MS Energy Services

7821 Will Rogers Blvd.
Fort Worth, Texas 76140

817.568.1038 (office)
817.568.1499 (fax)
www.msenergyservices.com

Survey Company:	MS Energy Services
MWD Surveyor Name:	Tim Little
Survey Type:	MWD
Operating Company:	Matador Production Co.
Well Name & Number:	Guitar 10-24S-28E RB 201H
API Number:	30-015-43940
Surveyed Depths:	8,785' – 14,267' MD; PTB: 14,338'
Dates Performed:	01/29/2017 – 03/03/2017
Location:	Eddy County, NM

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Energy Services; that I am authorized and qualified to make this report and that I have reviewed this report and find it conforms to the principles and procedures as set forth by MS Energy Services.

Digitally signed by: Tim Little

Title: MWD Field Specialist

Date: 2017-03-15

Email: tlittle@msenergyservices.com

MS Energy Services

V09.04.02

SURVEY CALCULATION PROGRAM

3/15/17 19:54

Company:	Matador Production Co.		
Well Name:	Guitar 10-24S-28E RB 201H		
Location:	Eddy County, NM		
Rig:	Patterson #297	Magnetic Declination:	7.13 REFERENCED TO GRID NORTH
Job Number:	DDMO-170029		
API #:	30-015-43940		
Vertical Section Azimuth:	270.13	Proposed Direction:	270.13
Survey Calculation Method:	Minimum Curvature		

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	14,338	92.9	269.4	9460.14	529.38	-5360.36	5361.54

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Closure Azm	DLS/ 100	BUR/ 100'
TIE IN	8,671	0.42	23.07	8647.34	306.45	-311.54	312.23	437.00	314.53		
1	8,785	0.20	2.70	8761.34	307.03	-311.37	312.06	437.29	314.60	0.21	-0.19
2	8,856	3.10	323.50	8832.30	308.70	-312.50	313.20	439.27	314.65	4.15	4.08
3	8,903	9.40	318.40	8879.00	312.60	-315.81	316.52	444.36	314.71	13.44	13.40
4	8,950	15.50	314.10	8924.87	319.84	-322.88	323.60	454.48	314.73	13.12	12.98
5	8,996	19.20	312.60	8968.77	329.24	-332.86	333.61	468.19	314.69	8.10	8.04
6	9,043	22.70	312.80	9012.66	340.64	-345.21	345.98	484.98	314.62	7.45	7.45
7	9,090	26.10	309.50	9055.46	353.38	-359.84	360.65	504.35	314.48	7.79	7.23
8	9,137	28.90	309.00	9097.14	367.11	-376.65	377.48	525.96	314.26	5.98	5.96
9	9,183	32.00	308.30	9136.79	381.66	-394.86	395.72	549.16	314.03	6.78	6.74
10	9,230	35.60	309.00	9175.84	397.99	-415.27	416.17	575.19	313.78	7.70	7.66
11	9,277	39.10	308.70	9213.20	415.88	-437.47	438.42	603.60	313.55	7.46	7.45
12	9,324	41.90	306.00	9248.94	434.37	-461.75	462.73	633.95	313.25	7.03	5.96
13	9,370	44.40	301.70	9282.50	451.86	-487.87	488.90	664.98	312.81	8.39	5.43
14	9,417	47.30	297.40	9315.24	468.46	-517.21	518.27	697.82	312.17	9.01	6.17
15	9,464	50.10	293.50	9346.27	483.60	-549.09	550.18	731.69	311.37	8.62	5.96
16	9,511	52.60	290.50	9375.62	497.33	-583.12	584.24	766.40	310.46	7.29	5.32
17	9,558	55.70	286.40	9403.15	509.36	-619.25	620.40	801.82	309.44	9.67	6.60
18	9,605	58.60	283.30	9428.65	519.46	-657.41	658.58	837.86	308.31	8.29	6.17
19	9,652	61.30	282.90	9452.18	528.68	-697.03	698.22	874.84	307.18	5.79	5.74
20	9,699	64.10	279.30	9473.74	536.70	-738.00	739.21	912.52	306.03	9.04	5.96
21	9,745	68.20	277.70	9492.34	542.91	-779.60	780.83	950.01	304.85	9.46	8.91
22	9,792	72.00	275.60	9508.34	548.01	-823.49	824.73	989.16	303.64	9.11	8.09
23	9,867	77.30	270.40	9528.20	551.75	-895.66	896.91	1051.97	301.63	9.73	7.07
24	9,962	83.60	274.00	9543.96	555.37	-989.21	990.47	1134.45	299.31	7.61	6.63
25	10,056	87.20	275.00	9551.49	562.73	-1082.60	1083.87	1220.12	297.46	3.97	3.83
26	10,150	93.20	274.80	9551.17	570.75	-1176.21	1177.51	1307.38	295.88	6.39	6.38
27	10,244	93.00	271.00	9546.08	575.50	-1269.94	1271.24	1394.25	294.38	4.04	-0.21
28	10,338	90.00	265.90	9543.62	572.96	-1363.83	1365.13	1479.29	292.79	6.29	-3.19
29	10,432	90.90	266.20	9542.88	566.48	-1457.60	1458.88	1563.81	291.24	1.01	0.96
30	10,527	91.60	266.50	9540.81	560.43	-1552.39	1553.65	1650.45	289.85	0.80	0.74
31	10,621	90.80	267.50	9538.84	555.52	-1646.24	1647.49	1737.44	288.65	1.36	-0.85
32	10,715	86.60	266.90	9540.97	550.93	-1740.08	1741.32	1825.21	287.57	4.51	-4.47
33	10,810	87.50	267.70	9545.86	546.46	-1834.85	1836.08	1914.49	286.58	1.27	0.95

MS Energy Services

V09.04.02

SURVEY CALCULATION PROGRAM

3/15/17 19:54

Company:	Matador Production Co.				
Well Name:	Guitar 10-24S-28E RB 201H				
Location:	Eddy County, NM				
Rig:	Patterson #297	Magnetic Declination:	7.13	REFERENCED TO GRID NORTH	
Job Number:	DDMO-170029				
API #:	30-015-43940				
Vertical Section Azimuth:	270.13	Proposed Direction:	270.13		
Survey Calculation Method:	Minimum Curvature				

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	14,338	92.9	269.4	9460.14	529.38	-5360.36	5361.54

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Closure Azm	DLS/ 100	BUR/ 100'
34	10,904	89.70	269.00	9548.16	543.75	-1928.77	1930.00	2003.95	285.74	2.72	2.34
35	10,998	92.30	268.20	9546.52	541.46	-2022.72	2023.94	2093.94	284.99	2.89	2.77
36	11,093	90.70	266.80	9544.03	537.31	-2117.59	2118.80	2184.70	284.24	2.24	-1.68
37	11,186	92.90	268.60	9541.11	533.58	-2210.46	2211.67	2273.95	283.57	3.06	2.37
38	11,281	92.80	270.20	9536.38	532.59	-2305.33	2306.54	2366.06	283.01	1.69	-0.11
39	11,375	91.80	267.70	9532.61	530.87	-2399.23	2400.43	2457.26	282.48	2.86	-1.06
40	11,469	90.50	269.70	9530.72	528.74	-2493.18	2494.38	2548.63	281.97	2.54	-1.38
41	11,563	91.00	271.30	9529.49	529.56	-2587.17	2588.36	2640.81	281.57	1.78	0.53
42	11,658	88.20	272.00	9530.16	532.29	-2682.12	2683.32	2734.43	281.23	3.04	-2.95
43	11,747	90.00	272.00	9531.56	535.40	-2771.05	2772.26	2822.30	280.94	2.02	2.02
44	11,845	90.80	271.90	9530.87	538.73	-2868.99	2870.20	2919.13	280.64	0.82	0.82
45	11,939	90.80	270.50	9529.56	540.70	-2962.96	2964.18	3011.89	280.34	1.49	0.00
46	12,033	91.20	270.30	9527.92	541.36	-3056.94	3058.16	3104.50	280.04	0.48	0.43
47	12,127	91.50	269.80	9525.70	541.44	-3150.91	3152.13	3197.09	279.75	0.62	0.32
48	12,221	92.10	269.00	9522.75	540.45	-3244.86	3246.08	3289.56	279.46	1.06	0.64
49	12,315	93.60	269.40	9518.08	539.14	-3338.73	3339.95	3381.98	279.17	1.65	1.60
50	12,408	92.90	270.30	9512.80	538.90	-3431.58	3432.79	3473.64	278.92	1.22	-0.75
51	12,502	92.20	269.60	9508.62	538.82	-3525.49	3526.70	3566.42	278.69	1.05	-0.74
52	12,596	91.90	269.00	9505.26	537.67	-3619.42	3620.63	3659.14	278.45	0.71	-0.32
53	12,690	90.10	269.50	9503.62	536.44	-3713.39	3714.60	3751.94	278.22	1.99	-1.91
54	12,784	89.80	269.40	9503.70	535.54	-3807.39	3808.59	3844.87	278.01	0.34	-0.32
55	12,878	89.80	269.30	9504.03	534.47	-3901.38	3902.58	3937.82	277.80	0.11	0.00
56	12,970	90.00	268.80	9504.19	532.95	-3993.37	3994.57	4028.77	277.60	0.59	0.22
57	13,064	91.10	269.40	9503.29	531.47	-4087.35	4088.55	4121.76	277.41	1.33	1.17
58	13,158	91.00	270.90	9501.56	531.72	-4181.33	4182.53	4215.00	277.25	1.60	-0.11
59	13,252	90.90	270.90	9500.01	533.19	-4275.31	4276.51	4308.43	277.11	0.11	-0.11
60	13,347	91.10	270.90	9498.35	534.68	-4370.28	4371.48	4402.87	276.98	0.21	0.21
61	13,440	91.80	270.80	9496.00	536.06	-4463.24	4464.45	4495.32	276.85	0.76	0.75
62	13,534	91.70	270.20	9493.12	536.88	-4557.19	4558.40	4588.71	276.72	0.65	-0.11
63	13,628	92.90	269.90	9489.35	536.97	-4651.11	4652.32	4682.01	276.59	1.32	1.28
64	13,722	92.30	269.70	9485.09	536.64	-4745.02	4746.22	4775.27	276.45	0.67	-0.64
65	13,816	89.70	267.90	9483.45	534.67	-4838.97	4840.17	4868.42	276.31	3.36	-2.77
66	13,910	92.60	269.40	9481.56	532.45	-4932.91	4934.11	4961.57	276.16	3.47	3.09
67	14,004	93.10	269.00	9476.89	531.14	-5026.79	5027.98	5054.77	276.03	0.68	0.53

MS Energy Services

V09.04.02

SURVEY CALCULATION PROGRAM

3/15/17 19:54

Company:	Matador Production Co.				
Well Name:	Guitar 10-24S-28E RB 201H				
Location:	Eddy County, NM				
Rig:	Patterson #297	Magnetic Declination:	7.13	REFERENCED TO GRID NORTH	
Job Number:	DDMO-170029				
API #:	30-015-43940				
Vertical Section Azimuth:	270.13	Proposed Direction:	270.13		
Survey Calculation Method:	Minimum Curvature				

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	14,338	92.9	269.4	9460.14	529.38	-5360.36	5361.54

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Closure Azm	DLS/ 100	BUR/ 100'
68	14,097	92.80	270.20	9472.10	530.50	-5119.66	5120.85	5147.07	275.92	1.33	-0.32
69	14,192	92.80	269.90	9467.46	530.58	-5214.55	5215.74	5241.47	275.81	0.32	0.00
70	14,267	92.90	269.40	9463.73	530.12	-5289.45	5290.64	5315.95	275.72	0.68	0.13
PTB:	14,338	92.90	269.40	9460.14	529.38	-5360.36	5361.54	5386.43	275.64	0.00	0.00

Company: MATADOR RESOURCES
Lease/Well: GUITAR 10 24 28 RB No./201H

Rig Name: PATTERSON 297
State/County: NEW MEXICO/EDDY
VS-Azi: 270.13 Degrees
Latitude: 32.23712, Longitude: -104.06561
Grid North = True North -0.14 degs (NAD 27)
Grid Correction Applied = -0.14 degs

Depth Reference : RKB=28.5 FEET

DRILLOG MS GYRO SURVEY CALCULATIONS
Filename: run1-01-de_01.ut
Minimum Curvature Method
Report Date/Time: 2/10/2017 / 11:04

VES Survey International
Midland, Texas
432-563-5444
Surveyor: Michael Cook
Guitar 10 24 28 RB No. 201H / API 30-015-43940

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
61.49	0.54	316.22	61.49	0.21	-0.20	0.20	0.29	316.22	0.88
156.10	0.60	327.64	156.09	0.95	-0.78	0.78	1.23	320.82	0.14
250.71	0.71	305.69	250.70	1.72	-1.52	1.53	2.30	318.47	0.29
345.32	0.96	324.66	345.30	2.71	-2.46	2.46	3.66	317.78	0.39
439.93	0.92	303.66	439.90	3.78	-3.55	3.56	5.18	316.79	0.37
534.54	0.71	337.00	534.50	4.74	-4.41	4.42	6.47	317.07	0.54
629.15	0.61	335.77	629.10	5.74	-4.84	4.86	7.51	319.83	0.10
723.76	0.58	316.97	723.71	6.55	-5.38	5.39	8.48	320.61	0.21
818.37	1.35	135.73	818.31	6.10	-4.92	4.94	7.84	321.09	2.04
912.98	1.27	221.96	912.90	4.52	-4.85	4.86	6.63	312.98	1.90
1007.59	1.49	298.88	1007.49	4.33	-6.63	6.64	7.92	303.16	1.83
1102.20	1.33	306.79	1102.07	5.59	-8.59	8.60	10.25	303.03	0.26
1196.81	2.60	321.01	1196.63	7.92	-10.83	10.84	13.41	306.17	1.43
1291.42	2.60	328.19	1291.14	11.41	-13.31	13.34	17.53	310.61	0.34
1386.03	3.42	330.23	1385.62	15.68	-15.84	15.88	22.29	314.71	0.87
1480.64	3.04	330.57	1480.08	20.32	-18.48	18.52	27.46	317.72	0.39

V.E.S. Survey Date: 2/3/2017

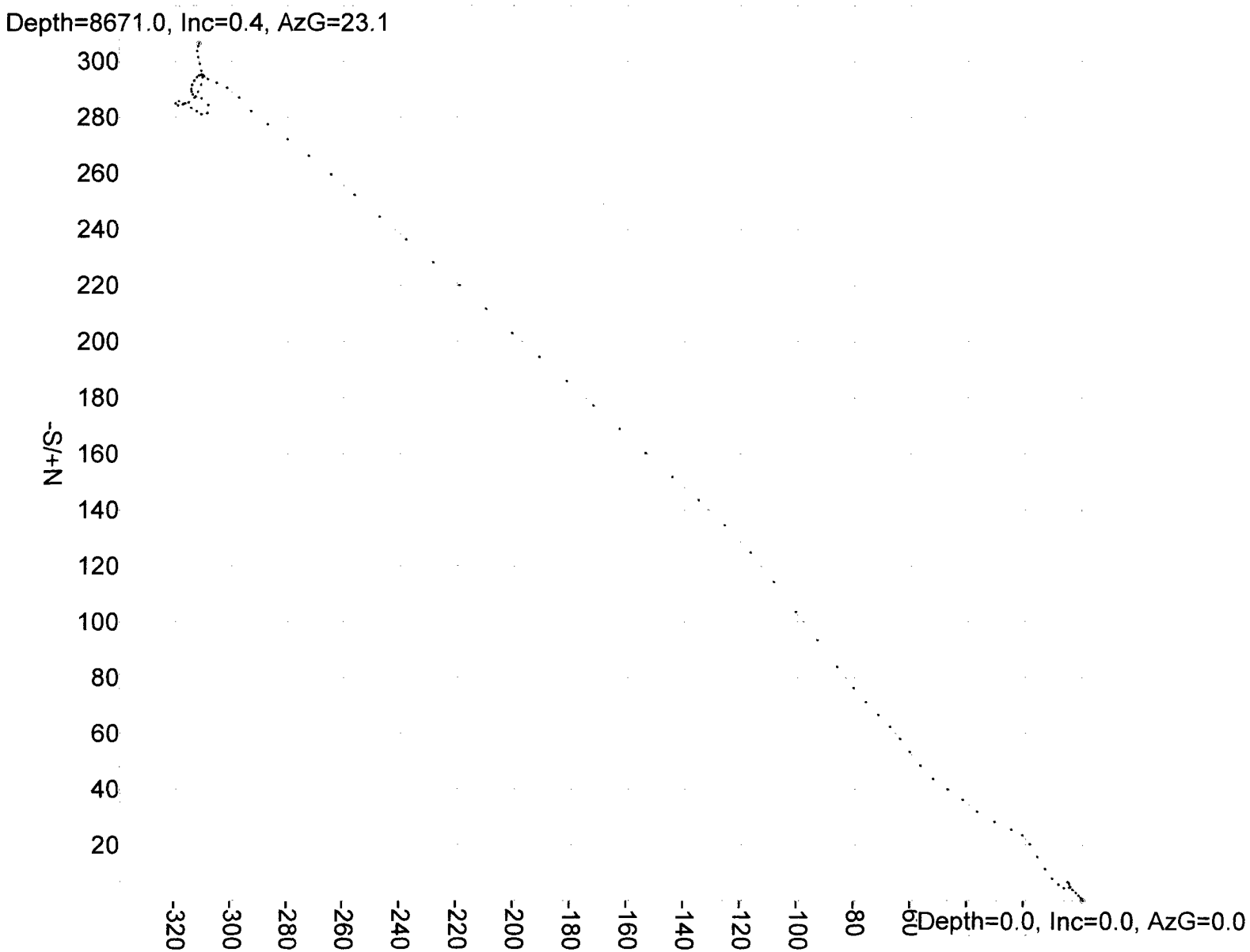
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
1575.25	2.05	302.63	1574.60	23.42	-21.13	21.19	31.54	317.93	1.65
1669.86	3.34	298.28	1669.10	25.63	-24.98	25.04	35.79	315.73	1.38
1764.47	4.67	291.36	1763.48	28.34	-31.00	31.06	42.00	312.44	1.50
1859.08	4.11	312.43	1857.81	32.03	-37.09	37.16	49.01	310.81	1.79
1953.69	3.88	306.16	1952.19	36.21	-42.17	42.26	55.58	310.65	0.52
2048.30	3.90	303.70	2046.59	39.88	-47.44	47.53	61.97	310.05	0.18
2142.91	3.84	312.61	2140.98	43.81	-52.45	52.55	68.34	309.87	0.64
2237.52	4.03	320.43	2235.37	48.52	-56.90	57.01	74.78	310.46	0.60
2332.13	3.41	324.33	2329.78	53.37	-60.66	60.78	80.79	311.34	0.71
2426.74	3.55	322.30	2424.22	57.97	-64.09	64.22	86.42	312.13	0.20
2521.35	3.31	318.88	2518.66	62.35	-67.68	67.82	92.02	312.65	0.33
2615.96	3.85	313.05	2613.08	66.57	-71.79	71.95	97.91	312.84	0.68
2710.57	3.74	321.34	2707.48	71.15	-76.04	76.20	104.14	313.10	0.59
2805.18	4.45	320.41	2801.85	76.39	-80.31	80.48	110.83	313.57	0.76
2899.79	7.14	323.11	2895.97	83.92	-86.18	86.37	120.29	314.24	2.85
2994.40	7.21	324.29	2989.84	93.44	-93.17	93.39	131.96	315.08	0.18
3089.01	8.00	323.06	3083.62	103.53	-100.60	100.83	144.36	315.82	0.85
3183.62	8.30	324.97	3177.27	114.39	-108.48	108.74	157.65	316.52	0.42
3278.23	7.93	318.37	3270.93	124.86	-116.74	117.02	170.93	316.93	1.06
3372.84	8.11	315.70	3364.62	134.52	-125.73	126.04	184.13	316.93	0.44
3467.45	7.49	312.28	3458.35	143.44	-134.96	135.29	196.95	316.75	0.82
3562.06	7.64	311.94	3552.14	151.80	-144.20	144.55	209.37	316.47	0.17
3656.67	7.72	313.17	3645.90	160.35	-153.52	153.88	221.99	316.25	0.19
3751.28	7.54	312.31	3739.67	168.87	-162.74	163.12	234.53	316.06	0.22
3845.89	7.76	312.79	3833.44	177.39	-172.02	172.42	247.10	315.88	0.24
3940.50	7.83	312.37	3927.18	186.08	-181.47	181.89	259.91	315.72	0.10
4035.11	7.84	310.03	4020.90	194.57	-191.17	191.61	272.77	315.50	0.34
4129.72	7.73	313.06	4114.64	203.06	-200.76	201.22	285.55	315.33	0.45
4224.33	7.59	312.22	4208.41	211.61	-210.04	210.52	298.15	315.21	0.19
4318.94	7.58	312.71	4302.19	220.04	-219.25	219.75	310.63	315.10	0.07
4413.55	7.58	310.65	4395.97	228.34	-228.57	229.09	323.09	314.97	0.29
4508.16	7.51	310.37	4489.76	236.41	-238.02	238.56	335.48	314.81	0.08
4602.77	7.38	311.96	4583.57	244.48	-247.25	247.81	347.72	314.68	0.26
4697.38	7.01	310.93	4677.44	252.33	-256.13	256.71	359.55	314.57	0.42
4791.99	6.46	310.85	4771.40	259.59	-264.52	265.11	370.62	314.46	0.58
4886.60	6.10	309.12	4865.44	266.25	-272.45	273.05	380.94	314.34	0.43
4981.21	5.60	307.32	4959.55	272.22	-280.02	280.63	390.53	314.19	0.56
5075.82	5.16	306.44	5053.75	277.54	-287.11	287.74	399.32	314.03	0.47
5170.43	4.26	314.32	5148.04	282.52	-293.04	293.68	407.05	313.95	1.17

V.E.S. Survey Date: 2/3/2017

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
5265.04	3.61	318.69	5242.43	287.22	-297.53	298.18	413.54	313.99	0.75
5359.65	2.96	298.89	5336.88	290.64	-301.63	302.29	418.87	313.94	1.37
5454.26	2.26	288.20	5431.39	292.40	-305.54	306.20	422.91	313.74	0.90
5548.87	1.87	306.48	5525.94	293.90	-308.55	309.22	426.12	313.61	0.80
5643.48	0.33	330.29	5620.53	295.06	-309.93	310.60	427.92	313.59	1.66
5738.09	0.34	281.75	5715.14	295.35	-310.35	311.02	428.43	313.58	0.29
5832.70	0.46	270.49	5809.75	295.41	-311.00	311.67	428.94	313.53	0.15
5927.31	0.48	241.32	5904.36	295.23	-311.73	312.40	429.34	313.44	0.25
6021.92	0.81	221.40	5998.96	294.53	-312.52	313.19	429.44	313.30	0.42
6116.53	0.97	213.70	6093.56	293.36	-313.41	314.07	429.29	313.11	0.21
6211.14	1.08	196.39	6188.15	291.84	-314.11	314.77	428.76	312.90	0.34
6305.75	0.72	185.47	6282.75	290.40	-314.41	315.07	428.00	312.73	0.42
6400.36	0.46	159.42	6377.36	289.45	-314.34	314.99	427.31	312.64	0.38
6494.97	0.83	153.87	6471.96	288.48	-313.90	314.55	426.32	312.58	0.40
6589.58	0.84	104.73	6566.56	287.68	-312.92	313.57	425.07	312.59	0.74
6684.19	1.87	107.35	6661.14	287.05	-310.77	311.42	423.05	312.73	1.09
6778.80	2.60	153.02	6755.69	284.67	-308.32	308.97	419.64	312.72	1.97
6873.41	1.89	234.01	6850.25	281.84	-308.60	309.24	417.93	312.40	3.14
6968.02	1.31	299.64	6944.83	281.46	-310.80	311.44	419.30	312.16	1.90
7062.63	1.11	301.55	7039.41	282.47	-312.53	313.17	421.26	312.11	0.21
7157.24	1.57	303.79	7134.00	283.67	-314.38	315.03	423.45	312.06	0.48
7251.85	1.57	301.06	7228.57	285.06	-316.57	317.22	426.00	312.00	0.08
7346.46	1.47	273.82	7323.15	285.81	-318.89	319.54	428.23	311.87	0.76
7441.07	1.14	179.10	7417.74	284.95	-320.09	320.74	428.55	311.68	2.05
7535.68	1.09	74.88	7512.34	284.24	-319.21	319.85	427.42	311.68	1.87
7630.29	1.23	77.63	7606.93	284.69	-317.34	317.99	426.33	311.90	0.16
7724.90	1.63	54.71	7701.52	285.69	-315.25	315.90	425.44	312.18	0.73
7819.51	1.50	45.30	7796.09	287.34	-313.27	313.92	425.09	312.53	0.31
7914.12	1.53	18.76	7890.67	289.41	-311.98	312.64	425.55	312.85	0.74
8008.73	1.77	25.63	7985.24	291.93	-310.94	311.60	426.50	313.19	0.33
8103.34	1.48	351.73	8079.81	294.45	-310.48	311.15	427.90	313.48	1.05
8197.95	1.47	350.36	8174.39	296.86	-310.86	311.54	429.84	313.68	0.04
8292.56	1.50	347.33	8268.97	299.27	-311.34	312.02	431.85	313.87	0.09
8387.17	1.49	346.74	8363.55	301.68	-311.89	312.58	433.92	314.05	0.02
8481.78	1.19	358.28	8458.13	303.86	-312.21	312.89	435.66	314.22	0.43
8576.39	0.88	21.39	8552.73	305.52	-311.97	312.66	436.66	314.40	0.54
8671.00	0.42	23.07	8647.33	306.52	-311.57	312.26	437.07	314.53	0.49

V.E.S. Survey Date: 2/3/2017

VES Survey International
Midland, Texas
432-563-5444
Surveyor: Michael Cook
Guitar 10 24 28 RB No. 201H / API 30-015-43940



V.E.S. Survey Date: 2/3/2017

VES SURVEY

I Michael Cook certify that I am employed by VES Survey International. That I did on the day(s) of 02/03/17 through 02/03/17 conduct or supervise the taking of a Rate Gyro survey from a depth of 0.00 feet to a depth of 8,671.00 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Vaughn Energy Services, that I am authorized and qualified to make this report; that this survey was conducted at the request of Matador Resources for the Guitar 10-24S-28E RB Well # #201H API # 30-015-43940 in Eddy County / Parish New Mexico ; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by VES Survey International.

M. Cook

Michael Cook
Service Technician
VES Survey International