

# Daily Drilling Report

<b>UNIVERSITY 7-43 118H</b>		<b>PERMIAN ASSET TEAM</b>	
		<b>Job:</b>	<b>ODR</b>
		<b>Report Date:</b>	<b>9/12/2019</b>
		<b>Report #:</b>	<b>4</b>
		<b>DFS:</b>	<b>3</b>
<b>H &amp; P #601</b>		<b>AFE #:</b>	<b>9006575</b>
<b>Accept: 9/11/2019</b>	<b>Release:</b>	<b>Total AFE + Sup:</b>	<b>\$3,092,346.43</b>
<b>Days Since LTI:</b>	<b>Days Since RI: 7.00</b>	<b>Daily Field Est. (Cost):</b>	<b>\$44,948.45</b>
<b>1,395.00</b>			

Daily Drilling Report Page 1/3 Printed: Thursday, September 12, 2019

UNIVERSITY 7-43 118H

H & P #601

Accept: 9/11/2019      Release:      Days Since LTI: 1,395.00      Days Since RI: 7.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 9/12/2019

Report #: 4

DFS: 3

AFE #: 9006575

Total AFE + Sup: \$3,092,346.43

Daily Field Est. (Cost): \$44,948.45

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	21	06:00	MOB, MOVE	MOVE	NORMAL	R/D on the Pembrook Unit 1427H. Haul loads to University 7-43 118H.  Old End: Set BOP on traveller, open doors and change out VBR's. Prep rig floor and stow ST-80. Un-spool winch lines and pin boom poles. Power down and unplug electrical. Retract drill shack service arms and cable trays. Lower mast, unspool and split travelling blocks. Prep derrick for travel. Lower top dog house. Split substructure. Continue cleaning loads on old location for delivery in morning  New end: Spot gen package, VFD, mud tanks, shakers, rig diesel tank, choke manifold, MCC house, water tank. Raise shaker skid and separator. Begin running electrical for mud pumps. Dress shakers. Hook up mud tanks. Run standpipe iron and R/U inline screen. All OBM from Pembrook Unit location received on new end  100% rigged down 60% moved 40% rigged up  Note: 2 cranes, 2 forklifts and 1 manlift on both ends. Rental forklift from Rig Power went down @ 22:45hrs - 2nd forklift arrived @ 01:30 and could not get it started until 215am  * Estimated spud: 9/13/19 @ 15:00 *	1,979.5	1,979.5		

Hydraulic Calculations

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

Mud Checks

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

Last BOP Test

Date	Test Type		Item Tested		Next Test Date		Com	

Leak Off and Formation Integrity Tests

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

Casing Pressure Test

Test Type		Test Subtype		Date		Item Tested		Failed?		Time (min)		P (psi)	
CASING		STANDARD		9/6/2019		SURFACE, 1,956.5ftKB		No		30.00		1,000.0	

Kick Offs & Key Depths

Date		Type		Top Depth (ftKB)	
		HEEL			
		TOE			
		KICK OFF			

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	106.5	106.5	20	H40	78.67		
SURFACE	1,956.5	1,951.9	13 3/8	J55	54.50	BTC	

Job Supply Amounts

Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	0	0	0	Transferred from' PEMBROOK UNIT 1427H'	0	0.0
DIESEL	FUEL	GAL	1,972	0	0	Transferred from' PEMBROOK UNIT 1427H'	1,972	0.0
WATER	FRESH	BBL	0	0	0	Initial water meter reading: 164813	0	0.0

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	6,300.0
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0

Daily Drilling Report

Page 2/3

Printed: Thursday, September 12, 2019

# Daily Drilling Report

H &amp; P #601

**Release:**  
**Days Since RI: 7.00**

Job:	ODR
Report Date:	9/12/2019
Report #:	4
DFS:	3
A/E #:	9006575
Total A/E + Sup:	\$3,092,346.43
Daily Field Est. (Cost):	\$44,948.45

## Daily Drilling Report

Daily Drilling Report

UNIVERSITY 7-43 118H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/11/2019				Report Date:	9/13/2019		
Days Since LTI: 1,396.00				Report #:	5		
Release:				DFS:	4		
Days Since RI: 8.00				AFE #:	9006575		
				Total AFE + Sup:	\$3,092,346.43		
				Daily Field Est. (Cost):	\$86,141.60		

P/I/UWI 42-003-48117-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)						
SSN ID00038661		Property Sub		KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 9/3/2019	TD Date				
Safety Checks												
Time	Type	Des	Tour	Com								
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - continue rigging up. Still have a lot of 3rd party and moving equipment on location. Use good communcation with everyone. Ensure everyone on location is wearing proper PPE. Hot outside - stay hydrated, eat and drink plenty of water. Watch hand/body placement while rigging up, Watch suspended loads, use tag lines, watch electical while raising subs and top dog house.								
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46525 Date & Time: 9-9-19; 6:30 pm Classification: Injury/Illness (Low) Description: On 9/7/2019 Contractor was assisting in changing out the Bottom Hole Assembly. He was moving some equipment around when he felt discomfort in his lower back. Contractor did not tell his personal or PNR personnel until 9/9/2019. Contractor was given first aid measures on location and did not need any further medical attention.								
07:00	PROACTIVE MEASURES	STOP CARD - PNR	DAY	Stop card: Noticed 3rd party workers installing containment without hardhats. Stopped them and discussed importance for following all safety guidelines and wearing proper PPE and that rig move did not mean rules were relaxed. They understood, put on hard hats and continued work without incident								
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed upcoming operations - rigging up on the 118H. Continue rigging up backyard, transfer lines, etc. Thomas will be here tonight to rig up flare stack and panic line. Roustabouts will be here this evening to assist in rig up operations. Use good communication working with 3rd party and making critical lifts. Watch hand/body placement while rigging up								
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46525 Date & Time: 9-9-19; 6:30 pm Classification: Injury/Illness (Low) Description: On 9/7/2019 Contractor was assisting in changing out the Bottom Hole Assembly. He was moving some equipment around when he felt discomfort in his lower back. Contractor did not tell his personal or PNR personnel until 9/9/2019. Contractor was given first aid measures on location and did not need any further medical attention.								
Jobs												
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status			
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	9/2/2019 18:00				IN PROGRESS			
Job Dates (ex. Estimated Pad Release, TXRRC Calls)												
Type			Subtype		Date		Note					
MILESTONE			ESTIMATED PAD RELEASE		11/22/2019		Moving locations, Batch Drilling (Updated 9-12-19)					
Daily Operations												
Footage/Meterage (ft) 0.00		Drilling Hours (hr)		% Rotating Time (%)	End Depth (ftKB) 1,979.5		Target Depth (ftKB) 19,392.0		Daily Field Est Total (Cost) 86,141.60	Cum Field Est To Date (Cost) 471,809.96		
24 HR ROP (ft/hr)		Circulating Hours (hr)		% Sliding Time (%)	End Depth (TVD) (ftKB) 1,974.8		Target Depth (TVD) (ftKB) 9,141.4		Daily Mud Field Est (Cost)		Cum Mud Field Est (Cost)	Total AFE + Sup (Cost) 3,092,346.43
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0			Daily Goal - Next 24 1,500.0			Goal Comments Operational goal achieved		
Backbuild		Lateral Inclination		Last Casing String SURFACE, 1,956.5ftKB				Next Casing String PROPOSED INTERMEDIATE, 6,301.0ftKB				
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 Continue hauling loads to University 7-43 pad, R/U on the 118H, N/U BOP and begin testing (100% rigged down, 100% moved, 95% rigged up)												
Operations Next Report Period Finish testing BOP, Install wearbushing, P/U 12 1/4 directional tools, TIH picking up DC's/HWDP/DP, Drill out, Perform FIT, Drill 12 1/4 Int section f/ 1979' t/ 3479'												
Operations at Report Time R/U on the University 7-43 118H, Testing BOP												
Remarks No Accidents, Incidents, or spills												
Rig NPT: 0 hours												
3rd Party NPT: 0 hours												
PNR NPT: 0 hours												
Surf:100% Int: 0% Prod Vertical: 0% Curve: 0% Lat: 0%												
Gen Hours: 1- 0 hrs, 2- 0 hrs, 3- 0 hrs												
Saver Sub footage: 11,948'												
Initial Water Meter Reading: 164813												
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	MOB, MOVE	MOVE	NORMAL	Continue hauling loads from Pembrook Unit pad to University 7-43 location.  Set and raisesubs and top dog house. Spot derrick and pin same. Dress derrick and prep to raise. R/U backyard equipment & solids control dryer shakers. Set PDS.		1,979.5	1,979.5			
Daily Drilling Report												
Page 1/3												
Printed: Friday, September 13, 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 #
18:00	1.25	19:15	MOB, RIG UP	RU MIRU	NORMAL	R/U on the University 7-43 118H. Begin receiving mud chemicals and 10# brine for intermediate sections  R/U transfer lines, 4x4 pumps, flare stack and panic line. Continue to dress out derrick, pin travelling block assembly.	1,979.5	1,979.5		
19:15	0.25	19:30	MOB, RIG UP	SFTY	NORMAL	PJSM w/ PNR, H&P, and Lightning discussing derrick raising operations	1,979.5	1,979.5		
19:30	5.5	01:00	MOB, RIG UP	RU MIRU	NORMAL	Continue R/U on the 118H. Thomas rigging up flare line and panic line. Connect steel transfer lines and set 4x4 pumps. Set cuttings trough, run transfer hoses and set driveovers.  Mast raised @ 22:30hrs. Pin derrick.	1,979.5	1,979.5		
01:00	0.25	01:15	MOB, RIG UP	WH	NORMAL	Pull TA cap	1,979.5	1,979.5		
01:15	3.25	04:30	MOB, RIG UP	NU_BOPE	NORMAL	Set stack and spacer spools on W/H. Begin N/U BOP choke line, kill line, mud line, and flow line  N/U crew torquing connections on QDC's and 38"/48" spacer spool connections  * Begin testing choke manifold offline - completed low test and needed to re-fill tank with water *	1,979.5	1,979.5		
04:30	1.5	06:00	MOB, RIG UP	TEST_BOPE	NORMAL	Continue testing choke manifold. Install test plug. Test all rams and floor valves 250 low / 5000 high. Test back to the pump 250 low / 6300 high. Test annular 250 low / 3500 high	1,979.5	1,979.5		

Hydraulic Calculations

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

Mud Checks

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

Last BOP Test

Date	Test Type	Item Tested	Next Test Date	Com
9/13/2019	BOP	BOP'S, 9/11/2019 09:00, FULL TEST	10/4/2019	Perform FULL BOP test 9/13/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6300 high. All test held for 5min and charted

Leak Off and Formation Integrity Tests

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

Casing Pressure Test

Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	9/6/2019	SURFACE, 1,956.5ftKB	No	30.00	1,000.0

Kick Offs & Key Depths

Date	Type	Top Depth (ftKB)
	HEEL	
	TOE	
	KICK OFF	

Casing Strings

Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	106.5	106.5	20	H40	78.67		
SURFACE	1,956.5	1,951.9	13 3/8	J55	54.50	BTC	

Job Supply Amounts

Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	0	0	0	Mud Diesel	0	0.0
DIESEL	FUEL	GAL	7,501	210	0	Rig Diesel	9,263	210.0
WATER	FRESH	BBL	4,417	4,417	0	Initial water meter reading: 164813. Final meter reading: 169230	0	4,417.0

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	6,300.0
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0

Daily Drilling Report

Page 2/3

Printed: Friday, September 13, 2019

# Daily Drilling Report

**H & P #601**

**Release:**  
**Days Since RI: 8.00**

Job:	ODR
Report Date:	9/13/2019
Report #:	5
DFS:	4
A/E #:	9006575
Total A/E + Sup:	\$3,092,346.43
Daily Field Est. (Cost):	\$86,141.60

Daily Drilling Report Page 3/3 Printed: Friday, September 13, 2019

Daily Drilling Report

UNIVERSITY 7-43 118H		PERMIAN ASSET TEAM	
H & P #601		Job:	ODR
Accept: 9/11/2019	Release:	Report Date:	9/14/2019
Days Since LTI: 1,397.00	Days Since RI: 9.00	Report #:	6
		DFS:	5
		AFE #:	9006575
		Total AFE + Sup:	\$3,092,346.43
		Daily Field Est. (Cost):	\$95,053.78

API/UWI 42-003-48117-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)				
SSN ID00038661	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 9/3/2019	TD Date				
Safety Checks										
Time	Type	Des	Tour	Com						
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - Testing BOP, spooling up drawworks, undocking Top Drive, rigging up on the 118H. Continue rigging up backyard, transfer lines, etc. P/U BHA. Do checklist. Watch hand/body placement while rigging up, Wear all PPE.						
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case#: 46,483 Date: 9-12-19 Classification: Injury/Illness Description: Contractor was changing a seat on a mud pump. When contractor went to attach the hose to the fitting on the pancake, hydraulic oil shot out of the fitting and hit contractor on the right forearm. It did not break the skin, it did however leave a red mark ½ inch long. Contractor did not seek medical treatment of any form						
14:45	MEETING	JSA	DAY	PJSM w/ PNR, H&P and Gyrodata on P/U directional tools						
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed upcoming operations - P/U 8" DC's, HWDP and jars. Begin TIH picking up DP. Tag cement and drill out, perform FIT, begin 12 1/4 section per directional plan. Continue housekeeping after rig move, make sure tools are put away, equipment grounded, location is neat and free of trash. Check equipment prior to use, use good communication while making fluid transfers. Watch hand/body placement while making connections and picking up collars/HWDP/DP. Obey buffer zone while operating PDS						
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case#: 46,483 Date: 9-12-19 Classification: Injury/Illness Description: Contractor was changing a seat on a mud pump. When contractor went to attach the hose to the fitting on the pancake, hydraulic oil shot out of the fitting and hit contractor on the right forearm. It did not break the skin, it did however leave a red mark ½ inch long. Contractor did not seek medical treatment of any form						
01:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Stop card: Noticed RTM wearing H2S monitor on hard hat. Stopped him and discussed importance of wearing PPE properly and having monitor inside breathing zone. He stated he had forgotten about it and would do better to pay more attention and ensure he was wearing PPE properly going forward						
Jobs										
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date		Job Status		
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	9/2/2019 18:00			IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type			Subtype		Date	Note				
MILESTONE			ESTIMATED PAD RELEASE		11/22/2019	Drilling 1st Int section on 4 well pad, Batch Drilling (Updated 9-14-19)				
Daily Operations										
Footage/Meterage (ft) 462.00		Drilling Hours (hr) 4.75		% Rotating Time (%) 78.95		End Depth (ftKB) 2,441.0		Target Depth (ftKB) 19,392.0		
Daily Field Est Total (Cost) 95,053.78		Cum Field Est To Date (Cost) 570,515.12								
24 HR ROP (ft/hr) 97.3		Circulating Hours (hr) 0.50		% Sliding Time (%) 21.05		End Depth (TVD) (ftKB) 2,433.8		Target Depth (TVD) (ftKB) 9,141.4		
Daily Mud Field Est (Cost) 3,800.00		Cum Mud Field Est (Cost) 6,858.38		Total AFE + Sup (Cost) 3,092,346.43						
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 1,500.0			Daily Goal - Next 24 3,000.0			Goal Comments Goal not achieved (-70%) Limiter = GPM (MP down)	
Backbuild Yes		Lateral Inclination		Last Casing String SURFACE, 1,956.5ftKB			Next Casing String PROPOSED INTERMEDIATE, 6,301.0ftKB			
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 0.00		Max Connection Gas 0.00		Max Trip Gas 0.00		
Max Drill Gas 0.00										
Operations Summary Finish testing BOP, Install wearbushing, P/U 12 1/4 directional tools, TIH picking up DC's/HWDP/DP, Drill out, Perform FIT to 13ppg EMW, Drill 12 1/4 Int section f/ 1979' t/ 2441' (22% sliding, 15° tangent, 4.8' behind, 2.6' left)										
Operations Next Report Period Drill 12 1/4 Int section f/ 2441' t/ 5441'										
Operations at Report Time Drilling 12 1/4 Int section @ 2441'										
Remarks No Accidents, Incidents, or spills										
Rig NPT: 0 hours										
3rd Party NPT: 0 hours										
PNR NPT: 0 hours										
Surf:100% Int: 11% Prod Vertical: 0% Curve: 0% Lat: 0%										
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs										
Saver Sub footage: 12,410'										
Initial Water Meter Reading: 164813										
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	3	09:00	MOB, RIG UP	TEST_BOPE	NORMAL	Install test plug. Test all rams and floor valves 250 low / 5000 high. Test back to the pump 250 low / 6000 high. Test annular 250 low / 3500 high	1,979.5	1,979.5		
09:00	0.75	09:45	INT, PRE DRL	WRBSH	NORMAL	P/U 1 JNT, 10' pup and install weabushing.	1,979.5	1,979.5		
09:45	1.75	11:30	INT, PRE DRL	RU MIRU	NORMAL	Spool up drawworks. Had electrical problem (communication error with drawworks) so tested BOP before spooling up.	1,979.5	1,979.5		
Daily Drilling Report										
Page 1/5										
Printed: Saturday, September 14, 2019										

Daily Drilling Report

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
11:30	0.25	11:45	INT, PRE DRL	SFTY	NORMAL	PJSM on undocking Top Drive.	1,979.5	1,979.5			
11:45	0.5	12:15	INT, PRE DRL	RU MIRU	NORMAL	Undock Top Drive.	1,979.5	1,979.5			
12:15	1.75	14:00	INT, PRE DRL	RU MIRU	NORMAL	Test back to the pump 250 low / 6000 high, test floor valves.	1,979.5	1,979.5			
14:00	0.5	14:30	INT, PRE DRL	RIG_SVC	NORMAL	Service Top Drive, add Hydraulic oil.	1,979.5	1,979.5			
14:30	0.25	14:45	INT, PRE DRL	L/D DP	NORMAL	Break out and L/D TDS traveling Jnt.	1,979.5	1,979.5			
14:45	0.25	15:00	INT, PRE DRL	SFTY	NORMAL	PJSM w/ PNR, H&P and Gyrodata on P/U directional tools	1,979.5	1,979.5			
15:00	2	17:00	INT, PRE DRL	PU_ DIR	NORMAL	P/U 12.25" directional BHA, scribe, make up bit.	1,979.5	1,979.5			
17:00	4.5	21:30	INT, PRE DRL	PU_BHA	NORMAL	P/U 12 - 8" collars, 17jts HWDP, drilling jars and 3 more joints 5" HWDP from ground	1,979.5	1,979.5			
21:30	1.5	23:00	INT, PRE DRL	PU_DP	NORMAL	TIH picking up drill pipe from ground f/ 1113' t/ 1875'. Hole displacing properly	1,979.5	1,979.5			
23:00	0.5	23:30	INT, PRE DRL	RIG_SVC	NORMAL	Rig service	1,979.5	1,979.5			
23:30	0.5	00:00	INT, PRE DRL	HDL_ROT HD	NORMAL	Install rotating head, function test orbit valve	1,979.5	1,979.5			
00:00	0.25	00:15	INT, PRE DRL	TIH_ELEV	NORMAL	TIH f/ 1875' t/ 1912', tag float collar @ 1912'. Hole displacing properly	1,979.5	1,979.5			
00:15	0.5	00:45	INT, PRE DRL	DRL_OUT	NORMAL	Drill out cement, float collar and shoe track f/ 1912' t/ 1956'. Clean out rat hole t/ 1979'. Full returns. GPM: 600; RPM: 40; WOB: 20; TQ: 8  * Note: Displaced hole to 10# brine while drilling out *	1,979.5	1,979.5			
00:45	0.25	01:00	INT, PRE DRL	DRL	NORMAL	Drill 10' new formation f/ 1979' t/ 1989' with full returns	1,979.5	1,989.0			
01:00	0.5	01:30	INT, PRE DRL	CIRC	NORMAL	Circulate 2x bottoms up until MW in = MW out @ 9.9ppg. Full returns	1,989.0	1,989.0			
01:30	0.5	02:00	INT, PRE DRL	FIT	NORMAL	Space out and shut UPR. Pump through choke and establish returns to trip tanks. Pressure up to 329psi (total of 1.6bbl pumped). Hold pressure for 5min = GOOD	1,989.0	1,989.0			
02:00	4	06:00	INT, DRL	DRL	NORMAL	Drill F/1989' T/2441' (452' @ 113 fph), 11% complete. 69% Rot @ 139 fph 31% Sldg @ 57 fph MW-10.1 w/ 29 vis, full returns.  Last Survey @ 2284' ? Inc-7.02°, Azm-47.70°, 4.9' behind & 3.47' left to plan #1  * Drilling at reduced rate due to changing out liner, swab and discharge valve/seat on MP #2. Reduce ROP to 150fph *	1,989.0	2,441.0			
Interval Problems											
RIG, 1,989.0ftKB, 9/14/2019 02:00											
Ref #	Dur (N...)	Ex... Yes	Subtype CIRCULATING SYSTEM	Problem Descript...	Est Cost OR (Cost)	Accountable Party HELMERICH & PAYNE INTERNATIONAL DRILLING CO	Comment Drilling at 670gpm due to changing out liner, swab and discharge valve/seat on MP#2				
1				MUD PUMPS							
Drill Strings											
BHA #2 , INTERMEDIATE											
Bit Run 2				Drill Bit 12 1/4in, CF716, 49363			Bit Type PDC		Make ULTERRA		
Nozzles (1/32") 12/12/12/12/12/12				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----		Hours Drilled By Bit (hr) 4.75		Depth Drilled By Bit (ft) 462.00	
BHA Drilling Time (hr) 4.75				BHA Depth Drilled (ft) 462.00		BHA ROP (ft/hr) 97.3		Depth In (ftKB) 1,979.0		Depth Out (ftKB) 2,441.0	
Drill String Components											
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
42	DRILL PIPE				5	4.28	1,327.13	2,441.00	25,879.0	62	OTHER (PROVIDE DESCRIPTION)
3	HWDP				5	3.00	91.25	1,113.87	5,398.3	36	OTHER (PROVIDE DESCRIPTION)
1	DRILLING JARS - MECHANICAL				6 1/2	2.88	32.42	1,022.62		31	SCHLUMBERGER
17	HWDP				5	3.00	517.35	990.20	30,606.4	31	OTHER (PROVIDE DESCRIPTION)
1	SUB - XO				8	2.75	4.11	472.85		0	STABIL DRILL
Daily Drilling Report											
Page 2/5					Printed: Saturday, September 14, 2019						

Daily Drilling Report

UNIVERSITY 7-43 118H

H & P #601

Accept: 9/11/2019      Release:  
Days Since LTI:      Days Since RI: 9.00  
1,397.00

PERMIAN ASSET TEAM

Job:      ODR  
Report Date:      9/14/2019  
Report #:      6  
DFS:      5  
AFE #:      9006575  
Total AFE + Sup:      \$3,092,346.43  
Daily Field Est. (Cost):      \$95,053.78

Drill String Components																		
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make							
12	DRILL COLLAR - SPIRALED				8	3.00	360.19	468.74		0	OTHER (PROVIDE DESCRIPTION)							
1	SUB - XO				8 1/16	2.88	3.13	108.55		0	STABIL DRILL							
1	DRILL COLLAR - NON MAG				8 1/8	3.25	30.37	105.42		0	STABIL DRILL							
1	DRILL COLLAR - NON MAG				8 1/4	3.25	27.98	75.05		0	STABIL DRILL							
1	SUB (OTHER)				8 1/8	3.31	2.97	47.07		0	GYRODATA							
1	STABILIZER				8 5/16	2.94	5.02	44.10		0	STABIL DRILL							
1	MOTOR - STABILIZER SLEEVE				8 1/16	3.00	37.58	39.08		0	GYRODATA							
Mud Motors																		
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defin Type		Bit To Bend						
GDM962020		1.75		NOT SEALED		7:8		5.9				6.5						
Sensors																		
Sensor Type				Sensor-Bit (ft)				Note										
GAMMA								50										
DIRECTIONAL								62										
Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
00:15	01:00	1,979.0	10.00	13.3	15	40	300.0	600	1,800.0	0.0	148	150	148	148	6,000.0	3,500.0	0	
01:00	01:30	1,989.0	0.00		0	40	300.0	600	1,800.0	0.0	148	150	148	148	6,000.0	3,500.0	0	
02:00	03:30	1,989.0	181.00	120.7	35	60	500.0	675	2,300.0	150.0	148	150	148	148	7,000.0	3,500.0	0	
03:30	04:00	2,170.0	25.00	50.0	15	0	200.0	675	2,000.0	80.0	148	150	148	148	0.0	0.0	340	
04:00	04:30	2,195.0	75.00	150.0	35	60	500.0	675	2,450.0	220.0	148	150	148	148	15,000.0	3,500.0	0	
04:30	04:45	2,270.0	20.00	80.0	15	0	200.0	675	2,000.0	80.0	148	150	148	148	0.0	0.0	340	
04:45	05:15	2,290.0	70.00	140.0	35	60	500.0	675	2,450.0	220.0	148	150	148	148	15,000.0	3,500.0	0	
05:15	05:30	2,360.0	20.00	80.0	15	0	200.0	675	2,000.0	80.0	148	150	148	148	0.0	0.0	340	
05:30	06:00	2,380.0	61.00	122.0	35	60	500.0	675	2,450.0	220.0	148	150	148	148	15,000.0	3,500.0	0	
Hydraulic Calculations																		
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)
10.00	10.62	279.9		2.4		280.1		710.7		18.9		204.3		33.36		44.07		252.59
Mud Checks																		
Time 01:00		Mud Company PIONEER DRILLING FLUIDS				Type WATER BASE			Depth (ftKB) 1,956.0		Density (lb/gal) 10.00		Funnel Viscosity (s/qt) 29		T Flowline (°F)			
PV (cP) 1.0		YP (lbf/100ft²) 1.000		Vis 3rpm 1		Vis 6rpm 1		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)				
Solids (%) 12.0				Low Gravity Solids (%) 1.3			Sand (%)			MBT (lb/bbl)		Pm (mL/mL) 0.100		Pf (mL/mL)				
Chlorides (ppm) 174,000.000			Calcium (ppm) 1,200.000			CaCl (ppm)		Oil Water Ratio 0/100		Electric Stab (V)			Lime (lb/bbl) 0.1			pH 9.0		
Gel 10 sec (lbf/100ft²) 1.000						Gel 10 min (lbf/100ft²) 1.000						Gel 30 min (lbf/100ft²) 1.000						
Comment RECOMMENDED FLUID TREATMENT: Fill pits with 10.0 Brine water, pretreated with 2 sacks caustic and 2 sacks Soda Ash. Running chemical trailer with Scavenger and inhibitor. Built 80 bbl sweep in slugpit with treated brine and 6 sacks of xanthan gum to pump every other stand when drilling.  DRILLING FLUID ACTIVITY LAST 24HRS: Received 1422 bbls of 10.0 brine and stored in fracs while rig derrick was raised and rig began nipping up bop's and testing. Transferred 610 bbls of brine to pits and pretreated with soda ash and caustic. Built sweep in slug pit when drilling. Topped off bulk barite tanks. Solids control rigged up dryer shakers and dressed with 80's and 120's. and function tested shakers and centrifuges.  RIG ACTIVITY LAST 24 HRS: Rig raised derrick and nipped up BOP's and function tested rams.Rigged up and installed test plug and tested all components back to mud pumps. Picked up new bit and bha and began tripping in hole. Tested MWD and tested casing. Tripped in hole to 1900 ft, tagged up and displaced 260 bbls of hole volume with 10.0 brine water. Keeping pits full, transferring while displacing. Drilled float and shoe track to 1989 ft and running FIT.																		
Last BOP Test																		
Date		Test Type				Item Tested				Next Test Date		Com						
9/13/2019		BOP				BOP'S, 9/11/2019 09:00, FULL TEST				10/4/2019		Perform FULL BOP test 9/13/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted						
Leak Off and Formation Integrity Tests																		
Test Type						Depth (ftKB)				Dens Fluid (lb/gal)								
FORMATION INTEGRITY						1,956.0				13.00								
Casing Pressure Test																		
Test Type				Test Subtype				Date		Item Tested				Failed?	Time (min)		P (psi)	
CASING				STANDARD				9/6/2019		SURFACE, 1,956.5ftKB				No	30.00		1,000.0	
Kick Offs & Key Depths																		
Date						Type						Top Depth (ftKB)						
						HEEL												
						TOE												
Daily Drilling Report																		

Page 3/5

Printed: Saturday, September 14, 2019

Daily Drilling Report

Kick Offs & Key Depths								
Date			Type			Top Depth (ftKB)		
			KICK OFF					
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	106.5	106.5	20	H40	78.67			
SURFACE	1,956.5	1,951.9	13 3/8	J55	54.50	BTC	1,317.6	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	0	0	0	Mud Diesel	0	0.0
DIESEL	FUEL	GAL	0	960	0	Rig Diesel	8,303	1,170.0
WATER	FRESH	BBL	41	41	0	Initial water meter reading: 169230. Final meter reading: 169271	0	4,458.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
BARITE-BULK	WEIGHTING MATERIAL	TON	83	0	83.21	0		
TRUCKING	MISCELLANEOUS	EA	3,800	3,800	0.0	5,900		
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	6,300.0		
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	2,346.0	05:00	400.0	60	193	95		
1	2,346.0	05:00	260.0	20	64	95		
1	2,346.0	05:00	310.0	40	129	95		
3	2,346.0	05:00	300.0	40	129	95		
3	2,346.0	05:00	385.0	60	193	95		
3	2,346.0	05:00	250.0	20	64	95		
Deviation Surveys								
Date 9/3/2019		Description AS DRILL SURVEY				Job ODR, 9/2/2019 18:00		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
1,999.00	5.05	61.79	1,994.24	33.54	58.85	98.27	0.52	
2,094.00	4.37	61.18	2,088.92	35.50	62.57	105.13	0.72	
2,189.00	4.99	60.07	2,183.61	37.58	66.38	111.88	0.66	
2,284.00	7.20	47.40	2,278.07	41.58	72.47	119.84	2.71	
Formations								
Formation Name			Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
255_0_TNSL_TOP_DOL			-90.0		3,087.5			
256_0_YATES			-170.0		3,167.5			
257_0_SEVEN RIVERS			-435.0		3,432.5			
258_0_QUEEN			-1,100.0		4,097.5			
259_0_GRAYBURG			-1,670.0		4,667.5			
261_0_SAN ANDRES			-1,788.0		4,785.5			
263_0_SAN ANDRES SHALE			-2,862.0		5,859.5			
263_5_Top_Cherry_Canyon			-2,862.0		5,859.5			
ICP1 (Cherry Canyon)			-3,252.0		6,249.5			
264_5_Top_Brushy_Canyon			-3,470.0		6,467.5			
265_0_CLEARFORK/POP			-3,856.0		6,853.5			
267_0_SPBY_U_A1/267_0_SPBY			-5,465.0		8,462.5			
267_5_SPBY_M_A1			-5,754.0		8,751.5			
268_5_SPBY_L_A1			-5,982.0		8,979.5			
268_5_SPBY_L_A2			-6,018.0		9,015.5			
FIRST TAKE POINT (FTP)			-6,116.0		9,113.5			
TARGET #1			-6,170.0		9,167.5			
PBHL/TD			-6,144.5		9,142.0			
Daily Contacts								
Job Contact		Title	Office	Mobile	Email			
FIZER, LARRY, VICE PRESIDENT		VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM			
PARSELL, VIC, SUPERINTENDENT		SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM			
LONG, TREVOR, ENGINEER		ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM			
HEMBREE, KEVIN, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		580-209-2359	KEVIN.HEMBREE@PXD.COM			
YOHO, RYAN, FIELD ENGINEER		FIELD ENGINEER		432-307-5130	RYAN.YOHO@PXD.COM			
RIG-H&P 601, RIG PHONE		RIG PHONE	432-355-3111	469-866-2439				
Personnel Log								
Company							Count	
PIONEER NATURAL RESOURCES USA INC							2	
HELMERICH & PAYNE INTERNATIONAL DRILLING CO							23	
GYRODATA INC							4	
DWM CONSULTING							1	
STRATAGRAPH INC							2	
Daily Drilling Report								

Page 4/5

Printed: Saturday, September 14, 2019

# Daily Drilling Report

**H & P #601**

Release:  
Days Since RI: 9.00

Job:	ODR
Report Date:	9/14/2019
Report #:	6
DFS:	5
AFE #:	9006575
Total AFE + Sup:	\$3,092,346.43
Daily Field Est. (Cost):	\$95,053.78

Personnel Log	
Company	Count
DYNAMIC OILFIELD SERVICES INC	1
BATTLE ENERGY SERVICES LLC	5
CACTUS WELLHEAD LLC	1

Daily Drilling Report

UNIVERSITY 7-43 118H

H & P #601

Accept: 9/11/2019  
Days Since LTI: 1,398.00

Release:  
Days Since RI: 10.00

PERMIAN ASSET TEAM

Job: ODR  
Report Date: 9/15/2019  
Report #: 7  
DFS: 6  
AFE #: 9006575  
Total AFE + Sup: \$3,092,346.43  
Daily Field Est. (Cost): \$284,948.99

API/UWI 42-003-48117-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY LA3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00038661	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 9/3/2019	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM discussing upcoming operations - drilling Int per directional plan. Sliding to build/maintain 15deg tangent. Continue to clean and organize location after rig move. Working in hot weather - make sure to stay hydrated. Casing will be delivered this morning - make sure pipe racks are set up ready to receive. Use good communication and watch hand/body placement while making connections and building stands in mousehole. Monitor off bottom pressure and notify CM of any changes seen.											
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case # 46524 Date: 9-09-19 Classification: Injury/Illness (Low) Description: While cleaning out the discharge below the centrifuge, a contractor was struck in the mouth by the loose end of a chain used to hold the cuttings slide in place											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed upcoming operations - drilling Int section per plan #1. Continue working around rig and location to clean up after rig move. Use good communication on fluid transfers, follow mud engineer treatment plan and keep mud weight per plan. Make sure to properly strap and rabbit pipe while making stands in mousehole. Keep eye on solids control equipment and cuttings trough.											
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case # 46524 Date: 9-09-19 Classification: Injury/Illness (Low) Description: While cleaning out the discharge below the centrifuge, a contractor was struck in the mouth by the loose end of a chain used to hold the cuttings slide in place											
23:00	PROACTIVE MEASURES	STOP CARD - PNR	NIGHT	Stop card: RTM pressure washing without faceshield. Discussed importance of wearing all proper PPE while performing work on location. RTM understood, put a faceshield on and agreed to do better job working safer in future											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date		End Date		Job Status						
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	9/2/2019 18:00				IN PROGRESS						
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)															
Type			Subtype		Date		Note								
MILESTONE			ESTIMATED PAD RELEASE		12/6/2019		Drilling 1st Int section on 4 well pad, Batch Drilling (Updated 9-14-19)								
Daily Operations															
Footage/Meterage (ft) 2,781.00		Drilling Hours (hr) 23.00		% Rotating Time (%) 77.17		End Depth (ftKB) 5,222.0		Target Depth (ftKB) 19,392.0		Daily Field Est Total (Cost) 284,948.99		Cum Field Est To Date (Cost) 855,380.11			
24 HR ROP (ft/hr) 120.9		Circulating Hours (hr) 1.00		% Sliding Time (%) 22.83		End Depth (TVD) (ftKB) 5,114.8		Target Depth (TVD) (ftKB) 9,141.4		Daily Mud Field Est (Cost) 1,447.35		Cum Mud Field Est (Cost) 8,305.73		Total AFE + Sup (Cost) 3,092,346.43	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 3,000.0				Daily Goal - Next 24 1,150.0				Goal Comments Goal not achived (-7%) Limiter = dir. control			
Backbuild Yes		Lateral Inclination		Last Casing String SURFACE, 1,956.5ftKB						Next Casing String INTERMEDIATE, 6,374.0ftKB					
Avg Connection Gas 6.00		Avg Trip Gas 0.00		Avg Background Gas 6.00		Max Connection Gas 8.00		Max Trip Gas 0.00		Max Drill Gas 8.00					
Operations Summary Drill 12 1/4 Int section f/ 2441' t/ 5222' (22.8% sliding, 15° tangent, 9.7' ahead, 7.1' right)															
Operations Next Report Period Drill 12 1/4 Int section f/ 5222' t/ 6379', C&C, TOH, L/D directional tools, R/U casing crew, M/U shoe track															
Operations at Report Time Drilling 12 1/4 Int section @ 5222'															
Remarks No Accidents, Incidents, or spills															
Rig NPT: 0.25 hours															
3rd Party NPT: 0 hours															
PNR NPT: 0 hours															
Surf:100% Int: 74% Prod Vertical: 0% Curve: 0% Lat: 0%															
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs															
Saver Sub footage: 15,191'															
Initial Water Meter Reading: 164813															
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	2.25	08:15	INT, DRL	DRL	NORMAL	Drill F/2441' T/2818' (377' @ 168 fph), 19% complete. 56% Rot @ 260 fph 44% Sldg @ 52 fph MW-10.3 w/ 31 vis, full returns.  Last Survey @ 2379' ? Inc-9.54°, Azm-41.23°, 5.2' behind & 0' OTL L/R to plan #1	2,441.0	2,818.0							
08:15	0.25	08:30	INT, DRL	RIG_RPR	NORMAL	C/O gasket on MCC standpipe.	2,818.0	2,818.0	0.25	2					
Daily Drilling Report											Page 1/5		Printed: Sunday, September 15, 2019		

Daily Drilling Report

UNIVERSITY 7-43 118H

H & P #601

Accept: 9/11/2019      Release:  
Days Since LTI:      Days Since RI: 10.00  
1,398.00

PERMIAN ASSET TEAM

Job:      ODR  
Report Date:      9/15/2019  
Report #:      7  
DFS:      6  
AFE #:      9006575  
Total AFE + Sup:      \$3,092,346.43  
Daily Field Est. (Cost):      \$284,948.99

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
08:30	6	14:30	INT, DRL	DRL	NORMAL	Drill F/2818' T/3769' (951' @ 159 fph), 41% complete. 92% Rot @ 167 fph 8% Sldg @ 60 fph MW-10.45 w/ 32 vis, full returns.  Last Survey @ 3707' ? Inc-17.28°, Azm-45.05°, 24.82' ahead & 5.87' right to plan #1	2,818.0	3,769.0			
14:30	0.5	15:00	INT, DRL	RIG_SVC	NORMAL	Daily rig service, Record SPR's.	3,769.0	3,769.0			
15:00	13.75	04:45	INT, DRL	DRL	NORMAL	Drill F/3769' T/5190' (1421' @ 103 fph), 73% complete. 76% Rot @ 127 fph 24% Sldg @ 26 fph MW-10.8 w/ 28 vis, full returns. Pump 30 bbl, hi-vis sweeps every std.  Last Survey @ 5034' ? Inc-14.33°, Azm-40.92°, 12.11' ahead & 7.22' right to plan #1	3,769.0	5,190.0			
04:45	0.5	05:15	INT, DRL	RIG_SVC	NORMAL	Lubricate rig and top drive. Clean inline screen and get SPR's	5,190.0	5,190.0			
05:15	0.75	06:00	INT, DRL	DRL	NORMAL	Drill F/5190' T/5222' (32' @ 43 fph), 74% complete. 33% Rot @ 60 fph 67% Sldg @ 34 fph MW-10.8 w/ 27 vis, full returns. Pump 30 bbl, hi-vis sweeps every std.  Last Survey @ 5128' ? Inc-13.89°, Azm-41.59°, 9.71' ahead & 7.07' right to plan #1	5,190.0	5,222.0			
Interval Problems											
RIG, 1,989.0ftKB, 9/14/2019 02:00											
Ref #	Dur (N...)	Ex... Yes	Subtype CIRCULATING SYSTEM	Problem Descript...	Est Cost OR (Cost) 0.00	Accountable Party HELMERICH & PAYNE INTERNATIONAL DRILLING CO	Comment Drilling at 670gpm due to changing out liner, swab and discharge valve/seat on MP#2				
3RD PARTY, 2,818.0ftKB, 9/14/2019 08:15											
Ref #	Dur (N...)	Ex... No	Subtype CIRCULATING SYSTEM	Problem Descript...	Est Cost OR (Cost) 750.00	Accountable Party HELMERICH & PAYNE INTERNATIONAL DRILLING CO	Comment C/O gasket on standpipe on top of MCC house.				
Drill Strings											
BHA #2 , INTERMEDIATE											
Bit Run 2				Drill Bit 12 1/4in, CF716, 49363			Bit Type PDC		Make ULTERRA		
Nozzles (1/32") 12/12/12/12/12/12/12				Bit Total Fluid Area (nozzles) (in²) 0.77		IADC Bit Dull -----	Hours Drilled By Bit (hr) 27.75		Depth Drilled By Bit (ft) 3,243.00		
BHA Drilling Time (hr) 27.75				BHA Depth Drilled (ft) 3,243.00		BHA ROP (ft/hr) 116.9	Depth In (ftKB) 1,979.0		Depth Out (ftKB) 5,222.0		
Drill String Components											
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make	
130	DRILL PIPE			5	4.28	4,108.13	5,222.00	80,108.5	116	OTHER (PROVIDE DESCRIPTION)	
3	HWDP			5	3.00	91.25	1,113.87	5,398.3	36	OTHER (PROVIDE DESCRIPTION)	
1	DRILLING JARS - MECHANICAL			6 1/2	2.88	32.42	1,022.62		31	SCHLUMBERGER	
17	HWDP			5	3.00	517.35	990.20	30,606.4	31	OTHER (PROVIDE DESCRIPTION)	
1	SUB - XO			8	2.75	4.11	472.85		0	STABIL DRILL	
12	DRILL COLLAR - SPIRALED			8	3.00	360.19	468.74		0	OTHER (PROVIDE DESCRIPTION)	
1	SUB - XO			8 1/16	2.88	3.13	108.55		0	STABIL DRILL	
1	DRILL COLLAR - NON MAG			8 1/8	3.25	30.37	105.42		0	STABIL DRILL	
1	DRILL COLLAR - NON MAG			8 1/4	3.25	27.98	75.05		0	STABIL DRILL	
1	SUB (OTHER)			8 1/8	3.31	2.97	47.07		0	GYRODATA	
1	STABILIZER			8 5/16	2.94	5.02	44.10		0	STABIL DRILL	
1	MOTOR - STABILIZER SLEEVE			8 1/16	3.00	37.58	39.08		0	GYRODATA	
Mud Motors											
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defin Type	Bit To Bend
GDM962020		1.75		NOT SEALED		7:8		5.9			6.5
Daily Drilling Report											
Page 2/5											
Printed: Sunday, September 15, 2019											

Daily Drilling Report

Sensors																		
Sensor Type			Sensor-Bit (ft)						Note									
GAMMA									50									
DIRECTIONAL									62									
Drilling Parameters																		
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM (rpm)	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)	
06:00	06:15	2,441.0	20.00	80.0	40	60	750.0	900	3,950.0	385.0	148	150	148	148	15,000.0	3,500.0	0	
06:15	06:45	2,461.0	25.00	50.0	18	0	300.0	900	3,450.0	85.0	148	150	148	148	0.0	0.0	0	
06:45	07:00	2,486.0	69.00	276.0	40	60	800.0	900	3,950.0	415.0	148	150	148	148	15,000.0	3,500.0	0	
07:00	07:30	2,555.0	27.00	54.0	22	0	300.0	900	3,450.0	90.0	155	160	150	155	0.0	0.0	0	
07:30	10:45	2,582.0	638.00	196.3	45	70	800.0	900	3,950.0	415.0	155	160	150	155	18,900.0	3,500.0	0	
10:45	11:15	3,220.0	30.00	60.0	40	0	350.0	900	3,650.0	80.0	155	160	150	155	0.0	3,500.0	350	
11:15	14:30	3,250.0	519.00	159.7	52	60	800.0	900	4,050.0	285.0	155	160	150	155	18,900.0	3,500.0	0	
14:30	15:00	3,769.0	0.00	0.0	0	0	0.0	900	3,250.0	0.0	165	175	160	165	0.0	3,500.0	0	
15:00	15:15	3,769.0	10.00	40.0	52	60	800.0	900	4,050.0	285.0	165	175	160	165	18,900.0	3,500.0	0	
15:15	15:45	3,779.0	13.00	26.0	22	0	200.0	900	3,450.0	50.0	165	175	160	165	0.0	3,500.0	280	
15:45	19:00	3,792.0	465.00	143.1	56	75	800.0	900	4,050.0	170.0	165	175	160	165	18,900.0	3,500.0	0	
19:00	19:30	4,257.0	13.00	26.0	22	0	200.0	900	3,600.0	50.0	165	175	160	165	0.0	3,500.0	250	
19:30	21:00	4,270.0	180.00	120.0	56	75	700.0	900	4,200.0	170.0	185	220	160	185	18,900.0	3,500.0	0	
21:00	21:30	4,450.0	15.00	30.0	22	0	200.0	900	3,600.0	50.0	185	220	160	185	0.0	3,500.0	180	
21:30	23:30	4,465.0	355.00	177.5	56	70	700.0	900	4,200.0	170.0	185	220	160	185	18,000.0	3,500.0	0	
23:30	00:30	4,820.0	25.00	25.0	40	0	200.0	900	3,600.0	50.0	185	220	160	185	0.0	3,500.0	0	
00:30	01:00	4,845.0	75.00	150.0	56	70	700.0	900	4,200.0	140.0	185	220	160	185	18,000.0	3,500.0	0	
01:00	01:45	4,920.0	15.00	20.0	40	0	200.0	900	3,600.0	30.0	185	220	160	185	0.0	3,500.0	0	
01:45	04:45	4,935.0	255.00	85.0	56	70	700.0	900	4,200.0	140.0	185	220	160	185	16,000.0	3,500.0	0	
04:45	05:15	5,190.0	0.00	0.0	0	0	0.0	900	3,600.0	0.0	185	220	160	185	15,500.0	3,500.0	0	
05:15	05:30	5,190.0	15.00	60.0	56	70	700.0	900	4,200.0	140.0	185	220	160	185	15,500.0	3,500.0	0	
05:30	06:00	5,205.0	17.00	34.0	40	0	250.0	900	3,600.0	30.0	185	220	160	185	0.0	3,500.0	350	
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)
10.60	10.65	703.2		6.0		373.5		1,339.4		25.2		272.5		82.75		381.39		253.13
Mud Checks																		
Time 01:00		Mud Company PIONEER DRILLING FLUIDS				Type WATER BASE			Depth (ftKB) 4,551.0		Density (lb/gal) 10.60		Funnel Viscosity (s/qt) 32		T Flowline (°F) 134.0			
PV (cP) 4.0		YP (lb/100ft²) 4.000		Vis 3rpm 2		Vis 6rpm 3		Filtrate (mL/30min)			HTHP Filtrate (mL/30min)			HTHP Temperature (°F)			HTHP Pressure (psi)	
Solids (%) 18.0				Low Gravity Solids (%) 6.7			Sand (%) 0.1			MBT (lb/bbl) 15.0			Pm (mL/mL) 0.100			Pf (mL/mL)		
Chlorides (ppm) 188,000.000			Calcium (ppm) 440.000			CaCl (ppm)		Oil Water Ratio 0/100			Electric Stab (V)			Lime (lb/bbl) 0.1			pH 10.5	
Gel 10 sec (lb/100ft²) 3.000						Gel 10 min (lb/100ft²) 5.000						Gel 30 min (lb/100ft²) 7.000						
Comment																		
RECOMMENDED FLUID TREATMENT: Adding Corrosion inhibitor and H2s scavenger from trailer, adding caustic soda for PH and adding soda ash for hardness. Using system mud in slug pit (80 bbls) and adding 6 sacks of xanthan gum for sweeps. At 5000 ft, begin adding 1/2 lb per bbl of xanthan gum and 1/2 lb per bbl of Pac R to system in addition to above treatment.																		
DRILLING FLUID ACTIVITY LAST 24HRS: Displaced well with 10.0 brine, ran FIT to 13.0 eq/mw and began drilling adding 10.0 brine as needed for volume and treating mud system to mud program specifications. Received 12 loads of 10.0 brine for storage to use as needed. Sweeping hole every other stand or as directed with xanthan gum sweeps. Ran desilter for 3 total circulations to polish mud system with discharge weighing 14.3																		
RIG ACTIVITY LAST 24 HRS: Ran successful FIT to 13 lb eq/mw. Began drilling and sliding building tangent to 15 degrees. Received 12 loads of 10.0 brine to use as needed. Drilling ahead at 4551 ft. at report time. Sending dryer shaker discharge into trough. Ran desilter for 3 total circulations to polish mud system while maintaining 10.6 ppg mw.																		
Daily Drilling Report																		
Page 3/5																		
Printed: Sunday, September 15, 2019																		

Daily Drilling Report

UNIVERSITY 7-43 118H

H & P #601

Accept: 9/11/2019      Release:  
Days Since LTI:      Days Since RI: 10.00  
1,398.00

PERMIAN ASSET TEAM

Job:      ODR  
Report Date:      9/15/2019  
Report #:      7  
DFS:      6  
AFE #:      9006575  
Total AFE + Sup:      \$3,092,346.43  
Daily Field Est. (Cost):      \$284,948.99

Last BOP Test								
Date	Test Type	Item Tested	Next Test Date	Com				
9/13/2019	BOP	BOP'S, 9/11/2019 09:00, FULL TEST	10/4/2019	Perform FULL BOP test 9/13/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted				
Leak Off and Formation Integrity Tests								
Test Type		Depth (ftKB)		Dens Fluid (lb/gal)				
FORMATION INTEGRITY		1,956.0		13.00				
Casing Pressure Test								
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)		
CASING	STANDARD	9/6/2019	SURFACE, 1,956.5ftKB	No	30.00	1,000.0		
Kick Offs & Key Depths								
Date		Type	Top Depth (ftKB)					
		HEEL						
		TOE						
		KICK OFF						
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	106.5	106.5	20	H40	78.67			
SURFACE	1,956.5	1,951.9	13 3/8	J55	54.50	BTC	1,317.6	
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	0	0	0	Mud Diesel	0	0.0
DIESEL	FUEL	GAL	0	3,468	0	Rig Diesel	4,835	4,638.0
WATER	FRESH	BBL	0	0	0	Initial water meter reading: 169271. Final meter reading: 169271	0	4,458.0
Mud Additive Amounts								
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons		
CAUSTIC SODA	ALKALINITY CONTROL	LB	0	8	72.0	8		
SODA ASH	ALKALINITY CONTROL	LB	0	13	85.0	13		
XANTHAN GUM	VISCOSIFIER	LB	0	17	143.0	17		
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	6,300.0		
2	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
3	GARDNER-DENVER	PZ-11-1600	5 1/2	11.00	0.081	6,300.0		
Pump Checks								
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)		
1	5,190.0	04:45	400.0	40	129	95		
1	5,190.0	04:45	320.0	20	64	95		
1	5,190.0	04:45	500.0	60	193	95		
2	5,190.0	04:45	315.0	20	64	95		
2	5,190.0	04:45	490.0	60	193	95		
2	5,190.0	04:45	395.0	40	129	95		
3	5,190.0	04:45	385.0	40	129	95		
3	5,190.0	04:45	480.0	60	193	95		
3	5,190.0	04:45	320.0	20	64	95		
Deviation Surveys								
Date	Description					Job		
9/3/2019	AS DRILL SURVEY					ODR, 9/2/2019 18:00		
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
2,473.00	11.78	41.02	2,464.42	58.86	95.47	140.89	2.38	
2,568.00	14.49	41.53	2,556.93	71.18	111.69	155.14	2.86	
2,663.00	16.19	42.40	2,648.54	85.28	130.37	171.95	1.81	
2,758.00	16.06	42.71	2,739.80	99.86	149.81	189.79	0.16	
2,853.00	15.64	43.34	2,831.19	114.03	168.77	207.50	0.48	
2,948.00	15.39	43.36	2,922.73	127.78	187.25	224.94	0.26	
3,043.00	15.06	43.63	3,014.40	141.23	205.35	242.11	0.36	
3,137.00	14.66	43.30	3,105.25	154.23	222.85	258.69	0.43	
3,232.00	15.46	44.23	3,196.99	167.43	240.67	275.77	0.88	
3,327.00	17.07	43.40	3,288.18	181.65	259.87	294.18	1.71	
3,422.00	17.32	43.29	3,378.94	196.85	280.30	313.46	0.27	
3,517.00	17.47	44.09	3,469.59	212.08	300.83	333.08	0.30	
3,612.00	17.36	44.27	3,560.24	227.12	321.22	352.89	0.13	
3,707.00	17.28	45.05	3,650.93	241.87	341.34	372.77	0.26	
3,802.00	16.98	43.44	3,741.72	256.64	361.38	392.30	0.59	
3,896.00	16.73	42.55	3,831.68	271.53	381.32	410.88	0.38	
3,991.00	16.65	42.55	3,922.68	286.61	401.41	429.33	0.08	
4,086.00	16.38	43.45	4,013.76	301.36	421.17	447.75	0.39	
4,181.00	16.11	44.06	4,104.96	315.59	440.36	466.13	0.34	
4,275.00	15.74	40.90	4,195.36	329.86	459.37	483.55	1.00	
4,370.00	15.72	40.09	4,286.80	344.86	478.96	500.27	0.23	
4,465.00	14.09	40.21	4,378.60	359.21	497.63	516.02	1.72	
4,560.00	13.68	40.15	4,470.82	372.58	515.05	530.73	0.43	
Daily Drilling Report								
Page 4/5				Printed: Sunday, September 15, 2019				

Daily Drilling Report

Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
4,655.00	12.99	41.72	4,563.26	385.21	531.61	545.08	0.82
4,749.00	11.98	42.21	4,655.04	396.62	546.72	558.67	1.08
4,844.00	12.59	40.75	4,747.86	408.11	561.87	572.05	0.72
4,939.00	14.07	40.35	4,840.30	420.85	578.51	586.29	1.56
5,034.00	14.33	40.92	4,932.40	434.38	596.20	601.46	0.31
5,128.00	13.89	41.59	5,023.56	447.47	613.42	616.57	0.50

Formations					
Formation Name	Prog Top (TVD SS) Override (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
263_0_SAN ANDRES SHALE	-2,862.0		5,859.5		
263_5_Top_Cherry_Canyon	-2,862.0		5,859.5		
ICP1 (Cherry Canyon)	-3,252.0		6,249.5		
264_5_Top_Brushy_Canyon	-3,470.0		6,467.5		
265_0_CLEARFORK/POP	-3,856.0		6,853.5		
267_0_SPBY_U_A1/267_0_SPBY	-5,465.0		8,462.5		
267_5_SPBY_M_A1	-5,754.0		8,751.5		
268_5_SPBY_L_A1	-5,982.0		8,979.5		
268_5_SPBY_L_A2	-6,018.0		9,015.5		
FIRST TAKE POINT (FTP)	-6,116.0		9,113.5		
TARGET #1	-6,170.0		9,167.5		
PBHL/TD	-6,144.5		9,142.0		

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
FIZER, LARRY, VICE PRESIDENT	VICE PRESIDENT	972-969-4578	214-674-5483	LARRY.FIZER@PXD.COM
PARSELL, VIC, SUPERINTENDENT	SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM
LONG, TREVOR, ENGINEER	ENGINEER	432-571-2800	432-307-8155	TREVOR.LONG@PXD.COM
HEMBREE, KEVIN, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		580-209-2359	KEVIN.HEMBREE@PXD.COM
YOHO, RYAN, FIELD ENGINEER	FIELD ENGINEER		432-307-5130	RYAN.YOHO@PXD.COM
RIG-H&P 601, RIG PHONE	RIG PHONE	432-355-3111	469-866-2439	

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
HELMERICH & PAYNE INTERNATIONAL DRILLING CO	13
GYRODATA INC	4
DWM CONSULTING	1
STRATAGRAPH INC	2
DYNAMIC OILFIELD SERVICES INC	1

Daily Drilling Report

UNIVERSITY 7-43 118H				PERMIAN ASSET TEAM			
H & P #601				Job:	ODR		
Accept: 9/11/2019				Report Date:	9/16/2019		
Days Since LTI: 1,399.00				Report #:	8		
Release:				DFS:	7		
Days Since RI: 11.00				AFE #:	9006575		
				Total AFE + Sup:	\$3,092,346.43		
				Daily Field Est. (Cost):	\$70,791.86		

API/UWI 42-003-48117-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY A3 (SPBY L A3)		Field Name SPRABERRY (TREND AREA)									
SSN ID00038661	Property Sub	KB-Grd (ft) 26.50	Orig KB Elev (ft) 2,997.50	Ground Elevation (ft) 2,971.00	Spud Date 9/3/2019	TD Date									
Safety Checks															
Time	Type	Des	Tour	Com											
06:00	MEETING	PRE-TOUR	DAY	PTSM: Discussed upcoming operations - drilling Int section to ICP per directional plan. Working on MP#2 and drilling at reduced rate, Reach TD and we will pump caliper sweep to estimate hole washout. Check all tools and equipment for upcoming trip out of the hole. Continue to clean/organize location after rig move. Use good communication on fluid transfers, hand/body placement on connections and tripping											
06:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	DAY	Case # 46511 Date: 9-08-19 Classification: Near Miss (LOW) Description: While tripping out of the hole, a small piece of the outer edge of a top drive link bushing weighing about one ounce broke off and fell approximately 10' feet to the rig floor. The nearest person to the dropped object was eight feet away. The top drive was inspected and deemed safe to continue working.											
18:00	MEETING	PRE-TOUR	NIGHT	PTSM: Discussed upcoming operations - drill Int section to ICP @ 6364' MD (includes rat hole). Pump marker sweeps at TD and ensure hole is clean. TOH to run casing. Check all equipment prior to trip and fill out checklist. Have casing tools and equipment staged out and ready to R/U. Rack back collars and L/D directional tools. Pull wearbushing and begin R/U of casing crew. Will have 3rd party hands on location - make sure they are following all safety policies, obey buffer zone while operating PDS. Continue to clean and organize location after rig move											
18:05	PROACTIVE MEASURES	WEEKLY TRENDS REVIEWED	NIGHT	Case # 46511 Date: 9-08-19 Classification: Near Miss (LOW) Description: While tripping out of the hole, a small piece of the outer edge of a top drive link bushing weighing about one ounce broke off and fell approximately 10' feet to the rig floor. The nearest person to the dropped object was eight feet away. The top drive was inspected and deemed safe to continue working.											
23:30	PROACTIVE MEASURES	STOP CARD - NON PNR	NIGHT	Stop card: While working tight hole/washing/reaming operations were taking place, driller stopped other RTM's and had them move slips and clear floor in case jarring was to occur											
Jobs															
Responsible Grp 2		Responsible Grp 3		Job Type	Start Date	End Date	Job Status								
DRL ENG - TREVOR LONG		AREA TEAM 1		ODR	9/2/2019 18:00		IN PROGRESS								
Job Dates (ex. Estimated Pad Release, TXRRRC Calls)															
Type			Subtype	Date	Note										
MILESTONE			ESTIMATED PAD RELEASE	12/6/2019	Completed 1st Int section on 4 well pad, Batch Drilling (Updated 9-14-19)										
Daily Operations															
Footage/Meterage (ft) 1,142.00		Drilling Hours (hr) 12.75		% Rotating Time (%) 68.63		End Depth (ftKB) 6,364.0		Target Depth (ftKB) 19,392.0		Daily Field Est Total (Cost) 70,791.86		Cum Field Est To Date (Cost) 927,121.97			
24 HR ROP (ft/hr) 89.6		Circulating Hours (hr) 5.25		% Sliding Time (%) 31.37		End Depth (TVD) (ftKB) 6,235.1		Target Depth (TVD) (ftKB) 9,141.4		Daily Mud Field Est (Cost) 4,371.13		Cum Mud Field Est (Cost) 12,676.86		Total AFE + Sup (Cost) 3,092,346.43	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 1,150.0				Daily Goal - Next 24 0.0				Goal Comments Goal achieved (TD) Limiter = dir. control			
Backbuild No		Lateral Inclination		Last Casing String SURFACE, 1,956.5ftKB				Next Casing String INTERMEDIATE, 6,347.0ftKB							
Avg Connection Gas 18.00		Avg Trip Gas 0.00		Avg Background Gas 15.00		Max Connection Gas 26.00		Max Trip Gas 0.00		Max Drill Gas 31.00					
Operations Summary Drill 12 1/4 Int section f/ 5222' t/ 6364', C&C, TOH, perform wiper trip, Circulate 2x bottoms up (31.4% sliding, dropped out 15° tangent, 17.7' behind, 5.7' right)															
Operations Next Report Period Finish circulation, TOH, L/D directional tools, R/U casing crew, M/U shoe track, Run 9 5/8" casing t/ 6347', Circulate 1.5x casing volume, R/D casing crew, Perform 1st stage cement job															
Operations at Report Time Circulating after wiper trip prior to casing run															
Remarks No Accidents, Incidents, or spills															
Rig NPT: 0.25 hours															
3rd Party NPT: 0 hours															
PNR NPT: 5.75 hours															
Surf:100% Int: 100% Prod Vertical: 0% Curve: 0% Lat: 0%															
Gen Hours: 1- 24 hrs, 2- 24 hrs, 3- 24 hrs															
Saver Sub footage: 16,333'															
Initial Water Meter Reading: 164813															
Daily Drilling Report															

Daily Drilling Report

UNIVERSITY 7-43 118H	
H & P #601	
Accept: 9/11/2019	Release:
Days Since LTI: 1,399.00	Days Since RI: 11.00

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	9/16/2019
Report #:	8
DFS:	7
AFE #:	9006575
Total AFE + Sup:	\$3,092,346.43
Daily Field Est. (Cost):	\$70,791.86

Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs (hr)	Prob Ref #	
06:00	10.5	16:30	INT, DRL	DRL	NORMAL	Drill F/5222' T/6138' (916' @ 87 fph), 95% complete. 69% Rot @ 116 fph 31% Sldg @ 23 fph MW-10.8 w/ 27 vis, full returns. Pump 30 bbl, hi-vis sweeps every std.  Last Survey @ 6076' ? Inc-6.17°, Azm-39.5°, 12.68' behind & 15.92' right to plan #1	5,222.0	6,138.0			
16:30	0.5	17:00	INT, DRL	RIG_SVC	NORMAL	Daily Rig Service, Record SPR's.	6,138.0	6,138.0			
17:00	2.25	19:15	INT, DRL	DRL	NORMAL	Drill F/6138' T/6364' (226' @ 100 fph), 100% complete. MW-11 w/ 27 vis, full returns. Pump 30 bbl, hi-vis sweeps every std.  Last Survey @ 6302' ? Inc-2.61°, Azm-42.2°, 16.34' behind & 6.82' right to plan #1	6,138.0	6,364.0			
19:15	2	21:15	INT, POST DRL	CIRC	NORMAL	Circulate and condition mud for TOH to run 9 5/8 casing with full returns. Pump 2 35bbl hi-vis marker sweeps w/ 15ppb nut plug  * Estimated hole washout @ 12-13% *	6,364.0	6,364.0			
21:15	0.25	21:30	INT, POST DRL	FLOW_CHK	NORMAL	Flow check - well static	6,364.0	6,364.0			
21:30	1	22:30	INT, POST DRL	TOOH_NONEL EV	HOLE CONDITIO N	First stand off bottom pulled tight. Wash and ream f/ 6297' t/ 5949' with full returns  Note: tight spots seen at 6291' and 6028' with full returns	6,364.0	6,364.0	1.00	3	
22:30	0.5	23:00	INT, POST DRL	TOOH_ELEV	NORMAL	TOH f/ 5949' t/ 5496' @ 50fpm. Hole taking proper fill. No excess drag seen	6,364.0	6,364.0			
23:00	1.75	00:45	INT, POST DRL	TOOH_NONEL EV	HOLE CONDITIO N	Backream out of the hole f/ 5496' t/ 5159'. Clean up tight spots  Tight spots seen @ 5390', 5369', 5355'	6,364.0	6,364.0	1.75	4	
00:45	2.25	03:00	INT, POST DRL	TOOH_ELEV	NORMAL	TOH f/ 5159' t/ 1956' (surface casing shoe). Hole taking proper fill from trip tanks. No excess drag seen. Trip speed @ 80fpm	6,364.0	6,364.0			
03:00	2.5	05:30	INT, POST DRL	WPR_TRIP	HOLE CONDITIO N	TIH f/ 1956' t/ 6364' and perform wiper trip due to excess tight spots seen on initial trip out. Hole displacing properly to trip tanks	6,364.0	6,364.0	2.50	5	
05:30	0.5	06:00	INT, POST DRL	CIRC	NORMAL	Circulate 2x bottoms up - pump 30bbl hi-vis sweep. Full returns  * Adding treatment to reduce water loss *	6,364.0	6,364.0	0.50	5	
Interval Problems											
DOWNHOLE CONDITIONS, 6,364.0ftKB, 9/15/2019 21:30											
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment				
3	1.00	No	WELLBORE	TIGHT SPOT	3,000.00	PIONEER NATURAL RESOURCES USA INC	Backream through tight spots seen on trip out f/ 6300' t/ 6000'				
DOWNHOLE CONDITIONS, 6,364.0ftKB, 9/15/2019 23:00											
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment				
4	1.75	No	WELLBORE	TIGHT SPOT	5,250.00	PIONEER NATURAL RESOURCES USA INC	Backream through tight spots seen f/ 5300' t/ 5400'. Decision made to perform wiper trip prior to running casing				
DOWNHOLE CONDITIONS, 6,364.0ftKB, 9/16/2019 03:00											
Ref #	Dur (N...)	Ex...	Subtype	Problem Descript...	Est Cost OR (Cost)	Accountable Party	Comment				
5		No	WELLBORE	TIGHT SPOT		PIONEER NATURAL RESOURCES USA INC	Perform wiper trip due to multiple tight spots seen on initial trip out of hole				
Drill Strings											
BHA #2 , INTERMEDIATE											
Bit Run				Drill Bit			Bit Type		Make		
2				12 1/4in, CF716, 49363			PDC		ULTERRA		
Nozzles (1/32")				Bit Total Fluid Area (nozzles) (in²)		IADC Bit Dull	Hours Drilled By Bit (hr)		Depth Drilled By Bit (ft)		
12/12/12/12/12/12/12				0.77		-----	40.50		4,385.00		
BHA Drilling Time (hr)				BHA Depth Drilled (ft)		BHA ROP (ft/hr)	Depth In (ftKB)		Depth Out (ftKB)		
40.50				4,385.00		108.3	1,979.0		6,364.0		
Drill String Components											
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
167	DRILL PIPE				5	4.28	5,250.13	6,364.00	102,377.5	138	OTHER (PROVIDE DESCRIPTION)
3	HWDP				5	3.00	91.25	1,113.87	5,398.3	36	OTHER (PROVIDE DESCRIPTION)
1	DRILLING JARS - MECHANICAL				6 1/2	2.88	32.42	1,022.62		31	SCHLUMBERGER
Daily Drilling Report											
Page 2/5					Printed: Monday, September 16, 2019						



Daily Drilling Report

UNIVERSITY 7-43 118H

H & P #601

Accept: 9/11/2019      Release: Days Since LTI: 1,399.00      Days Since RI: 11.00

PERMIAN ASSET TEAM

Job: ODR

Report Date: 9/16/2019

Report #: 8

DFS: 7

AFE #: 9006575

Total AFE + Sup: \$3,092,346.43

Daily Field Est. (Cost): \$70,791.86

Mud Checks											
Time 01:00		Mud Company PIONEER DRILLING FLUIDS			Type WATER BASE		Depth (ftKB) 6,364.0		Density (lb/gal) 11.10	Funnel Viscosity (s/qt) 35	T Flowline (°F) 138.0
PV (cP) 5.0	YP (lb/100ft²) 6.000	Vis 3rpm 2	Vis 6rpm 4	Filtrate (mL/30min) 22.0		HTHP Filtrate (mL/30min)		HTHP Temperature (°F)		HTHP Pressure (psi)	
Solids (%) 19.0		Low Gravity Solids (%) 8.5		Sand (%) 0.1		MBT (lb/bbl) 17.5		Pm (mL/mL) 0.200		Pf (mL/mL)	
Chlorides (ppm) 189,000.000		Calcium (ppm) 320.000		CaCl (ppm)	Oil Water Ratio 0/100	Electric Stab (V)			Lime (lb/bbl) 0.2	pH 10.6	
Gel 10 sec (lb/100ft²) 4.000				Gel 10 min (lb/100ft²) 7.000				Gel 30 min (lb/100ft²) 9.000			
Comment RECOMMENDED FLUID TREATMENT: Added Caustic soda for PH, Soda Ash for hardness, Xanthan gum to vis up system for hole cleaning, Pac R for fluid loss, defoamer to control foaming, bentonite and phpa for sweeps, pecan nut plug for marker. Barite for slug. No treatment while pumps are off and POOH.											
DRILLING FLUID ACTIVITY LAST 24HRS: Added treatment as described to bring mud properties to mud program specifications. Added 10.0 brine from storage for additional volume as needed and added fresh water for dilution and to build sweeps and slug. Pumped 2 marker sweeps at TD and calculated washout at 12.5% with both sweeps. Flow checked well with well static. Began pulling out of hole pulling first 10 wet.											
RIG ACTIVITY LAST 24 HRS: Drilled and slid from 4551 to TD called at 6364 ft pumping high vis sweeps every other connection as directed. At TD began circulating and pumped high vis marker sweep with sweep returned at 12.5% washout. After sweep cleared hole and circulated, pumped second high vis marker sweep confirming 12.5% washout. Shut off pumps and flow checked well with well static. Pumped slug and continued pulling out of hole racking back. POOH at report time.											
Last BOP Test											
Date	Test Type			Item Tested		Next Test Date		Com			
9/13/2019	BOP			BOP'S, 9/11/2019 09:00, FULL TEST		10/4/2019		Perform FULL BOP test 9/13/19. Test all floor valves and rams to 250 low / 5000 high. Test annular to 250 low / 3500 high. Test back to pumps 250 low / 6000 high. All test held for 5min and charted			
Leak Off and Formation Integrity Tests											
Test Type				Depth (ftKB)				Dens Fluid (lb/gal)			
FORMATION INTEGRITY				1,956.0				13.00			
Casing Pressure Test											
Test Type		Test Subtype			Date		Item Tested		Failed?	Time (min)	P (psi)
CASING		STANDARD			9/6/2019		SURFACE, 1,956.5ftKB		No	30.00	1,000.0
Kick Offs & Key Depths											
Date				Type				Top Depth (ftKB)			
				HEEL							
				TOE							
				KICK OFF							
Casing Strings											
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)		Grade	Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)	
CONDUCTOR	106.5	106.5	20		H40	78.67					
SURFACE	1,956.5	1,951.9	13 3/8		J55	54.50		BTC		1,317.6	
Job Supply Amounts											
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed	
DIESEL		MUD	GAL	0	0	0	Mud Diesel		0	0.0	
DIESEL		FUEL	GAL	7,389	3,152	0	Rig Diesel		9,072	7,790.0	
WATER		FRESH	BBL	0	0	0	Initial water meter reading: 169271. Final meter reading: 169271		0	4,458.0	
Mud Additive Amounts											
Des		Type		Units	Rec		Consumed	On Loc		Cum Cons	
BARITE-BULK		WEIGHTING MATERIAL		TON	0		4	79.0		4	
BENTONITE		VISCOSIFIER		LB	0		17	88.0		17	
CAUSTIC SODA		ALKALINITY CONTROL		LB	0		15	57.0		23	
PAC R		FLUID LOSS ADDITIVES		LB	0		10	70.0		10	
PECAN NUT PLUG FINE		LOST CIRCULATION		GAL	0		12	38.0		12	
PHPA		VISCOSIFIER		GAL	0		3	29.0		3	
POLYDRIL DEFOAMER A		DEFOAMER		GAL	0		4	20.0		4	
SODA ASH		ALKALINITY CONTROL		LB	0		20	65.0		33	
XANTHAN GUM		VISCOSIFIER		LB	0		21	122.0		38	
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		6,300.0	
2	GARDNER-DENVER			PZ-11-1600		5 1/2	11.00	0.081		6,300.0	
3	GARDNER-DENVER			PZ-11-1600		5 1/2	11.00	0.081		6,300.0	
Pump Checks											
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)		Q Flow (gpm)			Eff (%)		
1	6,138.0	16:30	415.0	60		193			95		
1	6,138.0	16:30	300.0	40		129			95		
1	6,138.0	16:30	210.0	20		64			95		
2	6,138.0	16:30	295.0	40		129			95		
2	6,138.0	16:30	400.0	60		193			95		
2	6,138.0	16:30	230.0	20		64			95		
3	6,138.0	16:30	300.0	40		129			95		
3	6,138.0	16:30	415.0	60		193			95		
3	6,138.0	16:30	210.0	20		64			95		
Daily Drilling Report											

Page 4/5

Printed: Monday, September 16, 2019

# Daily Drilling Report

**H & P #601**

Accept: 9/11/2019	Release:
Days Since LTI:	Days Since RI: 11.00
1,399.00	

Job:	ODR
Report Date:	9/16/2019
Report #:	8
DFS:	7
A/E #:	9006575
Total A/E + Sup:	\$3,092,346.43
Daily Field Est. (Cost):	\$70,791.86

Daily Drilling Report Page 5/5 Printed: Monday, September 16, 2019