reserve pit water/fresh water additions. Pump Soap Sticks/SAPP Sticks and PHPA, also Mix 5-10 gallons Drilling Detergent every connection to 3200-3500 ft. Pump 30-40 bbls High Vis sweeps (50-70 sec/qt) every other connection or as directed.

Drilling Fluids Activity Last 24 hrs:

Continue rigging up. Working on pumps and getting all lines connected from frac tanks to pits. Once completed will start mixing and filling frac tanks with Lig/PAC/Gel mud. Testing Desander, Desilter, and Degasser to assess operational performance and identify any repairs/parts needed at time of report.

Active Fluid: Water

Drilling Parameters:

Torque:

WOB:

RPM:

ROP:

Differential Pressure:

Deviation (angle):

Azimuth:

Volumes:

Pit volume total = 455 bbls

Reserve fluids = bbls

WBM Frac 1 = bbls

WBM Frac 2 = bbls

WBM Frac 3 = bbls

Premix = bbls

OBM Frac 1 = 300 bbls

OBM Frac 2 = 275 bbls

OBM Frac 3 = 250 bbls

OBM Frac 4 = 250 bbls

OBM Frac 5 = 275 bbls

Last BOP Test

Date

11/20/2018

Test Type

BOP

Item Tested

BOP'S, 11/19/2018 00:30, <class>

Next Test Date

12/11/2018

Com

Tested BOPE 250 /5000

Leak Off and Formation Integrity Tests

Test Type

Depth (ftKB)

Dens Fluid (lb/gal)

Casing Pressure Test

Test Type

Test Subtype

Date

Item Tested

Failed?

Time (min)

P (psi)

Kick Offs & Key Depths

Date

Type

HEEL

Top Depth (ftKB)

Date

Type

TOE

Top Depth (ftKB)

Date

Type

KICK OFF

Top Depth (ftKB)

Casing Strings

Description

CONDUCTOR

Set Depth (ftKB)

148.5

Set Depth (TVD) (ftKB)

OD (in)

20

Grade

H40

Wt/Len (lb/ft)

78.67

Top Thread

P LeakOff (psi)

Description

SURFACE

Set Depth (ftKB)

1,223.7

Set Depth (TVD) (ftKB)

1,223.1

OD (in)

13 3/8

Grade

J55

Wt/Len (lb/ft)

54.50

Top Thread

BTC

P LeakOff (psi)

Job Supply Amounts

Supply Item Des

Type

Unit Label

Received

Consumed

Returned

Note

Cum On Loc

Cum Consumed

DIESEL

FUEL

GAL

7,225

992

0

7,813

992.0

DIESEL

MUD

GAL

0

0

0

Mud diesel

0

0.0

WATER

FRESH

BBL

0

0

0

water meter bbl15.46 bbl

0

0.0

Mud Additive Amounts

Des

Type

Units

Rec

Consumed

On Loc

Cum Cons

BULK TANK RENTAL

MISCELLANEOUS

EA

4

4

0.0

16

ENGINEERING SERVICE

MISCELLANEOUS

DAY

1

1

0.0

4

ENGINEERING SERVICE

MISCELLANEOUS

DAY

1

1

0.0

4

OBM TESTING EQUIPMENT

MISCELLANEOUS

DAY

1

1

0.0

4

PER DIEM

MISCELLANEOUS

DAY

1

1

0.0

4

PER DIEM

MISCELLANEOUS

DAY

1

1

0.0

4

TECH SERVICE SUPPORT

MISCELLANEOUS

DAY

330

330

0.0

1,320

TRUCKING

MISCELLANEOUS

EA

1,650

1,650

0.0

6,863

Pump Operations

Pump #

Make

Model

Liner Size (in)

Stroke (in)

Vol/Stk (bbl/stk)

P Max (psi)

1

BOMCO

F1600

5 1/2

12.00

0.088

5,000.0

2

BOMCO

F1600

5 1/2

12.00

0.088

5,000.0

Daily Drilling Report

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Printed: Tuesday, November 20, 2018

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 152.00	Days Since RI: 152.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/20/2018
Report #:	9
DFS:	7
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$72,511.30

Daily Drilling Report Page 4/4 Printed: Tuesday, November 20, 2018

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM - P/U BHA, Pinch Points and Body Placement, PPE, Buffer Zones, P/U Drill Pipe. R2LB - #5 Fall or Elevated Work Safety, Core Value - #5 Entrepreneurship											
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	H&P 487 - While cementing, the cement operator overflowed 1 barrel of water based mud from a tank on the pump truck onto location.											
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	H&P 487 - While cementing, the cement operator overflowed 1 barrel of water based mud from a tank on the pump truck onto location.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Pinch Points and Body Placement, PPE, Buffer Zones, P/U Drill Pipe w/ Single Latch Elevators in Mouse Hole. R2LB - #5 Fall or Elevated Work Safety, Core Value - #5 Entrepreneurship											
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed man lifting hoses on the rig floor he was by him self, stop him told him he was doing a good job but the hoses was too heavy for him to be handling by his self he could strain him self he agreed and got help											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status							
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS							
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date	Note									
MILESTONE			ESTIMATED PAD RELEASE		2/15/2018	1st Well / 3 Well pad (Revised on 11/19/18)									
Daily Operations															
Footage/Meterage (ft) 353.00		Drilling Hours (hr) 6.00		% Rotating Time (%) 91.67		End Depth (ftKB) 1,587.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 101,895.28		Cum Field Est To Date (Cost) 1,110,551.95			
24 HR ROP (ft/hr) 58.8		Circulating Hours (hr)		% Sliding Time (%) 8.33		End Depth (TVD) (ftKB) 1,585.9		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 6,622.98		Cum Mud Field Est (Cost) 24,096.67		Total AFE + Sup (Cost) 4,068,828.95	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 800.0				Daily Goal - Next 24 1,000.0				Goal Comments Goal not met due to NPT on mud pumps			
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB				Next Casing String PROPOSED INTERMEDIATE, 6,056.0ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 8.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 9.00					
Operations Summary P/U and GIH w/ BHA, fix Mud pump, Drill F/E & 10' new hole Performed FIT, Drill INT Hole F/ 1244' T/ 1587'															
Operations Next Report Period Drill INT Hole F/ 1587' t/ 2587'															
Operations at Report Time Drill INT Hole @ 1587'															
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 7%; Curve: 0%; Lateral 0%															
Last Survey : MD1493 , inc 3.33, az 65.16,															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #				
06:00	5	11:00	INT, PRE DRL	PU_BHA	NORMAL	P/U 9 - 8" drill collars, 17 HWDP and Jars t- 931'		1,238.0	1,238.0						
11:00	0.25	11:15	INT, PRE DRL	PU_DP	NORMAL	Strap drill pipe		1,238.0	1,238.0						
11:15	0.5	11:45	INT, PRE DRL	PU_DP	NORMAL	P/U drill pipe f- 931' t- 1118' ? Just above float collar		1,238.0	1,238.0						
11:45	0.5	12:15	INT, PRE DRL	RIG_SVC	NORMAL	Serviced rig		1,238.0	1,238.0						
12:15	7.5	19:45	INT, PRE DRL	RIG_RPR	NORMAL	Troubleshoot and repair control issues with mud pumps, Function Both pumps (ok)		1,238.0	1,238.0	7.50	7				
19:45	1.25	21:00	INT, PRE DRL	3RD_PTY	NORMAL	Pason depth Not tracking, Pason hand fix same		1,238.0	1,238.0	1.25	8				
21:00	2	23:00	INT, PRE DRL	DRL_OUT	NORMAL	Drill Float Equip F/ 1179' t/ 1234' & 10' new hole t/ 1244' WOB: 10, RPM: 30, SPP: 750, DIFF: 150, GPM: 450, TQ: 2-4, 100% Returns.		1,238.0	1,244.0						
23:00	0.5	23:30	INT, PRE DRL	CIRC	NORMAL	Circ B/U Prior T/ FIT		1,244.0	1,244.0						
23:30	0.5	00:00	INT, PRE DRL	FIT	NORMAL	FIT to 12.5 ppg EMW W/ test MW 8.4 ppg & 265 psi Good Test		1,244.0	1,244.0						
00:00	6	06:00	INT, DRL	DRL	NORMAL	Drill INT section F/ 1244' T/ 1587' (343'@ 57' fph) 100% Returns. WOB:20-25, RPM:70; SPP:1100, DIFF: 300, GPM:450, TQ: 4-6k.		1,244.0	1,587.0						
Interval Problems															
RIG, 1,238.0ftKB, 11/20/2018 12:15															
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party		Comment							
7	7.50	No	CIRCULATING SYSTEM	MUD PUMPS		PATTERSON-UTI DRILLING COMPANY LLC		Mud pumps will not run showing faults							
Daily Drilling Report															

UNIVERSITY 3-15C 103H	
PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 153.00	Days Since RI: 153.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/21/2018
Report #:	10
DFS:	8
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$101,895.28

Interval Problems																	
3RD PARTY, 1,238.0ftKB, 11/20/2018 19:45																	
Ref #	Dur (N....)	Ex....	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment										
8	1.25	No	RECORDING DEVICES	COMMUNICA TION		PASON SYSTEMS USA CORP	Pason no tracking depth data encoder was out of callibration Pason guy fixed it										
Drill Strings																	
BHA #2 , INTERMEDIATE																	
Bit Run 2			Drill Bit 12 1/4in, SPL616, 43786			Bit Type PDC		Make ULTERRA									
Nozzles (1/32") 11/11/11/11/11/10/10/10			Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 6.00		Depth Drilled By Bit (ft) 353.00								
BHA Drilling Time (hr) 6.00			BHA Depth Drilled (ft) 353.00		BHA ROP (ft/hr) 58.8		Depth In (ftKB) 1,234.0		Depth Out (ftKB) 1,587.0								
Drill String Components																	
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make							
20	DRILL PIPE			5	3.00	655.87	1,587.00	12,789.5	26								
11	HWDP			5	3.00	337.36	931.13	6,497.6	13	OTHER (PROVIDE DESCRIPTION)							
1	DRILLING JARS - HYDRAULIC			6 5/8	2.75	32.60	593.77		7	WEATHERFORD							
6	HWDP			5	3.00	182.84	561.17	6,759.6	7	OTHER (PROVIDE DESCRIPTION)							
1	SUB - XO			6 3/4	2.88	3.51	378.33		0	STABIL DRILL							
6	DRILL COLLAR			8	2.63	273.94	374.82		0	OTHER (PROVIDE DESCRIPTION)							
1	DRILL COLLAR - NON MAG			8 1/8	3.25	30.87	100.88		0	STABIL DRILL							
1	SUB (OTHER)			8 3/8	3.75	3.17	70.01		0	GYRODATA							
1	Drill Collar - Non Mag			8 1/8	3.25	28.10	66.84		0	Stabil Drill							
1	STABILIZER			8	2.75	8.00	38.74		0	STABIL DRILL							
1	Motor - Slick Sleeve			8	2.00	28.94	30.74		0	Gyrodata							
Mud Motors																	
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defln Type	Bit To Bend						
GDM800079		1.83		NOT SEALED		7:8		4			6.1						
Sensors																	
Sensor Type			Sensor-Bit (ft)			Note											
GAMMA			47.00														
DIRECTIONAL			58.00														
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
00:00	03:30	1,234.0	165.00	47.1	19	70	300.0	450	1,100.0	98.0	125	127	125	125	4,500.0	2,000.0	0
03:30	04:00	1,399.0	20.00	40.0	18	0	175.0	450	1,050.0	50.0	125	127	125	125	0.0	0.0	30
04:00	06:00	1,419.0	168.00	84.0	20	70	300.0	450	1,100.0	120.0	125	127	125	125	4,500.0	2,000.0	0
Hydraulic Calculations																	
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)							
8.40	8.49	70.1	0.6	187.3	266.9	12.6	138.0	13.20	32.33	155.25							

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 153.00 Days Since RI: 153.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/21/2018

Report #: 10

DFS: 8

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$101,895.28

Mud Checks

Time 00:15		Mud Company PIONEER DRILLING FLUIDS		Type WATER BASE		Depth (ftKB) 1,244.0		Density (lb/gal) 8.40		Funnel Viscosity (s/qt) 27		T Flowline (°F)					
PV (cP) 0.0		YP (lb/100ft²) 0.000		Vis 3rpm 0		Vis 6rpm 0		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0			
Solids (%) 0.0				Low Gravity Solids (%) 0.0				Sand (%) 0.0				MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)	
Chlorides (ppm) 600.000				Calcium (ppm) 400.000				CaCl (ppm)		Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl) 0.0		pH 8.7	
Gel 10 sec (lb/100ft²) 0.000								Gel 10 min (lb/100ft²) 0.000				Gel 30 min (lb/100ft²) 0.000					
Comment Recommended Fluids Treatment: Allow MW to increase to 10.0ppg through salt beds. Maintain with reserve pit water/fresh water additions. Pump Soap Sticks/SAPP Sticks and PHPA, also Mix 5-10 gallons Drilling Detergent every connection to 3200-3500 ft. Pump 30-40 bbls High Vis sweeps (50-70 sec/qt) every other connection or as directed. Drilling Fluids Activity Last 24 hrs: Filled frac tanks and pre mix with 1650 bbls of Lig/PAC/Gel mud. Active Fluid: WBM Drilling Parameters: Torque: 3 ft/lbs WOB: 18 kLBS RPM: 70 rpm ROP: 87 ft/hr Differential Pressure: 179 psi Deviation (angle): Azimuth: Volumes: Pit volume total = 569 bbls Reserve fluids = 1650 bbls WBM Frac 1 = 450 bbls WBM Frac 2 = 450 bbls WBM Frac 3 = 450 bbls Premix = 300 bbls OBM Frac 1 = 300 bbls OBM Frac 2 = 275 bbls OBM Frac 3 = 250 bbls OBM Frac 4 = 250 bbls OBM Frac 5 = 275 bbls																	
Last BOP Test																	
Date		Test Type				Item Tested				Next Test Date		Com					
11/20/2018		BOP				BOP'S, 11/19/2018 00:30, <class>				12/11/2018		Tested BOPE 250 /5000					
Leak Off and Formation Integrity Tests																	
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)									
PLANNED FIT				1,244.0				12.75									
Casing Pressure Test																	
Test Type		Test Subtype				Date		Item Tested				Failed?		Time (min)		P (psi)	
CASING		STANDARD				11/8/2018		SURFACE, 1,223.7ftKB				No		30.00		1,000.0	
Kick Offs & Key Depths																	
Date				Type				Top Depth (ftKB)									
				HEEL													
				TOE													
				KICK OFF													
Casing Strings																	
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)			
CONDUCTOR		148.5				20		H40		78.67							
SURFACE		1,223.7		1,223.1		13 3/8		J55		54.50		BTC		823.6			
Job Supply Amounts																	
Supply Item Des		Type		Unit Label		Received		Consumed		Returned		Note		Cum On Loc		Cum Consumed	
DIESEL		FUEL		GAL		4,883		493		0		Rig Diesel		12,203		1,485.0	
DIESEL		FUEL		GAL		2,594		0		0		Rig Reserve small frac tank		2,594		0.0	
WATER		FRESH		BBL		7,600		7,600		0		water meter bbl 68776		0		7,600.0	
Mud Additive Amounts																	
Des		Type		Units		Rec		Consumed		On Loc		Cum Cons					
BULK TANK RENTAL		MISCELLANEOUS		EA		4		4		0.0		20					
DEFOAMER		DEFOAMER		CAN				13		51.0		13					
ENGINEERING SERVICE		MISCELLANEOUS		DAY		1		1		0.0		5					
ENGINEERING SERVICE		MISCELLANEOUS		DAY		1		1		0.0		5					
LIGNITE		DISPERSANTS/T HINNER		SACK		200		150		200.0		150					
OBM TESTING EQUIPMENT		MISCELLANEOUS		DAY		1		1		0.0		5					
PAC LV		FLUID LOSS ADDITIVES		SACK				18		102.0		18					
PER DIEM		MISCELLANEOUS		DAY		1		1		0.0		5					
PER DIEM		MISCELLANEOUS		DAY		1		1		0.0		5					
SODA ASH		ALKALINITY CONTROL		SACK				10		190.0		10					
TECH SERVICE SUPPORT		MISCELLANEOUS		DAY		330		330		0.0		1,650					
Daily Drilling Report																	

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Printed: Wednesday, November 21, 2018

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018	Release:
Days Since LTI: 153.00	Days Since RI: 153.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/21/2018
Report #:	10
DFS:	8
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$101,895.28

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
TRUCKING	MISCELLANEOUS	EA	577	577	0.0	7,440	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
1	BOMCO	F1600	5 1/2	12.00	0.088	500.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
Deviation Surveys							
Date	Description				Job		
	FINAL SURVEY						
Date	Description				Job		
11/5/2018	AS DRILL SURVEY				ODR, 11/4/2018 13:30		
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
1,243.50	2.68	87.76	1,242.89	-2.07	1.47	28.41	0.40
1,279.00	2.55	90.84	1,278.35	-2.13	1.49	30.03	0.54
1,341.00	2.52	90.55	1,340.29	-2.15	1.46	32.77	0.05
1,435.00	3.33	65.16	1,434.17	-3.37	2.59	37.32	1.60
Formations							
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)		
255_0_TNSL_TOP_DOL	586.0		2,147.5				
256_0_YATES	515.0		2,218.5				
257_0_SEVEN RIVERS	225.0		2,508.5				
258_0_QUEEN	-445.0		3,178.5				
259_0_GRAYBURG	-1,156.0		3,889.5				
261_0_SAN ANDRES	-1,357.0		4,090.5				
263_0_SAN ANDRES SHALE	-2,431.0		5,164.5				
265_0_CLEARFORK/POP	-3,217.0		5,950.5				
267_0_SPBY_U_A1/267_0_SPBY	-3,989.0		6,722.5				
267_5_SPBY_M_A1	-4,191.0		6,924.5				
268_5_SPBY_L_A1	-4,534.0		7,267.5				
268_6_SPBY_L_B1/JO MILL	-4,834.0		7,567.5				
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-4,902.0		7,635.5				
269_0_DEAN	-5,331.0		8,064.5				
270_0_WFMP_A1	-5,503.0		8,236.5				
272_0_WFMP_A2	-5,596.0		8,329.5				
271_0_WFMP_A3	-5,741.0		8,474.5				
275_0_WFMP_B1	-5,833.0		8,566.5				
276_0_WFMP_B2	-5,910.0		8,643.5				
278_0_WFMP_B3	-6,173.0		8,906.5				
WFMP B3 TOT	-6,199.0		8,932.5				
INTENDED LANDING POINT (ILP)	-6,215.0		8,948.5				
Target 1	-6,282.0		9,015.5				
Target 2	-6,282.0		9,015.5				
Target 3	-6,250.0		8,983.5				
Target 4	-6,260.0		8,993.5				
BHL	-6,240.0		8,973.5				
Daily Contacts							
Job Contact	Title	Office	Mobile	Email			
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM			
HARDIN, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM			
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM			
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM			
PASSMORE, DAVID, FOREMAN	FOREMAN	432-360-4057	318-780-3935	DAVID.PASSMORE@PXD.COM			
SHELTON, GARY, FOREMAN	FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM			
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394				
Personnel Log							
Company				Count			
PIONEER NATURAL RESOURCES USA INC				2			
PATTERSON-UTI DRILLING COMPANY LLC				14			
PALADIN GEOLOGICAL SERVICES LLC				2			
TRICORPS SECURITY				2			
GYRODATA INC				4			
DWM CONSULTING				2			
TRIFECTA OILFIELD SERVICES LLC				4			
Daily Drilling Report							

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Printed: Wednesday, November 21, 2018

Daily Drilling Report

P/I/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date							
Safety Checks															
Time	Type	Des		Tour	Com										
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		DAY	H&P 429 - Contractor was backing trailer to frac tank to unload fresh water for camp. Contractor had a spotter and proceeded to back up. As contractor was backing up the trailer came into contact with a bumper of a personal vehicle of another contractor. Driver stopped and reported incident immediately.										
06:00	MEETING	PRE-TOUR		DAY	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #6 Excavation & Tranching, Core Value - #6 Communication										
18:00	MEETING	PRE-TOUR		NIGHT	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #6 Excavation & Tranching, Core Value - #6 Communication										
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		NIGHT	H&P 429 - Contractor was backing trailer to frac tank to unload fresh water for camp. Contractor had a spotter and proceeded to back up. As contractor was backing up the trailer came into contact with a bumper of a personal vehicle of another contractor. Driver stopped and reported incident immediately.										
18:15	PROACTIVE MEASURES	STOP CARD - PNR		NIGHT	Observed Man helping get pipe on the pipe rack with the forklift, he was between the pipe on the forklift and the cat walk , stopped the job told him he was doing a good job but why was he in between the pipe and the cat walk he was pinning a arm on the cat walk, explained to him not to get between any loads being transfer he could get smashed he under stood had the forklift back up away then finished pinning the arm.										
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type				Subtype		Date		Note							
MILESTONE				ESTIMATED PAD RELEASE		2/17/2019		1st Well / 3 Well pad (Revised on 11/22/18)							
Daily Operations															
Footage/Meterage (ft) 1,872.00		Drilling Hours (hr) 23.25		% Rotating Time (%) 83.15		End Depth (ftKB) 3,459.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 142,553.39		Cum Field Est To Date (Cost) 1,314,017.34			
24 HR ROP (ft/hr) 80.5		Circulating Hours (hr) 0.45		% Sliding Time (%) 16.85		End Depth (TVD) (ftKB) 3,409.5		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 12,520.18		Cum Mud Field Est (Cost) 36,616.85		Total AFE + Sup (Cost) 4,068,828.95	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,000.0				Daily Goal - Next 24 1,500.0				Goal Comments Goal Met			
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB						Next Casing String PROPOSED INTERMEDIATE, 6,056.0ftKB					
Avg Connection Gas 9.00		Avg Trip Gas 0.00		Avg Background Gas 9.00		Max Connection Gas 9.00		Max Trip Gas 0.00		Max Drill Gas 10.00					
Operations Summary Drill INT section F/ 1587' T/ 3459'															
Operations Next Report Period Drill INT Hole F/ 3459' T/ 4959'															
Operations at Report Time Drill INT Hole @ 3459'															
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 46%; Curve: 0%; Lateral 0%															
Last Survey : MD: 3365 , inc 11.84, az 65.55, Right 6.41 Above 40															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	15	21:00	INT, DRL	DRL	NORMAL	Drill INT section F/ 1587' T/ 2804' (1217' @ 81 fph) 100% Returns. WOB:20-25, RPM:70; SPP:1100, DIFF: 300, GPM:450, TQ: 4-6k.			1,587.0	2,804.0					
21:00	0.5	21:30	INT, DRL	RIG_SVC	NORMAL	Service Rig			2,804.0	2,804.0					
21:30	3	00:30	INT, DRL	DRL	NORMAL	Drill INT section F/ 2804' T/ 3086' (282' @ 94 fph) 100% Returns. WOB:20-25, RPM:70; SPP:1100, DIFF: 300, GPM:450, TQ: 4-6k.			2,804.0	3,086.0					
00:30	0.25	00:45	INT, DRL	RIG_RPR	NORMAL	C/O swab in #1 mud pump			3,086.0	3,086.0					
00:45	5.25	06:00	INT, DRL	DRL	NORMAL	Drill INT section F/ 3086' T/ 3459' (373' @ 71 fph) 100% Returns. WOB:20-25, RPM:70; SPP:1100, DIFF: 300, GPM:450, TQ: 4-6k.			3,086.0	3,459.0					
Interval Problems															
RIG, 3,086.0ftKB, 11/22/2018 00:30															
Ref #	Dur (N...)	Ex...s	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party		Comment							
9	0.25	Yes	CIRCULATING SYSTEM	MUD PUMPS		PATTERSON-UTI DRILLING COMPANY LLC		C/O swab in # 1 mud pump							
Drill Strings															
BHA #2 , INTERMEDIATE															
Bit Run 2				Drill Bit 12 1/4in, SPL616, 43786				Bit Type PDC		Make ULTERRA					
Nozzles (1/32") 11/11/11/11/11/10/10/10/10				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 29.25		Depth Drilled By Bit (ft) 2,225.00					
BHA Drilling Time (hr) 29.25				BHA Depth Drilled (ft) 2,225.00		BHA ROP (ft/hr) 76.1		Depth In (ftKB) 1,234.0		Depth Out (ftKB) 3,459.0					
Daily Drilling Report															

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Printed: Thursday, November 22, 2018

Daily Drilling Report

PATTERSON - UTI #807

Release:

Days Since RI: 154.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/22/2018
Report #:	11
DFS:	9
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$142,553.39

Drill String Components																	
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make									
80	DRILL PIPE	5	3.00	2,527.87	3,459.00	49,293.5	63										
11	HWDP	5	3.00	337.36	931.13	6,497.6	13	OTHER (PROVIDE DESCRIPTION)									
1	DRILLING JARS - HYDRAULIC	6 5/8	2.75	32.60	593.77		7	WEATHERFORD									
6	HWDP	5	3.00	182.84	561.17	6,759.6	7	OTHER (PROVIDE DESCRIPTION)									
1	SUB - XO	6 3/4	2.88	3.51	378.33		0	STABIL DRILL									
6	DRILL COLLAR	8	2.63	273.94	374.82		0	OTHER (PROVIDE DESCRIPTION)									
1	DRILL COLLAR - NON MAG	8 1/8	3.25	30.87	100.88		0	STABIL DRILL									
1	SUB (OTHER)	8 3/8	3.75	3.17	70.01		0	GYRODATA									
1	Drill Collar - Non Mag	8 1/8	3.25	28.10	66.84		0	Stabil Drill									
1	STABILIZER	8	2.75	8.00	38.74		0	STABIL DRILL									
1	Motor - Slick Sleeve	8	2.00	28.94	30.74		0	Gyrodata									
Mud Motors																	
SN		Bend Angle	Bearing Type	Lobe Config	# Stages	Lwr Defln Type	Bit To Bend										
GDM800079		1.83	NOT SEALED	7:8	4		6.1										
Sensors																	
Sensor Type		Sensor-Bit (ft)			Note												
GAMMA		47.00															
DIRECTIONAL		58.00															
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	06:15	1,587.0	10.00	40.0	10	70	450.0	500	1,475.0	200.0	128	130	127	128	3,000.0	1,000.0	0
06:15	06:45	1,597.0	15.00	30.0	15	0	200.0	500	1,200.0	65.0	130	130	130	130	0.0	1,000.0	20
06:45	08:00	1,612.0	78.00	62.4	10	70	350.0	500	1,300.0	140.0	130	130	130	130	6,000.0	1,000.0	0
08:00	08:15	1,690.0	20.00	80.0	15	0	350.0	500	1,450.0	80.0	130	130	130	130	0.0	1,000.0	45
08:15	09:15	1,710.0	74.00	74.0	10	70	325.0	525	1,425.0	130.0	130	130	130	130	5,000.0	1,000.0	0
09:15	09:45	1,784.0	20.00	40.0	15	0	250.0	550	1,450.0	70.0	130	130	130	130	0.0	1,000.0	45
09:45	10:45	1,804.0	73.00	73.0	10	70	400.0	575	1,600.0	120.0	130	130	130	130	4,000.0	1,000.0	0
10:45	11:15	1,877.0	20.00	40.0	15	0	250.0	575	1,850.0	70.0	130	130	130	130	0.0	2,000.0	45
11:15	12:15	1,897.0	74.00	74.0	15	70	400.0	705	2,000.0	200.0	130	130	130	130	8,000.0	2,000.0	0
12:15	12:45	1,971.0	20.00	40.0	35	0	375.0	705	2,050.0	65.0	135	140	130	135	0.0	2,000.0	20
12:45	14:00	1,991.0	158.00	126.4	15	70	450.0	705	2,075.0	250.0	135	140	130	135	9,000.0	2,000.0	0
14:00	15:15	2,149.0	103.00	82.4	25	80	450.0	705	2,075.0	250.0	135	140	130	135	8,000.0	2,000.0	0
15:15	15:45	2,252.0	20.00	40.0	20	0	350.0	705	2,100.0	80.0	135	140	130	135	0.0	3,000.0	225
15:45	21:00	2,272.0	532.00	101.3	25	80	400.0	705	2,150.0	190.0	135	140	130	135	9,000.0	3,000.0	0
21:00	21:45	2,804.0	0.00		0	0	0.0	705	1,850.0	0.0	135	140	130	135	0.0	0.0	0
21:45	23:15	2,804.0	197.00	131.3	32	80	425.0	705	2,300.0	145.0	153	162	137	153	10,000.0	4,000.0	0
23:15	00:00	3,001.0	25.00	33.3	18	0	320.0	705	2,175.0	50.0	153	162	137	153	0.0	0.0	180
00:00	03:25	3,026.0	256.00	74.9	32	80	425.0	705	2,300.0	125.0	153	162	137	153	9,500.0	4,000.0	0
03:25	03:50	3,282.0	12.00	28.8	18	0	225.0	705	2,150.0	35.0	153	165	140	153	0.0	0.0	270
03:50	06:00	3,294.0	165.00	76.2	30	70	375.0	705	2,275.0	135.0	153	165	140	153	9,500.0	4,500.0	0
Hydraulic Calculations																	
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)							
10.30	10.35	330.4	2.8	293.4	803.4	19.7	216.2	29.57	258.66	156.36							
Daily Drilling Report																	
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Printed: Thursday, November 22, 2018																	

Daily Drilling Report

Mud Checks

Time

00:00

Mud Company

PIONEER DRILLING FLUIDS

Type

WATER BASE

Depth (ftKB)

2,992.0

Density (lb/gal)

10.30

Funnel Viscosity (s/qt)

39

T Flowline (°F)

87.0

PV (cP)

3.0

YP (lb/100ft²)

9.000

Vis 3rpm

4

Vis 6rpm

5

Filtrate (mL/30min)

HTHP Filtrate (mL/30min)

HTHP Temperature (°F)

250.0

HTHP Pressure (psi)

500.0

Solids (%)

13.0

Low Gravity Solids (%)

5.0

Sand (%)

0.0

MBT (lb/bbl)

8.8

Pm (mL/mL)

1.800

Pf (mL/mL)

Chlorides (ppm)

151,000.000

Calcium (ppm)

1,280.000

CaCl (ppm)

Oil Water Ratio

0/100

Electric Stab (V)

Lime (lb/bbl)

0.3

pH

11.5

Gel 10 sec (lb/100ft²)

5.000

Gel 10 min (lb/100ft²)

7.000

Gel 30 min (lb/100ft²)

7.000

Comment

Recommended Fluids Treatment:

Maintain MW between 9.5-10.2ppg. Continue additions of lignite mud from frac tanks to maintain mud properties as per mud program. Use fresh water for dilution to maintain mud weight. Make additions of Soda Ash for hardness less than 500mg/l. Continue caustic additions to maintain pH above 10. Keep WBM frac tanks full at all times.

Drilling Fluids Activity Last 24 hrs:

Keeping WBM frac tanks full at all times with Lig/PAC/Gel mud. Pumped high-vis sweep @2842'. Treating system with caustic for pH control; soda ash for hardness. Additional product usage for building Lig/Pac/Gel mud and high-vis gel slurry.

Active Fluid: WBM

Drilling Parameters:

Torque: 10 ft/lbs

WOB: 20 kLBS

RPM: 80 rpm

ROP: 204 ft/hr

Differential Pressure: 416 psi

Deviation (angle): 13.97

Azimuth: 67.31

Volumes:

Pit volume total = 472 bbls

Reserve fluids = 1650 bbls

WBM Frac 1 = 450 bbls

WBM Frac 2 = 450 bbls

WBM Frac 3 = 450 bbls

Premix = 300 bbls

OBM Frac 1 = 300 bbls

OBM Frac 2 = 275 bbls

OBM Frac 3 = 250 bbls

OBM Frac 4 = 250 bbls

OBM Frac 5 = 275 bbls

Last BOP Test

Date

11/20/2018

Test Type

BOP

Item Tested

BOP'S, 11/19/2018 00:30, <class>

Next Test Date

12/11/2018

Com

Tested BOPE 250 /5000

Leak Off and Formation Integrity Tests

Test Type

PLANNED FIT

Depth (ftKB)

1,244.0

Dens Fluid (lb/gal)

12.75

Casing Pressure Test

Test Type

CASING

Test Subtype

STANDARD

Date

11/8/2018

Item Tested

SURFACE, 1,223.7ftKB

Failed?

No

Time (min)

30.00

P (psi)

1,000.0

Kick Offs & Key Depths

Date

Type

HEEL

Top Depth (ftKB)

Date

Type

TOE

Top Depth (ftKB)

Date

Type

KICK OFF

Top Depth (ftKB)

Casing Strings

Description

CONDUCTOR

Set Depth (ftKB)

148.5

Set Depth (TVD) (ftKB)

OD (in)

20

Grade

H40

Wt/Len (lb/ft)

78.67

Top Thread

P LeakOff (psi)

Description

SURFACE

Set Depth (ftKB)

1,223.7

Set Depth (TVD) (ftKB)

1,223.0

OD (in)

13 3/8

Grade

J55

Wt/Len (lb/ft)

54.50

Top Thread

BTC

P LeakOff (psi)

823.5

Job Supply Amounts

Supply Item Des

DIESEL

Type

FUEL

Unit Label

GAL

Received

1,208

Consumed

2,304

Returned

Note

Rig Diesel

Cum On Loc

11,107

Cum Consumed

3,789.0

Supply Item Des

DIESEL

Type

FUEL

Unit Label

GAL

Received

5,829

Consumed

0

Returned

0

Note

Rig Reserve small frac tank

Cum On Loc

8,423

Cum Consumed

0.0

Supply Item Des

WATER

Type

FRESH

Unit Label

BBL

Received

7,600

Consumed

7,600

Returned

0

Note

72548 meter reading

Cum On Loc

57,348

Cum Consumed

15,200.0

Mud Additive Amounts

Des

ANCO GEL (BULK

Type

VISCOSIFIER

Units

TON

Rec

17

Consumed

17

On Loc

38.0

Cum Cons

17

Des

BULK TANK RENTAL

Type

MISCELLANEOUS

Units

EA

Rec

4

Consumed

4

On Loc

0.0

Cum Cons

24

Des

CAUSTIC SODA

Type

ALKALINITY CONTROL

Units

SACK

Rec

60

Consumed

30

On Loc

330.0

Cum Cons

30

Des

DEFOAMER

Type

DEFOAMER

Units

CAN

Rec

Consumed

2

On Loc

49.0

Cum Cons

15

Des

ENGINEERING PER MILEAGE

Type

MISCELLANEOUS

Units

PER MILE

Rec

1,562

Consumed

1,562

On Loc

0.0

Cum Cons

1,882

Des

ENGINEERING SERVICE

Type

MISCELLANEOUS

Units

DAY

Rec

1

Consumed

1

On Loc

0.0

Cum Cons

6

Des

ENGINEERING SERVICE

Type

MISCELLANEOUS

Units

DAY

Rec

2

Consumed

2

On Loc

0.0

Cum Cons

7

Des

LIGNITE

Type

DISPERSANTS/T HINNER

Units

SACK

Rec

300

Consumed

42

On Loc

458.0

Cum Cons

192

Des

OBM TESTING EQUIPMENT

Type

MISCELLANEOUS

Units

DAY

Rec

1

Consumed

1

On Loc

0.0

Cum Cons

6

Des

PAC LV

Type

FLUID LOSS ADDITIVES

Units

SACK

Rec

40

Consumed

12

On Loc

130.0

Cum Cons

30

Des

PER DIEM

Type

MISCELLANEOUS

Units

DAY

Rec

1

Consumed

1

On Loc

0.0

Cum Cons

6

Daily Drilling Report

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Printed: Thursday, November 22, 2018

Daily Drilling Report

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	6	
SODA ASH	ALKALINITY CONTROL	SACK		17	173.0	27	
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	1,980	
TRUCKING	MISCELLANEOUS	EA	1,306	1,306	0.0	8,746	
XANTHAM GUM	VISCOSIFIER	SACK	240	3	237.0	3	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
1	BOMCO	F1600	5 1/2	12.00	0.088	500.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	3,290.0	04:00	123.0	20	70	95	
1	3,290.0	04:00	135.0	30	106	95	
1	3,290.0	04:00	162.0	40	141	95	
2	3,290.0	04:00	158.0	20	70	95	
2	3,290.0	04:00	103.0	30	106	95	
2	3,290.0	04:00	124.0	40	141	95	
Deviation Surveys							
Date	Description					Job	
	FINAL SURVEY						
Date	Description					Job	
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30	
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
1,622.00	6.56	59.90	1,620.35	-11.92	10.76	54.69	1.63
1,716.00	8.28	61.31	1,713.56	-18.08	16.71	65.28	1.84
1,809.00	10.08	65.37	1,805.36	-24.97	23.31	78.55	2.06
1,903.00	12.12	69.36	1,897.60	-32.23	30.22	95.27	2.32
1,997.00	14.29	71.50	1,989.11	-39.81	37.38	115.50	2.37
2,091.00	15.37	72.05	2,079.98	-47.81	44.90	138.36	1.16
2,184.00	15.74	71.35	2,169.57	-56.14	52.73	162.03	0.45
2,278.00	14.37	67.33	2,260.34	-65.20	61.31	184.88	1.83
2,371.00	14.21	66.16	2,350.47	-74.70	70.37	205.97	0.35
2,465.00	14.10	66.57	2,441.61	-84.36	79.59	227.03	0.16
2,559.00	13.97	67.19	2,532.81	-93.75	88.54	247.99	0.21
2,652.00	13.97	67.31	2,623.06	-102.87	97.22	268.70	0.03
2,746.00	14.17	67.45	2,714.24	-112.10	106.01	289.79	0.22
2,839.00	14.08	67.33	2,804.42	-121.27	114.73	310.74	0.10
2,933.00	14.04	67.72	2,895.61	-130.44	123.46	331.84	0.11
3,027.00	12.66	68.08	2,987.07	-139.04	131.63	351.95	1.47
3,120.00	12.27	69.71	3,077.87	-146.66	138.86	370.68	0.56
3,214.00	12.01	69.67	3,169.77	-153.91	145.73	389.22	0.28
3,307.00	11.84	65.55	3,260.77	-161.60	153.04	406.97	0.93
Formations							
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)		
259_0_GRAYBURG	-1,156.0		3,889.5				
261_0_SAN ANDRES	-1,357.0		4,090.5				
263_0_SAN ANDRES SHALE	-2,431.0		5,164.5				
265_0_CLEARFORK/POP	-3,217.0		5,950.5				
267_0_SPBY_U_A1/267_0_SPBY	-3,989.0		6,722.5				
267_5_SPBY_M_A1	-4,191.0		6,924.5				
268_5_SPBY_L_A1	-4,534.0		7,267.5				
268_6_SPBY_L_B1/JO MILL	-4,834.0		7,567.5				
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-4,902.0		7,635.5				
269_0_DEAN	-5,331.0		8,064.5				
270_0_WFMP_A1	-5,503.0		8,236.5				
272_0_WFMP_A2	-5,596.0		8,329.5				
271_0_WFMP_A3	-5,741.0		8,474.5				
275_0_WFMP_B1	-5,833.0		8,566.5				
276_0_WFMP_B2	-5,910.0		8,643.5				
278_0_WFMP_B3	-6,173.0		8,906.5				
WFMP B3 TOT	-6,199.0		8,932.5				
INTENDED LANDING POINT (ILP)	-6,215.0		8,948.5				
Target 1	-6,282.0		9,015.5				
Target 2	-6,282.0		9,015.5				
Target 3	-6,250.0		8,983.5				
Target 4	-6,260.0		8,993.5				
BHL	-6,240.0		8,973.5				
Daily Drilling Report			Page 4/5		Printed: Thursday, November 22, 2018		

Daily Drilling Report

PATTERSON - UTI #807

Release:

Days Since RI: 154.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/22/2018
Report #:	11
DFS:	9
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$142,553.39

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM
TRANSIER, KENNETH, FOREMAN	FOREMAN		318-481-3868	KENNETH.TRANSIER@PXD.COM
SHELTON, GARY, FOREMAN	FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394	

Personnel Log

Company	Count
PIONEER NATURAL RESOURCES USA INC	2
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

UNIVERSITY 3-15C 103H				PERMIAN - JV SOUTHERN WOLFCAMP	
PATTERSON - UTI #807				Job:	ODR
Accept: 11/15/2018		Release:		Report Date:	11/23/2018
Days Since LTI: 155.00		Days Since RI: 155.00		Report #:	12
				DFS:	10
				AFE #:	9000912
				Total AFE + Sup:	\$4,068,828.95
				Daily Field Est. (Cost):	\$85,123.27

P/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50		Orig KB Elev (ft) 2,733.50		Ground Elevation (ft) 2,705.00		Spud Date 11/5/2018		TD Date			
Safety Checks															
Time		Type		Des		Tour		Com							
06:00		PROACTIVE MEASURES		WEEKLY TRENDS REVIEWED		DAY		Rig: H&P 638 Location: Cunningham 37G 7H Case#: 38454 Classification: Spill/Release Description: While drilling the intermediate 2 section. The 12" PVC discharge cutting line running from the trough to the reserve pit stopped up. When doing so 10 barrels of brine water spilled onto the ground. Operations was stopped, the line and trough cleaned out, and operations resumed.							
06:00		MEETING		PRE-TOUR		DAY		PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #7 Driving Safety , Core Value - #7 Teamwork							
18:00		PROACTIVE MEASURES		WEEKLY TRENDS REVIEWED		NIGHT		Rig: H&P 638 Location: Cunningham 37G 7H Case#: 38454 Classification: Spill/Release Description: While drilling the intermediate 2 section. The 12" PVC discharge cutting line running from the trough to the reserve pit stopped up. When doing so 10 barrels of brine water spilled onto the ground. Operations was stopped, the line and trough cleaned out, and operations resumed.							
18:00		MEETING		PRE-TOUR		NIGHT		PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #7 Driving Safety , Core Value - #7 Teamwork							
18:15		PROACTIVE MEASURES		STOP CARD - PNR		NIGHT		Observed man coming down the stairs not holding the rail stopped the man explained to him if he slipped he would hurt him self, told him to use the trailing hand technique he said he understood							
Jobs															
Responsible Grp 2				Responsible Grp 3				Job Type		Start Date		End Date		Job Status	
DRL ENG - KYLE SPACEK				AREA TEAM 4				ODR		11/4/2018 13:30				IN PROGRESS	
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type						Subtype		Date		Note					
MILESTONE						ESTIMATED PAD RELEASE		2/17/2019		1st Well / 3 Well pad (Revised on 11/22/18)					
Daily Operations															
Footage/Meterage (ft) 1,541.00		Drilling Hours (hr) 22.25		% Rotating Time (%) 76.78		End Depth (ftKB) 5,000.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 85,123.27		Cum Field Est To Date (Cost) 1,399,140.61			
24 HR ROP (ft/hr) 69.3		Circulating Hours (hr) 1.75		% Sliding Time (%) 23.22		End Depth (TVD) (ftKB) 4,915.1		Target Depth (TVD) (ftKB) 11,200.27		Daily Mud Field Est (Cost) 47,817.12		Cum Mud Field Est (Cost) 4,068,828.95		Total AFE + Sup (Cost)	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0				Daily Goal - Next 24 1,500.0				Goal Comments Goal Met			
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB						Next Casing String INTERMEDIATE, 8,410.0ftKB					
Avg Connection Gas 10.00		Avg Trip Gas 0.00		Avg Background Gas 13.00		Max Connection Gas 13.00		Max Trip Gas 0.00		Max Drill Gas 15.00					
Operations Summary Drill INT section F/ 3459' T/ 5000'															
Operations Next Report Period Drill T/ 6000' ~ Clearfork w/ mud WT Of 9.2 PPG Check for Flow if no flow cont T/ Drill INT Hole F/ 5000' T/ 6500' if there is flow SWI check press discuss w/ superintendent & Engineer plan forward															
Operations at Report Time Drill Int Hole @ 5000'															
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 52%; Curve: 0%; Lateral 0%															
Last Survey : MD: 4957' , inc 10.86 , az 65.79, Right 1.59 Above 46.11															
Time Log															
Start Time		Dur (hr)	End Time	Phase	Operation	Ops Category	Com				Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
06:00		5.75	11:45	INT, DRL	DRL	NORMAL	Drill INT section F/ 3459' T/ 3899' (440" @ 76 fph) 100% Returns. WOB 25-30, RPM:70; SPP:2300, DIFF: 300, GPM:700, TQ: 8-10k.				3,459.0	3,899.0			
11:45		1.75	13:30	INT, DRL	RIG_RPR	NORMAL	Circ with #2 Mud pump while change out wear plate, Liner gasket, & swab on #1 mud pump (#3 pod)				3,899.0	3,899.0			
13:30		16.5	06:00	INT, DRL	DRL	NORMAL	Drill INT section F/ 3899' T/ 5000' (1101" @ 66.7' fph) 100% Returns. WOB 25-30, RPM:70; SPP:2300, DIFF: 300, GPM:700, TQ: 8-10k.				3,899.0	5,000.0			
Interval Problems															
RIG, 3,899.0ftKB, 11/22/2018 11:45															
Ref #	Dur (N...	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment								
10	1.75	Yes	CIRCULATING SYSTEM	MUD PUMPS	5,796.00	PATTERSON-UTI DRILLING COMPANY LLC	Circ with #2 Mud pump while change out wear plate, Liner gasket, & swab on #1 mud pump (#3 pod)								
Drill Strings															
BHA #2 , INTERMEDIATE															
Bit Run 2				Drill Bit 12 1/4in, SPL616, 43786				Bit Type PDC				Make ULTERRA			
Nozzles (1/32") 11/11/11/11/11/10/10/10/10				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 51.50		Depth Drilled By Bit (ft) 3,766.00					
BHA Drilling Time (hr) 51.50				BHA Depth Drilled (ft) 3,766.00		BHA ROP (ft/hr) 73.1		Depth In (ftKB) 1,234.0		Depth Out (ftKB) 5,000.0					
Daily Drilling Report															

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 155.00	Days Since RI: 155.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/23/2018
Report #:	12
DFS:	10
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$85,123.27

Daily Drilling Report Page 2/5 Printed: Friday, November 23, 2018

Daily Drilling Report

UNIVERSITY 3-15C 103H				PERMIAN - JV SOUTHERN WOLFCAMP			
PATTERSON - UTI #807				Job: ODR			
Accept: 11/15/2018				Report Date: 11/23/2018			
Days Since LTI: 155.00				Report #: 12			
Release:				DFS: 10			
Days Since RI: 155.00				AFE #: 9000912			
				Total AFE + Sup: \$4,068,828.95			
				Daily Field Est. (Cost): \$85,123.27			

Mud Checks										
Time 00:00		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE	Depth (ftKB) 4,459.0	Density (lb/gal) 10.10	Funnel Viscosity (s/qt) 41	T Flowline (°F) 95.0	
PV (cP) 3.0	YP (lb/100ft²) 14.000	Vis 3rpm 7	Vis 6rpm 8	Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0
Solids (%) 10.0		Low Gravity Solids (%) 4.0		Sand (%) 0.0		MBT (lb/bbl) 12.5		Pm (mL/mL) 2.800		Pf (mL/mL)
Chlorides (ppm) 102,000.000		Calcium (ppm) 1,160.000		CaCl (ppm)	Oil Water Ratio 0/100	Electric Stab (V)		Lime (lb/bbl) 0.4	pH 11.4	
Gel 10 sec (lb/100ft²) 6.000				Gel 10 min (lb/100ft²) 7.000				Gel 30 min (lb/100ft²) 7.000		
Comment Recommended Fluids Treatment: Maintain MW between 9.2-10.2ppg. Continue additions of Lig/Pac/Gel mud from frac tanks to maintain mud properties as per mud program; fresh water for dilution to maintain mud weight; Soda Ash for hardness < 500mg/l; Caustic additions to maintain pH above 10; Zinc Oxide and Scavenger for potential H2S intrusion; Keep WBM frac tanks full at all times. Drilling Fluids Activity Last 24 hrs: Continue with utilizing the Lig/Pac/Gel mud and fresh water for volume, aid in lowering mud weight and chlorides; high-vis gel sweeps; H2S scavenger and zinc oxide for potential H2S intrusion; soda ash for hardness; caustic for pH control. Active Fluid: WBM Drilling Parameters: Torque: 10 ft/lbs WOB: 24 kLBS RPM: 70 rpm ROP: 124 ft/hr Differential Pressure: 419 psi Deviation (angle): 11.96 Azimuth: 65.69 Volumes: Pit volume total = 485 bbls Reserve fluids = 1650 bbls WBM Frac 1 = 450 bbls WBM Frac 2 = 450 bbls WBM Frac 3 = 450 bbls Premix = 300 bbls OBM Frac 1 = 300 bbls OBM Frac 2 = 275 bbls OBM Frac 3 = 250 bbls OBM Frac 4 = 250 bbls OBM Frac 5 = 275 bbls										
Last BOP Test										
Date	Test Type			Item Tested		Next Test Date		Com		
11/20/2018	BOP			BOP'S, 11/19/2018 00:30, <class>		12/11/2018		Tested BOPE 250 /5000		
Leak Off and Formation Integrity Tests										
Test Type				Depth (ftKB)			Dens Fluid (lb/gal)			
PLANNED FIT				1,244.0			12.75			
Casing Pressure Test										
Test Type		Test Subtype			Date		Item Tested		Failed?	P (psi)
CASING		STANDARD			11/8/2018		SURFACE, 1,223.7ftKB		No	30.00 1,000.0
Kick Offs & Key Depths										
Date				Type			Top Depth (ftKB)			
				HEEL						
				TOE						
				KICK OFF						
Casing Strings										
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)		Grade	Wt/Len (lb/ft)	Top Thread		P LeakOff (psi)	
CONDUCTOR	148.5		20		H40	78.67				
SURFACE	1,223.7	1,223.0	13 3/8		J55	54.50	BTC		823.5	
Job Supply Amounts										
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed
DIESEL		FUEL	GAL	0	2,414	0	Rig Diesel		8,693	6,203.0
DIESEL		FUEL	GAL	0	0	0	Rig Reserve small frac tank		8,423	0.0
WATER		FRESH	BBL	2,625	2,625	0	75173 meter reading		57,348	17,825.0
Mud Additive Amounts										
Des		Type	Units	Rec		Consumed		On Loc		Cum Cons
ANCO GEL (BULK		VISCOSIFIER	TON			18		20.0		35
BULK TANK RENTAL		MISCELLANEOUS	EA	4		4		0.0		28
CAUSTIC SODA		ALKALINITY CONTROL	SACK			59		271.0		89
DEFOAMER		DEFOAMER	CAN			13		36.0		28
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1		1		0.0		7
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1		1		0.0		8
H2S SCAVENGER		SPECIALITY	DRUM			1		23.0		1
LIGNITE		DISPERSANTS/T HINNER	SACK			72		386.0		264
OBM TESTING EQUIPMENT		MISCELLANEOUS	DAY	1		1		0.0		7
PER DIEM		MISCELLANEOUS	DAY	1		1		0.0		7
PER DIEM		MISCELLANEOUS	DAY	1		1		0.0		7
Daily Drilling Report					Page 3/5			Printed: Friday, November 23, 2018		

Daily Drilling Report

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
SODA ASH	ALKALINITY CONTROL	SACK		38	135.0	65	
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	2,310	
XANTHAM GUM	VISCOSIFIER	SACK		7	230.0	10	
ZINC OXIDE	SPECIALITY	SACK		3	117.0	3	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	4,864.0	04:00	159.0	40	141	95	
1	4,864.0	04:00	200.0	50	176	95	
1	4,864.0	04:00	121.0	30	106	95	
Deviation Surveys							
Date	Description				Job		
	FINAL SURVEY						
Date	Description				Job		
11/5/2018	AS DRILL SURVEY				ODR, 11/4/2018 13:30		
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,495.00	11.65	64.55	3,444.77	-178.77	169.48	441.82	0.28
3,588.00	11.55	64.86	3,535.87	-187.11	177.47	458.73	0.13
3,682.00	12.22	64.21	3,627.86	-195.81	185.79	476.21	0.73
3,776.00	12.57	63.56	3,719.67	-205.07	194.68	494.32	0.40
3,869.00	12.37	63.35	3,810.47	-214.42	203.65	512.29	0.22
3,963.00	13.14	64.59	3,902.15	-223.91	212.75	530.94	0.87
4,057.00	13.23	65.21	3,993.68	-233.42	221.84	550.35	0.18
4,150.00	13.30	65.21	4,084.19	-242.77	230.79	569.73	0.08
4,244.00	13.25	66.24	4,175.68	-252.06	239.67	589.40	0.26
4,335.00	12.87	65.96	4,264.33	-260.78	248.00	608.20	0.42
4,431.00	12.54	65.36	4,357.98	-269.89	256.70	627.44	0.37
4,525.00	11.96	65.69	4,449.84	-278.54	264.96	645.59	0.62
4,618.00	11.24	66.29	4,540.94	-286.51	272.57	662.67	0.78
4,712.00	12.28	66.43	4,632.96	-294.56	280.25	680.22	1.11
4,806.00	12.38	66.17	4,724.80	-303.01	288.32	698.60	0.12
4,899.00	10.86	65.79	4,815.89	-310.99	295.94	715.71	1.64
Formations							
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)		
263_0_SAN ANDRES SHALE	-2,431.0		5,164.5				
265_0_CLEARFORK/POP	-3,217.0		5,950.5				
267_0_SPBY_U_A1/267_0_SPBY	-3,989.0		6,722.5				
267_5_SPBY_M_A1	-4,191.0		6,924.5				
268_5_SPBY_L_A1	-4,534.0		7,267.5				
268_6_SPBY_L_B1/JO MILL	-4,834.0		7,567.5				
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-4,902.0		7,635.5				
269_0_DEAN	-5,331.0		8,064.5				
270_0_WFMP_A1	-5,503.0		8,236.5				
272_0_WFMP_A2	-5,596.0		8,329.5				
271_0_WFMP_A3	-5,741.0		8,474.5				
275_0_WFMP_B1	-5,833.0		8,566.5				
276_0_WFMP_B2	-5,910.0		8,643.5				
278_0_WFMP_B3	-6,173.0		8,906.5				
WFMP B3 TOT	-6,199.0		8,932.5				
INTENDED LANDING POINT (ILP)	-6,215.0		8,948.5				
Target 1	-6,282.0		9,015.5				
Target 2	-6,282.0		9,015.5				
Target 3	-6,250.0		8,983.5				
Target 4	-6,260.0		8,993.5				
BHL	-6,240.0		8,973.5				
Daily Contacts							
Job Contact	Title	Office	Mobile	Email			
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM			
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM			
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM			
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM			
TRANSIER, KENNETH, FOREMAN	FOREMAN		318-481-3868	KENNETH.TRANSIER@PXD.COM			
SHELTON, GARY, FOREMAN	FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM			
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394				
Personnel Log							
Company					Count		
PIONEER NATURAL RESOURCES USA INC					2		
Daily Drilling Report		Page 4/5		Printed: Friday, November 23, 2018			

Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018	Release:
Days Since LTI: 155.00	Days Since RI: 155.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/23/2018
Report #:	12
DFS:	10
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$85,123.27

Personnel Log	
Company	Count
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)							
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date							
Safety Checks													
Time	Type	Des	Tour	Com									
06:00	MEETING	PRE-TOUR	DAY	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #6 Excavation & Trenching , Core Value - #1 Respect									
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 38463 Classification: Spill/Release Description: While cementing, the cement operator overflowed 1 barrel of water based mud from a tank on the pump truck onto location.									
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 38463 Classification: Spill/Release Description: While cementing, the cement operator overflowed 1 barrel of water based mud from a tank on the pump truck onto location.									
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #6 Excavation & Trenching , Core Value - #1 Respect									
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed man on the rig floor pulling slips using his back to lift with, stopped him told him he was doing a good job but he should use his ligs to lift not his back he understood									
Jobs													
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status					
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS					
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)													
Type			Subtype		Date	Note							
MILESTONE			ESTIMATED PAD RELEASE		2/17/2019	1st Well / 3 Well pad (Revised on 11/22/18)							
Daily Operations													
Footage/Meterage (ft) 1,504.00		Drilling Hours (hr) 22.00		% Rotating Time (%) 69.32		End Depth (ftKB) 6,504.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 88,032.88		Cum Field Est To Date (Cost) 1,487,173.49	
24 HR ROP (ft/hr) 68.4		Circulating Hours (hr) 2.00		% Sliding Time (%) 30.68		End Depth (TVD) (ftKB) 6,409.4		Target Depth (TVD) (ftKB) 13,364.92		Daily Mud Field Est (Cost) 61,182.04		Cum Mud Field Est (Cost) 4,068,828.95	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0				Daily Goal - Next 24 1,500.0				Goal Comments Goal Met	
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB				Next Casing String INTERMEDIATE, 8,410.0ftKB					
Avg Connection Gas 45.00		Avg Trip Gas 0.00		Avg Background Gas 65.00		Max Connection Gas 73.00		Max Trip Gas 0.00		Max Drill Gas 85.00			
Operations Summary Drill INT section F/ 5000' T/ 6065', Circ BU prior to checking for flow After drilling 10' into clearfork, Flow Check (no Flow), Drill INT section F/ 6065' T/ 6504'													
Operations Next Report Period Drill INT Hole F/ 6504' T/ 8004'													
Operations at Report Time Drill Int Hole @ 6504													
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 52%; Curve: 0%; Lateral 0%													
Last Survey : MD: 6365' , inc 0.70 , az 70.61, Right 6.89 Above 0.50													
Time Log													
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	17.5	23:30	INT, DRL	DRL	NORMAL	Drill INT section F/ 5000' T/ 6065' (1065' @ 60.8' fph) 100% Returns. WOB 25-30, RPM:70; SPP:2500, DIFF: 550, GPM:700, TQ: 14/16k.	5,000.0	6,065.0					
23:30	1	00:30	INT, DRL	CIRC	NORMAL	Circ BU prior to checking for flow After drilling 10' into clearfork W/ full returns	6,065.0	6,065.0					
00:30	0.5	01:00	INT, DRL	FLOW_CHK	NORMAL	Flow Check before continuing to drill Clearfork 30 min No Flow	6,065.0	6,065.0					
01:00	1.5	02:30	INT, DRL	DRL	NORMAL	Drill INT section F/ 6065' T/ 6177 (112' @ 74.6' fph) 100% Returns. WOB 25-30, RPM:70; SPP:2000, DIFF: 450, GPM:600, TQ: 14/16k.	6,065.0	6,177.0					
02:30	0.5	03:00	INT, DRL	RIG_SVC	NORMAL	Service Rig	6,177.0	6,177.0					
03:00	3	06:00	INT, DRL	DRL	NORMAL	Drill INT section F/ 6177 T/ 6504' (327' @ 109' fph) 100% Returns. WOB 25-30, RPM:70; SPP:2000, DIFF: 450, GPM:600, TQ: 14/16k.	6,177.0	6,504.0					
Drill Strings													
BHA #2 , INTERMEDIATE													
Bit Run 2			Drill Bit 12 1/4in, SPL616, 43786				Bit Type PDC		Make ULTERRA				
Nozzles (1/32") 11/11/11/11/10/10/10/10			Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 73.50		Depth Drilled By Bit (ft) 5,270.00				
BHA Drilling Time (hr) 73.50			BHA Depth Drilled (ft) 5,270.00		BHA ROP (ft/hr) 71.7		Depth In (ftKB) 1,234.0		Depth Out (ftKB) 6,504.0				
Drill String Components													
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make			
129	DRILL PIPE			5	3.00	5,572.87	6,504.00	108,671.0	122				
11	HWDP			5	3.00	337.36	931.13	6,497.6	13	OTHER (PROVIDE DESCRIPTION)			
1	DRILLING JARS - HYDRAULIC			6 5/8	2.75	32.60	593.77		7	WEATHERFORD			
Daily Drilling Report													
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Printed: Saturday, November 24, 2018													

Daily Drilling Report

Mud Checks										
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE	Depth (ftKB) 5,966.0	Density (lb/gal) 9.30	Funnel Viscosity (s/qt) 35	T Flowline (°F) 92.0	
PV (cP) 3.0	YP (lb/100ft²) 4.000	Vis 3rpm 2	Vis 6rpm 3	Filtrate (mL/30min) 52.0	HTHP Filtrate (mL/30min)		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 6.0		Low Gravity Solids (%) 3.2		Sand (%) 0.0		MBT (lb/bbl) 10.0		Pm (mL/mL) 1.900	Pf (mL/mL)	
Chlorides (ppm) 69,000.000		Calcium (ppm) 400.000		CaCl (ppm)	Oil Water Ratio 0/100	Electric Stab (V)		Lime (lb/bbl) 0.4	pH 11.6	
Gel 10 sec (lb/100ft²) 4.000				Gel 10 min (lb/100ft²) 5.000			Gel 30 min (lb/100ft²) 5.000			
Comment Recommended Fluids Treatment: Maintain MW around 9.2ppg to drill thru Clearfork formation. Continue additions of Lig/Pac/Gel mud from frac tanks to maintain mud properties as per mud program; fresh water for dilution to maintain mud weight; Soda Ash for hardness < 500mg/l; Caustic additions to maintain pH above 10; Zinc Oxide and Scavenger for potential H2S intrusion; Keep WBM frac tanks full at all times. Drilling Fluids Activity Last 24 hrs: Maintaining MW @ 9.2ppg by diluting with fresh additions of Lig/Pac/Gel mud and fresh water and dumping sand trap regularly. Pumped high-vis gel sweeps @ 4866', 5057', 5246', 5424', 5628', 5809'; H2S scavenger and zinc oxide for potential H2S intrusion; soda ash for hardness; caustic for pH control. Active Fluid: WBM Drilling Parameters: Torque: 14 ft/lbs WOB: 27 kLBS RPM: 70 rpm ROP: 114 ft/hr Differential Pressure: 457 psi Deviation (angle): 1.97 Azimuth: 61.93 Volumes: Pit volume total = 430 bbls Reserve fluids = 1650 bbls WBM Frac 1 = 450 bbls WBM Frac 2 = 450 bbls WBM Frac 3 = 450 bbls Premix = 300 bbls OBM Frac 1 = 300 bbls OBM Frac 2 = 275 bbls OBM Frac 3 = 250 bbls OBM Frac 4 = 250 bbls OBM Frac 5 = 275 bbls										
Last BOP Test										
Date	Test Type			Item Tested		Next Test Date	Com			
11/20/2018	BOP			BOP'S, 11/19/2018 00:30, <class>		12/11/2018	Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests										
Test Type				Depth (ftKB)		Dens Fluid (lb/gal)				
FORMATION INTEGRITY				1,244.0		12.75				
Casing Pressure Test										
Test Type		Test Subtype			Date	Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			11/8/2018	SURFACE, 1,223.7ftKB		No	30.00	1,000.0
Kick Offs & Key Depths										
Date				Type			Top Depth (ftKB)			
				HEEL						
				TOE						
				KICK OFF						
Casing Strings										
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread		P LeakOff (psi)		
CONDUCTOR	148.5		20	H40	78.67					
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC		823.5		
Job Supply Amounts										
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed	
DIESEL		FUEL	GAL	0	2,526	0	Rig Diesel	6,167	8,729.0	
DIESEL		FUEL	GAL	0	0	0	Rig Reserve small frac tank	8,423	0.0	
WATER		FRESH	BBL	0	1,683	0	76856 meter reading	55,665	19,508.0	
Mud Additive Amounts										
Des		Type	Units	Rec	Consumed	On Loc		Cum Cons		
ANCO GEL (BULK		VISCOSIFIER	TON	20	10	30.0		44		
BULK TANK RENTAL		MISCELLANEOUS	EA	4	4	0.0		32		
CAUSTIC SODA		ALKALINITY CONTROL	SACK		55	216.0		144		
DEFOAMER		DEFOAMER	CAN		8	28.0		36		
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0		8		
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0		9		
H2S SCAVENGER		SPECIALITY	DRUM		2	21.0		3		
LIGNITE		DISPERSANTS/T HINNER	SACK		97	289.0		361		
OBM TESTING EQUIPMENT		MISCELLANEOUS	DAY	1	1	0.0		8		
PAC LV		FLUID LOSS ADDITIVES	SACK		28	102.0		58		
PER DIEM		MISCELLANEOUS	DAY	1	1	0.0		8		
Daily Drilling Report					Page 3/5		Printed: Saturday, November 24, 2018			

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/24/2018
Report #:	13
DFS:	11
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$88,032.88

Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018

Release:

Days Since LTI: 156.00

Days Since RI: 156.00

Job: ODR

Report Date:	11/24/2018
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Report #: 13

DFS:	11
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AFE #:	9000912
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Total AFE + Sup:	\$4,068,828.95
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Daily Field Est. (Cost):	\$88,032.88
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Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

UNIVERSITY 3-15C 103H				PERMIAN - JV SOUTHERN WOLFCAMP			
PATTERSON - UTI #807				Job: ODR			
Accept: 11/15/2018				Report Date: 11/25/2018			
Days Since LTI: 157.00				Report #: 14			
Release:				DFS: 12			
Days Since RI: 157.00				AFE #: 9000912			
				Total AFE + Sup: \$4,068,828.95			
				Daily Field Est. (Cost): \$88,087.98			

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #2 By Passing Safety Critical Equipment , Core Value - #2 Ethics & Honesty						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: H&P 429 Case#: 38462 Classification: Motor Vehicle Incident Description: Contractor was backing trailer to frac tank to unload fresh water for camp. Contractor had a spotter and proceeded to back up. As contractor was backing up the trailer came into contact with a bumper of a personal vehicle of another contractor. Driver stopped and reported incident immediately.						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: H&P 429 Case#: 38462 Classification: Motor Vehicle Incident Description: Contractor was backing trailer to frac tank to unload fresh water for camp. Contractor had a spotter and proceeded to back up. As contractor was backing up the trailer came into contact with a bumper of a personal vehicle of another contractor. Driver stopped and reported incident immediately.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #2 By Passing Safety Critical Equipment , Core Value - #2 Ethics & Honesty						
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed floor hand Toating tools in his hands while walking up Stairs . Stopped him Told him he was doing a good job and reminded him to always use three points of contact while going up stairs. Always think safety first. he understood						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)										
Type		Subtype		Date	Note					
MILESTONE		ESTIMATED PAD RELEASE		2/17/2019	1st Well / 3 Well pad (Revised on 11/22/18)					
Daily Operations										
Footage/Meterage (ft) 1,656.00		Drilling Hours (hr) 23.50		% Rotating Time (%) 100.00		End Depth (ftKB) 8,160.0				
Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 88,087.98		Cum Field Est To Date (Cost) 1,575,261.46						
24 HR ROP (ft/hr) 70.5		Circulating Hours (hr) 0.50		% Sliding Time (%) 0.00		End Depth (TVD) (ftKB) 8,065.1				
Target Depth (TVD) (ftKB) 12,916.18		Daily Mud Field Est (Cost) 74,098.21		Cum Mud Field Est (Cost) 4,068,828.95		Total AFE + Sup (Cost)				
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 1,500.0		Daily Goal - Next 24 243.0		Goal Comments Goal Met				
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB		Next Casing String INTERMEDIATE, 8,385.0ftKB				
Avg Connection Gas 216.00		Avg Trip Gas 0.00		Avg Background Gas 192.00		Max Connection Gas 417.00				
Max Trip Gas 0.00		Max Drill Gas 420.00								
Operations Summary Drill INT Hole F/ 6504' T/ 8160'										
Operations Next Report Period Drill INT Hole F/ 8160' T/ 8403' , Circ Clean Up cycles, POOH R/U casing Equip Run 9 5/8 Csg										
Operations at Report Time Drill Int Hole @ 8160'										
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 97%; Curve: 0%; Lateral 0%										
Last Survey : MD: 8052' , inc 0.56 , az 103.13, Right 29.0 Below 9.8										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	20.75	02:45	INT, DRL	DRL	NORMAL	Drill INT section F/ 6504 T/ 7958' (1454' @ 70' fph) 100% Returns. WOB 25-30, RPM:70; SPP:2000, DIFF: 450, GPM:600, TQ: 14/16k. Note @ 7700' Half of returns for 5 bbl then regained full returns	6,504.0	7,958.0		
02:45	0.5	03:15	INT, DRL	RIG_SVC	NORMAL	Service Rig	7,958.0	7,958.0		
03:15	2.75	06:00	INT, DRL	DRL	NORMAL	Drill INT section F/ 7958' T/ 8160' (202' @73 ' fph) 100% Returns. WOB 25-30, RPM:70; SPP:2000, DIFF: 450, GPM:600, TQ: 14/16k.	7,958.0	8,160.0		
Drill Strings										
BHA #2 , INTERMEDIATE										
Bit Run 2		Drill Bit 12 1/4in, SPL616, 43786				Bit Type PDC		Make ULTERRA		
Nozzles (1/32") 11/11/11/11/10/10/10/10		Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 97.00		Depth Drilled By Bit (ft) 6,926.00		
BHA Drilling Time (hr) 97.00		BHA Depth Drilled (ft) 6,926.00		BHA ROP (ft/hr) 71.4		Depth In (ftKB) 1,234.0		Depth Out (ftKB) 8,160.0		
Drill String Components										
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
229	DRILL PIPE			5	3.00	7,228.87	8,160.00	140,963.0	154	
Daily Drilling Report										
Page 1/4										
Printed: Sunday, November 25, 2018										

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 157.00	Days Since RI: 157.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/25/2018
Report #:	14
DFS:	12
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$88,087.98

Drill String Components																	
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lb)	Cum Wt (1000lb)	Make						
11	HWDP				5	3.00	337.36	931.13	6,497.6	13	OTHER (PROVIDE DESCRIPTION)						
1	DRILLING JARS - HYDRAULIC				6 5/8	2.75	32.60	593.77		7	WEATHERFORD						
6	HWDP				5	3.00	182.84	561.17	6,759.6	7	OTHER (PROVIDE DESCRIPTION)						
1	SUB - XO				6 3/4	2.88	3.51	378.33		0	STABIL DRILL						
6	DRILL COLLAR				8	2.63	273.94	374.82		0	OTHER (PROVIDE DESCRIPTION)						
1	DRILL COLLAR - NON MAG				8 1/8	3.25	30.87	100.88		0	STABIL DRILL						
1	SUB (OTHER)				8 3/8	3.75	3.17	70.01		0	GYRODATA						
1	Drill Collar - Non Mag				8 1/8	3.25	28.10	66.84		0	Stabil Drill						
1	STABILIZER				8	2.75	8.00	38.74		0	STABIL DRILL						
1	Motor - Slick Sleeve				8	2.00	28.94	30.74		0	Gyrodatab						
Mud Motors																	
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr DefIn Type		Bit To Bend					
GDM800079		1.83		NOT SEALED		7:8		4				6.1					
Sensors																	
Sensor Type				Sensor-Bit (ft)				Note									
GAMMA				47.00													
DIRECTIONAL				58.00													
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lb)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lb)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Off-Btm Str Wt (1000lb)	Drill Tq	Off Btm Tq	TFO (°)
06:00	18:15	6,504.0	892.00	72.8	28	80	525.0	600	2,100.0	125.0	240	265	210	240	17,000.0	8,000.0	0
18:15	02:45	7,396.0	562.00	66.1	34	80	500.0	600	2,175.0	85.0	245	282	214	245	16,000.0	8,000.0	0
02:45	03:15	7,958.0	0.00		0	30	0.0	600	1,675.0	0.0	245	282	214	245	8,000.0	8,000.0	0
03:15	06:00	7,958.0	202.00	73.5	30	8	400.0	600	2,100.0	75.0	245	282	215	245	16,000.0	8,000.0	0
Hydraulic Calculations																	
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)							
9.30	9.38	183.9	1.6	249.7	525.4	16.8	184.0	70.67	829.78	156.36							
Mud Checks																	
Time		Mud Company				Type		Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)		T Flowline (°F)					
00:30		PIONEER DRILLING FLUIDS				WATER BASE		7,661.0	9.30	42		102.0					
PV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)			HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)						
6.0	13.000	7	8	29.0					250.0		500.0						
Solids (%)		Low Gravity Solids (%)		Sand (%)			MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)						
7.0		5.5					15.0		2.100								
Chlorides (ppm)		Calcium (ppm)		CaCl (ppm)	Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)		pH						
57,000.000		160.000			0/100				0.4		11.5						
Gel 10 sec (lb/100ft²)					Gel 10 min (lb/100ft²)					Gel 30 min (lb/100ft²)							
7.000					8.000					8.000							
Comment																	
Recommended Fluids Treatment:																	
Maintain MW around 9.2-9.3ppg. Continue additions of Lig/Pac/Gel mud from frac tanks to maintain mud properties as per mud program; fresh water for dilution to maintain mud weight; Soda Ash for hardness < 500mg/l; Caustic additions to maintain pH above 10; Zinc Oxide and Scavenger for potential H2S intrusion; Keep WBM frac tanks full at all times.																	
Drilling Fluids Activity Last 24 hrs:																	
Maintaining MW around 9.2-9.3ppg with additions of Lig/Pac/Gel slurry and fresh water and dumping sand trap regularly. Pumped high-vis gel sweeps @ 6121', 6187', 6293', 6382', 7743'; H2S scavenger and zinc oxide for potential H2S intrusion; soda ash for hardness; caustic for pH control.																	
Active Fluid: WBM																	
Drilling Parameters:																	
Torque: 17 ft/lbs																	
WOB: 32 kLBS																	
RPM: 80 rpm																	
ROP: 91 ft/hr																	
Differential Pressure: 591 psi																	
Deviation (angle): 0.74 degrees																	
Azimuth: 127.43 degrees																	
Volumes:																	
Pit volume total = 479 bbls																	
Reserve fluids = 1650 bbls																	
WBM Frac 1 = 450 bbls																	
WBM Frac 2 = 450 bbls																	
WBM Frac 3 = 450 bbls																	
Premix = 300 bbls																	
OBM Frac 1 = 300 bbls																	
OBM Frac 2 = 275 bbls																	
OBM Frac 3 = 250 bbls																	
OBM Frac 4 = 250 bbls																	
OBM Frac 5 = 275 bbls																	
Last BOP Test																	
Date	Test Type			Item Tested				Next Test Date	Com								
11/20/2018	BOP			BOP'S, 11/19/2018 00:30, <class>				12/11/2018	Tested BOPE 250 /5000								
Daily Drilling Report																	

Daily Drilling Report

Leak Off and Formation Integrity Tests										
Test Type			Depth (ftKB)			Dens Fluid (lb/gal)				
FORMATION INTEGRITY			1,244.0			12.75				
Casing Pressure Test										
Test Type		Test Subtype		Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD		11/8/2018		SURFACE, 1,223.7ftKB		No	30.00	1,000.0
Kick Offs & Key Depths										
Date				Type			Top Depth (ftKB)			
				HEEL						
				TOE						
				KICK OFF						
Casing Strings										
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)			
CONDUCTOR	148.5		20	H40	78.67					
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5			
Job Supply Amounts										
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed		
DIESEL	FUEL	GAL	0	2,106	0	Rig Diesel	4,061	10,835.0		
DIESEL	FUEL	GAL	0	0	0	Rig Reserve small frac tank	8,423	0.0		
WATER	FRESH	BBL	3,740	3,740	0	80596 meter reading	57,348	23,248.0		
Mud Additive Amounts										
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons				
ANCO GEL (BULK	VISCOSIFIER	TON	36	11	55.0	55				
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	36				
CAUSTIC SODA	ALKALINITY CONTROL	SACK		33	183.0	177				
DEFOAMER	DEFOAMER	CAN		9	19.0	45				
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	9				
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	10				
H2S SCAVENGER	SPECIALITY	DRUM		2	19.0	5				
LIGNITE	DISPERSANTS/T HINNER	SACK		39	250.0	400				
LIME	ALKALINITY CONTROL	SACK		7	293.0	7				
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	9				
PAC LV	FLUID LOSS ADDITIVES	SACK		8	94.0	66				
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	9				
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	9				
SODA ASH	ALKALINITY CONTROL	SACK		80	55.0	145				
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	2,970				
TRUCKING	MISCELLANEOUS	EA	1,576	1,576	0.0	11,194				
XANTHAM GUM	VISCOSIFIER	SACK		19	193.0	47				
ZINC OXIDE	SPECIALITY	SACK		6	104.0	16				
Pump Operations										
Pump #	Make		Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)			
1	BOMCO		F1600	5 1/2	12.00	0.088	5,000.0			
2	BOMCO		F1600	5 1/2	12.00	0.088	5,000.0			
Pump Checks										
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)				
1	7,958.0	04:00	230.0	50	176	95				
1	7,958.0	04:00	177.0	40	141	95				
1	7,958.0	04:00	137.0	30	106	95				
2	7,958.0	04:00	229.0	50	176	95				
2	7,959.0	04:00	173.0	40	141	95				
2	7,958.0	04:00	132.0	30	106	95				
Deviation Surveys										
Date	Description					Job				
	FINAL SURVEY									
Date	Description					Job				
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30				
Survey Data - All surveys for 24 hr reporting period										
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)			
6,588.00	1.33	22.02	6,493.39	-374.22	356.31	851.81	0.62			
6,682.00	1.73	35.39	6,587.35	-376.41	358.48	853.04	0.57			
6,776.00	1.52	39.59	6,681.32	-378.57	360.60	854.65	0.26			
6,870.00	1.29	37.79	6,775.29	-380.39	362.40	856.10	0.25			
6,964.00	1.61	51.30	6,869.26	-382.09	364.06	857.78	0.50			
7,057.00	1.67	61.16	6,962.22	-383.61	365.53	859.98	0.31			
7,151.00	0.86	78.72	7,056.20	-384.45	366.33	861.87	0.95			
7,245.00	0.44	67.62	7,150.19	-384.74	366.60	862.90	0.46			
Daily Drilling Report				Page 3/4		Printed: Sunday, November 25, 2018				

Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018	Release:
Days Since LTI: 157.00	Days Since RI: 157.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/25/2018
Report #:	14
DFS:	12
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$88,087.98

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
270_0_WFMP_A1	-5,503.0		8,236.5		
272_0_WFMP_A2	-5,596.0		8,329.5		
271_0_WFMP_A3	-5,741.0		8,474.5		
275_0_WFMP_B1	-5,833.0		8,566.5		
276_0_WFMP_B2	-5,910.0		8,643.5		
278_0_WFMP_B3	-6,173.0		8,906.5		
WFMP B3 TOT	-6,199.0		8,932.5		
INTENDED LANDING POINT (ILP)	-6,215.0		8,948.5		
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		
Target 3	-6,250.0		8,983.5		
Target 4	-6,260.0		8,993.5		
BHL	-6,240.0		8,973.5		

Personnel Log		
Company	Count	
PIONEER NATURAL RESOURCES USA INC	2	
PATTERSON-UTI DRILLING COMPANY LLC	14	
PALADIN GEOLOGICAL SERVICES LLC	2	
TRICORPS SECURITY	2	
GYRODATA INC	4	
DWM CONSULTING	2	
TRIFECTA OILFIELD SERVICES LLC	0	

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 158.00 Days Since RI: 158.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 11/26/2018

Report #: 15

DFS: 13

AFE #: 9000912

Total AFE + Sup: \$4,068,828.95

Daily Field Est. (Cost): \$91,756.98

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #3 Confined Space Entry , Core Value - #3 Safety						
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: H&P 601 Classification: Injury/Illness Description: Contractor was flagging the forklift that was attempting to move 8" drill collars. While the 8" collars were being moved back on the racks with the forklift carriage, so the 6 3/4" non-mag collars could be reached, the collar slid at an angle on the racks rather than roll as anticipated. The 8" collars pinched the contractor flagger's right knee between the box ends of two drill collars. Contractor was taken for medical treatment and is undetermined the extent of injury at this time.						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: H&P 601 Classification: Injury/Illness Description: Contractor was flagging the forklift that was attempting to move 8" drill collars. While the 8" collars were being moved back on the racks with the forklift carriage, so the 6 3/4" non-mag collars could be reached, the collar slid at an angle on the racks rather than roll as anticipated. The 8" collars pinched the contractor flagger's right knee between the box ends of two drill collars. Contractor was taken for medical treatment and is undetermined the extent of injury at this time.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #3 Confined Space Entry , Core Value - #3 Safety						
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed floor hands laying down Mud motor, man was in between pipe wrangler and Drill pipe racked in derrick, stopped the job told the man he was doing a good job but he was standing in a bad spot, explained to him the hazards he understood						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status		
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		2/17/2019	1st Well / 3 Well pad (Revised on 11/22/18)				
Daily Operations										
Footage/Meterage (ft) 244.00		Drilling Hours (hr) 4.25		% Rotating Time (%) 100.00		End Depth (ftKB) 8,404.0		Target Depth (ftKB) 19,076.0		
Daily Field Est Total (Cost) 91,756.98		Cum Field Est To Date (Cost) 1,601,900.44								
24 HR ROP (ft/hr) 57.4		Circulating Hours (hr) 3.75		% Sliding Time (%) 0.00		End Depth (TVD) (ftKB) 8,309.1		Target Depth (TVD) (ftKB) 10,914.07		
Daily Mud Field Est (Cost) 85,012.28		Cum Mud Field Est (Cost) 85,012.28		Total AFE + Sup (Cost) 4,068,828.95						
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 243.0			Daily Goal - Next 24 0.0			Goal Comments Goal Met	
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,223.7ftKB				Next Casing String INTERMEDIATE, 8,385.0ftKB		
Avg Connection Gas 188.00		Avg Trip Gas 15.00		Avg Background Gas 242.00		Max Connection Gas 225.00		Max Trip Gas 41.00		
Max Drill Gas 261.00										
Operations Summary Drill Int section F/ 8160' T/ 8404' Circ hole clean, POOH, L/D directional BHA,,R/U casing tools,										
Operations Next Report Period M/U shoe trac circ thru same, Run 9 5/8 csg										
Operations at Report Time Rigging up Casing equip										
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 100%; Curve: 0%; Lateral 0%										
Last Survey : MD:8404' , inc 0.24 , az 138.49, Left 30.40 Above 9.40										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	4.25	10:15	INT, DRL	DRL	NORMAL	Drill Int section F/ 8160' T/ 8404' (244' @ 57' fph) 100% Returns. WOB 30-32, RPM:70; SPP:2000, DIFF: 500, GPM:600, TQ: 16/18k.	8,160.0	8,404.0		
10:15	3.75	14:00	INT, POST DRL	CIRC	NORMAL	Circ 3xBtm up prior to TOOH for 9 5/8 csg. 1st BU 50% coverage - drill cuttings 2nd BU 30% coverage - fines 3rd BU 10% coverage - fines	8,404.0	8,404.0		
14:00	0.25	14:15	INT, POST DRL	FLOW_CHK	NORMAL	Check well for flow (static)	8,404.0	8,404.0		
14:15	1	15:15	INT, POST DRL	TOOH_ELEV	NORMAL	TOOH wet from 8404 to 7573 (10 stds); Hole taking proper fill with trip tanks No excess drag	8,404.0	8,404.0		
15:15	0.25	15:30	INT, POST DRL	FLOW_CHK	NORMAL	Check well for flow. (static) Pump slug	8,404.0	8,404.0		
15:30	3	18:30	INT, POST DRL	TOOH_ELEV	NORMAL	TOOH from 7573' to 2240'. Hole taking proper fill with trip tanks. (Tight Hole @ 2240')	8,404.0	8,404.0		
Daily Drilling Report										
Page 1/4										
Printed: Monday, November 26, 2018										

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807
Accept: 11/15/2018 Release:
Days Since LTI: 158.00 Days Since RI: 158.00

PERMIAN - JV SOUTHERN WOLFCAMP
Job: ODR
Report Date: 11/26/2018
Report #: 15
DFS: 13
AFE #: 9000912
Total AFE + Sup: \$4,068,828.95
Daily Field Est. (Cost): \$91,756.98

Time Log																			
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #									
18:30	4	22:30	INT, POST DRL	TOOH_NONEL EV	NORMAL	POOH Backreaming Tight hole F/ 2240' t/ 1400' , 350 GPM 40 RPM , SPP 450 W/ Full returns	8,404.0	8,404.0											
22:30	0.5	23:00	INT, POST DRL	TOOH_ELEV	NORMAL	POOH F/ 1400' T/ 992' Hole taking proper fill with trip tanks.	8,404.0	8,404.0											
23:00	0.25	23:15	INT, POST DRL	HDL_ROTHD	NORMAL	Retrieve Rotating head & Install Trip nipple. well static on trip tank	8,404.0	8,404.0											
23:15	1.75	01:00	INT, POST DRL	TOOH_ELEV	NORMAL	POOH F/ 992' T/ 120' , Hole taking proper fill with trip tanks.	8,404.0	8,404.0											
01:00	0.25	01:15	INT, POST DRL	SFTY	NORMAL	PJSM on L/D directional BHA, Hole taking correct fill.	8,404.0	8,404.0											
01:15	1	02:15	INT, POST DRL	LD_DIR	NORMAL	L/D directional tools. Hole taking correct fill.	8,404.0	8,404.0											
02:15	0.75	03:00	INT, POST DRL	WRBSH	NORMAL	Removed wear bushing / (had trouble retriving wear bushing packed off with cuttings)	8,404.0	8,404.0											
03:00	0.5	03:30	INT, POST DRL	SFTY	NORMAL	Clean & Clear Rig Floor for running Casing After trip	8,404.0	8,404.0											
03:30	0.5	04:00	INT, POST DRL	RIG_SVC	NORMAL	Service Rig & Top Drive, Well static on trip tank	8,404.0	8,404.0											
04:00	0.25	04:15	INT, POST DRL	SFTY	NORMAL	PJSM - Discussed R/U casing tools and running 9-5/8" casing w/ Byrd, Weatherford, Patterson and PNR personnel prior to R/U casing tools.Well static on trip tank	8,404.0	8,404.0											
04:15	1.75	06:00	INT, POST DRL	RU_CSG	NORMAL	R/U Byrd casing tools and CRT	8,404.0	8,404.0											
Drill Strings																			
BHA #2 , INTERMEDIATE																			
Bit Run 2			Drill Bit 12 1/4in, SPL616, 43786				Bit Type PDC		Make ULTERRA										
Nozzles (1/32") 11/11/11/11/11/10/10/10/10			Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull 3-3-CT-A-3-0-BT-TD		Hours Drilled By Bit (hr) 101.25		Depth Drilled By Bit (ft) 7,170.00										
BHA Drilling Time (hr) 101.25			BHA Depth Drilled (ft) 7,170.00		BHA ROP (ft/hr) 70.8		Depth In (ftKB) 1,234.0		Depth Out (ftKB) 8,404.0										
Drill String Components																			
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make								
237	DRILL PIPE				5	3.00	7,472.87	8,404.00	145,721.0	159									
11	HWDP				5	3.00	337.36	931.13	6,497.6	13	OTHER (PROVIDE DESCRIPTION)								
1	DRILLING JARS - HYDRAULIC				6 5/8	2.75	32.60	593.77		7	WEATHERFORD								
6	HWDP				5	3.00	182.84	561.17	6,759.6	7	OTHER (PROVIDE DESCRIPTION)								
1	SUB - XO				6 3/4	2.88	3.51	378.33		0	STABIL DRILL								
6	DRILL COLLAR				8	2.63	273.94	374.82		0	OTHER (PROVIDE DESCRIPTION)								
1	DRILL COLLAR - NON MAG				8 1/8	3.25	30.87	100.88		0	STABIL DRILL								
1	SUB (OTHER)				8 3/8	3.75	3.17	70.01		0	GYRODATA								
1	Drill Collar - Non Mag				8 1/8	3.25	28.10	66.84		0	Stabil Drill								
1	STABILIZER				8	2.75	8.00	38.74		0	STABIL DRILL								
1	Motor - Slick Sleeve				8	2.00	28.94	30.74		0	Gyrodata								
Mud Motors																			
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr DefIn Type									
GDM800079		1.83		NOT SEALED		7:8		4											
Sensors																			
Sensor Type				Sensor-Bit (ft)				Note											
GAMMA				47.00															
DIRECTIONAL				58.00															
Drilling Parameters																			
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)		
06:00	10:15	8,160.0	244.00	57.4	28	80	350.0	600	2,150.0	65.0	260	300	220	260	20,000.0	10,000.0	0		
10:15	14:00	8,404.0	0.00		0	80	0.0	600	1,700.0	0.0	260	300	220	260	10,000.0	10,000.0	0		
Hydraulic Calculations																			
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)		
9.30	9.38	183.9		1.6		249.7		525.4		16.8	184.0		72.80		859.42		156.36		
Daily Drilling Report												Page 2/4				Printed: Monday, November 26, 2018			

Daily Drilling Report

Mud Checks

Time 00:15		Mud Company PIONEER DRILLING FLUIDS		Type WATER BASE	Depth (ftKB) 8,404.0	Density (lb/gal) 9.50	Funnel Viscosity (s/qt) 39	T Flowline (°F) 0.0	
PV (cP) 5.0	YP (lb/100ft²) 7.000	Vis 3rpm 4	Vis 6rpm 4	Filtrate (mL/30min) 23.0	HTHP Filtrate (mL/30min)	HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 7.0		Low Gravity Solids (%) 5.0		Sand (%)	MBT (lb/bbl) 15.0	Pm (mL/mL) 1.400		Pf (mL/mL)	
Chlorides (ppm) 56,000.000		Calcium (ppm) 480.000		CaCl (ppm)	Oil Water Ratio 0/100	Electric Stab (V)		Lime (lb/bbl) 0.3	pH 10.6
Gel 10 sec (lb/100ft²) 5.000				Gel 10 min (lb/100ft²) 7.000			Gel 30 min (lb/100ft²) 7.000		

Comment

Recommended Fluids Treatment:
Maintain MW around 9.2-9.3ppg. Continue additions of Lig/Pac/Gel mud from frac tanks to maintain mud properties as per mud program; fresh water for dilution to maintain mud weight; Soda Ash for hardness < 500mg/l; Caustic additions to maintain pH above 10; Zinc Oxide and Scavenger for potential H2S intrusion; Keep WBM frac tanks full at all times.
Drilling Fluids Activity Last 24 hrs:
Maintaining MW around 9.2-9.3ppg with additions of Lig/Pac/Gel slurry and fresh water and dumping sand trap regularly. Pumped high-vis gel sweeps @ 7825', 8122', 8402'; H2S scavenger and zinc oxide for potential H2S intrusion; Barite for slug; soda ash for hardness; caustic for pH control.
Active Fluid: WBM
Drilling Parameters:
Torque: ft/lbs
WOB: kLBS
RPM: rpm
ROP: ft/hr
Differential Pressure: psi
Deviation (angle): degrees
Azimuth: degrees
Volumes:
Pit volume total = 658 bbls
Reserve fluids = 1450 bbls
WBM Frac 1 = 400 bbls
WBM Frac 2 = 400 bbls
WBM Frac 3 = 400 bbls
Premix = 250 bbls
OBM Frac 1 = 300 bbls
OBM Frac 2 = 275 bbls
OBM Frac 3 = 250 bbls
OBM Frac 4 = 250 bbls
OBM Frac 5 = 275 bbls

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com
11/20/2018	BOP	BOP'S, 11/19/2018 00:30, <class>	12/11/2018	Tested BOPE 250 /5000

Leak Off and Formation Integrity Tests

Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	1,244.0	12.75

Casing Pressure Test

Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	11/8/2018	SURFACE, 1,223.7ftKB	No	30.00	1,000.0

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
	HEEL	
	TOE	
	KICK OFF	

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	148.5		20	H40	78.67		
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5

Job Supply Amounts

Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	7,307	1,403	0	Rig Diesel	9,965	12,238.0
DIESEL	FUEL	GAL	0	0	0	Rig Reserve small frac tank	8,423	0.0
WATER	FRESH	BBL	1,867	1,867	0	82463 meter reading	57,348	25,115.0

Mud Additive Amounts

Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON		4	34.3	4
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON		0	34.0	4
ANCO GEL (BULK	VISCOSIFIER	TON		8	47.0	63
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	40
CAUSTIC SODA	ALKALINITY CONTROL	SACK		45	138.0	222
DEFOAMER	DEFOAMER	CAN		6	13.0	51
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	10
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	11
H2S SCAVENGER	SPECIALITY	DRUM		1	18.0	6
LIGNITE	DISPERSANTS/T HINNER	SACK		50	200.0	450
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	10

Daily Drilling Report

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Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 158.00	Days Since RI: 158.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/26/2018
Report #:	15
DFS:	13
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$91,756.98

Pump Operations

Pump Checks

Deviation Surveys

Survey Data - All surveys for 24 hr reporting period

Formations

Daily Contacts

Personnel Log

Daily Drilling Report

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:
Days Since LTI: 159.00 Days Since RI: 159.00

PERMIAN - JV SOUTHERN WOLFCAMP
Job: ODR
Report Date: 11/27/2018
Report #: 16
DFS: 14
AFE #: 9000912
Total AFE + Sup: \$4,068,828.95
Daily Field Est. (Cost): \$77,012.89

P/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date							
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	PAT Drilling: Rig: Patterson 251 Location: Brook B-12T 20H Case#: 38549 Date: 11-24-18 Classification: Spill/Release Description: While mixing barite in hopper, RTM failed to close hopper and walked off, resulting hopper overflow and spilling 2 bbls. of water-base mud onto ground.											
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #4 Energy Isolation , Core Value - #4 Personal Accountability											
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	PAT Drilling: Rig: Patterson 251 Location: Brook B-12T 20H Case#: 38549 Date: 11-24-18 Classification: Spill/Release Description: While mixing barite in hopper, RTM failed to close hopper and walked off, resulting hopper overflow and spilling 2 bbls. of water-base mud onto ground.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #4 Energy Isolation , Core Value - #4 Personal Accountability											
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed men running Casing, the tong line did not have a keeper in the shackle the nut was loose, stopped the job told the men they were doing a good job, showed them the shackle explained to them the hazards if the shackle came off they understood told them to keep a check on all equip while running pipe											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date		Note								
MILESTONE			ESTIMATED PAD RELEASE		2/17/2019		1st Well / 3 Well pad (Revised on 11/22/18)								
Type TXRRC CALL			Subtype CEMENT INT		Date 11/26/2018		Note Ivey Job # 153383								
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 8,404.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 77,012.89		Cum Field Est To Date (Cost) 1,678,913.33			
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 8,309.1		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 3,862.89		Cum Mud Field Est (Cost) 88,875.17		Total AFE + Sup (Cost) 4,068,828.95	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 0.0				Goal Comments Goal Met			
Backbuild		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB					Next Casing String INTERMEDIATE, 8,385.0ftKB						
Avg Connection Gas 0.00		Avg Trip Gas 15.00			Avg Background Gas 12.00			Max Connection Gas 0.00		Max Trip Gas 68.00		Max Drill Gas 0.00			
Operations Summary M/U shoe trac Circ Thru Same, Run 9 5/8 x 40# csg Land out same @ 8385', Circ Surface to surface,															
Operations Next Report Period R/U Crest cementers , Cement 9 5/8 CSG, set Pack Off,N/D BOPE, install abandon cap walk rig T/ 102H well															
Operations at Report Time Circ while waiting on Crest Cementers and pump trucks															
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 100%; Curve: 0%; Lateral 0%															
Last Survey : MD:8404' , inc 0.24 , az 138.49, Left 30.40 Above 9.40															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	0.25	06:15	INT, CASE & CMT	SFTY	NORMAL	Held Safety Mtg with Byrd csg crew, Weathereford tool hand, & Patterson Rig crew on P/U & Run 9 5/8 csg			8,404.0	8,404.0					
06:15	1.25	07:30	INT, CASE & CMT	CSG_W/O ROTATION	NORMAL	P/U Float equip & 2 Jt shoe track; Flow test same (ok)			8,404.0	8,404.0					
07:30	6.5	14:00	INT, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run 9 5/8 f F/139' - T/4042 filling up csg. every 15 joint. Monitor displacement on trip tanks. (ok) (40lbs. / L80-IC / BTC)			8,404.0	8,404.0					
14:00	1.5	15:30	INT, CASE & CMT	PULL_CSG	NORMAL	L/D 2 jts 9 5/8 csg & Change out same			8,404.0	8,404.0					
15:30	10	01:30	INT, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run 9 5/8 f F/4042' - T/ 8352' filling up csg. every 15 joint. Monitor displacement on trip tanks. (ok) (40lbs. / L80-IC / BTC)			8,404.0	8,404.0					
Daily Drilling Report															
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Daily Drilling Report

Time Log

Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
01:30	0.5	02:00	INT, CASE & CMT	CSG_W/O ROTATION	NORMAL	M/U landing joint.with Cactus rep. Land out 9 5/8 CSG @ 8385' well static on trip tank From the top FS - 8383' FC - 8290' DV - 4257'	8,404.0	8,404.0		
02:00	2	04:00	INT, CASE & CMT	CIRC	NORMAL	Circulate Surface to surface vol. GPM 300 . SPP 150. with 100% returns. Crest Cementers and Pump truck have not arrived EST time for cementers to be on location is 08:00 am	8,404.0	8,404.0		
04:00	0.5	04:30	INT, CASE & CMT	WAIT	NORMAL	R/D Byrd csg crew and CRT. well static on trip tank Waiting on cementers	8,404.0	8,404.0	0.50	11
04:30	0.5	05:00	INT, CASE & CMT	WAIT	NORMAL	Install circulating swedge hook up pump line F/ stand pipe manifold , well static on trip tank Waiting on cementers	8,404.0	8,404.0	0.50	11
05:00	1	06:00	INT, CASE & CMT	WAIT	NORMAL	Continue Circ thru circ swedge @ 212 GPM, 188 SPP, 100% returns, while waiting on Crest Cementers Waiting on cementers	8,404.0	8,404.0	1.00	11

Interval Problems

3RD PARTY, 8,404.0ftKB, 11/27/2018 04:00

Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment
11		No	CEMENT	LOGISTICS		CREST PUMPING TECHNOLOGIES LLC	Cementers were on another job they had 3 back to back jobs

Hydraulic Calculations

Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)

Mud Checks

Time	Mud Company	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	T Flowline (°F)	
00:30	PIONEER DRILLING FLUIDS	WATER BASE	8,404.0	9.50	38	0.0	
PV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)	HTHP Temperature (°F)	HTHP Pressure (psi)
5.0	8.000	4	4	24.0		250.0	500.0
Solids (%)	Low Gravity Solids (%)	Sand (%)	MBT (lb/bbl)	Pm (mL/mL)	Pf (mL/mL)		
7.0	5.1		15.0	1.500			
Chlorides (ppm)	Calcium (ppm)	CaCl (ppm)	Oil Water Ratio	Electric Stab (V)	Lime (lb/bbl)	pH	
55,000.000	400.000		0/100		0.3	10.8	
Gel 10 sec (lb/100ft²)	Gel 10 min (lb/100ft²)	Gel 30 min (lb/100ft²)					
5.000	7.000	7.000					

Comment

Recommended Fluids Treatment:
Maintain MW around 9.2-9.3ppg. Continue additions of Lig/Pac/Gel mud from frac tanks to maintain mud properties as per mud program; fresh water for dilution to maintain mud weight; Soda Ash for hardness < 500mg/l; Caustic additions to maintain pH above 10; Zinc Oxide and Scavenger for potential H2S intrusion; Keep WBM frac tanks full at all times.
Drilling Fluids Activity Last 24 hrs:
Finish POOH. R/U and running 9 5/8" intermediate casing.
Active Fluid: WBM
Drilling Parameters:
Torque: ft/lbs
WOB: kLBS
RPM: rpm
ROP: ft/hr
Differential Pressure: psi
Deviation (angle): degrees
Azimuth: degrees
Volumes:
Pit volume total = 435 bbls
Reserve fluids = 1450 bbls
WBM Frac 1 = 400 bbls
WBM Frac 2 = 400 bbls
WBM Frac 3 = 400 bbls
Premix = 250 bbls
OBM Frac 1 = 300 bbls
OBM Frac 2 = 275 bbls
OBM Frac 3 = 250 bbls
OBM Frac 4 = 250 bbls
OBM Frac 5 = 275 bbls

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com
11/20/2018	BOP	BOP'S, 11/19/2018 00:30, <class>	12/11/2018	Tested BOPE 250 /5000

Leak Off and Formation Integrity Tests

Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	1,244.0	12.75

Casing Pressure Test

Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	11/8/2018	SURFACE, 1,223.7ftKB	No	30.00	1,000.0

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
	HEEL	
	TOE	

Daily Drilling Report

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Daily Drilling Report

Kick Offs & Key Depths								
Date				Type		Top Depth (ftKB)		
				KICK OFF				
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	148.5		20	H40	78.67			
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5	
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC		
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	0	700	0	Rig Diesel	9,265	12,938.0
DIESEL	FUEL	GAL	0	0	0	Rig Reserve small frac tank	8,423	0.0
WATER	FRESH	BBL	0	0	0	82463 meter reading	57,348	25,115.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	44		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	11		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	12		
H2S SCAVENGER	SPECIALITY	DRUM		1	17.0	7		
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	11		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	11		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	11		
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	3,630		
TRUCKING	MISCELLANEOUS	EA	652	652	0.0	11,846		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
Deviation Surveys								
Date	Description					Job		
	FINAL SURVEY							
Date	Description					Job		
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30		
Formations								
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
272_0_WFMP_A2			-5,596.0		8,329.5			
271_0_WFMP_A3			-5,741.0		8,474.5			
275_0_WFMP_B1			-5,833.0		8,566.5			
276_0_WFMP_B2			-5,910.0		8,643.5			
278_0_WFMP_B3			-6,173.0		8,906.5			
WFMP B3 TOT			-6,199.0		8,932.5			
INTENDED LANDING POINT (ILP)			-6,215.0		8,948.5			
Target 1			-6,282.0		9,015.5			
Target 2			-6,282.0		9,015.5			
Target 3			-6,250.0		8,983.5			
Target 4			-6,260.0		8,993.5			
BHL			-6,240.0		8,973.5			
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM			
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM			
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM			
SPACEK, KYLE, ENGINEER		ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM			
TRANSIER, KENNETH, FOREMAN		FOREMAN		318-481-3868	KENNETH.TRANSIER@PXD.COM			
SHELTON, GARY, FOREMAN		FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM			
RIG-PATTERSON 807, RIG PHONE		RIG PHONE	361-489-3691	432-257-6394				
Personnel Log								
Company							Count	
PIONEER NATURAL RESOURCES USA INC							2	
PATTERSON-UTI DRILLING COMPANY LLC							14	
PALADIN GEOLOGICAL SERVICES LLC							2	
TRICORPS SECURITY							2	
GYRODATA INC							4	
DWM CONSULTING							2	
TRIFECTA OILFIELD SERVICES LLC							0	
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Daily Drilling Report

UNIVERSITY 3-15C 103H				PERMIAN - JV SOUTHERN WOLFCAMP	
PATTERSON - UTI #807				Job:	ODR
Accept: 11/15/2018				Report Date:	11/28/2018
Release:				Report #:	17
Days Since LTI: 160.00				DFS:	15
Days Since RI: 160.00				AFE #:	9000912
				Total AFE + Sup:	\$4,068,828.95
				Daily Field Est. (Cost):	\$152,002.06

P/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)						
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks												
Time	Type	Des	Tour	Com								
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	PAT Drilling: Rig: H&P 437 Location: Ray Reed 32 18H Case#: 38560 Date: 11/26/2018 Classification: Injury/Illness (low) Description: While contractor was walking down a set of steps at the end of the catwalk, the steps tipped over. Causing the Contractor to land on his right side and hand rail striking him on the side of the head. Contractor was taken for observation to XtremeMD. Contractor returned to work.								
06:00	MEETING	PRE-TOUR	DAY	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #4 Energy Isolation , Core Value - #4 Personal Accountability								
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	PAT Drilling: Rig: H&P 437 Location: Ray Reed 32 18H Case#: 38560 Date: 11/26/2018 Classification: Injury/Illness (low) Description: While contractor was walking down a set of steps at the end of the catwalk, the steps tipped over. Causing the Contractor to land on his right side and hand rail striking him on the side of the head. Contractor was taken for observation to XtremeMD. Contractor returned to work.								
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - H2S Awareness, Pinch Points and Body Placement, Buffer Zones, Makung Connections, Mixing Mud. R2LB - #4 Energy Isolation , Core Value - #4 Personal Accountability								
19:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed contractor walking in buffer zone of the cement lines while cementing. Waved contractor over to a safe spot and explained to him the dangers of being in the buffer zone while lines were pressured up. He thanked me and said he would not get back in the buffer zone again.								
Jobs												
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)												
Type			Subtype		Date		Note					
MILESTONE			ESTIMATED PAD RELEASE		2/17/2019		1st Well / 3 Well pad (Revised on 11/22/18)					
Daily Operations												
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 8,404.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 152,002.06	Cum Field Est To Date (Cost) 1,830,915.39	
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 8,309.1		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 2,808.07	Cum Mud Field Est (Cost) 91,683.24	Total AFE + Sup (Cost) 4,068,828.95
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0			Daily Goal - Next 24 0.0			Goal Comments Goal Met		
Backbuild		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB					Next Casing String INTERMEDIATE, 8,385.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 16.00		Avg Background Gas 14.00		Max Connection Gas 0.00		Max Trip Gas 23.00		Max Drill Gas 0.00		
Operations Summary Run 1st Stage did not Bump plug, drop Contingency Plug set Packer, Open DV tool & circ. 1.5 X's csg. cap., Run 2nd stage. cement job, Install packer & test, install cap & test (Release rig on 11-28-18 @ 03:00 AM)												
Operations Next Report Period Released rig on 11-28-18 @ 03:00 AM. (See University 3-15B 102H report.)												
Operations at Report Time Released rig on 11-28-18 @ 03:00 AM.												
Remarks NPT for Nov. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs.) Surface:100%; Intermediate 100%; Curve: 0%; Lateral 0% Rig release on 11-28-18 @ 03:00 AM.												
Time Log												
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
06:00	4.5	10:30	INT, CASE & CMT	WAIT	NORMAL	Continue Circ thru circ swedge @ 212 GPM, 188 SPP, 100% returns, while waiting on Crest Cementers Waiting on cementers		8,404.0	8,404.0	4.50	11	
10:30	0.25	10:45	INT, CASE & CMT	SFTY	NORMAL	Pre job safety meeting with Crest, Rig Crew, PNR Supervisor, & Weatherford		8,404.0	8,404.0			
10:45	0.25	11:00	INT, CASE & CMT	RU_CMT	NORMAL	R/U CMT head and circ. iron		8,404.0	8,404.0			
11:00	5.25	16:15	INT, CASE & CMT	CMT	NORMAL	Pump 1st stage: Test lines to 5000 psi.- Pump 50 bbls. GXT spacer @10.7 ppg. - Pump 306 bbls of Lead cmt. (690 sks) @ 11.0 pp. - Pump 49 bbls of Tail cmt. (205sks) @ 14.8 ppb. - Drop plug & disp. w/ 628 bbls.of WBM. plug did not bump, pumped 3.75 bbl 1/2 of shoe trac Plug did not bump, Check float bled back 1/2 bbl WBM Float held, Drop Contingency Plug wait 21 min to fall, pressure up t/ 1200 psi stage pressure up t/ 2220 psi PKR opened PSI drop t/ 1900 psi, bring pressure up t/ 2600 psi PKR set bled back press t/ 1200 leaving 2 bbl in PKR Bled press to -0-,		8,404.0	8,404.0			
16:15	0.5	16:45	INT, CASE & CMT	CMT	NORMAL	Drop opening tool - wait 21 min; Open DV tool w/ 820 psi and circulate 20 bbls WBM with CMT pump. (100% returns.)		8,404.0	8,404.0			
Daily Drilling Report												
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Printed: Wednesday, November 28, 2018												

Daily Drilling Report

Time Log												
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #		
16:45	1	17:45	INT, CASE & CMT	CIRC	NORMAL	Circ. B/U w ith Rig pumps; 100% returns. GPM:350; SSP: 350;	8,404.0	8,404.0				
17:45	2.75	20:30	INT, CASE & CMT	CMT	NORMAL	Swapped lines and pump 2nd stage: Pump 50 bbls. GXT spacer @10.7, 364 bbls (735 sks) #11.0 Lead CMT, 56 bbls (235 sks) 14.8 Tail CMT, 322 bbls displacement w/ full returns. Bumped plug on schedule w/ 500 psi then pressured up to 2070 psi to close DV Tool. Bled off, Floats held & got back 2.5 bbls. No cement to surface.	8,404.0	8,404.0				
20:30	0.75	21:15	INT, CASE & CMT	RD_CMT	NORMAL	R/D cement iron and head	8,404.0	8,404.0				
21:15	0.5	21:45	INT, CASE & CMT	PULL_CSG	NORMAL	Backed out and L/D Landing Joint	8,404.0	8,404.0				
21:45	0.5	22:15	INT, CASE & CMT	WH	NORMAL	Wash thru BOPE stack and wash out well head	8,404.0	8,404.0				
22:15	1	23:15	INT, CASE & CMT	WH	NORMAL	Installed and tested pack off to 5000 psi L/D Setting tool.	8,404.0	8,404.0				
23:15	1.25	00:30	PROD, PRE DRL	ND_BOPE	NORMAL	N/D BOPE	8,404.0	8,404.0				
00:30	2.5	03:00	PROD, PRE DRL	WH	NORMAL	Install and test abandonment cap t/ 5000 psi & hold for 10 min. Good test! (Prep. rig to walk.) ? Released rig on 11-28-18 @ 03:00 AM.	8,404.0	8,404.0				
Interval Problems												
3RD PARTY, 8,404.0ftKB, 11/27/2018 04:00												
Ref #	Dur (N...	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment					
11	6.50	No	CEMENT	LOGISTICS	19,175.00	CREST PUMPING TECHNOLOGIES LLC	Cementers were on another job they had 3 back to back jobs					
Hydraulic Calculations												
Dens Mud (lb/gal)	ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
Mud Checks												
Time			Mud Company			Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	T Flowline (°F)		
00:15			PIONEER DRILLING FLUIDS			WATER BASE	8,404.0	9.55	35	0.0		
PV (cP)		YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)		
5.0		6.000	3	3	51.0			250.0		500.0		
Solids (%)			Low Gravity Solids (%)		Sand (%)	MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)		
7.0			4.6			15.0		2.900				
Chlorides (ppm)			Calcium (ppm)		CaCl (ppm)	Oil Water Ratio	Electric Stab (V)		Lime (lb/bbl)	pH		
60,000.000			920.000			0/100			0.6	12.0		
Gel 10 sec (lb/100ft²)					Gel 10 min (lb/100ft²)			Gel 30 min (lb/100ft²)				
5.000					10.000			15.000				
Comment												
Recommended Fluids Treatment:												
No treatment made.												
Drilling Fluids Activity Last 24 hrs:												
Cement 9 5/8" intermediate casing. Prep rig to skid to next well.												
Active Fluid: WBM												
Drilling Parameters:												
Torque: ft/lbs												
WOB: kLBS												
RPM: rpm												
ROP: ft/hr												
Differential Pressure: psi												
Deviation (angle): degrees												
Azimuth: degrees												
Volumes:												
Pit volume total = 499 bbls												
Reserve fluids = 1200 bbls												
WBM Frac 1 = 150 bbls												
WBM Frac 2 = 400 bbls												
WBM Frac 3 = 400 bbls												
Premix = 250 bbls												
OBM Frac 1 = 300 bbls												
OBM Frac 2 = 275 bbls												
OBM Frac 3 = 250 bbls												
OBM Frac 4 = 250 bbls												
OBM Frac 5 = 275 bbls												
Last BOP Test												
Date		Test Type			Item Tested		Next Test Date	Com				
11/20/2018		BOP			BOP'S, 11/19/2018 00:30, <class>		12/11/2018	Tested BOPE 250 /5000				
Leak Off and Formation Integrity Tests												
Test Type					Depth (ftKB)			Dens Fluid (lb/gal)				
FORMATION INTEGRITY					1,244.0			12.75				
Casing Pressure Test												
Test Type				Test Subtype		Date	Item Tested		Failed?	Time (min)	P (psi)	
CASING				STANDARD		11/8/2018	SURFACE, 1,223.7ftKB		No	30.00	1,000.0	
Daily Drilling Report												

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
	HEEL	
	TOE	
	KICK OFF	

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	148.5		20	H40	78.67		
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	

Cement

INTERMEDIATE CASING CEMENT, Casing, 11/27/2018 10:45

Cementing End Date 11/27/2018 20:30	Wellbore ORIGINAL	Technical Result SUCCESS	Comment 1st stage: Test lines to 5000 psi.- Pump 50 bbls. GXT spacer @10.7 ppg. - Pump 306 bbls of Lead cmt. (690 sks) @ 11.0 pp. - Pump 49 bbls of Tail cmt. (205sks) @ 14.8 ppb. - Drop plug & disp. w/ 628 bbls.of WBM. plug did not bump, pumped 3.75 bbl 1/2 of shoe trac Plug did not bump, Check float bled back 1/2 bbl WBM Float held, Drop Contingency Plug wait 21 min to fall, pressure up t/ 1200 psi stage pressure up t/ 2220 psi PKR opened PSI drop t/ 1900 psi, bring pressure up t/ 2600 psi PKR set bled back press t/ 1200 leaving 2 bbl in PKR Bled press to -0, 2nd stage: Pump 50 bbls. GXT spacer @10.7, 364 bbls (735 sks) #11.0 Lead CMT, 56 bbls (235 sks) 14.8 Tail CMT, 322 bbls displacement w/ full returns. Bumped plug on schedule w/ 500 psi then pressured up to 2070 psi to close DV Tool. Bled off, Floats held & got back 2.5 bbls. No cement to surface.
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Cement Stages

Description INTERMEDIATE CASING CEMENT	Final Top De... 4,248.0	Btm (ftKB) 8,404.0	Top Pl... Yes	Btm Pl... No	Q Pump Init (... 8	Q Pump Fina... 8	Q Pump Avg... 4	P Pump Final... 450.0	P Plug Bump... 0.0	Float... No	Recip? No	Rotated? No
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Cement Fluids

Fluid Type SPACER	Estimated Top (ftKB) 0.0	Est Btm (ftKB) 28.0	Class	Yield (ft³/sack) 0.00	Density (lb/gal) 10.00
Fluid Type LEAD CMT	Estimated Top (ftKB) 28.0	Est Btm (ftKB) 7,643.0	Class LITECRETE	Yield (ft³/sack) 2.50	Density (lb/gal) 11.00
Fluid Type TAIL CMT	Estimated Top (ftKB) 7,643.0	Est Btm (ftKB) 8,404.0	Class CLASS C	Yield (ft³/sack) 1.33	Density (lb/gal) 14.80
Fluid Type DSPLMT	Estimated Top (ftKB) 31.0	Est Btm (ftKB) 8,404.0	Class	Yield (ft³/sack) 0.00	Density (lb/gal) 8.33

Description INTERMEDIATE CASING CEMENT	Final Top De... 31.0	Btm (ftKB) 3,748.0	Top Pl... Yes	Btm Pl... No	Q Pump Init (... 7	Q Pump Fina... 7	Q Pump Avg... 4	P Pump Final... 510.0	P Plug Bump... 2,400.0	Float... No	Recip? No	Rotated? No
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Cement Fluids

Fluid Type SPACER	Estimated Top (ftKB) 0.0	Est Btm (ftKB) 28.0	Class	Yield (ft³/sack) 0.00	Density (lb/gal) 10.00
Fluid Type LEAD CMT	Estimated Top (ftKB) 28.0	Est Btm (ftKB) 3,721.0	Class LITECRETE	Yield (ft³/sack) 2.50	Density (lb/gal) 11.00
Fluid Type TAIL CMT	Estimated Top (ftKB) 3,721.0	Est Btm (ftKB) 3,259.0	Class CLASS C	Yield (ft³/sack) 1.33	Density (lb/gal) 14.80
Fluid Type DSPLMT	Estimated Top (ftKB) 31.0	Est Btm (ftKB) 3,259.0	Class	Yield (ft³/sack) 0.00	Density (lb/gal) 8.33

Job Supply Amounts

Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	0	1,090	0	56"	8,175	14,028.0
DIESEL	FUEL	GAL	0	0	0	0"	8,423	0.0

Mud Additive Amounts

Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	48
CAUSTIC SODA	ALKALINITY CONTROL	SACK		7	371.0	229
DEFOAMER	DEFOAMER	CAN		1	36.0	52
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	12
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	13
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	12
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	12
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	12
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	3,960

Pump Operations

Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0

Pump Checks

Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)

Deviation Surveys

Date	Description FINAL SURVEY	Job
Date 11/5/2018	Description AS DRILL SURVEY	Job ODR, 11/4/2018 13:30

Formations

Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
272_0_WFMP_A2	-5,596.0		8,329.5		

Daily Drilling Report

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Printed: Wednesday, November 28, 2018

Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018	Release:
Days Since LTI: 160.00	Days Since RI: 160.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	11/28/2018
Report #:	17
DFS:	15
AFE #:	9000912
Total AFE + Sup:	\$4,068,828.95
Daily Field Est. (Cost):	\$152,002.06

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
271_0_WFMP_A3	-5,741.0		8,474.5		
275_0_WFMP_B1	-5,833.0		8,566.5		
276_0_WFMP_B2	-5,910.0		8,643.5		
278_0_WFMP_B3	-6,173.0		8,906.5		
WFMP B3 TOT	-6,199.0		8,932.5		
INTENDED LANDING POINT (ILP)	-6,215.0		8,948.5		
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		
Target 3	-6,250.0		8,983.5		
Target 4	-6,260.0		8,993.5		
BHL	-6,240.0		8,973.5		

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM
TRANSIER, KENNETH, FOREMAN	FOREMAN		318-481-3868	KENNETH.TRANSIER@PXD.COM
SHELTON, GARY, FOREMAN	FOREMAN		601-435-7888	GARY.SHELTON@PXD.COM
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394	

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 161.00 Days Since RI: 161.00

PERMIAN - JV SOUTHERN WOLFCAMP
Job: ODR
Report Date: 1/14/2019
Report #: 18
DFS: 16
AFE #: 9000912
Total AFE + Sup: \$4,134,694.81
Daily Field Est. (Cost): \$65,139.00

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
10:15	MEETING	JSA	DAY	PJSM with PNR, & Patterson personnel on skidding rig.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Flush BOP's, Install Pack Off, N.D BOP's, Skid Rig, N/U BOP's, Test BOP's Trapped Pressure, P/U Dumb Iron, TIH, 100% Tie Off. R2LB - #1 Safe Work Permits, Core Value - #1 Respect						
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Pinnergy #4 - During surface drilling operations the open top tank in the backyard overflowed due to miscommunication between the derrick hand and solids control employee. Approximately 3 barrels of fresh water was released on to the ground. Fresh water on the ground was immediately sucked up by vac truck that was on location.						
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed man working tongs while making up bit pulling the tongs trying to make the bite , stopped the job explained how the tongs worked showed him proper hand placement to the tongs he understood						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	2/11/2019	3RD Well / 3 Well pad (Revised on 1/13/19)					
Daily Operations										
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 8,404.0	Target Depth (ftKB) 19,076.0	Daily Field Est Total (Cost) 65,139.00	Cum Field Est To Date (Cost) 1,874,354.69		
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 8,309.1	Target Depth (TVD) (ftKB)	Daily Mud Field Est (Cost) 6,114.00	Cum Mud Field Est (Cost) 97,797.24	Total AFE + Sup (Cost) 4,134,694.81	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 10.0		Daily Goal - Next 24 250.0		Goal Comments Goal not Met		
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB			Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00	Max Drill Gas 0.00	
Operations Summary Walk Rig from University 102H to University 103H, N/U BOP's, Test BOP's, M/U drill out BHA, TIH w/ same, Tag Dv tool Test 9 5/8 CSG above DV tool, drill out DV tool, test 9 5/8 csg t/ 2500 psi , TIH										
Operations Next Report Period Drill F/E , 10' new hole , FIT test, POOH										
Operations at Report Time Drilling F/E										
Remarks NPT for Jan. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 0%; Lateral 0% Last Survey : MD:8404' , inc 0.24 , az 138.49, Left 30.40 Above 9.40										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
10:15	0.25	10:30	PROD, PRE DRL	SFTY	NORMAL	PJSM with PNR, & Patterson personnel on skidding rig.	8,404.0	8,404.0		
10:30	3	13:30	PROD, PRE DRL	SKID	NORMAL	Walk Rig from University 102H to University 103H	8,404.0	8,404.0		
13:30	0.25	13:45	PROD, PRE DRL	SFTY	NORMAL	PJSM with PNR & Patterson personnel on nipple up BOPs.	8,404.0	8,404.0		
13:45	2	15:45	PROD, PRE DRL	NU_BOPE	NORMAL	N/U BOP's, (Install BOP on wellhead, R/U Turn buckles, choke line, kill line, & flow line.)	8,404.0	8,404.0		
15:45	0.25	16:00	PROD, PRE DRL	SFTY	NORMAL	PJSM with PNR, Battle, & Patterson personnel on testing BOP's.	8,404.0	8,404.0		
16:00	3	19:00	PROD, PRE DRL	TEST_BOPE	NORMAL	R/U BattleTesters, Test BOP's 250L/5000H, Hydril 250L/3500H, Floor valves & std. pipe 250L/5000H, ? Choke manifold (250/5000) and mud line to pumps (250/6000 psi) tested off line	8,404.0	8,404.0		
19:00	0.5	19:30	PROD, PRE DRL	WRBSH	NORMAL	Install Wear Bushing	8,404.0	8,404.0		
19:30	0.5	20:00	PROD, PRE DRL	RIG_SVC	NORMAL	Service rig	8,404.0	8,404.0		
20:00	0.5	20:30	PROD, PRE DRL	HDL_ROT HD	NORMAL	Installed trip nipple	8,404.0	8,404.0		
20:30	0.25	20:45	PROD, PRE DRL	HDL_BHA	NORMAL	P/U Drill out BHA. (Bit, 2 junk baskets, bit sub)	8,404.0	8,404.0		
20:45	0.5	21:15	PROD, PRE DRL	HDL_BHA	NORMAL	Run 6 stds HWDP in hole F/ Derrick.	8,404.0	8,404.0		
21:15	2.75	00:00	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH t- 4257' (DV Tool)	8,404.0	8,404.0		
00:00	0.5	00:30	PROD, PRE DRL	CSG_TEST	NORMAL	Break circ, set down 50k 2 times. Test DV to 2500 psi for 5 min (ok)	8,404.0	8,404.0		
00:30	3	03:30	PROD, PRE DRL	DRL_OUT	NORMAL	Drill DV tool from 4257 to 4259; gpm 300; RPM 5-30; WOB 15	8,404.0	8,404.0		
Daily Drilling Report										
Page 1/3					Printed: Monday, January 14, 2019					

Daily Drilling Report

Time Log																					
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com				Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #								
03:30	0.75	04:15	PROD, PRE DRL	CSG_TEST	NORMAL	Test 9 5/8 csg to 2500 psi for 30 min Good test				8,404.0	8,404.0										
04:15	1.5	05:45	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH 4259 to 8290 (Float Collar); ? displacing to trip tanks				8,404.0	8,404.0										
05:45	0.25	06:00	PROD, PRE DRL	DRL_OUT	NORMAL	Drill cmt & float equip 8290'				8,404.0	8,404.0										
Drill Strings																					
BHA #3 , DRILL OUT																					
Bit Run 3				Drill Bit 8 3/4in, GX 117, 5294587				Bit Type MILL TOOTH				Make GE/BAKER HUGHES									
Nozzles (1/32") 20/20/20				Bit Total Fluid Area (nozzles) (in²) 0.92				IADC Bit Dull -----				Hours Drilled By Bit (hr)				Depth Drilled By Bit (ft)					
BHA Drilling Time (hr)				BHA Depth Drilled (ft)				BHA ROP (ft/hr)				Depth In (ftKB) 8,404.0				Depth Out (ftKB) 8,404.0					
Drill String Components																					
Jts	Item Des				OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lbf)		Cum Wt (1000lbf)		Make				
94	DRILL PIPE				5		4.27		7,725.41		8,290.00		150,645.5		178						
18	HWDP				5		3.00		550.47		564.59		27,138.2		28						
1	SUB -BIT				6		3.50		3.95		14.12		194.7		1						
1	SUB - JUNK				6 1/2		2.25		4.64		10.17		228.8		0						
1	SUB - JUNK				7		2.25		4.53		5.53		223.3		0						
Sensors																					
Sensor Type				Sensor-Bit (ft)						Note											
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)				
00:30	03:30	8,404.0	0.00		15	25	0.0	300	400.0	1.0	160	160	160	160	3.0	3.0	0				
Hydraulic Calculations																					
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
11.90		12.09		20.6		0.3		104.6		117.9		58.8		72.8		143.81		1.96		432.34	
Mud Checks																					
Time 01:00		Mud Company PIONEER DRILLING FLUIDS					Type OIL BASE			Depth (ftKB) 8,404.0		Density (lb/gal) 11.90		Funnel Viscosity (s/qt) 99		T Flowline (°F)					
PV (cP) 17.0		YP (lb/100ft²) 13.000		Vis 3rpm 8		Vis 6rpm 9		Filtrate (mL/30min)			HTHP Filtrate (mL/30min) 18.0		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0						
Solids (%) 21.0				Low Gravity Solids (%) 7.2			Sand (%)			MBT (lb/bbl)		Pm (mL/mL)			Pf (mL/mL)						
Chlorides (ppm) 23,000.000				Calcium (ppm) 8,000.000			CaCl (ppm) 23		Oil Water Ratio 84.8/15.2		Electric Stab (V) 928.0			Lime (lb/bbl) 2.3		pH					
Gel 10 sec (lb/100ft²) 11.000						Gel 10 min (lb/100ft²) 20.000						Gel 30 min (lb/100ft²) 22.000									
Comment																					
Recommended Fluids Treatments:																					
No Treatment. Daily cost on this report is for OBM rental only, all other costs reported on report #21 of the University 3-15B 102H.																					
Drilling Fluids Activity Last 24 Hrs:																					
First two mud checks (4am &10am) are on report #21 of the University 3-15B 102H. Skid rig back to the University 3-15C 103H, nipple up and test BOP's. Pick up dumb iron and TIH to drill out DV tool.																					
Drilling Fluids Forecast Next 24 Hrs:																					
Displace to OBM and treat as necessary to maintain properties within program specs.																					
Rig Activity Last 24 hrs																					
Pre/post tour safety meetings. Skid rig to 103H well. PJSM with Cactus Well Head; nipple up BOP. PJSM with Cactus and Battle to set plug and test BOP's. Pull test plug and install wear bushings. Install trip nipple and center stack. M/U BHA. Start TIH at time of mud report.																					
Volumes																					
Daily Diesel Used				898 GAL																	
Cumulative Diesel Used				898 GAL																	
Diesel on Location				7,425 GAL																	
Daily Water Used				0 GAL																	
Cumulative Water Used				0 GAL																	
Daily OBM Surface Losses				BBLS																	
OBM Volume Accounting:																					
Total OBM Received				BBLS																	
Total OBM Rental				2,038 BBLS																	
Total OBM on Location				1,652 BBLS																	
Daily Drying Shaker Recovered				0 BBLS																	
Cumulative Drying Shaker Recovered				0 BBLS																	
Daily OBM Downhole Losses				0 BBLS																	
Cumulative OBM Surface Losses				0 BBLS																	
Cumulative OBM Downhole Losses				0 BBLS																	
Last BOP Test																					
Date		Test Type				Item Tested				Next Test Date		Com									
1/13/2019		BOP				BOP'S, 11/19/2018 00:30, <class>				2/3/2019		Tested BOPE 250 /5000									
Leak Off and Formation Integrity Tests																					
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)									
FORMATION INTEGRITY						1,244.0						12.75									
Casing Pressure Test																					
Test Type				Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)				
CASING				STANDARD				11/8/2018		SURFACE, 1,223.7ftKB				No	30.00		1,000.0				
CASING				STANDARD				1/14/2019		INTERMEDIATE, 8,385.0ftKB				No	30.00		2,500.0				
Daily Drilling Report																					

Daily Drilling Report

Kick Offs & Key Depths								
Date			Type			Top Depth (ftKB)		
			HEEL					
			TOE					
			KICK OFF					
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	148.5		20	H40	78.67			
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5	
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC		
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	5,669	0	0	Transferred from 102H	5,669	14,028.0
DIESEL	FUEL	GAL	7,200	300	0	82"	12,569	14,328.0
DIESEL	FUEL	GAL	4,284	0	0	Transferred from 102H	4,284	0.0
DIESEL	MUD	GAL	8,602	898	0	Transferred from 102H	7,704	898.0
WATER	FRESH	BBL	0	0	0	109180 METER READING	57,348	25,115.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
OBM RENT ON RET MUD	MISCELLANEOUS	PER BBL		2,038	2,038	0.0	2,038	
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
Deviation Surveys								
Date	Description					Job		
	FINAL SURVEY							
Date	Description					Job		
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30		
Formations								
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
272_0_WFMP_A2			-5,596.0		8,329.5			
271_0_WFMP_A3			-5,741.0		8,474.5			
275_0_WFMP_B1			-5,833.0		8,566.5			
276_0_WFMP_B2			-5,910.0		8,643.5			
278_0_WFMP_B3			-6,173.0		8,906.5			
WFMP B3 TOT			-6,199.0		8,932.5			
INTENDED LANDING POINT (ILP)			-6,215.0		8,948.5			
Target 1			-6,282.0		9,015.5			
Target 2			-6,282.0		9,015.5			
Target 3			-6,250.0		8,983.5			
Target 4			-6,260.0		8,993.5			
BHL			-6,240.0		8,973.5			
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM			
HARDIN, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM			
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM			
SPACEK, KYLE, ENGINEER		ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM			
PASSMORE, DAVID, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR	432-360-4057	318-780-3935	DAVID.PASSMORE@PXD.COM			
SHELTON, GARY, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		601-435-7888	GARY.SHELTON@PXD.COM			
RIG-PATTERSON 807, RIG PHONE		RIG PHONE	361-489-3691	432-257-6394				
Personnel Log								
Company						Count		
PIONEER NATURAL RESOURCES USA INC						2		
PATTERSON-UTI DRILLING COMPANY LLC						14		
PALADIN GEOLOGICAL SERVICES LLC						2		
TRICORPS SECURITY						2		
GYRODATA INC						4		
DWM CONSULTING						2		
TRIFECTA OILFIELD SERVICES LLC						0		

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 162.00 Days Since RI: 162.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/15/2019

Report #: 19

DFS: 17

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$43,433.24

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)										
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date										
Safety Checks																
Time	Type	Des	Tour	Com												
06:00	MEETING	PRE-TOUR	DAY	PTSM - 100% Tie Off, TIH, Spill Prevention, OBM Transfers, Hand and Body Placement, Pinch Points, PPE. R2LB - #2 By Passing Safety Critical Equipment, Core Value - #2 Ethics and Honesty												
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Patterson 252 - While filling the hole with the trip tank pump the gasket for the valve washed out resulting in a 23 gallon release of OBM. 13 gallons were released inside containment and 10 gallons outside containment. The release was remediated, and 23 gallons were recovered.												
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Patterson 252 - While filling the hole with the trip tank pump the gasket for the valve washed out resulting in a 23 gallon release of OBM. 13 gallons were released inside containment and 10 gallons outside containment. The release was remediated, and 23 gallons were recovered.												
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Hand and Body Placement, Pinch Points, PPE, 100% Tie Off, TIH, Spill Prevention, OBM Transfers. R2LB - #2 By Passing Safety Critical Equipment, Core Value - #2 Ethics and Honesty												
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed man running the wrangler while P/U BHA he could not see around the drill pipe in the derrick stopped the job explained to the crew that the man could not see around the drill pipe got one crew member to flag the man running the wrangler while bring in BHA, they understood												
Jobs																
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status								
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS								
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)																
Type			Subtype		Date	Note										
MILESTONE			ESTIMATED PAD RELEASE		2/5/2019	3RD Well / 3 Well pad (Revised on 1/15/19)										
Daily Operations																
Footage/Meterage (ft) 10.00		Drilling Hours (hr) 1.50		% Rotating Time (%) 100.00		End Depth (ftKB) 8,414.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 43,433.24		Cum Field Est To Date (Cost) 1,916,765.64				
24 HR ROP (ft/hr) 6.7		Circulating Hours (hr)		% Sliding Time (%) 0.00		End Depth (TVD) (ftKB) 8,319.1		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 3,213.24		Cum Mud Field Est (Cost) 99,988.19		Total AFE + Sup (Cost) 4,134,694.81		
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 250.0				Daily Goal - Next 24 300.0				Goal Comments Goal not met				
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB				Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB								
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 12.00		Max Connection Gas 227.00		Max Trip Gas 0.00		Max Drill Gas 301.00						
Operations Summary Push DV Tool debris down f- 8100' t- 8290'. Drilled Cement and Float Equipment, Drilled 10' new hole, FIT test, POOH, L/D drill out BHA, P/U Curve directional assy, TIH T/ 8383' , Slip and cut drill line																
Operations Next Report Period TIH F/ 8383' T/ 8414', Drill Production curve																
Operations at Report Time Tripping in hole																
Remarks NPT for Jan. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 0%; Lateral 0% Last Survey : MD:8404' , inc 0.24 , az 138.49, Left 30.40 Above 9.40																
Time Log																
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #						
06:00	6	12:00	PROD, PRE DRL	TOOH_NONEL EV	NORMAL	Pushing DV Tool debris down f- 8100' t- 8290'.	8,404.0	8,404.0								
12:00	3	15:00	PROD, PRE DRL	DRL_OUT	NORMAL	Drilled Cement and Float Equipment f- 8290' t- 8404' ? Full Returns ? Displaced hole w/ OBM	8,404.0	8,404.0								
15:00	1.5	16:30	PROD, PRE DRL	DRL	NORMAL	Drilled 10' new hole f- 8404' t- 8414' ? full returns	8,404.0	8,414.0								
16:30	0.5	17:00	PROD, PRE DRL	FIT	NORMAL	FIT to 13.3 ppg EMW using 11.9 ppg PMW @ 640 psi	8,414.0	8,414.0								
17:00	0.25	17:15	PROD, PRE DRL	FLOW_CHK	NORMAL	Checked flow and pumped slug	8,414.0	8,414.0								
17:15	3.5	20:45	PROD, PRE DRL	TOOH_ELEV	NORMAL	TOOH f- 8414' t- 564'. ? Filling hole from trip tanks	8,414.0	8,414.0								
20:45	0.5	21:15	PROD, PRE DRL	HDL_BHA	NORMAL	L/D 12 jts HWDP	8,414.0	8,414.0								
21:15	0.25	21:30	PROD, PRE DRL	HDL_BHA	NORMAL	Rack 2 stds HWDP into derrick.	8,414.0	8,414.0								
21:30	0.5	22:00	PROD, PRE DRL	HDL_BHA	NORMAL	L/D junk baskets bit and bit sub.	8,414.0	8,414.0								
22:00	0.25	22:15	PROD, PRE DRL	SFTY	NORMAL	PJSM - Discussed process to P/U Curve Assy w/ Gyrodata, Patterson and PNR personnel. Well static on trip tank	8,414.0	8,414.0								
Daily Drilling Report											Page 1/4			Printed: Tuesday, January 15, 2019		

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 162.00	Days Since RI: 162.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/15/2019
Report #:	19
DFS:	17
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$43,433.24

Daily Drilling Report Page 2/4 Printed: Tuesday, January 15, 2019

Daily Drilling Report

Mud Checks										
Time 00:00		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE	Depth (ftKB) 8,414.0	Density (lb/gal) 11.90	Funnel Viscosity (s/qt) 94	T Flowline (°F)	
PV (cP) 17.0	YP (lb/100ft²) 15.000	Vis 3rpm 9	Vis 6rpm 9	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 18.2	HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 21.0		Low Gravity Solids (%) 7.1		Sand (%)		MBT (lb/bbl)	Pm (mL/mL)		Pf (mL/mL)	
Chlorides (ppm) 24,000.000		Calcium (ppm) 8,400.000		CaCl (ppm) 238,400	Oil Water Ratio 84.8/15.2	Electric Stab (V) 856.0		Lime (lb/bbl) 2.5	pH	
Gel 10 sec (lb/100ft²) 12.000				Gel 10 min (lb/100ft²) 21.000			Gel 30 min (lb/100ft²) 26.000			
Comment Recommended Fluids Treatments: Maintain MW 11.9 ppg with bulk barite additions. As needed, add Megadrive P, Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction of drilling assembly; Run diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP. Pump 20bbls 2ppg over weighted sweeps every 500' or as needed. Drilling Fluids Activity Last 24 Hrs: No treatment today. Displaced to OBM. Barite usage for slug. Drilling Fluids Forecast Next 24 Hrs: Treat as necessary to maintain properties within program specs. Rig Activity Last 24 hrs Pre/post tour safety meetings. Spill drill. Continue to TIH and wash down from 8100' to 8281', tag Float Collar, drill out FC and Float Shoe @ 8374', wash down to 8404'. Drill to 8414', FIT Test to 13.5ppg @699 psi. Flow check, well static, pump slug. POOH. L/D BHA at time of mud report. Volumes Daily Diesel Used 0 GAL Cumulative Diesel Used 898 GAL Diesel on Location 7,425 GAL Daily Water Used 0 GAL Cumulative Water Used 0 GAL Daily OBM Surface Losses 10 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,646 BBLS Daily Drying Shaker Recovered 0 BBLS Cumulative Drying Shaker Recovered 0 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 10 BBLS Cumulative OBM Downhole Losses 0 BBLS										
Last BOP Test										
Date	Test Type			Item Tested		Next Test Date	Com			
1/13/2019	BOP			BOP'S, 11/19/2018 00:30, <class>		2/3/2019	Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests										
Test Type				Depth (ftKB)			Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,244.0			12.75			
LEAK OFF				8,414.0			13.38			
Casing Pressure Test										
Test Type		Test Subtype			Date	Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			11/8/2018	SURFACE, 1,223.7ftKB		No	30.00	1,000.0
CASING		STANDARD			1/14/2019	INTERMEDIATE, 8,385.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths										
Date				Type			Top Depth (ftKB)			
				HEEL						
				TOE						
				KICK OFF						
Casing Strings										
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread		P LeakOff (psi)		
CONDUCTOR	148.5		20	H40	78.67					
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC		823.5		
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC		5,782.7		
Job Supply Amounts										
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed		
DIESEL	FUEL	GAL	0	1,245	0	74"	11,324	15,573.0		
DIESEL	FUEL	GAL	4,284	0	0		8,568	0.0		
DIESEL	MUD	GAL	0	279	0		7,425	1,177.0		
WATER	FRESH	BBL	0	0	0	109180 METER READING	57,348	25,115.0		
Mud Additive Amounts										
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons				
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON	75	3	72.0	7				
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	48				
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	12				
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	13				
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	12				
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	12				
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	12				
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	3,960				
Daily Drilling Report										

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Printed: Tuesday, January 15, 2019

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 162.00	Days Since RI: 162.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/15/2019
Report #:	19
DFS:	17
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$43,433.24

Daily Drilling Report Page 4/4 Printed: Tuesday, January 15, 2019

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)							
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date							
Safety Checks													
Time	Type	Des	Tour	Com									
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	H&P 390 - While contractor was pulling slack out of the diesel pressure washer line, he inadvertently struck himself in the mouth with the wand. Contractor received minor injuries. First aid was performed on location and he refused medical attention.									
06:00	MEETING	PRE-TOUR	DAY	PTSM - PPE, Spill Prevention, Transfer OBM, Housekeeping, Making Connections. R2LB - #3 Confined Space Entry, Core Value - #3 Safety									
14:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed man get on forklift and start it up without fastening seat belt. I stopped him and asked why he hadn't fastened his seat belt. He told me he was only moving it to it's proper parking spot. I told him moving it is driving it and that requires a seat belt. He said he understood and buckled up									
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	H&P 390 - While contractor was pulling slack out of the diesel pressure washer line, he inadvertently struck himself in the mouth with the wand. Contractor received minor injuries. First aid was performed on location and he refused medical attention.									
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Housekeeping, Making Connections, PPE, Spill Prevention, Transfer OBM. R2LB - #3 Confined Space Entry, Core Value - #3 Safety									
Jobs													
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status					
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS					
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)													
Type			Subtype		Date	Note							
MILESTONE			ESTIMATED PAD RELEASE		2/5/2019	3RD Well / 3 Well pad (Revised on 1/15/19)							
Daily Operations													
Footage/Meterage (ft) 1,323.00		Drilling Hours (hr) 24.00		% Rotating Time (%) 48.61		End Depth (ftKB) 9,737.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 42,003.03		Cum Field Est To Date (Cost) 1,958,768.67	
24 HR ROP (ft/hr) 55.1		Circulating Hours (hr)		% Sliding Time (%) 51.39		End Depth (TVD) (ftKB) 8,962.9		Target Depth (TVD) (ftKB) 5,373.03		Daily Mud Field Est (Cost) 105,361.22		Cum Mud Field Est (Cost) 4,134,694.81	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 300.0				Daily Goal - Next 24 1,500.0				Goal Comments Met goal	
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB				Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB					
Avg Connection Gas 128.00		Avg Trip Gas 0.00		Avg Background Gas 95.00		Max Connection Gas 2,232.00		Max Trip Gas 0.00		Max Drill Gas 231.00			
Operations Summary Drill curve F/8,485' T/9,362', drill lateral T/9,737													
Operations Next Report Period Drill Lateral F/9,737 T/11,237													
Operations at Report Time Drilling Lateral At 9,737													
Remarks NPT for Jan. Patterson: Past 24hr - 0 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 2% Last Survey : MD:9599' , inc 89.27 , az 178,57 Left 5.44 Above 12.51													
Time Log													
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	0.25	06:15	PROD, PRE DRL	TIH_NONELEV	NORMAL	Washed f- 8383' t- 8414'. ? good returns	8,414.0	8,414.0					
06:15	3	09:15	PROD, DRL CURVE	DRL	NORMAL	Drilled production hole to KOP F/ 8414' - T/8485'. 425 gpm. 30 rpm, full returns	8,414.0	8,485.0					
09:15	15.25	00:30	PROD, DRL CURVE	DRL	NORMAL	Drill curve section F/ 8485' - T/ 9,362' (877' @ 57' fph) with 100% Returns. WOB:30-36, SPP:4350, GPM:570, MM:165 ? Landed Curve @ 00.30 1-16-19	8,485.0	9,362.0					
00:30	5.5	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section F/ 9,362' - T/ 9,737' (375' @ 68' fph) 100% Returns. WOB:30-34, SPP:4550, GPM:600, MM:174	9,362.0	9,737.0					
Drill Strings													
BHA #4 , PRODUCTION - CURVE													
Bit Run 4		Drill Bit 8 1/2in, GTD55DM, 13176630				Bit Type PDC		Make HALLIBURTON					
Nozzles (1/32") 14/14/14/14		Bit Total Fluid Area (nozzles) (in²) 0.75			IADC Bit Dull -----		Hours Drilled By Bit (hr) 24.00		Depth Drilled By Bit (ft) 1,323.00				
BHA Drilling Time (hr) 24.00		BHA Depth Drilled (ft) 1,323.00			BHA ROP (ft/hr) 55.1		Depth In (ftKB) 8,414.0		Depth Out (ftKB) 9,737.0				
Drill String Components													
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make			
300	DRILL PIPE			5	4.27	9,463.36	9,737.00	184,535.5	199				
6	HWDP			5	3.00	182.84	273.64	6,759.6	15	OTHER (PROVIDE DESCRIPTION)			
1	DRILL COLLAR - NON MAG			6 5/8	3.31	29.99	90.80	2,699.1	8	STABIL DRILL			
1	DRILL COLLAR - NON MAG			6 7/8	3.25	31.07	60.81	2,796.3	5	STABIL DRILL			
1	SUB - UBHO			6 3/4	2.75	3.05	29.74	274.5	3	GYRODATA			
Daily Drilling Report													
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Daily Drilling Report

Drill String Components																					
Jts	Item Des				OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lb)		Cum Wt (1000lb)		Make				
1	MOTOR - TRUE SLICK				6 3/4		2.88		25.84		26.69		2,325.6		10,000.2		Gyrodata				
Mud Motors																					
SN		Bend Angle			Bearing Type		Lobe Config			# Stages			Lwr Defln Type			Bit To Bend					
GDM675028		2.12			NOT SEALED		6:7			5						4					
Sensors																					
Sensor Type				Sensor-Bit (ft)						Note											
GAMMA				32.00																	
D&I (INC/AZI)				43.00																	
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lb)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lb)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Off-Btm Str Wt (1000lb)	Drill Tq	Off Btm Tq	TFO (°)				
06:00	08:15	8,414.0	71.00	31.6	25	50	400.0	550	3,543.0	65.0	199	215	189	160	10,000.0	4,500.0	0				
08:15	11:30	8,485.0	127.00	39.1	33	0	275.0	550	3,333.0	45.0	199	215	189	160	0.0	0.0	181				
11:30	12:00	8,612.0	20.00	40.0	25	50	350.0	550	3,243.0	65.0	199	215	189	160	8,000.0	3,500.0	0				
12:00	13:30	8,632.0	74.00	49.3	34	0	325.0	550	3,240.0	45.0	199	215	189	160	0.0	0.0	340				
13:30	14:30	8,706.0	45.00	45.0	25	50	400.0	550	3,243.0	65.0	199	215	189	160	8,000.0	3,500.0	0				
14:30	15:15	8,751.0	49.00	65.3	34	0	425.0	550	3,240.0	45.0	199	215	189	160	0.0	0.0	285				
15:15	15:45	8,800.0	31.00	62.0	25	50	500.0	550	3,243.0	65.0	199	215	189	160	8,000.0	3,500.0	0				
15:45	17:00	8,831.0	63.00	50.4	36	0	400.0	550	3,300.0	65.0	199	220	189	160	0.0	0.0	360				
17:00	17:30	8,894.0	63.00	126.0	25	50	450.0	550	3,243.0	65.0	199	215	189	160	8,000.0	3,500.0	0				
17:30	18:00	8,957.0	31.00	62.0	36	0	400.0	550	3,300.0	65.0	199	220	189	160	0.0	0.0	360				
18:00	18:35	8,988.0	31.00	53.1	26	50	450.0	550	3,353.0	75.0	199	215	189	160	8,000.0	3,500.0	0				
18:35	19:35	9,019.0	62.00	62.0	36	0	400.0	550	3,300.0	65.0	199	220	189	160	0.0	0.0	360				
19:35	20:00	9,081.0	19.00	45.6	26	50	450.0	550	3,350.0	75.0	199	220	189	160	8,000.0	3,500.0	0				
20:00	21:15	9,100.0	75.00	60.0	32	0	400.0	550	3,300.0	65.0	199	220	189	160	0.0	0.0	360				
21:15	21:40	9,175.0	25.00	60.0	28	50	450.0	575	3,550.0	85.0	215	230	197	160	9,000.0	4,000.0	0				
21:40	22:55	9,200.0	69.00	55.2	33	0	400.0	575	3,400.0	75.0	215	230	197	160	0.0	0.0	360				
22:55	23:35	9,269.0	53.00	79.5	28	50	450.0	575	3,550.0	110.0	215	230	197	160	10,000.0	4,000.0	0				
23:35	00:30	9,322.0	40.00	43.6	34	0	450.0	575	3,450.0	65.0	215	230	197	160	0.0	0.0	360				
00:30	02:05	9,362.0	104.00	65.7	29	50	450.0	575	3,550.0	125.0	215	230	197	160	10,000.0	4,000.0	0				
02:05	02:45	9,466.0	35.00	52.5	32	0	450.0	575	3,450.0	65.0	210	230	195	160	0.0	0.0	245				
02:45	06:00	9,501.0	236.00	72.6	32	65	525.0	600	3,825.0	125.0	210	230	195	160	11,000.0	5,000.0	0				
Hydraulic Calculations																					
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
11.70		12.14		243.3		4.3		256.1		695.1		16.8		588.6		170.08		61.65		430.71	

Daily Drilling Report

Mud Checks													
Time 01:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 9,210.0		Density (lb/gal) 11.70	Funnel Viscosity (s/qt) 64	T Flowline (°F) 113.0		
PV (cP) 17.0		YP (lb/100ft²) 10.000		Vis 3rpm 7	Vis 6rpm 8	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 13.4		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 20.0				Low Gravity Solids (%) 6.8		Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)	
Chlorides (ppm) 23,000.000			Calcium (ppm) 8,800.000		CaCl (ppm) 216,800	Oil Water Ratio 83.8/16.2		Electric Stab (V) 956.0		Lime (lb/bbl) 3.4		pH	
Gel 10 sec (lb/100ft²) 11.000					Gel 10 min (lb/100ft²) 21.000					Gel 30 min (lb/100ft²) 23.000			
Comment Maintain MW 11.7ppg with bulk barite additions. As needed, add Megadrive P, Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction of drilling assembly; Run diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP. Pump 20bbls 2ppg over weighted sweeps every 500' or as needed. Drilling Fluids Activity Last 24 Hrs: MW maintained around 11.7ppg; diesel @3 bbls/hr & water 1.2 bbls/hr for volume, OWR and aid in lowering LSG; Megadrive S for diesel/water additions and keeping solids oil-wet; Graphite for friction reduction; Lime for alkalinity and calcium source for emulsifier; VG Plus for rheologies (YP & low-end) and filter cake lubricity; Versatrol for HTHP fluid loss. Rig Activity Last 24 hrs Pre/post tour safety meetings. BOP Trip Drill. TIH to 8425', remove trip nipple and install rotating head. Slip & cut drill line. Drilling and sliding building curve at time of mud report. Volumes Daily Diesel Used 2,908 GAL Cumulative Diesel Used 3,806 GAL Diesel on Location 4,517 GAL Daily Water Used 1,218 GAL Cumulative Water Used 1,218 GAL Daily OBM Surface Losses 64 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,678 BBLS Daily Drying Shaker Recovered 50 BBLS Cumulative Drying Shaker Recovered 50 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 79 BBLS Cumulative OBM Downhole Losses 0 BBLS													
Last BOP Test													
Date		Test Type			Item Tested			Next Test Date		Com			
1/13/2019		BOP			BOP'S, 11/19/2018 00:30, <class>			2/3/2019		Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests													
Test Type					Depth (ftKB)				Dens Fluid (lb/gal)				
FORMATION INTEGRITY					1,244.0				12.75				
LEAK OFF					8,414.0				13.38				
Casing Pressure Test													
Test Type		Test Subtype			Date		Item Tested			Failed?	Time (min)	P (psi)	
CASING		STANDARD			11/8/2018		SURFACE, 1,223.7ftKB			No	30.00	1,000.0	
CASING		STANDARD			1/14/2019		INTERMEDIATE, 8,385.0ftKB			No	30.00	2,500.0	
Kick Offs & Key Depths													
Date					Type				Top Depth (ftKB)				
					TOE								
1/15/2019 09:15					KICK OFF				8,485.0				
1/16/2019 00:30					HEEL				9,362.0				
Casing Strings													
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread	P LeakOff (psi)
CONDUCTOR		148.5				20		H40		78.67			
SURFACE		1,223.7		1,223.0		13 3/8		J55		54.50		BTC	823.5
INTERMEDIATE		8,385.0		8,290.1		9 5/8		L-80 IC		40.00		BTC	5,782.7
Job Supply Amounts													
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note				Cum On Loc	Cum Consumed	
DIESEL		FUEL	GAL	0	2,242	0					9,082	17,815.0	
DIESEL		FUEL	GAL	0	0	0					8,568	0.0	
DIESEL		FUEL	GAL	0							8,568	0.0	
DIESEL		MUD	GAL	0	2,908						4,517	4,085.0	
WATER		FRESH	BBL	0	0	0	109180 METER READING				57,348	25,115.0	
Mud Additive Amounts													
Des		Type	Units	Rec		Consumed		On Loc		Cum Cons			
BULK TANK RENTAL		MISCELLANEOUS	EA	4		4		0.0		52			
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1		1		0.0		13			
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1		1		0.0		14			
GRAPHITE		FLUID LOSS ADDITIVES	SACK			22		-22.0		22			
LIME		ALKALINITY CONTROL	SACK			22		-22.0		29			
MEGADRIVE S		SPECIALITY	DRUM	1		1		0.0		1			
OBM TESTING EQUIPMENT		MISCELLANEOUS	DAY	1		1		0.0		13			
PER DIEM		MISCELLANEOUS	DAY	1		1		0.0		13			
Daily Drilling Report													

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Printed: Wednesday, January 16, 2019

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 163.00	Days Since RI: 163.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/16/2019
Report #:	20
DFS:	18
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$42,003.03

Pump Operations						
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0

Deviation Surveys		
Date	Description FINAL SURVEY	Job
Date 11/5/2018	Description AS DRILL SURVEY	Job ODR, 11/4/2018 13:30

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		
Target 3	-6,250.0		8,983.5		
Target 4	-6,260.0		8,993.5		
BHL	-6,240.0		8,973.5		

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

P/I/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)					
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date			
Safety Checks											
Time	Type	Des	Tour	Com							
06:00	MEETING	PRE-TOUR	DAY	PTSM - H2S Alarms and Drills, Making Connections, PPE, Pinch Points and Body Placement, Spill Prevention, OBM Transfers. R2LB - #4 Energy Isolation, Core Value - #4 Personal Accountability							
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Patterson 253 - While contractor was operating the manlift to pin the derrick board, he struck the derrick board causing damage to the basket railing.							
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Patterson 253 - While contractor was operating the manlift to pin the derrick board, he struck the derrick board causing damage to the basket railing.							
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Pinch Points and Body Placement, Spill Prevention, OBM Transfers, H2S Alarms and Drills, Making Connections, PPE. R2LB - #4 Energy Isolation, Core Value - #4 Personal Accountability							
18:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Observed Hand pressure washing rig floor without faceshield. Stopped hand and ask him if there was a reason for not using faceshield. Hand said he would be using pressure washer for just a few minutes. Even though he had safety glasses it was explained to him that faceshield was the proper PPE to use when pressure washing to avoid getting any debris in his face or eyes. Hand understands to use proper PPE from now on.							
Jobs											
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status		
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)											
Type			Subtype		Date		Note				
MILESTONE			ESTIMATED PAD RELEASE		2/5/2019		3RD Well / 3 Well pad (Revised on 1/15/19)				
Daily Operations											
Footage/Meterage (ft) 1,412.00		Drilling Hours (hr) 15.25		% Rotating Time (%) 78.14		End Depth (ftKB) 11,336.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 49,081.76	Cum Field Est To Date (Cost) 2,020,718.43
24 HR ROP (ft/hr) 92.6		Circulating Hours (hr) 3.25		% Sliding Time (%) 21.86		End Depth (TVD) (ftKB) 9,008.5		Target Depth (TVD) (ftKB) 12,451.76		Daily Mud Field Est (Cost) 117,812.98	Cum Mud Field Est (Cost) 4,134,694.81
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0			Daily Goal - Next 24 1,500.0			Goal Comments Not met due to NPT on Rig	
Backbuild Yes		Lateral Inclination	Last Casing String INTERMEDIATE, 8,385.0ftKB					Next Casing String PROPOSED PRODUCTION, <depth>ftKB			
Avg Connection Gas 337.00		Avg Trip Gas 0.00		Avg Background Gas 47.00		Max Connection Gas 715.00		Max Trip Gas 265.00		Max Drill Gas 664.00	
Operations Summary Drill Lateral from 9,737 to 11336'											
Operations Next Report Period Drill Lateral T/12,836'											
Operations at Report Time Drilling Lateral At 11,336											
Remarks NPT for Jan. Patterson: Past 24hr - 7.25 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 2% Last Survey : MD:11,104 , inc 89.49 , az 184.12 Right 10.24 Above 10.24											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	6.5	12:30	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section F/ 9,737' - T/ 10,490' (753' @ 115' fph) 100% Returns. WOB:30-34, SPP:4550, GPM:600, MM:174		9,737.0	10,490.0		
12:30	0.5	13:00	PROD, DRL LAT	CIRC	NORMAL	CBU prior to trip to shoe to change contaminated oil in top drive.		10,490.0	10,490.0	0.50	12
13:00	0.25	13:15	PROD, DRL LAT	FLOW_CHK	NORMAL	Checked flow and pumped slug		10,490.0	10,490.0	0.25	12
13:15	1.25	14:30	PROD, DRL LAT	TOOH_ELEV	NORMAL	TOOH f- 10,490' t- 8350' ? Filling hole from trip tanks		10,490.0	10,490.0	1.25	12
14:30	1	15:30	PROD, DRL LAT	RIG_RPR	NORMAL	Changed contaminated oil in top drive		10,490.0	10,490.0	1.00	12
15:30	0.5	16:00	PROD, DRL LAT	RIG_SVC	NORMAL	Service Rig & Top Drive.		10,490.0	10,490.0	0.50	12
16:00	1.25	17:15	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f- 8350' t- 10,490' ? displacing to trip tanks		10,490.0	10,490.0	1.25	12
17:15	5.75	23:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section F/ 10,490' - T/ 11,052' (562' @ 97' fph) 100% Returns. WOB:30-34, SPP:4550, GPM:600, MM:174		10,490.0	11,052.0		
23:00	2.5	01:30	PROD, DRL LAT	RIG_RPR	NORMAL	Rack Back 1 std; Circ while Toubleshoot Leaking module; Remove #3 Suction Module On #2 Mud Pump Found Worn Gasket And Change Out Same		11,052.0	11,052.0	2.50	13
01:30	4.5	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section F/ 11,052' - T/ 11,336' (282' @ 63' fph) 100% Returns. WOB:30-34, SPP:4550, GPM:600, MM:174		11,052.0	11,336.0		
Daily Drilling Report				Page 1/4				Printed: Thursday, January 17, 2019			

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 164.00	Days Since RI: 164.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/17/2019
Report #:	21
DFS:	19
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$49,081.76

Daily Drilling Report Page 2/4 Printed: Thursday, January 17, 2019

Daily Drilling Report

Mud Checks											
Time 01:00		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 10,923.0		Density (lb/gal) 11.80	Funnel Viscosity (s/qt) 61	T Flowline (°F) 120.0
PV (cP) 17.0	YP (lb/100ft²) 11.000	Vis 3rpm 6	Vis 6rpm 7	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 15.2		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 20.5		Low Gravity Solids (%) 7.1		Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)	
Chlorides (ppm) 22,000.000		Calcium (ppm) 8,600.000		CaCl (ppm) 209,400	Oil Water Ratio 83.6/16.4	Electric Stab (V) 772.0		Lime (lb/bbl) 3.6		pH	
Gel 10 sec (lb/100ft²) 10.000				Gel 10 min (lb/100ft²) 20.000				Gel 30 min (lb/100ft²) 22.000			
Comment Maintain MW 11.7 ppg with bulk barite additions. As needed, add Megadrive P, Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction of drilling assembly; Run diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP fluid loss. Drilling Fluids Activity Last 24 Hrs: MW maintained around 11.7ppg with bulk barite; diesel @3 bbls/hr & water 1.2 bbls/hr for volume, OWR and aid in lowering LSG; Megadrive P; Graphite for friction reduction; Lime for alkalinity and calcium source for emulsifier; VG Plus for rheologies and filter cake quality; Versatrol for HTHP fluid loss.. Rig Activity Last 24 hrs Pre/post tour safety meetings. Drilled & slide curve and landed @ 9362'. Drilling/sliding lateral to 10,490', circulated B/U, flow check and well static. Trip to shoe 8327'. Change contaminated oil in Top Drive. TIH to 10,490'. Drilling and sliding lateral to 11,052'. Rack back one stand & circulate due to washed module on MP #2. Circulate while waiting on new module at time of mud report. Volumes Daily Diesel Used 3,917 GAL Cumulative Diesel Used 7,723 GAL Diesel on Location 4,098 GAL Daily Water Used 1,092 GAL Cumulative Water Used 2,310 GAL Daily OBM Surface Losses 59 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,774 BBLS Daily Drying Shaker Recovered 20 BBLS Cumulative Drying Shaker Recovered 70 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 138 BBLS Cumulative OBM Downhole Losses 0 BBLS											
Last BOP Test											
Date		Test Type		Item Tested		Next Test Date		Com			
1/13/2019		BOP		BOP'S, 11/19/2018 00:30, <class>		2/3/2019		Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests											
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,244.0				12.75			
LEAK OFF				8,414.0				13.38			
Casing Pressure Test											
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			11/8/2018		SURFACE, 1,223.7ftKB		No	30.00	1,000.0
CASING		STANDARD			1/14/2019		INTERMEDIATE, 8,385.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths											
Date				Type				Top Depth (ftKB)			
				TOE							
1/15/2019 09:15				KICK OFF				8,485.0			
1/16/2019 00:30				HEEL				9,362.0			
Casing Strings											
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)	P LeakOff (psi)
CONDUCTOR		148.5				20		H40		78.67	
SURFACE		1,223.7		1,223.0		13 3/8		J55		54.50	BTC 823.5
INTERMEDIATE		8,385.0		8,290.1		9 5/8		L-80 IC		40.00	BTC 5,782.7
Job Supply Amounts											
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed	
DIESEL		FUEL	GAL	3,696	2,299				10,479	20,114.0	
DIESEL		FUEL	GAL	0	0	0	42"		4,284	0.0	
DIESEL		MUD	GAL	3,498	3,917				4,098	8,002.0	
WATER		FRESH	BBL	0	0	0	109180 METER READING		57,348	25,115.0	
Mud Additive Amounts											
Des		Type	Units		Rec		Consumed		On Loc		Cum Cons
ANCO BAR (BULK)		WEIGHTING MATERIAL	TON				22		50.0		29
BULK TANK RENTAL		MISCELLANEOUS	EA		4		4		0.0		56
ENGINEERING PER MILEAGE		MISCELLANEOUS	PER MILE		1,131		1,131		0.0		3,013
ENGINEERING SERVICE		MISCELLANEOUS	DAY		1		1		0.0		14
ENGINEERING SERVICE		MISCELLANEOUS	DAY		1		1		0.0		15
ENGINEERING SERVICE		MISCELLANEOUS	DAY		1		1		0.0		1
GRAPHITE		FLUID LOSS ADDITIVES	SACK				39		166.0		61
LIME		ALKALINITY CONTROL	SACK				28		346.0		57
MEGADRIVE P		SPECIALITY	DRUM				1		6.0		1
Daily Drilling Report					Page 3/4			Printed: Thursday, January 17, 2019			

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018

Release:

Days Since LTI: 164.00

Days Since RI: 164.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/17/2019

Report #: 21

DFS:	19
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AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$49,081.76

Pump Operations						
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0

Deviation Surveys		
Date	Description FINAL SURVEY	Job
Date 11/5/2018	Description AS DRILL SURVEY	Job ODR, 11/4/2018 13:30

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		

Personnel Log		
Company		Count
PIONEER NATURAL RESOURCES USA INC		2
PATTERSON-UTI DRILLING COMPANY LLC		14
PALADIN GEOLOGICAL SERVICES LLC		2
TRICORPS SECURITY		2
GYRODATA INC		4
DWM CONSULTING		2
TRIFECTA OILFIELD SERVICES LLC		0

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 165.00 Days Since RI: 165.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/18/2019

Report #: 22

DFS: 20

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$116,915.18

P/I/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)											
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date									
Safety Checks																	
Time	Type	Des	Tour	Com													
06:15	MEETING	PRE-TOUR	DAY	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #5Entrepreneurship Core Value - #5 Fall or elevated work safety													
06:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	H&P 429 While drilling at 7687' H2S alarm sounded. Shut well in and everyone mustered in safe area. SAT was on location monitoing the area. SAT's monitor read 25 ppm, at it's highest. When H2S was clear, everyone returned to normal peration.													
18:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	H&P 429 While drilling at 7687' H2S alarm sounded. Shut well in and everyone mustered in safe area. SAT was on location monitoing the area. SAT's monitor read 25 ppm, at it's highest. When H2S was clear, everyone returned to normal peration.													
18:15	MEETING	PRE-TOUR	NIGHT	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #5Entrepreneurship Core Value - #5 Fall or elevated work safety													
23:30	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Observed employee walked under lifted elevators. Stopped hand and spoke to same.													
Jobs																	
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status								
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30				IN PROGRESS								
Job Dates (ex. Estimated Pad Release, TXRRC Calls)																	
Type			Subtype		Date		Note										
MILESTONE			ESTIMATED PAD RELEASE		1/30/2019		3RD Well / 3 Well pad (Revised on 1/17/19)										
Daily Operations																	
Footage/Meterage (ft)		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB)		Target Depth (ftKB)									
361.00		4.00		85.42		11,697.0		19,076.0									
Daily Field Est Total (Cost)		Cum Field Est To Date (Cost)		116,915.18		2,144,067.61											
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB)		Target Depth (TVD) (ftKB)									
90.2		4.00		14.58				Daily Mud Field Est (Cost)									
								10,158.78									
Cum Mud Field Est (Cost)		Total AFE + Sup (Cost)		127,971.76		4,134,694.81											
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 1,500.0			Daily Goal - Next 24 1,500.0			Goal Comments Not met due to Trip for BHA								
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB				Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB									
Avg Connection Gas 337.00		Avg Trip Gas 335.00		Avg Background Gas 82.00		Max Connection Gas 422.00		Max Trip Gas 415.00									
Max Drill Gas 367.00																	
Operations Summary Drill lateral f/ 11,336 to 11,440' CBU 2x, TOO H f/ Bit and Motor, TIH. Drill f/ 11,440' to 11,697'																	
Operations Next Report Period Drill Lateral T/12,836'																	
Operations at Report Time Drilling Lateral At 11,697'.																	
Remarks NPT for Jan. Patterson: Past 24hr - 7.25 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 24% Last Survey : 11,516 MD, INC 91.41, AZ 182.57																	
Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #							
06:00	1.75	07:45	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 11,336' to 11,440' (104' @ 59' fph) 100% Returns. WOB:30-34, SPP:4550, GPM:600, MM:174 ROP slowed to 18/20 fph	11,336.0	11,440.0									
07:45	1.5	09:15	PROD, DRL LAT	CIRC	NORMAL	Circulate 2 x bottoms up, to TOO H, 13,600 PS 600 GPM w/ 4000 psi, w/ full returns.70 RPM w/ 8/12K	11,440.0	11,440.0									
09:15	0.25	09:30	PROD, DRL LAT	FLOW_CHK	NORMAL	Flow check well. Well static.	11,440.0	11,440.0									
09:30	5	14:30	PROD, DRL LAT	TOOH_NONEL EV	NORMAL	Tooh f/ 11,440' to BHA. Well taking correct displacement.	11,440.0	11,440.0									
14:30	0.5	15:00	PROD, DRL LAT	HDL_ROT HD	NORMAL	Remove rotating head and install trip nipple. Well static.	11,440.0	11,440.0									
15:00	0.25	15:15	PROD, DRL LAT	L/D BHA	NORMAL	L/D BHA. well static.	11,440.0	11,440.0									
15:15	0.5	15:45	PROD, DRL LAT	LD_DIR	NORMAL	PJSM. w/ Gyrodata. L/D BHA.	11,440.0	11,440.0									
15:45	0.5	16:15	PROD, DRL LAT	PU_DIR	NORMAL	PJSM w/ Gyro Data.P/U BHA	11,440.0	11,440.0									
16:15	1.75	18:00	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 254' to 2750'. Correct displacement.	11,440.0	11,440.0									
18:00	0.75	18:45	PROD, DRL LAT	HDL_AGITATO R	NORMAL	P/U, install and test agitator. 300 PSI increase 1000 psi to 1300 psi.	11,440.0	11,440.0									
18:45	2.75	21:30	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 2750' to 8095'. Correct displacement.	11,440.0	11,440.0									
21:30	0.5	22:00	PROD, DRL LAT	HDL_ROT HD	NORMAL	Pull trip nipple and install rotating head. Well static.	11,440.0	11,440.0									
22:00	0.25	22:15	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 8095' to 8470'. Correct Displacement.	11,440.0	11,440.0									
Daily Drilling Report																	

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Printed: Friday, January 18, 2019

Daily Drilling Report

Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #							
22:15	1.25	23:30	PROD, DRL LAT	SRVY_MGMT	NORMAL	Survey F/ 8470' to 9033'. 6 axis survey. Relog f/ 8983' to 9033'. SURVEY 8564 8657 8751 8845 8939 9033	11,440.0	11,440.0									
23:30	2.5	02:00	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 9033' to 11,440'. Correct displacement.	11,440.0	11,440.0									
02:00	1.5	03:30	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 11,440' to 11,571 (131' @ 87.3' fph) 100% Returns. WOB:24/28/, SPP:4600, GPM:600, MM:144, Rot 70, TQ 12/15	11,440.0	11,571.0									
03:30	0.5	04:00	PROD, DRL LAT	RIG_SVC	NORMAL	Rig Service	11,571.0	11,571.0									
04:00	2	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 11,571' to 11,697 ' (126' @ 63' fph) 100% Returns. WOB:24/28/, SPP:4600, GPM:600, MM:144, Rot 70, TQ 12/15 Lithology: 50% sh, 50% LS	11,571.0	11,697.0									
Drill Strings																	
BHA #4 , PRODUCTION - CURVE																	
Bit Run 4				Drill Bit 8 1/2in, GTD55DM, 13176630				Bit Type PDC		Make HALLIBURTON							
Nozzles (1/32") 14/14/14/14/14				Bit Total Fluid Area (nozzles) (in²) 0.75		IADC Bit Dull 2-7-CT-S-X-0-WT-PR		Hours Drilled By Bit (hr) 39.25		Depth Drilled By Bit (ft) 3,026.00							
BHA Drilling Time (hr) 39.25				BHA Depth Drilled (ft) 3,026.00		BHA ROP (ft/hr) 77.1		Depth In (ftKB) 8,414.0		Depth Out (ftKB) 11,440.0							
Drill String Components																	
Jts	Item Des				OD (in)		ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make					
370	DRILL PIPE				5		4.27	11,423.36	11,697.00	222,755.5	238						
6	HWDP				5		3.00	182.84	273.64	6,759.6	15	OTHER (PROVIDE DESCRIPTION)					
1	DRILL COLLAR - NON MAG				6 5/8		3.31	29.99	90.80	2,699.1	8	STABIL DRILL					
1	DRILL COLLAR - NON MAG				6 7/8		3.25	31.07	60.81	2,796.3	5	STABIL DRILL					
1	SUB - UBHO				6 3/4		2.75	3.05	29.74	274.5	3	GYRODATA					
1	MOTOR - TRUE SLICK				6 3/4		2.88	25.84	26.69	2,325.6	2	Gyrodata					
Mud Motors																	
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr DefIn Type		Bit To Bend					
GDM675028		2.12		NOT SEALED		6:7		5				4					
Sensors																	
Sensor Type				Sensor-Bit (ft)				Note									
GAMMA				32.00													
D&I (INC/AZI)				43.00													
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	07:45	11,336.0	104.00	1,786,705,195,360.8	30	70	450.0	600	4,075.0	0.0	205	240	170	205	14,000.0	6,000.0	0
07:45	09:45	11,440.0	0.00		0	70	0.0	600	3,574.0	0.0	205	240	170	205	5,000.0	5,000.0	0
BHA #5 , PRODUCTION - CURVE/LATERAL																	
Bit Run 5				Drill Bit 8 1/2in, D507TX, 5278701				Bit Type PDC		Make GE/BAKER HUGHES							
Nozzles (1/32") 12/12/12/12/12/12				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 4.00		Depth Drilled By Bit (ft) 257.00							
BHA Drilling Time (hr) 4.00				BHA Depth Drilled (ft) 257.00		BHA ROP (ft/hr) 64.2		Depth In (ftKB) 11,440.0		Depth Out (ftKB) 11,697.0							
Drill String Components																	
Jts	Item Des				OD (in)		ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make					
	DRILL PIPE				5		4.30		2,659.47		93	OTHER (PROVIDE DESCRIPTION)					
1	AGITATOR				6 1/2		2.88	28.12	2,659.47		93	SCOUT					
81	DRILL PIPE				5		4.30	2,528.39	2,631.35	93,474.6	93	OTHER (PROVIDE DESCRIPTION)					
1	DRILL COLLAR - NON MAG				6 3/4		3.63	29.99	102.96		0	Stabil Drill					
1	Drill Collar - Non Mag				6 3/4		3.25	31.07	72.97		0	Stabil Drill					
1	Sub - UBHO				6 7/8		2.19	3.05	41.90		0	Gyrodata					
1	STABILIZER				6 7/8		2.25	6.44	38.85		0	Stabil Drill					
Daily Drilling Report																	
Page 2/5						Printed: Friday, January 18, 2019											

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807
Accept: 11/15/2018 Release:
Days Since LTI: 165.00 Days Since RI: 165.00

PERMIAN - JV SOUTHERN WOLFCAMP
Job: ODR
Report Date: 1/18/2019
Report #: 22
DFS: 20
AFE #: 9000912
Total AFE + Sup: \$4,134,694.81
Daily Field Est. (Cost): \$116,915.18

Drill String Components																			
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lb)	Cum Wt (1000lb)	Make								
1	MOTOR - STABILIZER SLEEVE				6 3/4	2.88	31.56	32.41		0	Gyrodata								
Mud Motors																			
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defln Type		Bit To Bend							
GDM675206												4.65							
Sensors																			
Sensor Type				Sensor-Bit (ft)				Note											
GAMMA				44.00															
DIRECTIONAL				55.00															
Drilling Parameters																			
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lb)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lb)	PU Str Wt (1000lb)	SO Str Wt (1000lb)	Off-Btm Str Wt (1000lb)	Drill Tq	Off Btm Tq	TFO (°)		
02:00	04:15	11,440.0	141.00	62.7	30	70	450.0	600	5,125.0	125.0	205	240	170	205	17,000.0	6,000.0	0		
04:15	04:50	11,581.0	20.00	34.3	28	0	300.0	600	4,825.0	45.0	205	230	180	205	0.0	0.0	240		
04:50	06:00	11,601.0	96.00	82.3	32	70	450.0	600	5,125.0	110.0	205	230	180	205	16,000.0	6,000.0	0		
Hydraulic Calculations																			
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)									
Mud Checks																			
Time 00:30		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 11,440.0		Density (lb/gal) 12.00		Funnel Viscosity (s/qt) 79		T Flowline (°F)					
PV (cP) 17.0		YP (lb/100ft²) 11.000		Vis 3rpm 7		Vis 6rpm 7		Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 10.4		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0					
Solids (%) 21.0				Low Gravity Solids (%) 6.6				Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)					
Chlorides (ppm) 21,000.000				Calcium (ppm) 8,200.000				CaCl (ppm) 201,800		Oil Water Ratio 83.5/16.5		Electric Stab (V) 767.0		Lime (lb/bbl) 2.8		pH			
Gel 10 sec (lb/100ft²) 11.000						Gel 10 min (lb/100ft²) 20.000						Gel 30 min (lb/100ft²) 22.000							
Comment																			
Maintain MW 11.7-11.8 ppg; Megadrive P and/or Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction; diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP fluid loss; Pump 20bbls 2ppg over weighted sweeps every 500' or as needed.																			
Drilling Fluids Activity Last 24 Hrs:																			
MW around 11.7-11.8ppg (note: 22:00 check OBM was cold so MW was@ 12ppg, but weight will drop back to desired range once fluid heats up); diesel @1.8bbls/hr & water 2.7 bbls/hr for volume, OWR and aid in lowering LSG; VG Plus for rheologies and filter cake quality; Versatrol for HTHP fluid loss; Megadrive P for ES; Graphite for friction reduction; Lime for alkalinity and calcium source for emulsifier.																			
Rig Activity Last 24 hrs:																			
Pre/post tour safety meetings. Drilling and sliding lateral 11,440', circ. 2 b/u, flow check well static. POOH to p/u lateral assembly. L/D BHA; PJSM w/ Gyrodata on p/u BHA. TIH to 2750', p/u and install/test agitator. TIH, wash, survey f/8470' to 9033. TIH at time.																			
Volumes																			
Daily Diesel Used 1,522 GAL																			
Cumulative Diesel Used 9,245 GAL																			
Diesel on Location 11,363 GAL																			
Daily Water Used 798 GAL																			
Cumulative Water Used 3,108 GAL																			
Daily OBM Surface Losses 85 BBLS																			
OBM Volume Accounting:																			
Total OBM Received BBLS																			
Total OBM Rental 2,038 BBLS																			
Total OBM on Location 1,764 BBLS																			
Daily Drying Shaker Recovered 20 BBLS																			
Cumulative Drying Shaker Recovered 80 BBLS																			
Daily OBM Downhole Losses 0 BBLS																			
Cumulative OBM Surface Losses 223 BBLS																			
Cumulative OBM Downhole Losses 0 BBLS																			
Last BOP Test																			
Date		Test Type			Item Tested			Next Test Date		Com									
1/13/2019		BOP			BOP'S, 11/19/2018 00:30, <class>			2/3/2019		Tested BOPE 250 /5000									
Leak Off and Formation Integrity Tests																			
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)											
FORMATION INTEGRITY				1,244.0				12.75											
LEAK OFF				8,414.0				13.38											
Casing Pressure Test																			
Test Type			Test Subtype			Date		Item Tested			Failed?	Time (min)		P (psi)					
CASING			STANDARD			11/8/2018		SURFACE, 1,223.7ftKB			No	30.00		1,000.0					
CASING			STANDARD			1/14/2019		INTERMEDIATE, 8,385.0ftKB			No	30.00		2,500.0					
Kick Offs & Key Depths																			
Date						Type						Top Depth (ftKB)							
						TOE													
1/15/2019 09:15						KICK OFF						8,485.0							
1/16/2019 00:30						HEEL						9,362.0							
Casing Strings																			
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR		148.5				20		H40		78.67									
SURFACE		1,223.7		1,223.0		13 3/8		J55		54.50		BTC		823.5					
INTERMEDIATE		8,385.0		8,290.1		9 5/8		L-80 IC		40.00		BTC		5,782.7					
Daily Drilling Report																			

PATTERSON - UTI #807

Accept: 11/15/2018Release: Days Since LTI: 165.00Days Since RI: 165.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODRReport Date: 1/18/2019Report #: 22DFS: 20AFE #: 9000912Total AFE + Sup: \$4,134,694.81Daily Field Est. (Cost): \$116,915.18

Daily Drilling Report

Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	6,204	865	4,177	76"	11,641	20,979.0
DIESEL	FUEL	GAL	0	0	4,284	Transferred to large mud diesel tank	0	0.0
DIESEL	MUD	GAL	8,787	1,522	0		11,363	9,524.0
WATER	FRESH	BBL	0	0	0	109180 METER READING	57,348	25,115.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON	46	13	83.0	43		
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	60		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	15		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	2		
GRAPHITE	FLUID LOSS ADDITIVES	SACK		15	151.0	76		
LIME	ALKALINITY CONTROL	SACK		5	341.0	62		
MEGADRIVE P	SPECIALITY	DRUM		1	5.0	2		
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	15		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	15		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	1		
SCALE CHARGE	MISCELLANEOUS	EA	2	2	0.0	12		
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	4,950		
TRUCKING	MISCELLANEOUS	EA	2,035	2,035	0.0	13,881		
VERSAMOD	OIL MUD ADDITIVE	DRUM		1	2.0	1		
VERSATROL M	OIL MUD ADDITIVE	SACK		8	191.0	32		
VG-PLUS	OIL MUD ADDITIVE	SACK		2	45.0	13		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	11,570.0	03:51	517.0	30	106	95		
1	11,570.0	03:51	589.0	40	141	95		
1	11,570.0	03:51	732.0	50	176	95		
2	11,570.0	03:56	470.0	30	106	95		
2	11,570.0	03:57	577.0	40	141	95		
2	11,570.0	03:57	725.0	50	176	95		
Deviation Surveys								
Date	Description					Job		
	FINAL SURVEY							
Date	Description					Job		
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
11,386.00	89.04	181.06	9,013.01	2,221.24	-2,238.21	780.00	1.28	
11,422.00	89.29	181.45	9,013.54	2,257.24	-2,274.20	779.21	1.29	
11,516.00	91.41	182.57	9,012.96	2,351.22	-2,368.13	775.91	2.55	
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM			
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM			
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM			
SPACEK, KYLE, ENGINEER		ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM			
TRANSIER, KENNETH, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		318-481-3868	KENNETH.TRANSIER@PXD.COM			
RIG-PATTERSON 807, RIG PHONE		RIG PHONE	361-489-3691	432-257-6394				
BROUSSARD, JEFF, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		337-288-1216	JEFF.BROUSSARD@PXD.COM			
Personnel Log								
Company							Count	
PIONEER NATURAL RESOURCES USA INC							2	
PATTERSON-UTI DRILLING COMPANY LLC							14	
PALADIN GEOLOGICAL SERVICES LLC							2	
TRICORPS SECURITY							2	
Daily Drilling Report								

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Printed: Friday, January 18, 2019

Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018	Release:
Days Since LTI: 165.00	Days Since RI: 165.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/18/2019
Report #:	22
DFS:	20
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$116,915.18

Personnel Log	
Company	Count
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)							
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date							
Safety Checks													
Time	Type	Des	Tour	Com									
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 38463 Classification: Spill/Release Description: While cementing, the cement operator overflowed 1 barrel of water based mud from a tank on the pump truck onto location.									
06:00	MEETING	PRE-TOUR	DAY	PTSM - Circulate water mud tanks, Cont. clean and organize location. Watch for pinch points. Slip and trip hazards. Overhead loads. Don't turn your back to pragma trough. #1 Safe Work Permits, Core Value - #1 Respect									
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 38463 Classification: Spill/Release Description: While cementing, the cement operator overflowed 1 barrel of water based mud from a tank on the pump truck onto location.									
18:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Found single latch elevator bolts were loose. Stopped job and retorqued bolts. inspected elevators and sling. Continued with job.									
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Circulate water mud tanks, Cont. clean and organize location. Watch for pinch points. Slip and trip hazards. Overhead loads. Don't turn your back to pragma trough. #1 Safe Work Permits, Core Value - #1 Respect									
Jobs													
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status					
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS					
Job Dates (ex. Estimated Pad Release, TXRRC Calls)													
Type			Subtype		Date	Note							
MILESTONE			ESTIMATED PAD RELEASE		1/30/2019	3RD Well / 3 Well pad (Revised on 1/17/19)							
Daily Operations													
Footage/Meterage (ft) 607.00		Drilling Hours (hr) 13.00		% Rotating Time (%) 80.77		End Depth (ftKB) 12,304.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 67,262.21		Cum Field Est To Date (Cost) 2,211,329.82	
24 HR ROP (ft/hr) 46.7		Circulating Hours (hr) 1.00		% Sliding Time (%) 19.23		End Depth (TVD) (ftKB) 9,006.1		Target Depth (TVD) (ftKB) 7,861.71		Daily Mud Field Est (Cost) 135,833.47		Cum Mud Field Est (Cost) 4,134,694.81	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0				Daily Goal - Next 24 700.0				Goal Comments Not met due to Trip for BHA ROP	
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB						Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB			
Avg Connection Gas 289.00		Avg Trip Gas 0.00		Avg Background Gas 41.00		Max Connection Gas 474.00		Max Trip Gas 0.00		Max Drill Gas 411.00			
Operations Summary Drill lateral f/ 11,697' to 12,304. Circ. 2 X bottoms up. TOOH; C/O BHA													
Operations Next Report Period Drill Lateral T/13,004'													
Operations at Report Time TIH at 600													
Remarks NPT for Jan. Patterson: Past 24hr - 7.25 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 30.3 % Last Survey : 12,231' MD, INC. 92.34, INC 182.19, 10" A, 0.0 L/R													
Time Log													
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	13	19:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 11,697' to 12,304 ' (607' @ 46.7' fph) 100% Returns. WOB:28/30, SPP:4850, GPM:600, MM:144, Rpm 70, TQ 12/15 ROP dropped off f/ 60 to 15 FPM Lithology: 40%SH, 60%LS WOB Step Test Performed WOB Step Test @ 11,950' (28-36) WOB w/ 70 RPM, 2 klb increments in 10' intervals. Result: Optimal drilling @ 32K. MSE 45 Limiter: Max differential @ 36K	11,697.0	12,304.0					
19:00	1.5	20:30	PROD, DRL LAT	CIRC	NORMAL	Circulate 2X BU, 602 GPM w/ 4700 PSI. 70 RPM w/ 4K TQ	12,304.0	12,304.0					
20:30	0.25	20:45	PROD, DRL LAT	FLOW_CHK	NORMAL	Check Flow. Static. Pump slug. Check Flow.	12,304.0	12,304.0					
20:45	3	23:45	PROD, DRL LAT	TOOH_ELEV	NORMAL	TOOH f 12,304' TO 8193.. Well taking correct displacement.	12,304.0	12,304.0					
23:45	0.5	00:15	PROD, DRL LAT	HDL_ROTHD	NORMAL	Pull rotating head and install trip nipple. Well static.	12,304.0	12,304.0					
00:15	2	02:15	PROD, DRL LAT	TOOH_ELEV	NORMAL	TOOH f/ 8193' to 2614'. Well taking correct displacement.	12,304.0	12,304.0					
02:15	0.25	02:30	PROD, DRL LAT	HDL_AGITATO R	NORMAL	L/D agitator.	12,304.0	12,304.0					
02:30	0.75	03:15	PROD, DRL LAT	TOOH_ELEV	NORMAL	TOOH f/ 2614' to BHA. Fill hole with trip tanks	12,304.0	12,304.0					
03:15	0.25	03:30	PROD, DRL LAT	SFTY	NORMAL	PJSM w/ crew prior to L/D BHA.	12,304.0	12,304.0					
Daily Drilling Report													
Page 1/4					Printed: Saturday, January 19, 2019								

Daily Drilling Report

Time Log																	
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #					
03:30	0.75	04:15	PROD, DRL LAT	LD_DIR	NORMAL	L/D BHA. well static.			12,304.0	12,304.0							
04:15	0.75	05:00	PROD, DRL LAT	PU_DIR	NORMAL	P/U Directional BHA			12,304.0	12,304.0							
05:00	0.5	05:30	PROD, DRL LAT	RIG_SVC	NORMAL	Service Rig & Top Drive			12,304.0	12,304.0							
05:30	0.5	06:00	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 250' to 600'.proper displacement to trip tanks			12,304.0	12,304.0							
Drill Strings																	
BHA #5 , PRODUCTION - CURVE/LATERAL																	
Bit Run 5			Drill Bit 8 1/2in, D507TX, 5278701			Bit Type PDC			Make GE/BAKER HUGHES								
Nozzles (1/32") 12/12/12/12/12/12/12			Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull 0-1-NO-A-X-0-WT-PR		Hours Drilled By Bit (hr) 17.00		Depth Drilled By Bit (ft) 864.00								
BHA Drilling Time (hr) 17.00			BHA Depth Drilled (ft) 864.00		BHA ROP (ft/hr) 50.8		Depth In (ftKB) 11,440.0		Depth Out (ftKB) 12,304.0								
Drill String Components																	
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make						
307	DRILL PIPE				5	4.30	9,644.53	12,304.00	356,558.3	450	OTHER (PROVIDE DESCRIPTION)						
1	AGITATOR				6 1/2	2.88	28.12	2,659.47		93	SCOUT						
81	DRILL PIPE				5	4.30	2,528.39	2,631.35	93,474.6	93	OTHER (PROVIDE DESCRIPTION)						
1	DRILL COLLAR - NON MAG				6 3/4	3.63	29.99	102.96		0	Stabil Drill						
1	Drill Collar - Non Mag				6 3/4	3.25	31.07	72.97		0	Stabil Drill						
1	Sub - UBHO				6 7/8	2.19	3.05	41.90		0	Gyrodata						
1	STABILIZER				6 7/8	2.25	6.44	38.85		0	Stabil Drill						
1	MOTOR - STABILIZER SLEEVE				6 3/4	2.88	31.56	32.41		0	Gyrodata						
Mud Motors																	
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr DefIn Type		Bit To Bend					
GDM675206		1.83		NOT SEALED		7:8		5.7				4.65					
Sensors																	
Sensor Type				Sensor-Bit (ft)				Note									
GAMMA				44.00													
DIRECTIONAL				55.00													
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	08:00	11,697.0	62.00	31.0	32	70	450.0	600	4,700.0	110.0	205	230	180	205	16,000.0	6,000.0	0
08:00	09:00	11,759.0	25.00	25.0	35	0	300.0	600	4,700.0	45.0	205	230	180	205	0.0	0.0	0
09:00	12:30	11,784.0	70.00	20.0	32	70	450.0	600	4,700.0	110.0	205	230	180	205	16,000.0	6,000.0	0
12:30	13:15	11,854.0	126.00	168.0	35	0	325.0	600	4,700.0	45.0	205	230	180	205	0.0	0.0	60
13:15	15:00	11,980.0	62.00	35.4	32	70	400.0	600	4,700.0	110.0	205	230	180	205	16,000.0	6,000.0	0
15:00	15:45	12,042.0	25.00	33.3	30	0	325.0	600	4,700.0	65.0	205	233	180	205	0.0	0.0	60
15:45	19:00	12,067.0	237.00	72.9	30	70	450.0	600	4,700.0	65.0	205	233	180	205	15,000.0	6,500.0	0
19:00	20:00	12,304.0	0.00	0.0	0	70	0.0	600	4,700.0	0.0	205	233	180	205	6,500.0	6,500.0	0
Hydraulic Calculations																	
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)							
12.00	12.60	235.9	4.2	249.0	673.9	16.8	588.6	219.88	178.75	430.71							

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018Release: Days Since LTI: 166.00Days Since RI: 166.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/19/2019

Report #: 23

DFS: 21

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$67,262.21

Mud Checks									
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE	Depth (ftKB) 12,304.0	Density (lb/gal) 11.80	Funnel Viscosity (s/qt) 76	T Flowline (°F)
PV (cP) 18.0	YP (lb/100ft²) 13.000	Vis 3rpm 8	Vis 6rpm 9	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 11.0	HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0
Solids (%) 20.5		Low Gravity Solids (%) 7.1		Sand (%)		MBT (lb/bbl)	Pm (mL/mL)		Pf (mL/mL)
Chlorides (ppm) 22,000.000		Calcium (ppm) 8,000.000		CaCl (ppm) 203,200	Oil Water Ratio 83/17	Electric Stab (V) 855.0		Lime (lb/bbl) 3.0	pH
Gel 10 sec (lb/100ft²) 11.000				Gel 10 min (lb/100ft²) 22.000			Gel 30 min (lb/100ft²) 24.000		
Comment Recommended Fluids Treatments: Maintain MW 11.7-11.8 ppg; Megadrive P and/or Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction; diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP fluid loss; Pump 20bbls 2ppg over weighted sweeps every 500' or as needed. Drilling Fluids Activity Last 24 Hrs: MW around 11.7-11.8ppg; diesel @1.8bbls/hr & water 2.7 bbls/hr.; VG Plus for rheologies and filter cake quality; Versatrol for HTHP fluid loss; Megadrive S for keeping cuttings oil-wet; CaCl2 for WPS; Graphite for friction; Lime for alkalinity. Drilling Fluids Forecast Next 24 Hrs: Treat to maintain properties within program specs. Rig Activity Last 24 Hrs: Pre/post tour safety meetings. TIH to 11,440'. Drilling and sliding lateral to 12,304', bit not drilling, decision made to POOH. Circulate 2 B/U, check for flow, well static. Pump slug and POOH at time of mud report. Volumes Daily Diesel Used 1,805 GAL Cumulative Diesel Used 11,050 GAL Diesel on Location 9,558 GAL Daily Water Used 1,890 GAL Cumulative Water Used 4,998 GAL Daily OBM Surface Losses 22 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,854 BBLS Daily Drying Shaker Recovered 15 BBLS Cumulative Drying Shaker Recovered 95 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 245 BBLS Cumulative OBM Downhole Losses 0 BBLS									
Last BOP Test									
Date	Test Type			Item Tested		Next Test Date	Com		
1/13/2019	BOP			BOP'S, 11/19/2018 00:30, <class>		2/3/2019	Tested BOPE 250 /5000		
Leak Off and Formation Integrity Tests									
Test Type				Depth (ftKB)		Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,244.0		12.75			
LEAK OFF				8,414.0		13.38			
Casing Pressure Test									
Test Type		Test Subtype			Date	Item Tested		Failed?	Time (min) P (psi)
CASING		STANDARD			11/8/2018	SURFACE, 1,223.7ftKB		No	30.00 1,000.0
CASING		STANDARD			1/14/2019	INTERMEDIATE, 8,385.0ftKB		No	30.00 2,500.0
Kick Offs & Key Depths									
Date				Type			Top Depth (ftKB)		
				TOE					
1/15/2019 09:15				KICK OFF			8,485.0		
1/16/2019 00:30				HEEL			9,362.0		
Casing Strings									
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)		
CONDUCTOR	148.5		20	H40	78.67				
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5		
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7		
Job Supply Amounts									
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed	
DIESEL	FUEL	GAL	0	3,104	0	56"	8,537	24,083.0	
DIESEL	FUEL	GAL	0	0	0	0"	0	0.0	
DIESEL	MUD	GAL	0	1,805	0		9,558	11,329.0	
WATER	FRESH	BBL	0	9,130	0	Start109180 Stop118309.82	48,218	34,244.82	
Mud Additive Amounts									
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons			
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON		13	70.0	56			
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	64			
CALCIUM CHLORIDE	SALT	SACK	226	2	224.0	2			
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	16			
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	3			
GRAPHITE	FLUID LOSS ADDITIVES	SACK		24	127.0	100			
LIME	ALKALINITY CONTROL	SACK		15	326.0	77			
MEGADRIVE S	SPECIALITY	DRUM	16	1	15.0	2			
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	16			
Daily Drilling Report			Page 3/4			Printed: Saturday, January 19, 2019			

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 166.00	Days Since RI: 166.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/19/2019
Report #:	23
DFS:	21
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$67,262.21

Pump Operations						
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0

Deviation Surveys		
Date	Description FINAL SURVEY	Job
Date 11/5/2018	Description AS DRILL SURVEY	Job ODR, 11/4/2018 13:30

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)							
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date							
Safety Checks													
Time	Type	Des	Tour	Com									
06:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: H&P 645 Case#: 39195 Classification: Property Damage (Medium) Near Miss (Severe) Description: While contractor cranes were tracking over with the driller cabin/BOP handler lead crane dropped his side about 1' due to having the free fall switch on. Contractor Incident Investigation and equipment inspections are currently underway. Safety Stand Down was held prior to returning to work.									
06:15	MEETING	PRE-TOUR	DAY	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #6 Excavation & Trenching Core Value - #6 Communication									
18:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: H&P 645 Case#: 39195 Classification: Property Damage (Medium) Near Miss (Severe) Description: While contractor cranes were tracking over with the driller cabin/BOP handler lead crane dropped his side about 1' due to having the free fall switch on. Contractor Incident Investigation and equipment inspections are currently underway. Safety Stand Down was held prior to returning to work.									
18:15	MEETING	PRE-TOUR	NIGHT	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #6 Excavation & Trenching Core Value - #6 Communication									
18:30	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Observed Man not wearing impact gloves while working the floor pulling slips stopped the job explained to him the hazards of not wearing the impact gloves while working the floor he said his gloves was soaked with OBM he said he understood he got a new pair of gloves and continued with his work									
Jobs													
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status					
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS					
Job Dates (ex. Estimated Pad Release, TXRRC Calls)													
Type			Subtype		Date	Note							
MILESTONE			ESTIMATED PAD RELEASE		2/2/2019	3RD Well / 3 Well pad (Revised on 1/19/19)							
Daily Operations													
Footage/Meterage (ft) 871.00		Drilling Hours (hr) 16.00		% Rotating Time (%) 70.31		End Depth (ftKB) 13,175.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 76,645.44		Cum Field Est To Date (Cost) 2,298,200.86	
24 HR ROP (ft/hr) 54.4		Circulating Hours (hr) 0.50		% Sliding Time (%) 29.69		End Depth (TVD) (ftKB) 8,998.9		Target Depth (TVD) (ftKB) 3,815.84		Daily Mud Field Est (Cost) 139,649.31		Cum Mud Field Est (Cost) 4,134,694.81	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 700.0				Daily Goal - Next 24 1,500.0				Goal Comments Goal Met	
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB						Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB			
Avg Connection Gas 229.00		Avg Trip Gas 117.00		Avg Background Gas 57.00		Max Connection Gas 517.00		Max Trip Gas 209.00		Max Drill Gas 799.00			
Operations Summary TIH, perform axis survey f/ 8657' to 8751'. TIH to 12,304'. Drill Lat F/ 12,304' to 13175'													
Operations Next Report Period Drill Lateral F/ 13175' T/ 14675'													
Operations at Report Time Drill Lateral at 13175'													
Remarks NPT for Jan. Patterson: Past 24hr - 7.25 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 39% Last Survey : MD:13081' , inc 90.49 , az 182.11 Left 0.06 Above 19.57													
Time Log													
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	0.5	06:30	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH from 600' to 2659'. Correct displacement to trip tanks	12,304.0	12,304.0	0.50	14			
06:30	0.5	07:00	PROD, DRL LAT	HDL_AGITATOR	NORMAL	P/U, install and test agitator. 300 PSI increase; 1000 psi before; 1300 psi after	12,304.0	12,304.0	0.50	14			
07:00	2.5	09:30	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH f/ 2659' to 8264'. Correct displacement to trip tanks	12,304.0	12,304.0	2.50	14			
09:30	0.5	10:00	PROD, DRL LAT	HDL_ROT HD	NORMAL	Pull trip nipple and install rotating head. Well static.	12,304.0	12,304.0	0.50	14			
10:00	0.25	10:15	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH from 8264 ' to 8657'. Correct Displacement to trip tanks	12,304.0	12,304.0	0.25	14			
10:15	1.25	11:30	PROD, DRL LAT	SRVY_MGMT	NORMAL	Survey F/ 8470' to 9033'. 6 axis survey; Relog with MWD from 8983' to 9033'. Surveys 1) 8564 2) 8657 3) 8751 4) 8845 5) 8939 6) 9033	12,304.0	12,304.0	1.25	14			
11:30	2	13:30	PROD, DRL LAT	TIH_ELEV	NORMAL	TIH from 9033' to 12,304'. Correct displacement to trip tanks	12,304.0	12,304.0	2.00	14			
13:30	13.5	03:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 12,304' to 12986' (682' @ 50.5 fph) 100% Returns. WOB:24/28/, SPP:4600, GPM:600, MM:144, Rot 70, TQ 12/15	12,304.0	12,986.0					
Daily Drilling Report													
Page 1/4					Printed: Sunday, January 20, 2019								

Daily Drilling Report

Time Log																					
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #									
03:00	0.5	03:30	PROD, DRL LAT	RIG_SVC	NORMAL	Service Rig			12,986.0	12,986.0											
03:30	2.5	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 12986' T/ 13175' (189' @ 75.6 fph) 100% Returns. WOB:24/28/, SPP:4600, GPM:600, MM:144, Rot 70, TQ 12/15			12,986.0	13,175.0											
Interval Problems																					
3RD PARTY, 12,304.0ftKB, 1/18/2019 19:00																					
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party			Comment												
14	18.50	No	DRILL STRING	BITS	46,000.00	PIONEER NATURAL RESOURCES USA INC			POOH due to ROP												
Drill Strings																					
BHA #6 , PRODUCTION - LATERAL																					
Bit Run				Drill Bit				Bit Type		Make											
6				8 1/2in, D507TX, 5292386				PDC		GE/BAKER HUGHES											
Nozzles (1/32")				Bit Total Fluid Area (nozzles) (in²)		IADC Bit Dull		Hours Drilled By Bit (hr)		Depth Drilled By Bit (ft)											
12/12/12/12/12/12/12				0.77		-----		16.00		871.00											
BHA Drilling Time (hr)				BHA Depth Drilled (ft)		BHA ROP (ft/hr)		Depth In (ftKB)		Depth Out (ftKB)											
16.00				871.00		54.4		12,304.0		13,175.0											
Drill String Components																					
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make										
333	DRILL PIPE				5	4.30	10,515.49	13,175.00	388,757.7	482	OTHER (PROVIDE DESCRIPTION)										
1	AGITATOR				6 1/2	2.88	28.12	2,659.51		93	SCOUT										
81	DRILL PIPE				5	4.30	2,528.39	2,631.39	93,474.6	93	OTHER (PROVIDE DESCRIPTION)										
1	DRILL COLLAR - NON MAG				6 3/4	3.63	29.99	103.00		0	Stabil Drill										
1	Drill Collar - Non Mag				6 3/4	3.25	31.07	73.01		0	Stabil Drill										
1	Sub - UBHO				6 7/8	2.19	3.05	41.94		0	Gyrodata										
1	STABILIZER				6 7/8	2.25	6.44	38.89		0	Stabil Drill										
1	MOTOR - STABILIZER SLEEVE				6 3/4	2.88	31.60	32.45		0	Gyrodata										
Mud Motors																					
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defin Type		Bit To Bend									
GDM675220		1.83		NOT SEALED		7:8		5.7				4.65									
Sensors																					
Sensor Type				Sensor-Bit (ft)				Note													
GAMMA				44.00																	
DIRECTIONAL				55.00																	
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)				
13:30	16:15	12,304.0	115.00	41.8	29	70	170.0	550	4,481.0	55.0	198	235	165	198	12,000.0	6,000.0	0				
16:15	17:15	12,419.0	15.00	15.0	35	0	220.0	550	4,400.0	20.0	198	235	165	198	0.0	0.0	180				
17:15	19:00	12,434.0	90.00	51.4	32	70	200.0	550	4,430.0	45.0	198	235	165	198	13,000.0	6,000.0	0				
19:00	20:30	12,524.0	15.00	10.0	35	0	150.0	550	4,350.0	15.0	198	235	165	198	0.0	0.0	360				
20:30	23:15	12,539.0	171.00	62.2	32	70	450.0	550	4,765.0	160.0	198	235	165	198	15,000.0	7,000.0	0				
23:15	00:00	12,710.0	20.00	26.7	30	0	150.0	560	4,525.0	35.0	198	235	165	198	0.0	0.0	150				
00:00	01:30	12,730.0	170.00	113.3	32	70	450.0	560	4,765.0	170.0	198	235	165	198	15,000.0	7,000.0	0				
01:30	02:15	12,900.0	20.00	26.7	28	0	175.0	560	4,550.0	35.0	198	235	165	198	0.0	0.0	225				
02:15	03:00	12,920.0	66.00	88.0	32	70	350.0	560	4,800.0	140.0	198	235	165	198	17,000.0	7,000.0	0				
03:00	03:30	12,986.0	0.00	0.0	0	0	0.0	560	4,400.0	0.0	198	235	165	198	0.0	0.0	0				
03:30	04:30	12,986.0	105.00	105.0	32	70	450.0	560	4,800.0	150.0	198	235	165	198	17,000.0	7,000.0	0				
04:30	05:15	13,091.0	12.00	16.0	28	0	175.0	560	4,550.0	35.0	198	235	165	198	0.0	0.0	180				
05:15	06:00	13,103.0	72.00	96.0	32	70	450.0	560	4,800.0	150.0	198	235	165	198	17,000.0	7,000.0	0				
Hydraulic Calculations																					
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
11.80		12.41		188.6		3.3		232.4		577.3		15.7		549.4		235.52		218.73		430.71	
Daily Drilling Report																					

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Printed: Sunday, January 20, 2019

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018Release: Days Since LTI: 167.00Days Since RI: 167.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/20/2019

Report #: 24

DFS: 22

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$76,645.44

Mud Checks									
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE	Depth (ftKB) 12,607.0	Density (lb/gal) 11.80	Funnel Viscosity (s/qt) 72	T Flowline (°F) 127.0
PV (cP) 21.0	YP (lb/100ft²) 13.000	Vis 3rpm 9	Vis 6rpm 10	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 11.8	HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0
Solids (%) 20.5		Low Gravity Solids (%) 7.1		Sand (%)		MBT (lb/bbl)	Pm (mL/mL)		Pf (mL/mL)
Chlorides (ppm) 23,000.000		Calcium (ppm) 8,200.000		CaCl (ppm) 204,500	Oil Water Ratio 82.4/17.6	Electric Stab (V) 795.0		Lime (lb/bbl) 2.7	pH
Gel 10 sec (lb/100ft²) 13.000				Gel 10 min (lb/100ft²) 24.000			Gel 30 min (lb/100ft²) 27.000		
Comment Recommended Fluids Treatments: Maintain MW 11.7-11.8 ppg; Megadrive P and/or Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction; diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP fluid loss; Pump 20bbls 2ppg over weighted sweeps every 500' or as needed. Drilling Fluids Activity Last 24 Hrs: MW maintained 11.7-11.8ppg; diesel @ 1.8bbls/hr & water 2.7 bbls/hr.; VG Plus for rheologies and filter cake quality; Versatrol for HTHP fluid loss; CaCl2 for WPS; Graphite for friction; Lime for alkalinity. Drilling Fluids Forecast Next 24 Hrs: Treat to maintain properties within program specs. Rig Activity Last 24 Hrs: Pre/post tour safety meetings. TIH to 2,659', p/u Agitator and test. TIH to 8,657' and perform Axis surveys @ 8657', 8751', 8845', re-log Gamma 8939' to 9003'. TIH to 12,304'. Drillign and sliding lateral @ 12,683' at time of mud report. Volumes Daily Diesel Used 956 GAL Cumulative Diesel Used 12,006 GAL Diesel on Location 8,602 GAL Daily Water Used 924 GAL Cumulative Water Used 5,922 GAL Daily OBM Surface Losses 75 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,844 BBLS Daily Drying Shaker Recovered 15 BBLS Cumulative Drying Shaker Recovered 110 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 320 BBLS Cumulative OBM Downhole Losses 0 BBLS									
Last BOP Test									
Date	Test Type			Item Tested		Next Test Date	Com		
1/13/2019	BOP			BOP'S, 11/19/2018 00:30, <class>		2/3/2019	Tested BOPE 250 /5000		
Leak Off and Formation Integrity Tests									
Test Type				Depth (ftKB)		Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,244.0		12.75			
LEAK OFF				8,414.0		13.38			
Casing Pressure Test									
Test Type		Test Subtype		Date	Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD		11/8/2018	SURFACE, 1,223.7ftKB		No	30.00	1,000.0
CASING		STANDARD		1/14/2019	INTERMEDIATE, 8,385.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths									
Date				Type			Top Depth (ftKB)		
				TOE					
1/15/2019 09:15				KICK OFF			8,485.0		
1/16/2019 00:30				HEEL			9,362.0		
Casing Strings									
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)		
CONDUCTOR	148.5		20	H40	78.67				
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5		
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7		
Job Supply Amounts									
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL		FUEL	GAL	0	2,358	0	45"	6,179	26,441.0
DIESEL		FUEL	GAL	0	0	0	0"	0	0.0
DIESEL		MUD	GAL	0	956	0	48"	8,602	12,285.0
WATER		FRESH	BBL	0	0	0	Start 118309.82 Stop 118309.82	57,348	34,244.82
Mud Additive Amounts									
Des		Type	Units	Rec	Consumed	On Loc		Cum Cons	
BULK TANK RENTAL		MISCELLANEOUS	EA	4	4	0.0		68	
CALCIUM CHLORIDE		SALT	SACK		14	210.0		16	
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0		17	
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0		4	
GRAPHITE		FLUID LOSS ADDITIVES	SACK		12	115.0		112	
LIME		ALKALINITY CONTROL	SACK		12	314.0		89	
OBM TESTING EQUIPMENT		MISCELLANEOUS	DAY	1	1	0.0		17	
PER DIEM		MISCELLANEOUS	DAY	1	1	0.0		17	
Daily Drilling Report				Page 3/4			Printed: Sunday, January 20, 2019		

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018

Days Since LTI: 167.00

Release:

Days Since RI: 167.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/20/2019

Report #: 24

DFS: 22

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): **\$76,645.44**

Mud Additive Amounts						
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	3
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	5,610
VERSATROL M	OIL MUD ADDITIVE	SACK		9	167.0	56
VG-PLUS	OIL MUD ADDITIVE	SACK		1	41.0	17

Pump Operations

Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0

Pump Checks

Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)
1	13,000.0	04:00	682.0	40	141	95
1	13,000.0	04:00	843.0	50	176	95
1	13,000.0	04:00	570.0	30	106	95
2	13,000.0	04:00	843.0	50	176	95
2	13,000.0	04:00	682.0	40	141	95
2	13,000.0	04:00	570.0	30	106	95

Deviation Surveys

Date	Description FINAL SURVEY	Job
Date 11/5/2018	Description AS DRILL SURVEY	Job ODR, 11/4/2018 13:30

Survey Data - All surveys for 24 hr reporting period

MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
12,364.00	90.96	180.66	9,007.42	3,198.69	-3,215.67	770.26	0.43
12,459.00	89.37	180.26	9,007.15	3,293.68	-3,310.66	769.50	1.73
12,553.00	91.91	180.97	9,006.10	3,387.66	-3,404.64	768.49	2.81
12,646.00	92.31	180.68	9,002.68	3,480.59	-3,497.57	767.15	0.53
12,741.00	89.48	180.72	9,001.19	3,575.57	-3,592.54	765.99	2.98
12,837.00	91.05	183.18	9,000.75	3,671.55	-3,688.48	762.72	3.04
12,931.00	89.73	180.49	9,000.11	3,765.53	-3,782.41	759.71	3.19
13,026.00	90.43	182.03	8,999.98	3,860.52	-3,877.39	757.62	1.78

Formations

Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		

Daily Contacts

Job Contact	Title	Office	Mobile	Email
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM
TRANSIER, KENNETH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		318-481-3868	KENNETH.TRANSIER@PXD.COM
BROUSSARD, JEFF, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		337-288-1216	JEFF.BROUSSARD@PXD.COM
SHELTON, GARY, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		601-435-7888	GARY.SHELTON@PXD.COM
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394	

Personnel Log

Company	Count
PIONEER NATURAL RESOURCES USA INC	3
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 168.00	Days Since RI: 168.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/21/2019
Report #:	25
DFS:	23
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$70,398.62

Daily Drilling Report

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Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	4	
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	5,940	
VERSATHIN HF	OIL MUD ADDITIVE	CAN	38	5	33.0	5	
VERSATROL M	OIL MUD ADDITIVE	SACK		14	153.0	70	
VG-PLUS	OIL MUD ADDITIVE	SACK		2	39.0	19	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	14,495.0	04:00	570.0	30	106	95	
1	14,495.0	04:00	862.0	40	141	95	
1	14,495.0	04:00	827.0	50	176	95	
2	14,495.0	04:00	558.0	30	106	95	
2	14,495.0	04:00	823.0	50	176	95	
2	14,495.0	04:00	678.0	40	141	95	
Deviation Surveys							
Date	Description				Job		
	FINAL SURVEY						
Date	Description				Job		
11/5/2018	AS DRILL SURVEY				ODR, 11/4/2018 13:30		
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
13,214.00	88.64	182.06	9,002.51	4,048.48	-4,065.24	750.89	0.30
13,310.00	89.23	181.89	9,004.30	4,144.45	-4,161.17	747.58	0.64
13,405.00	94.58	183.87	9,001.14	4,239.32	-4,255.96	742.82	6.00
13,499.00	93.12	181.46	8,994.83	4,333.07	-4,349.63	738.46	2.99
13,594.00	93.63	181.51	8,989.23	4,427.90	-4,444.44	736.00	0.54
13,688.00	91.78	180.52	8,984.80	4,521.79	-4,538.31	734.34	2.23
13,782.00	90.49	180.51	8,982.93	4,615.77	-4,632.29	733.49	1.37
13,876.00	90.93	180.66	8,981.77	4,709.75	-4,726.27	732.53	0.49
13,969.00	90.57	179.99	8,980.55	4,802.73	-4,819.26	732.01	0.82
14,063.00	88.75	180.14	8,981.11	4,896.71	-4,913.26	731.90	1.94
14,157.00	91.61	181.10	8,980.82	4,990.69	-5,007.24	730.88	3.21
14,252.00	91.75	180.27	8,978.03	5,085.65	-5,102.19	729.75	0.89
14,347.00	90.18	179.73	8,976.43	5,180.61	-5,197.18	729.75	1.75
14,440.00	87.52	177.52	8,978.30	5,273.48	-5,290.12	731.98	3.72
14,534.00	90.57	178.71	8,979.86	5,367.32	-5,384.04	735.07	3.48
Formations							
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
Target 1			-6,282.0		9,015.5		
Target 2			-6,282.0		9,015.5		
Target 3			-6,250.0		8,983.5		
Target 4			-6,260.0		8,993.5		
Daily Contacts							
Job Contact		Title	Office	Mobile	Email		
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM		
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM		
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM		
SPACEK, KYLE, ENGINEER		ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM		
TRANSIER, KENNETH, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		318-481-3868	KENNETH.TRANSIER@PXD.COM		
BROUSSARD, JEFF, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		337-288-1216	JEFF.BROUSSARD@PXD.COM		
SHELTON, GARY, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		601-435-7888	GARY.SHELTON@PXD.COM		
RIG-PATTERSON 807, RIG PHONE		RIG PHONE	361-489-3691	432-257-6394			
Personnel Log							
Company						Count	
PIONEER NATURAL RESOURCES USA INC						3	
PATTERSON-UTI DRILLING COMPANY LLC						14	
PALADIN GEOLOGICAL SERVICES LLC						2	
TRICORPS SECURITY						2	
GYRODATA INC						4	
DWM CONSULTING						2	
TRIFECTA OILFIELD SERVICES LLC						0	
Daily Drilling Report		Page 4/4			Printed: Monday, January 21, 2019		

PATTERSON - UTI #807

Accept: 11/15/2018Release: Days Since LTI: 169.00Days Since RI: 169.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/22/2019

Report #: 26

DFS: 24

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$78,560.76

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: Patterson 802 Case#: 39249 Date: 1-19-2019 Description: While contractor was disconnecting the casing tongs from the hanging line on the rig. The tongs were lifted with the hoist to give slack and loosen from shackle and hanging line. In process of doing so, the shackle came out of his hands and struck the rig floor. The floor and area was cleared, drops calculator registered a low.						
06:15	MEETING	PRE-TOUR	DAY	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #7 Driving Safety Core Value - #7 Teamwork						
18:15	MEETING	PRE-TOUR	NIGHT	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #7 Driving Safety Core Value - #7 Teamwork						
18:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: Patterson 802 Case#: 39249 Date: 1-19-2019 Description: While contractor was disconnecting the casing tongs from the hanging line on the rig. The tongs were lifted with the hoist to give slack and loosen from shackle and hanging line. In process of doing so, the shackle came out of his hands and struck the rig floor. The floor and area was cleared, drops calculator registered a low.						
18:30	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Observed truck driver hooking up hoses to the frac tanks did not have but one glove on, stopped the job ask him where his 2nd glove was he said he had lost it I explained the hazards and why he needed both gloves he under stood got one of the rig hands to get him a pair of gloves then he continued to hook up his hoses						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	2/1/2019	3RD Well / 3 Well pad (Revised on 1/22/19)					
Daily Operations										
Footage/Meterage (ft) 1,166.00		Drilling Hours (hr) 22.00		% Rotating Time (%) 78.41	End Depth (ftKB) 15,850.0	Target Depth (ftKB) 19,076.0	Daily Field Est Total (Cost) 78,560.76	Cum Field Est To Date (Cost) 2,428,260.24		
24 HR ROP (ft/hr) 53.0		Circulating Hours (hr) 2.00		% Sliding Time (%) 21.59	End Depth (TVD) (ftKB) 8,996.6	Target Depth (TVD) (ftKB) 4,840.70	Daily Mud Field Est (Cost) 150,070.63	Cum Mud Field Est (Cost) 4,134,694.81		
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0		Daily Goal - Next 24 1,200.0		Goal Comments Goal not met		
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB			Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB			
Avg Connection Gas 403.00		Avg Trip Gas 0.00		Avg Background Gas 211.00		Max Connection Gas 925.00		Max Trip Gas 0.00	Max Drill Gas 925.00	
Operations Summary Drill Lat F/ 14684' to 15850'										
Operations Next Report Period Drill Lateral F/ 15850' t/ 17050'										
Operations at Report Time Drill Lateral at 15850'										
Remarks NPT for Jan. Patterson: Past 24hr - 7.25 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 67% Last Survey : MD:15721', inc 88.67 , az 186.73 Right 4.39 Below 3.54 Degasser Running										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	6.25	12:15	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 14684' to 15011' (327' @ 52' fph) 100% Returns. WOB:24/28/, SPP:5000, GPM:560, MM:144, Rot 70, TQ 17/19	14,684.0	15,011.0		
12:15	1.5	13:45	PROD, DRL LAT	3RD_PTY	NORMAL	Trouble shoot Pason, Pason shut down found that the sat on location was bad,replaced st pason back up and running.	15,011.0	15,011.0	1.50	15
13:45	12.75	02:30	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 15011' T/ 15721' (710' @ 55.6' fph) 100% Returns. WOB:24/28/, SPP:5000, GPM:560, MM:144, Rot 70, TQ 17/19	15,011.0	15,721.0		
02:30	0.5	03:00	PROD, DRL LAT	RIG_SVC	NORMAL	Service rig	15,721.0	15,721.0		
03:00	3	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 15721' T/ 15850' (129' @ 43' fph) 100% Returns. WOB:24/28/, SPP:5000, GPM:560, MM:144, Rot 70, TQ 17/19	15,721.0	15,850.0		
Interval Problems										
3RD PARTY, 15,011.0ftKB, 1/21/2019 12:15										
Ref #	Dur (N...	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment			
15	1.50	No	RECORDING DEVICES	COMMUNICA TION	3,000.00	PASON SYSTEMS USA CORP	Pason st went down on location C/O same			
Daily Drilling Report										

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AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$78,560.76

Drill Strings																		
BHA #6 , PRODUCTION - LATERAL																		
Bit Run 6				Drill Bit 8 1/2in, D507TX, 5292386						Bit Type PDC				Make GE/BAKER HUGHES				
Nozzles (1/32") 12/12/12/12/12/12				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 61.50				Depth Drilled By Bit (ft) 3,546.00						
BHA Drilling Time (hr) 61.50				BHA Depth Drilled (ft) 3,546.00		BHA ROP (ft/hr) 57.7		Depth In (ftKB) 12,304.0				Depth Out (ftKB) 15,850.0						
Drill String Components																		
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make								
418	DRILL PIPE			5	4.30	13,190.49	15,850.00	487,652.4	581	OTHER (PROVIDE DESCRIPTION)								
1	AGITATOR			6 1/2	2.88	28.12	2,659.51		93	SCOUT								
81	DRILL PIPE			5	4.30	2,528.39	2,631.39	93,474.6	93	OTHER (PROVIDE DESCRIPTION)								
1	DRILL COLLAR - NON MAG			6 3/4	3.63	29.99	103.00		0	Stabil Drill								
1	Drill Collar - Non Mag			6 3/4	3.25	31.07	73.01		0	Stabil Drill								
1	Sub - UBHO			6 7/8	2.19	3.05	41.94		0	Gyrodata								
1	STABILIZER			6 7/8	2.25	6.44	38.89		0	Stabil Drill								
1	MOTOR - STABILIZER SLEEVE			6 3/4	2.88	31.60	32.45		0	Gyrodata								
Mud Motors																		
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defln Type		Bit To Bend						
GDM675220		1.83		NOT SEALED		7:8		5.7				4.65						
Sensors																		
Sensor Type				Sensor-Bit (ft)						Note								
GAMMA				44.00														
DIRECTIONAL				55.00														
Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
06:00	09:30	14,684.0	190.00	54.3	32	65	400.0	565	5,075.0	120.0	201	245	150	201	16,000.0	10,000.0	0	
09:30	10:30	14,874.0	30.00	30.0	41	0	325.0	565	4,950.0	45.0	201	245	150	201	0.0	0.0	20	
10:30	11:30	14,904.0	64.00	64.0	32	65	400.0	565	5,075.0	120.0	201	245	150	201	16,000.0	10,000.0	0	
11:30	12:00	14,968.0	15.00	30.0	41	0	325.0	565	4,950.0	45.0	201	245	150	201	0.0	0.0	20	
12:00	12:15	14,983.0	28.00	112.0	32	65	400.0	565	5,075.0	120.0	201	245	150	201	16,000.0	10,000.0	0	
12:15	13:45	15,011.0	0.00		0	65	0.0	565	4,700.0	0.0	201	245	150	201	9,000.0	9,000.0	0	
13:45	18:30	15,011.0	241.00	50.7	32	65	350.0	565	5,000.0	75.0	201	245	150	201	15,000.0	9,000.0	0	
18:30	19:15	15,252.0	12.00	16.0	45	0	215.0	565	4,900.0	30.0	197	250	145	197	0.0	0.0	90	
19:15	23:15	15,264.0	275.00	68.8	30	65	415.0	565	5,165.0	100.0	197	250	145	197	19,000.0	8,000.0	0	
23:15	00:00	15,539.0	15.00	20.0	45	0	225.0	565	4,900.0	25.0	197	250	145	197	0.0	0.0	90	
00:00	02:15	15,554.0	167.00	74.2	30	65	335.0	565	5,180.0	110.0	197	250	145	197	20,000.0	8,000.0	0	
02:15	02:45	15,721.0	0.00	0.0	0	0	0.0	565	4,700.0	0.0	197	250	145	197	0.0	0.0	0	
02:45	03:45	15,721.0	20.00	20.0	35	0	150.0	565	4,850.0	30.0	197	250	145	197	0.0	0.0	270	
03:45	04:45	15,741.0	84.00	84.0	30	65	400.0	565	4,900.0	100.0	197	250	145	197	20,000.0	9,000.0	0	
04:45	05:30	15,825.0	10.00	13.3	35	0	150.0	565	4,850.0	30.0	197	250	145	197	0.0	0.0	270	
05:30	06:00	15,835.0	15.00	30.0	32	65	400.0	565	4,900.0	100.0	197	250	145	197	20,000.0	9,000.0	0	
Hydraulic Calculations																		
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)								
11.80	12.55	193.7	3.4	234.5	587.6	15.8	554.3	283.57	341.51	430.71								
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Daily Drilling Report

Mud Checks																											
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 15,446.0		Density (lb/gal) 11.80	Funnel Viscosity (s/qt) 68	T Flowline (°F) 132.0																
PV (cP) 20.0		YP (lb/100ft²) 12.000		Vis 3rpm 8		Vis 6rpm 9		Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 13.0		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0													
Solids (%) 20.5				Low Gravity Solids (%) 7.3				Sand (%)				MBT (lb/bbl)				Pm (mL/mL)				Pf (mL/mL)							
Chlorides (ppm) 25,000.000				Calcium (ppm) 10,400.000				CaCl (ppm) 212,500				Oil Water Ratio 81.8/18.2				Electric Stab (V) 865.0				Lime (lb/bbl) 3.1				pH			
Gel 10 sec (lb/100ft²) 11.000								Gel 10 min (lb/100ft²) 23.000								Gel 30 min (lb/100ft²) 25.000											
Comment Maintain MW 11.7-11.8 ppg; Megadrive P and/or Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction; diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP fluid loss; Pump 20bbls 2ppg over weighted sweeps every 500' or as needed; Versathin to manage rheology/gel strengths. Drilling Fluids Activity Last 24 Hrs: MW maintained 11.7-11.8ppg; diesel @3.0 bbls/hr & water 0.9 bbls/hr.; Megadrive S for oil-wetting solids & diesel additions; VG Plus for rheologies/filter cake quality; Versatrol for HTHP fluid loss; CaCl2 for WPS; Graphite for friction reduction/lubricity; Lime for alkalinity Drilling Fluids Forecast Next 24 Hrs: Treat as necessary to maintain properties within program specs. Rig Activity Last 24 Hrs: Pre/post tour safety meetings. Medical drills. Re-log from 14,780' to 15,011' due to communication failure. Drill with one pump while changing piston/liner on MP #2 and #3 Module. Drilling and sliding lateral @15,446 ' at time of report. Volumes Daily Diesel Used 2,982 GAL Cumulative Diesel Used 17,316 GAL Diesel on Location 3,292 GAL Daily Water Used 882 GAL Cumulative Water Used 8,820 GAL Daily OBM Surface Losses 124 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,903 BBLS Daily Drying Shaker Recovered 25 BBLS Cumulative Drying Shaker Recovered 155 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 570 BBL Cumulative OBM Downhole Losses 0 BBLS																											
Last BOP Test																											
Date		Test Type				Item Tested				Next Test Date				Com													
1/13/2019		BOP				BOP'S, 11/19/2018 00:30, <class>				2/3/2019				Tested BOPE 250 /5000													
Leak Off and Formation Integrity Tests																											
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)															
FORMATION INTEGRITY						1,244.0						12.75															
LEAK OFF						8,414.0						13.38															
Casing Pressure Test																											
Test Type				Test Subtype				Date				Item Tested				Failed?		Time (min)		P (psi)							
CASING				STANDARD				11/8/2018				SURFACE, 1,223.7ftKB				No		30.00		1,000.0							
CASING				STANDARD				1/14/2019				INTERMEDIATE, 8,385.0ftKB				No		30.00		2,500.0							
Kick Offs & Key Depths																											
Date						Type						Top Depth (ftKB)															
						TOE																					
1/15/2019 09:15						KICK OFF						8,485.0															
1/16/2019 00:30						HEEL						9,362.0															
Casing Strings																											
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)													
CONDUCTOR		148.5				20		H40		78.67																	
SURFACE		1,223.7		1,223.0		13 3/8		J55		54.50		BTC		823.5													
INTERMEDIATE		8,385.0		8,290.1		9 5/8		L-80 IC		40.00		BTC		5,782.7													
Job Supply Amounts																											
Supply Item Des		Type		Unit Label		Received		Consumed		Returned		Note		Cum On Loc		Cum Consumed											
DIESEL		FUEL		GAL		7,330		3,181		0		50"		7,065		32,885.0											
DIESEL		FUEL		GAL		0		0		0		0		0		0.0											
DIESEL		MUD		GAL		0		2,982		0		24"		3,292		17,595.0											
WATER		FRESH		BBL		0		0		0		Start 118309.82 Stop 118309.82		57,348		34,244.82											
Mud Additive Amounts																											
Des		Type		Units		Rec		Consumed		On Loc		Cum Cons															
BULK TANK RENTAL		MISCELLANEOUS		EA		4		4		0.0		76															
CALCIUM CHLORIDE		SALT		SACK				44		130.0		96															
ENGINEERING SERVICE		MISCELLANEOUS		DAY		1		1		0.0		19															
ENGINEERING SERVICE		MISCELLANEOUS		DAY		1		1		0.0		6															
GRAPHITE		FLUID LOSS ADDITIVES		SACK				20		60.0		167															
LIME		ALKALINITY CONTROL		SACK				20		260.0		143															
MEGADRIVE S		SPECIALITY		DRUM				1		14.0		3															
OBM TESTING EQUIPMENT		MISCELLANEOUS		DAY		1		1		0.0		19															
PER DIEM		MISCELLANEOUS		DAY		1		1		0.0		19															
Daily Drilling Report												Page 3/4						Printed: Tuesday, January 22, 2019									

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018

Release:

Days Since LTI: 169.00

Days Since RI: 169.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/22/2019

Report #: 26

DFS: 24

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$78,560.76

[illegible]

Daily Drilling Report

UNIVERSITY 3-15C 103H				PERMIAN - JV SOUTHERN WOLFCAMP			
PATTERSON - UTI #807				Job: ODR			
Accept: 11/15/2018				Report Date: 1/23/2019			
Days Since LTI: 170.00				Report #: 27			
Release:				DFS: 25			
Days Since RI: 170.00				AFE #: 9000912			
				Total AFE + Sup: \$4,134,694.81			
				Daily Field Est. (Cost): \$54,930.20			

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:15	MEETING	PRE-TOUR	DAY	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #7 Driving Safety Core Value - #7 Teamwork						
18:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: Trinidad 133 Case#: 39265 Date: 1-21-2019 Classification: Injury/Illness (Low) Description: While contractor was on the derrick board, he unlatched a stand from the elevators. The elevators stuck his left pinkie finger causing a laceration. Contractor was wearing his impact gloves at the time. First Aid measures were administered on location and has refused any further medical attention at this time.						
18:15	MEETING	PRE-TOUR	NIGHT	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #7 Driving Safety Core Value - #7 Teamwork						
18:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: Trinidad 133 Case#: 39265 Date: 1-21-2019 Classification: Injury/Illness (Low) Description: While contractor was on the derrick board, he unlatched a stand from the elevators. The elevators stuck his left pinkie finger causing a laceration. Contractor was wearing his impact gloves at the time. First Aid measures were administered on location and has refused any further medical attention at this time.						
18:30	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	While making a connection, driller was pulling a stand out of the mouse hole and I noticed that Hand wasn't using tail rope. Stopped Asked him to use the tail rope to bring stand towards the stump Explained the hazards & reminded to make sure tail rope is used when pulling stds. out of the mouse hole. He understood.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		1/31/2019	3RD Well / 3 Well pad (Revised on 1/23/19)				
Daily Operations										
Footage/Meterage (ft) 1,380.00		Drilling Hours (hr) 23.25		% Rotating Time (%) 84.95		End Depth (ftKB) 17,230.0				
Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 54,930.20		Cum Field Est To Date (Cost) 2,483,190.44						
24 HR ROP (ft/hr) 59.4		Circulating Hours (hr) 0.75		% Sliding Time (%) 15.05		End Depth (TVD) (ftKB) 8,999.5				
Target Depth (TVD) (ftKB) 3,922.20		Daily Mud Field Est (Cost) 3,922.20		Cum Mud Field Est (Cost) 153,992.83		Total AFE + Sup (Cost) 4,134,694.81				
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 1,200.0		Daily Goal - Next 24 1,200.0		Goal Comments Goal Met				
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB		Next Casing String PROPOSED PRODUCTION, <depthbtm>ftKB				
Avg Connection Gas 483.00		Avg Trip Gas 0.00		Avg Background Gas 292.00		Max Connection Gas 1,047.00				
Max Trip Gas 0.00		Max Drill Gas 925.00								
Operations Summary Drill Lateral F/ 15850' t/ 17230', (Patterson Had 15 min Safety stand up)										
Operations Next Report Period Drill Lateral F/ 17230' T/ 18430'										
Operations at Report Time Drill Lateral at 17230'										
Remarks NPT for Jan. Patterson: Past 24hr - 7.25 Total - 0 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 81% Last Survey : MD:17076' , inc 91.33 , az 182.60 Right 7.4 Below 7' Degasser Running										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	11.25	17:15	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 15850 to 16379' (529' @ 47' fph) 100% Returns. WOB:28/30, SPP:5000, GPM:560, MM:144, Rot 70, TQ 17/19	15,850.0	16,379.0		
17:15	0.5	17:45	PROD, DRL LAT	RIG_SVC	NORMAL	Service rig	16,379.0	16,379.0		
17:45	0.25	18:00	PROD, DRL LAT	SFTY	NORMAL	Patterson Having a Safey stand up for all crews and rigs to call in	16,379.0	16,379.0		
18:00	12	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 16379 to 17230' (851' @ 70' fph) 100% Returns. WOB:28/30, SPP:5000, GPM:560, MM:144, Rot 70, TQ 17/19	16,379.0	17,230.0		
Drill Strings										
BHA #6 , PRODUCTION - LATERAL										
Bit Run 6		Drill Bit 8 1/2in, D507TX, 5292386				Bit Type PDC		Make GE/BAKER HUGHES		
Nozzles (1/32") 12/12/12/12/12/12/12		Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 84.75		Depth Drilled By Bit (ft) 4,926.00		
BHA Drilling Time (hr) 84.75		BHA Depth Drilled (ft) 4,926.00		BHA ROP (ft/hr) 58.1		Depth In (ftKB) 12,304.0		Depth Out (ftKB) 17,230.0		
Drill String Components										
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
462	DRILL PIPE			5	4.30	14,570.49	17,230.00	538,671.0	632	OTHER (PROVIDE DESCRIPTION)
1	AGITATOR			6 1/2	2.88	28.12	2,659.51		93	SCOUT
Daily Drilling Report										
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Printed: Wednesday, January 23, 2019										

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 170.00	Days Since RI: 170.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/23/2019
Report #:	27
DFS:	25
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$54,930.20

Hydraulic Calculations										
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
11.80	12.60	193.7	3.4	234.5	587.6	15.8	554.3	308.35	404.85	430.71

Daily Drilling Report

UNIVERSITY 3-15C 103H			
PATTERSON - UTI #807			
Accept: 11/15/2018		Release:	
Days Since LTI: 170.00		Days Since RI: 170.00	

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/23/2019
Report #:	27
DFS:	25
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$54,930.20

Mud Checks											
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 16,705.0		Density (lb/gal) 11.80	Funnel Viscosity (s/qt) 68	T Flowline (°F) 128.0
PV (cP) 18.0	YP (lb/100ft²) 13.000	Vis 3rpm 7	Vis 6rpm 8	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 15.0		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 20.0		Low Gravity Solids (%) 6.1		Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)	
Chlorides (ppm) 25,000.000		Calcium (ppm) 9,600.000		CaCl (ppm) 218,400	Oil Water Ratio 82.5/17.5	Electric Stab (V) 867.0		Lime (lb/bbl) 3.6		pH	
Gel 10 sec (lb/100ft²) 10.000				Gel 10 min (lb/100ft²) 17.000				Gel 30 min (lb/100ft²) 22.000			
Comment Maintain MW 11.7-11.8 ppg; Megadrive P and/or Megadrive S for ES, keep cuttings oil-wet, and aid with HTHP fluid loss; Lime for alkalinity; VG Plus for rheology and filter cake lubricity; VersaMod to adjust low-end rheology; Graphite for friction reduction; diesel for OWR and to aid in keeping LGS <8%; Gilsonite to maintain HTHP fluid loss; Pump 20bbls 2ppg over weighted sweeps every 500' or as needed; Versathin to manage rheology/gel strengths. Drilling Fluids Activity Last 24 Hrs: MW maintained 11.7-11.8ppg; diesel @3.0 bbls/hr & water 0.9 bbls/hr.; Megadrive S for oil-wetting solids & diesel additions; VG Plus for rheologies/filter cake quality; Versatrol for HTHP fluid loss; Graphite for friction reduction/torque; Lime for alkalinity; Versathin for gel strengths. Drilling Fluids Forecast Next 24 Hrs: Treat as necessary to maintain properties within program specs. Rig Activity Last 24 Hrs: Pre/post tour safety meetings. Safety stand down. Service rig. Drill with one pump while troubleshooting MP #1 (plastic found in screen). Drilling and sliding lateral @16,705 ' at time of report. Volumes Daily Diesel Used 2,725 GAL Cumulative Diesel Used 20,041 GAL Diesel on Location 4,517 GAL Daily Water Used 882 GAL Cumulative Water Used 9,702 GAL Daily OBM Surface Losses 206 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,786 BBLS Daily Drying Shaker Recovered 30 BBLS Cumulative Drying Shaker Recovered 185 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 776 BBLS Cumulative OBM Downhole Losses 0 BBL											
Last BOP Test											
Date	Test Type			Item Tested		Next Test Date		Com			
1/13/2019	BOP			BOP'S, 11/19/2018 00:30, <class>		2/3/2019		Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests											
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,244.0				12.75			
LEAK OFF				8,414.0				13.38			
Casing Pressure Test											
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			11/8/2018		SURFACE, 1,223.7ftKB		No	30.00	1,000.0
CASING		STANDARD			1/14/2019		INTERMEDIATE, 8,385.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths											
Date				Type				Top Depth (ftKB)			
				TOE							
1/15/2019 09:15				KICK OFF				8,485.0			
1/16/2019 00:30				HEEL				9,362.0			
Casing Strings											
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)				
CONDUCTOR	148.5		20	H40	78.67						
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5				
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7				
Job Supply Amounts											
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed			
DIESEL	FUEL	GAL	3,450	2,884	0	53"	7,631	35,769.0			
DIESEL	FUEL	GAL	0	0	0		0	0.0			
DIESEL	MUD	GAL	3,950	2,725	0		4,517	20,320.0			
WATER	FRESH	BBL	0	0	0	Start 118309.82 Stop 118309.82	57,348	34,244.82			
Mud Additive Amounts											
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons					
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	80					
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	20					
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	7					
GRAPHITE	FLUID LOSS ADDITIVES	SACK		20	40.0	187					
LIME	ALKALINITY CONTROL	SACK		21	239.0	164					
MEGADRIVE S	SPECIALITY	DRUM		1	13.0	4					
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	20					
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	20					
Daily Drilling Report											

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Printed: Wednesday, January 23, 2019

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 170.00	Days Since RI: 170.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/23/2019
Report #:	27
DFS:	25
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$54,930.20

Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0

Deviation Surveys		
Date	Description FINAL SURVEY	Job
Date 11/5/2018	Description AS DRILL SURVEY	Job ODR, 11/4/2018 13:30

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
Target 1	-6,282.0		9,015.5		
Target 2	-6,282.0		9,015.5		

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	3
PATTERSON-UTI DRILLING COMPANY LLC	14
PALADIN GEOLOGICAL SERVICES LLC	2
TRICORPS SECURITY	2
GYRODATA INC	4
DWM CONSULTING	2
TRIFECTA OILFIELD SERVICES LLC	0

Daily Drilling Report

P/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020024		Property Sub KB-Grd (ft) 28.50		Orig KB Elev (ft) 2,733.50		Ground Elevation (ft) 2,705.00		Spud Date 11/5/2018		TD Date					
Safety Checks															
Time	Type	Des		Tour		Com									
06:00	MEETING	PRE-TOUR		DAY		PTSM: Spill Prevention and OBM transfer procedure. #1 Respect. #1 Safe Work Permits.									
06:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		NIGHT		H&P 437: While contractor was getting loaded with cuttings, his truck began to leak approximately 8 gallons of oil base mud onto the ground due to seal not being closed all the way. The truck was sealed properly and oil base cleaned off ground.									
18:00	MEETING	PRE-TOUR		NIGHT		TSM: Spill Prevention and OBM transfer procedure. #1 Respect. #1 Safe Work Permits									
18:15	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		NIGHT		H&P 437: While contractor was getting loaded with cuttings, his truck began to leak approximately 8 gallons of oil base mud onto the ground due to seal not being closed all the way. The truck was sealed properly and oil base cleaned off ground.									
18:30	PROACTIVE MEASURES	STOP CARD - NON PNR		NIGHT		Stop card: Noticed hand was standing on casing. Stopped job and explained to him the dangers of pinch points, & casing rolling and falling in crack. He understood.									
Jobs															
Responsible Grp 2		Responsible Grp 3			Job Type	Start Date		End Date		Job Status					
DRL ENG - KYLE SPACEK		AREA TEAM 4			ODR	11/4/2018 13:30				IN PROGRESS					
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type				Subtype		Date		Note							
MILESTONE				ESTIMATED PAD RELEASE		1/31/2019		3RD Well / 3 Well pad (Revised on 1/23/19)							
Daily Operations															
Footage/Meterage (ft) 1,123.00		Drilling Hours (hr) 23.25		% Rotating Time (%) 84.95		End Depth (ftKB) 18,353.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 89,363.30		Cum Field Est To Date (Cost) 2,710,119.04			
24 HR ROP (ft/hr) 48.3		Circulating Hours (hr) 0.75		% Sliding Time (%) 15.05		End Depth (TVD) (ftKB) 8,995.7		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 9,907.50		Cum Mud Field Est (Cost) 163,900.33		Total AFE + Sup (Cost) 4,134,694.81	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,200.0				Daily Goal - Next 24 722.0				Goal Comments Goal not met (ROP / Direct. Control)			
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 8,385.0ftKB						Next Casing String PROPOSED PRODUCTION, 19,057.0ftKB					
Avg Connection Gas 654.00		Avg Trip Gas 0.00		Avg Background Gas 293.00		Max Connection Gas 1,348.00		Max Trip Gas 0.00		Max Drill Gas 1,469.00					
Operations Summary Drill Lateral Section F/17,230' - T/18,353'															
Operations Next Report Period Drill Lateral F/ 18,353' - T/19,075' (TD), Perform K&M Cycle, TOO H L/D Drill pipe, L/D BHA, R/U Csg. tools.															
Operations at Report Time Drill Lateral Section @ 18,353'															
Remarks NPT for July Patterson: Past 24hr - 0 Total - 7.25 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 93% Last Survey: 18259 INC: 93.63 AZM: 181.94 Below: 11.42 Left: 12.53															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #			
06:00	11	17:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 17230 to 17,788' (558' @ 51' fph) 100% Returns. WOB:28/30, SPP:5000, GPM:550, MM:132, RPM:70, TQ 17-19			17,230.0	17,788.0					
17:00	0.5	17:30	PROD, DRL LAT	RIG_SVC	NORMAL	Service rig			17,788.0	17,788.0					
17:30	1.25	18:45	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 17,788' to 17,810'. (22' @ 22' fph) 100% Returns. WOB:28/30, SPP:5000, GPM:550, MM:132, RPM:70, TQ:16-19			17,788.0	17,810.0					
18:45	5.5	00:15	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 17,810' to 18,174'. (364' @ 66' fph) 100% Returns. WOB:22/25, SPP:3200, GPM:385, MM:192, RPM:65, TQ 14-18 . ? Drilling with pump # 2. (Work on pump # 1 - C/O 2 Swabs, 1 liner, & 3 P- Quip rod connectors)			17,810.0	18,174.0					
00:15	5.75	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 18,174' to 18,353'. (179' @ 31' fph) 100% Returns. WOB:28/30, SPP:5000, GPM:540, MM:156, RPM:70, TQ 18-20			18,174.0	18,353.0					
Drill Strings															
BHA #6 , PRODUCTION - LATERAL															
Bit Run 6				Drill Bit 8 1/2in, D507TX, 5292386				Bit Type PDC		Make GE/BAKER HUGHES					
Nozzles (1/32") 12/12/12/12/12/12				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 108.00		Depth Drilled By Bit (ft) 6,049.00					
BHA Drilling Time (hr) 108.00				BHA Depth Drilled (ft) 6,049.00		BHA ROP (ft/hr) 56.0		Depth In (ftKB) 12,304.0		Depth Out (ftKB) 18,353.0					
Drill String Components															
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make					
498	DRILL PIPE			5	4.30	15,693.49	18,353.00	580,188.3	674	OTHER (PROVIDE DESCRIPTION)					
1	AGITATOR			6 1/2	2.88	28.12	2,659.51		93	SCOUT					
81	DRILL PIPE			5	4.30	2,528.39	2,631.39	93,474.6	93	OTHER (PROVIDE DESCRIPTION)					
1	DRILL COLLAR - NON MAG			6 3/4	3.63	29.99	103.00		0	Stabil Drill					
Daily Drilling Report															
Page 1/4						Printed: Thursday, January 24, 2019									

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 171.00	Days Since RI: 171.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/24/2019
Report #:	28
DFS:	26
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$89,363.30

Daily Drilling Report Page 2/4 Printed: Thursday, January 24, 2019

Daily Drilling Report

Leak Off and Formation Integrity Tests								
Test Type		Depth (ftKB)		Dens Fluid (lb/gal)				
FORMATION INTEGRITY		1,244.0		12.75				
LEAK OFF		8,414.0		13.38				
Casing Pressure Test								
Test Type		Test Subtype		Date	Item Tested	Failed?	Time (min)	P (psi)
CASING		STANDARD		11/8/2018	SURFACE, 1,223.7ftKB	No	30.00	1,000.0
CASING		STANDARD		1/14/2019	INTERMEDIATE, 8,385.0ftKB	No	30.00	2,500.0
Kick Offs & Key Depths								
Date			Type			Top Depth (ftKB)		
			TOE					
1/15/2019 09:15			KICK OFF			8,485.0		
1/16/2019 00:30			HEEL			9,362.0		
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	148.5		20	H40	78.67			
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5	
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	0	3,050	0	36"	4,581	38,819.0
DIESEL	FUEL	GAL	0	0	0	0	0	0.0
DIESEL	MUD	GAL	0	3,007	0	14"	1,510	23,327.0
WATER	FRESH	BBL	0	0	0	Start 118309 - Stop 118309	0	34,244.82
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON		8	62.0	64		
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	84		
ENGINEERING PER MILEAGE	MISCELLANEOUS	PER MILE	1,725	1,725	0.0	4,738		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	2	2	0.0	22		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	8		
GRAPHITE	FLUID LOSS ADDITIVES	SACK		26	14.0	213		
LIME	ALKALINITY CONTROL	SACK		24	215.0	188		
MEGADRIVE S	SPECIALITY	DRUM		1	12.0	5		
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	21		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	21		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	7		
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	6,930		
VERSATROL M	OIL MUD ADDITIVE	SACK		16	129.0	94		
VG-PLUS	OIL MUD ADDITIVE	SACK		3	35.0	23		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	18,259.0	04:15	722.0	30	106	95		
1	18,259.0	04:16	864.0	40	141	95		
1	18,259.0	04:17	1,027.0	50	176	95		
2	18,259.0	04:15	716.0	30	106	95		
2	18,259.0	04:16	846.0	40	141	95		
2	18,259.0	04:17	995.0	50	176	95		
Deviation Surveys								
Date	Description					Job		
	FINAL SURVEY							
Date	Description					Job		
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
17,263.00	89.37	181.14	9,008.15	8,094.29	-8,110.14	664.74	3.75	
17,357.00	90.60	182.60	9,008.17	8,188.28	-8,204.08	661.67	2.03	
17,451.00	89.87	179.97	9,007.79	8,282.27	-8,298.05	659.57	2.90	
17,545.00	89.53	178.40	9,008.28	8,376.21	-8,392.04	660.90	1.71	
17,639.00	88.97	179.36	9,009.51	8,470.12	-8,486.01	662.74	1.18	
17,733.00	88.55	178.98	9,011.54	8,564.04	-8,579.98	664.10	0.60	
17,827.00	89.87	179.28	9,012.84	8,657.97	-8,673.96	665.53	1.44	
17,920.00	92.42	181.84	9,010.98	8,750.93	-8,766.92	664.62	3.88	
Daily Drilling Report				Page 3/4		Printed: Thursday, January 24, 2019		

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 171.00	Days Since RI: 171.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/24/2019
Report #:	28
DFS:	26
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$89,363.30

Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
18,014.00	91.13	180.13	9,008.07	8,844.88	-8,860.85	663.01	2.28
18,109.00	89.48	179.62	9,007.56	8,939.85	-8,955.85	663.21	1.82
18,204.00	93.57	181.72	9,005.04	9,034.78	-9,050.78	662.10	4.84
Formations							
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)		
Target 1	-6,282.0		9,015.5				
Target 2	-6,282.0		9,015.5				
Daily Contacts							
Job Contact	Title	Office	Mobile	Email			
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR	AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM			
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM			
FOUNTAIN, KYLE, SUPERINTENDENT	SUPERINTENDENT	817-717-2807	936-465-0896	KYLE.FOUNTAIN@PXD.COM			
SPACEK, KYLE, ENGINEER	ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM			
TRANSIER, KENNETH, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		318-481-3868	KENNETH.TRANSIER@PXD.COM			
BROUSSARD, JEFF, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		337-288-1216	JEFF.BROUSSARD@PXD.COM			
PEREZ, GABRIEL, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		956-740-9518	GABRIEL.PEREZ@PXD.COM			
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394				
Personnel Log							
Company					Count		
PIONEER NATURAL RESOURCES USA INC					3		
PATTERSON-UTI DRILLING COMPANY LLC					14		
PALADIN GEOLOGICAL SERVICES LLC					2		
UNITED SHUTDOWN SAFETY TEXAS INC					2		
GYRODATA INC					4		
DWM CONSULTING					2		
Daily Drilling Report							
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Printed: Thursday, January 24, 2019							

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 172.00 Days Since RI: 172.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/25/2019

Report #: 29

DFS: 27

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$178,163.01

P/I/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)													
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50		Orig KB Elev (ft) 2,733.50		Ground Elevation (ft) 2,705.00		Spud Date 11/5/2018		TD Date 1/24/2019							
Safety Checks																			
Time		Type		Des		Tour		Com											
06:00		MEETING		PRE-TOUR		DAY		PTSM - PPE, Spill Prevention, Transfer OBM, Housekeeping, Making Connections. R2LB - #3 Confined Space Entry, Core Value - #3 Safety											
06:01		PROACTIVE MEASURES		WEEKLY TRENDS REVIEWED		DAY		Rig: Trinidad 136: While contractor was installing the second half of the bushings, the driller opened the blind rams causing water to come through the rotary table ricocheting off the half of bushings in the rotary table striking employee on the right side of the face. The employee washed his face and flushed his eyes for precautionary measures. He was also taken to be observed, Contractor was released to full duty without restrictions.											
18:00		MEETING		PRE-TOUR		NIGHT		PTSM - PPE, Spill Prevention, Transfer OBM, Housekeeping, Making Connections. R2LB - #3 Confined Space Entry, Core Value - #3 Safety											
18:01		PROACTIVE MEASURES		WEEKLY TRENDS REVIEWED		NIGHT		Rig: Trinidad 136: While contractor was installing the second half of the bushings, the driller opened the blind rams causing water to come through the rotary table ricocheting off the half of bushings in the rotary table striking employee on the right side of the face. The employee washed his face and flushed his eyes for precautionary measures. He was also taken to be observed, Contractor was released to full duty without restrictions.											
23:00		PROACTIVE MEASURES		STOP CARD - PNR		NIGHT		Stop card: Noticed RTM did not cover mouse hole after stand came out while making a connection. Talked to him about the importance of putting cover ASAP to eliminate fall hazard. He understood.											
Jobs																			
Responsible Grp 2				Responsible Grp 3				Job Type		Start Date			End Date		Job Status				
DRL ENG - KYLE SPACEK				AREA TEAM 4				ODR		11/4/2018 13:30					IN PROGRESS				
Job Dates (ex. Estimated Pad Release, TXRRC Calls)																			
Type						Subtype			Date			Note							
MILESTONE						ESTIMATED PAD RELEASE			1/31/2019			3RD Well / 3 Well pad (Revised on 1/23/19)							
Daily Operations																			
Footage/Meterage (ft) 722.00		Drilling Hours (hr) 16.00			% Rotating Time (%) 81.25			End Depth (ftKB) 19,075.0			Target Depth (ftKB) 19,076.0			Daily Field Est Total (Cost) 178,163.01		Cum Field Est To Date (Cost) 2,888,282.05			
24 HR ROP (ft/hr) 45.1		Circulating Hours (hr) 8.00			% Sliding Time (%) 18.75			End Depth (TVD) (ftKB) 8,988.7			Target Depth (TVD) (ftKB) 7,285.01			Daily Mud Field Est (Cost) 171,185.34		Total AFE + Sup (Cost) 4,134,694.81			
Daily Goal Description DRILLED FEET					Daily Goal - Last 24 722.0					Daily Goal - Next 24 0.0					Goal Comments Goal Met				
Backbuild Yes		Lateral Inclination Toe Down		Last Casing String INTERMEDIATE, 8,385.0ftKB								Next Casing String PROPOSED PRODUCTION, 19,057.0ftKB							
Avg Connection Gas 738.00			Avg Trip Gas 0.00			Avg Background Gas 195.00			Max Connection Gas 1,279.00			Max Trip Gas 0.00			Max Drill Gas 1,492.00				
Operations Summary Drill Lateral F/ 18,353' - T/19,075' (TD), Perform K&M Cycle (Circ. last B/U).																			
Operations Next Report Period Flow check, TOO, & L/D BHA, R/U Csg. tools.																			
Operations at Report Time K&M cycle (Circ. last B/U)																			
Remarks NPT for January Patterson: Past 24hr - 0 Total - 7.25 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 100% Last Survey:19075 INC: 89.45 AZM: 181.97 Below: 11.82 Left: 3.17 ? TD on 1/24/19 @ 22:00hrs																			
Time Log																			
Start Time		Dur (hr)	End Time	Phase	Operation	Ops Category	Com					Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #				
06:00		16	22:00	PROD, DRL LAT	DRL	NORMAL	Drill Lat. section from 18353' to 19075'. (722' @ 45' fph) 100% Returns. WOB:28/30, SPP:5000, GPM:540, MM:156, RPM:70, TQ 18-20 ? TD on 1/24/19 @ 22:00hrs					18,353.0	19,075.0						
22:00		0.5	22:30	PROD, POST DRL	RIG_SVC	NORMAL	Service rig & Top Drive					19,075.0	19,075.0						
22:30		7.5	06:00	PROD, POST DRL	CIRC	NORMAL	Perform K&M Clean up cycle with 100% returns., GPM 540, SPP 5050, Intital TQ 15k Racked back a stand in derrick after each B/U F/ 19,075' - T/ 18,602' 1rst B/U = 90% Coverage TQ 10, SPP 4950 2nd B/U = 70%, Coverage TQ 9, SPP 4800 3rd B/U = 45% Coverage TQ 9, SPP 4760 4th B/U = 30% Coverage TQ 9, SPP 4760 5th B/U = 25% Coverage TQ 8, SPP 4750 6th B/U = 20% Coverage TQ 8, SPP 4750					19,075.0	19,075.0						
Drill Strings																			
BHA #6 , PRODUCTION - LATERAL																			
Bit Run 6				Drill Bit 8 1/2in, D507TX, 5292386						Bit Type PDC				Make GE/BAKER HUGHES					
Nozzles (1/32") 12/12/12/12/12/12				Bit Total Fluid Area (nozzles) (in²) 0.77				IADC Bit Dull -----				Hours Drilled By Bit (hr) 124.00				Depth Drilled By Bit (ft) 6,771.00			
BHA Drilling Time (hr) 124.00				BHA Depth Drilled (ft) 6,771.00				BHA ROP (ft/hr) 54.6				Depth In (ftKB) 12,304.0				Depth Out (ftKB) 19,075.0			
Daily Drilling Report																			

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Printed: Friday, January 25, 2019

Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018

Days Since LTI: 172.00

Release:

Days Since RI: 172.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/25/2019

Report #: 29

DFS: 27

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): **\$178,163.01**

Daily Drilling Report	Page 2/4	Printed: Friday, January 25, 2019

Daily Drilling Report

Leak Off and Formation Integrity Tests								
Test Type		Depth (ftKB)		Dens Fluid (lb/gal)				
FORMATION INTEGRITY		1,244.0		12.75				
LEAK OFF		8,414.0		13.38				
Casing Pressure Test								
Test Type		Test Subtype		Date	Item Tested	Failed?	Time (min)	P (psi)
CASING		STANDARD		11/8/2018	SURFACE, 1,223.7ftKB	No	30.00	1,000.0
CASING		STANDARD		1/14/2019	INTERMEDIATE, 8,385.0ftKB	No	30.00	2,500.0
Kick Offs & Key Depths								
Date			Type			Top Depth (ftKB)		
1/15/2019 09:15			KICK OFF			8,485.0		
1/16/2019 00:30			HEEL			9,362.0		
1/24/2019 22:00			TOE			19,075.0		
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	148.5		20	H40	78.67			
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5	
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	3,500	2,975	0	39"	5,106	41,794.0
DIESEL	FUEL	GAL	0	0	0	0	0	0.0
DIESEL	MUD	GAL	3,716	2,691	0	20"	2,535	26,018.0
WATER	FRESH	BBL	0	0	0	Start 118309 - Stop 118309	0	34,244.82
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON		8	54.0	72		
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	88		
ENGINEERING PER MILEAGE	MISCELLANEOUS	PER MILE	60	60	0.0	4,798		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	23		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	9		
GRAPHITE	FLUID LOSS ADDITIVES	SACK		14	0.0	227		
LIME	ALKALINITY CONTROL	SACK		65	150.0	253		
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	22		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	22		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	8		
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	7,260		
VERSATROL M	OIL MUD ADDITIVE	SACK		30	99.0	124		
VG-PLUS	OIL MUD ADDITIVE	SACK		2	33.0	25		
Pump Operations								
Pump #	Make		Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO		F1600	5 1/2	12.00	0.088	5,000.0	
2	BOMCO		F1600	5 1/2	12.00	0.088	5,000.0	
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	19,075.0	22:00	696.0	30	106	95		
1	19,075.0	22:01	845.0	40	141	95		
1	19,075.0	22:02	1,026.0	50	176	95		
2	19,075.0	22:00	690.0	30	106	95		
2	19,075.0	22:01	819.0	40	141	95		
2	19,075.0	22:02	1,000.0	50	176	95		
Deviation Surveys								
Date		Description				Job		
		FINAL SURVEY						
Date		Description				Job		
11/5/2018		AS DRILL SURVEY				ODR, 11/4/2018 13:30		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
18,391.00	92.73	182.28	8,993.06	9,221.37	-9,237.27	655.35	1.58	
18,485.00	92.45	183.07	8,988.81	9,315.24	-9,331.07	650.97	0.89	
18,579.00	89.23	181.89	8,987.44	9,409.20	-9,424.96	646.90	3.65	
18,672.00	90.23	182.04	8,987.87	9,502.19	-9,517.90	643.71	1.09	
18,766.00	89.65	181.75	8,987.97	9,596.18	-9,611.85	640.60	0.69	
18,859.00	90.15	181.73	8,988.14	9,689.18	-9,704.81	637.78	0.54	
18,953.00	90.18	179.79	8,987.86	9,783.17	-9,798.79	636.53	2.06	
19,020.00	89.39	181.79	8,988.12	9,850.16	-9,865.78	635.61	3.21	
Daily Drilling Report				Page 3/4		Printed: Friday, January 25, 2019		

Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018

Release:

Days Since LTI: 172.00

Days Since RI: 172.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/25/2019
Report #:	29
DFS:	29
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$178,163.01

[illegible]

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 173.00	Days Since RI: 173.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/26/2019
Report #:	30
DFS:	28
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$102,274.24

Daily Drilling Report

Daily Drilling Report

Time Log																			
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #									
23:15	6.75	06:00	PROD, POST DRL	L/D DP	NORMAL	Cont L/D DP F/ 8283' - T/ 4850' (Hole take proper fill with trip tanks) ? Having to use rig tongs periodically while L/D Drill pipe due to over-torque. (Averaging about 508' an hour.)	19,075.0	19,075.0											
Drill Strings																			
BHA #6 , PRODUCTION - LATERAL																			
Bit Run 6			Drill Bit 8 1/2in, D507TX, 5292386			Bit Type PDC		Make GE/BAKER HUGHES											
Nozzles (1/32") 12/12/12/12/12/12/12			Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 124.00		Depth Drilled By Bit (ft) 6,771.00										
BHA Drilling Time (hr) 124.00			BHA Depth Drilled (ft) 6,771.00		BHA ROP (ft/hr) 54.6		Depth In (ftKB) 12,304.0		Depth Out (ftKB) 19,075.0										
Drill String Components																			
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make								
521	DRILL PIPE				5	4.30	16,415.49	19,075.00	606,880.7	700	OTHER (PROVIDE DESCRIPTION)								
1	AGITATOR				6 1/2	2.88	28.12	2,659.51		93	SCOUT								
81	DRILL PIPE				5	4.30	2,528.39	2,631.39	93,474.6	93	OTHER (PROVIDE DESCRIPTION)								
1	DRILL COLLAR - NON MAG				6 3/4	3.63	29.99	103.00		0	Stabil Drill								
1	Drill Collar - Non Mag				6 3/4	3.25	31.07	73.01		0	Stabil Drill								
1	Sub - UBHO				6 7/8	2.19	3.05	41.94		0	Gyrodata								
1	STABILIZER				6 7/8	2.25	6.44	38.89		0	Stabil Drill								
1	MOTOR - STABILIZER SLEEVE				6 3/4	2.88	31.60	32.45		0	Gyrodata								
Mud Motors																			
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defin Type		Bit To Bend							
GDM675220		1.83		NOT SEALED		7:8		5.7				4.65							
Sensors																			
Sensor Type				Sensor-Bit (ft)				Note											
GAMMA				44.00															
DIRECTIONAL				55.00															
Drilling Parameters																			
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)		
06:00	06:00	19,075.0	0.00		0	0	0.0	0	0.0		0	0	0	0	0.0	0.0	0		
Hydraulic Calculations																			
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
11.95										0.0		0.0							
Mud Checks																			
Time 00:30		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 19,075.0		Density (lb/gal) 11.95		Funnel Viscosity (s/qt) 73		T Flowline (°F) 0.0					
PV (cP) 19.0		YP (lb/100ft²) 15.000		Vis 3rpm 7		Vis 6rpm 8		Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 13.6		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0					
Solids (%) 21.5				Low Gravity Solids (%) 7.8				Sand (%)				MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)			
Chlorides (ppm) 24,000.000			Calcium (ppm) 5,600.000			CaCl (ppm)		Oil Water Ratio 82.8/17.2		Electric Stab (V) 833.0			Lime (lb/bbl) 2.8			pH			
Gel 10 sec (lb/100ft²) 11.000						Gel 10 min (lb/100ft²) 20.000						Gel 30 min (lb/100ft²) 23.000							
Comment																			
PNR - Patterson 807- University 3-15C 103H - DMR #25																			
Recommended Fluids Treatments:																			
No current treatment. TD 19,075'. Laying down drill pipe																			
Drilling Fluids Activity Last 24 Hrs:																			
TD 19,075'. Circulating active system over shakers while L/D DP.																			
Drilling Fluids Forecast Next 24 Hrs:																			
Receive OBM on next coming pad, Rocker B 147H.																			
Rig Activity Last 24 Hrs:																			
Pre/Post tour safety meeting with rig personnel. Finish circulating K&M cycle. Flow check, no flow. POOH F/18,509' T/18,163'. Perform flow check, no flow. Pump slug and POOH F/18,163' T/15,777'. Begin L/D DP at 15,777'. Lubricate rig. Laying down drill pipe at time of mud report.																			
Volumes																			
Daily Diesel Used				1,227 GAL															
Cumulative Diesel Used				26,261 GAL															
Diesel on Location				2,013 GAL															
Daily Water Used				0 GAL															
Cumulative Water Used				10,542 GAL															
Daily OBM Surface Losses				22 BBLS															
OBM Volume Accounting:																			
Total OBM Received				BBLS															
Total OBM Rental				2,038 BBLS															
Total OBM on Location				1,848 BBLS															
Daily Drying Shaker Recovered				0 BBLS															
Cumulative Drying Shaker Recovered				260 BBLS															
Daily OBM Downhole Losses				0 BBLS															
Cumulative OBM Surface Losses				927 BBLS															
Cumulative OBM Downhole Losses				0 BBLS															

Daily Drilling Report

Last BOP Test								
Date	Test Type	Item Tested		Next Test Date	Com			
1/13/2019	BOP	BOP'S, 11/19/2018 00:30, <class>		2/3/2019	Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests								
Test Type		Depth (ftKB)			Dens Fluid (lb/gal)			
FORMATION INTEGRITY		1,244.0			12.75			
LEAK OFF		8,414.0			13.38			
Casing Pressure Test								
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)		
CASING	STANDARD	11/8/2018	SURFACE, 1,223.7ftKB	No	30.00	1,000.0		
CASING	STANDARD	1/14/2019	INTERMEDIATE, 8,385.0ftKB	No	30.00	2,500.0		
Kick Offs & Key Depths								
Date		Type			Top Depth (ftKB)			
1/15/2019 09:15		KICK OFF			8,485.0			
1/16/2019 00:30		HEEL			9,362.0			
1/24/2019 22:00		TOE			19,075.0			
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	148.5		20	H40	78.67			
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5	
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	0	1,543	0	30"	3,563	43,337.0
DIESEL	FUEL	GAL	0	0	0	0	0	0.0
DIESEL	MUD	GAL	0	865	0	15"	1,670	26,883.0
WATER	FRESH	BBL	0	0	0	Start 118309 - Stop 118309	0	34,244.82
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON		9	45.0	81		
BULK TANK RENTAL	MISCELLANEOUS	EA	4	4	0.0	92		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	24		
ENGINEERING SERVICE	MISCELLANEOUS	DAY	1	1	0.0	10		
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY	1	1	0.0	23		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	23		
PER DIEM	MISCELLANEOUS	DAY	1	1	0.0	9		
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY	330	330	0.0	7,590		
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)		
1	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
2	BOMCO	F1600	5 1/2	12.00	0.088	5,000.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	19,075.0	06:00	696.0	30	106	95		
1	19,075.0	06:01	845.0	40	141	95		
1	19,075.0	06:02	1,026.0	50	176	95		
2	19,075.0	06:00	690.0	30	106	95		
2	19,075.0	06:01	819.0	40	141	95		
2	19,075.0	06:02	1,000.0	50	176	95		
Deviation Surveys								
Date	Description					Job		
	FINAL SURVEY							
Date	Description					Job		
11/5/2018	AS DRILL SURVEY					ODR, 11/4/2018 13:30		
Formations								
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
Target 1			-6,282.0		9,015.5			
Target 2			-6,282.0		9,015.5			
Target 4			-6,260.0		8,993.5			
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM			
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM			
FOUNTAIN, KYLE, SUPERINTENDENT		SUPERINTENDENT	817-717-2807	936-465-0896	KYLE.FOUNTAIN@PXD.COM			
SPACEK, KYLE, ENGINEER		ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM			
TRANSIER, KENNETH, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		318-481-3868	KENNETH.TRANSIER@PXD.COM			
BROUSSARD, JEFF, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		337-288-1216	JEFF.BROUSSARD@PXD.COM			
Daily Drilling Report								

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Printed: Saturday, January 26, 2019

Daily Drilling Report

PATTERSON - UTI #807

Release:

Days Since RI: 173.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/26/2019
Report #:	30
DFS:	28
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$102,274.24

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
PEREZ, GABRIEL, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		956-740-9518	GABRIEL.PEREZ@PXD.COM
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394	
Personnel Log				
Company				Count
PIONEER NATURAL RESOURCES USA INC				4
PATTERSON-UTI DRILLING COMPANY LLC				14
PALADIN GEOLOGICAL SERVICES LLC				2
UNITED SHUTDOWN SAFETY TEXAS INC				2
GYRODATA INC				4
DWM CONSULTING				2

Daily Drilling Report

P/I/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date 1/24/2019		
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	Watch out for slip, trips, & falls while on tour. Be aware of pinch points.Make sure N2I's have a designated mentor. #4 Personal Accountability #4 Energy Isolation.						
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: H&P 390: While contractor was pulling slack out of the diesel pressure washer line, he inadvertently struck himself in the mouth with the wand. Contractor received minor injuries. First aid was performed on location and he refused medical attention.						
18:00	MEETING	PRE-TOUR	NIGHT	Watch out for slip, trips, & falls while on tour. Be aware of pinch points.Make sure N2I's have a designated mentor. #4 Personal Accountability#4 Energy Isolation.						
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: H&P 390: While contractor was pulling slack out of the diesel pressure washer line, he inadvertently struck himself in the mouth with the wand. Contractor received minor injuries. First aid was performed on location and he refused medical attention.						
23:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Stop card: Noticed 3rd party had his hand in the wrong place when using rig tongs to make up shoe track. Talked to him about using tong handles to avoid pinch points. He understood.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	1/31/2019	3RD Well / 3 Well pad (Revised on 1/23/19)					
Type TXRRC CALL			Subtype CEMENT PROD	Date 1/26/2019	Note Rosa / Operator # 7					
Daily Operations										
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 19,075.0	Target Depth (ftKB) 19,076.0	Daily Field Est Total (Cost) 52,203.36	Cum Field Est To Date (Cost) 3,174,433.85		
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 8,988.7	Target Depth (TVD) (ftKB)	Daily Mud Field Est (Cost) 3,265.36	Cum Mud Field Est (Cost) 178,968.94		
							Total AFE + Sup (Cost) 4,134,694.81			
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 0.0		Daily Goal - Next 24 0.0		Goal Comments Goal met.			
Backbuild Yes		Lateral Inclination Toe Down		Last Casing String INTERMEDIATE, 8,385.0ftKB			Next Casing String PROPOSED PRODUCTION, 19,057.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00	Max Trip Gas 0.00	Max Drill Gas 0.00		
Operations Summary Finish L/D Drill pipe & BHA, C/O Wear sub on TDS, R/U Csg. tools, M/U Shoe track & run 5.5" Prod. Csg. T/ 5000'										
Operations Next Report Period Run casing T/ 19,057', Circ. 1.5 X's csg. cap, R/D Csg tools, R/U Cement tools & cement 5.5" Prod. csg.										
Operations at Report Time Run 5.5" Production casing T/ 5000'										
Remarks NPT for January Patterson: Past 24hr - 0 Total - 7.25 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 100% ? TD on 1/24/19 @ 22:00hrs										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	4.25	10:15	PROD, POST DRL	L/D DP	NORMAL	TOOH, L/D 5" DP f/ 5239' to 2985'. ? Hole taking correct fill.	19,075.0	19,075.0		
10:15	0.5	10:45	PROD, POST DRL	HDL_ROT HD	NORMAL	Remove rotating head and install trip nipple. ? Monitoring returns on trip tank. (Well static)	19,075.0	19,075.0		
10:45	5	15:45	PROD, POST DRL	L/D DP	NORMAL	TOOH, L/D 5" DP f/ 2985' to 103. ? Hole taking correct fill.	19,075.0	19,075.0		
15:45	0.25	16:00	PROD, POST DRL	SFTY	NORMAL	PJSM - Discussion w/ Gyrodata, Patterson and PNR Personnel on L/D BHA; ? Monitoring well on trip tank. (Well static.)	19,075.0	19,075.0		
16:00	1.5	17:30	PROD, POST DRL	LD_DIR	NORMAL	L/D lateral BHA. ? Hole taking correct fill.	19,075.0	19,075.0		
17:30	1	18:30	PROD, POST DRL	WRBSH	NORMAL	Cleared and cleaned rig floor. ? Well secured.	19,075.0	19,075.0		
18:30	0.5	19:00	PROD, POST DRL	SFTY	NORMAL	Drained stack and pulled wear bushing. ? Monitoring well on trip tank. (Well static.)	19,075.0	19,075.0		
19:00	0.5	19:30	PROD, POST DRL	RIG_RPR	NORMAL	C/O Saver sub on top drive.	19,075.0	19,075.0		
19:30	0.5	20:00	PROD, POST DRL	RIG_SVC	NORMAL	Rig service.	19,075.0	19,075.0		
Daily Drilling Report										
Page 1/3										
Printed: Sunday, January 27, 2019										

Daily Drilling Report

UNIVERSITY 3-15C 103H

PATTERSON - UTI #807

Accept: 11/15/2018 Release:

Days Since LTI: 174.00 Days Since RI: 174.00

PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

Report Date: 1/27/2019

Report #: 31

DFS: 29

AFE #: 9000912

Total AFE + Sup: \$4,134,694.81

Daily Field Est. (Cost): \$52,203.36

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
20:00	0.5	20:30	PROD, POST DRL	SFTY	NORMAL	PJSM - Byrd, Maverick, Superior, Patterson and PNR personnel on R/U casing tools. PJSM - Byrd, Maverick, Superior, Weatherford, Patterson and PNR personnel on running 5 1/2" production casing. ? Monitoring well on trip tank. (Well static.)	19,075.0	19,075.0			
20:30	2	22:30	PROD, POST DRL	RU_CSG	NORMAL	R/U Byrd casing tools. ? Monitoring well on trip tank. (Well static.)	19,075.0	19,075.0			
22:30	0.5	23:00	PROD, POST DRL	MU_SHOE_TR K	NORMAL	M/U Float & shoe equipment & circ. thru.	19,075.0	19,075.0			
23:00	7	06:00	PROD, POST DRL	CSG_W/O ROTATION	NORMAL	Run 5 1/2" Production csg. T/ 5000' ' fill pipe every 30 joints with 100% returns. (Proper displacement into trip tank) ? 5.5" Csg. - 20 Lbs. - P-110-IC - TXPBTC	19,075.0	19,075.0			
Hydraulic Calculations											
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)	
Mud Checks											
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 19,075.0	Density (lb/gal) 11.95	Funnel Viscosity (s/qt) 78	T Flowline (°F) 0.0	
PV (cP) 20.0	YP (lb/100ft²) 14.000	Vis 3rpm 7	Vis 6rpm 8	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 13.0		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0	
Solids (%) 21.5		Low Gravity Solids (%) 7.8		Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)	
Chlorides (ppm) 24,000.000		Calcium (ppm) 6,000.000		CaCl (ppm)	Oil Water Ratio 82.8/17.2		Electric Stab (V) 842.0		Lime (lb/bbl) 2.1		pH
Gel 10 sec (lb/100ft²) 11.000				Gel 10 min (lb/100ft²) 21.000				Gel 30 min (lb/100ft²) 23.000			
Comment PNR - Patterson 807- University 3-15C 103H - DMR #26 Recommended Fluids Treatments: No current treatment. TD 19,075'. Drilling Fluids Activity Last 24 Hrs: TD 19,075'. Circulating active system over shakers while L/D DP. Drilling Fluids Forecast Next 24 Hrs: Receive OBM on next coming pad, Rocker B 147H. Rig Activity Last 24 Hrs: Pre/ Post tour safety meeting with rig personnel. Finish laying down drill pipe. PJSM for laying down BHA. Finish Laying down BHA. Rig service Top Drive. Rigging up Casing Crew at report time.. Volumes Daily Diesel Used 0 GAL Cumulative Diesel Used 26,261 GAL Diesel on Location 2,013 GAL Daily Water Used 0 GAL Cumulative Water Used 10,542 GAL Daily OBM Surface Losses 13 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,841 BBLS Daily Drying Shaker Recovered 5 BBLS Cumulative Drying Shaker Recovered 265 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 940 BBLS Cumulative OBM Downhole Losses 0 BBLS											
Last BOP Test											
Date		Test Type		Item Tested		Next Test Date		Com			
1/13/2019		BOP		BOP'S, 11/19/2018 00:30, <class>		2/3/2019		Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests											
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,244.0				12.75			
LEAK OFF				8,414.0				13.38			
Casing Pressure Test											
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			11/8/2018		SURFACE, 1,223.7ftKB		No	30.00	1,000.0
CASING		STANDARD			1/14/2019		INTERMEDIATE, 8,385.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths											
Date					Type			Top Depth (ftKB)			
1/15/2019 09:15					KICK OFF			8,485.0			
1/16/2019 00:30					HEEL			9,362.0			
1/24/2019 22:00					TOE			19,075.0			
Casing Strings											
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)				
CONDUCTOR	148.5		20	H40	78.67						
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5				
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7				
Daily Drilling Report				Page 2/3				Printed: Sunday, January 27, 2019			

Daily Drilling Report

PATTERSON - UTI #807	
Accept: 11/15/2018	Release:
Days Since LTI: 174.00	Days Since RI: 174.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/27/2019
Report #:	31
DFS:	29
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$52,203.36

Daily Drilling Report Page 3/3 Printed: Sunday, January 27, 2019

Daily Drilling Report

API/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)					
SSN ID00020024	Property Sub	KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date 1/24/2019					
Safety Checks											
Time	Type	Des	Tour	Com							
06:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: H&P 641: Contractor received minor cut to the leg while cutting fins off MWD tool with box cutter. Contractor received basic first aid at the rig and refused any further medical treatment.							
06:01	MEETING	PRE-TOUR	DAY	Watch out for slip, trips, & falls while on tour. Be aware of pinch points.Make sure N2I's have a designated mentor. #5 Entrepreneurship, #5 Fall or Elevated Work Safety.							
18:00	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: H&P 641: Contractor received minor cut to the leg while cutting fins off MWD tool with box cutter. Contractor received basic first aid at the rig and refused any further medical treatment.							
18:01	MEETING	PRE-TOUR	NIGHT	Watch out for slip, trips, & falls while on tour. Be aware of pinch points.Make sure N2I's have a designated mentor. #5 Entrepreneurship, #5 Fall or Elevated Work Safety.							
20:15	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Stop card: Noticed 3rd party hand was standing under joint of casing that was being picked up from pipe wrangler. Talked to him about honoring a safe buffer zone while he is waiting to tail casing in. He understood.							
Jobs											
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30			IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)											
Type			Subtype		Date	Note					
MILESTONE			ESTIMATED PAD RELEASE		1/31/2019	3RD Well / 3 Well pad (Revised on 1/23/19)					
Daily Operations											
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 19,075.0		Target Depth (ftKB) 19,076.0		Daily Field Est Total (Cost) 47,631.94	Cum Field Est To Date (Cost) 3,223,207.79	
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 8,988.7		Target Depth (TVD) (ftKB) 2,868.94		Daily Mud Field Est (Cost) 181,837.88	Cum Mud Field Est (Cost) 4,134,694.81	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0			Daily Goal - Next 24 0.0			Goal Comments Goal met.	
Backbuild Yes		Lateral Inclination Toe Down		Last Casing String INTERMEDIATE, 8,385.0ftKB				Next Casing String PROPOSED PRODUCTION, 19,057.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00	
Operations Summary Run 5.5" Prod. Csg. F/5,000' - T/9,494', Circ. B/U @ 9,494', Cont. Running csg. T/ 19,025', Making up landing jt.											
Operations Next Report Period Circ. surface to surface @ 19,057', R/D Csg. tools, R/U Cement tools, Cement 5.5" Prod. csg. R/D Cement tools, Back out landing jt. & install & test packer T/ 5,000 psi.											
Operations at Report Time Making up landing joint.											
Remarks NPT for January Patterson: Past 24hr - 0 Total - 7.25 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 100%											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
06:00	4.5	10:30	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run 5 1/2" Prod. Csg. F/ 5,000' - T/ 7,480' with100% returns & with proper displacement into trip tanks. (Filling up every 30 jts.) (5.5" Csg. / 20 Lbs. / P-110-IC / TXPBTC)	19,075.0	19,075.0			
10:30	0.75	11:15	PROD, CASE & CMT	3RD_PTY	NORMAL	Trouble shoot CRT. (Dies slipping while attempting to torque up pipe.) Cleaned dies and re-greased equipment	19,075.0	19,075.0	0.75	16	
11:15	2.75	14:00	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run 5 1/2" Prod. Csg. F/ 7,840' - T/ 9,494' with100% returns & with proper displacement into trip tanks. (Filling up every 30 jts.) (5.5" Csg. / 20 Lbs. / P-110-IC / TXPBTC)	19,075.0	19,075.0			
14:00	1.25	15:15	PROD, CASE & CMT	CIRC	NORMAL	Circ B/U @ 9494' with 100% returns, GPM:335, SPP:395, BPM:8	19,075.0	19,075.0			
15:15	12.75	04:00	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run 5 1/2" Prod. Csg. F/ 9,494' - T/ 19,025' with100% returns & with proper displacement into trip tanks. (Filling up every 30 jts.) (5.5" Csg. / 20 Lbs. / P-110-IC / TXPBTC)	19,075.0	19,075.0			
04:00	1	05:00	PROD, CASE & CMT	3RD_PTY	NORMAL	Trouble shoot CRT. (Dies slipping while attempting to torque up pipe.) Cleaned dies and re-greased equipment	19,075.0	19,075.0	1.00	16	
05:00	0.75	05:45	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	L/D Bad joint.	19,075.0	19,075.0			
05:45	0.25	06:00	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	M/U Landing jt. & land production string T/ 19,057'	19,075.0	19,075.0			
Daily Drilling Report											

Daily Drilling Report

Interval Problems															
3RD PARTY, 19,075.0ftKB, 1/27/2019 10:30															
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party			Comment						
16	0.75	No	PIPE HANDLING	CASING RUNNING TOOL	2,212.00	BYRD OILFIELD SERVICES LLC			Trouble shoot CRT. (Dies slipping while attempting to torque up pipe.)						
Cleaned dies and re-greased equipment															
3RD PARTY, 19,075.0ftKB, 1/28/2019 04:00															
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party			Comment						
16	1.00	No	PIPE HANDLING	CASING RUNNING TOOL	2,895.00	BYRD OILFIELD SERVICES LLC			Trouble shoot CRT. (Dies slipping while attempting to torque up pipe.)						
Cleaned dies and re-greased equipment															
Hydraulic Calculations															
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)	Jet Vel (ft/s)		Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)			
Mud Checks															
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE		Depth (ftKB) 19,075.0	Density (lb/gal) 11.95	Funnel Viscosity (s/qt) 79		T Flowline (°F) 0.0				
PV (cP) 21.0	YP (lb/100ft²) 12.000	Vis 3rpm 7	Vis 6rpm 8	Filtrate (mL/30min)			HTHP Filtrate (mL/30min) 13.4		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0				
Solids (%) 21.5		Low Gravity Solids (%) 7.8			Sand (%)			MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)			
Chlorides (ppm) 23,500.000		Calcium (ppm) 6,000.000		CaCl (ppm)	Oil Water Ratio 82.8/17.2		Electric Stab (V) 885.0		Lime (lb/bbl) 2.5		pH				
Gel 10 sec (lb/100ft²) 11.000				Gel 10 min (lb/100ft²) 20.000				Gel 30 min (lb/100ft²) 22.000							
Comment															
PNR - Patterson 807- University 3-15C 103H - DMR #27															
Recommended Fluids Treatments:															
No treatment. Running 5.5' production casing.															
Drilling Fluids Activity Last 24 Hrs:															
No treatment. Running 5.5' production casing and circulating active system over shakers.															
Drilling Fluids Forecast Next 24 Hrs:															
Cement. Transfer OBM to frac tanks.															
Rig Activity Last 24 Hrs:															
Pre/ Post tour safety meeting with rig personnel. Run 5.5 Production casing. Troubleshoot CRT dies, dies slipping while trying to torque. Circulate B/U at 9,473'.															
Running casing at time of mud report.															
Volumes															
Daily Diesel Used		170 GAL													
Cumulative Diesel Used		26,431 GAL													
Diesel on Location		1,843 GAL													
Daily Water Used		0 GAL													
Cumulative Water Used		10,542 GAL													
Daily OBM Surface Losses		20 BBLS													
OBM Volume Accounting:															
Total OBM Received		BBLS													
Total OBM Rental		2,038 BBLS													
Total OBM on Location		1,825 BBLS													
Daily Drying Shaker Recovered		5 BBLS													
Cumulative Drying Shaker Recovered		275 BBLS													
Daily OBM Downhole Losses		0 BBLS													
Cumulative OBM Surface Losses		960 BBLS													
Cumulative OBM Downhole Losses		0 BBLS													
Last BOP Test															
Date	Test Type			Item Tested			Next Test Date	Com							
1/13/2019	BOP			BOP'S, 11/19/2018 00:30, <class>			2/3/2019	Tested BOPE 250 /5000							
Leak Off and Formation Integrity Tests															
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)							
FORMATION INTEGRITY				1,244.0				12.75							
LEAK OFF				8,414.0				13.38							
Casing Pressure Test															
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)				
CASING		STANDARD			11/8/2018		SURFACE, 1,223.7ftKB		No	30.00	1,000.0				
CASING		STANDARD			1/14/2019		INTERMEDIATE, 8,385.0ftKB		No	30.00	2,500.0				
Kick Offs & Key Depths															
Date				Type				Top Depth (ftKB)							
1/15/2019 09:15				KICK OFF				8,485.0							
1/16/2019 00:30				HEEL				9,362.0							
1/24/2019 22:00				TOE				19,075.0							
Casing Strings															
Description	Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)	Grade	Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)				
CONDUCTOR	148.5				20	H40	78.67								
SURFACE	1,223.7		1,223.0		13 3/8	J55	54.50		BTC		823.5				
INTERMEDIATE	8,385.0		8,290.1		9 5/8	L-80 IC	40.00		BTC		5,782.7				
Cement															
PRODUCTION CASING CEMENT, Casing, 1/28/2019 00:00															
Cementing End Date		Wellbore ORIGINAL		Technical Result		Comment									
Cement Stages															
Description PRODUCTION CASING CEMENT				Final Top De... 3,637.0	Btm (ftKB)	Top Pl... Yes	Btm Pl... Yes	Q Pump Init (...) 6	Q Pump Fina... 3	Q Pump Avg... 6	P Pump Final... 2,380.0	P Plug Bump... 3,100.0	Float... Yes	Recip? No	Rotated? No
Cement Fluids															
Fluid Type SPACER					Estimated Top (ftKB) 2,679.0		Est Btm (ftKB) 3,648.0		Class		Yield (ft³/sack)		Density (lb/gal) 12.30		
Daily Drilling Report															

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Printed: Monday, January 28, 2019

Daily Drilling Report

Cement Fluids									
Fluid Type LEAD CMT			Estimated Top (ftKB) 3,648.0	Est Btm (ftKB) 8,285.0	Class CLASS H	Yield (ft³/sack) 1.87	Density (lb/gal) 12.50		
Fluid Type TAIL CMT			Estimated Top (ftKB) 8,285.0	Est Btm (ftKB) 19,057.0	Class CLASS H	Yield (ft³/sack) 1.58	Density (lb/gal) 13.20		
Fluid Type DSPLMT			Estimated Top (ftKB) 28.0	Est Btm (ftKB) 19,057.0	Class	Yield (ft³/sack)	Density (lb/gal) 8.30		
Job Supply Amounts									
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL		FUEL	GAL	4,508	811	0	44"	5,998	45,410.0
DIESEL		FUEL	GAL	0	0	0	0	0	0.0
DIESEL		MUD	GAL	0	881	0	9"	789	27,764.0
WATER		FRESH	BBL	0	0	0	Start 118309 - Stop 118309	0	34,244.82
WATER		FRESH	BBL	0	0	0	Start 118309 - Stop 118309	0	34,244.82
Mud Additive Amounts									
Des		Type	Units	Rec	Consumed	On Loc	Cum Cons		
BULK TANK RENTAL		MISCELLANEOUS	EA	4	4	0.0	100		
ENGINEERING PER MILEAGE		MISCELLANEOUS	PER MILE	268	268	0.0	5,468		
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0	26		
ENGINEERING SERVICE		MISCELLANEOUS	DAY	1	1	0.0	12		
OBM TESTING EQUIPMENT		MISCELLANEOUS	DAY	1	1	0.0	25		
PER DIEM		MISCELLANEOUS	DAY	1	1	0.0	25		
PER DIEM		MISCELLANEOUS	DAY	1	1	0.0	11		
TECH SERVICE SUPPORT		MISCELLANEOUS	DAY	330	330	0.0	8,250		
Pump Operations									
Pump #	Make			Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO			F1600	5 1/2	12.00	0.088	5,000.0	
2	BOMCO			F1600	5 1/2	12.00	0.088	5,000.0	
Pump Checks									
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)			
Deviation Surveys									
Date		Description					Job		
		FINAL SURVEY							
Date		Description					Job		
11/5/2018		AS DRILL SURVEY					ODR, 11/4/2018 13:30		
Formations									
Formation Name				Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
Target 1				-6,282.0		9,015.5			
Target 2				-6,282.0		9,015.5			
Target 4				-6,260.0		8,993.5			
Daily Contacts									
Job Contact		Title	Office	Mobile	Email				
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR	325-884-9030	432-301-2825	DAVID.BRINKLEY@PXD.COM				
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	325-884-9044	972-261-4094	JODY.GOODWIN@PXD.COM				
FOUNTAIN, KYLE, SUPERINTENDENT		SUPERINTENDENT	817-717-2807	936-465-0896	KYLE.FOUNTAIN@PXD.COM				
SPACEK, KYLE, ENGINEER		ENGINEER	432-571-2800		KYLE.SPACEK@PXD.COM				
TRANSIER, KENNETH, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		318-481-3868	KENNETH.TRANSIER@PXD.COM				
BROUSSARD, JEFF, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		337-288-1216	JEFF.BROUSSARD@PXD.COM				
PEREZ, GABRIEL, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		956-740-9518	GABRIEL.PEREZ@PXD.COM				
RIG-PATTERSON 807, RIG PHONE		RIG PHONE	361-489-3691	432-257-6394					
Personnel Log									
Company								Count	
PIONEER NATURAL RESOURCES USA INC								4	
PATTERSON-UTI DRILLING COMPANY LLC								14	
PALADIN GEOLOGICAL SERVICES LLC								2	
UNITED SHUTDOWN SAFETY TEXAS INC								2	
GYRODATA INC								4	
DWM CONSULTING								2	
WEATHERFORD INTERNATIONAL INC								1	
BYRD OILFIELD SERVICES LLC								6	
MAVERICK FIELD SERVICES LLC								2	
SUPERIOR ENERGY SERVICES								2	

Daily Drilling Report

P/UWI 42-461-40896-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020024		Property Sub		KB-Grd (ft) 28.50	Orig KB Elev (ft) 2,733.50	Ground Elevation (ft) 2,705.00	Spud Date 11/5/2018	TD Date 1/24/2019		
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #6 Excavation & Trenching Core Value - #6 Communication						
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Rig: H&P 429: While contractor was pushing on a monel during tripping out of the hole, that he was caught between the monel and the ST 80. Contractor did not report the incident to his personal until today 11/13/2019. Contractor was feeling discomfort in his chest but did not seek any further medical attention.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM - Slips, trips and falls. Pinch points. Make sure N2I's have designated mentor. R2LB - #6 Excavation & Trenching Core Value - #6 Communication						
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Rig: H&P 429: While contractor was pushing on a monel during tripping out of the hole, that he was caught between the monel and the ST 80. Contractor did not report the incident to his personal until today 11/13/2019. Contractor was feeling discomfort in his chest but did not seek any further medical attention.						
02:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Stop card: Noticed 3rd party hand was standing to close to cellar with out being tied off. Stopped him & told him to put a belt on if he was going to be around cellar. He understood.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - KYLE SPACEK		AREA TEAM 4		ODR	11/4/2018 13:30		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype	Date	Note					
MILESTONE			ESTIMATED PAD RELEASE	1/31/2019	3RD Well / 3 Well pad (Revised on 1/23/19)					
Daily Operations										
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 19,075.0	Target Depth (ftKB) 19,076.0	Daily Field Est Total (Cost) 590,395.08	Cum Field Est To Date (Cost) 3,813,602.87		
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 8,988.7	Target Depth (TVD) (ftKB)	Daily Mud Field Est (Cost) 4,370.08	Cum Mud Field Est (Cost) 186,207.96	Total AFE + Sup (Cost) 4,134,694.81	
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 0.0			Daily Goal - Next 24 0.0		Goal Comments Goal met.		
Backbuild Yes		Lateral Inclination Toe Down		Last Casing String INTERMEDIATE, 8,385.0ftKB			Next Casing String PRODUCTION, 19,057.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00	Max Trip Gas 0.00	Max Drill Gas 0.00		
Operations Summary Circ. surface to surface @ 19,057', R/D Csg. tools, R/U Cement tools, Cement 5.5" Prod. csg. R/D Cement tools, Install & test packer T/ 5,000 psi. Nipple down BOP's, Install & test abandonment cap T/ 5000 psi.										
Operations Next Report Period Released rig on 01-29-19 @ 06:00 AM										
Operations at Report Time Released rig on 01-29-19 @ 06:00 AM										
Remarks NPT for January Patterson: Past 24hr - 0 Total - 7.25 hrs. 3rd Party: Past 24hr - 0 Total - 0 hrs. Generators: 3 (24 hrs) Surface:100%; Intermediate 100%; Curve: 100%; Lateral 100%										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
06:00	1.75	07:45	PROD, CASE & CMT	CIRC	NORMAL	Circ 1 1/2 csg vol with Byrd CRT; 388 gpm & 780 psi; 100% returns; Max gas 706u	19,075.0	19,075.0		
07:45	0.5	08:15	PROD, CASE & CMT	RIG_SVC	NORMAL	Service Rig & Top Drive	19,075.0	19,075.0		
08:15	0.25	08:30	PROD, CASE & CMT	SFTY	NORMAL	Held Pre Job safety mtg on R/D Byrd csg crew & R/U Nine Cmt	19,075.0	19,075.0		
08:30	0.5	09:00	PROD, CASE & CMT	RD_CSG	NORMAL	R/D Byrd csg crew & CRT	19,075.0	19,075.0		
09:00	0.5	09:30	PROD, CASE & CMT	RU_CMT	NORMAL	R/U Nine Cmt head & lines	19,075.0	19,075.0		
09:30	4.5	14:00	PROD, CASE & CMT	CMT	NORMAL	Test Lines T/ 9000 psi, - Pump 50 bbls of 12.2 ppg GTX spacer, - Drop 1 st plug; Pump 216 bbls (650sks) of 12.5 ppg Lead cement. Pump 532 bbls (1890 sks) of 13.2 ppg Tail cement; Drop 2nd plug, Pump 5 bbls of chemically retarded water, Drop 3 rd plug, Displace with 423 bbls of fresh water, Bump plug F/2380 psi to 3570 psi; Held for 5 min; Check floats (ok) Bled back 3 bbls; got back spacer and 20bbl cmt to surface	19,075.0	19,075.0		
14:00	0.25	14:15	DEMOB, RIG DOWN	SFTY	NORMAL	Held PJSM on R/D CMT equip	19,075.0	19,075.0		
14:15	0.5	14:45	DEMOB, RIG DOWN	RD_CMT	NORMAL	R/D Nine Cmt head & lines	19,075.0	19,075.0		
14:45	0.5	15:15	DEMOB, RIG DOWN	PULL_CSG	NORMAL	Back out and L/D landing Jt	19,075.0	19,075.0		
Daily Drilling Report										
Page 1/4					Printed: Tuesday, January 29, 2019					

Daily Drilling Report

UNIVERSITY 3-15C 103H			
PATTERSON - UTI #807			
Accept: 11/15/2018		Release:	
Days Since LTI: 176.00		Days Since RI: 176.00	

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/29/2019
Report #:	33
DFS:	31
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$590,395.08

Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
15:15	1.25	16:30	DEMOB, RIG DOWN	WH	NORMAL	M/U Cactus Wash tool RIH flush well head, mud lines and BOPE	19,075.0	19,075.0		
16:30	0.25	16:45	DEMOB, RIG DOWN	SFTY	NORMAL	PJSM - Discussed w/ Cactus, Patterson and PNR personnel process of installing casing pack off	19,075.0	19,075.0		
16:45	2	18:45	DEMOB, RIG DOWN	WH	NORMAL	Installed and tested pack off 5000 psi. (PNR to witness test)	19,075.0	19,075.0		
18:45	0.25	19:00	DEMOB, RIG DOWN	SFTY	NORMAL	PJSM - Discussed w/ Cactus, Patterson crew & PNR on procedure for N/D BOP's	19,075.0	19,075.0		
19:00	2	21:00	DEMOB, RIG DOWN	ND_BOPE	NORMAL	N/D BOP's	19,075.0	19,075.0		
21:00	1.5	22:30	DEMOB, RIG DOWN	WH	NORMAL	Installed abandonment cap and tested to 5000 psi	19,075.0	19,075.0		
22:30	7.5	06:00	DEMOB, RIG DOWN	RD RDMO	NORMAL	Finish clean mud pits of OBM Release Rig at 06:00 hrs 1/29/19	19,075.0	19,075.0		
Hydraulic Calculations										
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
Mud Checks										
Time 00:30		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE	Depth (ftKB) 19,075.0	Density (lb/gal) 11.95	Funnel Viscosity (s/qt) 84	T Flowline (°F) 0.0	
PV (cP) 22.0	YP (lb/100ft²) 11.000	Vis 3rpm 7	Vis 6rpm 8	Filtrate (mL/30min)		HTHP Filtrate (mL/30min) 13.0		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 500.0
Solids (%) 21.5		Low Gravity Solids (%) 7.8		Sand (%)		MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)
Chlorides (ppm) 24,000.000		Calcium (ppm) 6,000.000		CaCl (ppm)	Oil Water Ratio 82.8/17.2	Electric Stab (V) 854.0		Lime (lb/bbl) 2.2		pH
Gel 10 sec (lb/100ft²) 11.000				Gel 10 min (lb/100ft²) 18.000			Gel 30 min (lb/100ft²) 20.000			
Comment PNR - Patterson 807- University 3-15C 103H - DMR #28 Recommended Fluids Treatments: No treatment. Cemented 5.5' production casing. Drilling Fluids Activity Last 24 Hrs: No treatment. Cement production casing & transfer OBM to frac tanks. Transferring +/- 400 bbls OBM to Rocker B 145H. Transferred all chemicals to Rocker B 145H and returned Bulk Barite to warehouse. Drilling Fluids Forecast Next 24 Hrs: Transfer 400+ bbls to Rocker B 145H. Rig Activity Last 24 Hrs: Pre / Post tour safety meeting with rig personnel. Run production casing. Troubleshoot CRT equipment, dies slipping while trying to torque. Change out collar connection on 5.5' casing. Run casing T/19,057'. P/U landing joint & land casing. Circulate surface to surface. R/D casing tools. PJSM with all personnel involved with cement operations. R/U cement equipment & begin cement job. R/D cementers & L/D landing joint. Wash through stack, choke, and lines. Cleaning pit at report time. Volumes Daily Diesel Used 1,843 GAL Cumulative Diesel Used 28,274 GAL Diesel on Location 0 GAL Daily Water Used 0 GAL Cumulative Water Used 10,542 GAL Daily OBM Surface Losses 150 BBLS OBM Volume Accounting: Total OBM Received BBLS Total OBM Rental 2,038 BBLS Total OBM on Location 1,719 BBLS Daily Drying Shaker Recovered 0 BBLS Cumulative Drying Shaker Recovered 275 BBLS Daily OBM Downhole Losses 0 BBLS Cumulative OBM Surface Losses 1110 BBLS Cumulative OBM Downhole Losses 0 BBLS										
Last BOP Test										
Date	Test Type			Item Tested		Next Test Date	Com			
1/13/2019	BOP			BOP'S, 11/19/2018 00:30, <class>		2/3/2019	Tested BOPE 250 /5000			
Leak Off and Formation Integrity Tests										
Test Type				Depth (ftKB)			Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,244.0			12.75			
LEAK OFF				8,414.0			13.38			
Casing Pressure Test										
Test Type		Test Subtype			Date	Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			11/8/2018	SURFACE, 1,223.7ftKB		No	30.00	1,000.0
CASING		STANDARD			1/14/2019	INTERMEDIATE, 8,385.0ftKB		No	30.00	2,500.0
Kick Offs & Key Depths										
Date					Type			Top Depth (ftKB)		
1/15/2019 09:15					KICK OFF			8,485.0		
1/16/2019 00:30					HEEL			9,362.0		
1/24/2019 22:00					TOE			19,075.0		
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Casing Strings													
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)						
CONDUCTOR	148.5		20	H40	78.67								
SURFACE	1,223.7	1,223.0	13 3/8	J55	54.50	BTC	823.5						
INTERMEDIATE	8,385.0	8,290.1	9 5/8	L-80 IC	40.00	BTC	5,782.7						
Cement													
PRODUCTION CASING CEMENT, Casing, 1/28/2019 09:43													
Cementing End Date 1/28/2019 13:38	Wellbore ORIGINAL	Technical Result SUCCESS	Comment Test Lines T/ 9000 psi, - Pump 50 bbls of 12.2 ppg GTX spacer, - Drop 1 st plug; Pump 216 bbls (650sks) of 12.5 ppg Lead cement. Pump 532 bbls (1890 sks) of 13.2 ppg Tail cement; Drop 2nd plug, Pump 5 bbls of chemically retarded water, Drop 3 rd plug, Displace with 423 bbls of fresh water, Bump plug F/2380 psi to 3570 psi; Held for 5 min; Check floats (ok) Bled back 3 bbls; got back spacer and 20bbl cmt to surface										
Cement Stages													
Description PRODUCTION CASING CEMENT	Final Top De...	Btm (ftKB) 19,057.0	Top Pl...	Btm Pl...	Q Pump Init (... 6	Q Pump Fina... 3	Q Pump Avg... 6	P Pump Final... 2,450.0	P Plug Bump... 3,570.0	Float...	Recip?	Rotated?	
Cement Fluids													
Fluid Type SPACER	Estimated Top (ftKB) 2,679.0		Est Btm (ftKB) 3,648.0		Class		Yield (ft³/sack)		Density (lb/gal) 12.30				
Fluid Type LEAD CMT	Estimated Top (ftKB) 3,648.0		Est Btm (ftKB) 8,285.0		Class CLASS H		Yield (ft³/sack) 1.87		Density (lb/gal) 12.50				
Fluid Type TAIL CMT	Estimated Top (ftKB) 8,285.0		Est Btm (ftKB) 19,057.0		Class CLASS H		Yield (ft³/sack) 1.58		Density (lb/gal) 13.20				
Fluid Type DSPLMT	Estimated Top (ftKB) 28.0		Est Btm (ftKB) 19,057.0		Class		Yield (ft³/sack)		Density (lb/gal) 8.30				
Job Supply Amounts													
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note			Cum On Loc	Cum Consumed			
DIESEL	FUEL	GAL	0	800	0	40"			5,198	46,210.0			
DIESEL	FUEL	GAL	0	0	0	0			0	0.0			
DIESEL	MUD	GAL	0	0	0	0			789	27,764.0			
WATER	FRESH	BBL	0	0	0	Start 118309 - Stop 118309			0	34,244.82			
Mud Additive Amounts													
Des	Type	Units		Rec	Consumed		On Loc		Cum Cons				
ANCO BAR (BULK)	WEIGHTING MATERIAL	TON			-2		0.0		78				
BULK TANK RENTAL	MISCELLANEOUS	EA		4	4		0.0		104				
ENGINEERING PER MILEAGE	MISCELLANEOUS	PER MILE		134	134		0.0		5,602				
ENGINEERING SERVICE	MISCELLANEOUS	DAY		1	1		0.0		27				
ENGINEERING SERVICE	MISCELLANEOUS	DAY		1	1		0.0		13				
OBM TESTING EQUIPMENT	MISCELLANEOUS	DAY		1	1		0.0		26				
PER DIEM	MISCELLANEOUS	DAY		1	1		0.0		26				
PER DIEM	MISCELLANEOUS	DAY		1	1		0.0		12				
SCALE CHARGE	MISCELLANEOUS	EA		2	2		0.0		14				
TECH SERVICE SUPPORT	MISCELLANEOUS	DAY		330	330		0.0		8,580				
TRUCKING	MISCELLANEOUS	EA		2,075	2,075		0.0		15,956				
Pump Operations													
Pump #	Make		Model	Liner Size (in)		Stroke (in)	Vol/Stk (bbl/stk)		P Max (psi)				
1	BOMCO		F1600	5 1/2		12.00	0.088		5,000.0				
2	BOMCO		F1600	5 1/2		12.00	0.088		5,000.0				
Pump Checks													
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)		Q Flow (gpm)			Eff (%)				
Deviation Surveys													
Date	Description FINAL SURVEY								Job				
Date 11/5/2018	Description AS DRILL SURVEY								Job ODR, 11/4/2018 13:30				
Formations													
Formation Name			Prog Top (TVD SS) Override (ft(elv))		Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)		Final Top (TVD) (ftKB)				
Target 1			-6,282.0			9,015.5							
Target 2			-6,282.0			9,015.5							
Target 4			-6,260.0			8,993.5							
Daily Contacts													
Job Contact		Title		Office		Mobile		Email					
BRINKLEY, DAVID, AREA DRILLING SUPERVISOR		AREA DRILLING SUPERVISOR		325-884-9030		432-301-2825		DAVID.BRINKLEY@PXD.COM					
GOODWIN, JODY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT		325-884-9044		972-261-4094		JODY.GOODWIN@PXD.COM					
FOUNTAIN, KYLE, SUPERINTENDENT		SUPERINTENDENT		817-717-2807		936-465-0896		KYLE.FOUNTAIN@PXD.COM					
SPACEK, KYLE, ENGINEER		ENGINEER		432-571-2800				KYLE.SPACEK@PXD.COM					
TRANSIER, KENNETH, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR				318-481-3868		KENNETH.TRANSIER@PXD.COM					
Daily Drilling Report													

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Daily Drilling Report

PATTERSON - UTI #807

Accept: 11/15/2018	Release:
Days Since LTI: 176.00	Days Since RI: 176.00

PERMIAN - JV SOUTHERN WOLFCAMP	
Job:	ODR
Report Date:	1/29/2019
Report #:	33
DFS:	31
AFE #:	9000912
Total AFE + Sup:	\$4,134,694.81
Daily Field Est. (Cost):	\$590,395.08

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
BROUSSARD, JEFF, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		337-288-1216	JEFF.BROUSSARD@PXD.COM
PEREZ, GABRIEL, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		956-740-9518	GABRIEL.PEREZ@PXD.COM
RIG-PATTERSON 807, RIG PHONE	RIG PHONE	361-489-3691	432-257-6394	
Personnel Log				
Company				Count
PIONEER NATURAL RESOURCES USA INC				4
PATTERSON-UTI DRILLING COMPANY LLC				14
PALADIN GEOLOGICAL SERVICES LLC				2
UNITED SHUTDOWN SAFETY TEXAS INC				2
GYRODATA INC				4
DWM CONSULTING				2