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JUL 11 2013

NMOCD ARTESIA

30-015-41081

Customer: Lime Rock Resources	Rig: United #33	SHL X:
Lease, Well No.: AID 24 State #25	Job No.: CDD-13054	SHL Y:
County or Parrish: Eddy County, NM	Location or Area: 16.9 Miles East of Artesia, NM	Mag. Decl.:

**CHILDRESS
DIRECTIONAL
DRILLING**

Calculated f/ Targets

KBTVD (@ 0° VS)

Dip Angle (+Dn/-Up)

Sensor

43.66

TVD

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: 248.08°			Build or	R or -L	Course	Above or	Right or
Survey No.	M.D.	INCL.	AZM.	TVD	N / -S	E / -W	V. SECT.	DLS / 100'	-Drop	-Turn	Length	-Below	-Left
Tie-In	0.00	0.00	0.00	0.00'	0.00'	0.00'	0.00'	0.00'					

1.	501.00	0.70	239.30	500.99'	-1.56'	-2.63'	3.02'	0.14°			501.00'		
2.	563.00	0.80	217.00	562.98'	-2.10'	-3.22'	3.77'	0.49°			62.00'		
3.	627.00	0.80	220.70	626.98'	-2.80'	-3.78'	4.55'	0.08°			64.00'		
4.	691.00	4.70	245.50	690.89'	-4.22'	-6.46'	7.57'	6.23°			64.00'		
5.	755.00	6.00	247.80	754.61'	-6.57'	-11.94'	13.53'	2.06°			64.00'		
6.	819.00	7.20	249.50	818.19'	-9.24'	-18.79'	20.89'	1.90°			64.00'		
7.	883.00	9.60	253.60	881.50'	-12.16'	-27.67'	30.21'	3.86°			64.00'		
8.	948.00	10.50	251.60	945.50'	-15.56'	-38.49'	41.51'	1.48°			65.00'		
9.	1012.00	10.80	252.00	1,008.39'	-19.25'	-49.73'	53.32'	0.48°			64.00'		
10.	1076.00	11.50	248.30	1,071.19'	-23.46'	-61.36'	65.68'	1.56°			64.00'		
11.	1140.00	11.30	244.40	1,133.93'	-28.53'	-72.94'	78.32'	1.24°			64.00'		
12.	1204.00	10.50	243.90	1,196.77'	-33.80'	-83.83'	90.39'	1.26°			64.00'		
13.	1268.00	9.60	241.30	1,259.79'	-38.93'	-93.75'	101.51'	1.57°			64.00'		
14.	1333.00	9.00	237.70	1,323.93'	-44.25'	-102.80'	111.89'	1.29°			65.00'		
15.	1397.00	10.10	242.50	1,387.05'	-49.52'	-112.01'	122.40'	2.12°			64.00'		
16.	1461.00	10.00	243.70	1,450.07'	-54.57'	-121.97'	133.52'	0.36°			64.00'		
17.	1525.00	9.60	243.40	1,513.13'	-59.42'	-131.72'	144.38'	0.63°			64.00'		
18.	1589.00	8.40	245.10	1,576.34'	-63.78'	-140.74'	154.37'	1.92°			64.00'		
19.	1653.00	7.40	256.00	1,639.74'	-66.75'	-148.98'	163.12'	2.81°			64.00'		
20.	1717.00	6.50	260.60	1,703.27'	-68.34'	-156.55'	170.74'	1.65°			64.00'		
21.	1781.00	2.40	252.50	1,767.06'	-69.33'	-161.40'	175.62'	6.47°			64.00'		
22.	1845.00	1.70	302.10	1,831.02'	-69.23'	-163.48'	177.51'	2.86°			64.00'		
23.	1910.00	1.00	18.20	1,896.01'	-68.18'	-164.12'	177.71'	2.70°			65.00'		
24.	1974.00	1.20	42.60	1,960.00'	-67.15'	-163.50'	176.75'	0.79°			64.00'		
25.	2038.00	1.10	32.60	2,023.99'	-66.14'	-162.71'	175.64'	0.35°			64.00'		
26.	2102.00	1.30	34.90	2,087.97'	-65.03'	-161.97'	174.53'	0.32°			64.00'		
27.	2166.00	1.20	26.30	2,151.96'	-63.83'	-161.25'	173.43'	0.33°			64.00'		
28.	2230.00	1.30	38.80	2,215.94'	-62.67'	-160.50'	172.29'	0.45°			64.00'		
29.	2358.00	1.30	23.80	2,343.91'	-60.21'	-159.01'	169.99'	0.27°			128.00'		
30.	2487.00	1.60	92.40	2,472.88'	-58.94'	-156.62'	167.30'	1.28°			129.00'		
31.	2615.00	1.70	94.80	2,600.82'	-59.18'	-152.94'	163.97'	0.09°			128.00'		
32.	2743.00	1.70	79.20	2,728.77'	-58.98'	-149.18'	160.41'	0.36°			128.00'		
33.	2872.00	1.50	74.30	2,857.72'	-58.16'	-145.68'	156.86'	0.19°			129.00'		
34.	3000.00	0.50	94.70	2,985.70'	-57.76'	-143.51'	154.69'	0.82°			128.00'		
35.	3128.00	0.20	102.60	3,113.69'	-57.85'	-142.73'	154.01'	0.24°			128.00'		
36.	3256.00	0.40	29.30	3,241.69'	-57.51'	-142.30'	153.48'	0.31°			128.00'		
37.	3385.00	0.40	19.60	3,370.69'	-56.69'	-141.92'	152.83'	0.05°			129.00'		
38.	3513.00	0.90	236.00	3,498.68'	-56.84'	-142.61'	153.51'	0.97°			128.00'		

39.	3641.00	0.90	262.40	3,626.67'	-57.53'	-144.44'	155.47'	0.32°	128.00'
40.	3769.00	0.80	288.90	3,754.66'	-57.37'	-146.28'	157.12'	0.31°	128.00'
41.	3897.00	0.60	264.30	3,882.65'	-57.15'	-147.79'	158.44'	0.28°	128.00'
42.	4026.00	0.70	274.10	4,011.64'	-57.16'	-149.25'	159.80'	0.12°	129.00'
43.	4154.00	0.90	289.30	4,139.63'	-56.77'	-150.98'	161.26'	0.23°	128.00'
44.	4287.00	0.70	292.10	4,272.61'	-56.12'	-152.72'	162.63'	0.15°	133.00'
45.	4415.00	0.80	309.60	4,400.60'	-55.26'	-154.13'	163.62'	0.19°	128.00'
46.	4543.00	1.10	304.70	4,528.58'	-53.99'	-155.83'	164.72'	0.24°	128.00'
47.	4670.00	0.50	107.80	4,655.58'	-53.47'	-156.30'	164.96'	1.25°	127.00'
48.	4797.00	0.40	77.80	4,782.57'	-53.54'	-155.34'	164.10'	0.20°	127.00'
49.	4924.00	0.40	5.90	4,909.57'	-53.01'	-154.86'	163.46'	0.37°	127.00'
50.	5051.00	0.40	72.90	5,036.57'	-52.43'	-154.39'	162.81'	0.35°	127.00'
51.	5177.00	0.60	30.00	5,162.57'	-51.73'	-153.64'	161.85'	0.33°	126.00'
52.	5304.00	0.80	47.60	5,289.56'	-50.56'	-152.66'	160.50'	0.23°	127.00'
53.	5370.00	0.90	44.40	5,355.55'	-49.88'	-151.95'	159.59'	0.17°	66.00'
PTB				5,399.54'	-49.39'	-151.47'	158.96'	0.00°	0.00°
									44.00'

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