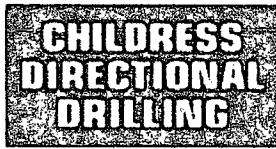


API #: 30-015-41287

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DEC 04 2013

Customer: Lime Rock Resources	Rig: UDI #33	SHLY NMOC-ARTESIA
Lease, Well No.: Eagle 34F Federal # 69	Job No.:	
County or Parrish: Eddy County	Location or Area: Artesia NM	Mag Decl.: 7.67



	Calculated f/ Targets	Sensor			
	KBTVD (@ 0' VS)	TVD			
	Dip Angle (+Dn/-Up)	N/-S			
		E/-W			

Tie-In Survey Co.:	Minimum Curvature Calculations	Rates / 100' M.D.		Dist f/ Target Line
Surveying Company: Childress Directional	Proposed Azimuth: 286.23°	Build or R or -L	Course	Above or Right or
		-Drop -Turn	Length	-Below -Left

Survey No	M.D.	INCL.	AZM.	TVD	N / -S	E / -W	V. SECT.	DLS / 100'	
Tie-In	0.00	0.00	0.00	0.00'	0.00'	0.00'	0.00'	0.00'	
1.	445.00	0.40	21.90	445.00'	1.44'	0.58'	-0.15'	0.09°	
2.	475.00	0.70	2.90	474.99'	1.72'	0.63'	-0.12'	1.16°	
3.	505.00	1.20	314.60	504.99'	2.13'	0.41'	0.20'	3.00°	
4.	536.00	2.40	304.20	535.98'	2.72'	-0.35'	1.10'	4.00°	
5.	565.00	2.70	298.90	564.95'	3.39'	-1.45'	2.34'	1.31°	
6.	597.00	3.70	292.80	596.90'	4.15'	-3.07'	4.11'	3.30°	
7.	629.00	4.50	289.10	628.81'	4.96'	-5.20'	6.38'	2.63°	
8.	661.00	4.70	286.80	660.71'	5.75'	-7.65'	8.95'	0.85°	
9.	693.00	4.90	292.60	692.60'	6.66'	-10.16'	11.62'	1.64°	
10.	725.00	5.60	297.00	724.46'	7.89'	-12.82'	14.51'	2.52°	
11.	757.00	6.70	291.40	756.28'	9.28'	-15.95'	17.90'	3.91°	
12.	789.00	8.10	288.40	788.01'	10.68'	-19.82'	22.02'	4.54°	
13.	822.00	8.70	285.60	820.66'	12.08'	-24.43'	26.84'	2.20°	
14.	854.00	9.10	286.10	852.27'	13.43'	-29.19'	31.79'	1.27°	
15.	886.00	10.20	284.90	883.82'	14.86'	-34.36'	37.15'	3.49°	
16.	918.00	10.60	284.00	915.30'	16.30'	-39.96'	42.92'	1.35°	
17.	950.00	10.60	283.50	946.75'	17.70'	-45.68'	48.80'	0.29°	
18.	982.00	11.40	283.80	978.16'	19.14'	-51.61'	54.90'	2.51°	
19.	1015.00	12.30	284.50	1,010.46'	20.80'	-58.18'	61.68'	2.76°	
20.	1047.00	13.20	285.80	1,041.67'	22.65'	-65.00'	68.74'	2.95°	
21.	1079.00	13.60	286.50	1,072.80'	24.71'	-72.12'	76.15'	1.35°	
22.	1111.00	13.60	286.30	1,103.90'	26.84'	-79.34'	83.68'	0.15°	
23.	1143.00	14.20	285.40	1,134.96'	28.94'	-86.73'	91.36'	1.99°	
24.	1240.00	12.70	283.10	1,229.30'	34.51'	-108.59'	113.91'	1.64°	
25.	1336.00	13.20	283.50	1,322.86'	39.46'	-129.52'	135.39'	0.53°	
26.	1432.00	13.80	281.00	1,416.21'	44.21'	-151.42'	157.74'	0.87°	
27.	1529.00	12.00	282.90	1,510.75'	48.67'	-172.61'	179.33'	1.91°	
28.	1625.00	9.80	283.50	1,605.02'	52.80'	-190.28'	197.46'	2.29°	
29.	1720.00	6.90	290.70	1,699.00'	56.71'	-203.49'	211.23'	3.24°	
30.	1816.00	3.80	270.50	1,794.58'	58.77'	-212.06'	220.04'	3.73°	
31.	1912.00	0.60	235.70	1,890.50'	58.52'	-215.66'	223.42'	3.46°	
32.	2008.00	0.70	307.20	1,986.49'	58.59'	-216.54'	224.29'	0.80°	
33.	2105.00	0.60	317.20	2,083.49'	59.32'	-217.36'	225.28'	0.16°	
34.	2201.00	0.30	323.90	2,179.48'	59.89'	-217.85'	225.91'	0.32°	
35.	2297.00	0.30	338.70	2,275.48'	60.33'	-218.09'	226.26'	0.08°	
36.	2394.00	0.90	146.50	2,372.48'	59.93'	-217.76'	225.83'	1.23°	
37.	2490.00	1.10	151.50	2,468.47'	58.49'	-216.91'	224.61'	0.23°	

38.	2586.00	0.90	152.20	2,564.45'	57.02'	-216.11'	223.44'	0.21°
39.	2683.00	1.10	151.30	2,661.44'	55.53'	-215.31'	222.25'	0.21°
40.	2779.00	0.20	84.00	2,757.43'	54.73'	-214.70'	221.44'	1.08°
41.	2875.00	0.30	109.40	2,853.43'	54.67'	-214.30'	221.04'	0.15°
42.	2971.00	0.20	121.20	2,949.43'	54.50'	-213.92'	220.63'	0.12°
43.	3068.00	0.20	99.40	3,046.43'	54.38'	-213.61'	220.29'	0.08°
44.	3164.00	0.20	124.40	3,142.43'	54.26'	-213.30'	219.97'	0.09°
45.	3260.00	0.20	192.60	3,238.43'	54.00'	-213.20'	219.80'	0.23°
46.	3356.00	0.30	177.10	3,334.43'	53.59'	-213.23'	219.71'	0.12°
47.	3452.00	0.20	144.40	3,430.42'	53.20'	-213.12'	219.49'	0.18°
48.	3548.00	0.10	118.00	3,526.42'	53.03'	-212.94'	219.28'	0.12°
49.	3644.00	0.40	90.00	3,622.42'	52.99'	-212.54'	218.87'	0.33°
50.	3746.00	0.90	153.60	3,724.42'	52.27'	-211.82'	217.99'	0.79°
51.	3845.00	0.80	167.30	3,823.41'	50.90'	-211.33'	217.13'	0.23°
52.	3941.00	0.50	178.20	3,919.40'	49.83'	-211.16'	216.68'	0.34°
53.	4036.00	0.20	135.50	4,014.40'	49.29'	-211.04'	216.40'	0.40°
54.	4133.00	0.30	123.50	4,111.40'	49.03'	-210.71'	216.01'	0.12°
55.	4230.00	0.60	323.70	4,208.40'	49.30'	-210.79'	216.17'	0.92°
56.	4326.00	0.70	325.30	4,304.39'	50.19'	-211.43'	217.03'	0.11°
57.	4422.00	0.80	334.60	4,400.38'	51.28'	-212.05'	217.93'	0.16°
58.	4518.00	0.40	339.40	4,496.38'	52.20'	-212.45'	218.57'	0.42°
59.	4614.00	0.30	316.00	4,592.37'	52.69'	-212.74'	218.99'	0.18°
60.	4729.00	0.40	274.00	4,707.37'	52.93'	-213.35'	219.65'	0.23°
PTB	4774.00	0.40	274.00	4,752.37'	52.96'	-213.67'	219.95'	0.00°

The above survey data is true and correct, complete and within the limitations of the tool as set forth by Childress Directional Drilling, LLC; that I am authorized and qualified to make this report; that this survey was conducted at the request of Lime Rock Resources; that I reviewed these MWD Surveys and find they conform to the principles and procedures as set forth by Childress Directional Drilling.

Regards,



Art Poffenroth
MWD Manager
Childress Directional Drilling, LLC