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Detailed Drilling Report											
Lease:		ULS 5-9 UNIT 6H			API #:		42-003-47576			Report #:	2
Operator:		Zarvona Energy			Spud Date:					Report Date:	12/30/18
GL	3030'	Depth (MD)		County	Andrews	Rig	LATSHAW DRILLING RIG 7			AFE #	NA-5-9-6
KB-GL	26	TVD		State	Texas	Toolpusher	Malcom Moody			Job#	
				Co Supv	DC Torres		Bobby Miller				
				Co Supv	J. Garza						
PRESENT OPERATIONS											
MI and Rigging up											
R/D MO and rigging up											
DRILL PIPE											
# JTS	LENGTH	OD	WT	GRADE	CONN		EQUIPMENT			LENGTH	
LAST CASING STRINGS											
SIZE	TOP		WT	GRADE	CONN						
20"	0	80									
							TOTAL			--	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS							
7:00	7:00	12.00		Rig down generator package, MP's R/D and move out, set mast on ground @ 1500hrs.							
				Spot MP's, TT gasbuster, SCR and 3 generators, parts house,fuel tanks and festoon house, R/U							
				23 loads move to 5-9 6 location. 12/28							
				25 loads move to 5-9 6 location. 12/29							
				20 loads move to 5-9 6 location. 12/30							
7:00	7:00	12.00		No men working.							
TOTAL		24.0									
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS			
ROTATING		Bkgd Gas	0	Start		Cuttings		Pump No.	No. 1	No. 2	
UP		Conn Gas	0	Received		Surface		Make/Model	WH-1612	WH-1612	
DOWN		Trip Gas	0					Modules	7500	7500	
TORQUE		Max Gas	0	End		Hole		SPR (SPM)			
				Used		Centrifuge		@ # (psi)			
				Rate (\$/gal)				Stroke, in.	12	12	
				Total Cost (\$)				Liner / gal sks	6"	6"	
BIT RECORD		MUD						S.P.M.			
Number		Type		Solids				Rate, G.P.M.			
Size, in.		Time		O/W Cont.				Press, psi			
Type		Company		O/W Ratio		Note					
code		FL Temp (deg F)		Alk P mud							
Serial No.		Depth		Lime		RM 2.66 Days					
Jets, 32nds		Density ppg		Salt		Days Crew:	5	BOP DRILLS			
W.O.B., lb.		Viscosity		600/300		Nights Crew:	5	BOP DRILLS			
R.P.M.		PV/YP		Chlorides							
Depth out, ft		Gels: 1/10		El. Stab							
Depth in, ft		API W/L		WPS							
Footage		HTHP W/L		Calcium		Rig NP1	0				
Hours		Cake API/HTH		LGS		Service co NP1	0				
Mfgr		PH				Days from spud:	0				

Detailed Drilling Report									
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date:				Report #: 3 Report Date: 12/31/18	
GL	3030'	Depth (MD)		County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #
KB-GL	26	TVD		State	Texas	Toolpusher	Malcom Moody		Job#
				Co Supv	DC Torres		Bobby Miller		
				Co Supv	J. Garza				
PRESENT OPERATIONS									
MI and Rigging up									
R/D MO and rigging up									
DRILL PIPE									
# JTS	LENGTH	OD	WT	GRADE	CONN		EQUIPMENT		LENGTH
LAST CASING STRINGS									
SIZE	TOP		WT	GRADE	CONN				
20"	0	80							
							TOTAL		--
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS					
7:00	7:00	12.00		R/U spot subs, crew qtrs, @ 1400 WO 2nd crane to set top sub with center steel, R/U generator package, set solid control equipment. R/U 2nd crane					
				Spot MP's, TT gasbuster, SCR and 3 generators, parts house,fuel tanks and festoon house, R/U					
				23 loads move to 5-9 6 location. 12/28					
				25 loads move to 5-9 6 location. 12/29					
				20 loads move to 5-9 6 location. 12/30					
				17 loads move to 5-9 6 location. 12/31					
7:00	7:00	12.00		No men working.					
TOTAL		24.0							
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS	
ROTATING		Bkgd Gas	0	Start		Cuttings		Pump No.	No. 1 No. 2
UP		Conn Gas	0	Received		Surface		Make/Model	WH-1612 WH-1612
DOWN		Trip Gas	0					Modules	7500 7500
TORQUE		Max Gas	0	End		Hole		SPR (SPM)	
				Used		Centrifuge		@ # (psi)	
				Rate (\$/gal)				Stroke, in.	12 12
				Total Cost (\$)				Liner / gal sks	6" 6"
BIT RECORD		MUD						S.P.M.	
Number		Type		Solids				Rate, G.P.M.	
Size, in.		Time		O/W Cont.				Press, psi	
Type		Company		O/W Ratio		Note			
Code		FL Temp (deg F)		Alk P mud					
Serial No.		Depth		Lime		RM 3.66 Days			
Jets, 32nds		Density ppg		Salt		Days Crew:	5	BOP DRILLS	
W.O.B., lb.		Viscosity		600/300		Nights Crew:	5	BOP DRILLS	
R.P.M.		PV/YP		Chlorides					
Depth out, ft		Gels: I/10		El. Stab					
Depth in, ft		API W/L		WPS					
Footage		HTHP W/L		Calcium		Rig NPI	0		
Hours		Cake API/HTH		LGS		Service co NPI	0		
Mfgr		PH				Days from spud:	0		

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## Detailed Drilling Report

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Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H		API #: 42-003-47576		Report #: 8						
Operator: Zarvona Energy		Spud Date: 1/4/2019 2300		Report Date: 1/5/18						
GL	3030'	Depth (MD)	11,360	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6
KB-GL	26	TVD	11,360	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	DC Torres		Bobby Miller			
				Co Supv	J. Garza					
PRESENT OPERATIONS										
GIH										
<p>R/U pick up machine, move and SLM DP. Make up Weatherford Mill Window BHA. P/U 4" DP; rabbit and measure pipe (SLM). Notice break on main arm support on lift basket, R/D PERMIAN pick up/ Laid down unit and call out second unit to assist. P/U mousehole pipe and position in cellar mousehole. Continue to pick up 4" drill pipe by mousehole connection. Test 4-1/2" rams with BOP body test w/ csg and choke manifold with 1500 psi. Positive test. R/U Catch Kan containment tank below rotary table. R/U 2nd P/U &amp; L/D machine - Smith Casing unit. P/U 4" DP; rabbit and measure pipe (SLM). Fill up and, pressure up on DP. with block press to 3500 psi. POH from 5065' to check DP float.</p>										
DRILL PIPE										
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
		4"	14	S-135	XT-39		Window Mill		1.55	
							Casing Scraper		3.81	
							Watermelon Mill		3.71	
							Pony Collar		5.24	
LAST CASING STRINGS							Watermelon Mill		3.41	
SIZE	TOP		WT	GRADE	CONN		Bit Sub		2.57	
20"	0	80					1- HWDP		29.98	
							Float Sub		2.34	
							X-over		2.00	
							TOTAL		54.61	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	7:00	1.00		R/U pick up machine, move and SLM DP						
7:00	8:30	1.50		Make up Weatherford Mill Window BHA.						
8:30	10:00	1.50		P/U 4" DP; rabbit and measure pipe (SLM).						
10:00	11:00	1.00		Notice break on main arm support on lift basket, R/D PERMIAN pick up/ Laid down unit and call out second unit to assist. P/U mousehole pipe and position in cellar mousehole.						
11:00	12:00	1.00		Continue to pick up 4" drill pipe by mousehole connection.						
12:00	12:30	0.50		Test 4-1/2" rams,BOP body test w/ csg and choke manifold with 1500 psi. Positive test.						
12:30	15:00	2.50		R/U Catch Kan containment tank below rotary table.						
15:00	16:00	1.00		R/U 2nd P/U & L/D machine - Smith Casing unit.						
16:00	21:00	5.00		P/U 4" DP; rabbit and measure pipe (SLM).						
21:00	1:00	4.00		Fill pipe, pressure up on DP to 3500 psi release block press. POH from 5065' to float valve sub. Found pack-tight with cedar fiber. (LCM on mud lines & mixing tanks from prev job) Remove damage DP float Valve. Move DP on rack and measure (SLM).						
1:00	4:00	3.00		Wait on Weatherford DP float valve. Deliver wrong size - order second DP float valve (F3) - *Repair shaker motor on Precision Solid Control / left bottom.						
4:00	6:00	2.00		TIH with Weatherford Mill assembly w/ float valve to 5065', fill DP every 25 stds.						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS		
ROTATING		Bkgd Gas	0	Start	13502	Cuttings		Pump No.	No. 1	No. 2
UP		Conn Gas	0	Received		Surface		Make/Model	WH-1612	WH-1612
DOWN		Trip Gas	0					Modules	7500	7500
TORQUE		Max Gas	0	End	13055	Hole		SPR (SPM)		
				Used	442	Centrifuge		@ # (psi)		
				Rate (\$/gal)	\$2.08			Stroke, in.	12	12
				Total Cost (\$)	\$32,554.00			Liner / bbls sks	5.5 / .083	5.5 / .083
BIT RECORD		MUD								
Number	1	Type	OBM	Solids	15.5%	<div>Note</div> <div>Rig release f/1-30 6H 12/28 @ 1400, RM 6.39 Days.</div> <div>Days Crew: 5 BOP DRILLS</div> <div>Nights Crew: 5 BOP DRILLS</div>				
Size, in.	6.13	Time	12:30 AM	O/W Cont.	64.5/20.05					
Type	window mill	Company	FOSSIL	O/W Ratio	76/24					
code		FL Temp (deg F)		Alk P mud	3.8					
Serial No.		Depth	11360	Lime	4.94					
Jets, 32nds		Density ppg	10.6	Salt						
W.O.B., lb.		Viscosity	75	600/300						
R.P.M.		PV/YP	13/11	Chlorides	46,000					
Depth out, ft		Gels: I/10	5/11	El. Stab	421					
Depth in, ft		API W/L		WPS						
Footage	0	HTHP W/L	4.6	Calcium	265,062	Rig NPT	0			
Hours	0	Cake API/HTH	1	LGS	7.00%	Service co NPT	0			
Mfgr	WFORD	PH				Days from spud:	2.3			



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Detailed Drilling Report											
Lease: ULS 5-9 UNIT 6H				API #: 42-003-47576				Report #: 11			
Operator: Zarvona Energy				Spud Date: 1/4/2019 2300				Report Date: 1/8/18			
GL	3030'	Depth (MD)	11,360	County	Andrews	Rig	LATSHAW DRILLING RIG 7	AFE #	NA-5-9-6		
KB-GL	26	TVD	11,360	State	Texas	Toolpusher	Malcom Moody	Job#			
				Co Supv	Ron Kidd		Bobby Miller				
				Co Supv	Arturo Alaniz						
PRESENT OPERATIONS											
Wire line work with dialog											
<p>Pooh w/Mill window assembly &amp; L/D same,PU &amp; MU Curve Bha,Rig service,Tih to 2000',Change in plans,Mix &amp; pump slug,Trip out of the hole,clean rig floor,W.O.Scientific drilling,PU &amp; MU UBHO sub,TIH to 11,320',HSM w/Dialog wireline crew and rig up wire lines sheeves in derrick,Rig floor,RU Pack off on Topdrive.Run in with gyro tool,turn tool to 153 TF,Attept to begin slide with,Pack off failed would not hole SPP,Found frayed on wire line, Pull frayed line out make attempts to cut the frayed line off.</p>											
DRILL PIPE							BHA				
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT			LENGTH	
358	11280	4"	14	S-135	XT-39		BIT HALLIBURTON MMD54DM			0.75	
							MOTOR PHEONIX 5" 6/7 8.8 2.25 RPG 0.68			32.12	
							NM PONY			15.03	
							UBHO			3.14	
LAST CASING STRINGS							NMDC			30.05	
SIZE	TOP		WT	GRADE	CONN		NMDC			30.61	
20"	0	80					UBHO			2.36	
7"	0	11324	29	HC P110	LTC		X-O			2.72	
							TOTAL			116.78	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS							
6:00	9:30	3.50		Pooh with Mill window assembly and Lay down same							
9:30	13:00	3.50		Move Curve bha to pipe rack , Pick up / make up same,							
13:00	13:30	0.50		Rig Service							
13:30	14:30	1.00		Trip in to 2000' , Change in plan							
14:30	17:00	2.50		Mix slug , pump slug , Trip out							
17:00	18:00	1.00		Clean rig floor							
18:00	18:30	0.50		W.O Scientific drilling							
18:30	19:00	0.50		Pick up UBHO / make up same							
19:00	:30	5.50		Trip in hole to 11,320'							
0:30	2:00	1.50		HSM w/Dia-log wire line crew and Rig up sheeves in derrick & rig floor,RU pack-off on Top Drive,							
2:00	3:30	1.50		Run in guro tool and turn tools to 153 TF.							
3:30	4:30	1.00		Attempt to begin slide with wire,Pack off failed,would not hold Psi. Found frayed wire on line.							
4:30	6:00	1.50		Pull frayed line out make attempt to make repairs.Cut frayed wire line off.							
TOTAL		24.0									
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS		
ROTATING		Bkgd Gas	0	Start	11385	Cuttings		Pump No.	No. 1	No. 2	
UP		Conn Gas	0	Received		Surface		Make/Model	WH-1612	WH-1612	
DOWN		Trip Gas	0					Modules	7500	7500	
TORQUE		Max Gas	0	End	10594	Hole		SPR (SPM)			
				Used	791	Centrifuge		@ # (psi)			
				Rate (\$/gal)	\$2.08			Stroke, in.	12	12	
				Total Cost (\$)	\$32,554.00			Liner / bbls sks	5.5 / .083	5.5 / .083	
BIT RECORD		MUD									
Number	1	Type	OBM	Solids	15.5%						
Size, in.	6.125	Time	12:30 AM	O/W Cont.	64.5/20.05						
Type	MMD54DM	Company	FOSSIL	O/W Ratio	76/24	Note					
code		FL Temp (deg F)	Alk P mud	3.8							
Serial No.	12826152	Depth	11360	Lime	4.94						
Jets, 32nds	5X16	Density ppg	10.6	Salt		Days Crew:		5	BOP DRILLS		
W.O.B., lb.		Viscosity	75	600/300		Nights Crew:		5	BOP DRILLS		
R.P.M.		PV/YP	13/11	Chlorides	46,000						
Depth out, ft		Gels: I/10	5/11	El. Stab	421						
Depth in, ft	11336	API W/L		WPS							
Footage		HTHP W/L	4.6	Calcium	265,062	Rig NPT		0			
Hours		Cake API/HTH	1	LGS	7.00%	Service co NPT		0			
Mfgr		PH				Days from spud:		5.3			

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Detailed Drilling Report											
Lease:		ULS 5-9 UNIT 6H			API #: 42-003-47576			Report #:		14	
Operator:		Zarvona Energy			Spud Date:			1/4/2019 2300		Report Date:	
GL		3030'	Depth (MD)	11,759	County	Andrews	Rig	LATSHAW DRILLING RIG 7	AFE #	NA-5-9-6	
KB-GL		26	TVD		State	Texas	Toolpusher	Malcom Moody	Job#		
					Co Supv	Ron Kidd		Bobby Miller			
					Co Supv	Arturo Alaniz					
PRESENT OPERATIONS											
Tih,remove trip nipple & install rotate head.											
Build Curve f/ 11,728' to 11,759' (31 ft. @ 4 fph),Perform slack off test,Pick up 30; and slack off @ 20 fph:upper hole looks good,Pump slug and Pooh, Work Bha,L/d MMtr,Mwd,Break bit #1,W.O.,P/U New MMTR,Accelglide-sub,Scibe & test-ok,MU Bit #2.Tih fill pipe every 40 stds,(Note: PU agitator after 22 stds in),At 11,278' Slip & cut drill line. Tih,remove trip nipple & install rotate head.											
DRILL PIPE							BHA				
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT				LENGTH
307	9526	4"	14	S-135	XT-39		Bit #2 Baker Hughes,STX-30				0.80
							Motor Park city 7/8 5.0,2.12, RPG 0.63				25.98
							Float sub				2.47
							Accelglide				5.42
LAST CASING STRINGS							NMDC-Pony				15.03
SIZE	TOP		WT	GRADE	CONN		UBHO Sub				3.14
20"	0	80					NMDC				30.05
7"	0	11324	29	HC P110	LTC		NMDC				30.61
							XO-sub				2.77
							22-stds 4" DP				2092.39
							Agitator				24.79
							TOTAL				2233.45
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS							
6:00	9:00	3.00		Build Curve from 11,728' to 11742 ' ( 14 ft @ 4.6 fph ) WOB 20 , GPM 250 , SPP 2650 , DIFF 50 / 100, Trq 4/7k							
9:00	10:00	1.00		Perform slack off test pick up 30' and slack off @ 20 fph - upper hole look good							
10:00	14:30	4.50		Build Curve from 11,742' to 11759 ' ( 17 ft @ 3.7 fph ) WOB 20 , GPM 250 , SPP 2650 , DIFF 50 / 100, Trq 4/7k							
14:30	19:30	5.00		Pump slug and Trip out							
19:30	23:30	4.00		Work Bha, Lay down 2.25 Motor Do to it had 7/8" of Movement , P/U New Motor 2.12 Mwd,Accelglide-sub,Scibe & Test MWD with Accelglide Look Good , MU bit #2							
23:30	4:00	4.50		Tih, fill pipe every 40 stds.(Note: PU agitator after 22 stds in) @ 11,278'							
4:00	5:30	1.50		Slip and cut dill line							
5:30	6:00	0.50		Tih,remove trip nipple & install rotate head.							
TOTAL		24.0									
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS			
ROTATING		Bkgd Gas	0	Start	8802	Cuttings		Pump No.	No. 1	No. 2	
UP		Conn Gas	0	Received		Surface		Make/Model	WH-1612	WH-1612	
DOWN		Trip Gas	0					Modules	7500	7500	
TORQUE		Max Gas	0	End	7511	Hole		SPR (SPM)			
				Used	1291	Centrifuge		@ # (psi)			
				Rate (S/gal)	\$2.08			Stroke, in.	12	12	
				Total Cost (\$)	\$32,554.00			Liner / bbls sks	5.5 / .083	5.5 / .083	
BIT RECORD				MUD				S.P.M.		83	
Number	RR1	2	Type	OBM	Solids	15.5%		Rate, G.P.M.		242	
Size, in.	6.125	6.125	Time	12:30 AM	O/W Cont.	64.5/20.05		Press, psi		2832	
Type	MMDS4DM	STX-30	Company	FOSSIL	O/W Ratio	76/24	Note				
code			FL Temp (deg F)		Alk P mud	3.8					
Serial No.	12826152	5279458	Depth	11700	Lime	4.94					
Jets, 32nds	5X16	3x18	Density ppg	10.9	Salt		Days Crew:	5	BOP DRILLS		
W.O.B., lb.	7/10k		Viscosity	75	600/300		Nights Crew:	5	BOP DRILLS		
R.P.M.	15/20		PV/YP	13/11	Chlorides	46,000					
Depth out, ft	11759		Gels: l/10	5/11	El. Stab	421					
Depth in, ft	11336	11759	API W/L		WPS						
Footage	423		HTHP W/L	4.6	Calcium	265,062	Rig NPT	0			
Hours	29		Cake API/HTH	1	LGS	7.00%	Service co NPT	0			
Mfrgr	Halliburton	Hughes	PH				Days from spud:	8.3			

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Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 21 Report Date: 1/18/18		
GL	3030'	Depth (MD)	13,870	County	Andrews	Rig	LATSHAW DRILLING RIG 7		A/E #	NA-5-9-6
KB-GL	26	TVD	12280'	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	Ron Kidd	Bobby Miller				
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
Drill lateral to 13,880'.										
POOH & Lay down motor / bit, Pick up new motor / bit , test same. Rig service. Trip in hole to 13539', fill up every 40 std. Connect TDS, break circ. Relog from 13540-84' (44') Directional Drilling - Rotate / slide f/ 13584' to 13,870' (286' @ 31.2 fph) Wob 20, Rpm 45, spm 85, Gpm 250 , Diff 400, Spp 4200, off btm 3600.										
DRILL PIPE							BHA			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
432	13711	4"	14	S-135	XT-39	3.34	Bit Hilliburton MM64D		0.99	
							Motor Phoenix 6/7 6.4 1.5 RPG 0.79		32.12	
							Accelglide		5.42	
							NM STB		5.62	
LAST CASING STRINGS							NM PONY DC		15.03	
SIZE	TOP		WT	GRADE	CONN		UHBO		3.14	
20"	0	80					NM DC'S		60.66	
7"	0	11324	29	HC P110	LTC		NM STB		4.13	
							X-O + DRILL PIPE		2095.16	
							Agitator -NOV		24.79	
							DRILL PIPE + Accelgilde		863.85	
							TOTAL		3110.91	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	10:00	4.00		Trip out & Lay down motor / bit						
10:00	12:00	2.00		Pick up new motor / bit , test same						
12:00	12:30	0.50		Rig service						
12:30	19:00	6.50		Trip in hole to 13540', fill up every 40 std						
19:00	20:30	1.50		Connect TDS, break circ. Relog from 13540-84' (44')						
20:30	6:00	9.50		Directional Drilling - Rotate / slide f/ 13584' to 13,870' (286' @ 31.2 fph) Wob 20, Rpm 45, spm 85, Gpm 250 , Diff 400, Spp 4200, off btm 3600.						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS		
ROTATING	180k	Bkgd Gas	0	Start		13314	Cuttings	Pump No.	No. 1	No. 2
UP	190k	Conn Gas	0	Received			Surface	Make/Model	WH-1612	WH-1612
DOWN	170k	Trip Gas	0					Modules	7500	7500
TORQUE		Max Gas	0	End		12070	Hole	SPR (SPM)		
				Used		1244	Centrifuge	@ # (psi)		
				Rate (\$/gal)		\$2.25	TANK 1	218	Stroke, in.	12
				Total Cost (\$)		\$63,218.00	TANK 2	121	Liner / bbls sks	5" / 0.069 / 95%
BIT RECORD		MUD					TANK 3	80		5" / 0.069 / 95%
Number	3	4	Type	O/BM	Solids	16.0%	TANK 4	379	Rate, G.P.M.	242
Size, in.	6.125	6.125	Time	12:30 AM	O/W Cont.	64.5% /19.5%	TOTAL	798	Press, psi	4150
Type	GT54D	MM64D	Company	FOSSIL	O/W Ratio	77/23	Note			
code			FL Temp (deg F)	82	Alk P mud	4.8				
Serial No.	12936741	12936741	Depth	13730	Lime	6.24	Mud diesel 9934 gals			
Jets, 32nds	5X18	6X17	Density ppg	10.9	Salt		Days Crew:	5	BOP DRILLS	
W.O.B., lb.	25	20	Viscosity	72	600/300		Nights Crew:	5	BOP DRILLS	
R.P.M.	75	75	PV/YP	14/9	Chlorides	49,000				
Depth out, ft	13584		Gels: I/10	5/10	El. Stab	625				
Depth in, ft	12550	13584	API w/L		WPS					
Footage	1034	296	HTHP w/L	4.4	Calcium	282,656	Rig NPT	0		
Hours	48.5	9.5	Cake API/HTH	1	LGS	6.20%	Service co NPT	0		
Mfgr	Halliburton	Halliburton	PH				Days from spud:	15.3		

Detailed Drilling Report												
Lease:		ULS 5-9 UNIT 6H			API #:		42-003-47576			Report #:		22
Operator:		Zarvona Energy			Spud Date:		1/4/2019 2300			Report Date:		1/19/18
GL	3030'	Depth (MD)	13,885	County	Andrews	Rig	LATSHAW DRILLING RIG 7			AFE #	NA-5-9-6	
KB-GL	26	TVD	12280'	State	Texas	Toolpusher	Malcom Moody			Job#		
				Co Supv	Ron Kidd		Bobby Miller					
				Co Supv	Juan Garza							
PRESENT OPERATIONS												
Drilling in lateral section @ 13.885												
Directional Drilling - Rotate / slide f/ 13870' to 13,882' (12' @ 8 fph) Wob 20, Rpm 45, spm 85, Gpm 250 , Diff 400, Spp 4200, off btm 3600. Trip - Pump out to 11335' @ 150 gpm 1 min/per std. Pump and Spot 75 bbls 13.5 ppg pill. Trip out , pull rotating head / install trip nipple , Continue trip out. Rig service - Work on top drive track. Continue working on top drive track. Continue POOH to Directional tools. Remove MWD tool, Laid out Mud Motor and bit. P/U New 6 1/8" Smith Bit and P/C Mud motor. Surface test. TIH. Fill up every 40 stds.												
DRILL PIPE							BHA					
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT			LENGTH		
432	13711	4"	14	S-135	XT-39	3.34	Bit SMITH Z513			0.61		
							4 3/4" Motor 7/8, 5.0, Fixed 1.50 deg- 0.63 Tru stick			26.20		
							Accelglide			5.42		
							NM STB			5.62		
LAST CASING STRINGS							NM PONY DC			15.03		
SIZE	TOP		WT	GRADE	CONN		UHBO			3.14		
20"	0	80					NM DC'S			60.66		
7"	0	11324	29	HC P110	LTC		NM STB			4.13		
							X-O + DRILL PIPE			2095.16		
							Agitator -NOV			24.79		
							DRILL PIPE + Accelgilde			858.45		
										TOTAL	3099.21	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS								
6:00	7:30	1.50		Directional Drilling - Rotate / slide f/ 13870' to 13,882' (12' @ 8 fph) Wob 20, Rpm 45, spm 85, Gpm 250 , Diff 400, Spp 4200, off btm 3600.								
7:30	9:00	1.50		Circ B/U , Move pill from frac tank to mud pit.								
9:00	13:00	4.00		Trip - Pump out to 11335' @ 150 gpm 1 min/per std								
13:00	14:00	1.00		Pump and Spot 75 bbls 13.5 ppg pill								
14:00	15:30	1.50		Trip out , pull rotating head / install trip nipple , Continue trip out								
15:30	16:00	0.50		Rig service - Work on top drive track								
16:00	16:30	0.50	RPT	Continue working on top drive track								
16:30	19:30	3.00		Continue POOH to Directional tools.								
19:30	22:00	2.50		Remove MWD tool, Laid out Mud Motor and bit. P/U New 6 1/8" Smith Bit and P/C Mud motor and MWD tool and Scribe and test same. Clean rig floor.								
22:00	3:00	5.00		TIH to 11295' Fill up every 40 stds. Remove trip nipple and install rotating head. Orientate tool face entering whipstock @ 11321',								
3:00	4:00	1.00		Continue to TIH to 13,882'								
4:00	5:00	1.00		Fill pipe, break circ @ 13,836' established drilling parameters, relog f/ 13,836' to 13,882'.								
5:00	6:00	1.00		Directional Drilling - Slide f/ 13882' to 13,13885' (3' @ x fph) Wob 11 , Rpm 0, spm 85, Gpm 250 , Diff 260, Spp 3850, off btm 3600. (break in bit) - (recover 85 bbls heavy pill 12.8 ppg.)								
TOTAL		24.0										
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS				
ROTATING	180k	Bkgd Gas	0	Start	12070	Cuttings		Pump No.	No. 1	No. 2		
UP	190k	Conn Gas	0	Received	0	Surface		Make/Model	WH-1612	WH-1612		
DOWN	170k	Trip Gas	0					Modules	7500	7500		
TORQUE		Max Gas	0	End	10991	Hole		SPR (SPM)				
				Used	1097	Centrifuge		@ # (psi)				
				Rate (\$/gal)	\$2.25	TANK 1	106	Stroke, in.	12	12		
				Total Cost (\$)	\$63,218.00	TANK 2	121	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%		
BIT RECORD		MUD				TANK 3	110	S.P.M.		83		
Number	4	5	Type	OBM	Solids	16.0%	TANK 4	379	Rate, G.P.M.	242		
Size, in.	6.125	6.125	Time	12:30 AM	O/W Cont.	64.7%/19.3%	TOTAL	716	Press, psi	4150		
Type	MM64D	Z513	Company	FOSSIL	O/W Ratio	77/23	Note					
code			FL Temp (deg F)	n/a	Alk P mud	5.2	Mud diesel 6693 gals					
Serial No.	12936741	JM9054	Depth	13882	Lime	6.24	Days Crew: 5 BOP DRILLS					
Jets, 32nds	6X17	2x16, 3x13	Density ppg	10.9	Salt		Nights Crew: 5 BOP DRILLS					
W.O.B., lb.	20		Viscosity	73	600/300							
R.P.M.	50 -75		PV/YP	15/07	Chlorides	51,000						
Depth out, ft	13882		Gels: I/10	5/09	El. Stab	650						
Depth in, ft	13584	13882	API W/L		WPS							
Footage	298	3	HTHP W/L	4.4	Calcium	292,969	Rig NPT	0.5				
Hours	11.5	1	Cake API/HTH	1	LG\$	6.20%	Service co NPT	0				
Mfgr	Halliburton	SMITH	PH				Days from spud:	16.3				

[illegible]

[illegible]



[illegible]

Detailed Drilling Report														
Lease:		ULS 5-9 UNIT 6H			API #:			42-003-47576			Report #:		26	
Operator:		Zarvona Energy			Spud Date:			1/4/2019 2300			Report Date:		1/23/18	
GL	3030'	Depth (MD)	14,541	County	Andrews	Rig	LATSHAW DRILLING RIG 7			AFE #	NA-5-9-6H			
KB-GL	26	TVD	12,240	State	Texas	Toolpusher	Malcom Moody			Job#				
				Co Supv	Ron Kidd		Bobby Miller							
				Co Supv	Juan Garza									
PRESENT OPERATIONS														
POH for bit.														
Sliding f/ 14,227' to 14341' ( 114' @ 12.6 fph) Wob 13 , Gpm 235, RPM 40 , Spp 3850, off Bttm 3075, diff 400 / 850. Change Saver sub on top drive. Drill. Rotate f/ 14341' to 14436' (95' @ 19' fph) Wob 13 , Gpm 235, RPM 40 , Spp 3850, off Bttm 3075, diff 400. Drill - Slide f/ 14436' to 14461' (15' @ 6' fph) Wob 13 , Gpm 250, Spp 3850, off Bttm 3500, diff 400 / 850. Drill. Rotate f/ 14461' to 14,541' (80' @ 20' fph) Wob 12 , Gpm 228, RPM 40 , Spp 3850, off Bttm 3075, diff 400 -600. Circ B/up's @ 14541'. POH f/ 14,541' - Pump out @ 150 gpm , 1 min/per std. Mud wt 10.9 Vis 67.														
DRILL PIPE							BHA							
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT					LENGTH		
453	14374	4"	14	S-135	XT-39	3.34	Bit -6-1/8" Halliburton MM64D					0.97		
							MMotor /Butch 4.75" 6/7 7.0 Fixed 1.75 deg- 0.82					26.40		
							Float sub + Accelglide					7.91		
							NM STB					5.62		
LAST CASING STRINGS							NM PONY DC					15.03		
SIZE	TOP		WT	GRADE	CONN		UHBO					3.14		
20"	0	80					(2) NM DC'S					60.66		
7"	0	11324	29	HC P110	LTC		NM STB					4.13		
							X-O + DRILL PIPE					2095.16		
							Agitator -NOV					24.79		
							DRILL PIPE + Accelgilde					863.85		
											TOTAL	3107.66		
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS										
6:00	15:00	9.00		Sliding f/ 14,227' to 14341' ( 114' @ 12.6 fph) Wob 13 , Gpm 235, Spp 3850, off Bttm 3075, diff 400 / 850										
15:00	16:00	1.00		Change Saver sub on top drive										
16:00	21:00	5.00		Drill. Rotate f/ 14341' to 14436' (95' @ 19' fph) Wob 13 , Gpm 245, RPM 40 , Spp 3850, off Bttm 3075, diff 400										
21:00	23:30	2.50		Drill - Slide f/ 14436' to 14461' (15' @ 6' fph) Wob 13 , Gpm 250, Spp 3850, off Bttm 3500, diff 400 / 850										
23:30	3:30	4.00		Drill. Rotate f/ 14461' to 14541' (80' @ 20' fph) Wob 12 , Gpm 240, RPM 40 , Spp 3850, off Bttm 3075, diff 400 / 850										
3:30	4:30	1.00		Circ B/up's @ 14541'.Move pill to mud pit										
4:30	6:00	1.50		POH f/ 14,541' - Pump out @ 150 gpm , 1 min/per std.										
TOTAL		24.0												
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS					
ROTATING	180k	Bkgd Gas	0	Start			14806	Cuttings		Pump No.	No. 1	No. 2		
UP	190k	Conn Gas	0	Received				Surface		Make/Model	WH-1612	WH-1612		
DOWN	170k	Trip Gas	0							Modules	7500	7500		
TORQUE		Max Gas	0	End			12936	Hole		SPR (SPM)				
				Used			1870	Centrifuge		@ # (psi)				
				Rate (\$/gal)			\$2.25	TANK 1	MT	Stroke, in.	12	12		
				Total Cost (\$)			\$63,218.00	TANK 2	189	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%		
BIT RECORD		MUD												
Number	6	Type	OBM	Solids	16.0%		TANK 3	230	S.P.M.			83		
Size, in.	6.125	Time	12:30 AM	O/W Cont.	65.5/18.5		TANK 4	327	Rate, G.P.M.			242		
Type	MM64D	Company	FOSSIL	O/W Ratio	78/22		TOTAL		746	Press, psi		4150		
code		FL Temp (deg F)	119	Alk P mud	5.3		Note							
Serial No.	13067454	Depth	14466	Lime	6.89		Mud diesel (36") 2953 gals.							
Jets, 32nds	6x20	Density ppg	10.9	Salt			Days Crew:		5	BOP DRILLS				
W.O.B., lb.	20	Viscosity	67	600/300			Nights Crew:		5	BOP DRILLS				
R.P.M.	40	PV/YP	14/ 9	Chlorides	48,500									
Depth out, ft	14541	Gels: I/10	5/10	El. Stab	681									
Depth in, ft	14114	API W/L		WPS										
Footage	427	HTHP W/L	4.2	Calcium	291,329		Rig NPT		0.5					
Hours	40.5	Cake API/HTH	1	LGS	5.9+%		Service co NPT		0					
Mfgr	Halliburton	PH					Days from spud:		20.3					

Detailed Drilling Report

Lease: ULS 5-9 UNIT 6H

Operator: Zarvona Energy

API #: 42-003-47576

Spud Date: 1/4/2019 2300

Report #: 27

Report Date: 1/24/18

GL3030'Depth (MD)14,585CountyAndrewsRigLATSHAW DRILLING RIG 7

KB-GL26TVD12,237StateTexasToolpusherMalcom Moody

Co SupvRon Kidd

Co SupvJuan Garza

Job#

NA-5-9-6H

PRESENT OPERATIONS

Drilling @ 14585'

Trip - Pump out @ 150 gpm , 1 min/per std. to 11335'.

Pump & Spot 75 bbls 13.4 ppg pill.

Trip out to DD BHA, remove MWD tool.

L/Dn 2 Agitator, Monels, Stabilizers and MWD tool, Drain bit and remove. Pick up Mud Motor w/ directional BHA, Scribe MWD and test. Make up 6-1/8 bit. Clear and clean rig floor. Rig Service and TDS. TIH to 11,000, fill up every 40 stds. Slip and cut drill line. Relog last 30' f/ 14,510-541' (30'). Drill, Rotate f/ 14541 to 14585

DRILL PIPE

# JTS

LENGTH

OD

WT

GRADE

CONN

ID

BHA 8 Lateral

EQUIPMENT

LENGTH

453

14374

4"

14

S-135

XT-39

3.34

Bit -6-1/8" Halliburton MM54D

0.95

Motor/PC-TS- 4.75" 7/8, 5.0 Fixed 1.50 deg- 0.63

26.62

Float sub + Accelglide

7.91

NM STB

5.62

LAST CASING STRINGS

SIZE

TOP

WT

GRADE

CONN

NM PONY DC

UHB0

LENGTH

20"

0

80

(2) NM DC'S

60.66

7"

0

11324

29

HC P110

LTC

NM STB

4.13

X-O + DRILL PIPE

2095.16

Agitator -NOV

24.79

DRILL PIPE + Accelgilde

863.85

TOTAL

3107.86

START TIME

END TIME

HOURS

NPT

DAILY OPERATIONS

6:00

9:00

3.00

Trip - Pump out @ 150 gpm , 1 min/per std. to 11335'

9:00

10:00

1.00

Pump & Spot 75 bbls 13.4 ppg pill

10:00

14:30

4.50

Trip out to DD BHA, remove MWD tool.

14:30

17:30

3.00

L/Dn 2 Agitator, Monels, Stabilizers and MWD tool, Drain bit and remove. Pick up Mud Motor w/ directional BHA, Scribe MWD and test. Make up 6-1/8 bit. Clear and clean rig floor.

17:30

18:00

0.50

Rig Service and TDS.

18:00

22:30

4.50

TIH to 11,105, fill up every 40 stds.

22:30

0:00

1.50

Slip and cut drill line.

0:00

2:00

2.00

Continue to TIH to 14,510

2:00

3:00

1.00

Relog last 30'

3:00

5:00

2.00

Drill lateral section / Slide f/ 14541' to 14,557 ( 16 @ 8 fph) Wob 12 , Rpm 0 , Gpm 243 / 153 rev/gal , Ssp 3775, off Bttm Spp 3500, Diff 175

5:00

6:00

1.00

Drill lateral section / Rotate f/ 14557' to 14,585 ( 28' @ 28' fph) Wob 12-15 , Rpm 38 , Gpm 155 / 97 rev/gal , Ssp 2346, off Bttm Spp 3500, Diff 612, Torq 7.2 Gr 123

TOTAL

24.0

STRING WEIGHT

GAS

DIESEL (GAL)

TOTAL OBM LOSS

HYDRAULICS

ROTATING

200

Bkgd Gas

0

Start

12936

Cuttings

Pump No.

No. 1

No. 2

UP

210

Conn Gas

0

Received

Surface

Make/Model

WH-1612

WH-1612

DOWN

180

Trip Gas

0

Modules

7500

7500

TORQUE

Max Gas

0

End

11973

Hole

SPR (SPM)

Used

963

Centrifuge

@ # (psi)

Rate (\$/gal)

\$2.25

TANK 1

MT

Stroke, in.

12

12

Total Cost (\$)

\$63,218.00

TANK 2

189

Liner / bbls sks

5" / 0.069 / 95%

5" / 0.069 / 95%

BIT RECORD

MUD

TANK 3

81

S.P.M.

83

Number

7

Type

OBM

Solids

16.8%

TANK 4

327

Rate, G.P.M.

242

Size, in.

6.125

Time

12:30 AM

O/W Cont.

64.7/18.5

TOTAL

597

Press, psi

4150

Type

MM54D

Company

FOSSIL

O/W Ratio

78/22

Note

code

FL Temp (deg F)

n/a

Alk P mud

5.3

Serial No.

12956388

Depth

14528

Lime

6.89

Jets, 32nds

6x18

Density ppg

11.1

Salt

W.O.B., lb.

Viscosity

73

600/300

R.P.M.

PV/YP

14/ 10

Chlorides

48,000

Depth out, ft

Gels: I/10

5/10

El. Stab

662

Depth in, ft

14541

API W/L

WPS

Footage

44

HTHP W/L

4.2

Calcium

289,194

Hours

3

Cake API/HTH

1

LGS

6.00%

Mfgr

Halliburton

PH

Rig NP1

0.5

Service co NP1

0

Days from spud:

21.3

[illegible]

Detailed Drilling Report

Lease: ULS 5-9 UNIT 6H

Operator: Zarvona Energy

API #: 42-003-47576

Spud Date: 1/4/2019 2300

Report #: 29

Report Date: 1/26/18

GL3030'Depth (MD)15,025CountyAndrewsRigLATSHAW DRILLING RIG 7

KB-GL26TVD12,237StateTexasToolpusherMalcom Moody

Job#

NA-5-9-6H

Co SupvRon Kidd

Co SupvJuan Garza

PRESENT OPERATIONS

Drill Lateral @ 15,025'

Pick Mud Motor w/directional Bha,Scribe MWD and test,Make up 6 1/8 bit,rig service,+TDS-Clean rig floor,Wait on M-Mtr,Pick up Mud Moto w/directional Bha and test,Make up 6 1/8 bit,Tih to 14,880',Fill up every 40 stds,Relog f/14,880' to 14,910' (30),Drill Lateral f/14,910' to 14,540 ( 30' @ 15 fph),Wob 12,Rpm 38,Gpm 180,SPP 2440, Diff,48,Torq6.5,Gr31-42,Drill Lateral /Slide f/14,540 to 14,965 ( 23' @ 5' fph),Wob 22, rpm 0,Gpm 247,SPP 3850,Diff 120,Torq n/a Gr38.,22,Drill Lateral Rotate f/14,965' to 15,025' (60' @ 13.3 fph),Wob 15,Rpm 35,Gpm 180,SPP 2440,Diff-320,Torq 6.5Gr. 22-20 Mud wt.11.1 Vis 76 sec/qt

DRILL PIPE

# JTSLENGTHODWTGRADECONNID

384119254"14S-135XT-393.34

Bit -6-1/8" Halliburton MM74D0.86

Motor/Fdx-4.75",3.8,Fixed 1.50 deg-0.5224.72

Accelglide5.42

NM STB5.62

LAST CASING STRINGS

SIZETOPWTGRADECONN

20"080

(2) NM DC'S60.66

NM STB4.13

X-O + DRILL PIPE2092.39

Agitator -NOV24.79

DRILL PIPE + Accelgilde863.85

TOTAL3100.61

START TIMEEND TIMEHOURS

NPT

DAILY OPERATIONS

6:007:001.00

Pick up Motor w/directional Bha,Scribe MWD and test,Make up 6 1/8 bit.

7:007:300.50

Rig Service + TDS

7:309:001.50

Clean rig floor,wait on M-Mtr.

9:0011:002.00

Pick up Motor w/directional Bha,Scribe MWD and test,Make up 6 1/8 bit.

11:0018:007.00

Tih to 14,880'; fill everu 40 stds.

18:0018:300.50

Relog f/14,880' to 14,910' (30)

18:3020:302.00

Drill Lateral /Rotate f/14,910' to 14,940' (30' @ 15' fph)Wob 12,Rpm 38Gpm 180,SPP 2440,Diff,48,Torq 6.5,Gr 31-42

20:301:305.00

Drill Lateral /Slide f/14,940' to 14,965' (15' @ 5' fph)Wob 22,Rpm 0,Gpm 247,SPP 3850,Diff,102,Torq n/a,Gr 22-20,Mud wt. 11.0 Vis 75 sec/qt

1:306:004.50

Drill Lateral /Slide f/14,965' to 14,5025' (60' @ 13.3' fph)Wob 15,Rpm 35,Gpm 180,SPP 022400,Diff-320,Torq n6.5,Gr 22-20,Mud wt. 11.0 Vis 87 sec/qt

TOTAL24.0

STRING WEIGHTGASDIESEL (GAL)TOTAL OBM LOSSHYDRAULICS

ROTATING200Bkgd Gas0Start10595

Cuttings

Pump No.

No. 1

No. 2

UP210Conn Gas0Received

Surface

Make/Model

WH-1612

WH-1612

DOWN180Trip Gas0

Modules

7500

7500

TORQUEMax Gas0End9599

Hole

SPR (SPM)

@ # (psi)

Used996

Centrifuge

TANK 1

MT

Stroke, in.

12

12

Rate (\$/gal)\$2.25

TANK 2

189

Liner / bbls sks

5" / 0.069 / 95%

5" / 0.069 / 95%

Total Cost (\$)\$63,218.00

TANK 3

#1

S.P.M.

83

BIT RECORDMUD

Number78

Type

OBM

Solids

16.8%

Size, in.6.1256.125

Time

12:30 AM

O/W Cont.

64.7/18.5

TypeMMS4DMM74D

Company

FOSSIL

O/W Ratio

78/22

code

FL Temp (deg F)

n/a

Alk P mud

5.3

Serial No.1295638812596616

Depth

14528

Lime

6.89

Jets, 32nds6x184x12

Density ppg

11.1

Salt

W.O.B., lb.18

Viscosity

73

600/300

R.P.M.40 + 126

PV/YP

14/ 10

Chlorides

48,000

Depth out, ft14910

Gels: I/10

5/10

El. Stab

662

Depth in, ft1454114910

API W/L

WPS

Footage369115

HTHP W/L

4.2

Calcium

289,194

Hours1611.5

Cake API/HTH

1

LGS

6.00%

MfgrHalliburtonHalliburton

PH

ON Loc6797 71"

Mud diesel

2601

gal used

Days Crew:5

BOP DRILLS

Nights Crew:5

BOP DRILLS

Rig NPT0.5

Service co NP10

Days from spud:23.3

[illegible]

Detailed Drilling Report												
Lease: ULS 5-9 UNIT 6H				API #: 42-003-47576					Report #:		31	
Operator: Zarvona Energy				Spud Date: 1/4/2019 2300					Report Date:		1/28/18	
GL	3030'	Depth (MD)	15,720	County	Andrews	Rig	LATSHAW DRILLING RIG 7			AFE #	NA-5-9-6H	
KB-GL	26	TVD	12,234	State	Texas	Toolpusher	Malcom Moody			Job#		
				Co Supv	Spike Alaniz		Bobby Miller					
				Co Supv	Juan Garza							
PRESENT OPERATIONS												
Drill Lateral @ 15720'												
Drill Lateral /Rotate/Slide f/15,415' to 15,720 (305' @ 12.7' fph)Wob 18/21k,Rpm 040,Gpm 200,SPP 3650,Diff,2125,Torq n7/8k,Gr 119. *Note( Continue to have issues with MDW, troubleshoot / recycle pump numerous times ). Mud wt. 10.9 Vis 73 sec/qt,												
DRILL PIPE							BHA 8 Lateral					
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT				LENGTH	
490	15548	4"	14	S-135	XT-39	3.34	Bit -6-1/8" Halliburton MM74D				0.86	
							Motor/Fdx-4.75",3.8,Fixed 1.50 deg-0.52				24.72	
							Accelglide				5.42	
							NM STB				5.62	
LAST CASING STRINGS							NM PONY DC				15.03	
SIZE	TOP		WT	GRADE	CONN		UHBO				3.14	
20"	0	80					(2) NM DC'S				60.66	
7"	0	11324	29	HC P110	LTC		NM STB				4.13	
							X-O + DRILL PIPE				2092.39	
							Agitator -NOV				24.79	
							DRILL PIPE + Accelgilde				863.85	
							TOTAL				3100.61	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS								
6:00	8:00	2.00		Drill Lateral /Slide f/15,415' to 15,438' (23' @ 11.5' fph)Wob 18/21k,Rpm n/a,Gpm 200,SPP 3650,Diff-150,Torq n7/8k,Gr 22-20,								
8:00	10:30	2.50		Drill Lateral /Rotate f/15,438' to 15,477' (39' @ 15.6' fph)Wob 18/21k,Rpm n/a,Gpm 200,SPP 3650,Diff-150,Torq n7/8k,Gr 22-20,								
10:30	11:00	0.50		Trouble shoot MWD tool. Recycle pumps.								
11:00	12:30	1.50		Drill Lateral /Rotate f/15,477' to 15,511' (34 @ 22.6' fph)Wob 18/21k,Rpm n/a,Gpm 200,SPP 3650,Diff-150,Torq n7/8k,Gr 22-20,								
12:30	4:30	4.00		Drill Lateral /Slide f/15,511' to 15,525' (23' 14@ 3' fph)Wob 18/21k,Rpm n/a,Gpm 200,SPP 3650,Diff-150,Torq n7/8k,Gr 22-20,								
4:30	18:00	1.50		Drill Lateral /Rotate f/15,525' to 15,573' (48 @ 32' fph)Wob 18/21k,Rpm 040,Gpm 230,SPP 3880,Diff-400,Torq n7/8k,Gr 128								
18:00	23:30	5.50		Drill Lateral /Slide f/15,573' to 15,598' (25' @ 4.5' fph)Wob 26k,Rpm n/a, Gpm 215,SPP 3250,Diff-325,Torq n9-9.5k,Gr 156>24,								
23:30	6:00	6.50		Drill Lateral /Rotate f/15,598' to 15,720' (122 @ 18.7' fph)Wob 14k,Rpm 38,Gpm 219,SPP 3334,Diff-184,Torq n8k,Gr 17-24 Mud wt 10.7 Vis 73								
TOTAL		24.0										
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS			
ROTATING	230	Bkgd Gas	0	Start		15424	Cuttings		Pump No.	No. 1	No. 2	
UP	210	Conn Gas	0	Received		7020	Surface		Make/Model	WH-1612	WH-1612	
DOWN	180	Trip Gas	0						Modules	7500	7500	
TORQUE	7600	Max Gas	0	End		14056	Hole		SPR (SPM)			
				Used		1368	Centrifuge		@ # (psi)			
				Rate (\$/gal)		\$2.31	TANK 1	11	Stroke, in.	12	12	
				Total Cost (\$)		\$79,528.00	TANK 2	239	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%	
BIT RECORD		MUD					TANK 3	208	S.P.M.		83	
Number	8	Type	OBM	Solids	16.2%		TANK 4	327	Rate, G.P.M.		242	
Size, in.	6.125	Time	12:30 AM	O/W Cont.	64.8/19.0		TOTAL	785	Press, psi		4150	
Type	MM74D	Company	FOSSIL	O/W Ratio	77/23		Note					
code		FL Temp (deg F)	115	Alk P mud	5		ON Loc 5647 59"					
Serial No.	12596616	Depth	15603	Lime	6.5		Mud diesel 1231 gal used					
Jets, 32nds	4x12	Density ppg	10.9	Salt			Days Crew:		5	BOP DRILLS		
W.O.B., lb.	15-20	Viscosity	75	600/300			Nights Crew:		5	BOP DRILLS		
R.P.M.	30-90	PV/YP	17/ 9	Chlorides	47,000							
Depth out, ft		Gels: I/10	6/11	El. Stab	664							
Depth in, ft	14910	API W/L		WPS								
Footage	810	HTHP W/L	4.2	Calcium	279,484		Rig NPT	0.5				
Hours	57.5	Cake API/HTH	1	LGS	6.30%		Service co NPT	0				
Mfgr	Halliburton	Halliburton	PH		\$ 0		Days from spud:	25.3				

Detailed Drilling Report											
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 32 Report Date: 1/29/18			
GL	3030'	Depth (MD)	15779'	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H	
KB-GL	26	TVD	12234'	State	Texas	Toolpusher	Malcom Moody		Job#		
				Co Supv	Spike Alaniz		Bobby Miller				
				Co Supv	Juan Garza						
PRESENT OPERATIONS											
Pick DD tools and Test.											
Drill Lateral /Rotate f/15,715' to 15,779' (64' @ 5.5' fph)Wob 18/21k,Rpm n/a,Gpm 200,SPP 3650,Diff-150,Torq n7/8k,Gr 22-20, Rig Serv. Circ B/up. POH (pump out 15,779' to 11355') spot 13.5 ppg pill, POH to DD-BHA TOOLS. Laid down Directional tools, Drain mud mtr, break bit and remove. Pick new new Directional BHA. Pick up Motor w/directional Bha,Scribe MWD and test,Make up 6 1/8 bit.											
DRILL PIPE							BHA 8 Lateral				
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH		
492	15611	4"	14	S-135	XT-39	3.34	Bit -6-1/8" DF711 (S563659)		NEW		
							Motor/Fdx-4.75", 3.8,Fixed 1.50 deg-0.52		PICK UP		
							Accelglide		IN		
							NM STB		PROGRESS		
LAST CASING STRINGS							NM PONY DC		ALL		
SIZE	TOP		WT	GRADE	CONN		UHBO		REPLACE		
20"	0	80					(2) NM DC'S		DD TOOLS		
7"	0	11324	29	HC P110	LTC		NM STB				
							X-O + DRILL PIPE				
							Agitator -NOV				
							DRILL PIPE + Accelgilde				
							TOTAL		0		
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS							
6:00	9:00	3.00		Drill Lateral /Rotate f/15,715' to 15,763' (48' @ 16' fph)Wob 18/21k,Rpm n/a,Gpm 200,SPP 3650,Diff-150,Torq n7/8k,Gr 22-20,							
9:00	9:30	0.50		Rig service.							
9:30	12:00	2.50		Drill Lateral /Rotate f/15,763' to 15,779' (16' @ 6.4' fph)Wob 18/21k,Rpm n/a,Gpm 200,SPP 3650,Diff-150,Torq n7/8k,Gr 22-20,							
12:00	13:00	1.00		Circ. Btms-up @ 15,779', Prepair Wt.pill							
13:00	19:00	6.00		Pump out of the hole tO 11355' @ 150 Gpm & 1 min/per std.							
19:00	20:00	1.00		Pump & Spot 75 bbls 13.4 ppg pill							
20:00	0:00	4.00		POH to Dirctional Tools,							
4:00	6:00	4.00		Laid down Directional tools, Drain mud mtr, break bit and remove. Pick new new Directional BHA. Pick up Motor w/directional Bha,Scribe MWD and test,Make up 6 1/8 bit.							
TOTAL		22.0									
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS		
ROTATING	230	Bkgd Gas	0	Start		14056	Cuttings		Pump No.	No. 1	No. 2
UP	210	Conn Gas	0	Received		0	Surface		Make/Model	WH-1612	WH-1612
DOWN	180	Trip Gas	0						Modules	7500	7500
TORQUE	7600	Max Gas	0	End		12936	Hole		SPR (SPM)		
				Used		1120	Centrifuge		@ # (psi)		
				Rate (\$/gal)		\$2.31	TANK 1	11	Stroke, in.	12	12
				Total Cost (\$)		\$79,528.00	TANK 2	239	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%
BIT RECORD				MUD			TANK 3	82	S.P.M.		76
Number	8	9	Type	OBM	Solids	17.0%	TANK 4	327	Rate, G.P.M.		219
Size, in.	6.125	6.125	Time	12:30 AM	O/W Cont.	64.0/19.0	TOTAL	659	Press, psi		3486
Type	MM74D	DF711	Company	FOSSIL	O/W Ratio	77/23	Note				
code			FL Temp (deg F)	115	Alk P mud	5.2	ON Loc	5317 57"			
Serial No.	12596616	63659	Depth	15779	Lime	6.76	Mud diesel	330	gal used		
Jets, 32nds	4x12	Density ppg	10.9	Salt							
W.Q.B., lb.	15-20	Viscosity	75	600/300							
R.P.M.	30+90	PV/YP	18/10	Chlorides	48,500						
Depth out, ft	15779	Gels:/10	6/11	El. Stab	652						
Depth in, ft	14910	API W/L		WPS							
Footage	869	HTHP W/L	4	Calcium	279,484	Rig NPT	0.5				
Hours	63	Cake API/HTH	1	LGS	6.40%	Service co NPT	0				
Mfgr	Halliburton	Drillform	PH		\$ 0	Days from spud:	26.3				



Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H		API #: 42-003-47576		Report #: 33						
Operator: Zarvona Energy		Spud Date: 1/4/2019 2300		Report Date: 1/30/18						
GL	3030'	Depth (MD)	16,000'	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12238'	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	DC Torres		Bobby Miller			
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
Drill Lateral @ 16,000'										
Make up bit, GIH to 2248' Test agitator, good test. Continue to GIH to 15,744', fill up every 40 stds. Relog from 15,744-79'. Drill lateral section -Rotate/Slide from 15,779' to 16000'. Wob 16-20, Rpm 38, Gpm 180-250.										
DRILL PIPE							BHA & Lateral			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
499	15833	4"	14	S-135	XT-39	3.34	Drillformance PDC Bit -6-1/8" DF711 / ga 3.25		0.61	
							Pk City -MMotor/Fdx-4.75", 3.8, Fixed 1.50 deg-0.52		27.14	
							5" Accelglide (Drillformance)		5.43	
							STB 5-3/4" NM Nortrak (Stabil Drill)		4.11	
LAST CASING STRINGS							NM PONY DC			
SIZE	TOP		WT	GRADE	CONN		UHBO / Gordon Tech		2.96	
20"	0	80					(2) NM DC'S / Aim		60.11	
7"	0	11324	29	HC P110	LTC		STB 5-3/4" NM Nortrak (Stabil Drill)		6.15	
							XO-SUB 3.41+ 4" DP - 66 jts (Patterson Rental)		2095.80	
							5" Agitator -NOV 7854-1		25.86	
							27 jts 4" DP + 5" Accelglide (Drillformance)		863.82	
							TOTAL		3107.09	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	14:30	8.50		Make up bit, GIH to 2248' Test agitator, good test. Continue to GIH to 15,744', fill up every 40 stds.						
14:30	15:30	1.00		Relog from 15,744-79'.						
15:30	16:00	0.50		Drill Lateral /Rotate f/15,779' to 15,784' (5' @ 10' fph)Wob 13k,Rpm 35, Spm 64, Gpm 180, SPP 3000, Off Btm 2800, Diff- 97,Torq 8-9k,Gr 16-20,						
16:00	18:00	2.00		Drill Lateral /Slide f/15,784' to 15,799' (15' @ 7.5' fph) Wob 18k, Rpm 0, Gpm 250, SPP 4396, Diff-313,Torq n/a k,Gr 14-20, TF 45R						
18:00	21:00	3.00		Drill Lateral /Rotate f/15,799' to 15,868' (69' @ 23' fph)Wob 18k,Rpm 37, Spm 73, Gpm 213, SPP 3732, Off Btm 3200, Diff- 350,Torq 8.5k, Gr 16-20,						
21:00	1:00	4.00		Drill Lateral /Slide f/15,868' to 15,886' (18' @ 4.5' fph) Wob 20k, Rpm 0, Gpm 240, SPP 3900, Diff-50,Torq n/a k,Gr 14-20, TF 160R						
1:00	6:00	5.00		Drill Lateral /Rotate f/15,886' to 16,000' (114' @ 22.8' fph)Wob 21k,Rpm 38, Spm 73, Gpm 213, SPP 3536, Off Btm 3200, Diff- 250,Torq 8-9k, Gr 16-20, Mud wt 10.9 Vis 80						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS		
ROTATING	235	Bkgd Gas	0	Start	12936	Cuttings		Pump No.	No. 1	No. 2
UP	245	Conn Gas	0	Received	0	Surface		Make/Model	WH-1612	WH-1612
DOWN	190	Trip Gas	0					Modules	7500	7500
TORQUE	9500	Max Gas	0	End	11778	Hole		SPR (SPM)		
				Used	1158	Centrifuge		@ # (psi)		
				Rate (\$/gal)	\$2.31	TANK 1	11	Stroke, in.	12	12
				Total Cost (\$)	\$79,528.00	TANK 2	239	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%
BIT RECORD		MUD				TANK 3	82	S.P.M.		76
Number	8	9	Type	OBM	Solids	17.0%	TANK 4	327	Rate, G.P.M.	219
Size, in.	6.125	6.125	Time	12:30 AM	O/W Cont.	64.0/19.5	TOTAL	659	Press, psi	3486
Type	MM74D	DF711	Company	FOSSIL	O/W Ratio	77/23	Note			
code			FL Temp (deg F)	102	Alk P mud	5.6	ON Loc 4757 52"			
Serial No.	12596616	63659	Depth	15885	Lime	6.76	Mud diesel 560 gal used			
Jets, 32nds	4x12	7 x 16's	Density ppg	10.9	Salt		Days Crew: 5 BOP DRILLS			
W.O.B., lb.	15-20	18-24	Viscosity	80	600/300		Nights Crew: 5 BOP DRILLS			
R.P.M.	30+90	38	PV/YP	17/11	Chlorides	49,000				
Depth out, ft	15779		Gels: I/10	6/12	El. Stab	704				
Depth in, ft	14910	15779	API W/L		WPS					
Footage	869	221	HTHP W/L	4	Calcium	282,656	Rig NP1	0.5		
Hours	63	14.5	Cake API/HTH	1	LGS	6.20%	Service co NP1	0		
Mfrgr	Halliburton	Drillform	PH			\$ 0	Days from spud:	27.3		

[illegible]

Detailed Drilling Report

Lease: ULS 5-9 UNIT 6H

Operator: Zarvona Energy

API #: 42-003-47576

Spud Date: 1/4/2019 2300

Report #: 35

Report Date: 2/1/18

GL3030'Depth (MD)16,288CountyAndrewsRigLATSHAW DRILLING RIG 7AFE #NA-5-9-6H

KB-GL26TVD12244'StateTexasToolpusherMalcom MoodyJob#

Co SupvDC TorresBobby Miller

Co SupvJuan Garza

PRESENT OPERATIONS

TIH w/ 6-1/8" bit to 10,500'.

Drill Lateral /Rotate f 16,262' to 16,288' (26' @ 6.5' fph)Wob 24k,Rpm 45, Spm 80, Gpm 230, SPP 3636, Off Btm 3200, Diff- 250,Torq 7-8k, Gr 50-138. Circ B/Ups @ 16,288'. POH,pump out of the hole f/16288' to 11,355' @ 150 Gpm & 1 min/per std. Pump & Spot 75 bbls 13.4 ppg pill, pump, slug. POH, to Directional tools. Laid down Directional tools, Drain mud mtr, break bit and remove. Pick new new Directional BHA. Pick up Motor w/directional Bha,Scribe MWD and test,Make up 6 1/8 bit. TIH w/ 6-1/8" bit, fill up every 40 stds. Test 1st agitador @ 2235', 2nd agitador @ 3760', and 3rd agitador @ 5297'. Repair Hyd hose on ST-80,Continue to TIH.

DRILL PIPE

# JTSLENGTHODWTGRADECONNID

508161194"14S-135XT-393.34

Halliburton PDC Bit -6-1/8" MM64D0.96

MM-Pheonix 7/8 3.8 Tru-slick 1.5 deg -0.5524.72

STB 5-3/4" NM Nortrak (Stabil Drill)4.11

NM PONY DC0.00

LAST CASING STRINGS

SIZETOPWTGRADECONN

20"080HC P110LTC

UHBO / Gordon Tech3.14

(2) NM DC'S / Aim60.11

STB 5-3/4" NM Nortrak (Stabil Drill)6.15

XO-SUB 3.41+ 4" DP - 66 jts (Patterson Rental)2095.80

5" Agitator -NOV 7854-025.86

48 jts 4" DP + 5" Accelgilde (Drillformance) 5.371530.78

48 jts 4" DP + 5" Accelgilde (Drillformance) 5.371531.42

TOTAL5283.05

START TIMEEND TIMEHOURSNPT

6:0010:004.00

10:0011:001.00

11:0016:305.50

16:3017:301.00

17:3021:304.00

21:300:303.00

0:304:003.50

4:005:001.00

5:006:001.00

TOTAL24.0

DAILY OPERATIONS

Drill Lateral /Rotate f 16,262' to 16,288' (26' @ 6.5' fph)Wob 24k,Rpm 45, Spm 80, Gpm 230, SPP 3636, Off Btm 3200, Diff- 250,Torq 7-8k, Gr 50-138

Circ B/Ups @ 16,288'.

POH,pump out of the hole f/16288' to 11,355' @ 150 Gpm & 1 min/per std.

Pump & Spot 75 bbls 13.4 ppg pill, pump, slug.

POH, to Directional tools.

Laid down Directional tools, Drain mud mtr, break bit and remove. Pick new new Directional BHA. Pick up Motor w/directional Bha,Scribe MWD and test,Make up 6 1/8 bit.

TIH w/ 6-1/8" bit, fill up every 40 stds. Test 1st agitador @ 2235', 2nd agitador @ 3760', and 3rd agitador @ 5297'. Continue to TIH to 7659'

Repair hydraulic hose on ST-80 @ 7659'

Continue to TIH to 10,500', fill up every 40 stds.

STRING WEIGHTGASDIESEL (GAL)TOTAL OBM LOSSHYDRAULICS

ROTATING235Bkgd Gas0Start10396Cuttings

UP245Conn Gas0Received0Surface

DOWN190Trip Gas0Used9400Hole

TORQUE9500Max Gas0End996Centrifuge

Rate (\$/gal)\$2.31TANK 111Stroke, in.12

Total Cost (\$) \$79,528.00TANK 2239Liner / bbls sks5" / 0.069 / 95%5" / 0.069 / 95%

TANK 364S.P.M.

TANK 4327Rate, G.P.M.

TOTAL641Press, psi

BIT RECORDMUD

Number910TypeOBMSolids16+ 2%

Size, in.6.1256.125Time12:30 AMO/W Cont.64.0/19.8

TypeDF711MM64DCompanyFOSSILO/W Ratio76/24

codeFL Temp (deg F)102Alk P mud5.6

Serial No.6365912951211Depth16288Lime7.28

Jets, 32nds7 x 16's6x18'sDensity ppg10.9Salt

W.O.B., lb.18-24Viscosity82600/300

R.P.M.38PV/YP18/11Chlorides50,000

Depth out, ft16288Gels: I/107/12El. Stab687

Depth in, ft1577916288API W/LWPS

Footage509HTHP W/L4Calcium283,658

Hours36.5Cake API/HTH1LGS6.30%

MfgrDrillformanceHalliburtonPH\$0

Note

ON Loc3399 40"

Mud diesel225 gal used

Days Crew:5BOP DRILLS

Nights Crew:5

Rig NPT0.5

Service co NPT0

Days from spud:29.3

Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 36 Report Date: 2/2/18		
GL	3030'	Depth (MD)	16,434	County	Andrews	Rig	LATSHAW DRILLING RIG 7		APE #	NA-5-9-6H
KB-GL	26	TVD	12247'	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	DC Torres	Bobby Miller				
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
Drill lateral @ 16,434'										
TIH f /10,500' to 15,750'. Wash and ream f/15,750' to 16,288'. (.538") Wob 2k, 20 Rpm, Gpm 144. Gr 54. Drill Lateral /Slide & Rotate f/16,288' to 16,434' ( .146" @ 9.1' fph ) Wob 18-20k,Rpm 0-30, Spm 85, Gpm 201- 250, SPP 2930 -3280, Diff- 250,Torq 7-8k, Gr 52+16 Mud wt. 11.0ppg Vis 74										
DRILL PIPE							BHA 8 Lateral			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
513	16278	4"	14	S-135	XT-39	3.34	Halliburton PDC Bit -6-1/8" MM64D		0.96	
							MM-Pheonix 7/8 3.8 Tru-slick 1.5 deg -0.55		24.72	
							STB 5-3/4" NM Nortrak (Stabil Drill)		4.11	
							NM PONY DC		0.00	
LAST CASING STRINGS							UHBO / Gordon Tech		3.14	
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim		60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)		6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts (Patterson Rental)		2095.80	
							5" Agitator -NOV 7854-0		25.86	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1530.78	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1531.42	
							TOTAL		5283.05	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	8:30	2.50		TIH f/ 10,500' to 15,750'.						
8:30	14:00	5.50		Wash and ream f/15,750' to 16,288'. (.538") Wob 2k, 20 Rpm, Gpm 144. Gr 54						
14:00	15:00	1.00		Drill Lateral /Slide - f/16,288' to 16,302' (.14' @ 14' fph)Wob 18k,Rpm 0, Spm 85, Gpm 250, SPP 2930, Diff- 250,Torq 7-8k, Gr 52						
15:00	18:00	3.00		Drill Lateral /Rotate - f/16,302' to 16,354' (.52' @ 17.3' fph)Wob 20k,Rpm 30, Spm 70, Gpm 201, SPP 3230, Off Btm 3200, Diff- 336,Torq 7-8k, Gr 48						
18:00	22:00	4.00		Drill Lateral /Slide - f/16,354' to 16,374' (.20' @ 5.0' fph)Wob 20k,Rpm 0, Spm 85, Gpm 250, SPP 4250, Diff- 95,Torq 0 , Gr 52						
22:00	3:30	5.50		Drill Lateral /Rotate - f/16,374' to 16,427' (.53' @ 9.6' fph)Wob 20k,Rpm 30, Spm 70, Gpm 201, SPP 3230, Off Btm 3200, Diff- 336,Torq 7-8k, Gr 48						
3:30	6:00	2.50		Drill Lateral /Slide - f/16,427' to 16,434' (7' @ 2.8' fph) Wob 20k, Rpm 0, Spm 85, Gpm 250, SPP 4250, Diff- 95,Torq 0 , Gr 52 Mud wt 11.0 Vis 74						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS	
ROTATING	235	Bkgd Gas	0	Start		9400	Cuttings	Pump No.	No. 1	No. 2
UP	245	Conn Gas	0	Received		0	Surface	Make/Model	WH-1612	WH-1612
DOWN	190	Trip Gas	0					Modules	7500	7500
TORQUE	9500	Max Gas	0	End		8404	Hole	SPR (SPM)		
				Used		996	Centrifuge	@ # (psi)		
				Rate (\$/gal)		\$2.31	TANK 1	11	Stroke, in.	12
				Total Cost (\$)		\$79,528.00	TANK 2	239	Liner / bbls sks	5" / 0.069 / 95%
BIT RECORD		MUD								
Number	10	Type	OBM	Solids	16.5%	TANK 3	64	Rate, G.P.M.		
Size, in.	6.125	Time	12:30 AM	O/W Cont.	63.7/19.8	TOTAL	641	Press, psi		
Type	MM64D	Company	FOSILL	O/W Ratio	76/24	Note				
code		FL Temp (deg F)	92	Alk P mud	5.5	ON Loc	2625 33"			
Serial No.	12951211	Depth	16400	Lime	7.15	Mud diesel	774 gal used			
Jets, 3znds	6x18's	Density ppg	11	Salt		Days Crew:	5	BOP DRILLS		
W.O.B., lb.	20	Viscosity	74	600/300		Nights Crew:	5			
R.P.M.	30	PV/YF	18/09	Chlorides	50,000					
Depth out, ft		Gels: I/10	5/10	El. Stab	689					
Depth in, ft	16288	API W/L		WPS						
Footage	146	HTHP W/L	4	Calcium	283,658	Rig NPT	0.5			
Hours	16	Cake API/HTH	1	LGS	6.20%	Service co NPT	0			
Mfgr	Halliburton	PH			\$ 0	Days from spud:	30.3			

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Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 40 Report Date: 2/6/18		
GL	3030'	Depth (MD)	16,665	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,237	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	Ron Kidd		Bobby Miller			
				Co Supv	A.Alaniz					
PRESENT OPERATIONS										
Drill Lateral @ 16,665'										
Make up Bha,Clean rig floor,Install mwd,test same,M/u Bit #12,trip in the hole,(P/u Agitator & test Same),Rig service,Trip in the hole to 16,450' Fill pipe every 40 stds,Ream f/16,450' to 16,579' Drill Rotate & Slide f/16,579' to 16,665' ( 86 ft. @ 6 Fph)Wob 10/20k,Rpm 20/30/Gpm 175,SPP 2650,Diff 150/200										
DRILL PIPE							BHA 8 Lateral			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
367	11,383	4"	14	S-135	XT-39	3.34	Bit Halliburton mm64d		0.95	
							MM-Rubicon 7/8 3.8, 1.5"; Tru-slick, RPG 0.55		24.17	
							STB 5-3/4" NM Nortrak (Stabil Drill)		4.11	
LAST CASING STRINGS							UHBO / Gordon Tech		3.14	
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim		60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)		6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts		2095.80	
							5" Agitator -NOV 7854-0		25.86	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1530.78	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1531.42	
							TOTAL		5282.49	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	6:30	0.50		Make up BHA						
6:30	7:00	0.50		Clean rig floor						
7:00	7:30	0.50		install mwd , test same , m/u bit # 12						
7:30	12:30	5.00		Trip in hole ( p/u agitator & test same )						
12:30	13:00	0.50		Rig service						
13:00	15:00	2.00		Trip in hole to 16450'						
15:00	16:00	1.00		Ream from 16450 to 16579'						
16:00	6:00	14.00		Drill from 16579 to 16,665 (86 ft @ 6 fph ) WOB 10 / 12 , RPM 20/30, GPM 175 , SPP 2650 , DIFF 150						



Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H		API #: 42-003-47576		Report #: 41						
Operator: Zarvona Energy		Spud Date: 1/4/2019 2300		Report Date: 2/7/18						
GL	3030'	Depth (MD)	16,840	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,233	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	Ron Kidd		Bobby Miller			
				Co Supv	A.Alaniz					
PRESENT OPERATIONS										
Drill Lateral as per Plan 1r6 @ 16,840'										
Drill Rotae/Slide f/16,6,65' to 16,840' ( 175 ft @ 8.9 fph ) WOB 10 / 12 , RPM 20/30, GPM 175/195 , SPP 2850 , DIFF250/300,Check shot & Relog every 30 ft.										
DRILL PIPE							BHA 8 Lateral			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
372	11,558	4"	14	S-135	XT-39	3.34	Bit Halliburton mm64d		0.95	
							MM-Rubicon 7/8 3.8, 1.5",Tru-slick, RPG 0.55		24.17	
							STB 5-3/4" NM Nortrak (Stabil Drill)		4.11	
LAST CASING STRINGS							UHBO / Gordon Tech			
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim		60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)		6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts		2095.80	
							5" Agitator -NOV 7854-0		25.86	
							48 jts 4" DP + 5" Accelgilide (Drilformance) 5.37		1530.78	
							48 jts 4" DP + 5" Accelgilide (Drilformance) 5.37		1531.42	
							TOTAL		5282.49	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	10:30	4.50		Drill Rotae/Slide f/16,665' to 16,704' ( 39 ft @ 8.6 fph ) WOB 10 / 12 , RPM 20/30, GPM 175 , SPP 2650 , DIFF 150						
10:30	11:30	1.00		Re-log from 16,652' to 16,704'						
11:30	16:00	4.50		Drill Rotate/Slide f/16,704' to 16,736' ( 32 ft @ 7.1 fph ) WOB 10 / 12 , RPM 20/30, GPM 175 , SPP 2650 , DIFF 150						
16:00	16:30	0.50		Re-log f/16,722' to 16,736'						
16:30	18:30	2.00		Drill Rotate/Slide f/16,736' to 16,768 ( 32 ft @ 16 fph ) WOB 10 / 12 , RPM 25/35, GPM 195 , SPP 2850 , DIFF 350						
18:30	19:30	1.00		Check shot & re-log f/16,736' to 16,768'						
19:30	22:00	2.50		Drill Rotate/Slide f/16,768' to 16,798' ( 30 ft @ 12 fph ) WOB 10 / 12 , RPM 25/35, GPM 195 , SPP 2850 , DIFF 350						
22:00	23:00	1.00		Check shot & re-log f/16,768' to 16,798'						
23:00	5:00	6.00		Drill Rotate/Slide f/16,798' to 16,831' (33 ft @ 5.5 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300						
5:00	5:30	0.50		Check shot & re-log f/16,798' to 16,831'						
5:30	6:00	0.50		Drill Rotate/Slide f/16,831' to 16,840' (9 ft @ 4.5 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS		
ROTATING	235	Bkgd Gas	0	Start	11484	Cuttings		Pump No.	No. 1	No. 2
UP	245	Conn Gas	0	Received		Surface		Make/Model	WH-1612	WH-1612
DOWN	190	Trip Gas	0					Modules	7500	7500
TORQUE	9500	Max Gas	0	End	9998	Hole		SPR (SPM)		
				Used	1486	Centrifuge		@ # (psi)		
				Rate (\$/gal)		TANK 1	11	Stroke, in.	12	12
				Total Cost (\$)	\$79,528.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%
BIT RECORD		MUD								
Number	12	Type	OBM	Solids	16.3%	TANK 3	213	S.P.M.	67	
Size, in.	6.1/8	Time	12:30 AM	O/W Cont.	64.0/19.7	TANK 4	469	Rate, G.P.M.	195	
Type	MM64D	Company	FOSSIL	O/W Ratio	76/24	TOTAL 871				
code		FL Temp (deg F)	104	Alk P mud	5.4	Note				
Serial No.	997285	Depth	16632	Lime	7.02	ON Loc 4644 51"				
Jets, 32nds	6x18's	Density ppg	10.9	Salt		Mud diesel gal used; 2526				
W.O.B., lb.	12	Viscosity	75	600/300		Days Crew:		5	BOP DRILLS	
R.P.M.	20/30	PV/YP	17/8	Chlorides	50,000	Nights Crew:		5		
Depth out, ft		Gels: I/10	5/10	El. Stab	636					
Depth in, ft	16,579	API W/L		WPS						
Footage	261	HTHP W/L	4	Calcium	284,688	Rig NP1		0.5		
Hours	33.5	Cake API/HTH	1	LGS	6.10%	Service co NP1		0		
Mfr	Halliburton	PH			\$ 0	Days from spud:		35.3		

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Detailed Drilling Report											
Lease: ULS 5-9 UNIT 6H				API #: 42-003-47576				Report #: 43			
Operator: Zarvona Energy				Spud Date: 1/4/2019 2300				Report Date: 2/9/18			
GL	3030'	Depth (MD)	17,230	County	Andrews	Rig	LATSHAW DRILLING RIG 7	AFE #	NA-5-9-6H		
KB-GL	26	TVD	12,223	State	Texas	Toolpusher	Malcom Moody	Job#			
				Co Supv	Ron Kidd		Bobby Miller				
				Co Supv	A.Alaniz						
PRESENT OPERATIONS											
Drill Lateral as per Plan 1r6 @ 17,230"											
Drill to 16863. Rig service, Drill f/ 17,086', Relog from 17,054' to 17,086' , Drill Rotate/Slide to 17,230'											
DRILL PIPE							BHA 8 Lateral				
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT			LENGTH	
385	11,948	4"	14	S-135	XT-39	3.34	Bit Halliburton mm64d			0.95	
							MM-Rubicon 7/8 3.8, 1.5",Tru-slick, RPG 0.55			24.17	
							STB 5-3/4" NM Nortrak (Stabil Drill)			4.11	
LAST CASING STRINGS							UHBO / Gordon Tech				
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim			60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)			6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts			2095.80	
							5" Agitator -NOV 7854-0			25.86	
							48 jts 4" DP + 5" Accelgilde (Drillformance) 5.37			1530.78	
							48 jts 4" DP + 5" Accelgilde (Drillformance) 5.37			1531.42	
							TOTAL			5282.49	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS							
6:00	9:30	3.50		Drill Rotate/Slide f/ 17,032' to 17,053 ' ( 21 ft @ 6 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
9:30	10:00	0.50		Rig service.							
10:00	12:30	2.50		Drill Rotate/Slide f/ 17,053' to 17,086 ' ( 33 ft @ 13.2 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
12:30	13:00	0.50		Re Log f/17,054' to 17,086'							
13:00	18:00	5.00		Drill Slide f/ 17,086' to 17,139' (53ft @ 10.6 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
18:00	19:30	1.50		Drill Slide f/ 17,139' to 17,148' (9 ft @ 6 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
19:30	23:00	3.50		Drill Rotate f/ 17,148' to 17,178' (30 ft @ 8.5 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
23:00	3:30	4.50		Drill Slide f/ 17,178' to 17,212 ' (34 ft @ 7.5 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
3:30	4:30	1.00		Drill Rotate f/ 17,212' to 17,221' (10 ft @ 10 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
4:30	6:00	1.50		Drill Slide f/ 17,221' to 17,230 ' (9 ft @ 6 fph ) WOB 10 / 12 , RPM 20/30, GPM 195 , SPP 2850 , DIFF 250/300							
TOTAL		24.0									
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS			
ROTATING	200	Bkgd Gas	0	Start	8802	Cuttings		Pump No.	No. 1	No. 2	
UP	215	Conn Gas	0	Received		Surface		Make/Model	WH-1612	WH-1612	
DOWN	155	Trip Gas	0			Modules		7500	7500		
TORQUE	8k	Max Gas	0	End	7414	Hole		SPR (SPM)			
				Used	1388	Centrifuge		@ # (psi)			
				Rate (\$/gal)		TANK 1	11	Stroke, in.	12	12	
				Total Cost (\$)	\$79,528.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%	
BIT RECORD		MUD				TANK 3	213	S.P.M.	67		
Number	12	Type	OBM	Solids	16.0%	TANK 4	469	Rate, G.P.M.	195		
Size, in.	6.1/8	Time	12:30 AM	O/W Cont.	64.3/19.7	TOTAL	871	Press, psi	2900		
Type	MM64D	Company	FOSSIL	O/W Ratio	77/23	Note					
code		FL Temp (deg F)	117	Alk P mud	5.3	ON Loc	3963	40			
Serial No.	997285	Depth	17001	Lime	6.89	Mud diesel	gal used; 1245				
Jets, 32nds	6x18's	Density ppg	10.9	Salt		Days Crew:	5	BOP DRILLS			
W.O.B., lb.	12	Viscosity	74	600/300		Nights Crew:	5				
R.P.M.	20/30	PV/YP	19/8	Chlorides	49,500						
Depth out, ft		Gels: I/10	5/10	El. Stab	637						
Depth in, ft	16,579	API W/L		WPS							
Footage	651	HTHP W/L	4	Calcium	282,646	Rig NPT	0.5				
Hours	80	Cake API/HTH	1	LGS	6.00%	Service co NPT	0				
Mfgr	Halliburton	PH				Days from spud:	37.3				



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Detailed Drilling Report											
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 47 Report Date: 2/13/19			
GL	3030'	Depth (MD)	18,710	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H	
KB-GL	26	TVD	12,200	State	Texas	Toolpusher	Malcom Moody		Job#		
				Co Supv	Ron Kidd	Bobby Miller					
				Co Supv	A.Alaniz						
PRESENT OPERATIONS											
Drill Lateral as per Plan 1r6 @ 18,710											
Drill Rotate/Slide f/18,125' to 18,710'( 585 Ft. @ 25 Fph),Rig Service.											
DRILL PIPE							BHA 8 Lateral				
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT			LENGTH	
433	13,428	4"	14	S-135	XT-39	3.34	Bit Halliburton mm74d			0.86	
							MM-Rubicon 7/8 3.8, 1.5",Tru-slick, RPG 0.55			24.01	
							STB 5-3/4" NM Nortrak (Stabil Drill)			4.11	
LAST CASING STRINGS							UHBO / Gordon Tech			3.14	
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim			60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)			6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts			2095.80	
							5" Agitator -NOV 7854-0			25.86	
							48 jts 4" DP + 5" Accelgilde (Drillformance) 5.37			1530.78	
							48 jts 4" DP + 5" Accelgilde (Drillformance) 5.37			1531.42	
							TOTAL			5282.24	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS							
6:00	11:30	5.50		Drill /Rotate f/ 18,125' to 18,300 ' ( 175 ft @ 31 fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350							
11:30	13:00	1.50		Drill /Slide f/ 18,300' to 18,321' ( 21 ft @ 14 fph ) WOB 12 / 15 , RPM 0, GPM 230 , SPP 4130 , DIFF 150/350							
13:00	16:30	3.50		Drill /Rotate f/ 18,321' to 18,417' ( 96 ft @ 27 fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350							
16:30	17:00	0.50		Rig Service							
17:00	0:30	7.50		Drill /Rotate f/ 18,417' to 18,653' ( 236 ft @ 42 fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350							
0:30	5:00	4.50		Drill /Slide f/ 18,653' to 18,683' ( 30 ft @ 6.6 fph ) WOB 12 / 15 , RPM 0, GPM 230 , SPP 4130 , DIFF 150/350							
5:00	6:00	1.00		Drill /Rotate f/ 18,683' to 18,710' ( 27 ft @ 27 fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350							
TOTAL		24.0									
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS		
ROTATING	185	Bkgd Gas	0	Start		10793	Cuttings		Pump No.	No. 1	No. 2
UP	250	Conn Gas	0	Received			Surface		Make/Model	WH-1612	WH-1612
DOWN	150	Trip Gas	0						Modules	7500	7500
TORQUE	8k	Max Gas	0	End		9400	Hole		SPR (SPM) @ # (psi)		
				Used		1393	Centrifuge				
				Rate (\$/gal)		\$3.33	TANK 1	11	Stroke, in.	12	12
				Total Cost (\$)		\$79,528.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%
BIT RECORD				MUD			TANK 3	250	S.P.M.		67
Number	13	Type	OBM	Solids	16.2%		TANK 4	355	Rate, G.P.M.		195
Size, in.	6.1/8	Time	12:30 AM	O/W Cont.	65.0/18.0		TOTAL	794	Press, psi		2900
Type	MM74D	Company	FOSSIL	O/W Ratio	78/22		Note				
code		FL Temp (deg F)	118	Alk P mud	5.3		ON LOC	1589	23		
Serial No.	12596616	Depth	147929	Lime	6.89		Mud diesel	gal used; 505			
Jets, 32nds	3K16 4X12	Density ppg	10.9	Salt			Days Crew:	5	BOP DRILLS		
W.O.B., lb.	14	Viscosity	74	600/300			Nights Crew:	5			
R.P.M.	25/35	PV/YP	19/8	Chlorides	48,000						
Depth out, ft		Gels: I/10	5/10	EL. Stab	672						
Depth in, ft	17,267	API W/L		WPS							
Footage	1443	HTHP W/L	4	Calcium	285,899		Rig NPT	0.5			
Hours	50.5	Cake API/HTH	1	LGS	6.20%		Service co NPT	0			
Mfgr	Halliburton	PH					Days from spud:	41.3			

Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H		API #: 42-003-47576		Report #: 48						
Operator: Zarvona Energy		Spud Date: 1/4/2019 2300		Report Date: 2/14/19						
GL	3030'	Depth (MD)	19,318	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,200	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	Ron Kidd		Bobby Miller			
				Co Supv	A.Alaniz					
PRESENT OPERATIONS										
Drill Lateral as per Plan 1r6 @ 19,318'										
Drill Rotate/Slide f/18,710' to 19,318' ( 608 Ft. @ 25.8 Fph),Rig Service.										
DRILL PIPE							BHA 8 Lateral			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
452	14,036	4"	14	S-135	XT-39	3.34	Bit Halliburton mm74d		0.86	
							MM-Rubicon 7/8 3.8, 1.5",Tru-slick, RPG 0.55		24.01	
							STB 5-3/4" NM Nortrak (Stabil Drill)		4.11	
LAST CASING STRINGS							UHBO / Gordon Tech			
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim		60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)		6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts		2095.80	
							5" Agitator -NOV 7854-0		25.86	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1530.78	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1531.42	
							TOTAL		5282.24	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	10:00	4.00		Drill /Rotate f/ 18,710' to 18,844 ' ( 134 ft @ 33.5 fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350						
10:00	12:30	2.50		Drill /Slide f/ 18,844' to 18,864' ( 20 ft @ 8 fph ) WOB 12 / 15 , RPM 0, GPM 230 , SPP 4130 , DIFF 150/350						
12:30	16:00	3.50		Drill /Rotate f/ 18,864' to 18,985 ' ( 121 ft @ 34.5fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350						
16:00	16:30	0.50		Rig Service						
16:30	19:30	3.00		Drill /Rotate f/ 18,985' to 19,080 ' (95 ft @31.6fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350						
19:30	22:00	2.50		Drill /Slide f/ 19,080' to 19,095' (15ft @ 6.0 fph ) WOB 12 / 15 , RPM 0, GPM 230 , SPP 4130 , DIFF 150/350						
22:00	0:30	2.50		Drill /Rotate f/ 19,095' to 19,176 ' (81 ft @ 32 fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350						
0:30	2:30	2.00		Drill /Slide f/ 19,176' to 19,201' (25ft @ 12.5 fph ) WOB 12 / 15 , RPM 0, GPM 230 , SPP 4130 , DIFF 150/350						
2:30	6:00	3.50		Drill /Rotate f/ 19,201' to 19,318 ' (117 ft @ 33 fph ) WOB 12 / 15 , RPM 30/40, GPM 230 , SPP 4130 , DIFF 150/350						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS		
ROTATING	185	Bkgd Gas	0	Start	9400	Cuttings		Pump No.	No. 1	No. 2
UP	215	Conn Gas	0	Received		Surface		Make/Model	WH-1612	WH-1612
DOWN	150	Trip Gas	0					Modules	7500	7500
TORQUE	11k	Max Gas	0	End	8007	Hole		SPR (SPM)		
				Used	1393	Centrifuge		@ # (psi)		
				Rate (\$/gal)	\$3.33	TANK 1	11	Stroke, in.	12	12
				Total Cost (\$)	\$79,528.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%
BIT RECORD		MUD				TANK 3	250	S.P.M.		67
Number	13	Type	OBM	Solids	16.3%	TANK 4	355	Rate, G.P.M.		195
Size, in.	6.1/8	Time	12:30 AM	O/W Cont.	64.0/19.0	TOTAL	794	Press, psi		2900
Type	MM74D	Company	FOSSIL	O/W Ratio	77/23	Note				
code		FL Temp (deg F)	116	Alk P mud	5.3	ON Loc		5971	63	
Serial No.	12596616	Depth	18640	Lime	6.89	Mud diesel gal used; 2808				
Jets, 32nds	3X16 4X12	Density ppg	10.9	Salt		Days Crew:		5	BOP DRILLS	
W.O.B., lb.	14	Viscosity	76	600/300		Nights Crew:		5		
R.P.M.	25/35	PV/YP	18/9	Chlorides	653					
Depth out, ft		Gels: I/10	6/10	El. Stab	672					
Depth in, ft	17,267	API W/L		WPS						
Footage	2051	HTHP W/L	4	Calcium	283,743	Rig NPT		0.5		
Hours	74	Cake API/HTH	1	LGS	6.40%	Service co NPT		0		
Mfgr	Halliburton	PH				Days from spud:		42.3		





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Detailed Drilling Report											
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 52 Report Date: 2/18/19			
GL	3030'	Depth (MD)	21,385	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H	
KB-GL	26	TVD	12,202'	State	Texas	Toolpusher	Malcom Moody		Job#		
				Co Supv	Ron Kidd		Bobby Miller				
				Co Supv	Juan Garza						
PRESENT OPERATIONS											
Drill Lateral as per Plan 1r6 @ 21,385'											
Drill Rotate/Slide f/ 21,000' to 21,385' ( 385 ft. @ 16.7 fph ) .Rig Service. Inspect connection on Top Drive due to leaking, retighten. Ok.											
DRILL PIPE							BHA 8 Lateral				
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT			LENGTH	
669	21,225	4"	14	S-135	XT-39	3.34	Bit Halliburton mm74d			0.86	
							MM-Rubicon 7/8 3.8, 1.5", Tru-slick, RPG 0.55			24.01	
							STB 5-3/4" NM Nortrak (Stabil Drill)			4.11	
LAST CASING STRINGS							UHBO / Gordon Tech			3.14	
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim			60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)			6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts			2095.80	
							5" Agitator -NOV 7854-0			25.86	
							48 jts 4" DP + 5" Accel/gilde (Drillformance) 5.37			1530.78	
							48 jts 4" DP + 5" Accel/gilde (Drillformance) 5.37			1531.42	
							TOTAL			5282.24	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS							
6:00	8:30	2.50		Drill Lateral / Slide f/ 21,000' to 21,014' ( 14 ft @ 5.6 fph ) WOB 25 , RPM 0, GPM 252 , SPP 4650, off BTM 3750 DIFF 100 , Torq xxx -, Gr 99.8							
8:30	14:00	5.50		Drill Lateral / Rotate - f/ 21,014' to 21,173' ' ( 159 ft @ 28.9 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4650, off BTM 3750 DIFF 350, Torq 10k -, Gr 99.8							
14:00	14:30	0.50		Rig service and TDS							
14:30	15:30	1.00		Drill Lateral / Rotate - f/ 21,173' to 21,202' ' ( 29 ft @ 29.0 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4650, off BTM 3750 DIFF 350, Torq 10k -, Gr 99.8							
15:30	23:00	7.50		Drill Lateral / Slide f/ 21,202' to 21,237' ' ( 35 ft @ 4.6 fph ) WOB 25 , RPM 0, GPM 252 , SPP 4650, off BTM 3750 DIFF 100 , Torq xxx -, Gr 99.8							
23:00	5:00	6.00		Drill Lateral / Rotate - f/ 21,237' to 21,374' ' ( 137 ft @ 22.8 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4650, off BTM 3750 DIFF 350, Torq 10k -, Gr 99.8							
5:00	5:30	0.50		Inspect Top Drive connection due to leaking, found rubber on conn. Remove and retighten.							
5:30	6:00	0.50		Drill Lateral / Rotate - f/ 21,374' to 21,385' ' ( 11 ft @ 22.0 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4650, off BTM 3750 DIFF 350, Torq 10k -, Gr 99.8							
TOTAL		24.0									
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS			
ROTATING	210	Bkgd Gas	0	Start	10396	Cuttings		Pump No.	No. 1	No. 2	
UP	220	Conn Gas	0	Received	0	Surface		Make/Model	WH-1612	WH-1612	
DOWN	150	Trip Gas	0					Modules	7500	7500	
TORQUE	7.4	Max Gas	0	End	8802	Hole		SPR (SPM) @ # (psi)			
				Used	1594	Centrifuge					
				Rate (\$/gal)	\$2.40	TANK 1	11	Stroke, in.	12	12	
				Total Cost (\$)	\$96,439.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%	
BIT RECORD		MUD									
Number	13	Type	OBM	Solids	16.2%	TANK 3	250	S.P.M.		87	
Size, in.	6.1/8	Time	12:30 PM	O/W Cont.	64.5/19.3	TANK 4	264	Rate, G.P.M.		252	
Type	MM74D	Company	FOSSIL	O/W Ratio	77/23	TOTAL 703		Press, psi		4352	
code		FL Temp (deg F)	108	Alk P mud	4.8	ON Loc		2843	35"		
Serial No.	12596616	Depth	21,256'	Lime	6.24	Mud diesel		781	gal used		
Jets, 32nds	3X16 4X12	Density ppg	10.9	Salt		Days Crew:		5	BOP DRILLS		
W.O.B., lb.	15	Viscosity	76	600/300		Nights Crew:		5			
R.P.M.	25/35	PV/YP	20/10	Chlorides	48,000						
Depth out, ft		Gels: I/10	7/12	EL Stab	745						
Depth in, ft	17,267	API W/L		WPS							
Footage	4118	HTHP W/L	4	Calcium	280,570	Rig NPT		0.5			
Hours	167.5	Cake API/HTH	1	LGS	6.30%	Service co NPT		0			
Mlgr	Halliburton	PH				Days from spud:		46.3			

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Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 54 Report Date: 2/20/19		
GL	3030'	Depth (MD)	22,150	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,197	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	Ron Kidd		Bobby Miller			
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
Drill Lateral as per Plan 1r6 @ 22,150'										
Drill Rotate/Slide f/ 21,952' to 22,150 ( 198 ft. @ 8.8 fph ) .Rig Service. Problem with the slider, tech change computor unit. (17 hr total sliding)										
DRILL PIPE							BHA 8 Lateral			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
694	22,019	4"	14	S-135	XT-39	3.34	Bit Halliburton mm74d		0.86	
							MM-Rubicon 7/8 3.8, 1.5",Tru-slick, RPG 0.55		24.01	
							STB 5-3/4" NM Nortrak (Stabil Drill)		4.11	
LAST CASING STRINGS							UHBO / Gordon Tech		3.14	
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim		60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)		6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts		2095.80	
							5" Agitator -NOV 7854-0		25.86	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1530.78	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37		1531.42	
							TOTAL		5282.24	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	7:30	1.50		Drill Lateral / Slide f/ 21,952' to 21,956 ( 4 ft @ 2.5 fph ) Note: Slider not working can not keep good TF by hand. Call for technician WOB 25 , RPM 0, GPM 252 , SPP 4650, off BTM 3750 DIFF 100 , Torq xxx -, Gr						
7:30	9:00	1.50		Drill from 21956 to 21990' ( 34 ft @ 22.6 fph ) WOB 13 , RPM 35 , GPM 230 , SPP 4300 , DIFF 450						
9:00	10:00	1.00		Circ & ream for Sliding Note : Slider technician on loc. @ 10:00 am						
10:00	18:30	8.50		Drill Lateral / Slide f/ 21,990' to 21,031' ( 41 ft @ 4.8 fph ) WOB 25 , RPM 0, GPM 252 , SPP 4400, off BTM 4320 DIFF 100 , Torq xxx -, Gr 99.8						
18:30	19:00	0.50		Service rig & TDS						
19:00	20:30	1.50		Drill Lateral / Rotate - f/ 22,031' to 22,063' ( 32 ft @ 21.3 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4650, off BTM 4100 DIFF 150-350, Torq 11.5k -, Gr 99.8						
20:30	2:30	6.00		Drill Lateral / Slide f/ 22,063' to 22,093' ( 30 ft @ 6 fph ) WOB 25 , RPM 0, GPM 252 , SPP 4400, off BTM 4320 DIFF 100 , Torq xxx -, Gr 99.8						
2:30	6:00	3.50		Drill Lateral / Rotate - f/ 22,093' to 22,150' ( 57 ft @ 16.2 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4650, off BTM 4100 DIFF 150-350, Torq 11.5k -, Gr 99.8						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS	
ROTATING	210	Bkgd Gas	0	Start		7414	Cuttings	Pump No.	No. 1	No. 2
UP	220	Conn Gas	0	Received		0	Surface	Make/Model	WH-1612	WH-1612
DOWN	170	Trip Gas	0					Modules	7500	7500
TORQUE	7.4	Max Gas	0	End		5864	Hole	SPR (SPM)		
				Used		1550	Centrifuge	@ # (psi)		
				Rate (\$/gal)		\$2.40	TANK 1	11	Stroke, in.	12
				Total Cost (\$)		\$96,439.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%
BIT RECORD				MUD						
Number	13			Type	OBM	Solids	16.2%	TANK 3	250	S.P.M.
Size, in.	6.1/8			Time	12:30 PM	O/W Cont.	64.8/19.0	TANK 4	264	Rate, G.P.M.
Type	MM74D			Company	FOSFIL	O/W Ratio	77/23	Note	2198	
code				FL Temp (deg F)	104	Alk P mud	4.8	ON Loc	1397	21
Serial No.	12596616			Depth	22.082'	Lime	6.24	Mud diesel	801	gal used
Jets, 3znds	3X16 4X12			Density ppg	10.9	Salt		Days Crew:	5	BOP DRILLS
W.O.B., lb.	15			Viscosity	70	600/300		Nights Crew:	5	
R.P.M.	25/35			PV/YP	19/10	Chlorides	47,500			
Depth out, ft				Gels: I/10	6/12	El. Stab	744			
Depth in, ft	17.267			API W/L		WPS				
Footage	4883			HTHP W/L	4	Calcium	281,620	Rig NPT	0.5	
Hours	213.5			Cake API/HTH	1	LGS	6.30%	Service co NPT	0	
Mlgr	Halliburton			PH				Days from spud:	47.3	

Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: Report Date:		55 2/21/19
GL	3030'	Depth (MD)	22,462'	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,197	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	Ron Kidd	Bobby Miller				
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
Drill Lateral as per Plan 1r6 @ 22,462'										
Drill Rotate/Slide f/ 22,150' to 22,465' ( 315 ft. @ 13.,4 fph) .Rig Service.										
DRILL PIPE							BHA 8 Lateral			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
704	22,335	4"	14	S-135	XT-39	3.34	Bit Halliburton mm74d		0.86	
							MM-Rubicon 7/8 3.8, 1.5", Tru-slick, RPG 0.55		24.01	
							STB 5-3/4" NM Nortrak (Stabil Drill)		4.11	
LAST CASING STRINGS							UHBO / Gordon Tech		3.14	
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim		60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)		6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 Jts		2095.80	
							5" Agitator -NOV 7854-0		25.86	
							48 Jts 4" DP + 5" Accelgilde (Drillformance) 5.37		1530.78	
							48 Jts 4" DP + 5" Accelgilde (Drillformance) 5.37		1531.42	
							TOTAL		5282.24	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	9:00	3.00		Drill Lateral / Rotate - f/ 22,150' to 22,220' ( 70 ft @ 23.3fph ) WOB 15 , RPM 35, GPM 230 , SPP 4650, off BTM 4100 DIFF 150-350, Torq 11.5k -, Gr 99.8						
9:00	13:00	4.00		Drill Lateral / Slide f/ 22,220' to 22,245' ( 25 ft @ 6.25 fph ) WOB 17 , RPM 0, GPM 252 , SPP 4400, off BTM 4320 DIFF 100 , Torq xxx -, Gr 99.8 70 -Right						
13:00	17:30	4.50		Drill Lateral / Rotate - f/ 22,245' to 22,330' ( 85 ft @ 18.8 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4220, off BTM 4030 DIFF 150-350, Torq 11.5k -, Gr 99.8						
17:30	18:00	0.50		Rig Serv & TDS						
18:00	22:00	4.00		Drill Lateral / Rotate - f/ 22,330' to 22,407' ( 77 ft @ 19.2 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4220, off BTM 4030 DIFF 150-350, Torq 11.5k -, Gr 99.8						
22:00	4:00	6.00		Drill Lateral / Slide f/ 22,407' to 22,432' ( 25 ft @ 4.1 fph ) WOB 17 , RPM 0, GPM 252 , SPP 4400, off BTM 4320 DIFF 100 , Torq xxx -, Gr 99.8						
4:00	6:00	2.00		Drill Lateral / Rotate - f/ 22,432' to 22,462' ( 31 ft @ 22 fph ) WOB 15 , RPM 35, GPM 230 , SPP 4220, off BTM 4030 DIFF 150-350, Torq 11.5k -, Gr 99.8						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)			TOTAL OBM LOSS		HYDRAULICS	
ROTATING	210	Bkgd Gas	0	Start		5864	Cuttings	Pump No.	No. 1	No. 2
UP	220	Conn Gas	0	Received		6982	Surface	Make/Model	WH-1612	WH-1612
DOWN	170	Trip Gas	0					Modules	7500	7500
TORQUE	7.4	Max Gas	0	End		11188	Hole	SPR (SPM)		
				Used		1658	Centrifuge	@ # (psi)		
				Rate (\$/gal)		\$2.40	TANK 1	11	Stroke, in.	12
				Total Cost (\$)		\$113,429.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%
BIT RECORD				MUD			TANK 3	250	S.P.M.	87
Number	13	Type	OBM	Solids	16.2%		TANK 4	264	Rate, G.P.M.	252
Size, in.	6.1/8	Time	12:30 PM	O/W Cont.	64.5/19.3		TOTAL	703	Press, psi	4352
Type	MM74D	Company	FOSSIL	O/W Ratio	77/23		Note	1397		
code		FL Temp (deg F)	105	Alk P mud	4.8		ON Loc	700	12"	
Serial No.	12596616	Depth	22,417'	Lime	6.24		Mud diesel	697	gal used	
Jets, 32nds	3X16 4X12	Density ppg	10.9	Salt			Days Crew:	5	BOP DRILLS	
W.O.B., lb.	15	Viscosity	71	600/300			Nights Crew:	5		
R.P.M.	25/35	PV/YP	18/9	Chlorides	47,500					
Depth out, ft		Gels: I/10	6/12	EL. Stab	752					
Depth in, ft	17,267	API W/L		WPS						
Footage	5195	HTHP W/L	4	Calcium	278,461		Rig NPT	0.5		
Hours	237	Cake API/HTH	1	LGS	6.30%		Service co NPT	0		
Mfgr	Halliburton	PH					Days from spud:	48.3		

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Detailed Drilling Report												
Lease:		ULS 5-9 UNIT 6H			API #:		42-003-47576			Report #:		57
Operator:		Zarvona Energy			Spud Date:		1/4/2019 2300			Report Date:		2/23/19
GL	3030'	Depth (MD)	22,935'	County	Andrews	Rig	LATSHAW DRILLING RIG 7			AFE #	NA-5-9-6H	
KB-GL	26	TVD	12,192'	State	Texas	Toolpusher	Malcom Moody			Job#		
				Co Supv	Ron Kidd		Bobby Miller					
				Co Supv	Juan Garza							
PRESENT OPERATIONS												
Drill Lateral as per Plan 1r6 @ 22,935'.												
Drill Rotate/Slide f/ 22,820' to 22935' ( 115 ft. @ 15.117.6 fph ) .Rig Service, Circ 3 b/up's, Pump out of hole to 11,335'												
DRILL PIPE							BHA 8 Lateral					
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT				LENGTH	
719	22,809	4"	14	S-135	XT-39	3.34	Bit Halliburton mm74d				0.86	
							MM-Rubicon 7/8 3.8, 1.5",Tru-slick, RPG 0.55				24.01	
							STB 5-3/4" NM Nortrak (Stabil Drill)				4.11	
LAST CASING STRINGS							UHBO / Gordon Tech					3.14
SIZE	TOP		WT	GRADE	CONN		(2) NM DC'S / Aim				60.11	
20"	0	80					STB 5-3/4" NM Nortrak (Stabil Drill)				6.15	
7"	0	11324	29	HC P110	LTC		XO-SUB 3.41+ 4" DP - 66 jts				2095.80	
							5" Agitator -NOV 7854-0				25.86	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37				1530.78	
							48 jts 4" DP + 5" Accelgilde (Drilformance) 5.37				1531.42	
							TOTAL				5282.24	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS								
6:00	12:30	6.50		Drill Lateral / Rotate - f/ 22,820' to 22,935' TD ( 115 ft @ 17.6 fph ) WOB 15 , RPM 35, GPM 235 , SPP 4320, off BTM 4030 DIFF 150-350, Torq 8.5 - 11k -, Gr 112 ( Pump 30 bbls Sweep @ 22905' )								
12:30	16:30	4.00		Circ 3- b/u & work pipe @ 90 rpm , 2- 30 bbls Sweep								
16:30	2:30	10.00		Pump out of hole @ 175 gpm , 1 min/per std to 14,262'								
2:30	3:00	0.50		Clean & check saver sub TX-39 CONN								
3:00	6:00	3.00		Continue to Pump out of hole @ 175 gpm , 1 min/per std to 11,335'								
				NOTE: WITH MUD PUMP & ROT - ROT W.T 175 , P/U W.T 184 , S/O 167 , ROT-TORQ 6350 / 6500								
				WITH NO PUMP & ROT - P/U WT 220 , S/O 162								
				WITH NO PUMP BUT WITH 20 RPM S/O WT 168 / 177 , ROT-TORQ 6800 / 7900								
TOTAL		24.0										
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS				
ROTATING	175	Bkgd Gas	0	Start	9799	Cuttings		Pump No.	No. 1	No. 2		
UP	175	Conn Gas	0	Received	0	Surface		Make/Model	WH-1612	WH-1612		
DOWN	170	Trip Gas	0					Modules	7500	7500		
TORQUE (K)	6.8-7.9	Max Gas	0	End	8404	Hole		SPR (SPM)				
				Used	1389	Centrifuge		@ # (psi)				
				Rate (\$/gal)	\$2.40	TANK 1	11	Stroke, in.	12	12		
				Total Cost (\$)	\$113,429.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%		
BIT RECORD		MUD										
Number	13	Type	OBM	Solids	16.3%	TANK 3	250	S.P.M.		87		
Size, in.	6.1/8	Time	12:30 PM	O/W Cont.	64.7/19.0	TANK 4	264	Rate, G.P.M.		252		
Type	MM74D	Company	FOSSIL	O/W Ratio	77/23	TOTAL		703	Press, psi	4352		
code		FL Temp (deg F)	105	Alk P mud	4.7	Note						
Serial No.	12596616	Depth	22695	Lime	6.11	ON Loc MT 0						
Jets, 32nds	3X16 4X12	Density ppg	10.9	Salt		Mud diesel 0 gal used						
W.O.B., lb.	15	Viscosity	69	600/300		Days Crew:		5	BOP DRILLS			
R.P.M.	25/35	PV/YP	18/8	Chlorides	47,000	Nights Crew:		5				
Depth out, ft	22935	Gels: I/10	6/11	El. Stab	774							
Depth in, ft	17,267	API W/L		WPS								
Footage	5668	HTHP W/L	4	Calcium	279,484	Rig NP1	0.5					
Hours	267	Cake API/HTH	1	LGS	6.40%	Service co NP1	0					
Mfgr	Halliburton	PH				Days from spud:	50.3					

Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H		API #: 42-003-47576		Report #: 58						
Operator: Zarvona Energy		Spud Date: 1/4/2019 2300		Report Date: 2/24/19						
GL	3030'	Depth (MD)	22,935'	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,192'	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	Ron Kidd		Bobby Miller			
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
<p>Pump out of hole @ 175 gpm , 1 min/per std to 11,335' Pump &amp; spot 13.4 ppg pill. Drop drill pipe Rabbit , Remove Rotating head , install trip nipple , POH. Lay down BHA , l/d all subs , x-o and load tools on truck. Clean rig floor &amp; Change out saver sub on top drive. Rig up Butch's casing crews-tools. Conduct Safety Meeting with Butch's Casing crew and rig crew. Make up Float shoe, pup jt, float collar, landing collar, pup jt, Toe-sub. Run 91 jts of 4-1/2" 15# casing in the hole to 3702' - Elevator hang on Casing collar, and bumping casing on slips, Slip release, thus dropping casing in hole. Call out for fishing tools (Yellow Jacket) - released casing crews and laydown unit. Wait on fishing tool.</p>										
DRILL PIPE							FISHING ASSEMBLY			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
719	22,809	4"	14	5-135	XT-39	3.34	5-7/8" OVERSHOT		3.48	
							4-3/4" LUBE BUMPER JAR		7.90	
							4-3/4" OIL JAR		13.31	
							X-O SUB 3-1/2" IF x 4" XT-39		1.68	
LAST CASING STRINGS										
SIZE	TOP		WT	GRADE	CONN					
20"	0	80								
7"	0	11324	29	HC P110	LTC					
							TOTAL		26.37	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	6:30	0.50		Pump out of hole @ 175 gpm , 1 min/per std to 11,335'						
6:30	7:30	1.00		Pump & spot 13.4 ppg pill						
7:30	13:00	5.50		Drop drill pipe Rabbit , Remove Rotating head , install trip nipple , Trip out						
13:00	14:30	1.50		Lay down BHA , l/d all subs , x-o and load tools on truck						
14:30	16:30	2.00		Clean rig floor & Change out saver sub on top drive						
16:30	18:00	1.50		Rig up Butch's casing crews-tools						
18:00	19:30	1.50		Conduct Safety Meeting with Butch's Casing crew and rig crew. Make up Float shoe, pup jt, float collar, landing collar, pup jt, Toe-sub.						
19:30	23:00	3.50		Run 91 jts of 4-1/2" 15# casing in the hole to 3702' - Elevator hang on Casing collar, and bumping casing on slips, Slip release, thus dropping casing in hole.						
23:00	5:00	6.00	Latshaw	Call out for fishing tools (Yellow Jacket) - released casing crews and laydown unit. Wait on fishing tool.						
5:00	6:00	1.00	Latshaw	Off load fishing tools from shot truck. Measured and caliper tools. Pick up fishing tools.						
TOTAL		24.0		Notified TXRRC. 2/24/19 @ 11:30 AM Sarah-Operator #7.						
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS		
ROTATING	175	Bkgd Gas	0	Start	8404	Cuttings		Pump No.	No. 1	No. 2
UP	175	Conn Gas	0	Received	0	Surface		Make/Model	WH-1612	WH-1612
DOWN	170	Trip Gas	0					Modules	7500	7500
TORQUE (K)	6.8-7.9	Max Gas	0	End	7600	Hole		SPR (SPM)		
				Used	461	Centrifuge		@ # (psi)		
				Rate (\$/gal)	\$2.40			Stroke, in.	12	12
				Total Cost (\$)	\$113,429.00	TANK 1	11	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%
BIT RECORD		MUD				TANK 2	178	S.P.M.		
Number	13	Type	OBM	Solids	16.2%	TANK 3	250	Rate, G.P.M.		
Size, in.	6.1/8	Time	12:30 PM	O/W Cont.	64.8/19.0	TANK 4	264	Press, psi		
Type	MM74D	Company	FOSSIL	O/W Ratio	77/23	Note				
code		FL Temp (deg F)	surface	Alk P mud	4.6	ON Loc MT 0				
Serial No.	12596616	Depth	22935	Lime	5.98	Mud diesel 0 gal used				
Jets, 32nds	3X16 4X12	Density ppg	11	Salt		Days Crew: 5 BOP DRILLS				
W.O.B., lb.	15	Viscosity	91	600/300		Nights Crew: 5				
R.P.M.	25/35	PV/YP	17/9	Chlorides	47,500					
Depth out, ft	22935	Gels: I/10	6/11	El. Stab	777					
Depth in, ft	17,267	API W/L		WPS						
Footage	5668	HTHP W/L	4	Calcium	281,620	Rig NP1		0.5		
Hours	267	Cake API/HTH	1	LGS	5.40%	Service co NP1		0		
Mfgr	Halliburton	PH				Days from spud:		51.3		

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Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H Operator: Zarvona Energy				API #: 42-003-47576 Spud Date: 1/4/2019 2300				Report #: 60 Report Date: 2/26/19		
GL	3030'	Depth (MD)	22,935'	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,192'	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	DC Torres		Bobby Miller			
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
Trip/Pump out of hole @ 175 gpm , 1 min/per std from 22,935'.to 21,389'.										
Finished POH Laying down 4-1/2" #15.1 P-110 BKHT & BK CASING -LINER, a toal of 91 jts. Rig down Butch's casing crew & lay down unit. Slip & Cut drill line. Clean rig floor from oil base mud. Make up 6-1/8 PDC Bit & bit sub w/floater. TIH to 11,214'. (fill up pipe every 40 stds). Circ Bottom up @ 11,214'. Continue to TIH to 22,846'. (fill up pipe every 40 stds). Wash and ream from 22,759' to 22935' (176") Circulate x 2 bottom's up. Mud wt 10.9 ppg. Trip/ Pump out of hole @ 175 gpm , 1 min/per std from 22,935' to 21,389'.										
DRILL PIPE							FISHING ASSEMBLY			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
723	22,936	4"	14	S-135	XT-39	3.34	Bit Sub bored -3-1/2" Reg Box x XT-39 box		4.87	
							ID. 1-3/4" Float (2F-3F float valve) SS P-33170			
							240 stds 4" S-135 14.00 # DP w/ 4" XT-39 conn.		22841.48	
LAST CASING STRINGS							2 jts DP		63.26	
SIZE	TOP		WT	GRADE	CONN		1 jts DP - KDJ		25.39	
20"	0	80								
7"	0	11324	29	HC P110	LTC					
							TOTAL LENGTH		22935.00	
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	8:00	2.00	Latshaw	Finished POH Laying down 4-1/2" #15.1 P-110 BKHT & BK CASING -LINER, a toal of 91 jts.						
8:00	9:00	1.00	Latshaw	Rig down Butch's casing crew & lay down unit.						
9:00	11:00	2.00	Latshaw	Slip & Cut drill line.						
11:00	12:00	1.00	Latshaw	Clean rig floor from oil base mud.						
12:00	17:00	5.00	Latshaw	Make up 6-1/8 PDC Bit & bit sub w/floater. TIH to 11,214'. (fill up pipe every 40 stds)						
17:00	18:30	1.50	Latshaw	Circ Bottom up @ 11,214'.						
18:30	0:00	5.50	Latshaw	Continue to TIH to 22,846'. (fill up pipe every 40 stds)						
0:00	4:00	4.00	Latshaw	Wash and ream from 22,759' to 22935' (176") Circulate x 2 bottom's up. Mud wt 10.9 ppg.						
4:00	6:00	2.00	Latshaw	Trip/Pump out of hole @ 175 gpm , 1 min/per std from 22,935' to 21,389'						





Detailed Drilling Report										
Lease: ULS 5-9 UNIT 6H				API #: 42-003-47576				Report #: 63		
Operator: Zarvona Energy				Spud Date: 1/4/2019 2300				Report Date: 3/1/19		
GL	3030'	Depth (MD)	22,935'	County	Andrews	Rig	LATSHAW DRILLING RIG 7		AFE #	NA-5-9-6H
KB-GL	26	TVD	12,192'	State	Texas	Toolpusher	Malcom Moody		Job#	
				Co Supv	DC Torres		Bobby Miller			
				Co Supv	Juan Garza					
PRESENT OPERATIONS										
Lay down 4" DP. (371 joints out)										
Pump down setting ball to landing collar @ 175gpm 450psi, stage pressure to 2700 psi. slack off wt to 100k, Pressure to 3200 psi, blew ball set packer. Rotate and released setting tool. P/U string , lost 50k , set 30k to cement. * Ran 4.5 liner to 22, 108' Top @ 10157'. Held safety meeting with BJ Cewmenter and Latshaw crew. Rig up BJ cement tools. Comence 4-1/2" liner cement operations, Test line to 8000 psi. Pump 20 bbls spacer @11.5 ppg.+ 1356 sks= 315 bbls slurry @14.2 ppg. Shut down wash lines. Drop plug 20 bbls biocide sugar mix.displaced w/ 279 bbls total . Bump plug w/ 4700-6030. bled back 4 bbls . Float ok. Set packer & Sting out of liner. Circ. top of liner. Circ. OBM out of hole, spacer & 55 bbls back of cmt. Test liner packer to 2500 psi. 10min ok. rig down BJ. rig up laydown machine . Laydown 4" DP.										
DRILL PIPE							4-1/2" liner assembly			
# JTS	LENGTH	OD	WT	GRADE	CONN	ID	EQUIPMENT		LENGTH	
723	22,936	4"	14	S-135	XT-39	3.34	Float shoe		1.41	
							4.5" 15.1 # BK P-110 Pub joint		20.90	
							Float collar		2.33	
							"PLB" Landing collar		1.33	
LAST CASING STRINGS							4.5" 15.1 # BK P-110 Pub joint			
SIZE	TOP		WT	GRADE	CONN		ZSTD Toe Sleeve 12,500 psi.		6.74	
20"	0	80					290 jts of stds 4-1/2" 15.1 # P-110 BK		11870.57	
7"	0	11324	29	HC P110	LTC		Weatherford Hanger assembly & Liner		26.68	
							Running tools / 4" 14# XT-39 PUB JT			
							4" S-135 14.00 # DP w/ 4" XT-39 conn.			
							TOTAL LENGTH			
START TIME	END TIME	HOURS	NPT	DAILY OPERATIONS						
6:00	6:30	0.50		Pump down setting ball to landing collar @ 175gpm 450psi, stage pressure to 2700 psi. slack off wt to 100k, Pressure to 3200 psi, blew ball set packer. Rotate and released setting tool. P/U string , lost 50k , set 30k to cement. * Ran 4.5 liner to 22, 108' *TOL@ 10157'						
6:30	8:00	1.50		Held safety meeting with BJ Cewmenter and Latshaw crew. Rig up BJ cement tools.						
8:00	12:30	4.50		sks= 315 bbls slurry @14.2 ppg. Shut down wash lines. Pump 2.5bbls sugar water & drop plug & pump 17.5 bbls biocide sugar mix.displaced w/ 279 bbls total . Bump plug w/ 4700-6030. bled back 4 bbls . Float ok. Set packer & Sting out of liner. Circ. top of liner. Circ. OBM out of hole, spacer & 55 bbls back of cmt. Test liner packer to 2500 psi, 10min ok.						
12:30	1:30	1.00		Rig down BJ and cmt head.						
1:30	2:00	0.50		Clean rig floor., Waiting on Butchs L/D machine						
2:00	2:30	0.50		Service Rig & TDS.						
2:30	3:30	1.00		Rig up laydown machine.						
3:30	0:00	8.50		PJSM- Lay down 108 std 4 " DP.						
0:00	0:30	0.50		Lay down Weatherford hanger running tool.						
0:30	4:00	3.50		TIH 90 stds (8500')						
4:00	6:00	2.00		PJSM- Lay down 90 std 4 " DP.						
TOTAL		24.0								
STRING WEIGHT		GAS		DIESEL (GAL)		TOTAL OBM LOSS		HYDRAULICS		
ROTATING	175	Bkgd Gas	0	Start	10000	Cuttings		Pump No.	No. 1	No. 2
UP	175	Conn Gas	0	Received	0	Surface		Make/Model	WH-1612	WH-1612
DOWN	170	Trip Gas	0					Modules	7500	7500
TORQUE (K)	6.8-7.9	Max Gas	0	End	9001	Hole		SPR (SPM)		
				Used	999	Centrifuge		@ # (psi)		
				Rate (\$/gal)	\$2.40	TANK 1	11	Stroke, in.	12	12
				Total Cost (\$)	\$182,935.00	TANK 2	178	Liner / bbls sks	5" / 0.069 / 95%	5" / 0.069 / 95%
BIT RECORD		MUD		TANK 3	125	S.P.M.				
Number		Type	OBM	Solids	16.7%	TANK 4	264	Rate, G.P.M.		252
Size, in.		Time	12:30 PM	O/W Cont.	64.8/18.5	TOTAL	578	Press, psi		4352
Type		Company	FOSSIL	O/W Ratio	78/22	Note				
code		FL Temp (deg F)	surface	Alk P mud	4.5	ON Loc MT 0				
Serial No.		Depth	22935	Lime	5.85	Mud diesel 0 gal used				
Jets, 32nds		Density ppg	11	Salt		Days Crew: 5 BOP DRILLS				
W.O.B., lb.		Viscosity	98	600/300		Nights Crew: 5				
R.P.M.		PV/YP	18/8	Chlorides	47,000					
Depth out, ft		Gels: I/10	6/11	El. Stab	731					
Depth in, ft		API W/L		WPS						
Footage		HTHP W/L	4	Calcium	284,886	Rig NPT	0.5			
Hours		Cake API/HTH	1	LGS	5.60%	Service co NPT	0			
Mfgr		PH				Days from spud:	56.3			