

ENSIGN 125	
Accept:	12/24/2022
Release:	
Days Since LTI:	871.00
Days Since RI:	871.00

Daily Drilling Report

PERMIAN ASSET TEAM	
Job:	ODR
Report Date:	12/25/2022
Report #:	3
DFS:	2
AFE #:	9023597
Total AFE + Sup:	\$3,449,530.30
Daily Field Est. (Cost):	\$145,392.59

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)				
SSN ID00003244		Property Sub	KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022	TD Date	
Jobs											
Responsible Grp 2			Responsible Grp 3		Job Type	Start Date		End Date	Job Status		
DRL ENG - JOHN GARZA			AREA TEAM 2		ODR	11/8/2022 06:00			IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)											
Type		Subtype			Date		Note				
MILESTONE		ESTIMATED PAD RELEASE			2/5/2023		4th well of a 5 well pad, Batch Drilling.				
Daily Operations											
Footage/Meterage (ft) 950.00		Drilling Hours 10.25	% Rotating Time 100.00		End Depth (ftKB) 2,987.0	Target Depth (ftKB) 20,303.0		Daily Field Est Total \$145,392.59		Cum Field Est To Date \$694,471.63	
24 HR ROP (ft/hr) 92.7	Circulating Hours 0.50	% Sliding Time 0.00	End Depth (TVD) (ftKB) 2,970.8		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$		Cum Mud Field Est \$	Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 0.0			Daily Goal - Next 24 3,000.0			Goal Comments Goal Met		
Backbuild Yes	Lateral Inclination	Last Casing String SURFACE, 2,016.2ftKB				Next Casing String PROPOSED INTERMEDIATE, 7,010.0ftKB					
Avg Connection Gas 3.00		Avg Trip Gas 0.00	Avg Background Gas 2.00		Max Connection Gas 3.00		Max Trip Gas 0.00		Max Drill Gas 2.00		
Operations Summary Walk Rig F/University 6-48C 103H, N/U BOP, Perform SHELL Test, Install Wearbushing, P/U Intermediate Drilling Assy, Drill Out Shoe Track and Rathole, Drill 10' New Formation, Perform FIT T/12.5# EMW, Drill Intermediate Section F/2,046' T/2,987' Building and Holding 15° Tangent. (INC - 12.64°, AZI - 249.85°, Above - 8.4', Left - 1.9°)											
Operations Next Report Period Drill Intermediate Section F/2,987' T/5,987'											
Operations At Report Time Drilling Intermediate Section @ 2,987' Building 15° Tangent											
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 0 Total hrs Pioneer NPT Well: 0 Total hr Surf-100%, Int 1- 19.10%, Curve- 0%, Prod Lat- 0%											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #
09:00	0.25	09:15	MOB, RIG UP	SFTY	NORMAL	PJSM for Skidding Rig		2,037.0	2,037.0		
09:15	1	10:15	MOB, RIG UP	SKID	NORMAL	Walk rig F/University 6-48D 104H well.		2,037.0	2,037.0		
10:15	0.5	10:45	MOB, RIG UP	NU_BOPE	NORMAL	Remove TA cap and N/U BOP		2,037.0	2,037.0		
10:45	0.75	11:30	MOB, RIG UP	CONC_BOPE	NORMAL	Perform SHELL test on BOP 250-5,000 psi for 30 minutes.		2,037.0	2,037.0		
11:30	0.25	11:45	INT, PRE DRL	WRBSH	NORMAL	M/U wearbushing retrieval tool and set wearbushing in wellhead.		2,037.0	2,037.0		
11:45	0.25	12:00	INT, PRE DRL	SFTY	NORMAL	Hold PJSM with all personnel on picking up directional components.		2,037.0	2,037.0		
12:00	1.5	13:30	INT, PRE DRL	PU_DIR	NORMAL	P/U directional components as per Baker directional.		2,037.0	2,037.0		
13:30	1	14:30	INT, PRE DRL	HDL_BHA	NORMAL	TIH F/113 T/888' with stands of 8" DC and 5" HWDP from the derrick.		2,037.0	2,037.0		
14:30	0.5	15:00	INT, PRE DRL	CIRC	NORMAL	Fill pipe and test directional components.		2,037.0	2,037.0		
15:00	0.5	15:30	INT, PRE DRL	RIG_SVC	NORMAL	Service and inspect drill floor equipment.		2,037.0	2,037.0		
15:30	0.25	15:45	INT, PRE DRL	SFTY	NORMAL	Hold PJSM with personnel on slipping and cutting drill line.		2,037.0	2,037.0		
15:45	1	16:45	INT, PRE DRL	SLIP_CUT	NORMAL	Slip and Cut 60' of drilling line.		2,037.0	2,037.0		
16:45	1	17:45	INT, PRE DRL	TIH_ELEV	NORMAL	TIH F/888' T/1,760'. Monitoring displacements on trip tanks.		2,037.0	2,037.0		
17:45	0.25	18:00	INT, PRE DRL	HDL_ROTHD	NORMAL	Remove trip nipple and install rotating head assembly.		2,037.0	2,037.0		
18:00	0.25	18:15	INT, PRE DRL	TIH_ELEV	NORMAL	TIH F/1,760' T/1,971' tagging float collar.		2,037.0	2,037.0		
18:15	0.5	18:45	INT, PRE DRL	DRL_OUT	NORMAL	Drill out shoe track and rathole T/2,037'.		2,037.0	2,037.0		

18:45	0.25	19:00	INT, PRE DRL	DRL	NORMAL	Drill 10' new formation F/2,037' T2,047'.	2,037.0	2,047.0		
19:00	0.25	19:15	INT, PRE DRL	CIRC	NORMAL	Circulate prior to performing FIT	2,047.0	2,047.0		
19:15	0.25	19:30	INT, PRE DRL	FIT	NORMAL	Perform FIT T/12.5# EMW	2,047.0	2,047.0		
19:30	8.5	04:00	INT, DRL	DRL_OUT	NORMAL	Drill Intermediate Section F/2,047' T/2,846' Building 15° Tangent (799' @ 94 fph) Pumping @ 1,000 GPM w/3,900 psi, Rotating @ 60 RPM w/16-19K torque, 40K WOB and 700-800 psi Diff.	2,047.0	2,846.0		
04:00	0.5	04:30	INT, DRL	RIG_SVC	NORMAL	Service and inspect drill floor equipment.	2,846.0	2,846.0		
04:30	1.5	06:00	INT, DRL	DRL	NORMAL	Drill Intermediate Section F/2,846' T/2,987' Building 15° Tangent (141' @ 94 fph) Pumping @ 1,000 GPM w/3,900 psi, Rotating @ 60 RPM w/16-19K torque, 40K WOB and 700-800 psi Diff.	2,846.0	2,987.0		

Drill Strings										
BHA #2 , INTERMEDIATE										
Bit Run			Drill Bit			Bit Type			Make	
12			12 1/4, XS716, SN3489			PDC			SMITH	
Nozzles (1/32")			Bit Total Fluid Area (nozzles) (in²)			IADC Bit Dull			Hours Drilled By Bit (hr)	
11/11/11/12/12/12/12/12/12			1.05			-----			10.25	
BHA Drilling Time (hr)			BHA Depth Drilled (ft)			BHA ROP (ft/hr)			Depth In (ftKB)	
10.25			950.00			92.7			2,037.0	
									2,987.0	

Drill String Components										
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
35	DRILL PIPE			5	4.28	1,583.07	2,987.00	30,869.9	76	RIG
2	HWDP			5	2.88	60.96	1,403.93	3,169.9	45	RIG
1	DRILLING JARS - HYDRAULIC			7	2.50	31.46	1,342.97		42	WEATHERFORD
27	HWDP			5	2.88	811.49	1,311.51	42,197.5	42	RIG
1	SUB - XO			7 7/8	2.75	3.20	500.02		0	RIG
9	DRILL COLLAR - SPIRALED			8.06	2.88	274.98	496.82		0	RIG
1	SUB - XO			8	2.50	2.75	221.84		0	DRILLING TOOLS INTERNATIONAL
1	REAMER - DRILL N' REAM			8	2.88	10.03	219.09		0	DRILLING TOOLS INTERNATIONAL
1	SUB - XO			7 7/8	2.75	3.23	209.06		0	DRILLING TOOLS INTERNATIONAL
3	DRILL COLLAR - SPIRALED			8.06	2.88	89.59	205.83		0	RIG
1	SUB - XO			8	3.25	3.45	116.24		0	DRILLING TOOLS INTERNATIONAL
1	SUB - FILTER			8 1/4	3.25	3.73	112.79		0	GE/BAKER HUGHES
1	DRILL COLLAR - NON MAG			8	3.25	28.90	109.06		0	GE/BAKER HUGHES
1	MWD TOOL - NON-RETRIEVABLE			8	3.25	35.71	80.16		0	GE/BAKER HUGHES
1	STABILIZER			8 1/4	2.75	7.53	44.45		0	DRILLING TOOLS INTERNATIONAL
1	MOTOR - STABILIZER SLEEVE			9 1/2	3.25	35.57	36.92		0	GE/BAKER HUGHES

Mud Motors						
SN	Bend Angle	Bearing Type	Lobe Config	# Stages	Lwr Defln Type	Bit To Bend
14768681	1.5	NOT SEALED	7:8	4		9.55

Sensors		
Sensor Type	Sensor-Bit (ft)	Note
GAMMA	57.31	
DIRECTIONAL	60.71	

Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	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 (°)
18:45	19:00	2,037.0	10.00	40.0	15	40		604	1,880.0	40.0	140	145	135	140	8.0	7.0	
19:30	04:00	2,047.0	799.00	94.0	40	60		1,000	1,880.0	94.0	140	145	135	140	18.0	7.0	
04:00	04:30	2,846.0	0.00		0	60		1,000	1,880.0	0.0	140	145	135	140	8.0	7.0	
04:30	06:00	2,846.0	141.00	94.0	40	60		1,000	1,880.0	94.0	140	145	135	140	18.0	7.0	

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)	
10.70	10.78	526.3	4.5	305.1	902.3	28.0	409.8	39.60	100.61	259.53	

Mud Checks										
Time		Mud Company			Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)		T Flowline (° F)
12/24/2022 21:00		PIONEER DRILLING FLUIDS			WATER BASE	2,136.0	10.70	55		97.0
pV (cP)	YP (lbf/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (° F)		HTHP Pressure (psi)
6.0	14.000	4	5	6.0		0.0		0.0		0.0
Solids (%)		Low Gravity Solids (%)			Sand (%)	MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)
20.0		10.5			0.2	2.5		0.400		0.4
Chlorides (mg/L)		Calcium (mg/L)		CaCl (ppm)	Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)	pH
166,000		360.000		0	5/95		0.0		0.1	9.0
Gel 10 sec (lbf/100ft²)				Gel 10 min (lbf/100ft²)			Gel 30 min (lbf/100ft²)			
6.000				10.000			11.000			

with new API 100's. Received all chemical and volume F/University 6-48 C 103H. Received 800 BBLs of 10.0 ppg Brine.

Rig Activity Last 24 Hours: Finish skidding rig. P/U BHA #1. TIH T/1,971' Tag and drill Float Collar, Shoe and 10' of new formation. Perform FIT T/12.5 EMW. Drill F/2,046' T/2,321' at time of report. Drilling parameters: ROP- 64', WOB-24K, Rotary- 51 RPM, Bit- 124 RPM, Torque- 11.7 KLB-Ft, Diff- 386 PSI. P/U 160k, S/O 155k, ROT 160K. Lithology @ 2,130' 20% SA, 60% SD, 20%RSH.

Last BOP Test				
Date	Test Type	Item Tested	Next Test Date	Com
12/21/2022 03:15	BOP	BOP'S, 12/24/2022 09:00	1/3/2022 03:15	SHELL TEST

Leak Off and Formation Integrity Tests		
Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	2,014.0	12.60

Casing Pressure Test						
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	11/17/2022 17:30	SURFACE, 2,016.2ftKB	No	30.00	1,000.0

Kick Offs & Key Depths			
Date	Type	Top Depth (ftKB)	Depth Top (TVD) (ftKB)
No Data			

Casing Strings							
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	105.0	105.0	20	H40	78.67		
SURFACE	2,016.2	2,013.3	13 3/8	J55	54.50	BTC	1,316.3

Gas Emissions - Flare					
Type	Method	Dur (Min)	Amount	Units	Com
No Data					

Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	FUEL	GAL	19990			Transferred from' UNIVERSITY 6-48C 103H' (Winter Tank)	19,990	605
DIESEL	MUD	GAL	16764	3588		Transferred from' UNIVERSITY 6-48C 103H'	13,176	3588
WATER	FRESH	BBL	4111	4111		Initial Reading: 56,681 Final Reading: 60,792	0	11528
DIESEL	FUEL	GAL	7439	1895		Transferred from' UNIVERSITY 6-48C 103H'	5,544	1895

Mud Additive Amounts						
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons

Pump Operations						
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0
2	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0
3	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0

Pump Checks						
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)
1	2,846.0	12/25/2022 04:15	280.0	30	106	95
1	2,846.0	12/25/2022 04:15	260.0	20	70	95
1	2,846.0	12/25/2022 04:15	350.0	40	141	95
2	2,846.0	12/25/2022 04:15	250.0	20	70	95
2	2,846.0	12/25/2022 04:15	320.0	40	141	95
2	2,846.0	12/25/2022 04:15	270.0	30	106	95
3	2,846.0	12/25/2022 04:15	320.0	40	141	95
3	2,846.0	12/25/2022 04:15	260.0	30	106	95
3	2,846.0	12/25/2022 04:15	240.0	20	70	95

Deviation Surveys		
Date	Description	Job
11/8/2022 16:00	AS DRILL SURVEY	ODR, 11/8/2022 06:00

Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
2,060.00	3.20	246.50	2,057.00	93.29	-28.39	-88.87	0.46
2,150.00	4.52	250.22	2,146.80	99.33	-30.60	-94.51	1.49
2,240.00	6.28	252.03	2,236.39	107.80	-33.32	-102.53	1.96
2,331.00	7.50	251.62	2,326.74	118.72	-36.72	-112.90	1.34
2,422.00	8.43	250.40	2,416.86	131.33	-40.83	-124.82	1.04
2,512.00	9.38	248.86	2,505.77	145.25	-45.69	-137.88	1.09
2,602.00	10.51	248.68	2,594.42	160.78	-51.32	-152.37	1.26
2,693.00	11.68	249.16	2,683.72	178.28	-57.62	-168.71	1.29
2,783.00	12.64	249.85	2,771.70	197.22	-64.25	-186.47	1.08

Formations					
Formation Name	Prog Top Override (TVD SS) (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		3,083.0	3,070.0	
256_0_YATES	-132.0		3,125.0	3,152.0	
257_0_SEVEN RIVERS	-434.0		3,427.0	3,425.0	
258_0_QUEEN	-1,102.0		4,095.0	4,101.0	
259_0_GRAYBURG	-1,611.0		4,604.0	4,563.0	
261_0_SAN ANDRES	-1,802.0		4,795.0	4,740.0	
263_5_Top_Cherry_Canyon	-2,697.0		5,690.0	5,684.0	

264_5_TOP_BRUSHY_CANYON	-3,594.0		6,587.0		
265_0_CLEARFORK/POP	-3,815.0		6,808.0	6,851.0	
ICP1	-3,865.0		6,858.0		
267_0_SPBY_U_A1/267_0_SPBY	-5,443.0		8,436.0	8,493.0	
267_5_SPBY_M_A1	-5,755.0		8,748.0	8,807.0	
268_5_SPBY_L_A1	-5,987.0		8,980.0	9,026.0	
ALT_ICP2	-6,137.0		9,130.0		
268_5_SPBY_L_A2	-6,023.0		9,016.0	9,077.0	
268_5_SPBY_L_A3	-6,108.0		9,101.0	9,155.0	
268_6_SPBY_L_B1/JO MILL	-6,262.0		9,255.0	9,355.0	
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-6,321.0		9,314.0	9,409.0	
ILP	-6,540.0		9,533.0		
PBHL/TD	-6,600.0		9,593.0		
269_0_DEAN	-6,633.0		9,626.0		
270_0_WFMP_A1	-6,802.0		9,795.0		
275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		

Daily Contacts					
Job Contact	Title	Office	Mobile	Email	
JACKSON, AUSTIN, ENGINEER	ENGINEER	972-969-5954	469-503-1379	AUSTIN.JACKSON@PXD.COM	
COX, BRYAN, ENGINEER	ENGINEER	972-969-5717	361-318-4212	BRYAN.COX@PXD.COM	
KUMAR, DEV, ENGINEER	ENGINEER		469-865-6956	DEV.KUMAR@PXD.COM	
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM	
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM	
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM	
BROWN, KEITH, SUPERINTENDENT	SUPERINTENDENT	972-313-9798	469-516-3137	KEITH.BROWN@PXD.COM	
PRESLEY, MAHLON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM	
HENZE, BRENDON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM	
MUNGER CASEY, MUD ENGINEER	MUD ENGINEER		479-234-6620	CASEY.MUNGER@PXD.COM	
RIG-ENSIGN 125, RIG PHONE	RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM	

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
ENSIGN UNITED STATES DRILLING S W INC	13
BAKER HUGHES OILFIELD OPERATIONS INC	2
GISLER BROTHERS LOGGING CO INC	2
STALLION SOLIDS CONTROL INC	1

ENSIGN 125

Accept:12/24/2022

Release:

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PERMIAN ASSET TEAM

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Report #:4

Dfs:3

Afe #:9023597

Total Afe + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$114,080.92

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)				
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24 HR ROP (ft/hr) 119.6	Circulating Hours 1.00	% Sliding Time 0.00	End Depth (TVD) (ftKB) 5,619.6		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$648.33	Cum Mud Field Est \$648.33	Total AFE + Sup \$3,449,530.30		
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 3,000.0			Daily Goal - Next 24 1,406.0			Goal Comments Goal Not Met		
Backbuild Yes	Lateral Inclination	Last Casing String SURFACE, 2,016.2ftKB					Next Casing String PROPOSED INTERMEDIATE, 7,010.0ftKB				
Avg Connection Gas 29.00		Avg Trip Gas 0.00		Avg Background Gas 13.00		Max Connection Gas 248.00		Max Trip Gas 0.00	Max Drill Gas 40.00		
Operations Summary											
Drill Intermediate Section F/2,987' T/5,737' Holding 15° Tangent (INC - 16.95°, AZI - 248.11°, Below - 11.7', Right - 7.1')											
Operations Next Report Period											
Drill Intermediate Section T/TD @ 7,010' +/-, Circulate Sweeps Around and Hole Clean, Flow Check Well, Spot Pad Mud, TOOH.											
Operations At Report Time											
Drilling Intermediate Section @ 5,737' Holding 15° Tangent											
Remarks											
No incidents reported, No spills recorded.											
Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 0 Total hrs Pioneer NPT Well: 0 Total hr Surf-100%, Int 1- 74.40%, Curve- 0%, Prod Lat- 0%											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #
06:00	4.5	10:30	INT, DRL	DRL	NORMAL	Drill Intermediate Section F/2,987' T/3,484' Building & Hold 15° Tangent (497' @ 110 fph) Pumping @ 1,000 GPM w/3,900 psi, Rotating @ 60 RPM w/16-19K torque, 40K WOB and 700-800 psi Diff.		2,987.0	3,484.0		
10:30	0.5	11:00	INT, DRL	RIG_SVC	NORMAL	Rig Service		3,484.0	3,484.0		
11:00	16.5	03:30	INT, DRL	DRL	NORMAL	Drill Intermediate Section F/3,484' T/5,375' Hold 15° Tangent (1,891' @ 114.6 fph) Pumping @ 1,000 GPM w/4,200 psi, Rotating @ 60 RPM w/16-19K torque, 40K WOB and 700-800 psi Diff.		3,484.0	5,375.0		
03:30	0.5	04:00	INT, DRL	RIG_SVC	NORMAL	Service and inspect drill floor equipment		5,375.0	5,375.0		
04:00	2	06:00	INT, DRL	DRL	NORMAL	Drill Intermediate Section F/5,375' T/5,737' Hold 15° Tangent (362 @ 181 fph) Pumping @ 1,000 GPM w/4,200 psi, Rotating @ 60 RPM w/16-19K torque, 40K WOB and 700-800 psi Diff.		5,375.0	5,737.0		
Drill Strings											
BHA #2 , INTERMEDIATE											
Bit Run 12			Drill Bit 12 1/4, XS716, SN3489				Bit Type PDC		Make SMITH		
Nozzles (1/32") 11/11/11/12/12/12/12/12/12			Bit Total Fluid Area (nozzles) (in²) 1.05		IADC Bit Dull -----		Hours Drilled By Bit (hr) 33.25		Depth Drilled By Bit (ft) 3,700.00		
BHA Drilling Time (hr) 33.25			BHA Depth Drilled (ft) 3,700.00		BHA ROP (ft/hr) 111.3		Depth In (ftKB) 2,037.0		Depth Out (ftKB) 5,737.0		
Drill String Components											
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make	
95	DRILL PIPE			5	4.28	4,333.07	5,737.00	84,494.9	130	RIG	

2	HWDP	5	2.88	60.96	1,403.93	3,169.9	45	RIG
1	DRILLING JARS - HYDRAULIC	7	2.50	31.46	1,342.97		42	WEATHERFORD
27	HWDP	5	2.88	811.49	1,311.51	42,197.5	42	RIG
1	SUB - XO	7 7/8	2.75	3.20	500.02		0	RIG
9	DRILL COLLAR - SPIRALED	8.06	2.88	274.98	496.82		0	RIG
1	SUB - XO	8	2.50	2.75	221.84		0	DRILLING TOOLS INTERNATIONAL
1	REAMER - DRILL N' REAM	8	2.88	10.03	219.09		0	DRILLING TOOLS INTERNATIONAL
1	SUB - XO	7 7/8	2.75	3.23	209.06		0	DRILLING TOOLS INTERNATIONAL
3	DRILL COLLAR - SPIRALED	8.06	2.88	89.59	205.83		0	RIG
1	SUB - XO	8	3.25	3.45	116.24		0	DRILLING TOOLS INTERNATIONAL
1	SUB - FILTER	8 1/4	3.25	3.73	112.79		0	GE/BAKER HUGHES
1	DRILL COLLAR - NON MAG	8	3.25	28.90	109.06		0	GE/BAKER HUGHES
1	MWD TOOL - NON-RETRIEVABLE	8	3.25	35.71	80.16		0	GE/BAKER HUGHES
1	STABILIZER	8 1/4	2.75	7.53	44.45		0	DRILLING TOOLS INTERNATIONAL
1	MOTOR - STABILIZER SLEEVE	9 1/2	3.25	35.57	36.92		0	GE/BAKER HUGHES

Mud Motors						
SN	Bend Angle	Bearing Type	Lobe Config	# Stages	Lwr Defln Type	Bit To Bend
14768681	1.5	NOT SEALED	7:8	4		9.55

Sensors		
Sensor Type	Sensor-Bit (ft)	Note
GAMMA	57.31	
DIRECTIONAL	60.71	

Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
06:00	10:30	2,987.0	497.00	110.4	38	60	596.8	998	3,886.0	110.4	121	121	121	121	15.0	15.0	
10:30	11:00	3,484.0	0.00		0	43	263.5	998	3,667.0	48.0	156	156	156	156	6.0	6.0	
11:00	03:30	3,484.0	1,891.00	114.6	35	60	514.1	998	3,918.0	114.6	131	131	131	131	11.0	11.0	
03:30	04:00	5,375.0	0.00		0	60	741.0	998	4,780.0	0.0	141	141	141	141	18.0	18.0	
04:00	06:00	5,375.0	362.00	181.0	48	60	741.0	998	4,780.0	181.0	141	141	141	141	18.0	18.0	

Hydraulic Calculations										
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	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)
10.80	10.88	528.1	4.5	304.5	907.1	28.0	409.0	88.53	433.97	260.27

Mud Checks											
Time		Mud Company			Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)		T Flowline (° F)	
12/25/2022 21:00		PIONEER DRILLING FLUIDS			WATER BASE	4,773.0	10.80	35		114.0	
pV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)		HTHP Temperature (° F)		HTHP Pressure (psi)		
7.0	13.000	4	5	14.0	0.0		0.0		0.0		
Solids (%)		Low Gravity Solids (%)			Sand (%)	MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)	
22.0		13.0			0.2	2.5		0.400		0.4	
Chlorides (mg/L)		Calcium (mg/L)		CaCl (ppm)	Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)		pH
164,000		200.000		0	7.7/92.3		0.0		0.1		10.0
Gel 10 sec (lb/100ft²)				Gel 10 min (lb/100ft²)				Gel 30 min (lb/100ft²)			
7.000				14.000				17.000			

Comment

Recommeded Fluid Treatment: Maintain 10.8 ppg MW w/Whole Mud Dilution. Treatment: 3/4 ppb Soda Ash, 1/4 ppb Xan, 1/2 ppb Pac LV, 1/2 ppb Soltex, 5% Diesel.

Drilling Fluid Activity Last 24 Hrs: Inspect shaker screens on connections with 2 needing to be replaced with new API 100's. Utilize prebuilt WBM and 10.0 ppg Brine for dilution as needed for property and MW management.

Rig Activity Last 24 Hours: Drill/Slide F/2,321' T/4,872' at time of report with no issues. Drilling parameters: ROP- 221', WOB-41K, Rotary- 60 RPM, Bit- 150 RPM, Torque- 18.4 KLB-Ft, Diff- 797 PSI. P/U 210k, S/O 1165k, ROT 175K. Lithology @ 4,730' 60% SD, 40% LS.

Last BOP Test				
Date	Test Type	Item Tested	Next Test Date	Com
12/21/2022 03:15	BOP	BOP'S, 12/24/2022 09:00	1/3/2022 03:15	SHELL TEST

Leak Off and Formation Integrity Tests		
Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	2,014.0	12.60

Casing Pressure Test						
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	11/17/2022 17:30	SURFACE, 2,016.2ftKB	No	30.00	1,000.0

Kick Offs & Key Depths			
Date	Type	Top Depth (ftKB)	Depth Top (TVD) (ftKB)
No Data			

Casing Strings							
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	105.0	105.0	20	H40	78.67		
SURFACE	2,016.2	2,013.3	13 3/8	J55	54.50	BTC	1,316.3

Gas Emissions - Flare					
Type	Method	Dur (Min)	Amount	Units	Com

No Data									
Job Supply Amounts									
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed	
DIESEL	FUEL	GAL	7443	4135		Texas Pride 77206	8,852	6030	
DIESEL	MUD	GAL		3036			10,140	6624	
DIESEL	FUEL	GAL	0	0		Winter Tank	19,990	605	
WATER	FRESH	BBL	2893	2893		Initial Reading: 60,792 Final Reading: 63,685	0	14421	
Mud Additive Amounts									
Des			Type		Units	Rec	Consumed	On Loc	Cum Cons
BARITE - SACK			WEIGHTING MATERIAL		SACK		3	157.0	3
WO DEFOAMER A			DEFOAMER		GAL		7	43.0	7
LIME			ALKALINITY CONTROL		SACK		19	207.0	19
SOLTEX			FILTRATE CONTROL		LB		1	250.0	1
Pump Operations									
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)		P Max (psi)		
1	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0		
2	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0		
3	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0		
Pump Checks									
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)		Eff (%)		
1	5,375.0	12/26/2022 04:00	320.0	40	141		95		
1	5,375.0	12/26/2022 04:00	280.0	30	106		95		
1	5,375.0	12/26/2022 04:00	250.0	20	70		95		
2	5,375.0	12/26/2022 04:00	310.0	40	141		95		
2	5,375.0	12/26/2022 04:00	240.0	20	70		95		
2	5,375.0	12/26/2022 04:00	270.0	30	106		95		
3	5,375.0	12/26/2022 04:00	230.0	20	70		95		
3	5,375.0	12/26/2022 04:00	260.0	30	106		95		
3	5,375.0	12/26/2022 04:00	310.0	40	141		95		
Deviation Surveys									
Date			Description		Job				
11/8/2022 16:00			AS DRILL SURVEY		ODR, 11/8/2022 06:00				
Survey Data - All surveys for 24 hr reporting period									
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)		
3,054.00	15.00	253.20	3,034.39	263.67	-85.04	-249.58	0.14		
3,144.00	14.44	252.98	3,121.44	286.52	-91.69	-271.46	0.63		
3,235.00	15.35	250.35	3,209.38	309.91	-99.06	-293.65	1.25		
3,326.00	15.13	250.53	3,297.18	333.83	-107.07	-316.19	0.25		
3,416.00	15.97	250.12	3,383.89	357.95	-115.20	-338.91	0.94		
3,506.00	15.80	249.40	3,470.45	382.57	-123.72	-362.02	0.29		
3,596.00	15.58	249.44	3,557.10	406.90	-132.27	-384.80	0.24		
3,687.00	15.27	248.26	3,644.82	431.08	-141.00	-407.38	0.48		
3,777.00	15.07	248.47	3,731.68	454.60	-149.69	-429.27	0.23		
3,869.00	14.77	248.61	3,820.58	478.26	-158.35	-451.32	0.33		
3,958.00	15.80	250.90	3,906.43	501.71	-166.46	-473.33	1.34		
4,048.00	15.75	251.20	3,993.04	526.18	-174.40	-496.47	0.11		
4,139.00	15.26	250.65	4,080.73	550.50	-182.35	-519.46	0.56		
4,229.00	15.45	251.77	4,167.52	574.33	-190.02	-542.02	0.39		
4,319.00	15.00	251.93	4,254.36	597.97	-197.39	-564.48	0.50		
4,410.00	15.74	253.85	4,342.10	622.07	-204.47	-587.53	0.99		
4,500.00	15.58	254.76	4,428.76	646.33	-211.05	-610.92	0.33		
4,590.00	14.94	254.35	4,515.59	669.98	-217.35	-633.75	0.72		
4,681.00	14.33	254.88	4,603.64	692.94	-223.45	-655.92	0.69		
4,771.00	14.62	253.54	4,690.78	715.40	-229.58	-677.56	0.49		
4,861.00	14.67	252.68	4,777.86	738.14	-236.19	-699.34	0.25		
4,952.00	15.40	250.38	4,865.74	761.75	-243.68	-721.72	1.04		
5,042.00	15.65	248.69	4,952.46	785.82	-252.10	-744.28	0.57		
5,132.00	15.58	248.72	5,039.14	810.02	-260.90	-766.86	0.08		
5,222.00	15.22	248.84	5,125.90	833.90	-269.55	-789.14	0.40		
5,313.00	15.44	248.89	5,213.67	857.94	-278.22	-811.58	0.24		
5,403.00	16.95	248.11	5,300.09	883.01	-287.43	-834.93	1.70		
Formations									
Formation Name			Prog Top Override (TVD SS) (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)		
263_5_Top_Cherry_Canyon			-2,697.0		5,690.0	5,684.0	5,568.9		
264_5_TOP_BRUSHY_CANYON			-3,594.0		6,587.0				
265_0_CLEARFORK/POP			-3,815.0		6,808.0	6,851.0			
ICP1			-3,865.0		6,858.0				
267_0_SPBY_U_A1/267_0_SPBY			-5,443.0		8,436.0	8,493.0			
267_5_SPBY_M_A1			-5,755.0		8,748.0	8,807.0			

268_5_SPBY_L_A1	-5,987.0		8,980.0	9,026.0	
ALT_ICP2	-6,137.0		9,130.0		
268_5_SPBY_L_A2	-6,023.0		9,016.0	9,077.0	
268_5_SPBY_L_A3	-6,108.0		9,101.0	9,155.0	
268_6_SPBY_L_B1/JO MILL	-6,262.0		9,255.0	9,355.0	
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-6,321.0		9,314.0	9,409.0	
ILP	-6,540.0		9,533.0		
PBHL/TD	-6,600.0		9,593.0		
269_0_DEAN	-6,633.0		9,626.0		
270_0_WFMP_A1	-6,802.0		9,795.0		
275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
JACKSON, AUSTIN, ENGINEER	ENGINEER	972-969-5954	469-503-1379	AUSTIN.JACKSON@PXD.COM
COX, BRYAN, ENGINEER	ENGINEER	972-969-5717	361-318-4212	BRYAN.COX@PXD.COM
KUMAR, DEV, ENGINEER	ENGINEER		469-865-6956	DEV.KUMAR@PXD.COM
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM
BROWN, KEITH, SUPERINTENDENT	SUPERINTENDENT	972-313-9798	469-516-3137	KEITH.BROWN@PXD.COM
PRESLEY, MAHLON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM
HENZE, BRENDON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM
MUNGER CASEY, MUD ENGINEER	MUD ENGINEER		479-234-6620	CASEY.MUNGER@PXD.COM
RIG-ENSIGN 125, RIG PHONE	RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM
Personnel Log				
Company				Count
PIONEER NATURAL RESOURCES USA INC				2
ENSIGN UNITED STATES DRILLING S W INC				13
BAKER HUGHES OILFIELD OPERATIONS INC				2
GISLER BROTHERS LOGGING CO INC				2
STALLION SOLIDS CONTROL INC				1

ENSIGN 125

Accept:

12/24/2022

Release:

Days Since LTI:

873.00

Days Since RI:

873.00

PERMIAN ASSET TEAM

Job:

ODR

Report Date:

12/27/2022

Report #:

5

DFS:

4

AFE #:

9023597

Total AFE + Sup:

\$3,449,530.30

Daily Field Est. (Cost):

\$111,175.03

Daily Drilling Report

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)			
SSN ID00003244		Property Sub	KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022	TD Date
Jobs										
Responsible Grp 2			Responsible Grp 3			Job Type	Start Date		End Date	Job Status
DRL ENG - JOHN GARZA			AREA TEAM 2			ODR	11/8/2022 06:00			IN PROGRESS
Job Dates (ex. Estimated Pad Release, TXRRC Calls)										
Type		Subtype				Date	Note			
MILESTONE		ESTIMATED PAD RELEASE				2/5/2023	4th well of a 5 well pad, Batch Drilling.			
Daily Operations										
Footage/Meterage (ft) 662.00		Drilling Hours 8.25	% Rotating Time 100.00		End Depth (ftKB) 6,399.0	Target Depth (ftKB) 20,303.0		Daily Field Est Total \$111,175.03		Cum Field Est To Date \$919,727.58
24 HR ROP (ft/hr) 80.2	Circulating Hours 1.75	% Sliding Time 0.00	End Depth (TVD) (ftKB) 6,255.6		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$5,817.41		Cum Mud Field Est \$6,465.74	Total AFE + Sup \$3,449,530.30
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 1,406.0			Daily Goal - Next 24 634.0			Goal Comments Goal Not Met	
Backbuild Yes	Lateral Inclination	Last Casing String SURFACE, 2,016.2ftKB					Next Casing String INTERMEDIATE, 7,017.0ftKB			
Avg Connection Gas 18.00		Avg Trip Gas 0.00		Avg Background Gas 16.00		Max Connection Gas 21.00		Max Trip Gas 0.00		Max Drill Gas 19.00
Operations Summary										
Drill Intermediate Section T/6,399', Jar On Drillstring and Get Free, Circulate Wellbore Clean, TOO H F/6,399' T/5,556', Flow Check, Pump Slug, TOO H T/1,403'. (INC - 16.62°, AZI - 251.14°, Below - .59', Right - 7.28')										
Operations Next Report Period										
TOOH, L/D Directional Components, Perform Post Jarring Inspection, P/U New Directional Components, TIH, Drill Intermediate Section T/TD @ 7,033' +/-, Circulate Wellbore Clean, Spot Pad Mud, TOO H.										
Operations At Report Time										
TOOH @ 1,403'										
Remarks										
No incidents reported, No spills recorded.										
Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 0 Total hrs Pioneer NPT Well: 15.25 Total hr Surf-100%, Int 1- 87.31%, Curve- 0%, Prod Lat- 0%										
Time Log										
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com	Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #
06:00	5.5	11:30	INT, DRL	DRL	NORMAL	Drill Intermediate Section F/5,737' T/6,100' Hold 15° Tangent (363 @ 66 fph) Pumping @ 1,000 GPM w/4,200 psi, Rotating @ 60 RPM w/16-19K torque, 40K WOB and 700-800 psi Diff.	5,737.0	6,100.0		
11:30	0.5	12:00	INT, DRL	RIG_SVC	NORMAL	Rig Service	6,100.0	6,100.0		
12:00	2.75	14:45	INT, DRL	DRL	NORMAL	Drill Intermediate Section F/6,100' T/6,399' Hold 15° Tangent (299 @ 108.7 fph) Pumping @ 1,000 GPM w/4,200 psi, Rotating @ 60 RPM w/16-19K torque, 40K WOB and 700-800 psi Diff.	6,100.0	6,399.0		
14:45	9	23:45	INT, DRL	JAR	NORMAL	Jarring on drill string due to string becoming stuck after attempting to slide. Spotted diesel in annulus, as well as pipe free pill and then spotting freshwater when drill string finally became free. Slacking off cocking jars and then picking up and initially overpulling 175K and increasing to 275K after getting clearance from Ensign management.	6,399.0	6,399.0	9.00	1
23:45	1.25	01:00	INT, DRL	CIRC	NORMAL	Circulate out diesel, pipe free pill and fresh water prior to TOO H for BHA swap out.	6,399.0	6,399.0	1.25	2
01:00	0.25	01:15	INT, DRL	FLOW_CHK	NORMAL	Flow check well on trip tanks.	6,399.0	6,399.0	0.25	2
01:15	0.75	02:00	INT, DRL	TOOH_ELEV	NORMAL	TOOH F/6,399' T/5,556'. Top filling with trip tanks. Wiping any tight spots seen.	6,399.0	6,399.0	0.75	2
02:00	0.25	02:15	INT, DRL	FIT	NORMAL	Flow check well on trip tanks.	6,399.0	6,399.0	0.25	2
02:15	0.25	02:30	INT, DRL	CIRC	NORMAL	Pump slug	6,399.0	6,399.0	0.25	2
02:30	3.5	06:00	INT, DRL	TOOH_ELEV	NORMAL	TOOH F/5,556' T/1,403'. Top filling with trip tanks.	6,399.0	6,399.0	3.50	2

						Wiping any tight spots seen.															
Interval Problems																					
DOWNHOLE CONDITIONS, 6,399.0ftKB, 12/26/2022 14:45																					
Ref #	Dur (hr)	Exclude From Problem Time Calcs?	SubType	Problem Description	Est Cost OR (Cost)	Accountable Party			Comment												
1	9.00	No	STUCK	WORK STRING		PIONEER NATURAL RESOURCES USA INC			Jarring on drill string due to string becoming stuck after attempting to slide. Spotted diesel in annulus, as well as pipe free pill and then spotting freshwater when drill string finally became free. Slacking off cocking jars and then picking up and initially overpulling 175K and increasing to 275K after getting clearance from Ensign management.												
DOWNHOLE CONDITIONS, 6,399.0ftKB, 12/26/2022 23:45																					
Ref #	Dur (hr)	Exclude From Problem Time Calcs?	SubType	Problem Description	Est Cost OR (Cost)	Accountable Party			Comment												
2		No	WELLBORE	FORMATION INSTABILITY		PIONEER NATURAL RESOURCES USA INC			Unscheduled round trip due to wellbore instability												
Drill Strings																					
BHA #2 , INTERMEDIATE																					
Bit Run				Drill Bit						Bit Type				Make							
2				12 1/4, XS716, SN3489						PDC				SMITH							
Nozzles (1/32")				Bit Total Fluid Area (nozzles) (in²)				IADC Bit Dull				Hours Drilled By Bit (hr)				Depth Drilled By Bit (ft)					
11/11/11/12/12/12/12/12/12				1.05				-----				41.50				4,362.00					
BHA Drilling Time (hr)				BHA Depth Drilled (ft)				BHA ROP (ft/hr)				Depth In (ftKB)				Depth Out (ftKB)					
41.50				4,362.00				105.1				2,037.0				6,399.0					
Drill String Components																					
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make										
110	DRILL PIPE				5	4.28	4,995.07	6,399.00	97,403.9	143	RIG										
2	HWDP				5	2.88	60.96	1,403.93	3,169.9	45	RIG										
1	DRILLING JARS - HYDRAULIC				7	2.50	31.46	1,342.97		42	WEATHERFORD										
27	HWDP				5	2.88	811.49	1,311.51	42,197.5	42	RIG										
1	SUB - XO				7 7/8	2.75	3.20	500.02		0	RIG										
9	DRILL COLLAR - SPIRALED				8.06	2.88	274.98	496.82		0	RIG										
1	SUB - XO				8	2.50	2.75	221.84		0	DRILLING TOOLS INTERNATIONAL										
1	REAMER - DRILL N' REAM				8	2.88	10.03	219.09		0	DRILLING TOOLS INTERNATIONAL										
1	SUB - XO				7 7/8	2.75	3.23	209.06		0	DRILLING TOOLS INTERNATIONAL										
3	DRILL COLLAR - SPIRALED				8.06	2.88	89.59	205.83		0	RIG										
1	SUB - XO				8	3.25	3.45	116.24		0	DRILLING TOOLS INTERNATIONAL										
1	SUB - FILTER				8 1/4	3.25	3.73	112.79		0	GE/BAKER HUGHES										
1	DRILL COLLAR - NON MAG				8	3.25	28.90	109.06		0	GE/BAKER HUGHES										
1	MWD TOOL - NON-RETRIEVABLE				8	3.25	35.71	80.16		0	GE/BAKER HUGHES										
1	STABILIZER				8 1/4	2.75	7.53	44.45		0	DRILLING TOOLS INTERNATIONAL										
1	MOTOR - STABILIZER SLEEVE				9 1/2	3.25	35.57	36.92		0	GE/BAKER HUGHES										
Mud Motors																					
SN		Bend Angle		Bearing Type			Lobe Config		# Stages		Lwr DefIn Type			Bit To Bend							
14768681		1.5		NOT SEALED			7:8		4					9.55							
Sensors																					
Sensor Type				Sensor-Bit (ft)						Note											
GAMMA				57.31																	
DIRECTIONAL				60.71																	
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	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	11:30	5,737.0	363.00	66.0	48	60	741.0	998	4,780.0	66.0	141	141	141	141	18.0	18.0					
11:30	12:00	6,100.0	0.00		0	60	741.0	998	4,780.0	0.0	141	141	141	141	18.0	18.0					
12:00	14:45	6,100.0	299.00	108.7	38	60	741.0	737	2,575.0	108.7	141	141	141	141	18.0	18.0					
23:45	01:00	6,399.0	0.00		0	60	741.0	633	1,928.0	0.0	141	141	141	141	18.0	18.0					
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)	
10.80		10.90		134.7		1.1		193.1		364.9		17.7		259.4		100.31		514.40		260.27	
Mud Checks																					
Time			Mud Company				Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)			T Flowline (° F)					
12/26/2022 16:30			PIONEER DRILLING FLUIDS				WATER BASE		6,399.0		10.80		33			107.0					
pV (cP)		YP (lbf/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)			HTHP Temperature (° F)			HTHP Pressure (psi)					
6.0		13.000		4		5		8.0		0.0			0.0			0.0					
Solids (%)			Low Gravity Solids (%)					Sand (%)		MBT (lb/bbl)			Pm (mL/mL)			Pf (mL/mL)					
21.0			12.4					0.2		2.5			0.000			0.2					
Chlorides (mg/L)			Calcium (mg/L)			CaCl (ppm)			Oil Water Ratio			Electric Stab (V)			Lime (lb/bbl)			pH			
162,000			320,000			0			8.9/91.1			0.0			0.1			8.5			
Gel 10 sec (lbf/100ft²)					Gel 10 min (lbf/100ft²)					Gel 30 min (lbf/100ft²)											
6.000					11.000					13.000											
Comment																					

Recommended Fluid Treatment: Maintain 10.8 ppg MW w/Whole Mud Dilution. Treatment: 3/4 ppb Soda Ash, 1/4 ppb Xan, 1/2 ppb Pac LV, 1/2 ppb Soltex, 5% Diesel. Barite used for slug.

Drilling Fluid Activity Last 24 Hrs: Utilize pre-built WBM F/dilution while drilling. Spotted 130 BBL diesel pill outside BHA with 3% pipe free in attempt to free drill string. Spotted 300 BBL Fresh Water pill outside BHA. Displaced FW Pill to reserve after circulating. Received 2 loads of Mud Diesel.

Rig Activity Last 24 Hours: Drill/Slide F/4,872' T/6,401'. Work stuck pipe w/full circ. Jarring @350K, freed string, circulate surf to surf, flow check with well static, POOH @5,635' at time of report. Drilling parameters: ROP- 30', WOB-26K, Rotary- 15 RPM, Bit- 150 RPM, Torque- 10.1 KLB-Ft, Diff- 189 PSI. P/U 250k, S/O 195k, ROT 220K. Lithology @ 6,390' 80% SD, 10% LS, 10% SH.

Last BOP Test				
Date	Test Type	Item Tested	Next Test Date	Com
12/21/2022 03:15	BOP	BOP'S, 12/24/2022 09:00	1/3/2022 03:15	SHELL TEST

Leak Off and Formation Integrity Tests		
Test Type	Depth (ftKB)	Dens Fluid (lb/gal)
FORMATION INTEGRITY	2,014.0	12.60

Casing Pressure Test						
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	11/17/2022 17:30	SURFACE, 2,016.2ftKB	No	30.00	1,000.0

Kick Offs & Key Depths			
Date	Type	Top Depth (ftKB)	Depth Top (TVD) (ftKB)
No Data			

Casing Strings							
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	105.0	105.0	20	H40	78.67		
SURFACE	2,016.2	2,013.3	13 3/8	J55	54.50	BTC	1,316.3

Gas Emissions - Flare					
Type	Method	Dur (Min)	Amount	Units	Com
No Data					

Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	14754	11994			12,900	18618
DIESEL	FUEL	GAL	0	0		Winter Tank	19,990	605
DIESEL	FUEL	GAL		2680			6,172	8710
WATER	FRESH	BBL	0	0		Initial Reading: 63,685 Final Reading: 63,685	0	14421

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
TRANSPORTATION	MISCELLANEOUS	EA	1	1	0.0	1	
BARITE - BULK	WEIGHTING MATERIAL	TON		10	48.24	10	
DA 320	H2S SCAVANGER	DRUM		1	5.0	1	
WO DEFOAMER A	DEFOAMER	GAL		11	32.0	18	
PIPE FREE	SPOTTING FLUID	DRUM	8	2	6.0	2	

Pump Operations						
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)
1	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0
2	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0
3	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0

Pump Checks						
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)
No Data						

Deviation Surveys		
Date	Description	Job
11/8/2022 16:00	AS DRILL SURVEY	ODR, 11/8/2022 06:00

Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
5,765.00	15.40	249.44	5,647.51	984.57	-324.06	-929.75	0.40
5,855.00	16.23	251.06	5,734.10	1,009.09	-332.34	-952.84	1.04
5,946.00	15.88	250.88	5,821.55	1,034.26	-340.55	-976.63	0.39
6,036.00	16.84	250.24	5,907.91	1,059.60	-348.99	-1,000.53	1.09
6,127.00	16.85	249.91	5,995.00	1,085.97	-357.98	-1,025.32	0.11
6,217.00	16.62	251.14	6,081.19	1,111.88	-366.62	-1,049.75	0.47

Formations					
Formation Name	Prog Top Override (TVD SS) (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
264_5_TOP_BRUSHY_CANYON	-3,594.0		6,587.0		
265_0_CLEARFORK/POP	-3,815.0		6,808.0	6,851.0	
ICP1	-3,865.0		6,858.0		
267_0_SPBY_U_A1/267_0_SPBY	-5,443.0		8,436.0	8,493.0	
267_5_SPBY_M_A1	-5,755.0		8,748.0	8,807.0	
268_5_SPBY_L_A1	-5,987.0		8,980.0	9,026.0	
ALT_ICP2	-6,137.0		9,130.0		
268_5_SPBY_L_A2	-6,023.0		9,016.0	9,077.0	
268_5_SPBY_L_A3	-6,108.0		9,101.0	9,155.0	

268_6_SPBY_L_B1/JO MILL	-6,262.0		9,255.0	9,355.0	
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-6,321.0		9,314.0	9,409.0	
ILP	-6,540.0		9,533.0		
PBHL/TD	-6,600.0		9,593.0		
269_0_DEAN	-6,633.0		9,626.0		
270_0_WFMP_A1	-6,802.0		9,795.0		
275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
JACKSON, AUSTIN, ENGINEER	ENGINEER	972-969-5954	469-503-1379	AUSTIN.JACKSON@PXD.COM
COX, BRYAN, ENGINEER	ENGINEER	972-969-5717	361-318-4212	BRYAN.COX@PXD.COM
KUMAR, DEV, ENGINEER	ENGINEER		469-865-6956	DEV.KUMAR@PXD.COM
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
VOGEL, WILLIS, SUPERINTENDENT	SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM
BROWN, KEITH, SUPERINTENDENT	SUPERINTENDENT	972-313-9798	469-516-3137	KEITH.BROWN@PXD.COM
PRESLEY, MAHLON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM
HENZE, BRENDON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM
MUNGER CASEY, MUD ENGINEER	MUD ENGINEER		479-234-6620	CASEY.MUNGER@PXD.COM
RIG-ENSIGN 125, RIG PHONE	RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM
Personnel Log				
Company				Count
PIONEER NATURAL RESOURCES USA INC				2
ENSIGN UNITED STATES DRILLING S W INC				13
BAKER HUGHES OILFIELD OPERATIONS INC				2
GISLER BROTHERS LOGGING CO INC				2
STALLION SOLIDS CONTROL INC				1

ENSIGN 125

Accept:12/24/2022

Release:

Days Since LTI:874.00

Days Since RI:874.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:ODR

Report Date:12/28/2022

Report #:6

DFS:5

AFE #:9023597

Total AFE + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$105,448.15

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)									
SSN ID00003244		Property Sub		KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022		TD Date				
Jobs																
Responsible Grp 2				Responsible Grp 3			Job Type		Start Date			End Date		Job Status		
DRL ENG - JOHN GARZA				AREA TEAM 2			ODR		11/8/2022 06:00					IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)																
Type		Subtype				Date		Note								
MILESTONE		ESTIMATED PAD RELEASE				2/5/2023		4th well of a 5 well pad, Batch Drilling.								
Daily Operations																
Footage/Meterage (ft) 292.00		Drilling Hours 9.00		% Rotating Time 100.00		End Depth (ftKB) 6,691.0		Target Depth (ftKB) 20,303.0		Daily Field Est Total \$105,448.15			Cum Field Est To Date \$1,027,138.77			
24 HR ROP (ft/hr) 32.4		Circulating Hours 0.50		% Sliding Time 0.00		End Depth (TVD) (ftKB) 6,538.5		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$3,841.85			Cum Mud Field Est \$10,307.59		Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 634.0				Daily Goal - Next 24 337.0				Goal Comments Goal Not Met				
Backbuild Yes		Lateral Inclination		Last Casing String SURFACE, 2,016.2ftKB					Next Casing String INTERMEDIATE, 7,017.0ftKB							
Avg Connection Gas 13.00			Avg Trip Gas 109.00		Avg Background Gas 11.00			Max Connection Gas 13.00			Max Trip Gas 109.00		Max Drill Gas 17.00			
Operations Summary TOOH, L/D Directional Components, Perform Post Jarring Inspection, P/U New Directional Components, TIH, Drill Intermediate Section T/6,691'. (INC - 13.75°, AZI - 247.87°, Above - 2.1', Right - 6.7')																
Operations Next Report Period Drill Intermediate Section T/TD @ 7,028'; Circulate Wellbore Clean, Spot Pad Mud, TOOH, L/D Directional Components, Pull Wearbushing, R/U 9 5/8" Intermediate Casing Equipment, M/U Shoe Track and Check Floats, TIH W/ 9 5/8" Intermediate																
Operations At Report Time Drilling Intermediate Section @ 6,691' Dropping Back To Vertical																
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 1.75 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 93.25%, Curve- 0%, Prod Lat- 0%																
Time Log																
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #				
06:00	2	08:00	INT, DRL	TOOH_ELEV	HOLE CONDITION	TOH f/ 1,250' t/ 221' **Well taking calculated fill**			6,399.0	6,399.0	2.00	2				
08:00	0.25	08:15	INT, DRL	SFTY	HOLE CONDITION	PJSM w/ Baker Directional on L/D Directional tools			6,399.0	6,399.0	0.25	2				
08:15	1	09:15	INT, DRL	LD_DIR	HOLE CONDITION	Lay Down Directional Tools w/ Baker Hughes personnel			6,399.0	6,399.0	1.00	2				
09:15	2.5	11:45	INT, DRL	RIG_RPR	HOLE CONDITION	TOP Drive Inspection after jarring on stuck pipe.			6,399.0	6,399.0	2.50	2				
11:45	0.5	12:15	INT, DRL	RIG_SVC	HOLE CONDITION	Rig Service			6,399.0	6,399.0	0.50	2				
12:15	1.75	14:00	INT, DRL	WAIT	HOLE CONDITION	Waiting on Baker Hughes Mud Motor to arrive on location			6,399.0	6,399.0	1.75	2, 3				
14:00	0.25	14:15	INT, DRL	SFTY	HOLE CONDITION	PJSM w/ Baker Hughes Directional on Picking up Directional Tools			6,399.0	6,399.0	0.25	2				
14:15	2	16:15	INT, DRL	PU_DIR	HOLE CONDITION	Pick up Directional Tools w/ Baker Hughes Personnel.			6,399.0	6,399.0	2.00	2				
16:15	0.75	17:00	INT, DRL	TIH_ELEV	HOLE CONDITION	TIH f/ BHA t/ 540', Test MWD, **Well giving correct displacement**			6,399.0	6,399.0	0.75	2				
17:00	0.25	17:15	INT, DRL	CIRC	HOLE CONDITION	Test MWD **Good Test**			6,399.0	6,399.0	0.25	2				
17:15	2.75	20:00	INT, DRL	TIH_ELEV	HOLE CONDITION	TIH F/540' T/6,083'. Monitoring displacements on trip tanks.			6,399.0	6,399.0	2.75	2				
20:00	0.25	20:15	INT, DRL	HDL_ROTTHD	HOLE CONDITION	Remove trip nipple and install rotating head assembly.			6,399.0	6,399.0	0.25	2				
20:15	0.25	20:30	INT, DRL	TIH_NONELEV	HOLE CONDITION	Wash and ream F/6,083' T/6,399'			6,399.0	6,399.0	0.25	2				
20:30	7	03:30	INT, DRL	DRL	NORMAL	Drill Intermediate Section F/6,399' T/6,626' (227 ft @ 32.4 fph) Pumping at 925 GPM w/4,500 psi,			6,399.0	6,626.0						

						45K WOB, Rotating at 65 RPM w/18-20K torque and 500 psi Diff. Note: At 6,435' began sliding dropping hole section back to vertical				
03:30	0.5	04:00	INT, DRL	RIG_SVC	NORMAL	Service and inspect drill floor equipment	6,626.0	6,626.0		
04:00	2	06:00	INT, DRL	DRL	NORMAL	Drill Intermediate Section Dropping Back To Vertical F/6,626' T/6,691' (65 ft @ 32.4 fph) Pumping at 925 GPM w/4,500 psi, 45 WOB, Rotating at 65 RPM w/18-20K torque and 500 psi Diff.	6,626.0	6,691.0		

Interval Problems

DOWNHOLE CONDITIONS, 6,399.0ftKB, 12/26/2022 23:45

Ref #	Dur (hr)	Exclude From Problem Time Calcs?	SubType	Problem Description	Est Cost OR (Cost)	Accountable Party	Comment
2	20.75	No	WELLBORE	FORMATION INSTABILITY		PIONEER NATURAL RESOURCES USA INC	Unscheduled round trip due to wellbore instability

DIRECTIONAL, 6,399.0ftKB, 12/27/2022 12:15

Ref #	Dur (hr)	Exclude From Problem Time Calcs?	SubType	Problem Description	Est Cost OR (Cost)	Accountable Party	Comment
3	1.75	No	MOTOR	LOGISTICS		BAKER HUGHES OILFIELD OPERATIONS INC	Wait on new mud motor to arrive to location

Drill Strings

BHA #2 , INTERMEDIATE

Bit Run	Drill Bit		Bit Type	Make
2	12 1/4, XS716, SN3489		PDC	SMITH
Nozzles (1/32")	Bit Total Fluid Area (nozzles) (in²)	IADC Bit Dull	Hours Drilled By Bit (hr)	Depth Drilled By Bit (ft)
11/11/11/12/12/12/12/12/12	1.05	0-0-NO-A-0-0-NO-BHA	41.50	4,362.00
BHA Drilling Time (hr)	BHA Depth Drilled (ft)	BHA ROP (ft/hr)	Depth In (ftKB)	Depth Out (ftKB)
41.50	4,362.00	105.1	2,037.0	6,399.0

Drill String Components

Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
110	DRILL PIPE	5	4.28	4,995.07	6,399.00	97,403.9	143	RIG
2	HWDP	5	2.88	60.96	1,403.93	3,169.9	45	RIG
1	DRILLING JARS - HYDRAULIC	7	2.50	31.46	1,342.97		42	WEATHERFORD
27	HWDP	5	2.88	811.49	1,311.51	42,197.5	42	RIG
1	SUB - XO	7 7/8	2.75	3.20	500.02		0	RIG
9	DRILL COLLAR - SPIRALED	8.06	2.88	274.98	496.82		0	RIG
1	SUB - XO	8	2.50	2.75	221.84		0	DRILLING TOOLS INTERNATIONAL
1	REAMER - DRILL N' REAM	8	2.88	10.03	219.09		0	DRILLING TOOLS INTERNATIONAL
1	SUB - XO	7 7/8	2.75	3.23	209.06		0	DRILLING TOOLS INTERNATIONAL
3	DRILL COLLAR - SPIRALED	8.06	2.88	89.59	205.83		0	RIG
1	SUB - XO	8	3.25	3.45	116.24		0	DRILLING TOOLS INTERNATIONAL
1	SUB - FILTER	8 1/4	3.25	3.73	112.79		0	GE/BAKER HUGHES
1	DRILL COLLAR - NON MAG	8	3.25	28.90	109.06		0	GE/BAKER HUGHES
1	MWD TOOL - NON-RETRIEVABLE	8	3.25	35.71	80.16		0	GE/BAKER HUGHES
1	STABILIZER	8 1/4	2.75	7.53	44.45		0	DRILLING TOOLS INTERNATIONAL
1	MOTOR - STABILIZER SLEEVE	9 1/2	3.25	35.57	36.92		0	GE/BAKER HUGHES

Mud Motors

SN	Bend Angle	Bearing Type	Lobe Config	# Stages	Lwr Defln Type	Bit To Bend
14768681	1.5	NOT SEALED	7:8	4		9.55

Sensors

Sensor Type	Sensor-Bit (ft)	Note
GAMMA	57.31	
DIRECTIONAL	60.71	

BHA #3 , INTERMEDIATE

Bit Run	Drill Bit	Bit Type	Make	
2RR	12 1/4, XS716, SN3489	PDC	SMITH	
Nozzles (1/32")	Bit Total Fluid Area (nozzles) (in²)	IADC Bit Dull	Hours Drilled By Bit (hr)	Depth Drilled By Bit (ft)
11/11/11/12/12/12/12/12/12	1.05	-----	9.00	292.00
BHA Drilling Time (hr)	BHA Depth Drilled (ft)	BHA ROP (ft/hr)	Depth In (ftKB)	Depth Out (ftKB)
9.00	292.00	32.4	6,399.0	6,691.0

Drill String Components

Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
117	DRILL PIPE	5	4.28	5,302.52	6,691.00	103,399.1	149	RIG
2	HWDP	5	2.88	60.96	1,388.48	3,169.9	45	RIG
1	DRILLING JARS - HYDRAULIC	7	2.50	31.00	1,327.52		42	COUGAR
27	HWDP	5	2.88	811.49	1,296.52	42,197.5	42	RIG
1	SUB - XO	7 7/8	2.75	3.20	485.03		0	RIG
9	DRILL COLLAR - SPIRALED	8.06	2.88	274.98	481.83		0	RIG
3	DRILL COLLAR - SPIRALED	8.06	2.88	89.59	206.85		0	RIG
1	SUB - XO	8	3.25	4.44	117.26		0	DRILLING TOOLS INTERNATIONAL
1	SUB - FILTER	8 1/4	3.25	3.45	112.82		0	GE/BAKER HUGHES

1	DRILL COLLAR - NON MAG	8	3.25	28.23	109.37		0	GE/BAKER HUGHES													
1	MWD TOOL - NON-RETRIEVABLE	8	3.25	34.70	81.14		0	GE/BAKER HUGHES													
1	STABILIZER	8 1/4	2.75	8.46	46.44		0	DRILLING TOOLS INTERNATIONAL													
1	MOTOR - STABILIZER SLEEVE	9 1/2	3.25	36.63	37.98		0	PHOENIX													
Mud Motors																					
SN		Bend Angle		Bearing Type		Lobe Config		# Stages	Lwr Defln Type		Bit To Bend										
PHX900025		1.5		NOT SEALED		7:8		7			6.77										
Sensors																					
Sensor Type			Sensor-Bit (ft)				Note														
GAMMA			57.13																		
DIRECTIONAL			60.53																		
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	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 (°)				
20:30	03:30	6,399.0	227.00	32.4	29	60	519.0	973	4,932.0	32.4	177	177	177	177	16.0	16.0					
03:30	04:00	6,626.0	0.00		0	0	93.8	924	4,060.0	0.0	177	177	177	177	4.0	4.0					
04:00	06:00	6,626.0	65.00	32.5	33	60	93.8	924	4,060.0	32.5	177	177	177	177	4.0	4.0					
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)	
10.80		10.87		419.1		3.6		281.9		777.5		25.9		378.6		105.67		550.41		260.27	
Mud Checks																					
Time			Mud Company			Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)			T Flowline (° F)						
12/27/2022 22:00			PIONEER DRILLING FLUIDS			WATER BASE		6,454.0		10.80		34			107.0						
pV (cP)		YP (lbf/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)			HTHP Temperature (° F)			HTHP Pressure (psi)					
7.0		13.000		4		5		8.0		0.0			0.0			0.0					
Solids (%)			Low Gravity Solids (%)				Sand (%)			MBT (lb/bbl)			Pm (mL/mL)			Pf (mL/mL)					
20.0			2.9				0.2			2.5			0.000			0.2					
Chlorides (mg/L)			Calcium (mg/L)			CaCl (ppm)			Oil Water Ratio			Electric Stab (V)			Lime (lb/bbl)			pH			
162,000			240.000			0			8.8/91.2			0.0			0.1			9.5			
Gel 10 sec (lbf/100ft²)					Gel 10 min (lbf/100ft²)					Gel 30 min (lbf/100ft²)											
5.000					8.000					9.000											
Comment																					
Recommeded Fluid Treatment: Maintain 10.8 ppg MW w/Whole Mud Dilution. Treatment: 3/4 ppb Soda Ash, 1/4 ppb Xan, 1/2 ppb Pac LV, 1/2 ppb Soltex, 5% Diesel.																					
Drilling Fluid Activity Last 24 Hrs: Use pre-built WBM to blend with active tanks during trip. Inspected shaker screens with 6 screens replaced with new API 100's.																					
Rig Activity Last 24 Hours: Finish POO, L/D BHA #1, P/U BHA #2, TIH T/6,398'. Drill/Slide T/6,463' at time of report. Drilling parameters: ROP- 10', WOB-6K, Rotary- 15 RPM, Bit- 93 RPM, Torque- 9.2 KLB-Ft, Diff- 38 PSI. P/U 220k, S/O 120k, ROT 220K. Lithology @ 6,390' 80% SD, 10% LS, 10% SH.																					
Last BOP Test																					
Date			Test Type		Item Tested				Next Test Date			Com									
12/21/2022 03:15			BOP		BOP'S, 12/24/2022 09:00				1/3/2022 03:15			SHELL TEST									
Leak Off and Formation Integrity Tests																					
Test Type					Depth (ftKB)				Dens Fluid (lb/gal)												
FORMATION INTEGRITY					2,014.0				12.60												
Casing Pressure Test																					
Test Type		Test Subtype		Date			Item Tested			Failed?		Time (min)		P (psi)							
CASING		STANDARD		11/17/2022 17:30			SURFACE, 2,016.2ftKB			No		30.00		1,000.0							
Kick Offs & Key Depths																					
Date		Type		Top Depth (ftKB)				Depth Top (TVD) (ftKB)													
No Data																					
Casing Strings																					
Description		Set Depth (ftKB)			Set Depth (TVD) (ftKB)			OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR		105.0			105.0			20		H40		78.67									
SURFACE		2,016.2			2,013.3			13 3/8		J55		54.50		BTC		1,316.3					
Gas Emissions - Flare																					
Type		Method			Dur (Min)			Amount			Units		Com								
No Data																					
Job Supply Amounts																					
Supply Item Des		Type		Unit Label		Received		Consumed		Returned		Note			Cum On Loc		Cum Consumed				
DIESEL		FUEL		GAL		7331		2014							11,489		10724				
DIESEL		FUEL		GAL		0		0				Winter Tank			19,990		605				
DIESEL		MUD		GAL		0		0							12,900		18618				
WATER		FRESH		BBL		1052		1052				Initial Reading: 63,685 Final Reading: 64,737			0		15473				
Mud Additive Amounts																					
Des					Type			Units		Rec		Consumed		On Loc		Cum Cons					
BARITE - BULK					WEIGHTING MATERIAL			TON				5		43.24		15					
PAC LV					FILTRATE CONTROL			SACK				8		148.0		8					
WO DEFOAMER A					DEFOAMER			GAL				16		16.0		34					
SOLTEX					FILTRATE CONTROL			LB				8		242.0		9					
NUT PLUG MEDIUM - WALNUT MEDIUM					LOST CIRCULATION			LB SACK				10		0.0		10					
Pump Operations																					

Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
3	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	6,626.0	12/28/2022 03:45	270.0	40	141	95	
1	6,626.0	12/28/2022 03:45	180.0	20	70	95	
1	6,626.0	12/28/2022 03:45	220.0	30	106	95	
2	6,626.0	12/28/2022 03:45	170.0	20	70	95	
2	6,626.0	12/28/2022 03:45	260.0	40	141	95	
2	6,626.0	12/28/2022 03:45	210.0	30	106	95	
3	6,626.0	12/28/2022 03:45	260.0	40	141	95	
3	6,626.0	12/28/2022 03:45	180.0	20	70	95	
3	6,626.0	12/28/2022 03:45	210.0	30	106	95	
Deviation Surveys							
Date		Description		Job			
11/8/2022 16:00		AS DRILL SURVEY		ODR, 11/8/2022 06:00			
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
6,472.00	14.91	246.45	6,325.99	1,183.22	-391.22	-1,116.74	2.08
6,562.00	13.75	247.87	6,413.18	1,205.44	-399.88	-1,137.27	1.35
Formations							
Formation Name		Prog Top Override (TVD SS) (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
264_5_TOP_BRUSHY_CANYON		-3,594.0		6,587.0			
265_0_CLEARFORK/POP		-3,815.0		6,808.0	6,851.0		
ICP1		-3,865.0		6,858.0			
267_0_SPBY_U_A1/267_0_SPBY		-5,443.0		8,436.0	8,493.0		
267_5_SPBY_M_A1		-5,755.0		8,748.0	8,807.0		
268_5_SPBY_L_A1		-5,987.0		8,980.0	9,026.0		
ALT_ICP2		-6,137.0		9,130.0			
268_5_SPBY_L_A2		-6,023.0		9,016.0	9,077.0		
268_5_SPBY_L_A3		-6,108.0		9,101.0	9,155.0		
268_6_SPBY_L_B1/JO MILL		-6,262.0		9,255.0	9,355.0		
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE		-6,321.0		9,314.0	9,409.0		
ILP		-6,540.0		9,533.0			
PBHL/TD		-6,600.0		9,593.0			
269_0_DEAN		-6,633.0		9,626.0			
270_0_WFMP_A1		-6,802.0		9,795.0			
275_0_WFMP_B1		-7,009.0		10,002.0			
276_0_WFMP_B2		-7,031.0		10,024.0			
278_0_WFMP_B3		-7,085.0		10,078.0			
280_0_WFMP_C1		-7,175.0		10,168.0			
282_0_WFMP_C2		-7,275.0		10,268.0			
292_0_WFMP_D		-7,701.0		10,694.0			
304_0_STRAWN		-8,065.0		11,058.0			
Daily Contacts							
Job Contact		Title	Office	Mobile	Email		
JACKSON, AUSTIN, ENGINEER		ENGINEER	972-969-5954	469-503-1379	AUSTIN.JACKSON@PXD.COM		
COX, BRYAN, ENGINEER		ENGINEER	972-969-5717	361-318-4212	BRYAN.COX@PXD.COM		
KUMAR, DEV, ENGINEER		ENGINEER		469-865-6956	DEV.KUMAR@PXD.COM		
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM		
GARZA, JOHN, ENGINEER		ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM		
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM		
BROWN, KEITH, SUPERINTENDENT		SUPERINTENDENT	972-313-9798	469-516-3137	KEITH.BROWN@PXD.COM		
PRESLEY, MAHLON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM		
HENZE, BRENDON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM		
MUNGER CASEY, MUD ENGINEER		MUD ENGINEER		479-234-6620	CASEY.MUNGER@PXD.COM		
RIG-ENSIGN 125, RIG PHONE		RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM		
Personnel Log							
Company						Count	
PIONEER NATURAL RESOURCES USA INC						2	
ENSIGN UNITED STATES DRILLING S W INC						13	
BAKER HUGHES OILFIELD OPERATIONS INC						2	
GISLER BROTHERS LOGGING CO INC						2	
STALLION SOLIDS CONTROL INC							

ENSIGN 125

Accept:12/24/2022

Release:

Days Since LTI:876.00

Days Since RI:876.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:ODR

Report Date:12/29/2022

Report #:8

DFS:6

AFE #:9023597

Total AFE + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$444,373.90

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)				Field Name SPRABERRY (TREND AREA)			
SSN ID00003244		Property Sub	KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022	TD Date	
Jobs											
Responsible Grp 2			Responsible Grp 3		Job Type	Start Date		End Date	Job Status		
DRL ENG - JOHN GARZA			AREA TEAM 2		ODR	11/8/2022 06:00			IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)											
Type		Subtype			Date	Note					
MILESTONE		ESTIMATED PAD RELEASE			2/5/2023	4th well of a 5 well pad, Batch Drilling.					
Daily Operations											
Footage/Meterage (ft) 0.00		Drilling Hours	% Rotating Time	End Depth (ftKB) 7,031.0	Target Depth (ftKB) 20,303.0	Daily Field Est Total \$444,373.90		Cum Field Est To Date \$1,557,394.19			
24 HR ROP (ft/hr)	Circulating Hours	% Sliding Time	End Depth (TVD) (ftKB) 6,871.8	Target Depth Depth (TVD) (ftKB) 9,593.0	Daily Mud Field Est Total \$		Cum Mud Field Est \$17,324.78	Total AFE + Sup \$3,449,530.30			
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 0.0		Daily Goal - Next 24 0.0			Goal Comments Goal Met			
Backbuild Yes	Lateral Inclination	Last Casing String INTERMEDIATE, 7,017.0ftKB				Next Casing String INTERMEDIATE, 7,017.0ftKB					
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 Circulate 1.5x volume, R/U & cement intermediate, L/D landing joint, Install and test packoff, Nipple down BOPs, Install TA cap, Release rig to the Univeristy 6-48B 102H											
Operations Next Report Period Release rig to the University 6-48B 102H											
Operations At Report Time Release rig to the University 6-48B 102H											
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 1.75 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 0%, Prod Lat- 0%											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #
06:00	1.25	07:15	INT, CASE & CMT	CIRC	NORMAL	Circulate 1.5 casing capacity at 6 bpm prior to cementing. FULL Returns Safety meeting with cementers while circulating 1.5x volume		7,031.0	7,031.0		
07:15	0.25	07:30	INT, CASE & CMT	RU_CMT	NORMAL	Rig Up Halliburton steel lines		7,031.0	7,031.0		
07:30	4	11:30	INT, CASE & CMT	CMT	NORMAL	Cement intermediate single stage as follows: Pressure test lines to 5000 psi, pump 50 bbls of 11 ppg spacer, 676 bbls of 11 ppg lead, 51 bbls of 14.8 ppg 1st tail, 15 bbls of 15.2 ppg 2nd tail, drop plug and displace with 525 bbls of FW. Plug bumped on time,Pressured up @ 3 BPM F/ 1445 psi T/ 1974 psi, held for 5 minutes, Bled back 4 bbls, floats holding. 250 bbls of cement returned to surface. Flowcheck - well was static		7,031.0	7,031.0		
11:30	0.25	11:45	INT, CASE & CMT	FLOW_CHK	NORMAL	Flow Check **Well is Static**		7,031.0	7,031.0		
11:45	0.25	12:00	INT, CASE & CMT	WH	NORMAL	Flush through BOPE w/ Wash tool		7,031.0	7,031.0		
12:00	0.5	12:30	INT, CASE & CMT	WH	NORMAL	Set Pack off in well head & Test to 5K **Good Test**		7,031.0	7,031.0		
12:30	0.25	12:45	INT, CASE & CMT	ND_BOPE	NORMAL	Nipple Down BOPE, Flowline & Choke line ** Prep for Rig Walk**		7,031.0	7,031.0		
12:45	0.25	13:00	INT, CASE & CMT	WH	NORMAL	Install T/A Cap on wellhead & Test **Release Rig t/ University 6-48B 102H @ 1300 12/29/2022**		7,031.0	7,031.0		
Hydraulic Calculations											
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)		HP/Area (hp/in²)	Jet Vel (ft/s)	Bit dP (psi)	Min Open Hole AV (ft/min)	Max Open Hole AV (ft/min)	Vol DrillString (bbl)	Vol Bit to Shoe (bbl)	Vol Shoe to Top (bbl)
Mud Checks											
Time		Mud Company			Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)		T Flowline (° F)	

12/29/2022 11:30		PIONEER DRILLING FLUIDS			WATER BASE		7,031.0		10.70		35		0.0			
pV (cP) 7.0		YP (lb/100ft²) 13.000		Vis 3rpm 4		Vis 6rpm 5		Filtrate (mL/30min) 7.2		HTHP Filtrate (mL/30min) 0.0		HTHP Temperature (° F) 0.0		HTHP Pressure (psi) 0.0		
Solids (%) 19.0		Low Gravity Solids (%) 2.0				Sand (%) 0.2		MBT (lb/bbl) 2.5		Pm (mL/mL) 0.000		Pf (mL/mL) 0.2				
Chlorides (mg/L) 159,000		Calcium (mg/L) 200.000		CaCl (ppm) 0		Oil Water Ratio 8/92		Electric Stab (V) 0.0		Lime (lb/bbl) 0.1		pH 10.0				
Gel 10 sec (lb/100ft²) 5.000				Gel 10 min (lb/100ft²) 9.000				Gel 30 min (lb/100ft²) 10.000								
Comment																
For Audits																
Last BOP Test																
Date			Test Type		Item Tested				Next Test Date			Com				
12/21/2022 03:15			BOP		BOP'S, 12/24/2022 09:00				1/3/2022 03:15			SHELL TEST				
Leak Off and Formation Integrity Tests																
Test Type					Depth (ftKB)				Dens Fluid (lb/gal)							
FORMATION INTEGRITY					2,014.0				12.60							
Casing Pressure Test																
Test Type		Test Subtype		Date		Item Tested			Failed?		Time (min)		P (psi)			
CASING		STANDARD		11/17/2022 17:30		SURFACE, 2,016.2ftKB			No		30.00		1,000.0			
Kick Offs & Key Depths																
Date		Type		Top Depth (ftKB)			Depth Top (TVD) (ftKB)									
No Data																
Casing Strings																
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)		
CONDUCTOR		105.0		105.0		20		H40		78.67						
SURFACE		2,016.2		2,013.3		13 3/8		J55		54.50		BTC		1,316.3		
INTERMEDIATE		7,017.0		6,858.0		9 5/8		L80-IC		40.00		BTC				
Cement																
Cement Fluids																
Fluid Type		Estimated Top (ftKB)			Estimated Bottom (ftKB)			Class		Yield (ft³/sack)		Density (lb/gal)				
SPACER		0.0			0.0							11.00				
Fluid Type		Estimated Top (ftKB)			Estimated Bottom (ftKB)			Class		Yield (ft³/sack)		Density (lb/gal)				
LEAD CMT		27.0			5,869.0			CLASS C		2.50		11.00				
Fluid Type		Estimated Top (ftKB)			Estimated Bottom (ftKB)			Class		Yield (ft³/sack)		Density (lb/gal)				
TAIL CMT		5,869.0			6,785.0			CLASS C		1.33		14.80				
Fluid Type		Estimated Top (ftKB)			Estimated Bottom (ftKB)			Class		Yield (ft³/sack)		Density (lb/gal)				
TAIL CMT		6,785.0			7,017.0			CLASS C		1.26		15.20				
Fluid Type		Estimated Top (ftKB)			Estimated Bottom (ftKB)			Class		Yield (ft³/sack)		Density (lb/gal)				
DSPLMT		6,925.0			6,925.0							8.40				
Cement Stages																
Description			Final Top Depth		Btm (ftKB)		Top Pl...		Btm Pl...							
INTERMEDIATE CEMENT			27.0		7,017.0		No									
Q Pump Init			Q Pump Final		Q Pump Avg		P Pump Final		P Plug Bump		Float		Recip?		Rotated?	
6			3		6		1,445.0		1,974.0		No		No		No	
INTERMEDIATE CASING CEMENT casing 12/29/2022 07:30																
Cmtg End Date		Wellbore		Technical Result		Comment										
12/29/2022 11:30		ORIGINAL		SUCCESS		Cement intermediate single stage as follows: Pressure test lines to 5000 psi, pump 50 bbls of 11 ppg spacer, 676 bbls of 11 ppg lead, 51 bbls of 14.8 ppg 1st tail, 15 bbls of 15.2 ppg 2nd tail, drop plug and displace with 525 bbls of FW. Plug bumped on time, Pressured up @ 3 BPM F/ 1445 psi T/ 1974 psi, held for 5 minutes, Bled back 4 bbls, floats holding. 250 bbls of cement returned to surface. Flowcheck - well was static										
Gas Emissions - Flare																
Type			Method			Dur (Min)			Amount			Units		Com		
No Data																
Job Supply Amounts																
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note				Cum On Loc		Cum Consumed			
DIESEL		FUEL	GAL	0	0	19990	Winter Tank				0		605			
DIESEL		FUEL	GAL		400	9218					0		12995			
DIESEL		MUD	GAL		0	9504					0		22014			
WATER		FRESH	BBL	0	0		Final Reading 72,681				0		23417			
WATER		FRESH	BBL			0	Transferred to 'UNIVERSITY 6-48B 102H'				0		23417			
DIESEL		FUEL	GAL			0	Transferred to 'UNIVERSITY 6-48B 102H'				0		12995			
DIESEL		MUD	GAL			0	Transferred to 'UNIVERSITY 6-48B 102H'				0		22014			
DIESEL		FUEL	GAL			0	Transferred to 'UNIVERSITY 6-48B 102H'				0		605			
Mud Additive Amounts																
Des		Type		Units		Rec		Consumed			On Loc		Cum Cons			
Pump Operations																
Pump #		Make		Model		Liner Size (in)		Stroke (in)		Vol/Stk (bbl/stk)			P Max (psi)			
1		BOMCO		F1600		5 1/2		12.00		0.088			7,500.0			
2		BOMCO		F1600		5 1/2		12.00		0.088			7,500.0			
3		BOMCO		F1600		5 1/2		12.00		0.088			7,500.0			
Pump Checks																

Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)
No Data						
Deviation Surveys						
Date		Description		Job		
11/8/2022 16:00		AS DRILL SURVEY		ODR, 11/8/2022 06:00		
Formations						
Formation Name		Prog Top Override (TVD SS) (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
267_0_SPBY_U_A1/267_0_SPBY		-5,443.0		8,436.0	8,493.0	
267_5_SPBY_M_A1		-5,755.0		8,748.0	8,807.0	
268_5_SPBY_L_A1		-5,987.0		8,980.0	9,026.0	
ALT_ICP2		-6,137.0		9,130.0		
268_5_SPBY_L_A2		-6,023.0		9,016.0	9,077.0	
268_5_SPBY_L_A3		-6,108.0		9,101.0	9,155.0	
268_6_SPBY_L_B1/JO MILL		-6,262.0		9,255.0	9,355.0	
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE		-6,321.0		9,314.0	9,409.0	
ILP		-6,540.0		9,533.0		
PBHL/TD		-6,600.0		9,593.0		
269_0_DEAN		-6,633.0		9,626.0		
270_0_WFMP_A1		-6,802.0		9,795.0		
275_0_WFMP_B1		-7,009.0		10,002.0		
276_0_WFMP_B2		-7,031.0		10,024.0		
278_0_WFMP_B3		-7,085.0		10,078.0		
280_0_WFMP_C1		-7,175.0		10,168.0		
282_0_WFMP_C2		-7,275.0		10,268.0		
292_0_WFMP_D		-7,701.0		10,694.0		
304_0_STRAWN		-8,065.0		11,058.0		
Daily Contacts						
Job Contact		Title	Office	Mobile	Email	
JACKSON, AUSTIN, ENGINEER		ENGINEER	972-969-5954	469-503-1379	AUSTIN.JACKSON@PXD.COM	
COX, BRYAN, ENGINEER		ENGINEER	972-969-5717	361-318-4212	BRYAN.COX@PXD.COM	
KUMAR, DEV, ENGINEER		ENGINEER		469-865-6956	DEV.KUMAR@PXD.COM	
POLYA, JOE, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-413-6147	432-352-3155	JOE.POLYA@PXD.COM	
GARZA, JOHN, ENGINEER		ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM	
VOGEL, WILLIS, SUPERINTENDENT		SUPERINTENDENT		432-301-6784	WILLIS.VOGEL@PXD.COM	
BROWN, KEITH, SUPERINTENDENT		SUPERINTENDENT	972-313-9798	469-516-3137	KEITH.BROWN@PXD.COM	
DOYLE, ANTHONY, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		318-452-0523	ANTHONY.DOYLE@PXD.COM	
HENZE, BRENDON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM	
LIGHTSEY, WADE, MUD ENGINEER		MUD ENGINEER		210-834-7068	WADE.LIGHTSEY@PXD.COM	
RIG-ENSIGN 125, RIG PHONE		RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM	
Personnel Log						
Company						Count
PIONEER NATURAL RESOURCES USA INC						2
ENSIGN UNITED STATES DRILLING S W INC						13
BAKER HUGHES OILFIELD OPERATIONS INC						2
GISLER BROTHERS LOGGING CO INC						2
STALLION SOLIDS CONTROL INC						1

ENSIGN 125

Accept:12/24/2022

Release:

Days Since LTI:877.00

Days Since RI:877.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:ODR

Report Date:01/17/2023

Report #:9

DFS:7

AFE #:9023597

Total AFE + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$51,699.10

API/UWI 42-003-48663-0000			Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)							
SSN ID00003244		Property Sub		KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022		TD Date			
Jobs															
Responsible Grp 2				Responsible Grp 3			Job Type		Start Date		End Date		Job Status		
DRL ENG - JOHN GARZA				AREA TEAM 2			ODR		11/8/2022 06:00				IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type		Subtype					Date		Note						
MILESTONE		ESTIMATED PAD RELEASE					2/5/2023		3rd Production on 5 well pad						
Daily Operations															
Footage/Meterage (ft) 259.00		Drilling Hours 3.75		% Rotating Time 100.00		End Depth (ftKB) 7,290.0		Target Depth (ftKB) 20,303.0		Daily Field Est Total \$51,699.10		Cum Field Est To Date \$1,631,343.45			
24 HR ROP (ft/hr) 69.1		Circulating Hours 1.00		% Sliding Time 0.00		End Depth (TVD) (ftKB) 7,128.5		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$3,601.25		Cum Mud Field Est \$20,926.03		Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 3,000.0				Goal Comments Goal Met			
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 7,017.0ftKB					Next Casing String PROPOSED PRODUCTION, 20,305.0ftKB						
Avg Connection Gas 0.00			Avg Trip Gas 0.00		Avg Background Gas 36.00			Max Connection Gas 0.00			Max Trip Gas 0.00		Max Drill Gas 41.00		
Operations Summary Skig rig, N/U, Perform full BOP test, P/U dumb iron, TIH, Casing test to 2500 psi, Drill 10' perform F.I.T. test to 10.5 MW, TOOHH, L/D dumb iron, P/U RSS assembly, TIH T/7055', Downlink RSS, Drill Production Vertical F/7055' T/7290' (INC - .6064°, AZI - 225.61°, Above - 11.02', Right - 72.78', AVG DLS 5°)															
Operations Next Report Period Drill Production Vertical F/7290' T/9066' +/-,Drill Production Curve F/9066' T/10017',Drill lateral F/10017'.															
Operations At Report Time Drilling Prod Vertical at 7290'															
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 1.75 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 0%, Prod Lat- 0%															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #			
08:00	1	09:00	PROD, PRE DRL	SKID	NORMAL	Walk rig over to University 6-48 101H ** Test Floor Valves & Choke Manifold offline**			7,031.0	7,031.0					
09:00	0.75	09:45	PROD, PRE DRL	NU_BOPE	NORMAL	Nipple up BOPE & Related equipment			7,031.0	7,031.0					
09:45	2.25	12:00	PROD, PRE DRL	TEST_BOPE	NORMAL	Install test plug and do a full test on 5" 4 1/2" IF Equipment			7,031.0	7,031.0					
12:00	0.25	12:15	PROD, PRE DRL	WRBSH	NORMAL	Set wear bushing in well head			7,031.0	7,031.0					
12:15	0.25	12:30	PROD, PRE DRL	SFTY	NORMAL	PJSM on Making up Dumb Iron for drill out			7,031.0	7,031.0					
12:30	0.25	12:45	PROD, PRE DRL	HDL_BHA	NORMAL	Make up bit, bit sub& 3 stands 5" HWDP			7,031.0	7,031.0					
12:45	1.75	14:30	PROD, PRE DRL	TIH_ELEV	NORMAL	TIH T/6950' tagged cement.			7,031.0	7,031.0					
14:30	0.5	15:00	PROD, PRE DRL	HDL_ROTHD	NORMAL	Removed trip nipple and installed Rot head			7,031.0	7,031.0					
15:00	1.25	16:15	PROD, PRE DRL	CSG_TEST	NORMAL	Filled pipe and tested casing to 2500 psi.			7,031.0	7,031.0					
16:15	1.25	17:30	PROD, PRE DRL	DRL_OUT	NORMAL	Drilled out cemnt and shoe track from 6950' to 7017'. C/O open hole to 7031'.			7,031.0	7,031.0					
17:30	0.25	17:45	PROD, PRE DRL	DRL	NORMAL	Drilled 10' of new formation from 7031' to 7041'.			7,031.0	7,041.0					
17:45	0.25	18:00	PROD, PRE DRL	CIRC	NORMAL	Circulated to get mud weight even in and out.			7,041.0	7,041.0					
18:00	0.75	18:45	PROD, PRE DRL	FIT	NORMAL	Performed FIT test to 10.5 equilvant mud weight.			7,041.0	7,041.0					
18:45	0.5	19:15	PROD, DRL	DRL	NORMAL	Rotary drill from 7041' to 7055'.			7,041.0	7,055.0					
19:15	0.25	19:30	PROD, DRL	FLOW_CHK	NORMAL	Flow check , Well static			7,055.0	7,055.0					
19:30	0.25	19:45	PROD, DRL	CIRC	NORMAL	Pump Slug			7,055.0	7,055.0					
19:45	0.5	20:15	PROD, DRL	RIG_SVC	NORMAL	Pull one stand and change saver sub due to footage made on sub			7,055.0	7,055.0					
20:15	0.5	20:45	PROD, DRL	HDL_ROTHD	NORMAL	Pull roataing head, install trip nipple			7,055.0	7,055.0					
20:45	1.5	22:15	PROD, DRL	TOOH_ELEV	NORMAL	TOOH F/7017' T/ BHA with hole taking proper fill			7,055.0	7,055.0					
22:15	0.25	22:30	PROD, DRL	HDL_BHA	NORMAL	L/D dumb iron assembly			7,055.0	7,055.0					

22:30	0.25	22:45	PROD, DRL	SFTY	NORMAL	PJSM on picking up directional assembly	7,055.0	7,055.0		
22:45	0.75	23:30	PROD, DRL	PU_ DIR	NORMAL	Pick up Rss assembly	7,055.0	7,055.0		
23:30	0.25	23:45	PROD, DRL	TIH_ELEV	NORMAL	TIH 10 stands T/1,021' with proper displacement	7,055.0	7,055.0		
23:45	0.5	00:15	PROD, DRL	CIRC	NORMAL	Test MWD tools	7,055.0	7,055.0		
00:15	1	01:15	PROD, DRL	TIH_ELEV	NORMAL	TIH F/ 1,021' T/ 4550'' with proper displacement	7,055.0	7,055.0		
01:15	0.5	01:45	PROD, DRL	HDL_ROT HD	NORMAL	Pull trip nipple, install rotating head	7,055.0	7,055.0		
01:45	0.75	02:30	PROD, DRL	TIH_ELEV	NORMAL	TIH F/ 4550' T/ 7055' with proper displacement	7,055.0	7,055.0		
02:30	0.5	03:00	PROD, DRL	CIRC	NORMAL	Fan bottom while downlinking RSS	7,055.0	7,055.0		
03:00	3	06:00	PROD, DRL	DRL	NORMAL	Drill Production Verticall F/ 7055' T/ 7290' (235' @ 78 FPH), 650 GPMs, 40 RPM, 15-35K WOB, 3000 SPP, 7K torque	7,055.0	7,290.0		

Drill Strings				
BHA #4 , PRODUCTION - VERTICAL				
Bit Run	Drill Bit		Bit Type	Make
3 8 3/4, DD506TX, 5329245			PDC	GE/BAKER HUGHES
Nozzles (1/32")	Bit Total Fluid Area (nozzles) (in²)	IADC Bit Dull	Hours Drilled By Bit (hr)	Depth Drilled By Bit (ft)
15/15/15/15/11/11	0.88	1-1-CT-S-X-0-NO-BHA	0.75	24.00
BHA Drilling Time (hr)	BHA Depth Drilled (ft)	BHA ROP (ft/hr)	Depth In (ftKB)	Depth Out (ftKB)
0.75	24.00	32.0	7,031.0	7,055.0

Drill String Components									
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make	
154	DRILL PIPE	5	4.28	6,784.78	7,055.00	132,303.2	146	RIG	
9	HWDP	5	2.88	267.33	270.22	13,901.2	14	RIG	
1	SUB -BIT	5	2.06	1.69	2.89		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	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	7,031.0	10.00	40.0	10	70	1,450.0	600	1,450.0	40.0	180	182	178	180	8.0	6.0	
17:45	18:45	7,041.0	0.00		10	70	1,450.0	600	1,450.0	0.0	180	182	178	180	0.0	6.0	
18:45	19:15	7,041.0	14.00	28.0	20	70	1,450.0	600	1,450.0	28.0	180	182	178	180	8.0	6.0	

BHA #5 , PRODUCTION - VERTICAL/CURVE/LATERAL				
Bit Run	Drill Bit		Bit Type	Make
4 8 1/2, DD506VTSX, 5333563			PDC	GE/BAKER HUGHES
Nozzles (1/32")	Bit Total Fluid Area (nozzles) (in²)	IADC Bit Dull	Hours Drilled By Bit (hr)	Depth Drilled By Bit (ft)
12/12/12/14/14/14	0.78	-----	3.00	235.00
BHA Drilling Time (hr)	BHA Depth Drilled (ft)	BHA ROP (ft/hr)	Depth In (ftKB)	Depth Out (ftKB)
3.00	235.00	78.3	7,055.0	7,290.0

Drill String Components									
Jts	Item Des	OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make	
161	DRILL PIPE	5	4.28	7,077.68	7,290.00	138,014.8	138	RIG	
1	SUB - FILTER	6 1/2	3.13	4.17	212.32		0	GE/BAKER HUGHES	
2	DRILL PIPE	5	3.88	90.00	208.15		0	RIG	
1	MOTOR - STABILIZER SLEEVE	7	3.25	43.10	118.15		0	GE/BAKER HUGHES	
1	SUB - SHOCK	7	2.25	26.32	75.05		0	OTHER (PROVIDE DESCRIPTION)	
1	STABILIZER	6 7/8	2.75	10.42	48.73		0	DRILLING TOOLS INTERNATIONAL	
1	RSS TOOL	6.86	2.75	12.67	38.31		0	GE/BAKER HUGHES	
1	MWD TOOL - NON-RETRIEVABLE	6.69	2.75	15.63	25.64		0	GE/BAKER HUGHES	
1	RSS TOOL	6.99	2.75	9.31	10.01		0	GE/BAKER HUGHES	

Mud Motors						
SN	Bend Angle	Bearing Type	Lobe Config	# Stages	Lwr Defln Type	Bit To Bend
15022846	0	NOT SEALED	7:8	6.4		0

Sensors									
Sensor Type			Sensor-Bit (ft)			Note			
GAMMA			12.21						
DIRECTIONAL			22.28						

Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)
03:00	06:00	7,055.0	235.00	78.3	20	40	345.0	650	2,930.0	78.0	158	162	156	158	7.0	4.0	

Hydraulic Calculations										
Dens Mud (lb/gal)	ECD End (lb/gal)	Bit Hydraulic Power (hp)	HP/Area (hp/in ²)	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	8.52	207.4	3.7	266.6	547.1	18.2	578.0	128.22	11.94	360.97

Mud Checks										
Time		Mud Company			Type	Depth (ftKB)	Density (lb/gal)	Funnel Viscosity (s/qt)		T Flowline (° F)
1/17/2023 00:15		PIONEER DRILLING FLUIDS			OIL BASE	7,055.0	8.50	57		
pV (cP)	YP (lbf/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)	HTHP Filtrate (mL/30min)	HTHP Temperature (° F)	HTHP Pressure (psi)			
11.0	6.000	3	4	0.0	10.0	200.0	500.0			

Solids (%)	Low Gravity Solids (%)			Sand (%)	MBT (lb/bbl)		Pm (mL/mL)		Pf (mL/mL)	
6.0	3.4			0.0	0.0		0.000		0.0	
Chlorides (mg/L)		Calcium (mg/L)		CaCl (ppm)	Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)	pH
12,000		6,000.000		0	72/28		507.0		2.1	0.0
Gel 10 sec (lb/100ft²)				Gel 10 min (lb/100ft²)			Gel 30 min (lb/100ft²)			
5.000				10.000			12.000			
Comment										
Recommended Fluid Treatment:No treatment needed at this time.										
W 8.4-8.5ppg. Diesel at 10.7 BPH. FW at 5.35										
BPH. Treatment: 2.0 ppb Tone to maintain										
rheologies, 1.5 ppb Lime to raise ex lime, 1.5 ppb										
Mul to raise es, 1.5 ppb LEM to raise 6/3 rpm, 0.5										
ppb Gilsonite & Soltex to maintain HTHP & shale										
stability.										
Rig Activity Last 24 Hours:kid rig, N/U & full BOP test. P/U dumb iron BHA, TIH, tested csg for 30 min. Drilled LC & shoe track + 10'										
t/ 7,041' displaced t/ obm. FIT t/ 10.5 emw. Drilled t/ 7,055'. Flow check well was static, pumped slug										
POOH. L/D dumb iron P/U RSS BHA. TIH. Drilling parameters: ROP- 24', WOB-30K, Rotary- 75 RPM, Bit;180 RPM, Tq- 11 KLB-Ft, Diff- 0 PSI. P/U 275k, S/O 185k, ROT 230K.										
Ftg drilled last 24hrs: 24'. Lithology										
@ 7,031' 90% LS, 10% SH. Currently TIH at time of report.										
Last BOP Test										
Date		Test Type	Item Tested			Next Test Date		Com		
1/16/2023 12:00		BOP	BOP'S, 12/24/2022 09:00			2/6/2023 12:00		Full Test 4 1/2 IF		
Leak Off and Formation Integrity Tests										
Test Type				Depth (ftKB)			Dens Fluid (lb/gal)			
FORMATION INTEGRITY				2,014.0			12.60			
FORMATION INTEGRITY				7,014.0			10.50			
Casing Pressure Test										
Test Type	Test Subtype	Date		Item Tested			Failed?	Time (min)	P (psi)	
CASING	STANDARD	11/17/2022 17:30		SURFACE, 2,016.2ftKB			No	30.00	1,000.0	
CASING	STANDARD	1/16/2023 15:00		INTERMEDIATE, 7,017.0ftKB			No	30.00	2,500.0	
Kick Offs & Key Depths										
Date		Type	Top Depth (ftKB)			Depth Top (TVD) (ftKB)				
No Data										
Casing Strings										
Description	Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	105.0		105.0		20	H40	78.67			
SURFACE	2,016.2		2,013.3		13 3/8	J55	54.50	BTC	1,316.3	
INTERMEDIATE	7,017.0		6,858.0		9 5/8	L80-IC	40.00	BTC	3,739.9	
Gas Emissions - Flare										
Type		Method		Dur (Min)		Amount		Units	Com	
No Data										
Job Supply Amounts										
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed	
DIESEL	MUD	GAL	15022			Transferred from' UNIVERSITY 6-48D 104H'		15,022	22014	
WATER	FRESH	BBL	0			Transferred from' UNIVERSITY 6-48D 104H'		0	23417	
DIESEL	FUEL	GAL	19990			Transferred from' UNIVERSITY 6-48D 104H'		19,990	605	
DIESEL	FUEL	GAL	9161			Transferred from 6-48D 104H		9,161	12995	
DIESEL	MUD	GAL		213				14,809	22227	
DIESEL	FUEL	GAL	0	0				19,990	605	
DIESEL	FUEL	GAL		620				8,541	13615	
Mud Additive Amounts										
Des		Type			Units	Rec	Consumed	On Loc	Cum Cons	
BARITE - BULK		WEIGHTING MATERIAL			TON		5	3.11	43	
DDF MUL		ALL IN ONE EMULSIFIER			GAL		150	550.0	150	
Pump Operations										
Pump #	Make	Model	Liner Size (in)		Stroke (in)	Vol/Stk (bbl/stk)		P Max (psi)		
1	BOMCO	F1600	5 1/2		12.00	0.088		7,500.0		
2	BOMCO	F1600	5 1/2		12.00	0.088		7,500.0		
3	BOMCO	F1600	5 1/2		12.00	0.088		7,500.0		
Pump Checks										
Pump #	Depth (ftKB)			Time	P (psi)	Strokes (spm)		Q Flow (gpm)		Eff (%)
No Data										
Deviation Surveys										
Date			Description			Job				
11/8/2022 16:00			AS DRILL SURVEY			ODR, 11/8/2022 06:00				
Survey Data - All surveys for 24 hr reporting period										
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)		VS (ft)	NS (ft)	EW (ft)		DLS (°/100ft)	
7,052.00	10.27	250.14	6,892.46		1,306.81	-438.30	-1,231.28		0.64	
7,142.00	6.64	225.61	6,981.49		1,319.53	-444.67	-1,242.55		5.60	
Formations										
Formation Name			Prog Top Override (TVD SS) (ft(elv))		Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)		Final Top (TVD) (ftKB)	

267_0_SPBY_U_A1/267_0_SPBY	-5,443.0		8,436.0	8,493.0	
267_5_SPBY_M_A1	-5,755.0		8,748.0	8,807.0	
268_5_SPBY_L_A1	-5,987.0		8,980.0	9,026.0	
ALT_ICP2	-6,137.0		9,130.0		
268_5_SPBY_L_A2	-6,023.0		9,016.0	9,077.0	
268_5_SPBY_L_A3	-6,108.0		9,101.0	9,155.0	
268_6_SPBY_L_B1/JO MILL	-6,262.0		9,255.0	9,355.0	
268_7_SPBY_L_C1/LOWER SPRABERRY SHALE	-6,321.0		9,314.0	9,409.0	
ILP	-6,540.0		9,533.0		
PBHL/TD	-6,600.0		9,593.0		
269_0_DEAN	-6,633.0		9,626.0		
270_0_WFMP_A1	-6,802.0		9,795.0		
275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
JACKSON, AUSTIN, ENGINEER	ENGINEER	972-969-5954	469-503-1379	AUSTIN.JACKSON@PXD.COM
COX, BRYAN, ENGINEER	ENGINEER	972-969-5717	361-318-4212	BRYAN.COX@PXD.COM
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
PARSELL, VIC, SUPERINTENDENT	SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM
PRESLEY, MAHLON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM
GALLAGHER, JEFFERY, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		318-282-4788	JEFFERY.GALLAGHER@PXD.COM
BARMAN, TRAVIS, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		661-448-3243	TRAVIS.BARMAN@PXD.COM
LIGHTSEY, WADE, MUD ENGINEER	MUD ENGINEER		210-834-7068	WADE.LIGHTSEY@PXD.COM
RIG-ENSIGN 125, RIG PHONE	RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	3
ENSIGN UNITED STATES DRILLING S W INC	13
BAKER HUGHES OILFIELD OPERATIONS INC	3
GISLER BROTHERS LOGGING CO INC	2
STALLION SOLIDS CONTROL INC	1

ENSIGN 125

Accept:12/24/2022

Release:

Days Since LTI:878.00

Days Since RI:878.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:ODR

Report Date:01/18/2023

Report #:10

DFS:8

AFE #:9023597

Total AFE + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$148,270.97

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)				
SSN ID00003244		Property Sub	KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022	TD Date	
Jobs											
Responsible Grp 2			Responsible Grp 3			Job Type	Start Date		End Date	Job Status	
DRL ENG - JOHN GARZA			AREA TEAM 2			ODR	11/8/2022 06:00			IN PROGRESS	
Job Dates (ex. Estimated Pad Release, TXRRC Calls)											
Type		Subtype				Date		Note			
MILESTONE		ESTIMATED PAD RELEASE				2/5/2023		3rd Production on 5 well pad			
Daily Operations											
Footage/Meterage (ft) 2,310.00		Drilling Hours 21.50	% Rotating Time 100.00		End Depth (ftKB) 9,600.0	Target Depth (ftKB) 20,303.0		Daily Field Est Total \$148,270.97		Cum Field Est To Date \$1,774,466.69	
24 HR ROP (ft/hr) 107.4	Circulating Hours	% Sliding Time 0.00	End Depth (TVD) (ftKB) 9,382.9		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$20,268.10		Cum Mud Field Est \$41,194.13	Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET			Daily Goal - Last 24 3,000.0			Daily Goal - Next 24 3,000.0			Goal Comments Goal not met		
Backbuild Yes	Lateral Inclination	Last Casing String INTERMEDIATE, 7,017.0ftKB					Next Casing String PROPOSED PRODUCTION, 20,305.0ftKB				
Avg Connection Gas 325.00		Avg Trip Gas 27.00		Avg Background Gas 200.00		Max Connection Gas 571.00		Max Trip Gas 27.00		Max Drill Gas 625.00	
Operations Summary Drill Production Vertical F/7290' T/9090' KOP,Drill Production Curve F/9090' T/9600' (INC - 39°, AZI - 158.36°, Below - 40.4', Right - 68.59', BRN -9.3)											
Operations Next Report Period Drilll Prod curve to 10017' +/- LP, Drill Lateral											
Operations At Report Time Drilling Prod Curve at 9600'.											
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 1.75 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 60%, Prod Lat- 0%											
Time Log											
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com		Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #
06:00	13	19:00	PROD, DRL	DRL	NORMAL	Drill Production Verticall F/7,290' T/ 9090 (1800' @ 138 FPH), 650 GPMs, 75 RPM, 15-35K WOB, 3000 SPP, 7K torque		7,290.0	9,090.0		
19:00	4	23:00	PROD, DRL CURVE	DRL	NORMAL	Drill Production curve F/9090' to 9336'. (246' @ 61.5 FPH) 500 GPMs, 40 RPM, 15-35K WOB, 2100 SPP, 8K torque		9,090.0	9,336.0		
23:00	0.5	23:30	PROD, DRL CURVE	RIG_SVC	NORMAL	Serviced rig		9,336.0	9,336.0		
23:30	6.5	06:00	PROD, DRL CURVE	DRL	NORMAL	Drill Production curve F/9336' to 9600'. (264' @ 40.6 FPH) 500 GPMs, 40 RPM, 15-35K WOB, 2450 SPP, 8K torque		9,336.0	9,600.0		
Drill Strings											
BHA #5 , PRODUCTION - VERTICAL/CURVE/LATERAL											
Bit Run 4			Drill Bit 8 1/2, DD506VTSX, 5333563				Bit Type PDC		Make GE/BAKER HUGHES		
Nozzles (1/32") 12/12/12/14/14/14			Bit Total Fluid Area (nozzles) (in²) 0.78		IADC Bit Dull -----		Hours Drilled By Bit (hr) 24.50		Depth Drilled By Bit (ft) 2,545.00		
BHA Drilling Time (hr) 24.50			BHA Depth Drilled (ft) 2,545.00		BHA ROP (ft/hr) 103.9		Depth In (ftKB) 7,055.0		Depth Out (ftKB) 9,600.0		
Drill String Components											
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make	
213	DRILL PIPE			5	4.28	9,387.68	9,600.00	183,059.8	183	RIG	
1	SUB - FILTER			6 1/2	3.13	4.17	212.32		0	GE/BAKER HUGHES	
2	DRILL PIPE			5	3.88	90.00	208.15		0	RIG	
1	MOTOR - STABILIZER SLEEVE			7	3.25	43.10	118.15		0	GE/BAKER HUGHES	
1	SUB - SHOCK			7	2.25	26.32	75.05		0	OTHER (PROVIDE DESCRIPTION)	
1	STABILIZER			6 7/8	2.75	10.42	48.73		0	DRILLING TOOLS INTERNATIONAL	

1	RSS TOOL	6.86	2.75	12.67	38.31		0	GE/BAKER HUGHES													
1	MWD TOOL - NON-RETRIEVABLE	6.69	2.75	15.63	25.64		0	GE/BAKER HUGHES													
1	RSS TOOL	6.99	2.75	9.31	10.01		0	GE/BAKER HUGHES													
Mud Motors																					
SN		Bend Angle		Bearing Type		Lobe Config		# Stages	Lwr Defln Type		Bit To Bend										
15022846		0		NOT SEALED		7:8		6.4		0											
Sensors																					
Sensor Type			Sensor-Bit (ft)			Note															
GAMMA			12.21																		
DIRECTIONAL			22.28																		
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	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	7,290.0	57.00	228.0	12	57	323.3	653	3,024.0	131.0	163	163	163	163	7.0	7.0					
06:30	07:00	7,347.0	92.00	184.0	22	81	267.2	653	2,999.0	155.0	163	163	163	163	8.0	8.0					
07:00	07:45	7,439.0	91.00	121.3	25	83	338.2	653	3,070.0	150.0	160	160	160	160	8.0	8.0					
07:45	08:15	7,530.0	92.00	184.0	19	75	305.4	653	3,038.0	153.0	166	166	166	166	8.0	8.0					
08:30	09:00	7,622.0	91.00	182.0	17	75	354.4	653	3,087.0	166.0	168	168	168	168	8.0	8.0					
09:00	09:30	7,713.0	86.00	172.0	18	75	365.7	653	3,097.0	165.0	167	167	167	167	8.0	8.0					
09:45	10:15	7,799.0	90.00	180.0	21	75	499.7	653	3,135.0	166.0	167	167	167	167	9.0	9.0					
10:15	10:45	7,889.0	91.00	182.0	20	75	501.8	653	3,137.0	160.0	168	168	168	168	8.0	8.0					
10:45	11:30	7,980.0	91.00	121.3	15	75	482.3	653	3,118.0	160.0	173	173	173	173	8.0	8.0					
11:30	12:00	8,071.0	92.00	184.0	14	75	465.4	653	3,101.0	153.0	173	173	173	173	8.0	8.0					
12:00	12:45	8,163.0	91.00	121.3	12	75	435.0	653	3,070.0	145.0	176	176	176	176	8.0	8.0					
12:45	13:15	8,254.0	92.00	184.0	16	75	376.8	653	3,056.0	154.0	178	178	178	178	8.0	8.0					
13:30	14:00	8,346.0	90.00	180.0	16	75	408.9	653	3,088.0	156.0	178	178	178	178	8.0	8.0					
14:00	14:45	8,436.0	91.00	121.3	14	75	372.1	653	3,051.0	151.0	182	182	182	182	8.0	8.0					
14:45	15:15	8,527.0	92.00	184.0	15	75	432.3	653	3,111.0	149.0	181	181	181	181	8.0	8.0					
15:15	16:00	8,619.0	91.00	121.3	19	75	484.1	653	3,163.0	149.0	178	178	178	178	9.0	9.0					
16:00	16:30	8,710.0	84.00	168.0	17	75	506.4	653	3,185.0	149.0	179	179	179	179	9.0	9.0					
16:45	17:15	8,794.0	90.00	180.0	19	75	574.5	653	3,209.0	148.0	177	177	177	177	10.0	10.0					
17:15	18:00	8,884.0	91.00	121.3	18	75	573.0	653	3,207.0	150.0	179	179	179	179	10.0	10.0					
18:00	18:15	8,975.0	90.00	360.0	29	73	473.3	649	3,108.0	118.0	181	181	181	181	9.0	9.0					
18:45	19:00	9,065.0	25.00	100.0	20	75	352.1	646	3,113.0	124.0	185	185	185	185	9.0	9.0					
19:00	19:30	9,090.0	7.00	14.0	8	40	87.0	646	2,848.0	25.0	197	197	197	197	6.0	6.0					
19:30	20:15	9,097.0	59.00	78.7	19	40	388.3	499	2,259.0	83.0	189	189	189	189	9.0	9.0					
20:15	21:45	9,156.0	90.00	60.0	15	45	272.7	498	2,143.0	57.0	192	192	192	192	8.0	8.0					
22:00	22:45	9,246.0	71.00	94.7	17	50	361.0	498	2,231.0	75.0	191	191	191	191	10.0	10.0					
23:00	23:15	9,317.0	20.00	80.0	14	50	145.5	498	2,016.0	49.0	194	194	194	194	9.0	9.0					
23:30	02:00	9,337.0	91.00	36.4	10	50	215.4	498	2,086.0	38.0	198	198	198	198	8.0	8.0					
02:00	06:00	9,428.0	172.00	43.0	10	50	215.4	498	2,086.0	43.0	198	198	198	198	8.0	8.0					
Hydraulic Calculations																					
Dens Mud (lb/gal)		ECD End (lb/gal)		Bit Hydraulic Power (hp)		HP/Area (hp/in²)		Jet Vel (ft/s)		Bit dP (psi)		Min Open Hole AV (ft/min)		Max Open Hole AV (ft/min)		Vol DrillString (bbl)		Vol Bit to Shoe (bbl)		Vol Shoe to Top (bbl)	
8.40		8.42		92.2		1.6		204.2		317.4		13.9		525.0		169.33		116.99		360.97	
Mud Checks																					
Time		Mud Company				Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)			T Flowline (° F)						
1/17/2023 23:30		PIONEER DRILLING FLUIDS				OIL BASE		9,250.0		8.40		56									
pV (cP)		YP (lbf/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (° F)			HTHP Pressure (psi)						
12.0		6.000		3		4		0.0		7.5		200.0			500.0						
Solids (%)		Low Gravity Solids (%)				Sand (%)		MBT (lb/bbl)		Pm (mL/mL)			Pf (mL/mL)								
6.0		3.4				0.0		0.0		0.000			0.0								
Chlorides (mg/L)			Calcium (mg/L)			CaCl (ppm)			Oil Water Ratio			Electric Stab (V)			Lime (lb/bbl)		pH				
10,000			6,000.000			0			70/30			491.0			1.9		0.0				
Gel 10 sec (lbf/100ft²)					Gel 10 min (lbf/100ft²)					Gel 30 min (lbf/100ft²)											
6.000					12.000					14.000											
Comment																					
Recommended Fluid Treatment:Treatment: 2.0 ppb Tone to maintain rheologies, 1.5 ppb Lime to raise ex lime, 1.5 ppb Mul to raise es, 1.5 ppb LEM to raise 6/3 rpm, 0.5 ppb Gilsonite & Soltex to maintain HTHP & shale																					
Rig Activity Last 24 Hours-Shallow test RSS, TIH. Drilled prod vertical f/ 7,055 t/ 9,089'. Drilled curve f/ 9,090' KOP t/ 9,250'. Drilling parameters: ROP- 29', WOB-30K, Rotary- 50 RPM, Bit- 150 RPM, Tq- 8 KLB-Ft, Diff- 450 PSI. P/U 205k, S/O 185k, ROT 195K. Ftg drilled last 24hrs: 2,195'. Lithology @ 9,210' 20% LS, 80% SH. Currently drilling curve																					
Last BOP Test																					
Date		Test Type		Item Tested				Next Test Date			Com										
1/16/2023 12:00		BOP		BOP'S, 12/24/2022 09:00				2/6/2023 12:00			Full Test 4 1/2 IF										
Leak Off and Formation Integrity Tests																					
Test Type					Depth (ftKB)				Dens Fluid (lb/gal)												

FORMATION INTEGRITY				2,014.0		12.60		
FORMATION INTEGRITY				7,014.0		10.50		
Casing Pressure Test								
Test Type	Test Subtype	Date	Item Tested			Failed?	Time (min)	P (psi)
CASING	STANDARD	11/17/2022 17:30	SURFACE, 2,016.2ftKB			No	30.00	1,000.0
CASING	STANDARD	1/16/2023 15:00	INTERMEDIATE, 7,017.0ftKB			No	30.00	2,500.0
Kick Offs & Key Depths								
Date		Type	Top Depth (ftKB)		Depth Top (TVD) (ftKB)			
1/17/2023 19:00		KICK OFF	9,090.0		8,929.0			
Casing Strings								
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	105.0	105.0	20	H40	78.67			
SURFACE	2,016.2	2,013.3	13 3/8	J55	54.50	BTC	1,316.3	
INTERMEDIATE	7,017.0	6,858.0	9 5/8	L80-IC	40.00	BTC	3,739.9	
Gas Emissions - Flare								
Type	Method	Dur (Min)		Amount		Units	Com	
No Data								
Job Supply Amounts								
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note	Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	14565	10252			19,122	32479
DIESEL	FUEL	GAL		2526			6,015	16141
Mud Additive Amounts								
Des	Type			Units	Rec	Consumed	On Loc	Cum Cons
BARITE - BULK	WEIGHTING MATERIAL			TON	18.6	0.6	21.11	43
TRANSPORTATION	MISCELLANEOUS			EA	2	2	0.0	4
XMP GILSONITE	FILTRATE CONTROL			LB		15	80.0	15
DD TONE	ORGANOPHILLIC CLAY			SACK	100	30	303.0	30
CALCIUM CHLORIDE	CALCIUM CHLORIDE			LB		45	290.0	45
LIME	ALKALINITY CONTROL			SACK	200	55	325.0	74
DD LEM	LOW END MODIFIER			GAL	1100	425	1,375.0	425
DDF MUL	ALL IN ONE EMULSIFIER			GAL	1100	550	1,100.0	700
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)		P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0	
2	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0	
3	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0	
Pump Checks								
Pump #	Depth (ftKB)		Time	P (psi)	Strokes (spm)	Q Flow (gpm)		Eff (%)
No Data								
Deviation Surveys								
Date		Description			Job			
11/8/2022 16:00		AS DRILL SURVEY			ODR, 11/8/2022 06:00			
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
7,322.00	1.02	162.79	7,161.03	1,328.73	-454.25	-1,249.03	3.56	
7,412.00	0.09	261.01	7,251.03	1,328.82	-455.03	-1,248.86	1.15	
7,503.00	0.04	112.00	7,342.03	1,328.87	-455.05	-1,248.90	0.14	
7,593.00	0.03	178.42	7,432.03	1,328.85	-455.09	-1,248.87	0.04	
7,684.00	0.13	235.40	7,523.03	1,328.96	-455.17	-1,248.96	0.13	
7,774.00	0.00	6.68	7,613.03	1,329.06	-455.23	-1,249.04	0.14	
7,864.00	0.11	181.93	7,703.03	1,329.09	-455.31	-1,249.05	0.12	
7,955.00	0.10	150.94	7,794.03	1,329.10	-455.47	-1,249.01	0.06	
8,045.00	0.03	160.19	7,884.03	1,329.09	-455.56	-1,248.96	0.08	
8,136.00	0.13	96.58	7,975.03	1,329.00	-455.59	-1,248.85	0.13	
8,226.00	0.18	129.37	8,065.03	1,328.83	-455.70	-1,248.64	0.11	
8,317.00	0.03	148.64	8,156.03	1,328.75	-455.81	-1,248.52	0.17	
8,407.00	0.07	201.83	8,246.03	1,328.78	-455.88	-1,248.53	0.06	
8,498.00	0.12	205.36	8,337.03	1,328.88	-456.02	-1,248.59	0.06	
8,588.00	0.03	295.19	8,427.03	1,328.96	-456.09	-1,248.65	0.14	
8,678.00	0.17	259.83	8,517.03	1,329.11	-456.10	-1,248.80	0.16	
8,769.00	0.09	319.90	8,608.02	1,329.27	-456.07	-1,248.98	0.16	
8,859.00	0.15	285.73	8,698.02	1,329.40	-455.99	-1,249.14	0.10	
8,949.00	0.18	241.39	8,788.02	1,329.63	-456.02	-1,249.38	0.14	
9,040.00	0.19	249.83	8,879.02	1,329.92	-456.14	-1,249.65	0.03	
9,130.00	5.56	179.75	8,968.88	1,331.45	-460.56	-1,249.77	6.11	
9,221.00	14.43	165.11	9,058.42	1,333.61	-475.96	-1,246.83	10.06	
9,311.00	22.54	160.60	9,143.71	1,334.14	-503.11	-1,238.20	9.14	
9,402.00	30.53	158.90	9,225.06	1,332.96	-541.19	-1,224.06	8.82	
9,492.00	39.00	158.23	9,298.93	1,330.48	-588.90	-1,205.30	9.42	
Formations								

Formation Name	Prog Top Override (TVD SS) (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
ILP	-6,540.0		9,533.0		
PBHL/TD	-6,600.0		9,593.0		
269_0_DEAN	-6,633.0		9,626.0		
270_0_WFMP_A1	-6,802.0		9,795.0		
275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		
Daily Contacts					
Job Contact		Title	Office	Mobile	Email
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM
GARZA, JOHN, ENGINEER		ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
PARSELL, VIC, SUPERINTENDENT		SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT		SUPERINTENDENT	432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM
PRESLEY, MAHLON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM
BARMAN, TRAVIS, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		661-448-3243	TRAVIS.BARMAN@PXD.COM
LIGHTSEY, WADE, MUD ENGINEER		MUD ENGINEER		210-834-7068	WADE.LIGHTSEY@PXD.COM
RIG-ENSIGN 125, RIG PHONE		RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM
Personnel Log					
Company					Count
PIONEER NATURAL RESOURCES USA INC					2
ENSIGN UNITED STATES DRILLING S W INC					13
BAKER HUGHES OILFIELD OPERATIONS INC					3
GISLER BROTHERS LOGGING CO INC					2
STALLION SOLIDS CONTROL INC					1

ENSIGN 125

Accept:12/24/2022

Release:

Days Since LTI:879.00

Days Since RI:879.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:ODR

Report Date:01/19/2023

Report #:11

DFS:9

AFE #:9023597

Total AFE + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$167,332.65

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)									
SSN ID00003244		Property Sub		KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022		TD Date				
Jobs																
Responsible Grp 2				Responsible Grp 3			Job Type		Start Date			End Date		Job Status		
DRL ENG - JOHN GARZA				AREA TEAM 2			ODR		11/8/2022 06:00					IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)																
Type		Subtype					Date		Note							
MILESTONE		ESTIMATED PAD RELEASE					2/5/2023		3rd Production on 5 well pad							
Daily Operations																
Footage/Meterage (ft) 3,790.00		Drilling Hours 23.50		% Rotating Time 100.00		End Depth (ftKB) 13,390.0		Target Depth (ftKB) 20,303.0		Daily Field Est Total \$167,332.65			Cum Field Est To Date \$1,941,974.34			
24 HR ROP (ft/hr) 161.3		Circulating Hours 0.50		% Sliding Time 0.00		End Depth (TVD) (ftKB) 9,573.7		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$14,926.36			Cum Mud Field Est \$56,120.49		Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 3,000.0				Daily Goal - Next 24 4,000.0				Goal Comments Goal Met				
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 7,017.0ftKB					Next Casing String PROPOSED PRODUCTION, 20,305.0ftKB							
Avg Connection Gas 795.00			Avg Trip Gas 0.00		Avg Background Gas 810.00			Max Connection Gas 1,015.00			Max Trip Gas 0.00		Max Drill Gas 1,075.00			
Operations Summary Drill Production Curve T/10,075' LP, Drill Production Lateral F/10,075' T/13,390'. (100% Rotating, Inc - 88.57°, AZI - 166.35°, Below - 9.6', Left - 5.75', AVG DLS - 2.68°) Target Line #2																
Operations Next Report Period Drill Production Lateral F/13,390' T/17,390'																
Operations At Report Time Drilling Production Lateral @ 13,390'																
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 1.75 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 100%, Prod Lat- 32.40%																
Time Log																
Start Time	Dur (hr)	End Time	Phase		Operation	Ops Category	Com			Start Depth (ftKB)		End Depth (ftKB)		Prob Hrs	Prob Ref #	
06:00	7	13:00	PROD, DRL CURVE		DRL	NORMAL	Drill Production curve F/9,600' to 10,075'. (475' @ 67.8FPH) 500 GPMs, 40 RPM, 15-35K WOB, 2450 SPP, 8K torque			9,600.0		10,075.0				
13:00	3	16:00	PROD, DRL LAT		DRL	NORMAL	Drill Production lateral F/10,075' to 10,511'. (436' @ 145.3 FPH) 650 GPMs, 100 RPM, 15-35K WOB, 2900 SPP, 8K torque			10,075.0		10,511.0				
16:00	0.5	16:30	PROD, DRL LAT		RIG_SVC	NORMAL	Rig Service			10,511.0		10,511.0				
16:30	13.5	06:00	PROD, DRL LAT		DRL	NORMAL	Drill Production lateral F/10,511' T/13,390'. (2,879' @ 213 FPH) 650 GPMs, 100 RPM, 30-40K WOB, 3,085 SPP, 15-19K torque and 630 psi Diff.			10,511.0		13,390.0				
Drill Strings																
BHA #5 , PRODUCTION - VERTICAL/CURVE/LATERAL																
Bit Run 4			Drill Bit 8 1/2, DD506VTSX, 5333563					Bit Type PDC			Make GE/BAKER HUGHES					
Nozzles (1/32") 12/12/12/14/14/14			Bit Total Fluid Area (nozzles) (in²) 0.78			IADC Bit Dull -----			Hours Drilled By Bit (hr) 48.00			Depth Drilled By Bit (ft) 6,335.00				
BHA Drilling Time (hr) 48.00			BHA Depth Drilled (ft) 6,335.00			BHA ROP (ft/hr) 132.0			Depth In (ftKB) 7,055.0			Depth Out (ftKB) 13,390.0				
Drill String Components																
Jts	Item Des				OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make					
291	DRILL PIPE				5	4.28	13,177.68	13,390.00	256,964.8	257	RIG					
1	SUB - FILTER				6 1/2	3.13	4.17	212.32		0	GE/BAKER HUGHES					
2	DRILL PIPE				5	3.88	90.00	208.15		0	RIG					
1	MOTOR - STABILIZER SLEEVE				7	3.25	43.10	118.15		0	GE/BAKER HUGHES					
1	SUB - SHOCK				7	2.25	26.32	75.05		0	OTHER (PROVIDE DESCRIPTION)					

1	STABILIZER	6 7/8	2.75	10.42	48.73		0	DRILLING TOOLS INTERNATIONAL													
1	RSS TOOL	6.86	2.75	12.67	38.31		0	GE/BAKER HUGHES													
1	MWD TOOL - NON-RETRIEVABLE	6.69	2.75	15.63	25.64		0	GE/BAKER HUGHES													
1	RSS TOOL	6.99	2.75	9.31	10.01		0	GE/BAKER HUGHES													
Mud Motors																					
SN		Bend Angle		Bearing Type		Lobe Config		# Stages	Lwr Defln Type		Bit To Bend										
15022846		0		NOT SEALED		7:8		6.4		0											
Sensors																					
Sensor Type			Sensor-Bit (ft)				Note														
GAMMA			12.21																		
DIRECTIONAL			22.28																		
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	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	16:00	9,600.0	911.00	91.1	35	100	215.4	645	3,900.0	91.1	198	198	198	198	8.0	8.0					
16:00	16:30	10,511.0	0.00		0	0	215.4	645	3,900.0	0.0	198	198	198	198	8.0	8.0					
16:30	06:00	10,511.0	2,879.00	213.3	35	100	215.4	645	3,900.0	213.0	198	198	198	198	8.0	8.0					
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)	
8.50		8.89		202.7		3.6		264.5		538.7		18.1		680.0		236.77		290.95		360.97	
Mud Checks																					
Time		Mud Company				Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)			T Flowline (° F)						
1/18/2023 16:00		PIONEER DRILLING FLUIDS				OIL BASE		10,497.0		8.50		52			110.0						
pV (cP)		YP (lbf/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (° F)			HTHP Pressure (psi)						
13.0		6.000		3		4		0.0		8.0		200.0			500.0						
Solids (%)		Low Gravity Solids (%)				Sand (%)		MBT (lb/bbl)		Pm (mL/mL)			Pf (mL/mL)								
7.0		5.9				0.0		0.0			0.000			0.0							
Chlorides (mg/L)			Calcium (mg/L)			CaCl (ppm)			Oil Water Ratio			Electric Stab (V)			Lime (lb/bbl)		pH				
12,000			5,600.000			0			69.9/30.1			402.0			1.3		0.0				
Gel 10 sec (lbf/100ft²)					Gel 10 min (lbf/100ft²)					Gel 30 min (lbf/100ft²)											
5.000					11.000					14.000											
Comment																					
Recommended Fluid Treatment:Treatment: Maintain 8.4 - 8.6 ppg MW with barite as needed. Dilution: 11.8 BPH diesel, 5 BPH FW. Treatment. 1 3/4 ppb Lime to raise alkalinity, 3 ppb CaCl to water phase to raise WPS, 3/4 ppb Tone & 1/4 ppb LEM to raise Rheologies, 1/2 ppb Soltex & Gilsonite to maintain HTHP, 1/4 ppb Mul to increase ES.																					
Drilling Fluids Activity Last 24 Hrs: Inspect shaker screens on connections with 4 screens needing to replaced. Build volume throughout curve. Received 1 load of Mud Diesel.																					
Rig Activity Last 24 Hours: Drill F/9,250' T/11,491' at time of report with no issues. Drilling parameters: ROP- 326', WOB-34K, Rotary- 101 RPM, Bit- 159 RPM, Tq- 15.7 KLB-Ft, Diff- 650 PSI. P/U 220k, S/O 195k, ROT 210K. Ftg drilled last 24hrs: 2,241'. Lithology @ 11,030' 100% SH.																					
Last BOP Test																					
Date		Test Type		Item Tested				Next Test Date			Com										
1/16/2023 12:00		BOP		BOP'S, 12/24/2022 09:00				2/6/2023 12:00			Full Test 4 1/2 IF										
Leak Off and Formation Integrity Tests																					
Test Type					Depth (ftKB)				Dens Fluid (lb/gal)												
FORMATION INTEGRITY					2,014.0				12.60												
FORMATION INTEGRITY					7,014.0				10.50												
Casing Pressure Test																					
Test Type		Test Subtype		Date		Item Tested			Failed?		Time (min)		P (psi)								
CASING		STANDARD		11/17/2022 17:30		SURFACE, 2,016.2ftKB			No		30.00		1,000.0								
CASING		STANDARD		1/16/2023 15:00		INTERMEDIATE, 7,017.0ftKB			No		30.00		2,500.0								
Kick Offs & Key Depths																					
Date			Type		Top Depth (ftKB)				Depth Top (TVD) (ftKB)												
1/18/2022 13:00			HEEL		10,075.0				9,529.6												
1/17/2023 19:00			KICK OFF		9,090.0				8,929.0												
Casing Strings																					
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)							
CONDUCTOR		105.0		105.0		20		H40		78.67											
SURFACE		2,016.2		2,013.3		13 3/8		J55		54.50		BTC		1,316.3							
INTERMEDIATE		7,017.0		6,858.0		9 5/8		L80-IC		40.00		BTC		3,739.9							
Gas Emissions - Flare																					
Type		Method			Dur (Min)			Amount			Units		Com								
No Data																					
Job Supply Amounts																					
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc		Cum Consumed										
DIESEL		FUEL	GAL	7286	2938				10,363		19079										
DIESEL		MUD	GAL	7285	11954				14,453		44433										
DIESEL		FUEL	GAL	0	0		Winter Tank		19,990		605										
WATER		FRESH	BBL	0	0				0		23417										

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
TRANSPORTATION	MISCELLANEOUS	EA	1	1	0.0	5	
BARITE - BULK	WEIGHTING MATERIAL	TON	22.03	8.03	35.11	51	
CALCIUM CHLORIDE	CALCIUM CHLORIDE	LB		28	262.0	73	
DD LEM	LOW END MODIFIER	GAL		275	1,100.0	700	
DDF MUL	ALL IN ONE EMULSIFIER	GAL		275	825.0	975	
DD TONE	ORGANOPHILLIC CLAY	SACK		25	278.0	55	
LIME	ALKALINITY CONTROL	SACK		59	266.0	133	
SOLTEX	FILTRATE CONTROL	LB		8	70.0	17	
XMP GILSONITE	FILTRATE CONTROL	LB		11	69.0	26	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
3	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
1	10,511.0	1/18/2023 16:00	380.0	20	70	95	
1	10,511.0	1/18/2023 16:00	540.0	40	141	95	
1	10,511.0	1/18/2023 16:00	450.0	30	106	95	
2	10,511.0	1/18/2023 16:00	370.0	20	70	95	
2	10,511.0	1/18/2023 16:00	530.0	40	141	95	
2	10,511.0	1/18/2023 16:00	440.0	30	106	95	
1	12,861.0	1/19/2023 03:30	500.0	30	106	95	
1	12,861.0	1/19/2023 03:30	410.0	20	70	95	
1	12,861.0	1/19/2023 03:30	600.0	40	141	95	
2	12,861.0	1/19/2023 03:30	410.0	20	70	95	
2	12,861.0	1/19/2023 03:30	495.0	30	106	95	
2	12,861.0	1/19/2023 03:30	595.0	40	141	95	
Deviation Surveys							
Date		Description		Job			
11/8/2022 16:00		AS DRILL SURVEY		ODR, 11/8/2022 06:00			
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
9,673.00	56.58	156.97	9,421.11	1,322.41	-711.66	-1,155.22	10.75
9,763.00	64.89	157.28	9,465.06	1,316.70	-783.93	-1,124.74	9.24
9,853.00	73.55	157.92	9,496.96	1,311.29	-861.66	-1,092.72	9.65
9,944.00	81.96	160.11	9,516.25	1,307.78	-944.62	-1,060.93	9.54
10,034.00	84.81	163.98	9,526.62	1,308.95	-1,029.65	-1,033.38	5.32
10,125.00	89.13	164.49	9,531.43	1,313.60	-1,117.08	-1,008.70	4.78
10,215.00	88.76	163.99	9,533.09	1,318.22	-1,203.68	-984.26	0.69
10,305.00	90.24	164.46	9,533.87	1,322.81	-1,290.29	-959.79	1.73
10,396.00	90.18	164.52	9,533.54	1,327.87	-1,377.97	-935.46	0.09
10,486.00	89.44	164.54	9,533.84	1,332.94	-1,464.71	-911.45	0.82
10,577.00	87.12	164.96	9,536.57	1,338.42	-1,552.46	-887.53	2.59
10,667.00	89.31	166.69	9,539.37	1,345.51	-1,639.67	-865.50	3.10
10,757.00	92.12	167.60	9,538.25	1,354.68	-1,727.40	-845.48	3.28
10,847.00	90.98	165.96	9,535.81	1,363.27	-1,814.98	-824.91	2.22
10,938.00	89.81	167.44	9,535.19	1,371.83	-1,903.53	-803.98	2.07
11,028.00	90.05	166.66	9,535.30	1,380.85	-1,991.24	-783.81	0.91
11,119.00	89.01	165.95	9,536.04	1,388.79	-2,079.65	-762.26	1.38
11,209.00	89.07	162.96	9,537.55	1,393.74	-2,166.33	-738.15	3.32
11,299.00	87.37	165.44	9,540.35	1,398.29	-2,252.88	-713.66	3.34
11,390.00	89.25	167.40	9,543.03	1,406.41	-2,341.29	-692.30	2.98
11,480.00	89.31	165.33	9,544.16	1,414.35	-2,428.74	-671.09	2.30
11,570.00	91.07	165.39	9,543.86	1,420.72	-2,515.82	-648.35	1.96
11,661.00	86.91	161.85	9,545.47	1,424.41	-2,603.08	-622.70	6.00
11,751.00	89.56	164.53	9,548.24	1,427.37	-2,689.17	-596.69	4.19
11,842.00	90.02	167.61	9,548.57	1,434.94	-2,777.49	-574.78	3.42
11,932.00	87.43	164.80	9,550.58	1,442.63	-2,864.85	-553.33	4.25
12,023.00	89.96	167.22	9,552.65	1,450.10	-2,953.12	-531.35	3.85
12,113.00	91.56	166.28	9,551.45	1,458.65	-3,040.71	-510.72	2.06
12,203.00	86.20	164.01	9,553.21	1,464.68	-3,127.65	-487.66	6.47
12,293.00	89.25	167.71	9,556.79	1,471.83	-3,214.83	-465.70	5.32
12,384.00	89.59	164.67	9,557.71	1,479.59	-3,303.18	-443.98	3.36
12,474.00	89.56	166.69	9,558.38	1,486.46	-3,390.38	-421.73	2.24
12,565.00	89.53	165.92	9,559.10	1,494.40	-3,478.79	-400.18	0.85
12,655.00	89.71	166.71	9,559.70	1,502.27	-3,566.23	-378.89	0.90

12,745.00	89.28	166.51	9,560.49	1,510.60	-3,653.78	-358.05	0.53
12,836.00	87.93	166.32	9,562.70	1,518.71	-3,742.21	-336.68	1.50
12,926.00	90.70	165.21	9,563.78	1,525.71	-3,829.43	-314.55	3.32
13,016.00	88.57	166.35	9,564.35	1,532.74	-3,916.66	-292.45	2.68

Formations					
Formation Name	Prog Top Override (TVD SS) (ft(elv))	Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)
PBHL/TD	-6,600.0		9,593.0		
269_0_DEAN	-6,633.0		9,626.0		
270_0_WFMP_A1	-6,802.0		9,795.0		
275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		

Daily Contacts				
Job Contact	Title	Office	Mobile	Email
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
PARSELL, VIC, SUPERINTENDENT	SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM
PRESLEY, MAHLON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM
HENZE, BRENDON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM
MUNGER CASEY, MUD ENGINEER	MUD ENGINEER		479-234-6620	CASEY.MUNGER@PXD.COM
RIG-ENSIGN 125, RIG PHONE	RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
ENSIGN UNITED STATES DRILLING S W INC	13
BAKER HUGHES OILFIELD OPERATIONS INC	3
GISLER BROTHERS LOGGING CO INC	2
STALLION SOLIDS CONTROL INC	1

ENSIGN 125

Accept:12/24/2022

Release:

Days Since LTI:880.00

Days Since RI:880.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:ODR

Report Date:01/20/2023

Report #:12

DFS:10

AFE #:9023597

Total AFE + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$889,064.58

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)				Field Name SPRABERRY (TREND AREA)							
SSN ID00003244		Property Sub		KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00			Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022		TD Date		
Jobs															
Responsible Grp 2				Responsible Grp 3			Job Type		Start Date			End Date		Job Status	
DRL ENG - JOHN GARZA				AREA TEAM 2			ODR		11/8/2022 06:00					IN PROGRESS	
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type		Subtype					Date		Note						
MILESTONE		ESTIMATED PAD RELEASE					2/5/2023		3rd Production on 5 well pad						
Daily Operations															
Footage/Meterage (ft) 3,614.00		Drilling Hours 23.50		% Rotating Time 100.00		End Depth (ftKB) 17,004.0		Target Depth (ftKB) 20,303.0		Daily Field Est Total \$889,064.58		Cum Field Est To Date \$2,832,038.92			
24 HR ROP (ft/hr) 153.8		Circulating Hours 0.50		% Sliding Time 0.00		End Depth (TVD) (ftKB) 9,591.9		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$17,904.04		Cum Mud Field Est \$74,024.53		Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 4,000.0				Daily Goal - Next 24 3,300.0				Goal Comments Goal Not Met			
Backbuild Yes		Lateral Inclination		Last Casing String INTERMEDIATE, 7,017.0ftKB					Next Casing String PROPOSED PRODUCTION, 20,285.0ftKB						
Avg Connection Gas 675.00		Avg Trip Gas 0.00		Avg Background Gas 758.00			Max Connection Gas 1,072.00			Max Trip Gas 0.00		Max Drill Gas 1,133.00			
Operations Summary Drill Production Lateral F/13,390' T/17,004'. (100% Rotating, Inc - 89.41°, AZI - 166.57°, Below - 1.58', Left - 3.07', AVG DLS - 2.19°) Target Line #2															
Operations Next Report Period Drill Production Lateral F/17,004' T/20,305' +/-, Carry Out K&M Clean Up Cycles															
Operations At Report Time Drilling Production Lateral @ 17,004'															
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 1.75 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 100%, Prod Lat- 67.73%															
Time Log															
Start Time		Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)		End Depth (ftKB)		Prob Hrs	Prob Ref #
06:00		21.25	03:15	PROD, DRL LAT	DRL	NORMAL	Drill Production lateral F/13,390' T/16,658'. (3,268' @ 153.7 FPH) 650 GPMs, 100 RPM, 30-40K WOB, 4,350 SPP, 18-21K torque and 830 psi Diff.			13,390.0		16,658.0			
03:15		0.5	03:45	PROD, DRL LAT	RIG_SVC	NORMAL	Rig Service			16,658.0		16,658.0			
03:45		2.25	06:00	PROD, DRL LAT	DRL	NORMAL	Drill Production lateral F/16,658' T/17,004'. (346' @ 153.7 FPH) 650 GPMs, 100 RPM, 30-40K WOB, 4,350 SPP, 18-21K torque and 830 psi Diff.			16,658.0		17,004.0			
Drill Strings															
BHA #5 , PRODUCTION - VERTICAL/CURVE/LATERAL															
Bit Run 4				Drill Bit 8 1/2, DD506VTSX, 5333563					Bit Type PDC			Make GE/BAKER HUGHES			
Nozzles (1/32") 12/12/12/14/14/14				Bit Total Fluid Area (nozzles) (in²) 0.78			IADC Bit Dull -----			Hours Drilled By Bit (hr) 71.50		Depth Drilled By Bit (ft) 9,949.00			
BHA Drilling Time (hr) 71.50				BHA Depth Drilled (ft) 9,949.00			BHA ROP (ft/hr) 139.1			Depth In (ftKB) 7,055.0		Depth Out (ftKB) 17,004.0			
Drill String Components															
Jts		Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)		Make			
371		DRILL PIPE			5	4.28	16,791.68	17,004.00	327,437.8	327		RIG			
1		SUB - FILTER			6 1/2	3.13	4.17	212.32		0		GE/BAKER HUGHES			
2		DRILL PIPE			5	3.88	90.00	208.15		0		RIG			
1		MOTOR - STABILIZER SLEEVE			7	3.25	43.10	118.15		0		GE/BAKER HUGHES			
1		SUB - SHOCK			7	2.25	26.32	75.05		0		OTHER (PROVIDE DESCRIPTION)			
1		STABILIZER			6 7/8	2.75	10.42	48.73		0		DRILLING TOOLS INTERNATIONAL			
1		RSS TOOL			6.86	2.75	12.67	38.31		0		GE/BAKER HUGHES			
1		MWD TOOL - NON-RETRIEVABLE			6.69	2.75	15.63	25.64		0		GE/BAKER HUGHES			
1		RSS TOOL			6.99	2.75	9.31	10.01		0		GE/BAKER HUGHES			

Mud Motors																	
SN		Bend Angle		Bearing Type			Lobe Config			# Stages		Lwr Defln Type			Bit To Bend		
15022846		0		NOT SEALED			7:8			6.4					0		
Sensors																	
Sensor Type				Sensor-Bit (ft)					Note								
GAMMA				12.21													
DIRECTIONAL				22.28													
Drilling Parameters																	
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	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	03:15	13,390.0	3,268.00	153.8	40	100	215.4	645	4,350.0	153.7	205	250	150	205	18.0	8.0	
03:15	03:45	16,658.0	0.00		0	0	215.4	645	4,350.0	0.0	198	250	150	205	18.0	8.0	
03:45	06:00	16,658.0	346.00	153.8	40	100	215.4	645	4,350.0	153.7	205	250	150	205	18.0	8.0	
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	9.10	205.1		3.6	264.5	545.1	18.1		680.0		301.08		456.83		360.97		
Mud Checks																	
Time		Mud Company				Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)			T Flowline (° F)		
1/19/2023 16:00		PIONEER DRILLING FLUIDS				OIL BASE		14,675.0		8.60		57			107.0		
pV (cP)		YP (lbf/100ft²)		Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (° F)			HTHP Pressure (psi)				
13.0		8.000		4	5	0.0		6.0		200.0			500.0				
Solids (%)		Low Gravity Solids (%)				Sand (%)		MBT (lb/bbl)		Pm (mL/mL)			Pf (mL/mL)				
8.0		7.0				0.0		0.0		0.000			0.0				
Chlorides (mg/L)		Calcium (mg/L)			CaCl (ppm)		Oil Water Ratio		Electric Stab (V)			Lime (lb/bbl)		pH			
10,000		4,400.000			0		72.8/27.2		431.0			1.8		0.0			
Gel 10 sec (lbf/100ft²)					Gel 10 min (lbf/100ft²)					Gel 30 min (lbf/100ft²)							
7.000					15.000					17.000							
Comment																	
Recommended Fluid Treatment:Maintain 8.6 - 8.8 ppg MW with barite as needed. Dilution: 11.8 BPH diesel, 5 BPH FW. Treatment. 3 ppb Lime to raise alkalinity, 3 ppb CaCl to water phase to maintain WPS, 1 ppb Tone & 1/4 ppb LEM to raise Rheologies, 1/2 ppb Soltex & Gilsonite to maintain HTHP, 1/4 ppb Mul to increase ES.																	
Drilling Fluids Activity Last 24 Hrs: Inspect shaker screens on connections with no screens needing to replaced. Raise MW T/8.6 ppg. Received 3 loads of Mud Diesel.																	
Rig Activity Last 24 Hours: Drill F/11,491 T/15,569' at time of report with no issues. Drilling parameters: ROP- 286', WOB-39K, Rotary- 100 RPM, Bit- 229 RPM, Tq- 17.6 KLB-Ft, Diff- 617 PSI. P/U 235k, S/O 185k, ROT 210K. Ftg drilled last 24hrs: 4,078'. Lithology @ 15,360' 100% SH, TR LS.																	
Last BOP Test																	
Date		Test Type		Item Tested						Next Test Date			Com				
1/16/2023 12:00		BOP		BOP'S, 12/24/2022 09:00						2/6/2023 12:00			Full Test 4 1/2 IF				
Leak Off and Formation Integrity Tests																	
Test Type								Depth (ftKB)				Dens Fluid (lb/gal)					
FORMATION INTEGRITY								2,014.0				12.60					
FORMATION INTEGRITY								7,014.0				10.50					
Casing Pressure Test																	
Test Type		Test Subtype		Date		Item Tested						Failed?	Time (min)		P (psi)		
CASING		STANDARD		11/17/2022 17:30		SURFACE, 2,016.2ftKB						No	30.00		1,000.0		
CASING		STANDARD		1/16/2023 15:00		INTERMEDIATE, 7,017.0ftKB						No	30.00		2,500.0		
Kick Offs & Key Depths																	
Date				Type		Top Depth (ftKB)				Depth Top (TVD) (ftKB)							
1/17/2023 19:00				KICK OFF		9,090.0				8,929.0							
1/18/2023 13:00				HEEL		10,075.0				9,529.6							
Casing Strings																	
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)	Grade	Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)					
CONDUCTOR		105.0		105.0		20	H40	78.67									
SURFACE		2,016.2		2,013.3		13 3/8	J55	54.50		BTC		1,316.3					
INTERMEDIATE		7,017.0		6,858.0		9 5/8	L80-IC	40.00		BTC		3,739.9					
Gas Emissions - Flare																	
Type		Method				Dur (Min)				Amount			Units		Com		
No Data																	
Job Supply Amounts																	
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note					Cum On Loc		Cum Consumed			
DIESEL		MUD	GAL	14578	11462		Texas Pride 79879, 77301					17,569		55895			
DIESEL		FUEL	GAL		3082							7,281		22161			
DIESEL		FUEL	GAL	0	0		Winter Tank					19,990		605			
WATER		FRESH	BBL	0	0							0		23417			
Mud Additive Amounts																	
Des				Type				Units	Rec	Consumed		On Loc		Cum Cons			
CALCIUM CHLORIDE				CALCIUM CHLORIDE				LB		28		234.0		101			
DD LEM				LOW END MODIFIER				GAL		550		550.0		1,250			
DDF MUL				ALL IN ONE EMULSIFIER				GAL		275		550.0		1,250			
DD TONE				ORGANOPHILLIC CLAY				SACK		32		246.0		87			

LIME	ALKALINITY CONTROL			SACK		101	165.0	234
SOLTEX	FILTRATE CONTROL			LB		18	52.0	35
XMP GILSONITE	FILTRATE CONTROL			LB		19	50.0	45
Pump Operations								
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)		P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0	
2	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0	
3	BOMCO	F1600	5 1/2	12.00	0.088		7,500.0	
Pump Checks								
Pump #	Depth (ftKB)	Time		P (psi)	Strokes (spm)	Q Flow (gpm)		Eff (%)
2	15,031.0	1/19/2023 17:00		550.0	30	106		95
2	15,031.0	1/19/2023 17:00		660.0	40	141		95
2	15,031.0	1/19/2023 17:00		460.0	20	70		95
3	15,031.0	1/19/2023 17:00		540.0	30	106		95
3	15,031.0	1/19/2023 17:00		450.0	20	70		95
3	15,031.0	1/19/2023 17:00		640.0	40	141		95
2	16,658.0	1/20/2023 03:45		550.0	20	70		95
2	16,658.0	1/20/2023 03:45		645.0	30	106		95
2	16,658.0	1/20/2023 03:45		750.0	40	141		95
3	16,658.0	1/20/2023 03:45		720.0	40	141		95
3	16,658.0	1/20/2023 03:45		615.0	30	106		95
3	16,658.0	1/20/2023 03:45		540.0	20	70		95
Deviation Surveys								
Date		Description			Job			
11/8/2022 16:00		AS DRILL SURVEY			ODR, 11/8/2022 06:00			
Survey Data - All surveys for 24 hr reporting period								
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	
13,469.00	88.48	167.18	9,568.67	1,572.87	-4,356.83	-185.83	0.84	
13,559.00	88.08	166.25	9,571.37	1,581.36	-4,444.38	-165.15	1.12	
13,650.00	88.70	165.85	9,573.93	1,588.89	-4,532.66	-143.23	0.81	
13,740.00	89.07	168.25	9,575.68	1,597.91	-4,620.35	-123.06	2.70	
13,831.00	86.42	164.42	9,579.26	1,605.89	-4,708.68	-101.59	5.12	
13,921.00	88.51	166.07	9,583.24	1,612.08	-4,795.62	-78.69	2.96	
14,012.00	87.80	164.18	9,586.17	1,618.14	-4,883.52	-55.35	2.22	
14,102.00	87.37	164.98	9,589.96	1,623.29	-4,970.20	-31.44	1.01	
14,192.00	90.67	166.83	9,591.50	1,630.51	-5,057.46	-9.53	4.20	
14,283.00	91.96	165.04	9,589.41	1,637.86	-5,145.71	12.58	2.42	
14,373.00	91.53	165.53	9,586.67	1,644.12	-5,232.71	35.43	0.72	
14,464.00	89.53	165.67	9,585.83	1,650.94	-5,320.85	58.06	2.20	
14,554.00	90.36	165.35	9,585.92	1,657.55	-5,407.98	80.58	0.99	
14,644.00	89.47	166.20	9,586.05	1,664.57	-5,495.22	102.69	1.37	
14,735.00	91.96	164.79	9,584.91	1,671.22	-5,583.31	125.48	3.14	
14,826.00	90.33	168.50	9,583.10	1,679.70	-5,671.81	146.49	4.45	
14,916.00	92.02	166.40	9,581.25	1,689.34	-5,759.63	166.04	2.99	
15,006.00	92.24	166.60	9,577.91	1,697.49	-5,847.08	187.04	0.33	
15,096.00	91.53	165.55	9,574.94	1,704.98	-5,934.39	208.68	1.41	
15,186.00	91.19	165.56	9,572.81	1,711.65	-6,021.52	231.13	0.38	
15,277.00	89.93	165.79	9,571.92	1,718.59	-6,109.69	253.64	1.41	
15,367.00	89.71	165.98	9,572.20	1,725.79	-6,196.97	275.59	0.32	
15,458.00	91.78	166.81	9,571.02	1,733.87	-6,285.40	296.99	2.45	
15,548.00	89.56	165.34	9,569.97	1,741.36	-6,372.74	318.65	2.96	
15,639.00	89.10	165.18	9,571.03	1,747.64	-6,460.74	341.80	0.54	
15,729.00	90.70	166.69	9,571.19	1,754.91	-6,548.04	363.67	2.44	
15,820.00	89.13	164.10	9,571.32	1,761.41	-6,636.09	386.61	3.33	
15,910.00	88.97	165.88	9,572.81	1,767.20	-6,723.00	409.92	1.99	
16,000.00	88.64	165.95	9,574.69	1,774.44	-6,810.28	431.82	0.37	
16,091.00	89.04	166.03	9,576.53	1,781.88	-6,898.55	453.84	0.45	
16,181.00	89.31	166.70	9,577.83	1,789.83	-6,986.00	475.06	0.80	
16,271.00	88.60	164.89	9,579.47	1,796.88	-7,073.23	497.14	2.16	
16,362.00	89.65	165.78	9,580.86	1,803.28	-7,161.26	520.17	1.51	
16,452.00	87.50	165.96	9,583.10	1,810.45	-7,248.50	542.13	2.40	
16,543.00	89.16	166.16	9,585.75	1,818.00	-7,336.78	564.05	1.84	
16,633.00	88.67	165.81	9,587.46	1,825.35	-7,424.09	585.84	0.67	
16,723.00	89.41	165.90	9,588.96	1,832.49	-7,511.34	607.83	0.83	
16,814.00	89.41	166.57	9,589.90	1,840.32	-7,599.73	629.48	0.74	
Formations								
Formation Name	Prog Top Override (TVD SS) (ft(elv))		Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)		Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
PBHL/TD	-6,600.0			9,593.0				
269_0_DEAN	-6,633.0			9,626.0				

270_0_WFMP_A1	-6,802.0		9,795.0		
275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		
Daily Contacts					
Job Contact	Title	Office	Mobile	Email	
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT	AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM	
GARZA, JOHN, ENGINEER	ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM	
PARSELL, VIC, SUPERINTENDENT	SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM	
DAFFRON, MIKE, SUPERINTENDENT	SUPERINTENDENT	432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM	
PRESLEY, MAHLON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM	
HENZE, BRENDON, WELLSITE SUPERVISOR	WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM	
MUNGER CASEY, MUD ENGINEER	MUD ENGINEER		479-234-6620	CASEY.MUNGER@PXD.COM	
RIG-ENSIGN 125, RIG PHONE	RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM	
Personnel Log					
Company					Count
PIONEER NATURAL RESOURCES USA INC					2
ENSIGN UNITED STATES DRILLING S W INC					13
BAKER HUGHES OILFIELD OPERATIONS INC					3
GISLER BROTHERS LOGGING CO INC					2
STALLION SOLIDS CONTROL INC					1

ENSIGN 125

Accept:12/24/2022

Release:

Days Since LTI:881.00

Days Since RI:881.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:ODR

Report Date:01/21/2023

Report #:13

DFS:11

AFE #:9023597

Total AFE + Sup:\$3,449,530.30

Daily Field Est. (Cost):\$135,642.98

API/UWI 42-003-48663-0000			Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)							
SSN ID00003244		Property Sub		KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022		TD Date 1/21/2023			
Jobs															
Responsible Grp 2				Responsible Grp 3			Job Type		Start Date		End Date		Job Status		
DRL ENG - JOHN GARZA				AREA TEAM 2			ODR		11/8/2022 06:00				IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type		Subtype					Date		Note						
MILESTONE		ESTIMATED PAD RELEASE					2/5/2023		3rd Production on 5 well pad						
Daily Operations															
Footage/Meterage (ft) 3,262.00		Drilling Hours 17.75		% Rotating Time 100.00		End Depth (ftKB) 20,266.0		Target Depth (ftKB) 20,303.0		Daily Field Est Total \$135,642.98		Cum Field Est To Date \$2,967,681.90			
24 HR ROP (ft/hr) 183.8		Circulating Hours 6.50		% Sliding Time 0.00		End Depth (TVD) (ftKB) 9,579.2		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$18,961.98		Cum Mud Field Est \$92,986.51		Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 3,300.0				Daily Goal - Next 24 0.0				Goal Comments Goal Met - TD			
Backbuild Yes		Lateral Inclination Toe Flat		Last Casing String INTERMEDIATE, 7,017.0ftKB					Next Casing String PROPOSED PRODUCTION, 20,285.0ftKB						
Avg Connection Gas 608.00		Avg Trip Gas 0.00		Avg Background Gas 575.00			Max Connection Gas 715.00			Max Trip Gas 0.00		Max Drill Gas 791.00			
Operations Summary Drill Production Lateral F/17,004' T/20,266', Carry Out K&M Clean Up Cycles (100% Rotating, Inc - 90.08°, AZI - 165.29°, Above - 13.46', Right - 1.07', AVG DLS - 2.05°) Target Line #3															
Operations Next Report Period TOOH, L/D Directional Components, R/U Production Casing Running Equipment, TIH W/5.5" Production Casing															
Operations At Report Time Carrying Out K&M Clean Up Cycles															
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 1.75 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 100%, Prod Lat- 100%															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #			
06:00	2.75	08:45	PROD, DRL LAT	DRL	NORMAL	Drill Production lateral F/17,004' T/17,561'. (557' @ 202.5 FPH) 650 GPMs, 100 RPM, 30-40K WOB, 4,350 SPP, 18-21K torque and 830 psi Diff.			17,004.0	17,561.0					
08:45	0.25	09:00	PROD, DRL LAT	RIG_SVC	NORMAL	Rig Service			17,561.0	17,561.0					
09:00	15	00:00	PROD, DRL LAT	DRL	NORMAL	Drill Production lateral F/17,561' T/20,266'. (2,705 @ 180.3 FPH) 650 GPMs, 100 RPM, 30-40K WOB, 4,860 SPP, 18-21K torque and 830 psi Diff.			17,561.0	20,266.0					
00:00	6	06:00	PROD, POST DRL	K&M_CLEANUP	NORMAL	Carry out K&M clean up cycles			20,266.0	20,266.0					
Drill Strings															
BHA #5 , PRODUCTION - VERTICAL/CURVE/LATERAL															
Bit Run 4 8 1/2, DD506VTSX, 5333563			Drill Bit					Bit Type PDC			Make GE/BAKER HUGHES				
Nozzles (1/32") 12/12/12/14/14/14			Bit Total Fluid Area (nozzles) (in²) 0.78			IADC Bit Dull -----			Hours Drilled By Bit (hr) 89.25		Depth Drilled By Bit (ft) 13,211.00				
BHA Drilling Time (hr) 89.25			BHA Depth Drilled (ft) 13,211.00			BHA ROP (ft/hr) 148.0			Depth In (ftKB) 7,055.0		Depth Out (ftKB) 20,266.0				
Drill String Components															
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make					
443	DRILL PIPE			5	4.28	20,053.68	20,266.00	391,046.8	391	RIG					
1	SUB - FILTER			6 1/2	3.13	4.17	212.32		0	GE/BAKER HUGHES					
2	DRILL PIPE			5	3.88	90.00	208.15		0	RIG					
1	MOTOR - STABILIZER SLEEVE			7	3.25	43.10	118.15		0	GE/BAKER HUGHES					

1	SUB - SHOCK	7	2.25	26.32	75.05		0	OTHER (PROVIDE DESCRIPTION)													
1	STABILIZER	6 7/8	2.75	10.42	48.73		0	DRILLING TOOLS INTERNATIONAL													
1	RSS TOOL	6.86	2.75	12.67	38.31		0	GE/BAKER HUGHES													
1	MWD TOOL - NON-RETRIEVABLE	6.69	2.75	15.63	25.64		0	GE/BAKER HUGHES													
1	RSS TOOL	6.99	2.75	9.31	10.01		0	GE/BAKER HUGHES													
Mud Motors																					
SN		Bend Angle		Bearing Type		Lobe Config		# Stages	Lwr Defln Type		Bit To Bend										
15022846		0		NOT SEALED		7:8		6.4				0									
Sensors																					
Sensor Type			Sensor-Bit (ft)				Note														
GAMMA			12.21																		
DIRECTIONAL			22.28																		
Drilling Parameters																					
Start Time	End Time	Start Depth (ftKB)	Int Depth (ft)	Int ROP (ft/hr)	WOB (1000lbf)	RPM	dP (SPP) (psi)	Q Flow (gpm)	SPP (psi)	ROP Average (ft/hr)	Drill Str Wt (1000lbf)	PU Str Wt (1000lbf)	SO Str Wt (1000lbf)	Off-Btm Str Wt (1000lbf)	Drill Tq	Off Btm Tq	TFO (°)				
06:00	08:45	17,004.0	557.00	202.5	40	100	215.4	645	4,350.0	202.5	205	250	150	205	18.0	8.0					
08:45	09:00	17,561.0	0.00		0	0	215.4	645	4,350.0	0.0	205	250	150	205	18.0	8.0					
09:00	00:00	17,561.0	2,705.00	180.3	40	100	215.4	645	4,800.0	180.3	205	250	150	205	18.0	8.0					
00:00	06:00	20,266.0	0.00		0	0	215.4	645	4,360.0	0.0	205	250	150	205	18.0	8.0					
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)	
8.80		9.31		209.8		3.7		264.5		557.7		18.1		680.0		359.13		606.55		360.97	
Mud Checks																					
Time		Mud Company				Type		Depth (ftKB)		Density (lb/gal)		Funnel Viscosity (s/qt)			T Flowline (° F)						
1/20/2023 16:00		PIONEER DRILLING FLUIDS				OIL BASE		18,858.0		8.80		54			114.0						
pV (cP)		YP (lbf/100ft²)		Vis 3rpm		Vis 6rpm		Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (° F)			HTHP Pressure (psi)						
11.0		8.000		5		6		0.0		8.0		200.0			500.0						
Solids (%)		Low Gravity Solids (%)				Sand (%)		MBT (lb/bbl)		Pm (mL/mL)			Pf (mL/mL)								
8.0		4.8				0.0		0.0			0.000			0.0							
Chlorides (mg/L)			Calcium (mg/L)			CaCl (ppm)			Oil Water Ratio			Electric Stab (V)			Lime (lb/bbl)		pH				
12,000			3,600.000			0			73.9/26.1			403.0			1.8		0.0				
Gel 10 sec (lbf/100ft²)					Gel 10 min (lbf/100ft²)					Gel 30 min (lbf/100ft²)											
5.000					11.000					13.000											
Comment																					
Recommended Fluid Treatment: Maintain 8.6 - 8.8 ppg MW with barite as needed. Dilution: 14 BPH diesel, 7 BPH FW. Treatment. 1 1/2 ppb Lime to maintain alkalinity, 1 ppb Tone & 1/4 ppb LEM to raise Rheologies, 1/4 ppb Soltex to maintain HTHP, 1/4 ppb Mul to increase ES. Barite used for slug.																					
Drilling Fluids Activity Last 24 Hrs: Inspect shaker screens on connections with 8 screens needing to replaced. Raise MW T/8.8 ppg. Slug built for TD.																					
Rig Activity Last 24 Hours: Drill F/15,569' T/ at time of report with no issues. Drilling parameters: ROP- 286', WOB-39K, Rotary- 100 RPM, Bit- 229 RPM, Tq- 23.1 KLB-Ft, Diff- 809 PSI. P/U 250k, S/O 145k, ROT 205K. Ftg drilled last 24hrs: 4,350'. Lithology @ 19,550' 100% SH, TR LS.																					
Last BOP Test																					
Date		Test Type		Item Tested				Next Test Date			Com										
1/16/2023 12:00		BOP		BOP'S, 12/24/2022 09:00				2/6/2023 12:00			Full Test 4 1/2 IF										
Leak Off and Formation Integrity Tests																					
Test Type					Depth (ftKB)				Dens Fluid (lb/gal)												
FORMATION INTEGRITY					2,014.0				12.60												
FORMATION INTEGRITY					7,014.0				10.50												
Casing Pressure Test																					
Test Type		Test Subtype		Date		Item Tested				Failed?		Time (min)		P (psi)							
CASING		STANDARD		11/17/2022 17:30		SURFACE, 2,016.2ftKB				No		30.00		1,000.0							
CASING		STANDARD		1/16/2023 15:00		INTERMEDIATE, 7,017.0ftKB				No		30.00		2,500.0							
Kick Offs & Key Depths																					
Date				Type		Top Depth (ftKB)				Depth Top (TVD) (ftKB)											
1/17/2023 19:00				KICK OFF		9,090.0				8,929.0											
1/18/2023 13:00				HEEL		10,075.0				9,529.6											
Casing Strings																					
Description		Set Depth (ftKB)		Set Depth (TVD) (ftKB)		OD (in)		Grade		Wt/Len (lb/ft)		Top Thread		P LeakOff (psi)							
CONDUCTOR		105.0		105.0		20		H40		78.67											
SURFACE		2,016.2		2,013.3		13 3/8		J55		54.50		BTC		1,316.3							
INTERMEDIATE		7,017.0		6,858.0		9 5/8		L80-IC		40.00		BTC		3,739.9							
Gas Emissions - Flare																					
Type		Method			Dur (Min)			Amount			Units		Com								
No Data																					
Job Supply Amounts																					
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc		Cum Consumed										
DIESEL		FUEL	GAL	7300	3643				10,938		25804										
WATER		FRESH	BBL	0	0				0		23417										
DIESEL		MUD	GAL		14083				3,486		69978										
DIESEL		FUEL	GAL	0	0		Winter Tank		19,990		605										

Mud Additive Amounts							
Des	Type	Units	Rec	Consumed	On Loc	Cum Cons	
TRANSPORTATION	MISCELLANEOUS	EA	1	1	0.0	6	
BARITE - BULK	WEIGHTING MATERIAL	TON		6	29.11	57	
CALCIUM CHLORIDE	CALCIUM CHLORIDE	LB		6	228.0	107	
DD LEM	LOW END MODIFIER	GAL	1100	275	1,375.0	1,525	
DDF MUL	ALL IN ONE EMULSIFIER	GAL	1100	550	1,100.0	1,800	
DD TONE	ORGANOPHILLIC CLAY	SACK		35	211.0	122	
LIME	ALKALINITY CONTROL	SACK		65	100.0	299	
SOLTEX	FILTRATE CONTROL	LB	80	12	120.0	47	
Pump Operations							
Pump #	Make	Model	Liner Size (in)	Stroke (in)	Vol/Stk (bbl/stk)	P Max (psi)	
1	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
2	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
3	BOMCO	F1600	5 1/2	12.00	0.088	7,500.0	
Pump Checks							
Pump #	Depth (ftKB)	Time	P (psi)	Strokes (spm)	Q Flow (gpm)	Eff (%)	
2	19,186.0	1/20/2023 17:00	540.0	20	70	95	
2	19,186.0	1/20/2023 17:00	770.0	40	141	95	
2	19,186.0	1/20/2023 17:00	640.0	30	106	95	
3	19,186.0	1/20/2023 17:00	740.0	40	141	95	
3	19,186.0	1/20/2023 17:00	630.0	30	106	95	
3	19,186.0	1/20/2023 17:00	530.0	20	70	95	
Deviation Surveys							
Date		Description	Job				
11/8/2022 16:00		AS DRILL SURVEY	ODR, 11/8/2022 06:00				
Survey Data - All surveys for 24 hr reporting period							
MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	NS (ft)	EW (ft)	DLS (°/100ft)
17,085.00	88.94	165.17	9,595.74	7,794.47	-7,860.94	701.06	3.41
17,175.00	88.73	165.40	9,597.57	7,884.44	-7,947.97	723.91	0.35
17,265.00	91.47	167.40	9,597.42	7,974.43	-8,035.44	745.07	3.77
17,355.00	90.95	167.15	9,595.52	8,064.38	-8,123.21	764.89	0.64
17,446.00	91.07	166.27	9,593.91	8,155.35	-8,211.76	785.81	0.98
17,536.00	90.76	166.70	9,592.47	8,245.34	-8,299.25	806.84	0.59
17,626.00	89.41	167.49	9,592.34	8,335.31	-8,386.98	826.94	1.74
17,716.00	89.81	166.59	9,592.95	8,425.29	-8,474.68	847.12	1.09
17,806.00	90.79	167.19	9,592.48	8,515.28	-8,562.33	867.54	1.28
17,896.00	90.33	165.29	9,591.60	8,605.27	-8,649.74	888.94	2.17
17,987.00	89.71	165.61	9,591.57	8,696.26	-8,737.82	911.80	0.77
18,077.00	88.73	165.86	9,592.80	8,786.25	-8,825.04	933.98	1.12
18,167.00	89.96	165.23	9,593.82	8,876.24	-8,912.18	956.44	1.54
18,258.00	89.96	164.77	9,593.89	8,967.23	-9,000.08	979.99	0.51
18,348.00	90.55	165.36	9,593.49	9,057.22	-9,087.04	1,003.19	0.93
18,438.00	90.11	166.38	9,592.97	9,147.22	-9,174.31	1,025.16	1.23
18,528.00	90.88	165.54	9,592.19	9,237.21	-9,261.62	1,046.99	1.27
18,618.00	91.25	165.78	9,590.52	9,327.20	-9,348.80	1,069.28	0.49
18,709.00	89.65	166.10	9,589.80	9,418.19	-9,437.07	1,091.38	1.79
18,799.00	88.48	163.99	9,591.27	9,508.16	-9,524.00	1,114.60	2.68
18,890.00	91.38	165.85	9,591.38	9,599.14	-9,611.85	1,138.27	3.79
18,980.00	89.90	165.31	9,590.38	9,689.13	-9,699.01	1,160.69	1.75
19,070.00	89.34	165.67	9,590.98	9,779.12	-9,786.14	1,183.23	0.74
19,161.00	90.85	164.92	9,590.82	9,870.11	-9,874.15	1,206.33	1.85
19,251.00	90.88	167.28	9,589.47	9,960.10	-9,961.50	1,227.95	2.62
19,342.00	89.34	166.12	9,589.29	10,051.08	-10,050.06	1,248.88	2.12
19,432.00	89.71	166.55	9,590.04	10,141.08	-10,137.51	1,270.14	0.63
19,522.00	92.89	166.29	9,588.00	10,231.04	-10,224.96	1,291.27	3.55
19,613.00	90.73	167.54	9,585.12	10,321.97	-10,313.54	1,311.86	2.74
19,704.00	90.05	166.77	9,584.50	10,412.94	-10,402.26	1,332.09	1.13
19,792.00	91.41	166.40	9,583.38	10,500.93	-10,487.85	1,352.50	1.60
19,880.00	91.53	167.23	9,581.12	10,588.89	-10,573.50	1,372.57	0.95
19,970.00	90.51	166.56	9,579.52	10,678.86	-10,661.14	1,392.97	1.36
20,061.00	88.27	165.53	9,580.49	10,769.84	-10,749.45	1,414.91	2.71
20,153.00	91.62	165.14	9,580.58	10,861.83	-10,838.44	1,438.20	3.67
20,241.00	90.08	165.29	9,579.27	10,949.81	-10,923.51	1,460.65	1.76
Formations							
Formation Name	Prog Top Override (TVD SS) (ft(elv))		Prog Top MD (ftKB)	Prog Top (TVD) (ftKB)	Final Top MD (ftKB)	Final Top (TVD) (ftKB)	
PBHL/TD	-6,600.0			9,593.0			
269_0_DEAN	-6,633.0			9,626.0			
270_0_WFMP_A1	-6,802.0			9,795.0			

275_0_WFMP_B1	-7,009.0		10,002.0		
276_0_WFMP_B2	-7,031.0		10,024.0		
278_0_WFMP_B3	-7,085.0		10,078.0		
280_0_WFMP_C1	-7,175.0		10,168.0		
282_0_WFMP_C2	-7,275.0		10,268.0		
292_0_WFMP_D	-7,701.0		10,694.0		
304_0_STRAWN	-8,065.0		11,058.0		

Daily Contacts					
Job Contact		Title	Office	Mobile	Email
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT		AREA DRILLING SUPERINTENDENT	432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM
GARZA, JOHN, ENGINEER		ENGINEER		469-286-7746	JOHN.GARZA@PXD.COM
PARSELL, VIC, SUPERINTENDENT		SUPERINTENDENT		432-301-2539	VIC.PARSELL@PXD.COM
DAFFRON, MIKE, SUPERINTENDENT		SUPERINTENDENT	432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM
PRESLEY, MAHLON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-212-4890	MAHLON.PRESLEY@PXD.COM
HENZE, BRENDON, WELLSITE SUPERVISOR		WELLSITE SUPERVISOR		361-935-5507	BRENDON.HENZE@PXD.COM
MUNGER CASEY, MUD ENGINEER		MUD ENGINEER		479-234-6620	CASEY.MUNGER@PXD.COM
RIG-ENSIGN 125, RIG PHONE		RIG PHONE	432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM

Personnel Log	
Company	Count
PIONEER NATURAL RESOURCES USA INC	2
ENSIGN UNITED STATES DRILLING S W INC	13
BAKER HUGHES OILFIELD OPERATIONS INC	3
GISLER BROTHERS LOGGING CO INC	2
STALLION SOLIDS CONTROL INC	1

ENSIGN 125

Accept:

12/24/2022

Release:

Days Since LTI:

882.00

Days Since RI:

882.00

PERMIAN ASSET TEAM

Job:

ODR

Report Date:

01/22/2023

Report #:

14

Dfs:

12

AFE #:

9023597

Total AFE + Sup:

\$3,449,530.30

Daily Field Est. (Cost):

\$103,177.70

Daily Drilling Report

API/UWI 42-003-48663-0000		Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)			Field Name SPRABERRY (TREND AREA)								
SSN ID00003244		Property Sub		KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022		TD Date 1/21/2023			
Jobs															
Responsible Grp 2				Responsible Grp 3			Job Type		Start Date		End Date		Job Status		
DRL ENG - JOHN GARZA				AREA TEAM 2			ODR		11/8/2022 06:00				IN PROGRESS		
Job Dates (ex. Estimated Pad Release, TXRRC Calls)															
Type		Subtype				Date			Note						
MILESTONE		ESTIMATED PAD RELEASE				2/5/2023			3rd Production on 5 well pad						
TXRRC CALL		CEMENT PROD				1/21/2023 10:40			Audrey Oper #2						
Daily Operations															
Footage/Meterage (ft) 0.00		Drilling Hours		% Rotating Time		End Depth (ftKB) 20,266.0		Target Depth (ftKB) 20,303.0		Daily Field Est Total \$103,177.70		Cum Field Est To Date \$3,070,859.60			
24 HR ROP (ft/hr)		Circulating Hours		% Sliding Time		End Depth (TVD) (ftKB) 9,579.2		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$5,196.86		Cum Mud Field Est \$98,183.37		Total AFE + Sup \$3,449,530.30	
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 0.0				Goal Comments Gaol Met			
Backbuild Yes		Lateral Inclination Toe Flat		Last Casing String INTERMEDIATE, 7,017.0ftKB					Next Casing String PRODUCTION, 20,250.0ftKB						
Avg Connection Gas 0.00		Avg Trip Gas 0.00		Avg Background Gas 375.00			Max Connection Gas 0.00			Max Trip Gas 0.00		Max Drill Gas 0.00			
Operations Summary															
Finish Carrying Out K&M Clean Up Cycles, TOO H, L/D Directional Components, R/U Production Casing Running Equipment, TIH W/5.5" Production Casing T/12,000'.															
Operations Next Report Period															
TIH W/5.5" Production Casing and Land Out, R/D Casing Running Equipment, R/U Cementing Equipment, Cement Production Casing, Install and Test Packoff, Install BPV, N/D BOP and Install TA Cap, Release Rig T/University 6-48C 103H Well.															
Operations At Report Time															
TIH @ 12,000' W/5.5" Production Casing															
Remarks															
No incidents reported, No spills recorded.															
Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 2.25 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 100%, Prod Lat- 100%															
Time Log															
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #			
06:00	1.75	07:45	PROD, POST DRL	K&M_CLEANUP	NORMAL	Finish K&M cleanup cycle of 7.5 x B/U @70 RPM & 640 GPM, P/U & S/O @ 3 FPM			20,266.0	20,266.0					
07:45	0.25	08:00	PROD, POST DRL	FLOW_CHK	NORMAL	Flow Check **Well Is Static**			20,266.0	20,266.0					
08:00	0.5	08:30	PROD, POST DRL	TOOH_ELEV	NORMAL	TOOH wet F/ 20,266' T/ 19,178', hole pulling good and taking proper fill			20,266.0	20,266.0					
08:30	0.25	08:45	PROD, POST DRL	CIRC	NORMAL	Slug pipe			20,266.0	20,266.0					
08:45	4.75	13:30	PROD, POST DRL	TOOH_ELEV	NORMAL	TOOH F/ 19,178' t/ 7,017' hole taking proper fill			20,266.0	20,266.0					
13:30	0.25	13:45	PROD, POST DRL	HDL_ROT HD	NORMAL	Pull rotating head & install trip nipple			20,266.0	20,266.0					
13:45	2	15:45	PROD, POST DRL	TOOH_ELEV	NORMAL	TOOH F/ 7,017' T/ BHA, monitoring well on trip tank, hole taking proper fill			20,266.0	20,266.0					
15:45	0.25	16:00	PROD, POST DRL	SFTY	NORMAL	PJSM on L/D Baker Directional tools			20,266.0	20,266.0					
16:00	0.75	16:45	PROD, POST DRL	LD_DIR	NORMAL	L/D Directional tools, drain and L/D MM, break bit, L/D RSS			20,266.0	20,266.0					
16:45	0.25	17:00	PROD, POST DRL	WRBSH	NORMAL	Retrieve wear bushing, Clean & Organize rig floor			20,266.0	20,266.0					
17:00	0.25	17:15	PROD, POST DRL	RIG_SVC	NORMAL	Service and inspect drill floor equipment.			20,266.0	20,266.0					

17:15	0.25	17:30	PROD, POST DRL	SFTY	NORMAL	PJSM on rigging up and running 5.5" casing	20,266.0	20,266.0		
17:30	0.5	18:00	PROD, CASE & CMT	RU_CSG	NORMAL	R/U CSI casing equipment	20,266.0	20,266.0		
18:00	0.25	18:15	PROD, CASE & CMT	MU_SHOE_TRK	NORMAL	M/U shoe track and ensure circulation through same	20,266.0	20,266.0		
18:15	1.5	19:45	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run production casing T/1,465 with hole giving proper displacement	20,266.0	20,266.0		
19:45	0.5	20:15	PROD, CASE & CMT	3RD_PTY	NORMAL	Replace hydraulic power tongs do to hydraulic leak.	20,266.0	20,266.0	0.50	4
20:15	9.75	06:00	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	Run production casing F/1,465 T/12,000' with hole giving proper displacement	20,266.0	20,266.0		

Interval Problems										
3RD PARTY, 20,266.0ftKB, 1/21/2023 19:45										
Ref #	Dur (hr)	Exclude From Problem Time Calcs?	SubType	Problem Description	Est Cost OR (Cost)	Accountable Party	Comment			
4	0.50	No	PIPE HANDLING	TONGS		TCI CASING SPECIALTIES LLC	Replace hydraulic power tongs do to hydraulic leak.			

Drill Strings										
BHA #5 , PRODUCTION - VERTICAL/CURVE/LATERAL										
Bit Run			Drill Bit			Bit Type		Make		
4			8 1/2, DD506VTSX, 5333563			PDC		GE/BAKER HUGHES		
Nozzles (1/32")			Bit Total Fluid Area (nozzles) (in²)		IADC Bit Dull	Hours Drilled By Bit (hr)		Depth Drilled By Bit (ft)		
12/12/12/14/14/14			0.78		4-2-LT-M-X-0-WT-TD	89.25		13,211.00		
BHA Drilling Time (hr)			BHA Depth Drilled (ft)		BHA ROP (ft/hr)	Depth In (ftKB)		Depth Out (ftKB)		
89.25			13,211.00		148.0	7,055.0		20,266.0		

Drill String Components										
Jts	Item Des			OD (in)	ID (in)	Len (ft)	Cum Len (ft)	Wt (lbf)	Cum Wt (1000lbf)	Make
443	DRILL PIPE			5	4.28	20,053.68	20,266.00	391,046.8	391	RIG
1	SUB - FILTER			6 1/2	3.13	4.17	212.32		0	GE/BAKER HUGHES
2	DRILL PIPE			5	3.88	90.00	208.15		0	RIG
1	MOTOR - STABILIZER SLEEVE			7	3.25	43.10	118.15		0	GE/BAKER HUGHES
1	SUB - SHOCK			7	2.25	26.32	75.05		0	OTHER (PROVIDE DESCRIPTION)
1	STABILIZER			6 7/8	2.75	10.42	48.73		0	DRILLING TOOLS INTERNATIONAL
1	RSS TOOL			6.86	2.75	12.67	38.31		0	GE/BAKER HUGHES
1	MWD TOOL - NON-RETRIEVABLE			6.69	2.75	15.63	25.64		0	GE/BAKER HUGHES
1	RSS TOOL			6.99	2.75	9.31	10.01		0	GE/BAKER HUGHES

Mud Motors										
SN		Bend Angle		Bearing Type		Lobe Config		# Stages		Lwr Defin Type
15022846		0		NOT SEALED		7:8		6.4		

Sensors										
Sensor Type				Sensor-Bit (ft)				Note		
GAMMA				12.21						
DIRECTIONAL				22.28						

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)
1/21/2023 16:00		PIONEER DRILLING FLUIDS			OIL BASE	20,266.0		8.80	55		0.0
pV (cP)	YP (lb/100ft²)	Vis 3rpm	Vis 6rpm	Filtrate (mL/30min)		HTHP Filtrate (mL/30min)		HTHP Temperature (° F)		HTHP Pressure (psi)	
11.0	9.000	5	6	0.0		8.0		200.0		500.0	
Solids (%)		Low Gravity Solids (%)			Sand (%)	MBT (lb/bbl)		Pm (mL/mL)	Pf (mL/mL)		
8.0		4.9			0.0	0.0		0.000	0.0		
Chlorides (mg/L)		Calcium (mg/L)		CaCl (ppm)		Oil Water Ratio		Electric Stab (V)		Lime (lb/bbl)	pH
10,000		3,200.000		0		73.9/26.1		434.0		1.6	0.0
Gel 10 sec (lb/100ft²)				Gel 10 min (lb/100ft²)				Gel 30 min (lb/100ft²)			
6.000				10.000				11.000			

Comment										
Recommended Fluid Treatment: Maintain 8.8 ppg. MW no treatment while POOH and running csg.										
Drilling Fluids Activity Last 24 Hrs: Circulate 7 1/2 times B/U during K&M clean up cycle. Monitor well fill and displacement during csg run with proper volumes recorded.										
Rig Activity Last 24 Hours: Drill F/19,919' T/20,266' Well TD. Circulate K&M cleanup cycle. Perform flow check with well static. POOH, L/D BHA #3, R/U csg crew. TIH w/5.5" prod csg T/2,759' at time of report. Drilling parameters: ROP- 286', WOB-39K, Rotary- 100 RPM, Bit- 229 RPM, Tq- 23.1 KLB-Ft, Diff- 809 PSI. P/U 250k, S/O 145k, ROT 205K. Ftg drilled last 24hrs: 347'. Lithology @ 19,550' 100% SH, TR LS.										

Last BOP Test				
Date	Test Type	Item Tested	Next Test Date	Com
1/16/2023 12:00	BOP	BOP'S, 12/24/2022 09:00	2/6/2023 12:00	Full Test 4 1/2 IF
Leak Off and Formation Integrity Tests				
Test Type		Depth (ftKB)		Dens Fluid (lb/gal)
FORMATION INTEGRITY		2,014.0		12.60

FORMATION INTEGRITY				7,014.0		10.50			
Casing Pressure Test									
Test Type	Test Subtype	Date		Item Tested		Failed?	Time (min)	P (psi)	
CASING	STANDARD	11/17/2022 17:30		SURFACE, 2,016.2ftKB		No	30.00	1,000.0	
CASING	STANDARD	1/16/2023 15:00		INTERMEDIATE, 7,017.0ftKB		No	30.00	2,500.0	
Kick Offs & Key Depths									
Date		Type		Top Depth (ftKB)		Depth Top (TVD) (ftKB)			
1/17/2023 19:00		KICK OFF		9,090.0		8,929.0			
1/18/2023 13:00		HEEL		10,075.0		9,529.6			
1/21/2023 00:00		TOE		20,266.0		9,579.2			
Casing Strings									
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)		OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)	
CONDUCTOR	105.0	105.0		20	H40	78.67			
SURFACE	2,016.2	2,013.3		13 3/8	J55	54.50	BTC	1,316.3	
INTERMEDIATE	7,017.0	6,858.0		9 5/8	L80-IC	40.00	BTC	3,739.9	
Gas Emissions - Flare									
Type	Method		Dur (Min)		Amount		Units	Com	
No Data									
Job Supply Amounts									
Supply Item Des	Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc	Cum Consumed
DIESEL	MUD	GAL	14815	4553		Texas Pride 79024 & Junction 3063		13,748	74531
DIESEL	FUEL	GAL	0	0		Winter Tank		19,990	605
DIESEL	FUEL	GAL		1624				9,314	27428
WATER	FRESH	BBL	0	0				0	23417
Mud Additive Amounts									
Des		Type			Units	Rec	Consumed	On Loc	Cum Cons
DD LEM		LOW END MODIFIER			GAL		275	1,100.0	1,800
DD TONE		ORGANOPHILLIC CLAY			SACK		13	198.0	135
WO DEFOAMER A		DEFOAMER			GAL		2	26.0	2
Pump Operations									
Pump #	Make	Model	Liner Size (in)		Stroke (in)	Vol/Stk (bbl/stk)		P Max (psi)	
1	BOMCO	F1600	5 1/2		12.00	0.088		7,500.0	
2	BOMCO	F1600	5 1/2		12.00	0.088		7,500.0	
3	BOMCO	F1600	5 1/2		12.00	0.088		7,500.0	
Pump Checks									
Pump #	Depth (ftKB)		Time	P (psi)	Strokes (spm)		Q Flow (gpm)		Eff (%)
No Data									
Deviation Surveys									
Date			Description			Job			
11/8/2022 16:00			AS DRILL SURVEY			ODR, 11/8/2022 06:00			
Formations									
Formation Name	Prog Top Override (TVD SS) (ft(elv))		Prog Top MD (ftKB)		Prog Top (TVD) (ftKB)		Final Top MD (ftKB)		Final Top (TVD) (ftKB)
PBHL/TD	-6,600.0				9,593.0		20,266.0		9,579.2
269_0_DEAN	-6,633.0				9,626.0				
270_0_WFMP_A1	-6,802.0				9,795.0				
275_0_WFMP_B1	-7,009.0				10,002.0				
276_0_WFMP_B2	-7,031.0				10,024.0				
278_0_WFMP_B3	-7,085.0				10,078.0				
280_0_WFMP_C1	-7,175.0				10,168.0				
282_0_WFMP_C2	-7,275.0				10,268.0				
292_0_WFMP_D	-7,701.0				10,694.0				
304_0_STRAWN	-8,065.0				11,058.0				
Daily Contacts									
Job Contact			Title		Office	Mobile	Email		
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT			AREA DRILLING SUPERINTENDENT		432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM		
GARZA, JOHN, ENGINEER			ENGINEER			469-286-7746	JOHN.GARZA@PXD.COM		
PARSELL, VIC, SUPERINTENDENT			SUPERINTENDENT			432-301-2539	VIC.PARSELL@PXD.COM		
DAFFRON, MIKE, SUPERINTENDENT			SUPERINTENDENT		432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM		
PRESLEY, MAHLON, WELLSITE SUPERVISOR			WELLSITE SUPERVISOR			361-212-4890	MAHLON.PRESLEY@PXD.COM		
HENZE, BRENDON, WELLSITE SUPERVISOR			WELLSITE SUPERVISOR			361-935-5507	BRENDON.HENZE@PXD.COM		
MUNGER CASEY, MUD ENGINEER			MUD ENGINEER			479-234-6620	CASEY.MUNGER@PXD.COM		
RIG-ENSIGN 125, RIG PHONE			RIG PHONE		432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM		
Personnel Log									
Company								Count	
PIONEER NATURAL RESOURCES USA INC								2	
ENSIGN UNITED STATES DRILLING S W INC								13	
BAKER HUGHES OILFIELD OPERATIONS INC								3	
GISLER BROTHERS LOGGING CO INC								2	
STALLION SOLIDS CONTROL INC								1	

ENSIGN 125

Accept:

12/24/2022

Release:

1/23/2023

Days Since LTI:

883.00

Days Since RI:

883.00

Daily Drilling Report

PERMIAN ASSET TEAM

Job:

ODR

Report Date:

01/23/2023

Report #:

15

DFS:

13

AFE #:

9023597

Total AFE + Sup:

\$3,449,530.30

Daily Field Est. (Cost):

\$156,065.16

API/UWI 42-003-48663-0000			Well Profile HORIZONTAL		Open Formation LOWER SPRABERRY SHALE (SPBY L C1)				Field Name SPRABERRY (TREND AREA)					
SSN ID00003244		Property Sub		KB-Grd (ft) 25.00		Orig KB Elevation (ft) 2,993.00		Ground Elevation (ft) 2,968.00		Spud Date 11/8/2022		TD Date 1/21/2023		
Jobs														
Responsible Grp 2				Responsible Grp 3			Job Type	Start Date			End Date		Job Status	
DRL ENG - JOHN GARZA				AREA TEAM 2			ODR	11/8/2022 06:00			1/23/2023 00:00		COMPLETE	
Job Dates (ex. Estimated Pad Release, TXRRC Calls)														
Type		Subtype					Date		Note					
MILESTONE		ESTIMATED PAD RELEASE					2/5/2023		3rd Production on 5 well pad					
Daily Operations														
Footage/Meterage (ft) 0.00		Drilling Hours		% Rotating Time		End Depth (ftKB) 20,266.0		Target Depth (ftKB) 20,303.0		Daily Field Est Total \$156,065.16		Cum Field Est To Date \$3,226,924.76		
24 HR ROP (ft/hr)		Circulating Hours		% Sliding Time		End Depth (TVD) (ftKB) 9,579.2		Target Depth Depth (TVD) (ftKB) 9,593.0		Daily Mud Field Est Total \$		Cum Mud Field Est \$98,183.37		Total AFE + Sup \$3,449,530.30
Daily Goal Description DRILLED FEET				Daily Goal - Last 24 0.0				Daily Goal - Next 24 0.0				Goal Comments Goal Met		
Backbuild Yes	Lateral Inclination Toe Flat		Last Casing String PRODUCTION, 20,250.0ftKB						Next Casing String PRODUCTION, 20,250.0ftKB					
Avg Connection Gas 0.00		Avg Trip Gas 503.00		Avg Background Gas 420.00			Max Connection Gas 0.00			Max Trip Gas 503.00		Max Drill Gas 0.00		
Operations Summary TIH W/5.5" Production Casing and Land Out, R/D Casing Running Equipment, R/U Cementing Equipment, Cement Production Casing, Install and Test Packoff, Install BPV, N/D BOP and Install TA Cap, Release Rig T/University 6-48C 103H Well.														
Operations Next Report Period Rig Released to University 6-48C 103H														
Operations At Report Time Rig Released to University 6-48C 103H														
Remarks No incidents reported, No spills recorded. Rig NPT - Well: 0 Total hrs 3rd Party NPT Well: 4.25 Total hrs Pioneer NPT Well: 29.75 Total hr Surf-100%, Int 1- 100%, Curve- 100%, Prod Lat- 100%														
Time Log														
Start Time	Dur (hr)	End Time	Phase	Operation	Ops Category	Com			Start Depth (ftKB)	End Depth (ftKB)	Prob Hrs	Prob Ref #		
06:00	6	12:00	PROD, CASE & CMT	CSG_W/O ROTATION	NORMAL	RIH with production casing F/12,000' T/ 20,221'. Hole giving proper displacement while tripping in.			20,266.0	20,266.0				
12:00	0.25	12:15	PROD, CASE & CMT	CSG_W/WASH	NORMAL	M/U landing joint and slack off landing out in wellhead at 20,250' **100K on casing hanger**.			20,266.0	20,266.0				
12:15	0.5	12:45	PROD, CASE & CMT	RD_CSG	NORMAL	R/D casing equipment & CRT			20,266.0	20,266.0				
12:45	0.25	13:00	PROD, CASE & CMT	RU_CMT	NORMAL	R/U cement head and lines			20,266.0	20,266.0				
13:00	2	15:00	PROD, CASE & CMT	CIRC	NORMAL	Circulate STS Strokes @ 8 BPM with full returns			20,266.0	20,266.0				
15:00	2	17:00	PROD, CASE & CMT	CIRC	NORMAL	Wait on replacement Halliburton pump truck to arrive on location ** Continue circulating @ reduced rate**			20,266.0	20,266.0	2.00	5		
17:00	0.25	17:15	PROD, CASE & CMT	RU_CMT	NORMAL	R/U Iron to cement head			20,266.0	20,266.0				
17:15	3.75	21:00	PROD, CASE & CMT	CMT	NORMAL	Pressure test lines T/7,500 psi. Pump 50 bbls of 9# Spacer, 224 bbls of 11.5 # Lead, 559 bbls of 12.5# Tail. Shut down and drop bottom plug, pump 4 bbls fresh water treated with MMCR, drop top plug and displace with 449 bbls of fresh water. Witnessed bottom plug bump on time, 4 bbl later top plug bumped 2,140 & pressured up to 3,735 psi. Watch for 5 minutes & bled back 6 bbl. Floats			20,266.0	20,266.0				

						held. FULL Returns Throughout Entire Job.				
21:00	0.25	21:15	DEMOB, RIG DOWN	FLOW_CHK	NORMAL	Flow check well. Well static	20,266.0	20,266.0		
21:15	0.25	21:30	DEMOB, RIG DOWN	RD_CMT	NORMAL	Rig down cement equipment	20,266.0	20,266.0		
21:30	1.75	23:15	DEMOB, RIG DOWN	WH	NORMAL	Flush surface lines, L/D landing joint, install and test packoff to 5,000 psi, verify set with 40k overpull, install BPV	20,266.0	20,266.0		
23:15	0.25	23:30	DEMOB, RIG DOWN	ND_BOPE	NORMAL	N/D BOP & related equipment for walk	20,266.0	20,266.0		
23:30	0.5	00:00	DEMOB, RIG DOWN	WH	NORMAL	Walk rig off well head & Install TA cap **Release rig to the University 6-48C 103H** 1/23/2023 00:00 AM	20,266.0	20,266.0		

Interval Problems

3RD PARTY, 20,266.0ftKB, 1/22/2023 15:00

Ref #	Dur (hr)	Exclude From Problem Time Calcs?	SubType	Problem Description	Est Cost OR (Cost)	Accountable Party	Comment
5	2.00	No	CEMENT	SURFACE EQUIPMENT		HALLIBURTON ENERGY SERVICES INC	5x6 Mixing pump on Halliburton pump truck failed. unable to prime pump due to leak.

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)
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Mud Checks												
Time 1/22/2023 13:00		Mud Company PIONEER DRILLING FLUIDS			Type OIL BASE	Depth (ftKB) 20,266.0		Density (lb/gal) 8.80		Funnel Viscosity (s/qt) 52		T Flowline (° F) 0.0
pV (cP) 11.0	YP (lb/100ft²) 8.000	Vis 3rpm 5	Vis 6rpm 6	Filtrate (mL/30min) 0.0		HTHP Filtrate (mL/30min) 8.0			HTHP Temperature (° F) 200.0		HTHP Pressure (psi) 500.0	
Solids (%) 8.0		Low Gravity Solids (%) 4.5			Sand (%) 0.0		MBT (lb/bbl) 0.0		Pm (mL/mL) 0.000		Pf (mL/mL) 0.0	
Chlorides (mg/L) 12,000		Calcium (mg/L) 3,200.000			CaCl (ppm) 0		Oil Water Ratio 76.1/23.9		Electric Stab (V) 410.0		Lime (lb/bbl) 1.6	pH 0.0
Gel 10 sec (lb/100ft²) 5.000				Gel 10 min (lb/100ft²) 8.000					Gel 30 min (lb/100ft²) 9.000			

Comment

Recommended Fluid Treatment: No treatment while running production csg. Diesel used to maintain MW and flush lines prior to skid.

Drilling Fluids Activity Last 24 Hrs: Monitor well displacement while running production csg with proper volume recorded. Monitor returns during cement job with full returns present and no cement to surface. Transfer excess OBM T/frac tanks for later use. Transfer all chemical and volume T/University 6-48 C 103H.

Rig Activity Last 24 Hours: TIH F/2,759' T/20,250' set point. R/D csg crew. Circulate 2x B/U. R/U cementers and perform cement job with full returns. R/D cementers, and Skid Rig T/University 6-48 C 103H. Drilling parameters: ROP- 286', WOB-39K, Rotary- 100 RPM, Bit- 229 RPM, Tq- 23.1 KLB-Ft, Diff- 809 PSI. P/U 250k, S/O 145k, ROT 205K. Ftg drilled last 24hrs: 0'. Lithology @ 19,550' 100% SH, TR LS.

Last BOP Test				
Date	Test Type	Item Tested		Next Test Date
1/16/2023 12:00	BOP	BOP'S, 12/24/2022 09:00		2/6/2023 12:00

Leak Off and Formation Integrity Tests		
Test Type		Depth (ftKB)
FORMATION INTEGRITY		2,014.0
FORMATION INTEGRITY		7,014.0

Casing Pressure Test						
Test Type	Test Subtype	Date	Item Tested	Failed?	Time (min)	P (psi)
CASING	STANDARD	11/17/2022 17:30	SURFACE, 2,016.2ftKB	No	30.00	1,000.0
CASING	STANDARD	1/16/2023 15:00	INTERMEDIATE, 7,017.0ftKB	No	30.00	2,500.0

Kick Offs & Key Depths			
Date	Type	Top Depth (ftKB)	Depth Top (TVD) (ftKB)
1/17/2023 19:00	KICK OFF	9,090.0	8,929.0
1/18/2023 13:00	HEEL	10,075.0	9,529.6
1/21/2023 00:00	TOE	20,266.0	9,579.2

Casing Strings							
Description	Set Depth (ftKB)	Set Depth (TVD) (ftKB)	OD (in)	Grade	Wt/Len (lb/ft)	Top Thread	P LeakOff (psi)
CONDUCTOR	105.0	105.0	20	H40	78.67		
SURFACE	2,016.2	2,013.3	13 3/8	J55	54.50	BTC	1,316.3
INTERMEDIATE	7,017.0	6,858.0	9 5/8	L80-IC	40.00	BTC	3,739.9
PRODUCTION	20,250.0	9,579.3	5 1/2	P110-IC	20.00	WEDGE 441	

Cement					
Cement Fluids					
Fluid Type SPACER	Estimated Top (ftKB) 860.0	Estimated Bottom (ftKB) 1,938.0	Class TUNEDLIGHT	Yield (ft³/sack) 8.32	Density (lb/gal) 10.50
Fluid Type LEAD CMT	Estimated Top (ftKB) 1,938.0	Estimated Bottom (ftKB) 13,732.0	Class CLASS C	Yield (ft³/sack) 2.15	Density (lb/gal) 11.50
Fluid Type	Estimated Top (ftKB)	Estimated Bottom (ftKB)	Class	Yield (ft³/sack)	Density (lb/gal)

TAIL CMT		13,732.0		20,250.0		CLASS C		1.71		12.50		
Fluid Type		Estimated Top (ftKB)		Estimated Bottom (ftKB)		Class		Yield (ft³/sack)		Density (lb/gal)		
DSPLMT		20,250.0		20,250.0						8.40		
Cement Stages												
Description		Final Top Depth		Btm (ftKB)		Top Pl...		Btm Pl...				
PRODUCTION CEMENT		1,938.0		22,266.0		Yes		Yes				
Q Pump Init		Q Pump Final		Q Pump Avg		P Pump Final		P Plug Bump		Float	Recip?	Rotated?
7		4		6		2,150.0		3,700.0		No	No	No
PRODUCTION CASING CEMENT casing 1/22/2023 17:15												
Cmtg End Date		Wellbore	Technical Result	Comment								
1/22/2023 21:00		ORIGINAL	SUCCESS	Pressure test lines T/7,500 psi. Pump 50 bbls of 9# Spacer, 224 bbls of 11.5 # Lead, 559 bbls of 12.5# Tail. Shut down and drop bottom plug, pump 4 bbls fresh water treated with MCCR, drop top plug and displace with 449 bbls of fresh water. Witnessed bottom plug bump on time, 4 bbl later top plug bumped 2,140 & pressured up to 3,735 psi. Watch for 5 minutes & bled back 6 bbl. Floats held.								
Gas Emissions - Flare												
Type		Method		Dur (Min)		Amount		Units		Com		
No Data												
Job Supply Amounts												
Supply Item Des		Type	Unit Label	Received	Consumed	Returned	Note		Cum On Loc		Cum Consumed	
DIESEL		MUD	GAL		6580				7,168		81111	
DIESEL		FUEL	GAL			8697	Transferred to 'UNIVERSITY 6-48C 103H'		617		27428	
WATER		FRESH	BBL			0	Transferred to 'UNIVERSITY 6-48C 103H'		0		23417	
DIESEL		FUEL	GAL			19990	Transferred to 'UNIVERSITY 6-48C 103H'		0		605	
DIESEL		MUD	GAL			7168	Transferred to 'UNIVERSITY 6-48C 103H'		0		81111	
DIESEL		FUEL	GAL	0	0		Winter Tank		0		605	
WATER		FRESH	BBL	0	0				0		23417	
DIESEL		FUEL	GAL		617				0		28045	
Mud Additive Amounts												
Des		Type		Units	Rec	Consumed		On Loc		Cum Cons		
Pump Operations												
Pump #		Make		Model	Liner Size (in)		Stroke (in)		Vol/Stk (bbl/stk)		P Max (psi)	
1		BOMCO		F1600	5 1/2		12.00		0.088		7,500.0	
2		BOMCO		F1600	5 1/2		12.00		0.088		7,500.0	
3		BOMCO		F1600	5 1/2		12.00		0.088		7,500.0	
Pump Checks												
Pump #		Depth (ftKB)		Time	P (psi)	Strokes (spm)		Q Flow (gpm)		Eff (%)		
No Data												
Deviation Surveys												
Date				Description				Job				
11/8/2022 16:00				AS DRILL SURVEY				ODR, 11/8/2022 06:00				
Formations												
Formation Name		Prog Top Override (TVD SS) (ft(elv))			Prog Top MD (ftKB)		Prog Top (TVD) (ftKB)		Final Top MD (ftKB)		Final Top (TVD) (ftKB)	
PBHL/TD		-6,600.0					9,593.0		20,266.0		9,579.2	
269_0_DEAN		-6,633.0					9,626.0					
270_0_WFMP_A1		-6,802.0					9,795.0					
275_0_WFMP_B1		-7,009.0					10,002.0					
276_0_WFMP_B2		-7,031.0					10,024.0					
278_0_WFMP_B3		-7,085.0					10,078.0					
280_0_WFMP_C1		-7,175.0					10,168.0					
282_0_WFMP_C2		-7,275.0					10,268.0					
292_0_WFMP_D		-7,701.0					10,694.0					
304_0_STRAWN		-8,065.0					11,058.0					
Daily Contacts												
Job Contact					Title		Office	Mobile	Email			
RICHARDSON, KEN, AREA DRILLING SUPERINTENDENT					AREA DRILLING SUPERINTENDENT		432-571-2557	432-557-8128	KEN.RICHARDSON@PXD.COM			
GARZA, JOHN, ENGINEER					ENGINEER			469-286-7746	JOHN.GARZA@PXD.COM			
PARSELL, VIC, SUPERINTENDENT					SUPERINTENDENT			432-301-2539	VIC.PARSELL@PXD.COM			
DAFFRON, MIKE, SUPERINTENDENT					SUPERINTENDENT		432-385-9242	318-243-5902	MIKE.DAFFRON@PXD.COM			
PRESLEY, MAHLON, WELLSITE SUPERVISOR					WELLSITE SUPERVISOR			361-212-4890	MAHLON.PRESLEY@PXD.COM			
HENZE, BRENDON, WELLSITE SUPERVISOR					WELLSITE SUPERVISOR			361-935-5507	BRENDON.HENZE@PXD.COM			
MUNGER CASEY, MUD ENGINEER					MUD ENGINEER			479-234-6620	CASEY.MUNGER@PXD.COM			
RIG-ENSIGN 125, RIG PHONE					RIG PHONE		432-848-5232	432-894-8995	DL-ENSIGN125@PXD.COM			
Personnel Log												
Company											Count	
PIONEER NATURAL RESOURCES USA INC											2	
ENSIGN UNITED STATES DRILLING S W INC											13	
BAKER HUGHES OILFIELD OPERATIONS INC											3	
GISLER BROTHERS LOGGING CO INC											2	
STALLION SOLIDS CONTROL INC											1	