

Daily Drilling Report

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/20/2019
Report #:	4
DFS:	3
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$233,997.30

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Drill Strings

BHA #2 , INTERMEDIATE

Drill String Components

Mud Motors

Sensors

Drilling Parameters

Daily Drilling Report

Daily Drilling Report

UNIVERSITY 6J 10H	
H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 132.00	Days Since RI: 132.00

PERMIAN ASSET TEAM	
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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	10.38	568.8	4.8	350.6	1,147.2	23.8	97.5	56.80	487.41	260.85		
Mud Checks												
Time 00:00		Mud Company PIONEER DRILLING FLUIDS			Type DIRECT EMULSION	Depth (ftKB) 3,151.0		Density (lb/gal) 10.30		Funnel Viscosity (s/qt) 43	T Flowline (°F) 125.0	
PV (cP) 11.0		YP (lb/100ft²) 10.000	Vis 3rpm 5	Vis 6rpm 6	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)	
Solids (%) 17.0			Low Gravity Solids (%) 9.1		Sand (%) 0.3		MBT (lb/bbl) 5.0		Pm (mL/mL) 1.400		Pt (mL/mL)	
Chlorides (ppm) 168,000,000.000		Calcium (ppm)		CaCl (ppm)		Oil Water Ratio 24.1/75.9		Electric Stab (V)		Lime (lb/bbl) 0.3		pH 10.5
Gel 10 sec (lb/100ft²) 8.000				Gel 10 min (lb/100ft²) 12.000				Gel 30 min (lb/100ft²) 14.000				
Comment RECOMMENDED FLUIDS TREATMENT Treating active with additions of Caustic 2 per/hr to increase pH and maintain alkalinities. Soda Ash 4 per/hr to lower hardness and maintain. Mul 2 per/tr to keep emulsion stability. 25 BBL Hi-Vis sweeps every other connection												
DRILLING FLUIDS ACTIVITY LAST 24 HRS Brought mud from frac to active, begin processing with centrifuge to lower mud weight in order to start off on the low side of MW range. Displaced hole with DEM begin with tourly treatments and pumping sweeps every other connection.												
RIG ACTIVITY LAST 24 HOURS Finished skidding from the 11H to the 10H. Nipple up BOP's and perform full BOP test. P/U BHA and TIH. Tag up on float collar and begin displacement. Drill out FE, shoe track, and 10' of new formation. Perform FIT to 12.5 ppg EMW. Once FIT finished begin drilling ahead as per plan. No issues to report on rig.												
Last BOP Test												
Date	Test Type			Item Tested			Next Test Date		Com			
12/19/2019	BOP						1/9/2020					
Leak Off and Formation Integrity Tests												
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)				
FORMATION INTEGRITY				2,018.0				12.50				
Casing Pressure Test												
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)	
Kick Offs & Key Depths												
Date				Type				Top Depth (ftKB)				
Casing Strings												
Description	Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)	Grade	Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)	
CONDUCTOR	106.5		106.5		20	H40	78.67					
SURFACE	2,020.4		2,019.3		13 3/8	J55	54.50		BTC		1,309.3	
Job Supply Amounts												
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc		Cum Consumed	
DIESEL		FUEL	GAL	8,881			Transferred from' UNIVERSITY 6K 11H'		8,881		0.0	
DIESEL		FUEL	GAL		2,025				6,856		2,025.0	
DIESEL		MUD	GAL	12,500			Transferred from' UNIVERSITY 6K 11H'		12,500		0.0	
DIESEL		MUD	GAL		1,737				10,763		1,737.0	
Mud Additive Amounts												
Des		Type		Units		Rec		Consumed		On Loc		Cum Cons
CAUSTIC SODA		ALKALINITY CONTROL		SACK		84		82		2.0		82
PAC R		FLUID LOSS ADDITIVES		SACK		84		80		4.0		80
PALLET		MISCELLANEOUS		EA		12		12		0.0		12
PHPA		VISCOSIFIER		GAL		16		14		2.0		14
POLYDRIL DEFOAMER 3010		DEFOAMER		GAL		16		13		3.0		13
POLYDRIL DIRECT MUL LDE		SPECIALTY		DRUM		12		3		9.0		3
SODIUM BICARB		ALKALINITY CONTROL		SACK		34		20		14.0		20
XANTHAM GUM		VISCOSIFIER		SACK		128		5		123.0		5
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		6,324.0
2	GARDNER-DENVER			PZ-11-1600		5 1/2		11.00		0.081		6,324.0
3	GARDNER-DENVER			PZ-11-1600		5 1/2		11.00		0.081		6,324.0
Pump Checks												
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)		Q Flow (gpm)			Eff (%)			
1	3,304.0	05:17	450.0	20		64			95			
1	3,304.0	05:17	560.0	40		129			95			
1	3,304.0	05:17	380.0	60		193			95			
2	3,304.0	05:17	420.0	40		129			95			
2	3,304.0	05:17	530.0	60		193			95			
2	3,304.0	05:17	360.0	20		64			95			
3	3,304.0	05:17	330.0	20		64			95			
3	3,304.0	05:17	510.0	60		193			95			
3	3,304.0	05:17	420.0	40		129			95			
Daily Drilling Report												
Page 3/4						Printed: Friday, December 20, 2019						

Daily Drilling Report

H & P #645

Accept: 12/19/2019

Release:

Days Since LTI: 132.00

Days Since RI: 132.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/20/2019

Report #: 4

DFS: 3

AFE #: 9006929

Total AFE + Sup: \$3,430,137.57

Daily Field Est. (Cost): **\$233,997.30**

Deviation Surveys							
Date 10/22/2019		Description AS DRILL SURVEY				Job ODR, 10/21/2019 16:00	
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
2,112.00	0.97	352.25	2,110.91	56.88	49.50	-28.06	0.64
2,207.00	2.81	354.07	2,205.85	59.73	52.61	-28.41	1.94
2,302.00	4.05	356.30	2,300.68	64.82	58.28	-28.87	1.31
2,397.00	4.60	338.28	2,395.41	71.56	65.16	-30.49	1.54
2,492.00	5.54	329.71	2,490.04	79.91	72.66	-34.21	1.27
2,586.00	6.26	328.17	2,583.54	89.57	80.93	-39.21	0.78
2,681.00	7.27	326.58	2,677.88	100.75	90.35	-45.25	1.08
2,776.00	7.06	326.24	2,772.14	112.59	100.22	-51.80	0.23
2,870.00	7.12	326.41	2,865.42	124.18	109.88	-58.24	0.07
2,965.00	7.05	326.32	2,959.70	135.88	119.63	-64.73	0.07
3,060.00	6.92	326.72	3,053.99	147.43	129.27	-71.10	0.15
3,155.00	6.58	326.67	3,148.33	158.58	138.60	-77.23	0.36
3,249.00	6.69	326.42	3,241.70	169.43	147.66	-83.22	0.12
3,344.00	6.56	326.39	3,336.07	180.38	156.79	-89.28	0.14
3,438.00	6.40	324.84	3,429.47	190.97	165.55	-95.27	0.25
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)
258_0_QUEEN			-1,102.0		4,111.5		
259_0_GRAYBURG			-1,611.0		4,620.5		
261_0_SAN ANDRES			-1,802.0		4,811.5		
263_5_Top_Cherry_Canyon			-2,701.0		5,710.5		
Recommended ICP1			-3,056.0		6,065.5		
264_0_Top_Brushy_Canyon			-3,299.0		6,308.5		
264_5_Mid_Brushy_Canyon			-3,598.0		6,607.5		
265_0_CLEARFORK/POP			-3,819.0		6,828.5		
267_0_SPBY_U_A1/267_0_SPBY			-5,445.0		8,454.5		
267_5_SPBY_M_A1			-5,761.0		8,770.5		
268_5_SPBY_L_A1			-5,991.0		9,000.5		
268_5_SPBY_L_A2			-6,028.0		9,037.5		
268_5_SPBY_L_A3			-6,113.0		9,122.5		
268_6_SPBY_L_B1/JO MILL			-6,267.0		9,276.5		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE			-6,316.0		9,325.5		
RECOMMENDED ICP2			-6,436.0		9,445.5		
269_0_DEAN			-6,639.0		9,648.5		
270_0_WFMP_A1			-6,799.0		9,808.5		
272_0_WFMP_A2			-6,878.0		9,887.5		
271_0_WFMP_A3			-6,933.0		9,942.5		
275_0_WFMP_B1			-7,006.0		10,015.5		
276_0_WFMP_B2			-7,025.0		10,034.5		
278_0_WFMP_B3			-7,102.0		10,111.5		
280_0_WFMP_C1			-7,171.0		10,180.5		
282_0_WFMP_C2			-7,275.0		10,284.5		
292_0_WFMP_D			-7,701.0		10,710.5		
304_0_STRAWN			-8,065.0		11,074.5		
FIRST TAKE POINT (FTP)			-7,078.0		10,087.5		
TARGET #1			-7,094.0		10,103.5		
PBHL/TD			-7,154.0		10,163.5		
Daily Contacts							
Job Contact		Title	Office	Mobile	Email		
VOGEL, DERRICK, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		405-664-0046	DERRICK.VOGEL@PXD.COM		
RATLEY, SHANNON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-813-2804	SHANNON.RATLEY@PXD.COM		
PARSELL, VIC, SUPERINTENDENT		SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM		
GARZA, JOHN, ENGINEER		ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM		
HARDIN, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM		
GREGAN, DOMINIC, MUD ENGINEER		MUD ENGINEER		830-481-9669	DOMINIC.GREGAN@PXD.COM		
RIG-H&P 645, RIG PHONE		RIG PHONE	432-355-3106	432-257-8384			
Personnel Log							
Company						Count	
PIONEER NATURAL RESOURCES USA INC						2	
HELMERICH & PAYNE INTERNATIONAL DRILLING CO						13	
GYRODATA INC						4	
DWM CONSULTING						1	

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UNIVERSITY 6J 10H				PERMIAN ASSET TEAM	
H & P #645				Job:	ODR
Accept: 12/19/2019				Report Date:	12/21/2019
Days Since LTI: 133.00				Report #:	5
Release:				DFS:	4
Days Since RI: 133.00				AFE #:	9006929
				Total AFE + Sup:	\$3,430,137.57
				Daily Field Est. (Cost):	\$116,162.39

P/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)									
SSN ID00053070		Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date							
Safety Checks															
Time	Type	Des		Tour	Com										
06:00	MEETING	PRE-TOUR		DAY	PTSM: Drilling fast hole, be aware of surrounding and be on floor for connection, visibility on the rig floor is minimal, do checklists doing mud transfers, be aware of wind direction this is the section for possible h2s 3: R2LB #3: Confined Space Entry Core Values #3: Safety										
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		DAY	11. Weekly trend: safe - Positions Of People. Discussed with RTM's about being aware of their surroundings and body placement.										
18:00	MEETING	PRE-TOUR		NIGHT	PTSM: Drilling fast hole, Circ, POOH, L/D BHA be aware of surrounding and be on floor for connection, visibility on the rig floor is minimal, do checklists doing mud transfers, be aware of wind direction this is the section for possible h2s 3: R2LB #3: Confined Space Entry Core Values #3: Safety										
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		NIGHT	11. Weekly trend: safe - Positions Of People. Discussed with RTM's about being aware of their surroundings and body placement.										
23:30	PROACTIVE MEASURES	STOP CARD - PNR		NIGHT	While tripping out of the hole an employee was seen placing his hand on the ST80 as it was being extended out to the stump. The job was stopped and the employee was told to never place hands near the equipment as it is being moved. There is a potential for having his hands smashed. He was shown the correct places to put his hands. Employee understood and complied										
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - JOHN GARZA		AREA TEAM 2		ODR	10/21/2019 16:00				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type				Subtype		Date		Note							
MILESTONE				ESTIMATED PAD RELEASE		2/11/2020		POOH on 2nd INT #1 on 3 well pad							
Daily Operations															
Footage/Meterage (ft) 2,211.00		Drilling Hours (hr) 18.00		% Rotating Time (%) 90.28		End Depth (ftKB) 6,089.0		Target Depth (ftKB) 18,403.0		Daily Field Est Total (Cost) 116,162.39		Cum Field Est To Date (Cost) 707,921.18			
24 HR ROP (ft/hr) 122.8		Circulating Hours (hr) 3.00		% Sliding Time (%) 9.72		End Depth (TVD) (ftKB) 6,063.5		Target Depth (TVD) (ftKB) 9,200.0		Daily Mud Field Est (Cost) 8,854.18		Cum Mud Field Est (Cost) 23,518.57		Total AFE + Sup (Cost) 3,430,137.57	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 2,211.0				Daily Goal - Next 24 0.0				Goal Comments Operational Goal achieved			
Backbuild		Lateral Inclination		Last Casing String SURFACE, 2,020.4ftKB						Next Casing String PROPOSED INTERMEDIATE, 6,089.0ftKB					
Avg Connection Gas 4.00		Avg Trip Gas 5.00		Avg Background Gas 4.00		Max Connection Gas 10.00		Max Trip Gas 5.00		Max Drill Gas 8.00					
Operations Summary Drill INT#1 F/3878' T/6089' (10% sldg, 5.92 deg tang, 18' Above, 17' Right), Circ, POOH backreaming- short trip															
Operations Next Report Period Finish short trip, POOH, L/D BHA, R/U and run 9 5/8" Int 1 casing															
Operations at Report Time POOH @ 4000'															
Remarks No Accidents, NPT Hrs- Rig: hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 0% Curve:0% Lateral: 0% Initial water reading- bbls Start- 86627 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls															
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	5.25	11:15	INT, POST DRL	DRL	NORMAL	Drill F/3878' T/4729' (848' @ 162 fph), 52% complete. 89% Rot @ 210 fph 11% Sldg @ 61 fph MW-10.3 w/ 43 vis, full returns. Pump 25 bbl, vis sweeps every other std.Last Survey @ 4670' ? Inc-6.4°, Azm-319.41°, 13.6' high & 2.9' left to plan #1, Gamma-23°, CBHT-135.11°F			3,878.0	4,729.0					
11:15	0.5	11:45	INT, POST DRL	CIRC	NORMAL	Circ B/U			4,729.0	4,729.0					
11:45	5.25	17:00	INT, POST DRL	DRL	NORMAL	Drill F/4729' T/5408' (679' @ 129 fph), 60% complete. 95% Rot @ 235 fph 13% Sldg @ 35 fph MW-10.2 w/ 48 vis, full returns. Pump 25 bbl, vis sweeps every other std.Last Survey @ 5333' ? Inc-19°, Azm-317.16°, 19' high & 12.7' left to plan #1, Gamma-32°, CBHT-143.97°F			4,729.0	5,408.0					
17:00	0.5	17:30	INT, POST DRL	RIG_RPR	NORMAL	Wash in the standpipe and kelly hose. Replace O-ring.			5,408.0	5,408.0	0.50	2			
17:30	2.25	19:45	INT, POST DRL	TIH_NONELEV	NORMAL	POOH 4 stands due to intermittent returns when attempting to establish returns, Circ B/U, wash and ream back to bottom with 90% returns.			5,408.0	5,408.0					
Daily Drilling Report															
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Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
PHPA	VISCOSIFIER	GAL		9	-7.0	23	
SODA ASH	ALKALINITY CONTROL	SACK		105	159.0	105	
ZINC OXIDE	SPECIALITY	SACK		15	25.0	15	
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	6,324.0	
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0	
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	6,053.0	05:24	400.0	20	64	95	
1	6,053.0	05:24	540.0	40	129	95	
1	6,053.0	05:24	650.0	60	193	95	
2	6,053.0	05:24	480.0	20	64	95	
2	6,053.0	05:24	530.0	40	129	95	
2	6,053.0	05:24	640.0	60	193	95	
3	6,053.0	05:24	440.0	20	64	95	
3	6,053.0	05:24	530.0	40	129	95	
3	6,053.0	05:24	620.0	60	193	95	
Deviation Surveys							
Date 10/22/2019		Description AS DRILL SURVEY			Job ODR, 10/21/2019 16:00		
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
3,912.00	6.09	322.99	3,900.70	241.61	206.95	-125.31	0.05
4,007.00	6.00	322.75	3,995.17	251.60	214.92	-131.35	0.10
4,102.00	5.82	320.47	4,089.67	261.35	222.59	-137.42	0.31
4,196.00	6.63	322.89	4,183.11	271.52	230.59	-143.72	0.91
4,291.00	7.44	324.01	4,277.40	283.14	239.94	-150.65	0.86
4,386.00	7.05	322.71	4,371.64	295.11	249.56	-157.79	0.45
4,480.00	6.82	322.44	4,464.95	306.44	258.57	-164.69	0.25
4,575.00	6.52	321.47	4,559.31	317.45	267.26	-171.49	0.34
4,670.00	6.40	319.41	4,653.70	328.09	275.50	-178.29	0.27
4,764.00	5.86	317.11	4,747.17	338.04	283.00	-184.97	0.63
4,859.00	5.38	315.24	4,841.71	347.21	289.71	-191.41	0.54
4,954.00	6.54	318.59	4,936.19	356.95	296.93	-198.12	1.27
5,049.00	7.32	321.24	5,030.50	368.35	305.71	-205.49	0.89
5,143.00	6.92	318.99	5,123.77	379.94	314.65	-212.95	0.52
5,238.00	6.96	319.02	5,218.08	391.34	323.32	-220.48	0.04
5,333.00	6.87	317.16	5,312.39	402.67	331.83	-228.12	0.25
5,427.00	6.87	317.57	5,405.71	413.79	340.10	-235.74	0.05
5,522.00	6.87	313.73	5,500.03	424.96	348.22	-243.68	0.48
5,617.00	6.73	326.69	5,594.37	436.09	356.80	-250.84	1.62
5,711.00	6.69	336.13	5,687.73	446.98	366.41	-256.08	1.17
5,806.00	6.44	334.92	5,782.10	457.69	376.30	-260.58	0.30
5,901.00	6.27	334.99	5,876.52	468.07	385.82	-265.03	0.18
5,996.00	5.87	334.12	5,970.99	478.00	394.90	-269.34	0.43
6,018.00	5.92	334.72	5,992.87	480.24	396.93	-270.32	0.36
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)
Recommended ICP1			-3,056.0		6,065.5		
264_0_Top_Brushy_Canyon			-3,299.0		6,308.5		
264_5_Mid_Brushy_Canyon			-3,598.0		6,607.5		
265_0_CLEARFORK/POP			-3,819.0		6,828.5		
267_0_SPBY_U_A1/267_0_SPBY			-5,445.0		8,454.5		
267_5_SPBY_M_A1			-5,761.0		8,770.5		
268_5_SPBY_L_A1			-5,991.0		9,000.5		
268_5_SPBY_L_A2			-6,028.0		9,037.5		
268_5_SPBY_L_A3			-6,113.0		9,122.5		
268_6_SPBY_L_B1/JO MILL			-6,267.0		9,276.5		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE			-6,316.0		9,325.5		
RECOMMENDED ICP2			-6,436.0		9,445.5		
269_0_DEAN			-6,639.0		9,648.5		
270_0_WFMP_A1			-6,799.0		9,808.5		
272_0_WFMP_A2			-6,878.0		9,887.5		
271_0_WFMP_A3			-6,933.0		9,942.5		
275_0_WFMP_B1			-7,006.0		10,015.5		
276_0_WFMP_B2			-7,025.0		10,034.5		
278_0_WFMP_B3			-7,102.0		10,111.5		
280_0_WFMP_C1			-7,171.0		10,180.5		
282_0_WFMP_C2			-7,275.0		10,284.5		
292_0_WFMP_D			-7,701.0		10,710.5		
Daily Drilling Report							
				Page 4/5	Printed: Saturday, December 21, 2019		

Daily Drilling Report

H & P #645

Release:

Days Since RI: 133.00

Job:	ODR
Report Date:	12/21/2019
Report #:	5
DFS:	4
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$116,162.39

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
VOGEL, DERRICK, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		405-664-0046	DERRICK.VOGEL@PXD.COM
RATLEY, SHANNON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-813-2804	SHANNON.RATLEY@PXD.COM
PARSELL, VIC, SUPERINTENDENT	SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
HARDIN, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	361-452-2118	361-318-8762	JOE.HARDIN@PXD.COM
GREGAN, DOMINIC, MUD ENGINEER	MUD ENGINEER		830-481-9669	DOMINIC.GREGAN@PXD.COM
RIG-H&P 645, RIG PHONE	RIG PHONE	432-355-3106	432-257-8384	

Company	Count
PIONEER NATURAL RESOURCES USA INC	2
HELMERICH & PAYNE INTERNATIONAL DRILLING CO	13
GYRODATA INC	4
DWM CONSULTING	1
GISLER BROTHERS LOGGING CO INC	1

Daily Drilling Report

API/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)									
SSN ID00053070	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM: POOH, R/U casing crews run casing, be aware of surroundings, visibility on the rig floor is minimal, do checklists doing mud transfers, be aware of wind direction this is the section for possible h2s 4: R2LB #4:Energy Isolation Core Values #4: Personal Accountability											
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	12. Weekly trend: Unsafe - Procedures Followed : Discussed with RTM's about Procedures Followed Always Follow Procedures It Will Keep You From Getting Hurt Or Killed Never Cut Corner And Short Cut Always Think Before Attempting To Do Unsafe Job.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Run casing, circ, working with third party, be aware of surrounding and be on floor for connection, visibility on the rig floor is minimal, do checklists doing mud transfers, be aware of wind direction this is the section for possible h2s 4: R2LB #4:Energy Isolation Core Values #4: Personal Accountability											
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	12. Weekly trend: Unsafe - Procedures Followed : Discussed with RTM's about Procedures Followed Always Follow Procedures It Will Keep You From Getting Hurt Or Killed Never Cut Corner And Short Cut Always Think Before Attempting To Do Unsafe Job.											
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	While running casing it was noticed that there was an employee standing near the stump as a joint was being tailed in. The employee was waiting on the joint to be tailed in but was standing in the swing path. The job was stopped and the employee was told where told where to safely stand. He understood the hazards and where to stand during these operations											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status							
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00			IN PROGRESS							
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date	Note									
MILESTONE			ESTIMATED PAD RELEASE		1/25/2020	Running casing on 2nd INT #1 on 3 well pad									
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 6,089.0		Target Depth (ftKB) 18,403.0		Daily Field Est Total (Cost) 97,671.03		Cum Field Est To Date (Cost) 795,566.09			
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 6,063.5		Target Depth (TVD) (ftKB) 9,200.0		Daily Mud Field Est (Cost) 8,578.03		Cum Mud Field Est (Cost) 22,070.48		Total AFE + Sup (Cost) 3,430,137.57	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 2,500.0				Goal Comments Operational Goal achieved			
Backbuild		Lateral Inclination		Last Casing String SURFACE, 2,020.4ftKB				Next Casing String PROPOSED INTERMEDIATE 2, 9,528.0ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 22.00		Avg Background Gas 2.00		Max Connection Gas 0.00		Max Trip Gas 22.00		Max Drill Gas 0.00					
Operations Summary Finish short trip in hole F/4000' T/6089', POOH, L/D BHA, R/U and run 9 5/8" Int 1 casing T/6079', Circ prior to cement															
Operations Next Report Period Finish circulation, pump Int 1 cement job, L/D landing jt, P/U Int 2 BHA, TIH, Drill out and drill liner section T/8589'															
Operations at Report Time Circ prior to cement															
Remarks No Accidents, NPT Hrs- Rig: hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 0% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls															
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	2.5	08:30	INT, POST DRL	WPR_TRIP	NORMAL	TIH F/4000' T/6089'. with no excess drag. Hole displacing properly.		6,089.0	6,089.0						
08:30	1	09:30	INT, POST DRL	CIRC	NORMAL	Circulate Hole Clean with 550- 800 gpm, 3550 psi. full returns		6,089.0	6,089.0						
09:30	0.25	09:45	INT, POST DRL	FLOW_CHK	NORMAL	Flow Check. Well Static.		6,089.0	6,089.0						
09:45	0.75	10:30	INT, POST DRL	TIH_ELEV	NORMAL	TOOH wet F/6089' T/5099' with no excess drag. Hole taking an additional 12 bbls per 5 stands		6,089.0	6,089.0						
10:30	2.25	12:45	INT, POST DRL	TOOH_ELEV	NORMAL	TOOH F/5099' T/1300' with no excess drag. Hole taking an additional 12bbls per 5 stands Filling backside with 9.9ppg		6,089.0	6,089.0						
12:45	0.25	13:00	INT, POST DRL	HDL_ROT HD	NORMAL	Pull rotating head and install trip nipple.		6,089.0	6,089.0						
13:00	0.5	13:30	INT, POST DRL	HDL_BHA	NORMAL	TOOH racking back HWDP and 8" DC's F/1300' T/BHA Hole taking an additional 4 bbls per 3 stands on HWDP Hole taking an additional 2 bbls per stand of 8" collars Filling backside with 9.9ppg		6,089.0	6,089.0						
Daily Drilling Report												Page 1/3		Printed: Sunday, December 22, 2019	

UNIVERSITY 6J 10H	
H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 134.00	Days Since RI: 134.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/22/2019
Report #:	6
DFS:	5
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$97,671.03

Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	7,201	1,838			9,642	6,440.0
DIESEL	MUD	GAL	7,501	2,923			12,200	7,801.0
WATER	FRESH	BBL	0	0		Water meter reading 105001	0	20,582.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
PAC R	FLUID LOSS ADDITIVES	SACK		13	28.0	56		
POLYDRIL DIRECT MUL LDE	SPECIALTY	DRUM		7	2.0	10		
SODA ASH	ALKALINITY CONTROL	SACK		31	128.0	136		
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	6,324.0		
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0		
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
Deviation Surveys								
Date	Description					Job		
10/22/2019	AS DRILL SURVEY					ODR, 10/21/2019 16:00		
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)			
Recommended ICP1	-3,056.0		6,065.5					
264_0_Top_Brushy_Canyon	-3,299.0		6,308.5					
264_5_Mid_Brushy_Canyon	-3,598.0		6,607.5					
265_0_CLEARFORK/POP	-3,819.0		6,828.5					
267_0_SPBY_U_A1/267_0_SPBY	-5,445.0		8,454.5					
267_5_SPBY_M_A1	-5,761.0		8,770.5					
268_5_SPBY_L_A1	-5,991.0		9,000.5					
268_5_SPBY_L_A2	-6,028.0		9,037.5					
268_5_SPBY_L_A3	-6,113.0		9,122.5					
268_6_SPBY_L_B1/JO MILL	-6,267.0		9,276.5					
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-6,316.0		9,325.5					
RECOMMENDED ICP2	-6,436.0		9,445.5					
269_0_DEAN	-6,639.0		9,648.5					
270_0_WFMP_A1	-6,799.0		9,808.5					
272_0_WFMP_A2	-6,878.0		9,887.5					
271_0_WFMP_A3	-6,933.0		9,942.5					
275_0_WFMP_B1	-7,006.0		10,015.5					
276_0_WFMP_B2	-7,025.0		10,034.5					
278_0_WFMP_B3	-7,102.0		10,111.5					
280_0_WFMP_C1	-7,171.0		10,180.5					
282_0_WFMP_C2	-7,275.0		10,284.5					
292_0_WFMP_D	-7,701.0		10,710.5					
304_0_STRAWN	-8,065.0		11,074.5					
FIRST TAKE POINT (FTP)	-7,078.0		10,087.5					
TARGET #1	-7,094.0		10,103.5					
PBHL/TD	-7,154.0		10,163.5					
Daily Contacts								
Job Contact	Title	Office	Mobile	Email				
POLYA, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM				
VOGEL, DERRICK, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		405-664-0046	DERRICK.VOGEL@PXD.COM				
RATLEY, SHANNON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-813-2804	SHANNON.RATLEY@PXD.COM				
PARSELL, VIC, SUPERINTENDENT	SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM				
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM				
GREGAN, DOMINIC, MUD ENGINEER	MUD ENGINEER		830-481-9669	DOMINIC.GREGAN@PXD.COM				
RIG-H&P 645, RIG PHONE	RIG PHONE	432-355-3106	432-257-8384					
Personnel Log								
Company							Count	
PIONEER NATURAL RESOURCES USA INC							2	
HELMERICH & PAYNE INTERNATIONAL DRILLING CO							13	
GYRODATA INC							4	
DWM CONSULTING							1	
GISLER BROTHERS LOGGING CO INC							1	
Daily Drilling Report			Page 3/3			Printed: Sunday, December 22, 2019		

Daily Drilling Report

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/23/2019
Report #:	7
DFS:	6
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$175,472.89

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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 #	
09:15	4.25	13:30	INT, CASE & CMT	CMT	NORMAL	Cemented 9 5/8" casing at 6089': Pump 10 bbls ahead to Flush through lines and pressure test lines to 4000 psi (tested good). Pump 50 bbls Mud Push at 10.5 ppg. Followed by 414 bbl's 11 ppg lead, 48 bbls 11ppg of Middle cement, 41 bbls 14.8 ppg tail cement, drop plug and displace with 100 bbls of h2o & 354 bbl's of 10.3 DEM. Full returns @ 7 BPM. Inflate packer with no issue. 50 bbls spacer and 144 bbls of cement to surface. Final lift pressure 500 psi, plug bump with 1500 psi. Floats held, 4.5 bbls bled back. Drop cancellation bomb and wait 45 min. Pressure up to 2500 psi and hold 5 min to ensure DV tool closed. Good Test.	6,089.0	6,089.0			
13:30	0.25	13:45	INT, CASE & CMT	SFTY	NORMAL	PJSM on rigging down cementing equipment.	6,089.0	6,089.0			
13:45	0.5	14:15	INT, CASE & CMT	RD_CMT	NORMAL	Rig down cementing equipment.	6,089.0	6,089.0			
14:15	0.25	14:30	INT, CASE & CMT	CMT	NORMAL	Flush lines	6,089.0	6,089.0			
14:30	0.5	15:00	INT, CASE & CMT	RIG_SVC	NORMAL	Rig Service	6,089.0	6,089.0			
15:00	1	16:00	INT, CASE & CMT	WH	NORMAL	lay down landing joint, install packoff and test.	6,089.0	6,089.0			
16:00	0.25	16:15	INT2, PRE DRL	WRBSH	NORMAL	Install wear bushing.	6,089.0	6,089.0			
16:15	0.25	16:30	INT2, PRE DRL	SFTY	NORMAL	PJSM on picking up 8.75" directional BHA.	6,089.0	6,089.0			
16:30	0.75	17:15	INT2, PRE DRL	PU_DIR	NORMAL	P/U 7" 1.83 deg 6/7, 6.5 stg. 0.23 rpg with 8.25" stab and a 8.5" stab, 2x NMDC's. Install and lock down MWD. Bit: SPL616	6,089.0	6,089.0			
17:15	2.5	19:45	INT2, PRE DRL	HDL_BHA	NORMAL	TIH F/BHA T/4225' with HWDP Hole displacing properly to trip tanks.	6,089.0	6,089.0			
19:45	0.5	20:15	INT2, PRE DRL	CIRC	NORMAL	Circulate and displace DEM in the wellbore used to displace cement in case a second stage was needed on the cement job.	6,089.0	6,089.0			
20:15	9.75	06:00	INT2, PRE DRL	RIG_RPR	NORMAL	Trouble shoot DWS traction motor/ shaft coupling. During trip the coupling area was smoking so operations halted. Inspections showed the park brake to be damaged and in need of repair. Parts/ personnel dispatched and equipment is being replaced	6,089.0	6,089.0	9.75	8	
Interval Problems											
RIG, 6,089.0ftKB, 12/22/2019 20:15											
Ref #	Dur (N...	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment				
8		No	HOISTING	DRAW WORKS		HELMERICH & PAYNE INTERNATIONAL DRILLING CO	Trouble shoot DWS traction motor/ shaft coupling. During trip the coupling area was smoking so operations halted. Inspections showed the park brake to be damaged and in need of repair. Parts dispatched and equipment being replaced				
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

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Printed: Monday, December 23, 2019

Daily Drilling Report

UNIVERSITY 6J 10H				PERMIAN ASSET TEAM			
H & P #645				Job:	ODR		
Accept: 12/19/2019				Report Date:	12/23/2019		
Days Since LTI: 135.00				Report #:	7		
Release:				DFS:	6		
Days Since RI: 135.00				AFE #:	9006929		
				Total AFE + Sup:	\$3,430,137.57		
				Daily Field Est. (Cost):	\$175,472.89		

Mud Checks

Time 01:00		Mud Company PIONEER DRILLING FLUIDS		Type WATER BASE	Depth (ftKB) 6,089.0	Density (lb/gal) 8.50	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) 0.0	HTHP Filtrate (mL/30min) 0.0	HTHP Temperature (°F) 0.0	HTHP Pressure (psi) 0.0					
Solids (%) 2.0		Low Gravity Solids (%) 1.2		Sand (%) 0.1	MBT (lb/bbl) 2.0	Pm (mL/mL) 0.700	Pf (mL/mL)					
Chlorides (ppm) 10,500,000.000	Calcium (ppm) 0.000	CaCl (ppm) 0	Oil Water Ratio 0/100	Electric Stab (V) 0.0	Lime (lb/bbl) 0.2	pH 10.0						
Gel 10 sec (lb/100ft²) 1.000				Gel 10 min (lb/100ft²) 1.000		Gel 30 min (lb/100ft²) 2.000						
Comment RECOMMENDED FLUID TREATMENT Maintain mud weights between 8.4-8.8 with the use of fresh water dilution. Utilize caustic to keep elevated pH levels while using Xanthan Gum for rheological properties. Added Pac R for increased bore hole stability and to reduce water loss.												
DRILLING FLUID ACTIVITY LAST 24 HRS Finished running casing and circulating with full returns, brought water over as needed to maintain MW's between 10.2-10.4ppg. Pumped cement job with full returns. 50 bbls spacer to surface, 144 bbls lead to surface. Clean and drain pits and prepare to bring fresh water into pits. Pumped 100 bbl fresh water and 346 bbl DEM on cement displacement. While TIH w/ BHA catch mud in TT and transfer to frac farm.												
RIG ACTIVITY LAST 24 HOURS Finished running 9 5/8" casing. Displacement slowed down @ 4,800'. Began pumping light mud @ 9.9 ppg on backside. Returns were regained closer to bottom. Once casing landed began pumping. Maintained full returns. Finished circ sur/sur, rig up cementers and pump cement job. Full returns throughout job, displaced and got 50 bbl spacer and 144 bbls lead cement to surface. Install and set pack off. P/U BHA and begin TIH, got to 4200 and bearing on traction motor went out. Displaced hole with fresh water while waiting												
Last BOP Test												
Date 12/19/2019	Test Type BOP			Item Tested BOP'S, 12/19/2019 06:00, <class>		Next Test Date 1/9/2020		Com				
Leak Off and Formation Integrity Tests												
Test Type FORMATION INTEGRITY		Depth (ftKB) 2,018.0				Dens Fluid (lb/gal) 12.50						
Casing Pressure Test												
Test Type CASING		Test Subtype STANDARD		Date 10/28/2019	Item Tested SURFACE, 2,020.4ftKB		Failed? No	Time (min) 30.00	P (psi) 1,500.0			
Kick Offs & Key Depths												
Date				Type			Top Depth (ftKB)					
Casing Strings												
Description CONDUCTOR	Set Depth (ftKB) 106.5	Set Depth (TVD) (ftKB) 106.5	OD (in) 20	Grade H40	Wt/Len (lb/ft) 78.67	Top Thread BTC	P LeakOff (psi)					
SURFACE	2,020.4	2,019.3	13 3/8	J55	54.50	1,309.3						
Cement												
INTERMEDIATE CASING CEMENT, Casing, 12/22/2019 09:15												
Cementing End Date 12/22/2019 13:30	Wellbore ORIGINAL	Technical Result SUCCESS	Comment Cemented 9 5/8" casing at 6089': Pump 10 bbls ahead to Flush through lines and pressure test lines to 4000 psi (tested good). Pump 50 bbls Mud Push at 10.5 ppg, Followed by 414 bbl's 11 ppg lead, 48 bbls 11ppg of Middle cement, 41 bbls 14.8 ppg tail cement, drop plug and displace with 100 bbls of h2o & 354 bbl's of 10.3 DEM. Full returns @ 7 BPM. Inflate packer with no issue. 50 bbls spacer and 144 bbls of cement to surface. Final lift pressure 500 psi, plug bump with 1500 psi. Floats held, 4.5 bbls bled back. Drop cancellation bomb and wait 45 min. Pressure up to 2500 psi and hold 5 min to ensure DV tool closed. Good Test.									
Cement Stages												
Description INTERMEDIATE CASING CEMENT	Final Top De... 0.0	Btm (ftKB) 6,089.0	Top Pl... Yes	Btm Pl... No	Q Pump Init (... 6	Q Pump Fina... 5	Q Pump Avg... 5	P Pump Final... 540.0	P Plug Bump... 1,800.0	Float... No	Recip? No	Rotated? No
Cement Fluids												
Fluid Type SPACER	Estimated Top (ftKB) 0.0		Est Btm (ftKB) 0.0		Class FRESH WATER		Yield (ft³/sack) 11.00	Density (lb/gal) 11.00				
Fluid Type LEAD CMT	Estimated Top (ftKB) 0.0		Est Btm (ftKB) 4,928.0		Class LITECRETE		Yield (ft³/sack) 2.80	Density (lb/gal) 11.00				
Fluid Type LEAD CMT	Estimated Top (ftKB) 4,928.0		Est Btm (ftKB) 5,589.0		Class LITECRETE		Yield (ft³/sack) 2.33	Density (lb/gal) 11.50				
Fluid Type TAIL CMT	Estimated Top (ftKB) 5,589.0		Est Btm (ftKB) 6,079.0		Class CLASS C		Yield (ft³/sack) 1.33	Density (lb/gal) 14.80				
Fluid Type DSPLMT	Estimated Top (ftKB) 0.0		Est Btm (ftKB) 6,079.0		Class FRESH WATER		Yield (ft³/sack) 8.33	Density (lb/gal)				
Job Supply Amounts												
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed				
DIESEL	FUEL	GAL		953			8,689	7,393.0				
DIESEL	MUD	GAL		0			12,200	7,801.0				
WATER	FRESH	BBL	3,611	3,611		Water meter reading 108612	0	24,193.0				
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	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0						
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0						
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0						
Pump Checks												
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)						
Deviation Surveys												
Date 10/22/2019	Description AS DRILL SURVEY					Job ODR, 10/21/2019 16:00						
Daily Drilling Report												

Page 3/4

Printed: Monday, December 23, 2019

Daily Drilling Report

H & P #645

Release:

Days Since RI: 135.00

Job:	ODR
Report Date:	12/23/2019
Report #:	7
DFS:	6
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$175,472.89

Printed: Monday, December 23, 2019

Daily Drilling Report

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/24/2019
Report #:	8
DFS:	7
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$86,446.39

Daily Drilling Report Page 1/4 Printed: Tuesday, December 24, 2019

Daily Drilling Report

H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 136.00	Days Since RI: 136.00

Job:	ODR
Report Date:	12/24/2019
Report #:	8
DFS:	7
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$86,446.39

Interval Problems						
RIG, 6,089.0ftKB, 12/22/2019 20:15						
Ref #	Dur (N...	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party
6	24.25	No	HOISTING	DRAW WORKS		<p>HELMERICH & PAYNE INTERNATIONAL DRILLING CO</p> <p>Comment</p> <p>Trouble shoot DWS traction motor/ shaft coupling. During trip the coupling area was smoking so operations halted.</p> <p>Inspections showed the park brake to be damaged and in need of repair.</p> <p>Parts dispatched and equipment being replaced</p>

BHA #3 , INTERMEDIATE 2

Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
171	DRILL PIPE	5	4.27	5,390.64	6,400.00	105,117.5	152	RIG
9	HWDP	5	3.00	273.31	1,009.36	14,212.1	47	
21	HWDP - SPIRALED	5	3.00	633.93	736.05	32,964.4	33	
1	DRILL COLLAR - NON MAG	6 5/8	3.25	29.07	102.12		0	STABIL DRILL
1	DRILL COLLAR - NON MAG	6 5/8	3.25	29.77	73.05		0	STABIL DRILL
1	SUB - UBHO	6 3/4	2.25	2.95	43.28		0	GYRODATA
1	STABILIZER	6 3/4	2.38	5.85	40.33		0	STABIL DRILL
1	MOTOR - STABILIZER SLEEVE	7	2.38	32.88	34.48		0	GYRODATA

SN	Bend Angle	Bearing Type	Lobe Config	# Stages	Lwr Defln Type	Bit To Bend
GDM700010	1.83	NOT SEALED	6:7	6.5		4.8

Sensor Type	Sensor-Bit (ft)	Note
GAMMA	45.00	
D&I (INC/AZI)	57.00	

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 (*)
03:45	06:00	6,089.0	311.00	138.2	30	70	650.0	700	2,300.0	175.0	185	205	175	185	6.0	3.0	0

Daily Drilling Report

UNIVERSITY 6J 10H

H & P #645

Accept: 12/19/2019 Release: Days Since LTI: 136.00 Days Since RI: 136.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/24/2019

Report #: 8

DFS: 7

AFE #: 9006929

Total AFE + Sup: \$3,430,137.57

Daily Field Est. (Cost): \$86,446.39

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)
8.50	8.61	256.1	1.1	285.4	627.1	19.6	622.5	104.24	14.69	312.83

Mud Checks

Time 01:00		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE		Depth (ftKB) 6,089.0		Density (lb/gal) 8.50		Funnel Viscosity (s/qt) 27		T Flowline (°F) 0.0		
PV (cP) 2.0	YP (lb/100ft²) 1.000	Vis 3rpm 1	Vis 6rpm 1	Filtrate (mL/30min) 0.0	HTHP Filtrate (mL/30min) 0.0			HTHP Temperature (°F) 0.0			HTHP Pressure (psi) 0.0				
Solids (%) 2.0		Low Gravity Solids (%) 1.2			Sand (%) 0.1			MBT (lb/bbl) 2.0		Pm (mL/mL) 0.400		Pf (mL/mL)			
Chlorides (ppm) 8,800,000.000		Calcium (ppm) 0.000		CaCl (ppm) 0	Oil Water Ratio 0/100		Electric Stab (V) 0.0		Lime (lb/bbl) 0.0		pH 9.0				
Gel 10 sec (lb/100ft²) 1.000				Gel 10 min (lb/100ft²) 1.000				Gel 30 min (lb/100ft²) 1.000							
Comment RECOMMENDED FLUID TREATMENT When drilling....Maintain mud weights between 8.4-8.8 with the use of fresh water dilution. Utilize caustic to keep elevated pH levels while using Xanthan Gum for rheological properties. Added Pac R for increased bore hole stability and to reduce water loss. DRILLING FLUID ACTIVITY LAST 24 HRS Rig working on draw works past 24 hours. Centrifuge went down, dynamic is bringing a another one and rigging it up while the VFD for the old one is repaired. Crane and new equipment will be rigged up tonight. Once drilling begin with additions and maintain mud in spec RIG ACTIVITY LAST 24 HOURS TIH w/ BHA @ 4200' traction motor and brake hub went out on drawworks. Mechanics and welders spent past 24 working on repairs. Finished @ 2200hrs. Continued to TIH to DV tool and begin drilling out cancelation plug. Trip to bottom, test casing, and begin drilling out FE, shoe track, and into formation.															
Last BOP Test															
Date		Test Type		Item Tested			Next Test Date		Com						
12/19/2019		BOP		BOP'S, 12/19/2019 06:00, <class>			1/9/2020		5000 hi/250 low, 3500 hi/250 low on Annular						
Leak Off and Formation Integrity Tests															
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)							
FORMATION INTEGRITY				2,018.0				12.50							
Casing Pressure Test															
Test Type		Test Subtype			Date		Item Tested			Failed?		Time (min)		P (psi)	
CASING		STANDARD			10/28/2019		SURFACE, 2,020.4ftKB			No		30.00		1,500.0	
CASING		STANDARD			12/24/2019		INTERMEDIATE, 6,079.0ftKB			No		30.00		2,500.0	
Kick Offs & Key Depths															
Date				Type						Top Depth (ftKB)					
Casing Strings															
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)	
CONDUCTOR		106.5		106.5		20		H40		78.67					
SURFACE		2,020.4		2,019.3		13 3/8		J55		54.50		BTC		1,309.3	
INTERMEDIATE		6,079.0		6,053.5		9 5/8		L80-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		1,562						7,127		8,955.0		
WATER		FRESH	BBL	617	617		Water meter reading 109229				0		24,810.0		
Mud Additive Amounts															
Des		Type		Units		Rec		Consumed		On Loc		Cum Cons			
BA.MILEAGE		MISCELLANEOUS		EA		445		445		0.0		445			
BULK BARITE		WEIGHTING MATERIAL		TON				11		64.0		17			
CAUSTIC SODA		ALKALINITY CONTROL		SACK		110		11		160.0		34			
PALLET		MISCELLANEOUS		EA		15		15		0.0		27			
PHPA		VISCOSIFIER		GAL		32		3		36.0		12			
SHRINK WRAPPING		SPECIALITY		EA		12		12		0.0		12			
TRANSPORTATION		MISCELLANEOUS		EA		850		850		0.0		1,700			
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		6,324.0			
2	GARDNER-DENVER			PZ-11-1600		5 1/2		11.00		0.081		6,324.0			
3	GARDNER-DENVER			PZ-11-1600		5 1/2		11.00		0.081		6,324.0			
Pump Checks															
Pump #	Depth (ftKB)		Time	P (psi)		Strokes (spm)		Q Flow (gpm)			Eff (%)				
2	6,122.0		04:15	300.0		20		64			95				
2	6,122.0		04:16	375.0		40		129			95				
2	6,122.0		04:17	470.0		60		193			95				
3	6,122.0		04:15	275.0		20		64			95				
3	6,122.0		04:16	350.0		40		129			95				
3	6,122.0		04:17	480.0		60		193			95				
Deviation Surveys															
Date 10/22/2019		Description AS DRILL SURVEY								Job ODR, 10/21/2019 16:00					
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)			
264_5_Mid_Brushy_Canyon				-3,598.0				6,607.5							
Daily Drilling Report															

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Printed: Tuesday, December 24, 2019

Daily Drilling Report

H & P #645

Accept: 12/19/2019

Release:

Days Since LTI: 136.00

Days Since RI: 136.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/24/2019

Report #: 8

DFS: 7

AFE #: 9006929

Total AFE + Sup: \$3,430,137.57

Daily Field Est. (Cost): \$86,446.39

[illegible]

Daily Drilling Report

UNIVERSITY 6J 10H			
H & P #645			
Accept: 12/19/2019		Release:	
Days Since LTI: 137.00		Days Since RI: 137.00	

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/25/2019
Report #:	9
DFS:	8
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$63,723.46

API/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)				
SSN ID00053070	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM: continue drilling int 2 while using good pxdrill practices, currently repairing charging pump so only have 2 operational pumps currently. Need to get that other one fixed ASAP. Always keep in mind well control. Be thinking ahead to casing run and cement job. R2LB #7: Driving Safety #7: Teamwork						
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Description: Contractor was washing out the stand pipe on top of module control center house, when approximately 3 bbl. of oil based mud was released to the ground and around the mud pumps. Remediation was immediately performed and 2.5 bbl. was recovered.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Wake up mud logger when you get to 9000', TD will be around 9470', still pumping sweeps every other connections, At TD circulate some of the cuttings up the hole before we pump the first sweep, well pump 2 sweeps and low water loss pill, pull 10 joints wet, pump slug DROP RABBIT, TOO H, pull rotating head, pjsm with gyro data l/d BHA, PWB, clean floor r/u csg crew R2LB #7: Driving Safety #7: Teamwork						
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Description: After offloading diesel in the diesel mud tank contractor was unhooking two hoses that connected. As the hoses came apart one of them sprang back and hit the contractor on the nose causing a small cut on contractor's nose. Contractor cleaned cut and put a bandage on it and refused any further treatment.						
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	RTM was cleaning off the shakers screens using a pressure washer with his face shield raised up exposing his face. Stopped the job and had him put his face shield down so that it would do what it was designed to do. He agreed and work continued safely.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status		
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00			IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		1/25/2020	Drilling 2nd INT #2 on 3 well pad. Drilling Sequentially Updated 12.25.19				
Daily Operations										
Footage/Meterage (ft) 3,106.00		Drilling Hours (hr) 19.75		% Rotating Time (%) 83.54		End Depth (ftKB) 9,506.0		Target Depth (ftKB) 18,403.0		
Daily Field Est Total (Cost) 63,723.46		Cum Field Est To Date (Cost) 1,121,018.83								
24 HR ROP (ft/hr) 157.3		Circulating Hours (hr) 1.75		% Sliding Time (%) 16.46		End Depth (TVD) (ftKB) 9,477.7		Target Depth (TVD) (ftKB) 9,200.0		
Daily Mud Field Est (Cost) 2,314.88		Cum Mud Field Est (Cost) 29,799.30		Total AFE + Sup (Cost) 3,430,137.57						
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 3,070.0			Daily Goal - Next 24 0.0			Goal Comments Operational Goal achieved	
Backbuild No		Lateral Inclination		Last Casing String INTERMEDIATE, 6,079.0ftKB				Next Casing String LINER, 9,494.0ftKB		
Avg Connection Gas 21.00		Avg Trip Gas 0.00		Avg Background Gas 11.00		Max Connection Gas 99.00		Max Trip Gas 0.00		
Max Drill Gas 91.00										
Operations Summary Drill INT 2 F/6400' T/9506' (ICP #2), CHC, TOO H										
Operations Next Report Period TOOH, L/D BHA, Rig up and Run Liner, Circulate Capacity, R/D Casing Crews, P/U and M/U Liner Hanger, TIH with Liner on DP, Circulate BU, TIH with Liner on DP, Circulate STS, Hang Liner, Rig up and Pump Liner Cement										
Operations at Report Time TOOH to Run Liner @ 6100'										
Remarks No Accidents, NPT Hrs- Rig: 24.25 hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 100% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls										
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	12	18:00	INT2, DRL	DRL	NORMAL	Drill F/6400' T/8491' (2091' @ 174 fph), 68% complete. 90% Rot @ 188 fph 10% Sldg @ 51 fph MW-8.7 w/ 31 vis, full returns.	6,400.0	8,491.0		
18:00	0.5	18:30	INT2, DRL	RIG_SVC	NORMAL	Lubricate and inspect rig.	8,491.0	8,491.0		
18:30	7.75	02:15	INT2, DRL	DRL	NORMAL	Drill F/8491' T/9506' (1015' @ 131 fph), 100% complete. 81% Rot @ 150 fph 19% Sldg @ 52 fph MW-8.8 w/ 31 vis, full returns.	8,491.0	9,506.0		
02:15	1.75	04:00	INT2, POST DRL	CIRC	NORMAL	Pump two Hi-Vis sweeps and spot 100 bbl Low-water loss pill on bottom with full returns. 750 gpm and 8.8 ppg in/out.	9,506.0	9,506.0		
04:00	0.25	04:15	INT2, POST DRL	FLOW_CHK	NORMAL	Flow Check. Well Static.	9,506.0	9,506.0		
04:15	0.5	04:45	INT2, POST DRL	TOOH_ELEV	NORMAL	TOOH wet F/9506' T/8581' with no issues. Hole taking proper fill from trip tanks.	9,506.0	9,506.0		
04:45	0.25	05:00	INT2, POST DRL	CIRC	NORMAL	Pump slug and drop rabbit.	9,506.0	9,506.0		
Daily Drilling Report										
Page 1/5					Printed: Wednesday, December 25, 2019					

Daily Drilling Report

UNIVERSITY 6J 10H				PERMIAN ASSET TEAM			
H & P #645				Job:	ODR		
Accept: 12/19/2019				Report Date:	12/25/2019		
Days Since LTI: 137.00				Report #:	9		
Release:				DFS:	8		
Days Since RI: 137.00				AFE #:	9006929		
				Total AFE + Sup:	\$3,430,137.57		
				Daily Field Est. (Cost):	\$63,723.46		

Mud Checks																					
Time 01:00		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE		Depth (ftKB) 8,913.0		Density (lb/gal) 8.70	Funnel Viscosity (s/qt) 31	T Flowline (°F) 110.0										
PV (cP) 2.0		YP (lb/100ft²) 4.000		Vis 3rpm 1		Vis 6rpm 1		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 0.0		HTHP Temperature (°F) 0.0		HTHP Pressure (psi) 0.0							
Solids (%) 3.0				Low Gravity Solids (%) 2.4				Sand (%) 0.3				MBT (lb/bbl) 3.5				Pm (mL/mL) 0.600		Pf (mL/mL)			
Chlorides (ppm) 7,800,000.000				Calcium (ppm) 0.000				CaCl (ppm) 0		Oil Water Ratio 0/100				Electric Stab (V) 0.0				Lime (lb/bbl) 0.1		pH 10.3	
Gel 10 sec (lb/100ft²) 1.000						Gel 10 min (lb/100ft²) 1.000						Gel 30 min (lb/100ft²) 2.000									
Comment RECOMMENDED FLUIDS TREATMENT Maintain mud weights between 8.4-8.8 with the use of fresh water dilution. Utilize caustic to keep elevated pH levels while using Xanthan Gum for rheological properties. Added Pac R for increased bore hole stability and to reduce water loss. DRILLING FLUIDS ACTIVITY LAST 24 HRS Treated active with tourly additions while drilling. Pump 20bbl/HiVis-Water Loss [Bentonite, Pac R & PHPA] sweeps every other stand to assist in cuttings removal & formation integrity. ***Note*** 80 bbls of 40ppb LCM sweep has been prepared before entering the upper Spraberry. RIG ACTIVITY LAST 24 HOURS Continued drilling & sliding, pumping hi vis sweeps every other connection. Circulated a bottom's up before entering the Clearfork to reduce ECD due to cuttings load. Drilled to TD; 9,146' with full returns up to this point; monitoring gains/loses & drilling parameters for any indications from the well. Drilling & Sliding at time of report.																					
Last BOP Test																					
Date		Test Type				Item Tested				Next Test Date		Com									
12/19/2019		BOP				BOP'S, 12/19/2019 06:00, <class>				1/9/2020		5000 hi/250 low, 3500 hi/250 low on Annular									
Leak Off and Formation Integrity Tests																					
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)									
FORMATION INTEGRITY						2,018.0						12.50									
Casing Pressure Test																					
Test Type				Test Subtype				Date				Item Tested				Failed?		Time (min)		P (psi)	
CASING				STANDARD				10/28/2019				SURFACE, 2,020.4ftKB				No		30.00		1,500.0	
CASING				STANDARD				12/24/2019				INTERMEDIATE, 6,079.0ftKB				No		30.00		2,500.0	
Kick Offs & Key Depths																					
Date						Type						Top Depth (ftKB)									
Casing Strings																					
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)							
CONDUCTOR		106.5		106.5		20		H40		78.67											
SURFACE		2,020.4		2,019.3		13 3/8		J55		54.50		BTC		1,309.3							
INTERMEDIATE		6,079.0		6,053.6		9 5/8		L80-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				2,292						4,835		11,247.0			
DIESEL				MUD		GAL		0		0						12,200		7,801.0			
WATER				FRESH		BBL		0		0				Water meter reading 109229		0		24,810.0			
Mud Additive Amounts																					
Des				Type		Units		Rec		Consumed		On Loc		Cum Cons							
CALCIUM CARBONATE FINE				LOST CIRCULATION		SACK				15		75.0		30							
CALCIUM CARBONATE MEDIUM				LOST CIRCULATION		SACK				22		68.0		37							
CAUSTIC SODA				ALKALINITY CONTROL		SACK				17		143.0		51							
OIL DRY ABSORBANT				MISCELLANEOUS		SACK				8		52.0		8							
PAC R				FLUID LOSS ADDITIVES		SACK		80		13		95.0		69							
PHPA				VISCOSIFIER		GAL				2		34.0		14							
XANTHAM GUM				VISCOSIFIER		SACK				5		118.0		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		6,324.0							
2		GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0							
3		GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0							
Pump Checks																					
Pump #		Depth (ftKB)		Time		P (psi)		Strokes (spm)		Q Flow (gpm)		Eff (%)									
1		7,374.0		14:03		370.0		20		64		95									
1		7,374.0		14:04		515.0		40		129		95									
1		7,374.0		14:05		620.0		60		193		95									
1		8,488.0		20:00		340.0		20		64		95									
1		8,488.0		20:01		460.0		40		129		95									
1		8,488.0		20:02		600.0		60		193		95									
1		9,153.0		02:15		400.0		20		64		95									
1		9,153.0		02:16		480.0		40		129		95									
1		9,153.0		02:17		610.0		60		193		95									
2		7,893.0		15:33		420.0		20		64		95									
2		7,893.0		15:34		490.0		40		129		95									
2		7,893.0		15:35		660.0		60		193		95									
2		8,488.0		20:00		330.0		20		64		95									
2		8,488.0		20:01		450.0		40		129		95									
2		8,488.0		20:02		570.0		60		193		95									
Daily Drilling Report																					

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Printed: Wednesday, December 25, 2019

Daily Drilling Report

UNIVERSITY 6J 10H

H & P #645

Accept: 12/19/2019 Release:

Days Since LTI: 137.00 Days Since RI: 137.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/25/2019

Report #: 9

DFS: 8

AFE #: 9006929

Total AFE + Sup: \$3,430,137.57

Daily Field Est. (Cost): \$63,723.46

Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
2	9,153.0	02:15	360.0	20	64	95	
2	9,153.0	02:16	470.0	40	129	95	
2	9,153.0	02:17	590.0	60	193	95	
3	7,893.0	15:30	400.0	20	64	95	
3	7,893.0	15:31	490.0	40	129	95	
3	8,488.0	20:00	340.0	20	64	95	
3	8,488.0	20:01	430.0	40	129	95	
3	8,488.0	20:02	580.0	60	193	95	
3	9,153.0	02:15	350.0	20	64	95	
3	9,153.0	02:16	420.0	40	129	95	
3	9,153.0	02:17	560.0	60	193	95	
Deviation Surveys							
Date 10/22/2019		Description AS DRILL SURVEY				Job ODR, 10/21/2019 16:00	
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,445.00	4.94	333.12	6,417.92	490.66	433.45	-288.20	0.13
6,540.00	3.21	340.41	6,512.68	497.30	439.61	-290.95	1.90
6,635.00	2.52	352.66	6,607.56	502.02	444.18	-292.10	0.97
6,730.00	2.38	353.45	6,702.47	506.05	448.21	-292.60	0.15
6,824.00	1.07	344.91	6,796.43	508.86	451.00	-293.05	1.42
6,919.00	0.69	345.64	6,891.42	510.32	452.41	-293.42	0.40
7,014.00	0.82	333.21	6,986.41	511.56	453.57	-293.87	0.22
7,109.00	1.06	317.32	7,081.40	512.99	454.83	-294.77	0.37
7,203.00	0.90	328.10	7,175.38	514.46	456.09	-295.75	0.26
7,298.00	0.61	312.29	7,270.38	515.59	457.06	-296.52	0.37
7,393.00	0.36	54.00	7,365.37	516.12	457.58	-296.65	0.81
7,488.00	0.20	47.94	7,460.37	516.31	457.87	-296.29	0.17
7,582.00	0.37	250.37	7,554.37	516.36	457.87	-296.45	0.60
7,677.00	0.60	295.16	7,649.37	516.65	457.98	-297.19	0.45
7,772.00	1.18	260.69	7,744.36	517.04	458.04	-298.60	0.81
7,867.00	1.43	271.23	7,839.33	517.44	457.90	-300.76	0.36
7,962.00	1.21	228.03	7,934.31	517.28	457.26	-302.69	1.05
8,056.00	0.77	202.19	8,028.30	516.31	456.01	-303.66	0.66
8,151.00	2.34	44.54	8,123.27	516.81	456.80	-302.54	3.23
8,246.00	3.59	41.29	8,218.15	519.50	460.42	-299.22	1.33
8,340.00	2.90	46.95	8,311.99	522.32	464.25	-295.54	0.81
8,434.00	2.57	43.90	8,405.89	524.59	467.39	-292.34	0.38
8,529.00	1.65	77.48	8,500.83	525.68	469.23	-289.53	1.58
8,624.00	1.73	107.45	8,595.79	524.89	469.09	-286.83	0.92
8,718.00	1.55	104.41	8,689.75	523.54	468.35	-284.24	0.21
8,813.00	1.18	88.44	8,784.72	522.72	468.06	-282.02	0.56
8,908.00	1.35	87.49	8,879.70	522.28	468.13	-279.92	0.18
9,003.00	0.51	85.00	8,974.68	521.99	468.22	-278.38	0.89
9,098.00	0.43	147.19	9,069.68	521.58	467.96	-277.77	0.52
9,192.00	0.30	218.89	9,163.68	521.10	467.47	-277.73	0.47
9,287.00	0.17	267.38	9,258.68	520.98	467.27	-278.03	0.24
9,382.00	0.58	282.99	9,353.68	521.22	467.37	-278.64	0.44
9,449.00	0.68	299.21	9,420.67	521.65	467.64	-279.32	0.30
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)
269_0_DEAN			-6,639.0		9,648.5		
270_0_WFMP_A1			-6,799.0		9,808.5		
272_0_WFMP_A2			-6,878.0		9,887.5		
271_0_WFMP_A3			-6,933.0		9,942.5		
275_0_WFMP_B1			-7,006.0		10,015.5		
276_0_WFMP_B2			-7,025.0		10,034.5		
278_0_WFMP_B3			-7,102.0		10,111.5		
280_0_WFMP_C1			-7,171.0		10,180.5		
282_0_WFMP_C2			-7,275.0		10,284.5		
292_0_WFMP_D			-7,701.0		10,710.5		
304_0_STRAWN			-8,065.0		11,074.5		
FIRST TAKE POINT (FTP)			-7,078.0		10,087.5		
TARGET #1			-7,094.0		10,103.5		
PBHL/TD			-7,154.0		10,163.5		
Daily Contacts							
Job Contact		Title	Office	Mobile	Email		
POLYA, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM		
DAFFRON, MIKE, SUPERINTENDENT		SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM		
GARZA, JOHN, ENGINEER		ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM		
RATLEY, SHANNON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-813-2804	SHANNON.RATLEY@PXD.COM		
Daily Drilling Report				Page 4/5	Printed: Wednesday, December 25, 2019		

Daily Drilling Report

H & P #645

Release:

Days Since RI: 137.00

Daily Field Est. (Cost):	\$63,723.46
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Sl. No.	Name of the Candidate	Grade	Score	Remarks
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Daily Drilling Report

UNIVERSITY 6J 10H				PERMIAN ASSET TEAM			
H & P #645				Job:	ODR		
Accept: 12/19/2019				Report Date:	12/26/2019		
Days Since LTI: 138.00				Report #:	10		
Release:				DFS:	9		
Days Since RI: 138.00				AFE #:	9006929		
				Total AFE + Sup:	\$3,430,137.57		
				Daily Field Est. (Cost):	\$215,184.24		

P/I/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)									
SSN ID00053070		Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date							
Safety Checks															
Time	Type	Des		Tour	Com										
06:00	MEETING	PRE-TOUR		DAY	PTSM: tooh, lay down bha, pull wear bushing, clean rig floor, rig up liner crews, make up shoe track, RIH with liner, break circ every 20 joints, circulate casing cap, rig down liner stuff, pick up and make up liner hanger, pump through it to make sure it is clear, RIH with liner on DP filling pipe every 10 stands. Core Value: #1 Respect Rule to Live By: #1 Safe Work Permits										
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		DAY	Description: After offloading diesel in the diesel mud tank contractor was unhooking two hoses that connected. As the hoses came apart one of them sprang back and hit the contractor on the nose causing a small cut on contractor's nose. Contractor cleaned cut and put a bandage on it and refused any further treatment.										
18:00	MEETING	PRE-TOUR		NIGHT	PTSM: TIH t/6000', install rotate head, CBU before entering open hole. 45fpm in open hole with the liner, RIH with liner on DP filling pipe every 10 stands. Core Value: #1 Respect Rule to Live By: #1 Safe Work Permits										
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED		NIGHT	Description: After offloading diesel in the diesel mud tank contractor was unhooking two hoses that connected. As the hoses came apart one of them sprang back and hit the contractor on the nose causing a small cut on contractor's nose. Contractor cleaned cut and put a bandage on it and refused any further treatment.										
23:30	PROACTIVE MEASURES	STOP CARD - PNR		NIGHT	RTM was not using three points of contact while walking on the stairs to the rig floor. Had a discussion in regards of importance of following three points of contact and potential hazards correlated to not following the guidelines. RTM agreed and committed to follow 3 points of contact rule.										
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)															
Type			Subtype		Date		Note								
MILESTONE			ESTIMATED PAD RELEASE		1/25/2020		Drilling 2nd INT #2 on 3 well pad. Drilling Sequentially Updated 12.26.19								
Type TXRRRC CALL			Subtype CEMENT INT2		Date 12/25/2019		Note Linda #8								
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 9,506.0		Target Depth (ftKB) 18,403.0		Daily Field Est Total (Cost) 215,184.24		Cum Field Est To Date (Cost) 1,515,846.51			
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)		End Depth (TVD) (ftKB) 9,477.7		Target Depth (TVD) (ftKB) 9,200.0		Daily Mud Field Est (Cost) 2,968.37		Cum Mud Field Est (Cost) 32,767.67		Total AFE + Sup (Cost) 3,430,137.57	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 0.0				Goal Comments Operational Goal achieved			
Backbuild No		Lateral Inclination		Last Casing String LINER, 9,494.0ftKB				Next Casing String PROPOSED PRODUCTION, 20,634.0ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 71.00		Avg Background Gas 1.00		Max Connection Gas 0.00		Max Trip Gas 71.00		Max Drill Gas 0.00					
Operations Summary TOOH, L/D BHA, Rig up and Run Liner, Circulate Capacity, R/D Casing Crews, P/U and M/U Liner Hanger, TIH with Liner on DP, Circulate BU, TIH with Liner on DP, Circulate STS, Hang Liner, Rig up and Pump Liner Cement, R/D Cementers, Inflate Packer, Circulate BU, Test packer (No Success), TOOH															
Operations Next Report Period L/D Cement Head, TOOH, L/D Liner Running Tool, P/U Test Packer, TIH to Liner Top, Test Liner top, TOOH, Run Baker Tie Back Packer															
Operations at Report Time L/D Baker Cement Head															
Remarks No Accidents, NPT Hrs- Rig: 24.25 hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 100% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls															
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	INT2, POST DRL	HDL_ROT HD	NORMAL	Pull rotating head install trip nipple			9,506.0	9,506.0					
06:15	3	09:15	INT2, POST DRL	TOOH_ELEV	NORMAL	TOOH F/8483' T/6100' with no issues. Hole taking proper fill from trip tanks.			9,506.0	9,506.0					
09:15	0.25	09:30	INT2, POST DRL	SFTY	NORMAL	PJSM on laying down directional tools.			9,506.0	9,506.0					
09:30	0.5	10:00	INT2, POST DRL	LD_DIR	NORMAL	L/D all directional tools. Note: Bit Graded 1-3-BT-C-X-0-WT-TD			9,506.0	9,506.0					
10:00	0.5	10:30	INT2, POST DRL	WRBSH	NORMAL	Pull Wear Bushing.			9,506.0	9,506.0					
10:30	0.5	11:00	INT2, POST DRL	SFTY	NORMAL	Clean rig floor in preparation for liner run.			9,506.0	9,506.0					
11:00	0.25	11:15	INT2, POST DRL	SFTY	NORMAL	PJSM on rigging up casing tools.			9,506.0	9,506.0					
Daily Drilling Report															

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Printed: Thursday, December 26, 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 #
11:15	0.75	12:00	INT2, CASE & CMT	RU_CSG	NORMAL	R/U casing tools for running liner.	9,506.0	9,506.0		
12:00	0.25	12:15	INT2, CASE & CMT	SFTY	NORMAL	PJSM with Baker, Byrd, Maverick, Maximum on rigging up & running csg.	9,506.0	9,506.0		
12:15	1	13:15	INT2, CASE & CMT	RU_CSG	NORMAL	R/U Valant & casing equipment	9,506.0	9,506.0		
13:15	0.25	13:30	INT2, CASE & CMT	MU_SHOE_TR K	NORMAL	Make up shoe track & pump through same.	9,506.0	9,506.0		
13:30	2.5	16:00	INT2, CASE & CMT	LNR_W/OWAS H	NORMAL	RIH with liner T/3636' with full displacement.	9,506.0	9,506.0		
16:00	0.75	16:45	INT2, CASE & CMT	CIRC	NORMAL	Circ casing capacity with 250 gpm and full returns.	9,506.0	9,506.0		
16:45	0.25	17:00	INT2, CASE & CMT	SFTY	NORMAL	PJSM on rigging down csg crew.	9,506.0	9,506.0		
17:00	0.75	17:45	INT2, CASE & CMT	RD_CSG	NORMAL	Rig down csg crew.	9,506.0	9,506.0		
17:45	0.25	18:00	INT2, CASE & CMT	LNR_W/OWAS H	NORMAL	P/U and M/U liner hanger. Pump through, Good Test. Liner Weight - 100 klbs P/U 143 and S/O - 137 klbs	9,506.0	9,506.0		
18:00	1.75	19:45	INT2, CASE & CMT	LNR_W/OWAS H	NORMAL	RIH w/ liner on DP F/3664' T/5959' with proper displacment to trip tanks. Filling pipe every 10 stands.	9,506.0	9,506.0		
19:45	0.5	20:15	INT2, CASE & CMT	HDL_ROT HD	NORMAL	Remove trip nipple. Install rotating head.	9,506.0	9,506.0		
20:15	0.25	20:30	INT2, CASE & CMT	CIRC	NORMAL	Circulate BU with 250 gpm and full returns before entering openhole.	9,506.0	9,506.0		
20:30	3.25	23:45	INT2, CASE & CMT	LNR_W/OWAS H	NORMAL	RIH w/ liner on DP F/5959' T/9506' and tag bottom with proper displacment to trip tanks. Filling pipe every 10 stands.	9,506.0	9,506.0		
23:45	1	00:45	INT2, CASE & CMT	CIRC	HOLE CONDITIO N	Circulate STS prior to cement job with 100% returns at 248 gpm, 560 psi.	9,506.0	9,506.0		
00:45	0.25	01:00	INT2, CASE & CMT	SFTY	NORMAL	PJSM on rigging up Baker cement head.	9,506.0	9,506.0		
01:00	0.25	01:15	INT2, CASE & CMT	RU_CMT	NORMAL	Rig up cement head and iron	9,506.0	9,506.0		
01:15	0.25	01:30	INT2, CASE & CMT	LNR_W/OWAS H	NORMAL	Drop 1.25" Ball, wait 30 minutes to Fall. Pressure up 1900 psi. and hold 5 min. S/O to 170k to set hanger . Stage pressure up T/2300 psi. S/O 155k. Note: Hanger Set at 5830'.	9,506.0	9,506.0		
01:30	0.5	02:00	INT2, CASE & CMT	LNR_W/OWAS H	NORMAL	Drop 2" Ball to release running tool. Wait 15 minutes to Fall. Pump 1 bpm and pressure to 2445 psi- pressure drop observed -- Running Tool Released. Note: Top of Liner Set at 5830 ' MD, Liner Shoe: 9494' MD	9,506.0	9,506.0		
02:00	0.25	02:15	INT2, CASE & CMT	SFTY	NORMAL	PJSM on cementing operations.	9,506.0	9,506.0		
02:15	1.75	04:00	INT2, CASE & CMT	CMT	NORMAL	Pump Liner Cement Job.- Test CMT lines T/ 7500 psi OK. Pump 20 bbls of Fresh Water to the open top - Pressure Test Pump and Lines. Mix and Pump 50 bbls of 9.0 ppg Spacer, Mix and Pump 83 bbls of 11.0 ppg Lead cement. Mix and Pump 15 bbls of 13.2 ppg Tail cement. Displace with 267 bbls 8.4 ppg FW bumped plug on schedule, bump pressure from 951 psi to 1951 psi, hold psi 5 mins bled back 1.75 bbs - floats held. Full returns. 45 bbl of spacer to the surface.	9,506.0	9,506.0		
04:00	0.25	04:15	INT2, CASE & CMT	RD_CMT	NORMAL	R/D cement lines and equipment	9,506.0	9,506.0		
04:15	0.5	04:45	INT2, CASE & CMT	CIRC	NORMAL	Pick up to 175K, S/O to 70K and set packer, unstng from liner and circulate B/U @ 600 GPM with fresh water.	9,506.0	9,506.0		
04:45	1	05:45	INT2, CASE & CMT	CSG_TEST	NORMAL	Shut in top pipe rams and test liner top to 1,000 psi. Pressure would only build up to 600 psi. Surface equipment tested and held 1500 psi with no issue. Packer/Liner Top believed to be leaking.	9,506.0	9,506.0		
05:45	0.25	06:00	INT2, CASE & CMT	RD_CMT	NORMAL	L/D baker cement head	9,506.0	9,506.0		
Daily Drilling Report						Page 2/4	Printed: Thursday, December 26, 2019			

Daily Drilling Report

UNIVERSITY 6J 10H

H & P #645

Accept: 12/19/2019 Release: 12/19/2019

Days Since LTI: 138.00 Days Since RI: 138.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/26/2019

Report #: 10

DFS: 9

AFE #: 9006929

Total AFE + Sup: \$3,430,137.57

Daily Field Est. (Cost): \$215,184.24

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 03:30		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE		Depth (ftKB) 9,506.0		Density (lb/gal) 8.70		Funnel Viscosity (s/qt) 31		T Flowline (°F)	
PV (cP) 2.0	YP (lb/100ft²) 4.000	Vis 3rpm 1	Vis 6rpm 1	Filtrate (mL/30min) 0.0	HTHP Filtrate (mL/30min) 0.0	HTHP Temperature (°F) 0.0		HTHP Pressure (psi) 0.0						
Solids (%) 3.0		Low Gravity Solids (%) 2.4		Sand (%) 0.3		MBT (lb/bbl) 3.5		Pm (mL/mL) 0.600		Pf (mL/mL)				
Chlorides (ppm) 7,200,000.000		Calcium (ppm) 0.000		CaCl (ppm) 0		Oil Water Ratio 0/100		Electric Stab (V) 0.0		Lime (lb/bbl) 0.1		pH 10.0		
Gel 10 sec (lb/100ft²) 1.000				Gel 10 min (lb/100ft²) 1.000				Gel 30 min (lb/100ft²) 2.000						
Comment RECOMMENDED FLUIDS TREATMENT Maintaining 8.4-8.8ppg in active. Currently there are no fluid treatments DRILLING FLUIDS ACTIVITY LAST 24 HRS Monitoring displacement while running liner; proper displacement. Processing active with centrifuge to maintain weight while running liner. RIG ACTIVITY LAST 24 HOURS Continued pulling out of the hole to lay down BHA & run the 7-5/8" liner. Began running liner, filling every 20 joints. Circulated casing capacity prior to picking up the hanger and before entering into the open hole with full returns. Once on bottom, circulation was established, again with complete returns, before rigging up & performing cement job.														

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com
12/19/2019	BOP	BOP'S, 12/19/2019 06:00, <class>	1/9/2020	5000 hi/250 low, 3500 hi/250 low on Annular

Leak Off and Formation Integrity Tests

Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	2,018.0	12.50

Casing Pressure Test

Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	10/28/2019	SURFACE, 2,020.4ftKB	No	30.00	1,500.0
CASING	STANDARD	12/24/2019	INTERMEDIATE, 6,079.0ftKB	No	30.00	2,500.0

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	106.5	106.5	20	H40	78.67		
SURFACE	2,020.4	2,019.3	13 3/8	J55	54.50	BTC	1,309.3
INTERMEDIATE	6,079.0	6,053.6	9 5/8	L80-IC	40.00	BTC	
LINER	9,494.0	9,465.7	7 5/8	P110-IC	29.70	TSH513	

Cement

LINER CEMENT, Casing, 12/26/2019 02:15

Cementing End Date 12/26/2019 04:00	Wellbore ORIGINAL	Technical Result SUCCESS	Comment Pump Liner Cement Job.- Test CMT lines T/ 7500 psi OK. Pump 20 bbls of Fresh Water to the open top - Pressure Test Pump and Lines. Mix and Pump 50 bbls of 9.0 ppg Spacer, Mix and Pump 83 bbls of 11.0 ppg Lead cement. Mix and Pump 15 bbls of 13.2 ppg Tail cement. Displace with 267 bbls 8.4 ppg FW bumped plug on schedule, bump pressure from 951 psi to 1951 psi, hold psi 5 mins bled back 1.75 bbs - floats held. Full returns. 45 bbl of spacer to the surface.
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Cement Stages

Description LINER CEMENT	Final Top De... 5,830.0	Btm (ftKB) 9,494.0	Top Pl... Yes	Btm Pl... No	Q Pump Init (... 8	Q Pump Fina... 4	Q Pump Avg... 6	P Pump Final... 951.0	P Plug Bump... 1,951.0	Float... No	Recip? No	Rotated? No
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Cement Fluids

Fluid Type SPACER	Estimated Top (ftKB) 0.0	Est Btm (ftKB) 0.0	Class FRESH WATER	Yield (ft³/sack) 9.00	Density (lb/gal) 9.00
Fluid Type LEAD CMT	Estimated Top (ftKB) 5,889.0	Est Btm (ftKB) 8,970.0	Class LITECRETE	Yield (ft³/sack) 2.51	Density (lb/gal) 11.00
Fluid Type TAIL CMT	Estimated Top (ftKB) 8,970.0	Est Btm (ftKB) 9,494.0	Class CLASS C POZ	Yield (ft³/sack) 1.57	Density (lb/gal) 13.20
Fluid Type DSPLMT	Estimated Top (ftKB) 0.0	Est Btm (ftKB) 9,400.0	Class FRESH WATER	Yield (ft³/sack) 8.33	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	7,201	930			11,106	12,177.0
DIESEL	MUD	GAL		56			12,144	7,857.0
WATER	FRESH	BBL	500	500		Water meter reading 109729	0	25,310.0

Mud Additive Amounts

Des	Type	Units	Rec	Consumed	On Loc	Cum Cons
BENTONITE	VISCOSIFIER	SACK		24	96.0	24
CAUSTIC SODA	ALKALINITY CONTROL	SACK		5	138.0	56
PAC R	FLUID LOSS ADDITIVES	SACK		4	91.0	73
XANTHAM GUM	VISCOSIFIER	SACK		35	83.0	45

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	6,324.0
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,324.0

Pump Checks

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

Daily Drilling Report

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Printed: Thursday, December 26, 2019

Daily Drilling Report

H & P #645

Release:

Days Since RI: 138.00

Job:	ODR
Report Date:	12/26/2019
Report #:	10
DFS:	9
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$215,184.24

Printed: Thursday, December 26, 2019

Daily Drilling Report

API/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)				
SSN ID00053070	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM: TOO H and lay down liner running tool, pick up packer to test liner top, TIH and test, TOO H, P/U polisher, mill top and and attempt to set packer again, TOO H, to pick up tie back assembly. Good hand and body placement while tripping. Core Value: #2 Ethics and Honesty Rule to Live By: #2 By-Passing Safety Critical Equipment						
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Description: While drilling intermediate section, the rig was dumping and diluting their brine-based drilling fluid while simultaneously hauling off pit water for disposal. Brine-based drilling fluid from reserve pit was noticed flowing from reserve pit across location. The reserve pit fluid had risen and washed part of the dirt berm out causing the spill. Pumping on the well was stopped and the well shut in immediately. More dirt was dumped on the berm break to hold back flow, while reserve fluid was pumped over to spare frac tanks for relief. The spill traveled across location and off the corner and side of pad and stopped at the neighboring lease road. Vacuum trucks continued to pull loads for disposal to a safe level below the berm. Free-standing fluid in and around the pad was vacuumed as well. An approximated total of 111 bbl. was spilled, while 63 bbl. escaped off the pad. PNR Environmental Dept. contacted. Further remediation to follow.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: TOH and ran 9 5/8" packer, 9 5/8" csg tested good, not a good test below packer on the liner packer, TOO H, RIH with mill/polisher to clean and polish liner top, set 70k and test again, TOO H. Pay attention to unusual traffic to location and the 3rd party tools that we are using for this irregular operation. Good hand and body placement while tripping. Core Value: #2 Ethics and Honesty Rule to Live By: #2 By-Passing Safety Critical Equipment						
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Description: While conducting a team lift of wireline weight bar, tail end of weight bar slipped out of team members grasp, causing opposite end to whip. Second team-member attempted to control whipping weight bar, slightly straining his right bicep muscle. Event was immediately reported, and contractor case management contacted. Team member took an anti-inflammatory and returned to work.						
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	3rd party employee did not wear H2S monitor in the breathing zone. Stopped the job and had a conversation with employee in regards of importance of PPE and reasoning behind wearing monitor in the breathing zone. Employee understood and committed to wear H2S monitor within breathing zone.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type		Subtype		Date	Note					
MILESTONE		ESTIMATED PAD RELEASE		1/25/2020	Drilling 2nd INT #2 on 3 well pad. Drilling Sequentially Updated 12.26.19					
Daily Operations										
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 9,506.0	Target Depth (ftKB) 18,403.0	Daily Field Est Total (Cost) 82,754.22	Cum Field Est To Date (Cost) 1,598,600.73		
24 HR ROP (ft/hr)		Circulating Hours (hr) 0.50		% Sliding Time (%)	End Depth (TVD) (ftKB) 9,477.7	Target Depth (TVD) (ftKB) 9,200.0	Daily Mud Field Est (Cost)	Cum Mud Field Est (Cost) 32,767.67	Total AFE + Sup (Cost) 3,430,137.57	
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 0.0			Daily Goal - Next 24 0.0		Goal Comments Operational Goal not achieved			
Backbuild No		Lateral Inclination	Last Casing String LINER, 9,494.0ftKB			Next Casing String PROPOSED PRODUCTION, 20,634.0ftKB				
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 L/D Liner Running Tool, P/U Test Packer, TIH to Liner Top, Test 9-5/8" Casing, TOO H, P/U and Run Baker Mill/Polish Assembly, TOO H, P/U and Run Baker Tie Back Packer Assembly with no success, TOO H, P/U and M/U 7 5/8" Packer, TIH to Find Casing Leak										
Operations Next Report Period TIH with 7 5/8" Packer, Troubleshoot Potential Casing Leak										
Operations at Report Time TIH with 7 5/8" Packer										
Remarks No Accidents, NPT Hrs- Rig: 24.25 hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 100% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls										
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	INT2, CASE & CMT	HDL_ROT HD	NORMAL	Remove rotating head & install trip nipple.	9,506.0	9,506.0		
06:30	1.75	08:15	INT2, CASE & CMT	TOOH_ELEV	NORMAL	TOOH F/5778' T/Liner running tool'. Hole taking proper fill from trip tanks.	9,506.0	9,506.0		
08:15	0.25	08:30	INT2, CASE & CMT	L/D BHA	NORMAL	Lay down bumper jars and liner running tool.	9,506.0	9,506.0		
08:30	0.25	08:45	PROD, PRE DRL	SFTY	NORMAL	PJSM for running test packer in the hole.	9,506.0	9,506.0	0.25	7
08:45	0.25	09:00	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U 9-5/8" test packer (6.5') to the 5" DP.	9,506.0	9,506.0	0.25	7
Daily Drilling Report										
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Printed: Friday, December 27, 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 #							
09:00	2.75	11:45	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH with 9-5/8" test packer T/5750' @ 180 fpm and set the packer with 25,000 lbs. Full displacement.	9,506.0	9,506.0	2.75	7							
11:45	0.75	12:30	PROD, PRE DRL	CSG_TEST	NORMAL	Test 9-5/8" casing above the packer to 1000 psi for 5 minutes. (Good test) Attempt to test 7-5/8" liner below the packer to 1000 psi. (Unsuccessful). Reached 841 psi and then started leak off and pressure dropped back to 555 psi	9,506.0	9,506.0	0.75	7							
12:30	0.25	12:45	PROD, PRE DRL	SFTY	NORMAL	PJSM for TOO H with packer.	9,506.0	9,506.0	0.25	7							
12:45	1.75	14:30	PROD, PRE DRL	TOOH_ELEV	NORMAL	TOOH with packer F/5750' T/68.5'. Hole taking proper fill from trip tanks.	9,506.0	9,506.0	1.75	7							
14:30	0.25	14:45	PROD, PRE DRL	HDL_BHA	NORMAL	L/D packer tool	9,506.0	9,506.0	0.25	7							
14:45	0.25	15:00	PROD, PRE DRL	WRBSH	NORMAL	Install wear bushing.	9,506.0	9,506.0	0.25	7							
15:00	0.25	15:15	PROD, PRE DRL	SFTY	NORMAL	PJSM for picking up mill assembly.	9,506.0	9,506.0	0.25	7							
15:15	0.25	15:30	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U mill assembly.	9,506.0	9,506.0	0.25	7							
15:30	2	17:30	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH to top of liner and tag at 5830'.	9,506.0	9,506.0	2.00	7							
17:30	0.25	17:45	PROD, PRE DRL	MILL	NORMAL	Polish top of the 7-5/8" Liner with 20 RPM, 200 GPM, 5 WOB.Full displacement.	9,506.0	9,506.0	0.25	7							
17:45	0.25	18:00	PROD, PRE DRL	CSG_TEST	NORMAL	After polishing tried to apply weight and test packer again. Unable to achieve pressure above 700 psi (Unsuccessful test).	9,506.0	9,506.0	0.25	7							
18:00	2.25	20:15	PROD, PRE DRL	TOOH_ELEV	NORMAL	TOOH with mill assembly F/5750'. Hole taking proper fill from trip tanks.	9,506.0	9,506.0	2.25	7							
20:15	0.25	20:30	PROD, PRE DRL	HDL_BHA	NORMAL	L/D mill assembly.	9,506.0	9,506.0	0.25	7							
20:30	0.25	20:45	PROD, PRE DRL	SFTY	NORMAL	PJSM for picking up tie back assembly.	9,506.0	9,506.0	0.25	7							
20:45	0.25	21:00	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U tie back assembly.	9,506.0	9,506.0	0.25	7							
21:00	3.25	00:15	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH to top of liner at 5830'.	9,506.0	9,506.0	3.25	7							
00:15	1.75	02:00	PROD, PRE DRL	CSG_TEST	NORMAL	Sting into liner and attempt to test the 7-5/8" Liner (Unsuccessful). Unable to achieve pressure above 700 psi. Tested the initial liner packer on the back side trough kill line to 1000 psi (Succesfull Test).	9,506.0	9,506.0	1.75	7							
02:00	2.75	04:45	PROD, PRE DRL	TOOH_ELEV	NORMAL	TOOH with tie back assembly F/5830'. Hole taking proper fill from trip tanks.	9,506.0	9,506.0	2.75	7							
04:45	0.25	05:00	PROD, PRE DRL	HDL_BHA	NORMAL	L/D tie back assembly.	9,506.0	9,506.0	0.25	7							
05:00	0.5	05:30	PROD, PRE DRL	RIG_SVC	NORMAL	Rig service and lubrication	9,506.0	9,506.0	0.50	7							
05:30	0.5	06:00	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U 7-5/8" test packer (6.5') to the 5" DP.	9,506.0	9,506.0	0.50	7							
Interval Problems																	
3RD PARTY, 9,506.0ftKB, 12/26/2019 08:30																	
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment										
7	21.50	No	CEMENT	CEMENT PLUGS / SLURRY PERFORMANCE	50,000.00	PIONEER NATURAL RESOURCES USA INC	Unsuccessful liner packer test. Unable to reach 1000 psi. Tested successfully 9-5/8" casing above the liner. Tested successfully liner packer with tie back assembly. Liner casing below packer is leaking, currently waiting for 7-5/8" packer.										
Drill Strings																	
BHA #4 , BRIDGE PLUG																	
Bit Run 4				Drill Bit 9 5/8in, 0, 1				Bit Type RETRIEVABLE BRIDGE PLUG				Make B&R TOOLS					
Nozzles (1/32")				Bit Total Fluid Area (nozzles) (in²)			IADC Bit Dull -----BHA			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) 9,506.0			Depth Out (ftKB) 9,506.0				
Drill String Components																	
Jts	Item Des				OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lbf)		Cum Wt (1000lbf)		Make
185	DRILL PIPE				5		4.27		5,743.50		5,755.00		111,998.3		112		RIG
1	RTTS				8.835		7.00		6.50		11.50		260.0		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 (°)
10:30	10:45	9,506.0	0.00		0	0		21	150.0	0.0	112	165	157	0	0.0	0.0	
Daily Drilling Report																	
Page 2/4																	
Printed: Friday, December 27, 2019																	

UNIVERSITY 6J 10H

H & P #645

Accept: 12/19/2019Release:Days Since LTI: 139.00Days Since RI: 139.00

PERMIAN ASSET TEAM

Job:ODR

Report Date:12/27/2019

Report #:11

DFS:10

AFE #:9006929

Total AFE + Sup:\$3,430,137.57

Daily Field Est. (Cost):\$82,754.22

Drill Strings																		
BHA #5 , CLEAN OUT/REAMING																		
Bit Run 5			Drill Bit 6 3/4in, 0, 1						Bit Type POLISHING MILL				Make GE/BAKER HUGHES					
Nozzles (1/32")			Bit Total Fluid Area (nozzles) (in²)			IADC Bit Dull -----BHA			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)				Depth Out (ftKB)					
									9,506.0									
Drill String Components																		
Jts	Item Des		OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lbf)		Cum Wt (1000lbf)		Make			
184	DRILL PIPE		5		4.27		5,806.74		5,837.00		113,231.4		114		RIG			
1	MILL		8.835		4.27		23.26		30.26		930.4		1					
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 (°)	
17:30	17:45	9,506.0	0.00		5	20		200	150.0	0.0	112	165	157	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)
8.70	8.82										5.6		5.6		167.83			378.78
Mud Checks																		
Time 03:30		Mud Company PIONEER DRILLING FLUIDS				Type WATER BASE		Depth (ftKB) 9,506.0		Density (lb/gal) 8.50		Funnel Viscosity (s/qt) 28		T Flowline (°F)				
PV (cP) 1.0		YP (lb/100ft²) 1.000		Vis 3rpm 1		Vis 6rpm 1		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 0.0		HTHP Temperature (°F) 0.0		HTHP Pressure (psi) 0.0				
Solids (%) 2.0				Low Gravity Solids (%) 1.4			Sand (%) 0.3			MBT (lb/bbl) 1.5		Pm (mL/mL) 0.300		Pf (mL/mL)				
Chlorides (ppm) 6,300,000.000			Calcium (ppm) 0.000			CaCl (ppm) 0		Oil Water Ratio 0/100		Electric Stab (V) 0.0			Lime (lb/bbl) 0.1			pH 9.6		
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 Maintaining 8.4-8.8ppg in active. Currently there are no fluid treatments DRILLING FLUIDS ACTIVITY LAST 24 HRS Monitoring displacement while tripping in & out of the hole; proper displacement. There was no centrifuge processing today; the centrifuge was flushed out in preparation for OBM. RIG ACTIVITY LAST 24 HOURS Upon landing the 7-5/8" liner, the cementing equipment was rigged up and the liner cement job was performed. Full returns were experienced throughout the entire process. Upon bumping the plug, the 5" drillpipe was stung out of the liner hanger and a bottom's up was circulated; received 50bbls of spacer at surface. The liner top was then tested; test negative. Pulled out of the hole and picked up an inflatable packer to test the 9-5/8" casing; test positive. A polishing mill was then made up and ran in the hole to polish of the top of the hanger. An additional test was performed; negative. Began pulling out of the hole to pick up a sleeve/tie-back packer. The tie-back was then ran & set before testing the liner once again to no avail. Plan forward is to pick up another packer and test below the liner hanger.																		
Last BOP Test																		
Date		Test Type			Item Tested				Next Test Date		Com							
12/19/2019		BOP			BOP'S, 12/19/2019 06:00, <class>				1/9/2020		5000 hi/250 low, 3500 hi/250 low on Annular							
Leak Off and Formation Integrity Tests																		
Test Type				Depth (ftKB)						Dens Fluid (lb/gal)								
FORMATION INTEGRITY				2,018.0						12.50								
Casing Pressure Test																		
Test Type		Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)			
CASING		STANDARD				10/28/2019		SURFACE, 2,020.4ftKB				No	30.00		1,500.0			
CASING		STANDARD				12/24/2019		INTERMEDIATE, 6,079.0ftKB				No	30.00		2,500.0			
Kick Offs & Key Depths																		
Date					Type							Top Depth (ftKB)						
Casing Strings																		
Description	Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR	106.5		106.5		20		H40		78.67									
SURFACE	2,020.4		2,019.3		13 3/8		J55		54.50		BTC		1,309.3					
INTERMEDIATE	6,079.0		6,053.6		9 5/8		L80-IC		40.00		BTC							
LINER	9,494.0		9,465.7		7 5/8		P110-IC		29.70		TSH513							
Job Supply Amounts																		
Supply Item Des		Type	Unit Label		Received	Consumed	Returned	Note					Cum On Loc		Cum Consumed			
DIESEL		FUEL	GAL			905							10,201		13,082.0			
DIESEL		MUD	GAL			0							12,144		7,857.0			
WATER		FRESH	BBL		0	0		Water meter reading 109729					0		25,310.0			
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	GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0					
2	GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0					
3	GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0					
Pump Checks																		
Pump #	Depth (ftKB)		Time	P (psi)		Strokes (spm)		Q Flow (gpm)				Eff (%)						

Daily Drilling Report

H & P #645

Release:

Days Since RI: 139.00

Job:	ODR
Report Date:	12/27/2019
Report #:	11
DFS:	10
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$82,754.22

Printed: Friday, December 27, 2019

Daily Drilling Report

UNIVERSITY 6J 10H	
H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 139.00	Days Since RI: 139.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/27/2019
Report #:	11
DFS:	10
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$82,754.22

API/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)								
SSN ID00053070		Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date						
Safety Checks														
Time	Type	Des	Tour	Com										
06:00	MEETING	PRE-TOUR	DAY	PTSM: TOO H and lay down liner running tool, pick up packer to test liner top, TIH and test, TOO H, P/U polisher, mill top and and attempt to set packer again, TOO H, to pick up tie back assembly. Good hand and body placement while tripping. Core Value: #2 Ethics and Honesty Rule to Live By: #2 By-Passing Safety Critical Equipment										
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Description: While drilling intermediate section, the rig was dumping and diluting their brine-based drilling fluid while simultaneously hauling off pit water for disposal. Brine-based drilling fluid from reserve pit was noticed flowing from reserve pit across location. The reserve pit fluid had risen and washed part of the dirt berm out causing the spill. Pumping on the well was stopped and the well shut in immediately. More dirt was dumped on the berm break to hold back flow, while reserve fluid was pumped over to spare frac tanks for relief. The spill traveled across location and off the corner and side of pad and stopped at the neighboring lease road. Vacuum trucks continued to pull loads for disposal to a safe level below the berm. Free-standing fluid in and around the pad was vacuumed as well. An approximated total of 111 bbl. was spilled, while 63 bbl. escaped off the pad. PNR Environmental Dept. contacted. Further remediation to follow.										
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: TOH and ran 9 5/8" packer, 9 5/8" csg tested good, not a good test below packer on the liner packer, TOO H, RIH with mill/polisher to clean and polish liner top, set 70k and test again, TOO H. Pay attention to unusual traffic to location and the 3rd party tools that we are using for this irregular operation. Good hand and body placement while tripping. Core Value: #2 Ethics and Honesty Rule to Live By: #2 By-Passing Safety Critical Equipment										
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Description: While conducting a team lift of wireline weight bar, tail end of weight bar slipped out of team members grasp, causing opposite end to whip. Second team-member attempted to control whipping weight bar, slightly straining his right bicep muscle. Event was immediately reported, and contractor case management contacted. Team member took an anti-inflammatory and returned to work.										
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	3rd party employee did not wear H2S monitor in the breathing zone. Stopped the job and had a conversation with employee in regards of importance of PPE and reasoning behind wearing monitor in the breathing zone. Employee understood and committed to wear H2S monitor within breathing zone.										
Jobs														
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date	Job Status						
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00			IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)														
Type			Subtype		Date		Note							
MILESTONE			ESTIMATED PAD RELEASE		1/25/2020		Drilling 2nd INT #2 on 3 well pad. Drilling Sequentially Updated 12.26.19							
Daily Operations														
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 9,506.0	Target Depth (ftKB) 18,403.0	Daily Field Est Total (Cost) 82,754.22	Cum Field Est To Date (Cost) 1,598,600.73					
24 HR ROP (ft/hr)		Circulating Hours (hr) 0.50		% Sliding Time (%)		End Depth (TVD) (ftKB) 9,477.7	Target Depth (TVD) (ftKB) 9,200.0	Daily Mud Field Est (Cost) 32,767.67	Cum Mud Field Est (Cost) 3,430,137.57					
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0		Daily Goal - Next 24 0.0		Goal Comments Operational Goal not achieved						
Backbuild No		Lateral Inclination		Last Casing String LINER, 9,494.0ftKB			Next Casing String PROPOSED PRODUCTION, 20,634.0ftKB							
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 L/D Liner Running Tool, P/U Test Packer, TIH to Liner Top, Test 9-5/8" Casing, TOO H, P/U and Run Baker Mill/Polish Assembly, TOO H, P/U and Run Baker Tie Back Packer Assembly with no success, TOO H, P/U and M/U 7 5/8" Packer, TIH to Find Casing Leak														
Operations Next Report Period TIH with 7 5/8" Packer, Troubleshoot Potential Casing Leak														
Operations at Report Time TIH with 7 5/8" Packer														
Remarks No Accidents, NPT Hrs- Rig: 24.25 hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 100% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls														
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	INT2, CASE & CMT	HDL_ROT HD	NORMAL	Remove rotating head & install trip nipple.		9,506.0	9,506.0					
06:30	1.75	08:15	INT2, CASE & CMT	TOOH_ELEV	NORMAL	TOOH F/5778' T/Liner running tool'. Hole taking proper fill from trip tanks.		9,506.0	9,506.0					
08:15	0.25	08:30	INT2, CASE & CMT	L/D BHA	NORMAL	Lay down bumper jars and liner running tool.		9,506.0	9,506.0					
08:30	0.25	08:45	PROD, PRE DRL	SFTY	NORMAL	PJSM for running test packer in the hole.		9,506.0	9,506.0	0.25	7			
08:45	0.25	09:00	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U 9-5/8" test packer (6.5') to the 5" DP.		9,506.0	9,506.0	0.25	7			
Daily Drilling Report									Page 1/4			Printed: Friday, December 27, 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 #							
09:00	2.75	11:45	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH with 9-5/8" test packer T/5750' @ 180 fpm and set the packer with 25,000 lbs. Full displacement.	9,506.0	9,506.0	2.75	7							
11:45	0.75	12:30	PROD, PRE DRL	CSG_TEST	NORMAL	Test 9-5/8" casing above the packer to 1000 psi for 5 minutes. (Good test) Attempt to test 7-5/8" liner below the packer to 1000 psi. (Unsuccessful). Reached 841 psi and then started leak off and pressure dropped back to 555 psi	9,506.0	9,506.0	0.75	7							
12:30	0.25	12:45	PROD, PRE DRL	SFTY	NORMAL	PJSM for TOO H with packer.	9,506.0	9,506.0	0.25	7							
12:45	1.75	14:30	PROD, PRE DRL	TOOH_ELEV	NORMAL	TOOH with packer F/5750' T/68.5'. Hole taking proper fill from trip tanks.	9,506.0	9,506.0	1.75	7							
14:30	0.25	14:45	PROD, PRE DRL	HDL_BHA	NORMAL	L/D packer tool	9,506.0	9,506.0	0.25	7							
14:45	0.25	15:00	PROD, PRE DRL	WRBSH	NORMAL	Install wear bushing.	9,506.0	9,506.0	0.25	7							
15:00	0.25	15:15	PROD, PRE DRL	SFTY	NORMAL	PJSM for picking up mill assembly.	9,506.0	9,506.0	0.25	7							
15:15	0.25	15:30	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U mill assembly.	9,506.0	9,506.0	0.25	7							
15:30	2	17:30	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH to top of liner and tag at 5830'.	9,506.0	9,506.0	2.00	7							
17:30	0.25	17:45	PROD, PRE DRL	MILL	NORMAL	Polish top of the 7-5/8" Liner with 20 RPM, 200 GPM, 5 WOB.Full displacement.	9,506.0	9,506.0	0.25	7							
17:45	0.25	18:00	PROD, PRE DRL	CSG_TEST	NORMAL	After polishing tried to apply weight and test packer again. Unable to achieve pressure above 700 psi (Unsuccessful test).	9,506.0	9,506.0	0.25	7							
18:00	2.25	20:15	PROD, PRE DRL	TOOH_ELEV	NORMAL	TOOH with mill assembly F/5750'. Hole taking proper fill from trip tanks.	9,506.0	9,506.0	2.25	7							
20:15	0.25	20:30	PROD, PRE DRL	HDL_BHA	NORMAL	L/D mill assembly.	9,506.0	9,506.0	0.25	7							
20:30	0.25	20:45	PROD, PRE DRL	SFTY	NORMAL	PJSM for picking up tie back assembly.	9,506.0	9,506.0	0.25	7							
20:45	0.25	21:00	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U tie back assembly.	9,506.0	9,506.0	0.25	7							
21:00	3.25	00:15	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH to top of liner at 5830'.	9,506.0	9,506.0	3.25	7							
00:15	1.75	02:00	PROD, PRE DRL	CSG_TEST	NORMAL	Sting into liner and attempt to test the 7-5/8" Liner (Unsuccessful). Unable to achieve pressure above 700 psi. Tested the initial liner packer on the back side trough kill line to 1000 psi (Succesfull Test).	9,506.0	9,506.0	1.75	7							
02:00	2.75	04:45	PROD, PRE DRL	TOOH_ELEV	NORMAL	TOOH with tie back assembly F/5830'. Hole taking proper fill from trip tanks.	9,506.0	9,506.0	2.75	7							
04:45	0.25	05:00	PROD, PRE DRL	HDL_BHA	NORMAL	L/D tie back assembly.	9,506.0	9,506.0	0.25	7							
05:00	0.5	05:30	PROD, PRE DRL	RIG_SVC	NORMAL	Rig service and lubrication	9,506.0	9,506.0	0.50	7							
05:30	0.5	06:00	PROD, PRE DRL	HDL_BHA	NORMAL	P/U and M/U 7-5/8" test packer (6.5') to the 5" DP.	9,506.0	9,506.0	0.50	7							
Interval Problems																	
3RD PARTY, 9,506.0ftKB, 12/26/2019 08:30																	
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment										
7	21.50	No	CEMENT	CEMENT PLUGS / SLURRY PERFORMANCE	50,000.00	PIONEER NATURAL RESOURCES USA INC	Unsuccessful liner packer test. Unable to reach 1000 psi. Tested successfully 9-5/8" casing above the liner. Tested successfully liner packer with tie back assembly. Liner casing below packer is leaking, currently waiting for 7-5/8" packer.										
Drill Strings																	
BHA #4 , BRIDGE PLUG																	
Bit Run 4				Drill Bit 9 5/8in, 0, 1				Bit Type RETRIEVABLE BRIDGE PLUG				Make B&R TOOLS					
Nozzles (1/32")				Bit Total Fluid Area (nozzles) (in²)			IADC Bit Dull -----BHA			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) 9,506.0			Depth Out (ftKB) 9,506.0				
Drill String Components																	
Jts	Item Des				OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lbf)		Cum Wt (1000lbf)		Make
185	DRILL PIPE				5		4.27		5,743.50		5,755.00		111,998.3		112		RIG
1	RTTS				8.835		7.00		6.50		11.50		260.0		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 (°)
10:30	10:45	9,506.0	0.00		0	0		21	150.0	0.0	112	165	157	0	0.0	0.0	
Daily Drilling Report																	

UNIVERSITY 6J 10H

H & P #645

Accept: 12/19/2019Release:Days Since LTI: 139.00Days Since RI: 139.00

PERMIAN ASSET TEAM

Job:ODR

Report Date:12/27/2019

Report #:11

DFS:10

AFE #:9006929

Total AFE + Sup:\$3,430,137.57

Daily Field Est. (Cost):\$82,754.22

Drill Strings																			
BHA #5 , CLEAN OUT/REAMING																			
Bit Run 5			Drill Bit 6 3/4in, 0, 1					Bit Type POLISHING MILL				Make GE/BAKER HUGHES							
Nozzles (1/32")			Bit Total Fluid Area (nozzles) (in²)			IADC Bit Dull -----BHA			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) 9,506.0				Depth Out (ftKB) 9,506.0						
Drill String Components																			
Jts	Item Des			OD (in)		ID (in)		Len (ft)		Cum Len (ft)		Wt (lbf)		Cum Wt (1000lbf)		Make			
184	DRILL PIPE			5		4.27		5,806.74		5,837.00		113,231.4		114		RIG			
1	MILL			8.835		4.27		23.26		30.26		930.4		1					
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 (°)		
17:30	17:45	9,506.0	0.00		5	20		200	150.0	0.0	112	165	157	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)
8.70		8.82										5.6		5.6		167.83			378.78
Mud Checks																			
Time 03:30		Mud Company PIONEER DRILLING FLUIDS					Type WATER BASE			Depth (ftKB) 9,506.0		Density (lb/gal) 8.50		Funnel Viscosity (s/qt) 28		T Flowline (°F)			
PV (cP) 1.0		YP (lbf/100ft²) 1.000		Vis 3rpm 1		Vis 6rpm 1		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 0.0		HTHP Temperature (°F) 0.0			HTHP Pressure (psi) 0.0				
Solids (%) 2.0				Low Gravity Solids (%) 1.4			Sand (%) 0.3			MBT (lb/bbl) 1.5			Pm (mL/mL) 0.300			Pf (mL/mL)			
Chlorides (ppm) 6,300,000.000				Calcium (ppm) 0.000			CaCl (ppm) 0		Oil Water Ratio 0/100			Electric Stab (V) 0.0			Lime (lb/bbl) 0.1		pH 9.6		
Gel 10 sec (lbf/100ft²) 1.000						Gel 10 min (lbf/100ft²) 1.000						Gel 30 min (lbf/100ft²) 1.000							
Comment RECOMMENDED FLUIDS TREATMENT Maintaining 8.4-8.8ppg in active. Currently there are no fluid treatments DRILLING FLUIDS ACTIVITY LAST 24 HRS Monitoring displacement while tripping in & out of the hole; proper displacement. There was no centrifuge processing today; the centrifuge was flushed out in preparation for OBM. RIG ACTIVITY LAST 24 HOURS Upon landing the 7-5/8" liner, the cementing equipment was rigged up and the liner cement job was performed. Full returns were experienced throughout the entire process. Upon bumping the plug, the 5" drillpipe was stung out of the liner hanger and a bottom's up was circulated; received 50bbls of spacer at surface. The liner top was then tested; test negative. Pulled out of the hole and picked up an inflatable packer to test the 9-5/8" casing; test positive. A polishing mill was then made up and ran in the hole to polish of the top of the hanger. An additional test was performed; negative. Began pulling out of the hole to pick up a sleeve/tie-back packer. The tie-back was then ran & set before testing the liner once again to no avail. Plan forward is to pick up another packer and test below the liner hanger.																			
Last BOP Test																			
Date		Test Type			Item Tested				Next Test Date		Com								
12/19/2019		BOP			BOP'S, 12/19/2019 06:00, <class>				1/9/2020		5000 hi/250 low, 3500 hi/250 low on Annular								
Leak Off and Formation Integrity Tests																			
Test Type				Depth (ftKB)						Dens Fluid (lb/gal)									
FORMATION INTEGRITY				2,018.0						12.50									
Casing Pressure Test																			
Test Type		Test Subtype				Date		Item Tested				Failed?		Time (min)		P (psi)			
CASING		STANDARD				10/28/2019		SURFACE, 2,020.4ftKB				No		30.00		1,500.0			
CASING		STANDARD				12/24/2019		INTERMEDIATE, 6,079.0ftKB				No		30.00		2,500.0			
Kick Offs & Key Depths																			
Date						Type						Top Depth (ftKB)							
Casing Strings																			
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR		106.5		106.5		20		H40		78.67									
SURFACE		2,020.4		2,019.3		13 3/8		J55		54.50		BTC		1,309.3					
INTERMEDIATE		6,079.0		6,053.6		9 5/8		L80-IC		40.00		BTC							
LINER		9,494.0		9,465.7		7 5/8		P110-IC		29.70		TSH513							
Job Supply Amounts																			
Supply Item Des		Type		Unit Label		Received		Consumed		Returned		Note			Cum On Loc		Cum Consumed		
DIESEL		FUEL		GAL				905							10,201		13,082.0		
DIESEL		MUD		GAL				0							12,144		7,857.0		
WATER		FRESH		BBL		0		0				Water meter reading 109729			0		25,310.0		
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	GARDNER-DENVER					PZ-11-1600		5 1/2		11.00		0.081			6,324.0				
2	GARDNER-DENVER					PZ-11-1600		5 1/2		11.00		0.081			6,324.0				
3	GARDNER-DENVER					PZ-11-1600		5 1/2		11.00		0.081			6,324.0				
Pump Checks																			
Pump #	Depth (ftKB)		Time		P (psi)		Strokes (spm)			Q Flow (gpm)			Eff (%)						
Daily Drilling Report																			

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Printed: Friday, December 27, 2019

Daily Drilling Report

H & P #645

Release:

Days Since RI: 139.00

Job:	ODR
Report Date:	12/27/2019
Report #:	11
DFS:	10
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$82,754.22

Printed: Friday, December 27, 2019

Daily Drilling Report

API/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)				
SSN ID00053070	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM: Previous Tour: TOO H with mill assembly, P/U and TIH with Tie back assembly, Stang in to the liner and attempted to pressure test the liner without success, tested the packer from the back side and held 1000 psi, TOO H. Current Tour: P/U 7-5/8 packer, TIH and test the liner searching for casing leaks. 3: R2LB #3: Confined Space Entry Core Values #3: Safety						
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Description: While conducting a team lift of wireline weight bar, tail end of weight bar slipped out of team members grasp, causing opposite end to whip. Second team-member attempted to control whipping weight bar, slightly straining his right bicep muscle. Event was immediately reported, and contractor case management contacted. Team member took an anti-inflammatory and returned to work.						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Previous Tour: P/U 7-5/8 packer, teted hanger/packer 1500psi (good)TIH tagged LC and test the liner 1500 (good), test below packer to 1500psi good, TOH, M/U 2 junk backest, BS, & mill tooth bit, TIH. Current tour: TIH with drill out assembly, Drill out float equipment 10' new formation, Attempt FIT & go from there, if FIT is not good we will TOH P/U 2 7/8" mule shoe and 1000' tubing, TIH, get injection rate, spot cement, TOH 200' above plug, drop nerf CBU, squeeze @ .5bpm for 10bbls 3: R2LB #3: Confined Space Entry Core Values #3: Safety						
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Description: Contractor was washing out the stand pipe on top of module control center house, when approximately 3 bbl. of oil based mud was released to the ground and around the mud pumps. Remediation was immediately performed and 2.5 bbl. was recovered.						
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	RTM had improper handling of the pipe and there was a potential of finger injury. Stopped the job and had the discussion with RTM in regards of importance of proper handling due to injury potential. RTM agreed and committed to use proper handling.						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status			
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00		IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		1/25/2020	Drilling 2nd INT #2 on 3 well pad. Drilling Sequentially Updated 12.26.19				
Daily Operations										
Footage/Meterage (ft) 10.00		Drilling Hours (hr) 0.75		% Rotating Time (%) 100.00	End Depth (ftKB) 9,516.0	Target Depth (ftKB) 18,403.0	Daily Field Est Total (Cost) 104,255.52	Cum Field Est To Date (Cost) 1,703,256.25		
24 HR ROP (ft/hr) 13.3		Circulating Hours (hr)		% Sliding Time (%) 0.00	End Depth (TVD) (ftKB) 9,487.7	Target Depth (TVD) (ftKB) 9,200.0	Daily Mud Field Est (Cost) 32,767.67	Cum Mud Field Est (Cost) 3,430,137.57		
Daily Goal Description DRILLED FEET		Daily Goal - Last 24 0.0			Daily Goal - Next 24 0.0			Goal Comments Operational Goal not achieved		
Backbuild No		Lateral Inclination		Last Casing String LINER, 9,494.0ftKB		Next Casing String PROPOSED PRODUCTION, 20,634.0ftKB				
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 2.00		Max Connection Gas 0.00		Max Trip Gas 0.00	Max Drill Gas 2.00	
Operations Summary TIH with 7 5/8" Packer, Test 7-5/8" Casing Above and Below the Packer, TOO H, P/U Drill Out BHA, TIH, Drill out FE, Attempt to Perform FIT, TOO H, L/D Drill out BHA, P/U 2-7/8" Tubing Stinger with Mule Shoe, TIH										
Operations Next Report Period Finish TIH, Perform Injection Rate Test, TIH below Casing Shoe, R/U Cementers, Perform 7-5/8" Liner Shoe Squeeze Job										
Operations at Report Time TIH w 2-7/8" tubing @ 450'										
Remarks No Accidents, NPT Hrs- Rig: 24.25 hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 100% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls										
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	SFTY	NORMAL	PJSM on TIH with packer with rig crew.	9,506.0	9,506.0	0.25	7
06:15	2.75	09:00	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH with 7 5/8" packer T/5970 with no issues. Hole displacing properly to trip tanks.	9,506.0	9,506.0	2.75	7
09:00	0.5	09:30	PROD, PRE DRL	CSG_TEST	NORMAL	Set packer at 5970' and test integrity of 9 5/8 casing and original liner top packer above to 1500 psi. Good test. Note: TOL @ 5830'	9,506.0	9,506.0	0.50	7
09:30	2.25	11:45	PROD, PRE DRL	TIH_ELEV	NORMAL	Continue TIH with 7 5/8" packer F/5970' T/9390' with no issues. Hole displacing properly to trip tanks. Note: Latch Collar @ 9399'	9,506.0	9,506.0	2.25	7
11:45	0.75	12:30	PROD, PRE DRL	CSG_TEST	NORMAL	Set packer at 9390' and test casing above to 1500 psi for 30 min. Good Test.	9,506.0	9,506.0	0.75	7
12:30	0.5	13:00	PROD, PRE DRL	CSG_TEST	NORMAL	Test below packer to 1700 psi. Good test.	9,506.0	9,506.0	0.50	7
13:00	0.25	13:15	PROD, PRE DRL	SFTY	NORMAL	PJSM on TOO H with packer.	9,506.0	9,506.0	0.25	7
Daily Drilling Report										
Page 1/4										
Printed: Saturday, December 28, 2019										

Daily Drilling Report

H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 140.00	Days Since RI: 140.00

Job:	ODR
Report Date:	12/28/2019
Report #:	12
DFS:	11
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$104,255.52

Daily Drilling Report Page 3/4 Printed: Saturday, December 28, 2019

Daily Drilling Report

H & P #645

Release:

Days Since RI: 140.00

Daily Field Est. (Cost): **\$104,255.52**

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
POLYA, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
RATLEY, SHANNON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-813-2804	SHANNON.RATLEY@PXD.COM
CARROLL, GRAYSON, FIELD ENGINEER	FIELD ENGINEER		432-215-8655	GRAYSON.CARROLL@PXD.COM
RAYMOND, JOEY, MUD ENGINEER	MUD ENGINEER		337-278-3347	JOEY.RAYMOND@PXD.COM
STACHOVSKYJ, LEO, FIELD ENGINEER	FIELD ENGINEER		432-232-4311	LEONARD.STACHOVSKYJ@PXD.COM
RIG-H&P 645, RIG PHONE	RIG PHONE	432-355-3106	432-257-8384	

Company	Count
PIONEER NATURAL RESOURCES USA INC	3
HELMERICH & PAYNE INTERNATIONAL DRILLING CO	13
GYRODATA INC	4
DWM CONSULTING	1
GISLER BROTHERS LOGGING CO INC	1

Daily Drilling Report

API/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)									
SSN ID00053070	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM: Rig up and run tubing, TIH with tubing stinger on drill pipe, circulate, pump squeeze cement, tooh above plug, circulate, squeeze cement. Out of normal operations, communicate on next steps and stay flexible on potential plan changes. Changing weather and potential rain and a lot of third party on location. R2LB #4: Energy Isolation Core Values #4: Personal Accountability											
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Description: While Contractor was preparing to clean casing, he squeezed the trigger to the pressure washer wand, Contractor stepped back and lost his balance and twisted his right knee slightly. Contractor refusing medical attention and continued to work.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Squeeze cement, hold squeeze pressure for 4 hrs, bleed off pressure, circulate hole clean, TOOH and lay down tubing. Out of normal operations, communicate on next steps and stay flexible on potential plan changes. Changing weather and potential rain and a lot of third party on location. R2LB #4: Energy Isolation Core Values #4: Personal Accountability											
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Description: While Contractor was preparing to clean casing, he squeezed the trigger to the pressure washer wand, Contractor stepped back and lost his balance and twisted his right knee slightly. Contractor refusing medical attention and continued to work.											
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	While rigging down cementers , RTM stood in a way while cementer was about to hammer on the hammer union. Stopped the job and discussed with RTM importance of safe buffer zones especially during hammer operation. RTM understood and committed to pay attention to the surroundings and proper positioning/											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type			Subtype		Date		Note								
MILESTONE			ESTIMATED PAD RELEASE		1/27/2020		Drilling 2nd Production on 3 well pad. Drilling Sequentially Updated 12.29.19								
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)		End Depth (ftKB) 9,516.0		Target Depth (ftKB) 18,403.0		Daily Field Est Total (Cost) 83,214.57		Cum Field Est To Date (Cost) 1,786,470.82			
24 HR ROP (ft/hr)		Circulating Hours (hr) 1.00		% Sliding Time (%)		End Depth (TVD) (ftKB) 9,487.7		Target Depth (TVD) (ftKB) 9,200.0		Daily Mud Field Est (Cost)		Cum Mud Field Est (Cost) 32,767.67		Total AFE + Sup (Cost) 3,430,137.57	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 400.0				Goal Comments Operational Goal Achieved			
Backbuild No		Lateral Inclination		Last Casing String LINER, 9,494.0ftKB				Next Casing String PROPOSED PRODUCTION, 20,634.0ftKB							
Avg Connection Gas 0.00		Avg Trip Gas 7.00		Avg Background Gas 3.00		Max Connection Gas 0.00		Max Trip Gas 7.00		Max Drill Gas 3.00					
Operations Summary Finish TIH, Perform Injection Rate Test, TIH below Casing Shoe, R/U Cementers, Perform 7-5/8" Liner Shoe Squeeze Job, Hold Squeeze Pressure for 4 hrs, TOOH, Rig up Byrd, L/D 2 7/8" tubing															
Operations Next Report Period P/U and M/U Curve/Lateral BHA, TIH, Slip and Cut, TIH, Drill out Squeeze Cement, Perform FIT, Drill to KOP, Drill Curve															
Operations at Report Time Rig Service															
Remarks No Accidents, NPT Hrs- Rig: 24.25 hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 100% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls															
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	SFTY	NORMAL	Compass card meeting with Byrd & rig crew over m/u of 2 7/8" tubing		9,516.0	9,516.0	0.25	7				
06:15	0.25	06:30	PROD, PRE DRL	HDL_BHA	REMEDIAL CEMENTING	Make up & P/U 2 7/8" tubing and mule shoe with byrd.		9,516.0	9,516.0	0.25	7				
06:30	1.75	08:15	PROD, PRE DRL	TIH_ELEV	REMEDIAL CEMENTING	Trip in hole from BHA' to 1029'.Hole displacing properly to trip tanks.		9,516.0	9,516.0	1.75	7				
08:15	0.25	08:30	PROD, PRE DRL	HDL_BHA	REMEDIAL CEMENTING	Rig down Byrd tong and handling tools		9,516.0	9,516.0	0.25	7				
08:30	0.25	08:45	PROD, PRE DRL	SFTY	NORMAL	Compass card meeting withrig crew over TIH.		9,516.0	9,516.0	0.25	7				
08:45	4.75	13:30	PROD, PRE DRL	TIH_ELEV	REMEDIAL CEMENTING	Trip in hole from 1029' to 9516'.Hole displacing properly to trip tanks.		9,516.0	9,516.0	4.75	7				
13:30	0.75	14:15	PROD, PRE DRL	CIRC	REMEDIAL CEMENTING	Circulate btms up @ 300 gpm with full returns.		9,516.0	9,516.0	0.75	7				
Daily Drilling Report												Page 1/5		Printed: Sunday, December 29, 2019	

Daily Drilling Report

H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 141.00	Days Since RI: 141.00

Job:	ODR
Report Date:	12/29/2019
Report #:	13
DFS:	12
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$83,214.57

Daily Drilling Report	Page 2/5	Printed: Sunday, December 29, 2019

Daily Drilling Report

UNIVERSITY 6J 10H

H & P #645

Accept: 12/19/2019 Release:
Days Since LTI: 141.00 Days Since RI: 141.00

PERMIAN ASSET TEAM

Job: ODR
Report Date: 12/29/2019
Report #: 13
DFS: 12
AFE #: 9006929
Total AFE + Sup: \$3,430,137.57
Daily Field Est. (Cost): \$83,214.57

Time Log

Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #
03:30	0.25	03:45	PROD, PRE DRL	SFTY	REMEDIAL CEMENTING	PJSM with Byrd and rig crew on r/u tubing equipment rig up to laydown 2 7/8" tubing.	9,516.0	9,516.0	0.25	7
03:45	0.25	04:00	PROD, PRE DRL	RU_CSG	REMEDIAL CEMENTING	Rig up Byrd tubing equipment.	9,516.0	9,516.0	0.25	7
04:00	1.25	05:15	PROD, PRE DRL	TOOH_ELEV	REMEDIAL CEMENTING	trip out of hole from 1029' to Mule Shoe'.	7,965.0	7,965.0	1.25	7
05:15	0.25	05:30	PROD, PRE DRL	HDL_BHA	REMEDIAL CEMENTING	L/D Mule Shoe with Byrd.	9,516.0	9,516.0	0.25	7
05:30	0.5	06:00	PROD, PRE DRL	RIG_SVC	NORMAL	Rig service and lubrication	9,516.0	9,516.0	0.50	7

Interval Problems

3RD PARTY, 9,506.0ftKB, 12/26/2019 08:30

Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment
7	69.50	No	CEMENT	CEMENT PLUGS / SLURRY PERFORMANCE	200,000.00	PIONEER NATURAL RESOURCES USA INC	Unsuccessful liner packer test. Unable to reach 1000 psi. Tested successfully 9-5/8" casing above the liner. Tested successfully liner packer with tie back assembly. Liner casing below packer is leaking, currently waiting for 7-5/8" packer.

Drill Strings

BHA #8 , BRIDGE PLUG

Bit Run	Drill Bit	Bit Type	Make	
8	7 5/8in, 0, 1	RETRIEVABLE BRIDGE PLUG	B&R TOOLS	
Nozzles (1/32")	Bit Total Fluid Area (nozzles) (in²)	IADC Bit Dull -----BHA	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)	Depth Out (ftKB)
			9,516.0	9,516.0

Drill String Components

Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
307	DRILL PIPE	4 1/2	3.83	9,502.51	10,530.01	157,741.7	166	
1	SUB - XO	3	2.75	5.00	1,027.50	83.0	8	
1	SUB - XO	4 3/4	3.00	4.00	1,022.50	31.6	8	
32	TUBING	2 7/8	2.32	1,014.00	1,018.50	8,010.6	8	

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 (°)
13:30	14:30	9,516.0	0.00		0	0		300	831.0	0.0	0	192	190	187	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)
8.60	8.64					8.4	197.1	126.35	1.00	434.51

Mud Checks

Time	Mud Company	Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)	T Flowline (°F)	
03:30	PIONEER DRILLING FLUIDS	WATER BASE	9,516.0	8.60	28		
PV (cP)	YP (lbf/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)	HTHP Temperature (°F)	HTHP Pressure (psi)
1.0	1.000	1	1	0.0	0.0	0.0	0.0
Solids (%)	Low Gravity Solids (%)	Sand (%)	MBT (lb/bbl)	Pm (mL/mL)	Pf (mL/mL)		
2.0	1.6	0.3	2.0	0.500			
Chlorides (ppm)	Calcium (ppm)	CaCl (ppm)	Oil Water Ratio	Electric Stab (V)	Lime (lb/bbl)	pH	
4,900,000.000	0.000	0	0/100	0.0	0.1	9.6	
Gel 10 sec (lbf/100ft²)	Gel 10 min (lbf/100ft²)	Gel 30 min (lbf/100ft²)					
1.000	1.000	1.000					

Comment

RECOMMENDED FLUIDS TREATMENT
Maintaining 8.4-8.8ppg in active. Currently there are no fluid treatments
DRILLING FLUIDS ACTIVITY LAST 24 HRS
Monitoring displacement while tripping in & out of the hole; proper displacement. There was no centrifuge processing today; the centrifuge has been flushed out in preparation for OBM.
RIG ACTIVITY LAST 24 HOURS
Made up and tripped in the hole with 2-7/8" tubing assembly. On bottom, circulation was established, pumping a bottom's up. Injections rates established before pumping and spotting cement in place. Pulled out of the hole 200' above the plug, dropping the ball and circulating 1.5x bottom's up. Began hesitation squeeze procedure. Once complete with the squeeze, a bottom's up was circulated before pulling out to pick up the curve assembly.

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com
12/19/2019	BOP	BOP'S, 12/19/2019 06:00, <class>	1/9/2020	5000 hi/250 low, 3500 hi/250 low on Annular

Leak Off and Formation Integrity Tests

Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	2,018.0	12.50
FORMATION INTEGRITY	9,516.0	9.87

Daily Drilling Report

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Printed: Sunday, December 29, 2019

Daily Drilling Report

H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 141.00	Days Since RI: 141.00

Job:	ODR
Report Date:	12/29/2019
Report #:	13
DFS:	12
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$83,214.57

Daily Drilling Report

Daily Drilling Report

UNIVERSITY 6J 10H	
H & P #645	
Accept: 12/19/2019	Release:
Days Since LTI: 141.00	Days Since RI: 141.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/29/2019
Report #:	13
DFS:	12
AFE #:	9006929
Total AFE + Sup:	\$3,430,137.57
Daily Field Est. (Cost):	\$83,214.57

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	-7,094.0		10,103.5		
PBHL/TD	-7,154.0		10,163.5		

Daily Contacts

Job Contact	Title	Office	Mobile	Email
POLYA, JOE, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-360-4057	318-243-5902	MIKE.DAFFRON@PXD.COM
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
RATLEY, SHANNON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-813-2804	SHANNON.RATLEY@PXD.COM
CARROLL, GRAYSON, FIELD ENGINEER	FIELD ENGINEER		432-215-8655	GRAYSON.CARROLL@PXD.COM
RAYMOND, JOEY, MUD ENGINEER	MUD ENGINEER		337-278-3347	JOEY.RAYMOND@PXD.COM
STACHOVSKYJ, LEO, FIELD ENGINEER	FIELD ENGINEER		432-232-4311	LEONARD.STACHOVSKYJ@PXD.COM
RIG-H&P 645, RIG PHONE	RIG PHONE	432-355-3106	432-257-8384	

Personnel Log

Company	Count
PIONEER NATURAL RESOURCES USA INC	3
HELMERICH & PAYNE INTERNATIONAL DRILLING CO	13
GYRODATA INC	4
DWM CONSULTING	1
GISLER BROTHERS LOGGING CO INC	1

Daily Drilling Report

UNIVERSITY 6J 10H				PERMIAN ASSET TEAM			
H & P #645				Job:	ODR		
Accept: 12/19/2019				Report Date:	12/30/2019		
Days Since LTI: 142.00				Report #:	14		
Release:				DFS:	13		
Days Since RI: 142.00				AFE #:	9006929		
				Total AFE + Sup:	\$3,430,137.57		
				Daily Field Est. (Cost):	\$71,311.42		

PI/UWI 42-003-48170-0000		Well Profile HORIZONTAL		Open Formation WOLFCAMP B2 (WFMP B2)		Field Name SPRABERRY (TREND AREA)					
SSN ID00053070		Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 3,009.50	Ground Elevation (ft) 2,983.00	Spud Date 10/22/2019	TD Date			
Safety Checks											
Time	Type	Des	Tour	Com							
06:00	MEETING	PRE-TOUR	DAY	PTSM: Previous Tour: squeeze @ .5bpm for 10bbls proceed with hesitation squeeze, CBU prior TOO H, TOO H, L/D tubing Current tour: P/U 6.75" Curve BHA, TIH, slip and cut, drill out cement plug, Drill new formation for FIT, Perform FIT, Displace to OBM, Drill curve. Make sure to fill out checklists and return to company man. R2LB #5: Entrepreneurship #5: Fall or Elevated Work Safety							
06:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Description: Contractor floor hand was in the process of tripping pipe back into the hole, while setting the slips around the Heavy Weight Drill Pipe he lost his footing. This caused contractor to slip and strike his lower back on the tongs. Incident was reported to PNR reps and contractor HSE has been notified.							
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Previous Tour:make up curve bha, TIH, slip and cut drill line, TIH, install rotating head, tag cement, drill out plug, drill a couple feet of new formation, perform FIT. assuming FIT is good to 12.0 we will displace to OBM and perform the FIT again, then go ahead and begin drilling R2LB #5: Entrepreneurship #5: Fall or Elevated Work Safety							
18:01	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Description: Contractor floor hand was in the process of tripping pipe back into the hole, while setting the slips around the Heavy Weight Drill Pipe he lost his footing. This caused contractor to slip and strike his lower back on the tongs. Incident was reported to PNR reps and contractor HSE has been notified.							
23:30	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	The hose was on the way from rig floor towards shakers as a potential trip hazard. Discussed with RTM importance of keeping the way clear of obstacles and potential hazards correlated with tripping hazards. RTM understood and put the hose at the proper safe area.							
Jobs											
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status				
DRL ENG - JOHN GARZA		AREA TEAM 1		ODR	10/21/2019 16:00		IN PROGRESS				
Job Dates (ex. Estimated Pad Release, TXRRC Calls)											
Type			Subtype	Date	Note						
MILESTONE			ESTIMATED PAD RELEASE	1/27/2020	Drilling 2nd Production on 3 well pad. Drilling Sequentially Updated 12.30.19						
Daily Operations											
Footage/Meterage (ft) 286.00		Drilling Hours (hr) 7.25		% Rotating Time (%) 10.34	End Depth (ftKB) 9,805.0		Target Depth (ftKB) 18,403.0	Daily Field Est Total (Cost) 71,311.42	Cum Field Est To Date (Cost) 1,834,166.24		
24 HR ROP (ft/hr) 39.4		Circulating Hours (hr) 1.00		% Sliding Time (%) 89.66	End Depth (TVD) (ftKB) 9,771.3		Target Depth (TVD) (ftKB) 9,200.0	Daily Mud Field Est (Cost) 32,767.67	Cum Mud Field Est (Cost) 3,430,137.57	Total AFE + Sup (Cost) 3,430,137.57	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 400.0			Daily Goal - Next 24 1,600.0		Goal Comments Operational Goal not achieved		
Backbuild No		Lateral Inclination		Last Casing String LINER, 9,494.0ftKB				Next Casing String PROPOSED PRODUCTION, 20,634.0ftKB			
Avg Connection Gas 26.00		Avg Trip Gas 10.00		Avg Background Gas 39.00		Max Connection Gas 26.00		Max Trip Gas 10.00		Max Drill Gas 54.00	
Operations Summary P/U and M/U Curve/Lateral BHA, TIH, Slip and Cut, TIH, Drill out Squeeze Cement, Perform FIT, Drill to KOP, Drill Curve											
Operations Next Report Period Drill Curve F/9805' T/10450' (LP), Drill Lateral F/10450' T/11405'											
Operations at Report Time Drill Curve at 9805'											
Remarks No Accidents, NPT Hrs- Rig: 24.25 hrs 3rd Party: hrs PNR: hrs Surf:100% Inter:100% Inter 2: 100% Curve:0% Lateral: 0% Initial water reading- bbls Start- 105001 bbls Stop @ bbls Resume @ bbls Final water meter reading bbls											
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	RIG_SVC	NORMAL	Rig service and lubrication		9,516.0	9,516.0		
06:15	0.25	06:30	PROD, PRE DRL	SFTY	NORMAL	PJSM With H&P, PNR, Gyrodata, on picking up curve bha.		9,516.0	9,516.0		
06:30	1	07:30	PROD, PRE DRL	PU_DIR	NORMAL	Pick up 6.75" curve/lateral bha.		9,516.0	9,516.0		
07:30	2	09:30	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH F/96' T/3456'. Hole displacing properly.		9,516.0	9,516.0		
09:30	0.25	09:45	PROD, PRE DRL	HDL_AGITATOR	NORMAL	Pick up agitator. 1000 psi before picking up agitator 300 gpm. 1300 psi after picking up agitator 300 gpm.		9,516.0	9,516.0		
09:45	0.25	10:00	PROD, PRE DRL	HDL_ROT HD	NORMAL	Pull trip nipple and install rotating head.		9,516.0	9,516.0		
10:00	2.25	12:15	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH F/3479' T/9118'. Hole displacing properly.		9,516.0	9,516.0		
12:15	0.25	12:30	PROD, PRE DRL	SFTY	NORMAL	PJSM for slip and cut.		9,516.0	9,516.0		
12:30	1	13:30	PROD, PRE DRL	SLIP_CUT	NORMAL	Slip and cut drilling line. 9.5 wraps.		9,516.0	9,516.0		
13:30	0.5	14:00	PROD, PRE DRL	RIG_SVC	NORMAL	Lubricate and inspect rig.		9,516.0	9,516.0		
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Daily Drilling Report

UNIVERSITY 6J 10H

H & P #645

Accept: 12/19/2019 Release: Days Since LTI: 142.00 Days Since RI: 142.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 12/30/2019

Report #: 14

DFS: 13

AFE #: 9006929

Total AFE + Sup: \$3,430,137.57

Daily Field Est. (Cost): \$71,311.42

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 (°)		
22:30	03:00	9,566.0	144.00	32.0	10	0	400.0	250	2,600.0	60.0	201	209	191	201	0.0	0.0	15		
03:00	04:00	9,710.0	0.00		0	0	0.0	250	2,600.0	0.0	0	0	0	0	0.0	0.0	0		
04:00	06:00	9,710.0	95.00	47.5	10	0	400.0	250	2,600.0	60.0	201	209	191	201	0.0	0.0	35		
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)			
10.15	10.56	15.3		0.4		106.7		104.7		7.0	281.1		85.52		7.77	422.80			
Mud Checks																			
Time 03:30		Mud Company PIONEER DRILLING FLUIDS				Type OIL BASE		Depth (ftKB) 9,595.0		Density (lb/gal) 10.15		Funnel Viscosity (s/qt) 85		T Flowline (°F) 83.0					
PV (cP) 17.0		YP (lbf/100ft²) 8.000		Vis 3rpm 6		Vis 6rpm 6		Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 14.2		HTHP Temperature (°F) 250.0		HTHP Pressure (psi) 250.0					
Solids (%) 14.5				Low Gravity Solids (%) 7.4				Sand (%) 0.0				MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL)			
Chlorides (ppm) 31,000,000.000				Calcium (ppm) 6,800.000				CaCl (ppm) 16,820		Oil Water Ratio 71.9/28.1		Electric Stab (V) 674.0		Lime (lb/bbl) 2.7		pH 0.0			
Gel 10 sec (lbf/100ft²) 12.000						Gel 10 min (lbf/100ft²) 19.000						Gel 30 min (lbf/100ft²) 21.000							
Comment RECOMMENDED FLUIDS TREATMENT Maintain MW at 10.1-10.2ppg; will maintain until hole dictates otherwise. Running Diesel @ 4sec/qt and water @ 21sec/qt to maintain OWR. Adding Lime (2sx/hr) to maintain current excess lime content, adding Calcium Chloride Powder (2sx/hr) to increase WPS between 200k - 240k ppm. Utilizing additions of VG+ (1sx/hr) & LEM H60 as needed to maintain YP and low-end Rheological properties. DRILLING FLUIDS ACTIVITY LAST 24 HRS Monitoring displacement while tripping in & out of the hole; proper displacement. Once the FIT was performed, the pits were emptied in preparation to transfer OBM and displace the well. Walking OBM transfer lines before & during each transfer, and ensuring all valves are in the closed position on both ends upon completion of transfer. RIG ACTIVITY LAST 24 HOURS The curve assembly was made up and tripped in the hole. Once cement was tagged, drilling commenced, drilling through the cement and 5' of new formation. A bottom's up was circulated before performing an FIT; 11.25 EMW with 8.65ppg water. The well was then displaced to 10.1ppg OBM. An additional FIT was performed with the 10.0ppg OBM, resulting in a 11.5ppg EMW. Drilling & sliding commenced building curve.																			
Last BOP Test																			
Date		Test Type				Item Tested				Next Test Date		Com							
12/19/2019		BOP				BOP'S, 12/19/2019 06:00, <class>				1/9/2020		5000 hi/250 low, 3500 hi/250 low on Annular							
Leak Off and Formation Integrity Tests																			
Test Type						Depth (ftKB)						Dens Fluid (lb/gal)							
FORMATION INTEGRITY												2,018.0		12.50					
FORMATION INTEGRITY												9,516.0		9.87					
FORMATION INTEGRITY												9,520.0		11.26					
FORMATION INTEGRITY												9,520.0		11.59					
Casing Pressure Test																			
Test Type				Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)		
CASING				STANDARD				10/28/2019		SURFACE, 2,020.4ftKB				No	30.00		1,500.0		
CASING				STANDARD				12/24/2019		INTERMEDIATE, 6,079.0ftKB				No	30.00		2,500.0		
CASING				STANDARD				12/27/2019		LINER, 9,494.0ftKB				No	30.00		1,500.0		
Kick Offs & Key Depths																			
Date						Type						Top Depth (ftKB)							
12/29/2019 22:15						KICK OFF						9,566.0							
Casing Strings																			
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR		106.5		106.5		20		H40		78.67									
SURFACE		2,020.4		2,019.3		13 3/8		J55		54.50		BTC		1,309.3					
INTERMEDIATE		6,079.0		6,053.6		9 5/8		L80-IC		40.00		BTC							
LINER		9,494.0		9,465.7		7 5/8		P110-IC		29.70		TSH513		4,866.0					
Job Supply Amounts																			
Supply Item Des				Type		Unit Label		Received		Consumed		Returned		Note		Cum On Loc		Cum Consumed	
DIESEL				FUEL		GAL				1,360						6,749		16,534.0	
DIESEL				MUD		GAL				1,384						10,760		9,241.0	
WATER				FRESH		BBL		0		0				Water meter reading 109729		0		25,310.0	
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		GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0					
2		GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0					
3		GARDNER-DENVER				PZ-11-1600		5 1/2		11.00		0.081		6,324.0					
Pump Checks																			
Pump #		Depth (ftKB)		Time		P (psi)		Strokes (spm)		Q Flow (gpm)		Eff (%)							
1		9,710.0		02:15		465.0		20		64		95							
1		9,710.0		02:16		945.0		40		129		95							
1		9,710.0		02:17		1,409.0		60		193		95							
2		9,710.0		02:15		480.0		20		64		95							
2		9,710.0		02:16		881.0		40		129		95							
2		9,710.0		02:17		1,418.0		60		193		95							
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