

Daily Drilling Report

UNIVERSITY 3-15 123H				PERMIAN - JV SOUTHERN WOLFCAMP	
H & P #604				Job:	ODR
Accept: 1/26/2018				Report Date:	1/27/2018
Days Since LTI: 27.00				Report #:	4
Release:				DFS:	4
Days Since RI: 27.00				AFE #:	045124
				Total AFE + Sup:	\$3,437,061.75
				Daily Field Est. (Cost):	\$430,217.19

API/UWI 42-461-40728-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020034	WellIDE	Property Sub 927370-123	KB-Grd (ft) 26.00	Orig KB Elev (ft) 2,732.00	Ground Elevation (ft) 2,706.00	Spud Date 12/18/2017		TD Date							
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM: Skid rig, N/U BOP, R/U; Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 3 Confinred Space Entry Core Value # 3 Safety											
17:45	MEETING	PRE-TOUR	NIGHT	PTSM: P/U BHA; TIH; Drill Float Equip. Drill Ahead Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 3 Confinred Space Entry Core Value # 3 Safety											
02:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: Seen RTM walk under man lift while people were working out of it Stopped him and had him get out from under the lift, told him to always be aware of his surroundings											
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date		Note								
MILESTONE			ESTIMATED PAD RELEASE		3/16/2018		2 nd Well on Pad updated 1-26-2018								
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 1,262.5		Target Depth (ftKB) 21,743.0		Daily Field Est Total (Cost) 430,217.19		Cum Field Est To Date (Cost) 897,127.35			
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB)		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 5,370.00		Cum Mud Field Est (Cost) 5,370.00		Total AFE + Sup (Cost) 3,437,061.75	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 1,500.0				Goal Comments Goal Achieved			
Backbuild Yes	Lateral Incln	North-South Distance (ft)		East-West Distance (ft)		Town Dist (ft)		Last Casing String SURFACE, 1,242.5ftKB				Next Casing String PROPOSED INTERMEDIATE, 8,196.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 15.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00					
Operations Summary Skid to University 3-15 123H; N/U BOP; Test BOP, perform prespud check list, P/U bha, TIH, Drill F/E															
Operations Next Report Period Drill 10' new hole, Fit, Drill 12 1/4" Intermediate F/1272' T/ 2772'															
Operations at Report Time Drill Float equipment and cement															
Remarks No Accidents, Incidents or Spills NPT : H&P Past 24 hrs 0 Total 17.0 3rd Party Past 0 hrs Total 2.75 PNR Past 24 hrs 0 Total 14.25.  Surface: 100%, Inter: 0%, Curve: 0%, Lateral: 0% Gen 3 = 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	1	07:00	MOB, RIG UP	SKID	NORMAL	Prepare to Skid; Securing hoses			1,262.5	1,262.5					
07:00	0.25	07:15	MOB, RIG UP	SFTY	NORMAL	HPJSM On skidding to University 3-15 123H			1,262.5	1,262.5					
07:15	2.5	09:45	MOB, RIG UP	SKID	NORMAL	Skid Rig to University 3-15 123H, Install Cellar covers, Remove Fiber glass cellar covers			1,262.5	1,262.5					
09:45	3.25	13:00	INT, PRE DRL	NU_BOPE	NORMAL	Remove Cellar cap; Nipple up BOPE; Hook up choke line, M/U Flowline; Install Turnbuckles			1,262.5	1,262.5					
13:00	3	16:00	INT, PRE DRL	TEST_BOPE	NORMAL	Test BOPE & All Related Equipment 250/5000, Annular 250/3500. Tested back to mud pumps.			1,262.5	1,262.5					
16:00	0.5	16:30	INT, PRE DRL	WRBSH	NORMAL	Install wear bushing			1,262.5	1,262.0					
16:30	4	20:30	INT, PRE DRL	RU MIRU	NORMAL	Perform pre-spud inspection while install mousehole & lay out BHA. turn buckles on bop's, install mouse hole and cellar cover's			1,262.0	1,262.0					
20:30	2.75	23:15	INT, PRE DRL	PU_BHA	NORMAL	P/U Leam directional BHA. MM 1.75° w/11-3/4" NBS & 11-3/4" IBS. Load & scribe MWD			1,262.0	1,262.0					
23:15	4.25	03:30	INT, PRE DRL	PU_BHA	NORMAL	Pick up 12 8" drill colars, 6-5" HWDP, Jars, 14 jts HWDP F/112' T/1103'			1,262.0	1,262.0					
03:30	0.25	03:45	INT, PRE DRL	TOOH_NONEL EV	NORMAL	TIH F/1103 T1197' Tag F/C			1,262.0	1,262.0					
03:45	0.5	04:15	INT, PRE DRL	HDL_ROTTHD	NORMAL	Install rot head			1,262.0	1,262.0					
04:15	1.75	06:00	INT, PRE DRL	DRL_OUT	NORMAL	Drlg Cmt, Float Equipment, F/1197' T/ 1262', WOB 10k, RPM 30, GPM 400, SPP 800, Diff 100, Tq 1/5k, Mtr RPM 102			1,262.0	1,262.0					
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

UNIVERSITY 3-15 123H

H & P #604  
Accept: 1/26/2018      Release:  
Days Since LTI: 27.00      Days Since RI: 27.00

PERMIAN - JV SOUTHERN WOLFCAMP  
Job: ODR  
Report Date: 1/27/2018  
Report #: 4  
DFS: 4  
AFE #: 045124  
Total AFE + Sup: \$3,437,061.75  
Daily Field Est. (Cost): \$430,217.19

Mud Checks

Time 00:00		Mud Company PIONEER DRILLING FLUIDS		Type WATER BASE	Depth (ftKB) 1,262.0	Density (lb/gal) 9.40	Funnel Viscosity (s/qt) 28	T Flowline (°F)
PV (cP) 2.0	YP (lb/100ft²) 1.000	Vis 3rpm 1	Vis 6rpm 1	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)	HTHP Temperature (°F)		HTHP Pressure (psi)
Solids (%) 6.5		Low Gravity Solids (%) 5.0		Sand (%) 0.1	MBT (lb/bbl)	Pm (mL/mL) 0.200		Pf (mL/mL)
Chlorides (ppm) 115,000.000	Calcium (ppm)		CaCl (ppm)	Oil Water Ratio 0/100	Electric Stab (V)		Lime (lb/bbl)	pH 8.0
Gel 10 sec (lb/100ft²) 1.000				Gel 10 min (lb/100ft²) 1.000		Gel 30 min (lb/100ft²) 1.000		

Comment

Recommended Fluids Treatment:  
Maintain mud wt 9.5 -10.0 ppg. Add field brine as needed to maintain volume/control mud weight. Caustic as needed to to maintain a 9.5-10.5 PH. Pump 50 bbl hi-vis sweep every other connection or as needed.Pump 1 soap & 1 sapp stick every connection.

Drilling Fluids Activity Last 24 hrs:  
Build gel mud in wbm frac tanks by 5700'. Dump sand trap every other connection. Repair/replace shaker screens as needed. Run all SCE equipment as needed. Frac Tank sensors checked tourly.

Drilling Fluids Forecast Next 24 hrs:  
Finished cleaning active pits & fill same with reserve pit brine.

Rig Activity Last 24 hrs:  
Finished skidding over to current well, n/u bop's, test same, install wear bushing, and currently p/u bit/directional bha.

Please see mud report for additional detailed information

Jobs

Responsible Grp 2	Job Type	Start Date	End Date	Job Status
DRL ENG - ROSS PEARCE	ODR	12/18/2017 14:00		IN PROGRESS

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com
1/26/2018	BOP	<des>, 1/26/2018 06:00, <class>	2/12/2018	

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)
CASING	STANDARD	12/24/2017	SURFACE, 1,242.5ftKB	No		1,000.0

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
	HEEL	
	KICK OFF	
	TOE	

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	108.5	108.5	20	H40	78.67		
SURFACE	1,242.5		13 3/8	J55	54.50	BTC	

Job Supply Amounts

Supply Item Des	Type	Unit Label	Received	Consumed	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	11,600	500	11,100	500.0
DIESEL	FUEL	GAL	0	0	4,316	0.0
WATER	FRESH	BBL	0	0	0	0.0

Mud Additive Amounts

Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
BULK TANK BLOWER		1 EA	2	2	0.0	2
BULK TANK RENTAL		1 EA	4	4	0.0	4
COMPUTER/SOFTWARE		1 EA	1	1	0.0	1
ENGINEERING - 24 HOUR		1 EA	2	2	0.0	2
PER DIEM		PER DAY	2	2	0.0	2
TECH SERVICE SUPPORT		1 EA	1	1	0.0	1
TESTING EQUIPTMENT		1 EA	1	1	0.0	1

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	ODR, 12/18/2017 14:00
Date	Description	Job
12/18/2017	AS DRILL SURVEY	ODR, 12/18/2017 14:00

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
WOODS, LEE ROY, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-571-2516	432-425-3842	LEEROY.WOODS@PXD.COM
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		281-734-7917	WILLIS.VOGEL@PXD.COM

Daily Drilling Report

Page 2/3

Printed: Saturday, January 27, 2018

# Daily Drilling Report

H &amp; P #604

**Release:**

Days Since RI: 27.00

<b>PERMIAN - JV SOUTHERN WOLFCAMP</b>	
<b>Job:</b>	<b>ODR</b>
<b>Report Date:</b>	<b>1/27/2018</b>
<b>Report #:</b>	<b>4</b>
<b>DFS:</b>	<b>4</b>
<b>AFE #:</b>	<b>045124</b>
<b>Total AFE + Sup:</b>	<b>\$3,437,061.75</b>
<b>Daily Field Est. (Cost):</b>	<b>\$430,217.19</b>

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
BIRBECK, IAN, ENGINEER	ENGINEER	972-969-4464	469-585-8176	IAN.BIRBECK@PXD.COM
CLARY, BILL, FOREMAN	FOREMAN		903-570-4857	BILL.CLARY@PXD.COM
JOHNSON, STEVEN, FORMAN	FORMAN		580-504-9863	STEVEN.JOHNSON1@PXD.COM
RIG-H&P 604, RIG PHONE	RIG PHONE	432-848-4341	432-258-4400	

## Personnel Log

Company	Count
PIONEER NATURAL RESOURCES USA INC	2
HELMERICH & PAYNE INTL DRILLING CO	13
LEAM DRILLING SYSTEMS INC	4
QMAX SOLUTIONS	2
DWM CONSULTING LLC	2
STRATAGRAPH INC	2
TRICORPS SECURITY	2

Daily Drilling Report

UNIVERSITY 3-15 123H

H & P #604  
Accept: 1/26/2018      Release:  
Days Since LTI: 28.00      Days Since RI: 28.00

PERMIAN - JV SOUTHERN WOLFCAMP  
Job: ODR  
Report Date: 1/28/2018  
Report #: 5  
DFS: 5  
AFE #: 045124  
Total AFE + Sup: \$3,437,061.75  
Daily Field Est. (Cost): \$62,158.35

API/UWI 42-461-40728-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00020034	WellIDE	Property Sub 927370-123	KB-Grd (ft) 26.00	Orig KB Elev (ft) 2,732.00	Ground Elevation (ft) 2,706.00	Spud Date 12/18/2017	TD Date								
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM : FIT Test; Drilling Intermediate; Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 4 Energy Isolation Core Value # 4 Personal Accountability											
13:00	PROACTIVE MEASURES	STOP CARD - PNR	DAY	Stop card: 3rd party was pressure washing casing and had his face shield in the upright position and had him put it down, noticed him with it up a 2nd time and he was relieved of his duty											
17:45	MEETING	PRE-TOUR	NIGHT	PTSM : Drilling Intermediate; Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 4 Energy Isolation Core Value # 4 Personal Accountability											
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)															
Type		Subtype		Date		Note									
MILESTONE		ESTIMATED PAD RELEASE		3/16/2018		2 nd Well on Pad updated 1-26-2018									
Daily Operations															
Footage/Meterage (ft) 2,280.00		Drilling Hours (hr) 22.50		% Rotating Time (%) 83.33		End Depth (ftKB) 3,542.0		Target Depth (ftKB) 21,743.0		Daily Field Est Total (Cost) 62,158.35		Cum Field Est To Date (Cost) 965,600.95			
24 HR ROP (ft/hr) 101.3		Circulating Hours (hr)		% Sliding Time (%) 16.67		End Depth (TVD) (ftKB) 3,517.5		Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 7,949.11		Cum Mud Field Est (Cost) 13,319.11		Total AFE + Sup (Cost) 3,437,061.75	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,500.0				Daily Goal - Next 24 2,000.0				Goal Comments Goal Achieved			
Backbuild Yes	Lateral Incln	North-South Distance (ft)		East-West Distance (ft)		Town Dist (ft)		Last Casing String SURFACE, 1,242.5ftKB				Next Casing String PROPOSED INTERMEDIATE, 8,196.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 11.00		Max Connection Gas 0.00		Max Trip Gas 0.00		Max Drill Gas 0.00					
Operations Summary Drill 10' new hole, Fit, Drill 12 1/4" Intermediate F/1272' to 3542'															
Operations Next Report Period Drill 12 1/4" Intermediate F/3542' to 5542'															
Operations at Report Time Drill Intermediate @ 3542															
Remarks No Accidents, Incidents or Spills NPT : H&P Past 24 hrs 0 Total 17.0 3rd Party Past 0 hrs Total 2.75 PNR Past 24 hrs 0 Total 14.25.  SURVEY @ 3205' MD 11.87° INC 353.78° AZM 3187.24' TVD 0.7/A 1.2/R  Surface: 100%, Inter: 32%, Curve: 0%, Lateral: 0% Gen 3 = 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	0.25	06:15	INT, PRE DRL	DRL	NORMAL	Drlg f/ 1262' to 1272' ( 10' @ 40 fph) WOB 15k, RPM 30, GPM 400, SPP 800, Diff 20, Tq 2 k, Mtr RPM 64				1,262.5	1,272.0				
06:15	1	07:15	INT, PRE DRL	FIT	NORMAL	FIT @ 1262' with 8.6 ppg AMW to 12.5 ppg EMW, 264 psi. Test failed. Trouble shoot problem with surface equipment, Replaced 2" valve. FIT held				1,272.0	1,272.0				
07:15	8.25	15:30	INT, DRL	DRL	NORMAL	Drlg f/ 1272' to 2234' ( 962' @ 113 fph) WOB 35k, RPM 30-60, GPM 800, SPP 2700, Diff 350, Tq 15k, Mtr RPM 128				1,272.0	2,234.0				
15:30	0.5	16:00	INT, DRL	RIG_SVC	NORMAL	Lubricate Rig				2,234.0	2,234.0				
16:00	14	06:00	INT, DRL	DRL	NORMAL	Drlg f/ 2234' to 3542' ( 1308' @ 93 fph) WOB 35k, RPM 30-70, GPM 800, SPP 3000, Diff 600/800, Tq 15/18k, Mtr RPM 128  Note: limiter Diff set point				2,234.0	3,542.0				
Drill Strings															
BHA #2 , INTERMEDIATE DRILL															
Bit Run 2		Drill Bit 12 1/4in, XS716S-67048, SD1296				Bit Type PDC		Make SMITH							
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) 22.50		Depth Drilled By Bit (ft) 2,280.00						
BHA Drilling Time (hr) 22.50		BHA Depth Drilled (ft) 2,280.00			BHA ROP (ft/hr) 101.3		Depth In (ftKB) 1,262.0		Depth Out (ftKB) 3,542.0						
Drill String Components															
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make					
76	DRILL PIPE			5	4.28	2,436.00	3,542.98	47,502.0	151						
14	HWDP			5	3.00	423.16	1,106.98	22,681.4	103						
1	JAR			6 1/2	2.81	32.26	683.82	3,435.0	81	WEATHERFORD					
6	HWDP			5	3.00	180.43	651.56	9,671.0	77						
1	XO SUB			6 1/8	2.94	3.88	471.13	360.3	67	STABIL DRIL					
12	DRILL COLLAR			8	3.00	351.12	467.25	51,442.6	67						
1	XO SUB			7 3/4	2.87	3.00	116.13	450.1	16	STABIL DRIL					
1	NMDC			7 7/8	2.98	28.55	113.13	4,083.5	15	LEAM					
1	NMDC			7 7/8	2.98	30.82	84.58	4,408.2	11	LEAM					
1	DRILL COLLAR - NON MAG			8.1667	2.75	3.47	53.76	496.3	7	LEAM					
1	UBHO			7 7/8	3.31	11.80	50.29	1,386.0	6	LEAM					
Daily Drilling Report															
Page 1/5															
Printed: Sunday, January 28, 2018															

# Daily Drilling Report

H &amp; P #604

Accept: 1/26/2018	Release:
Days Since LTI: 28.00	Days Since RI: 28.00

<b>PERMIAN - JV SOUTHERN WOLFCAMP</b>	
<b>Job:</b>	<b>ODR</b>
<b>Report Date:</b>	<b>1/28/2018</b>
<b>Report #:</b>	<b>5</b>
<b>DFS:</b>	<b>5</b>
<b>AFE #:</b>	<b>045124</b>
<b>Total AFE + Sup:</b>	<b>\$3,437,061.75</b>
<b>Daily Field Est. (Cost):</b>	<b>\$62,158.35</b>

Drill String Components																		
Jts	Item Des				OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lbf)		Cum Wt (1000lbf)		Make	
1	DRILL COLLAR - PONY				7 7/8		2.85		3.47		38.49		444.9		5		LEAM	
1	STABILIZER				8 3/8		2.81		5.67		35.02		907.2		4		STABIL DRIL	
1	MUD MOTOR				8		3.00		28.10		29.35		3,460.8		3		R3 EDGE	
Mud Motors																		
SN		Bend Angle		Upper Defln Type			Lobe Config			# Stages			RPG			Bit To Bend		
800-S-17 PNR		1.75					7:8			4.0			.016			7.3		
Sensors																		
Sensor Type				Sensor-Bit (ft)						Note								
GAMMA				57.00														
DIRECTIONAL				66.00														
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 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	06:15	1,262.0	10.00	40.0	10	30	400.0	400	1,500.0		130	140	120	130	5.0	2,000.0	0	
06:15	07:15	1,272.0	0.00	0.0	0	30	0.0	400	2,200.0		130	140	120	130	9,500.0	2,000.0	0	
07:15	07:30	1,272.0	19.00	76.0	15	30	400.0	400	2,500.0	95.0	130	140	120	130	10,000.0	2,500.0	0	
07:30	08:15	1,291.0	95.00	126.7	25	50	500.0	500	2,500.0	125.0	130	140	120	130	11,000.0	2,500.0	0	
08:15	09:00	1,386.0	94.00	125.3	30	60	500.0	600	2,500.0	165.0	130	140	120	130	12,000.0	2,500.0	0	
09:00	09:30	1,480.0	94.00	188.0	30	60	500.0	700	2,500.0	165.0	132	135	125	132	12,000.0	2,500.0	0	
09:30	10:00	1,574.0	18.00	36.0	25	0	200.0	800	2,500.0	70.0	132	135	125	132	0.0	2,500.0	140	
10:00	10:15	1,592.0	76.00	304.0	35	60	600.0	800	2,500.0	225.0	132	135	125	132	132.0	2,500.0	0	
10:15	10:30	1,668.0	12.00	48.0	25	0	200.0	800	2,800.0	70.0	132	135	125	132	0.0	2,500.0	100	
10:30	11:00	1,680.0	83.00	166.0	35	60	600.0	800	2,800.0	300.0	132	135	125	132	12,000.0	2,500.0	0	
11:00	11:15	1,763.0	15.00	60.0	25	0	200.0	800	2,800.0	70.0	132	135	125	132	0.0	2,500.0	350	
11:15	11:45	1,778.0	79.00	158.0	35	60	600.0	800	2,800.0	325.0	132	135	125	132	12,000.0	2,500.0	0	
11:45	12:15	1,857.0	20.00	40.0	25	0	200.0	800	2,800.0	70.0	132	135	125	132	0.0	2,500.0	350	
12:15	12:30	1,877.0	74.00	296.0	35	60	600.0	800	2,800.0	325.0	132	135	125	132	12,000.0	2,500.0	0	
12:30	13:00	1,951.0	20.00	40.0	30	0	200.0	800	2,800.0	70.0	132	135	125	132	0.0	2,500.0	350	
13:00	13:30	1,971.0	74.00	148.0	35	60	600.0	800	3,000.0	325.0	132	135	125	132	12,000.0	2,500.0	0	
13:30	14:00	2,045.0	22.00	44.0	30	0	200.0	800	3,000.0	70.0	132	135	125	132	0.0	2,500.0	330	
14:00	14:30	2,067.0	72.00	144.0	35	60	600.0	800	3,000.0	325.0	132	135	125	132	12,000.0	2,500.0	0	
14:30	15:00	2,139.0	21.00	42.0	30	0	200.0	800	3,000.0	70.0	132	135	125	132	0.0	2,500.0	350	
15:00	15:30	2,160.0	74.00	148.0	35	60	600.0	800	3,000.0	325.0	132	135	125	132	12,000.0	2,500.0	0	
15:30	16:00	2,234.0	0.00		0	0	0.0	800	3,000.0		132	135	125	132	0.0	2,500.0	0	
16:00	16:30	2,234.0	15.00	30.0	30	0	200.0	800	2,800.0	70.0	132	135	125	132	0.0	2,500.0	360	
16:30	17:00	2,249.0	79.00	158.0	35	60	600.0	800	2,850.0	325.0	132	135	125	132	12,000.0	2,500.0	0	
17:00	17:15	2,328.0	12.00	48.0	30	0	200.0	800	2,950.0	70.0	145	155	140	145	0.0	2,500.0	360	
17:15	18:00	2,340.0	93.00	124.0	35	60	600.0	800	3,000.0	325.0	145	155	140	145	12,000.0	2,500.0	0	
18:00	06:00	2,433.0	1,109.00	92.4	30	60	200.0	800	3,000.0	70.0	145	155	140	145	0.0	2,500.0	360	
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)
9.60	9.73	450.9		3.8		333.3		966.2		22.4		245.3		52.96		264.12		159.51

# Daily Drilling Report

## H &amp; P #604

**Accept: 1/26/2018**

**Release:**

Days Since LTI: 28.00

Days Since RI: 28.00

## PERMIAN - JV SOUTHERN WOLFCAMP

Job: ODR

**Report Date:** 1/28/2018

Report #: 5

**DFS:** **5**

**AFE #:** 045124

**Total AFE + Sup: \$3,437,061.75**

**Daily Field Est. (Cost):** **\$62,158.35**

## Daily Drilling Report



Daily Drilling Report

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
TRUCKING		CWT	1,656	1,656	0.0	1,656	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	3,083.0	22:45	195.0	30	97	95	
1	3,083.0	22:46	195.0	40	129	95	
1	3,083.0	22:47	195.0	50	161	95	
2	3,083.0	22:48	190.0	30	97	95	
2	3,083.0	22:49	200.0	40	129	95	
2	3,083.0	22:50	250.0	50	161	95	
3	3,083.0	22:51	100.0	20	64	95	
3	3,083.0	22:52	180.0	30	97	95	
3	3,083.0	22:53	200.0	40	129	95	
Deviation Surveys							
Date 12/18/2017		Description AS DRILL SURVEY				Job ODR, 12/18/2017 14:00	
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
1,320.00	1.58	217.90	1,319.84	14.31	-14.08	-10.96	0.12
1,414.00	1.67	205.77	1,413.80	16.59	-16.33	-12.35	0.38
1,508.00	1.58	217.55	1,507.76	18.88	-18.59	-13.74	0.37
1,602.00	2.55	178.53	1,601.70	22.01	-21.71	-14.47	1.76
1,697.00	3.17	161.48	1,696.59	26.60	-26.32	-13.58	1.10
1,791.00	2.46	144.43	1,790.47	30.66	-30.42	-11.58	1.16
1,885.00	1.23	114.37	1,884.42	32.67	-32.48	-9.49	1.62
1,979.00	1.67	38.78	1,978.40	31.98	-31.83	-7.72	1.93
2,073.00	2.90	8.90	2,072.33	28.54	-28.41	-6.49	1.78
2,168.00	4.66	357.30	2,167.12	22.31	-22.18	-6.30	2.01
2,262.00	6.07	352.90	2,260.71	13.58	-13.43	-7.09	1.56
2,357.00	7.03	355.36	2,355.08	2.83	-2.66	-8.18	1.05
2,451.00	7.74	356.77	2,448.30	-9.21	9.40	-9.01	0.78
2,545.00	8.71	357.47	2,541.34	-22.62	22.83	-9.68	1.04
2,640.00	10.29	354.48	2,635.03	-38.22	38.46	-10.81	1.74
2,734.00	11.87	353.96	2,727.28	-56.15	56.43	-12.64	1.68
2,828.00	13.01	358.00	2,819.07	-76.31	76.62	-14.02	1.53
2,923.00	12.57	0.28	2,911.71	-97.32	97.65	-14.35	0.70
3,017.00	11.87	0.64	3,003.58	-117.22	117.54	-14.19	0.75
3,111.00	11.52	357.65	3,095.63	-136.25	136.59	-14.46	0.74
3,205.00	11.87	353.78	3,187.68	-155.21	155.58	-15.90	0.91
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			-1,092.0		3,824.0		
261_0_SAN ANDRES			-1,332.0		4,064.0		
263_0_SAN ANDRES SHALE			-2,431.0		5,163.0		
265_0_CLEARFORK/POP			-3,212.0		5,944.0		
267_0_SPBY_U_A1/267_0_SPBY			-3,987.0		6,719.0		
268_5_SPBY_L_A1			-4,542.0		7,274.0		
268_6_SPBY_L_B1/JO MILL			-4,827.0		7,559.0		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE			-4,902.0		7,634.0		
269_0_DEAN			-5,331.0		8,063.0		
270_0_WFMP_A1			-5,511.0		8,243.0		
272_0_WFMP_A2			-5,605.0		8,337.0		
271_0_WFMP_A3			-5,752.0		8,484.0		
275_0_WFMP_B1			-5,844.0		8,576.0		
276_0_WFMP_B2			-5,922.0		8,654.0		
278_0_WFMP_B3			-6,112.0		8,844.0		
First Take Point (FTP)/ Intended Lnding Pnt(ILP)			-6,250.0		8,982.0		
TARGET #2			-6,234.0		8,966.0		
TARGET #3			-6,200.0		8,932.0		
PBHL/TD			-6,055.0		8,787.0		
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		
WOODS, LEE ROY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-571-2516	432-425-3842	LEEROY.WOODS@PXD.COM		
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		281-734-7917	WILLIS.VOGEL@PXD.COM		
BIRBECK, IAN, ENGINEER		ENGINEER	972-969-4464	469-585-8176	IAN.BIRBECK@PXD.COM		
CLARY, BILL, FOREMAN		FOREMAN		903-570-4857	BILL.CLARY@PXD.COM		
JOHNSON, STEVEN, FORMAN		FORMAN		580-504-9863	STEVEN.JOHNSON1@PXD.COM		
Daily Drilling Report							
Page 4/5				Printed: Sunday, January 28, 2018			

# Daily Drilling Report

H &amp; P #604

**Release:**

**Days Since RI: 28.00**

<b>PERMIAN - JV SOUTHERN WOLFCAMP</b>	
<b>Job:</b>	<b>ODR</b>
<b>Report Date:</b>	<b>1/28/2018</b>
<b>Report #:</b>	<b>5</b>
<b>DFS:</b>	<b>5</b>
<b>AFE #:</b>	<b>045124</b>
<b>Total AFE + Sup:</b>	<b>\$3,437,061.75</b>
<b>Daily Field Est. (Cost):</b>	<b>\$62,158.35</b>

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
RIG-H&P 604, RIG PHONE	RIG PHONE	432-848-4341	432-258-4400	
Personnel Log				
Company				Count
PIONEER NATURAL RESOURCES USA INC				2
HELMERICH & PAYNE INTL DRILLING CO				13
LEAM DRILLING SYSTEMS INC				4
QMAX SOLUTIONS				2
DWM CONSULTING LLC				2
STRATAGRAPH INC				2
TRICORPS SECURITY				2



Daily Drilling Report

UNIVERSITY 3-15 123H				PERMIAN - JV SOUTHERN WOLFCAMP			
H & P #604 Accept: 1/26/2018      Release: Days Since LTI: 29.00      Days Since RI: 29.00				Job: ODR			
				Report Date: 1/29/2018			
				Report #: 6			
				DFS: 6			
				AFE #: 045124			
				Total AFE + Sup: \$3,437,061.75			
				Daily Field Est. (Cost): \$53,462.60			

API/UWI 42-461-40728-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00020034	WellIDE	Property Sub 927370-123	KB-Grd (ft) 26.00	Orig KB Elev (ft) 2,732.00	Ground Elevation (ft) 2,706.00	Spud Date 12/18/2017	TD Date			
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM : Drilling Intermediate; Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 5 Fall &or Elevated Work Safety Core Value # 5 Entrepreneurship						
17:45	MEETING	PRE-TOUR	NIGHT	PTSM : Drilling Intermediate; Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 5 Fall &or Elevated Work Safety Core Value # 5 Entrepreneurship						
02:00	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Good catch: While making walk around found eye wash station not working properly got with the derrick hand and fixed it						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type		Subtype		Date		Note				
MILESTONE		ESTIMATED PAD RELEASE		3/16/2018		2 nd Well on Pad updated 1-26-2018				
Daily Operations										
Footage/Meterage (ft) 1,424.00		Drilling Hours (hr) 21.75		% Rotating Time (%) 54.02		End Depth (ftKB) 4,966.0				
Target Depth (ftKB) 21,743.0		Daily Field Est Total (Cost) 53,462.60		Cum Field Est To Date (Cost) 1,019,113.55						
24 HR ROP (ft/hr) 65.5		Circulating Hours (hr)		% Sliding Time (%) 45.98		End Depth (TVD) (ftKB) 4,920.4				
Target Depth (TVD) (ftKB)		Daily Mud Field Est (Cost) 5,617.60		Cum Mud Field Est (Cost) 18,936.71		Total AFE + Sup (Cost) 3,437,061.75				
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 2,000.0		Daily Goal - Next 24 1,200.0		Goal Comments Goal not Achieved due to Sliding for angle				
Backbuild Yes	Lateral Incln	North-South Distance (ft)	East-West Distance (ft)	Town Dist (ft)	Last Casing String SURFACE, 1,242.5ftKB		Next Casing String PROPOSED INTERMEDIATE, 8,196.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 11.00		Max Connection Gas 0.00				
Max Trip Gas 0.00		Max Drill Gas 36.00								
Operations Summary Drill 12 1/4" Intermediate F/3542' to 4966'										
Operations Next Report Period Drill 12 1/4" Intermediate F/4966' to 6166'										
Operations at Report Time Drill Intermediate @ 4966										
Remarks No Accidents, Incidents or Spills NPT : H&P Past 24 hrs 0 Total 0 3rd Party Past 0 hrs Total 2.25 PNR Past 24 hrs 0 Total 0.  SURVEY @ 4712' MD 4.84° INC 0.99° AZM 4666.98' TVD 1.7/A 4.1/L  Surface: 100%, Inter: 52%, Curve: 0%, Lateral: 0% Gen 3 = 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	10.5	16:30	INT, DRL	DRL	NORMAL	Drig f/ 3542' to 4394" ( 852 @ 81 fph) WOB 35k, RPM 30-70, GPM 800, SPP 3400, Diff 600/800, Tq 15/18k, Mtr RPM 128  Note: limiter Diff set point	3,542.0	4,394.0		
16:30	2.25	18:45	INT, DRL	SFTY_ NPT	NORMAL	H2S alarmswent off; Shut well in & Mustered by Company man trailer. Head count & waited for SAT safety tech to arrive. He went to Shale shaker & found a faulty H2S alarm. Opened well & monitor flow & gas. NO Gas. Went back to drilling while H2S Tech continued to monitor well	4,394.0	4,394.0	2.25	2
18:45	11.25	06:00	INT, DRL	DRL	NORMAL	Drig f/ 4394' to 4966' ( 572 @ 50 fph) WOB 35k, RPM 30-70, GPM 800, SPP 3400, Diff 600/800, Tq 15/18k, Mtr RPM 128  Note: limiter Diff set point	4,394.0	4,966.0		
Interval Problems										
DOWNHOLE CONDITIONS, 4,394.0ftKB, 1/28/2018 16:30										
Ref # 2	Dur (N... 2.25	Ex... No	Subtype WELL CONTROL	Problem Descript... H2S	Est Cost (Cost) 3,870.00	Accountable Party SAFETY SOLUTIONS LLC	Comment H2S alarmswent off; Shut well in & Mustered by Company man trailer. Head count & waited for SAT safety tech to arrive. He went to Shale shaker & found a faulty H2S alarm. Opened well & monitor flow & gas. NO Gas. Went back to drilling while H2S Tech continued to monitor well			
Drill Strings										
BHA #2 , INTERMEDIATE DRILL										
Bit Run 2		Drill Bit 12 1/4in, XS716S-67048, SD1296				Bit Type PDC		Make SMITH		
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) 44.25		Depth Drilled By Bit (ft) 3,704.00		
BHA Drilling Time (hr) 44.25		BHA Depth Drilled (ft) 3,704.00		BHA ROP (ft/hr) 83.7		Depth In (ftKB) 1,262.0		Depth Out (ftKB) 4,966.0		
Drill String Components										
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
120	DRILL PIPE			5	4.28	3,860.00	4,966.98	75,270.0	178	
14	HWDP			5	3.00	423.16	1,106.98	22,681.4	103	
1	JAR			6 1/2	2.81	32.26	683.82	3,435.0	81	WEATHERFORD
6	HWDP			5	3.00	180.43	651.56	9,671.0	77	
Daily Drilling Report										
Page 1/4										
Printed: Monday, January 29, 2018										

# Daily Drilling Report

H &amp; P #604

Accept: 1/26/2018	Release:
Days Since LTI: 29.00	Days Since RI: 29.00

<b>PERMIAN - JV SOUTHERN WOLFCAMP</b>	
<b>Job:</b>	<b>ODR</b>
<b>Report Date:</b>	<b>1/29/2018</b>
<b>Report #:</b>	<b>6</b>
<b>DFS:</b>	<b>6</b>
<b>AFE #:</b>	<b>045124</b>
<b>Total AFE + Sup:</b>	<b>\$3,437,061.75</b>
<b>Daily Field Est. (Cost):</b>	<b>\$53,462.60</b>

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)
10.00	10.12	469.7	4.0	333.3	1,006.5	22.4	245.3	78.30	437.12	159.51



Daily Drilling Report

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
ZINC OXIDE		50 LB SACK		10	143.0	10	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	4,778.0	02:00	170.0	30	97	95	
1	4,778.0	02:01	190.0	40	129	95	
1	4,778.0	02:02	220.0	50	161	95	
2	4,778.0	02:03	130.0	30	97	95	
2	4,778.0	02:04	190.0	40	129	95	
2	4,778.0	02:05	210.0	50	161	95	
3	4,778.0	02:06	120.0	30	97	95	
3	4,778.0	02:07	190.0	40	129	95	
3	4,778.0	02:08	210.0	50	161	95	
Deviation Surveys							
Date 12/18/2017		Description AS DRILL SURVEY				Job ODR, 12/18/2017 14:00	
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,581.00	11.17	354.84	3,555.78	-231.16	231.73	-24.55	0.86
3,675.00	12.05	354.48	3,647.86	-249.95	250.56	-26.31	0.94
3,769.00	11.96	354.13	3,739.80	-269.36	270.02	-28.25	0.12
3,864.00	10.46	354.13	3,832.99	-287.69	288.39	-30.14	1.58
3,958.00	11.70	355.01	3,925.24	-305.63	306.37	-31.84	1.33
4,053.00	12.13	355.89	4,018.19	-325.15	325.92	-33.40	0.49
4,146.00	11.61	355.89	4,109.20	-344.19	345.00	-34.77	0.56
4,240.00	11.61	358.70	4,201.28	-363.06	363.90	-35.66	0.60
4,335.00	11.43	0.64	4,294.36	-382.02	382.87	-35.77	0.45
4,524.00	8.27	358.70	4,480.55	-414.34	415.19	-35.87	1.68
4,618.00	6.68	357.82	4,573.75	-426.55	427.41	-36.23	1.70
4,712.00	4.84	0.99	4,667.27	-435.97	436.84	-36.37	1.99
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		5,163.0		
265_0_CLEARFORK/POP			-3,212.0		5,944.0		
267_0_SPBY_U_A1/267_0_SPBY			-3,987.0		6,719.0		
268_5_SPBY_L_A1			-4,542.0		7,274.0		
268_6_SPBY_L_B1/JO MILL			-4,827.0		7,559.0		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE			-4,902.0		7,634.0		
269_0_DEAN			-5,331.0		8,063.0		
270_0_WFMP_A1			-5,511.0		8,243.0		
272_0_WFMP_A2			-5,605.0		8,337.0		
271_0_WFMP_A3			-5,752.0		8,484.0		
275_0_WFMP_B1			-5,844.0		8,576.0		
276_0_WFMP_B2			-5,922.0		8,654.0		
278_0_WFMP_B3			-6,112.0		8,844.0		
First Take Point (FTP)/ Intended Lnding Pnt(ILP)			-6,250.0		8,982.0		
TARGET #2			-6,234.0		8,966.0		
TARGET #3			-6,200.0		8,932.0		
PBHL/TD			-6,055.0		8,787.0		
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		
WOODS, LEE ROY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-571-2516	432-425-3842	LEEROY.WOODS@PXD.COM		
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		281-734-7917	WILLIS.VOGEL@PXD.COM		
BIRBECK, IAN, ENGINEER		ENGINEER	972-969-4464	469-585-8176	IAN.BIRBECK@PXD.COM		
CLARY, BILL, FOREMAN		FOREMAN		903-570-4857	BILL.CLARY@PXD.COM		
JOHNSON, STEVEN, FORMAN		FORMAN		580-504-9863	STEVEN.JOHNSON1@PXD.COM		
RIG-H&P 604, RIG PHONE		RIG PHONE	432-848-4341	432-258-4400			
Personnel Log							
Company						Count	
PIONEER NATURAL RESOURCES USA INC						2	
HELMERICH & PAYNE INTL DRILLING CO						13	
LEAM DRILLING SYSTEMS INC						4	
QMAX SOLUTIONS						2	
DWM CONSULTING LLC						2	
STRATAGRAPH INC						2	
TRICORPS SECURITY						2	
Daily Drilling Report				Page 4/4		Printed: Monday, January 29, 2018	

Daily Drilling Report

UNIVERSITY 3-15 123H

H & P #604

Accept: 1/26/2018      Release:  
Days Since LTI: 30.00      Days Since RI: 30.00

PERMIAN - JV SOUTHERN WOLFCAMP  
Job: ODR  
Report Date: 1/30/2018  
Report #: 7  
DFS: 7  
AFE #: 045124  
Total AFE + Sup: \$3,437,061.75  
Daily Field Est. (Cost): \$77,783.61

API/UWI 42-461-40728-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B3 (WFMP B3)		Field Name SPRABERRY (TREND AREA)							
SSN ID00020034	WellIDE	Property Sub 927370-123	KB-Grd (ft) 26.00	Orig KB Elev (ft) 2,732.00	Ground Elevation (ft) 2,706.00	Spud Date 12/18/2017	TD Date						
Safety Checks													
Time	Type	Des	Tour	Com									
06:00	MEETING	PRE-TOUR	DAY	PTSM : Drilling Intermediate to 5500' Displace with gel mud; Drill to 5800' CBU; Slow to 500 GPM; Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 6 Excavation & Trenching Core Value # 6 Communication									
17:45	MEETING	PRE-TOUR	NIGHT	PTSM : Drilling Intermediate f/ 5800' to 6400' Circulate BU @ 5815'; Slow to 500 GPM Clean & organize, general rig maintenance, transferring mud, mixing chemicals,3 point contact on stairs, Overhead awareness; R2LB # 6 Excavation & Trenching Core Value # 6 Communication									
19:13	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: RTM started to walk under elevator bells behind DP in the mouse hole stopped him and had him walk around and explained to him what would happen if the driller started to lower his link tilt									
Jobs													
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status						
DRL ENG - ROSS PEARCE		AREA TEAM 5		ODR	12/18/2017 14:00		IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)													
Type			Subtype	Date	Note								
MILESTONE			ESTIMATED PAD RELEASE	3/16/2018	2 nd Well on Pad updated 1-26-2018								
Daily Operations													
Footage/Meterage (ft) 1,437.00		Drilling Hours (hr) 22.75		% Rotating Time (%) 86.81		End Depth (ftKB) 6,403.0		Target Depth (ftKB) 21,743.0		Daily Field Est Total (Cost) 77,783.61		Cum Field Est To Date (Cost) 1,096,897.16	
24 HR ROP (ft/hr) 63.2		Circulating Hours (hr) 1.25		% Sliding Time (%) 13.19		End Depth (TVD) (ftKB) 6,357.6		Target Depth (TVD) (ftKB) 9,334.20		Daily Mud Field Est (Cost) 28,270.91		Cum Mud Field Est (Cost) 3,437,061.75	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,200.0				Daily Goal - Next 24 1,300.0				Goal Comments Goal achived	
Backbuild Yes		Lateral Inclination		Last Casing String SURFACE, 1,242.5ftKB				Next Casing String INTERMEDIATE, 8,319.0ftKB					
Avg Connection Gas 66.00		Avg Trip Gas 0.00		Avg Background Gas 55.00		Max Connection Gas 105.00		Max Trip Gas 0.00		Max Drill Gas 116.00			
Operations Summary Drill 12 1/4" Intermediate F/4966' to 6403'													
Operations Next Report Period Drill 12 1/4" Intermediate F/6403 T /7703													
Operations at Report Time Drill Intermediate @ 6403													
Remarks No Accidents, Incidents or Spills NPT : H&P Past 24 hrs 0 Total 0 3rd Party Past 0 hrs Total 2.25 PNR Past 24 hrs 0 Total 2.25													
SURVEY @ 6220' MD 1.58° INC 51.79° AZM 6174.36' TVD 27/A 15.2/L													
Surface: 100%, Inter: 72%, Curve: 0%, Lateral: 0% Gen 3 = 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	7.75	13:45	INT, DRL	DRL	NORMAL	Drlg f/ 4966' to 5720' ( 754' @ 97 fph) WOB 35k, RPM 30-70, GPM 800, SPP 3400, Diff 600/800, Tq 15/18k, Mtr RPM 128  Note: limiter Diff set point		4,966.0	5,720.0				
13:45	0.5	14:15	INT, DRL	RIG_SVC	NORMAL	Lubricate Rig		5,720.0	5,720.0				
14:15	2	16:15	INT, DRL	DRL	NORMAL	Drlg f/ 5720' to 5815' ( 95' @ 71 fph) WOB 35k, RPM 30-70, GPM 800, SPP 3400, Diff 600/800, Tq 15/18k, Mtr RPM 128  Note: limiter Diff set point		5,720.0	5,815.0				
16:15	0.75	17:00	INT, DRL	CIRC	NORMAL	Circulate BU @ 5815' before Drilling into Clearfork		5,815.0	5,815.0				
17:00	13	06:00	INT, DRL	DRL	NORMAL	Drlg f/ 5815' to 6403' ( 588' @ 45 fph) WOB 32k, RPM 30-70, GPM 500 - 650, SPP 3400, Diff 480, Tq 15/18k, Mtr RPM 128  Note: limiter Diff set point		5,815.0	6,403.0				
Drill Strings													
BHA #2 , INTERMEDIATE DRILL													
Bit Run 2			Drill Bit 12 1/4in, XS716S-67048, SD1296				Bit Type PDC		Make SMITH				
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) 67.00		Depth Drilled By Bit (ft) 5,141.00				
BHA Drilling Time (hr) 67.00			BHA Depth Drilled (ft) 5,141.00		BHA ROP (ft/hr) 76.7		Depth In (ftKB) 1,262.0		Depth Out (ftKB) 6,403.0				
Drill String Components													
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make			
165	DRILL PIPE			5	4.28	5,300.00	6,403.51	103,350.0	206				
14	HWDP			5	3.00	423.16	1,103.51	22,681.4	103				
1	JAR			6 1/2	2.81	32.26	680.35	3,435.0	80	WEATHERFORD			
6	HWDP			5	3.00	180.43	648.09	9,671.0	77				
1	XO SUB			6 1/8	2.94	3.88	467.66	360.3	67	LEAM			
12	DRILL COLLAR			8	3.00	351.12	463.78	51,442.6	67				
Daily Drilling Report													



# Daily Drilling Report

H &amp; P #604

Accept: 1/26/2018	Release:
Days Since LTI: 30.00	Days Since RI: 30.00

<b>PERMIAN - JV SOUTHERN WOLFCAMP</b>	
<b>Job:</b>	<b>ODR</b>
<b>Report Date:</b>	<b>1/30/2018</b>
<b>Report #:</b>	<b>7</b>
<b>DFS:</b>	<b>7</b>
<b>AFE #:</b>	<b>045124</b>
<b>Total AFE + Sup:</b>	<b>\$3,437,061.75</b>
<b>Daily Field Est. (Cost):</b>	<b>\$77,783.61</b>

Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
1	XO SUB	7 3/4	2.87	3.00	112.66	450.1	15	STABIL DRILL
1	NMDC	7 7/8	2.98	28.55	109.66	4,083.5	15	LEAM
1	DRILL COLLAR - NON MAG	8.1667	2.75	30.82	81.11	4,408.2	11	LEAM
1	UBHO	7 7/8	3.31	3.47	50.29	407.6	6	LEAM
1	DRILL COLLAR - PONY	7 7/8	2.85	11.80	46.82	1,512.8	6	LEAM
1	STABILIZER	8 3/8	2.81	5.67	35.02	907.2	4	STABIL DRIL
1	MUD MOTOR	8	3.00	28.10	29.35	3,460.8	3	LEAM

## Mud Motors

SN	Bend Angle	Bend Type	Lobe Config	# Stages	RPG	Bit To Bend
7751xd291	1.75	ADJUSTABLE	7:8	4.0	.016	7.3

## Sensors

Sensor Type	Sensor-Bit (ft)	Note
GAMMA	57.00	
DIRECTIONAL	66.00	

### 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 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	12:00	4,966.0	566.00	94.3	42	40	800.0	800	3,900.0	145.0	195	230	180	195	22,000.0	5,500.0	0
12:00	13:45	5,532.0	188.00	107.4	45	80	800.0	800	3,550.0	135.0	195	230	180	195	24,000.0	5,500.0	0
13:45	14:15	5,720.0	0.00	0.0	0	0	0.0	800	2,750.0		195	230	180	195	0.0	5,500.0	0
14:15	14:30	5,720.0	10.00	40.0	45	80	800.0	800	3,550.0	135.0	195	230	180	195	24,000.0	5,500.0	0
14:30	15:30	5,730.0	18.00	18.0	35	0	150.0	800	2,900.0	20.0	195	230	180	195	0.0	5,500.0	180
15:30	16:15	5,748.0	67.00	89.3	45	80	800.0	800	3,550.0	135.0	195	230	180	195	24,000.0	5,500.0	0
16:15	17:00	5,815.0	0.00		0	80	0.0	800	2,750.0		195	230	180	195	11,300.0	11,300.0	0
17:00	02:15	5,815.0	479.00	51.8	35	80	500.0	500	1,700.0	70.0	195	230	180	195	24,000.0	5,500.0	0
02:15	04:15	6,294.0	10.00	5.0	12	0	175.0	500	1,375.0	5.0	195	230	180	195	0.0	5,500.0	230
04:15	06:00	6,304.0	99.00	56.6	35	80	500.0	500	1,700.0	60.0	195	230	180	195	17,500.0	5,500.0	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)
9.10	9.17	104.4	0.9	208.3	357.8	14.0	153.3	103.85	611.70	159.51



# Daily Drilling Report

H &amp; P #604

Accept: 1/26/2018	Release:
Days Since LTI: 30.00	Days Since RI: 30.00

<b>PERMIAN - JV SOUTHERN WOLFCAMP</b>	
<b>Job:</b>	<b>ODR</b>
<b>Report Date:</b>	<b>1/30/2018</b>
<b>Report #:</b>	<b>7</b>
<b>DFS:</b>	<b>7</b>
<b>AFE #:</b>	<b>045124</b>
<b>Total AFE + Sup:</b>	<b>\$3,437,061.75</b>
<b>Daily Field Est. (Cost):</b>	<b>\$77,783.61</b>

Mud Checks												
Time 00:00		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE		Depth (ftKB) 6,191.0		Density (lb/gal) 9.10		Funnel Viscosity (s/qt) 32	T Flowline (°F) 95.0
PV (cP) 6.0	YP (lb/100ft²) 13.000	Vis 3rpm 10	Vis 6rpm 12	Filtrate (mL/30min) 40.0		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)		
Solids (%) 5.5		Low Gravity Solids (%) 5.3		Sand (%) 0.3		MBT (lb/bbl) 10.0		Pm (mL/mL) 0.500		Pf (mL/mL)		
Chlorides (ppm) 30,000.000		Calcium (ppm)		CaCl (ppm)	Oil Water Ratio 0/100		Electric Stab (V)		Lime (lb/bbl)		pH 10.0	
Gel 10 sec (lb/100ft²) 7.000				Gel 10 min (lb/100ft²) 11.000				Gel 30 min (lb/100ft²) 15.000				

Comment

Recommended Fluids Treatment:

Mud Wt 8.8 -9.2 ppg. Fresh water/Gel as needed to maintain volume/control mud weight. Caustic as needed to maintain a 9.5-10.5 PH. Pump 50 bbl hi-vis sweep every other connection or as needed. Run corrosion trailer at pre-set volumes, add 42 gals of h2s scavenger/24hr, 50 lbs zinc oxide every 1.5 hr, and soda ash as needed to control hardness.

Displaced hole with Fresh Gel mud on the fly beginning @ 5,500'. Keep WBM frac tanks topped off with gel mud as volume depletes ; follow mud engineer's recipe. Dump sand trap every other connection. Repair/replace shaker screens as needed. Run all SCE equipment as needed. Frac Tank sensors checked tourly.

Drilling Fluids Forecast Next 24 hrs:  
Drill ahead to intermediate casing point lowering water loss in drilling fluid to less than 30mL/30min.

Rig Activity Last 24 hrs:  
Drill/slide to 5500', displaced to gel mud from a brine water mud on the fly, drill/slide to 5815', circulated bottoms up, and currently drill/slide to 6191' at time of report.

Please see mud report for additional detailed information.

Volumes:	
Daily Diesel Used	0 GAL
Cumulative Diesel Used	0 GAL
Daily Water Used	63,504 GAL
Cumulative Water Used	237,762 GAL
Daily OBM Surface Losses	0 BBLS
Daily OBM Downhole Losses	0 BBLS
Cumulative OBM Surface Losses	0 BBLS
Cumulative OBM Downhole Losses	0 BBLS
OBM Volume Accounting	
Total OBM Received	1,792 BBLS
Total OBM Rental	0 BBLS
Total OBM on Location	1,792 BBLS
Daily Drying Shaker Recov	

Last BOP Test				
Date	Test Type	Item Tested	Next Test Date	Com
1/26/2018	BOP	<des>, 1/26/2018 06:00, <class>	2/16/2018	Test BOPE & related equipment back to mud pumps 250/5000, Annular 250/3500.

Leak Off and Formation Integrity Tests		
Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	1,242.5	12.52

Casing Pressure Test						
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	12/24/2017	SURFACE, 1,242.5ftKB	No	30.00	1,000.0

Kick Offs & Key Depths		
Date	Type	Top Depth (ftKB)
	HEEL	
	KICK OFF	
	TOE	

Casing Strings							
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	108.5	108.5	20	H40	78.67		
SURFACE	1,242.5	1,242.4	13 3/8	J55	54.50	BTC	808.0

Job Supply Amounts						
Supply Item Des	Type	Unit Label	Received	Consumed	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	0	0	3,816	500.0
DIESEL	FUEL	GAL	7,200	2,800	9,900	8,900.0
WATER	FRESH	BBL	0	0	0	0.0

Mud Additive Amounts						
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
BULK GEL			21	20	36.17	37
BULK TANK BLOWER		1 EA	2	2	0.0	8
CAUSTIC SODA		50 LB SACK		10	155.0	30
ENGINEERING - 24 HOUR		1 EA	2	2	0.0	8
H2S SCAVENGER		55 GAL		1	3.0	3
OIL DRY ABSORBANT		40 LB SACK		7	33.0	14
PER DIEM		1 EACH	2	2	0.0	8
POLY VIS II		5 GAL		2	67.0	10
SCALE CHARGE		1 EA	1	1	0.0	2
SODA ASH		50 LB SACK		15	110.0	40
TECH SERVICE SUPPORT		1 EA	1	1	0.0	4

Daily Drilling Report

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
TRUCKING		CWT	828	828	0.0	2,484	
ZINC OXIDE		50 LB SACK		10	133.0	20	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	7,500.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	5,720.0	14:01	225.0	40	129	95	
1	5,720.0	14:02	260.0	50	161	95	
1	5,720.0	14:03	200.0	30	97	95	
2	5,720.0	14:04	255.0	50	161	95	
2	5,720.0	14:05	225.0	40	129	95	
2	5,720.0	14:06	205.0	30	97	95	
3	5,720.0	14:07	190.0	30	97	95	
3	5,720.0	14:08	260.0	50	161	95	
3	5,720.0	14:09	220.0	40	129	95	
Deviation Surveys							
Date 12/18/2017		Description AS DRILL SURVEY			Job ODR, 12/18/2017 14:00		
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,994.00	0.62	6.09	4,948.96	-447.34	448.23	-37.53	0.76
5,089.00	1.14	19.27	5,043.95	-448.75	449.64	-37.16	0.58
5,183.00	1.14	29.64	5,137.93	-450.46	451.33	-36.39	0.22
5,277.00	1.32	35.97	5,231.91	-452.17	453.02	-35.29	0.24
5,372.00	1.32	40.36	5,326.89	-453.92	454.74	-33.94	0.11
5,466.00	1.41	44.76	5,420.86	-455.60	456.39	-32.43	0.15
5,560.00	1.49	43.70	5,514.83	-457.34	458.09	-30.77	0.09
5,654.00	1.49	49.68	5,608.80	-459.05	459.77	-28.99	0.17
5,749.00	1.32	79.21	5,703.77	-460.10	460.77	-26.97	0.77
5,843.00	1.23	95.21	5,797.75	-460.25	460.88	-24.91	0.39
5,937.00	1.06	80.44	5,891.73	-460.34	460.93	-23.04	0.36
6,031.00	1.23	64.44	5,985.71	-460.96	461.51	-21.28	0.38
6,126.00	1.32	65.68	6,080.69	-461.89	462.40	-19.36	0.10
6,220.00	1.58	51.79	6,174.66	-463.18	463.65	-17.35	0.46
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)
267_0_SPBY_U_A1/267_0_SPBY			-3,987.0		6,719.0		
268_5_SPBY_L_A1			-4,542.0		7,274.0		
268_6_SPBY_L_B1/JO MILL			-4,827.0		7,559.0		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE			-4,902.0		7,634.0		
269_0_DEAN			-5,331.0		8,063.0		
270_0_WFMP_A1			-5,511.0		8,243.0		
272_0_WFMP_A2			-5,605.0		8,337.0		
271_0_WFMP_A3			-5,752.0		8,484.0		
275_0_WFMP_B1			-5,844.0		8,576.0		
276_0_WFMP_B2			-5,922.0		8,654.0		
278_0_WFMP_B3			-6,112.0		8,844.0		
First Take Point (FTP)/ Intended Lnding Pnt(ILP)			-6,250.0		8,982.0		
TARGET #2			-6,234.0		8,966.0		
TARGET #3			-6,200.0		8,932.0		
PBHL/TD			-6,055.0		8,787.0		
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		
WOODS, LEE ROY, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-571-2516	432-425-3842	LEEROY.WOODS@PXD.COM		
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM		
GOINS, ATWELL, ENGINEER		ENGINEER		903-641-9824	ATWELL.GOINS@PXD.COM		
CLARY, BILL, FOREMAN		FOREMAN		903-570-4857	BILL.CLARY@PXD.COM		
JOHNSON, STEVEN, FORMAN		FORMAN		580-504-9863	STEVEN.JOHNSON1@PXD.COM		
RIG-H&P 604, RIG PHONE		RIG PHONE	432-848-4341	432-258-4400			
Personnel Log							
Company						Count	
PIONEER NATURAL RESOURCES USA INC						2	
HELMERICH & PAYNE INTL DRILLING CO						13	
LEAM DRILLING SYSTEMS INC						4	
QMAX SOLUTIONS						2	
DWM CONSULTING LLC						2	
STRATAGRAPH INC						2	
TRICORPS SECURITY						2	
Daily Drilling Report				Page 4/5		Printed: Tuesday, January 30, 2018	

# Daily Drilling Report

H &amp; P #604

**Release:**

Days Since RI: 30.00

<b>PERMIAN - JV SOUTHERN WOLFCAMP</b>	
<b>Job:</b>	<b>ODR</b>
<b>Report Date:</b>	<b>1/30/2018</b>
<b>Report #:</b>	<b>7</b>
<b>DFS:</b>	<b>7</b>
<b>AFE #:</b>	<b>045124</b>
<b>Total AFE + Sup:</b>	<b>\$3,437,061.75</b>
<b>Daily Field Est. (Cost):</b>	<b>\$77,783.61</b>

Personnel Log	
Company	Count
SAFETY AUTOMATION TECH	2