MS Directional

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Fort Worth, Texas 76140
817.568.1038 (office)
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MS Directional Survey Data Certification

MS Directional Job Number:	MSMO-61919
Survey Type:	MWD
Operating Company:	Matador Production Co.
Well Name & Number:	Leslie Federal COM #201H
Location:	Lea County, NM
API Number:	30-025-44544
Tie In Depth:	Surface
Surveyed Depths:	169' – 17,534' MD
Projected TD Survey:	17,593' MD
Dates Performed:	02/05/2019 – 04/01/2019

I certify that the data is true, correct and complete and within the limitations of the tool set forth by MS Directional; 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 Directional.

Digitally signed by: Nathaniel LeBlanc

MWD Surveyor Name: Nate LeBlanc

Date: 05-17-2019

Email: Nate.LeBlanc@msdir.com

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V09.04.02

SURVEY CALCULATION PROGRAM

5/16/19 10:48

Company:	Matador Production Co.				
Well Name:	Leslie Federal COM #201H				
Location:	Lea County, NM				
Rig:	Patterson #282	Magnetic Declination:	6.26	REFERENCED TO GRID NORTH	
Job Number:	MSMO-61919				
API #:	30-025-44544				
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55		
Survey Calculation Method:	Minimum Curvature				

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	17,593	95.4	2.7	12574.36	4878.85	-702.23	4884.22

#	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	0	0.00	0.00	0.00	0.00	0.00			0.00		
1	169	0.50	304.60	169.00	0.42	-0.61	0.42	0.74	304.60	0.30	0.30
2	317	0.70	302.10	316.99	1.27	-1.90	1.28	2.29	303.61	0.14	0.14
3	504	0.40	302.70	503.98	2.23	-3.42	2.25	4.08	303.04	0.16	-0.16
4	687	0.50	320.80	686.98	3.19	-4.46	3.22	5.49	305.55	0.09	0.05
5	885	0.50	316.60	884.97	4.49	-5.60	4.53	7.18	308.68	0.02	0.00
6	1,059	0.40	317.40	1058.96	5.49	-6.54	5.54	8.53	310.01	0.06	-0.06
7	1,247	0.10	51.30	1246.96	6.07	-6.85	6.12	9.15	311.54	0.22	-0.16
8	1,437	0.10	164.00	1436.96	6.02	-6.68	6.07	8.99	312.02	0.09	0.00
9	1,625	0.20	241.10	1624.96	5.70	-6.92	5.75	8.96	309.48	0.11	0.05
10	1,813	0.90	213.00	1812.95	4.30	-8.01	4.36	9.09	298.24	0.39	0.37
11	2,002	0.10	222.40	2001.94	2.94	-8.93	3.01	9.40	288.20	0.42	-0.42
12	2,191	0.10	78.40	2190.94	2.85	-8.88	2.92	9.32	287.78	0.10	0.00
13	2,380	0.30	124.80	2379.94	2.60	-8.31	2.66	8.71	287.35	0.13	0.11
14	2,568	4.10	226.80	2567.78	-2.29	-12.81	-2.19	13.01	259.88	2.22	2.02
15	2,756	7.70	235.60	2754.76	-14.01	-28.11	-13.79	31.40	243.51	1.97	1.91
16	2,943	7.40	233.90	2940.14	-28.18	-48.17	-27.80	55.81	239.67	0.20	-0.16
17	3,132	7.00	242.10	3127.65	-40.74	-68.19	-40.20	79.43	239.14	0.58	-0.21
18	3,320	6.40	240.60	3314.37	-51.24	-87.44	-50.56	101.35	239.63	0.33	-0.32
19	3,509	5.60	238.50	3502.33	-61.23	-104.48	-60.41	121.10	239.63	0.44	-0.42
20	3,697	7.20	241.40	3689.15	-71.67	-122.64	-70.70	142.05	239.70	0.87	0.85
21	3,888	6.70	238.60	3878.75	-83.20	-142.66	-82.08	165.15	239.75	0.32	-0.26
22	4,076	7.80	239.00	4065.24	-95.49	-162.96	-94.20	188.88	239.63	0.59	0.59
23	4,264	8.20	236.90	4251.41	-109.38	-185.13	-107.92	215.03	239.42	0.26	0.21
24	4,452	8.50	240.30	4437.42	-123.58	-208.43	-121.94	242.31	239.33	0.31	0.16
25	4,641	8.00	238.70	4624.47	-137.34	-231.80	-135.51	269.43	239.35	0.29	-0.26
26	4,829	8.00	243.30	4810.64	-150.01	-254.66	-148.01	295.56	239.50	0.34	0.00
27	4,924	8.70	246.30	4904.63	-155.87	-267.15	-153.77	309.30	239.74	0.87	0.74
28	5,112	8.00	249.30	5090.64	-166.21	-292.41	-163.91	336.34	240.39	0.44	-0.37
29	5,299	7.20	253.60	5276.00	-174.12	-315.82	-171.63	360.64	241.13	0.52	-0.43
30	5,443	6.70	254.40	5418.94	-178.93	-332.57	-176.31	377.65	241.72	0.35	-0.35
31	5,580	6.40	253.40	5555.04	-183.26	-347.58	-180.52	392.94	242.20	0.23	-0.22
32	5,770	7.60	257.00	5743.62	-189.11	-369.98	-186.20	415.51	242.93	0.67	0.63
33	5,959	6.80	258.00	5931.13	-194.25	-393.10	-191.15	438.47	243.70	0.43	-0.42

MS Directional
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SURVEY CALCULATION PROGRAM

5/16/19 10:48

Company:	Matador Production Co.				
Well Name:	Leslie Federal COM #201H				
Location:	Lea County, NM				
Rig:	Patterson #282	Magnetic Declination:	6.26	REFERENCED TO GRID NORTH	
Job Number:	MSMO-61919				
API #:	30-025-44544				
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55		
Survey Calculation Method:	Minimum Curvature				

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	17,593	95.4	2.7	12574.36	4878.85	-702.23	4884.22

#	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	6,147	8.70	246.90	6117.42	-202.14	-417.07	-198.86	463.47	244.14	1.28	1.01
35	6,335	7.50	246.90	6303.54	-212.53	-441.43	-209.06	489.93	244.29	0.64	-0.64
36	6,523	6.80	246.40	6490.07	-221.80	-462.92	-218.16	513.31	244.40	0.37	-0.37
37	6,711	6.30	242.20	6676.85	-231.07	-482.24	-227.27	534.74	244.40	0.37	-0.27
38	6,901	6.10	244.40	6865.74	-240.29	-500.57	-236.35	555.26	244.36	0.16	-0.11
39	7,089	1.20	204.10	7053.31	-246.41	-510.39	-242.39	566.76	244.23	2.79	-2.61
40	7,277	0.70	165.80	7241.29	-249.32	-510.91	-245.30	568.50	243.99	0.42	-0.27
41	7,465	1.10	177.60	7429.27	-252.24	-510.55	-248.22	569.46	243.71	0.23	0.21
42	7,653	1.00	185.90	7617.24	-255.67	-510.64	-251.65	571.07	243.40	0.10	-0.05
43	7,842	1.00	154.00	7806.21	-258.79	-510.09	-254.78	571.99	243.10	0.29	0.00
44	8,030	0.40	167.80	7994.19	-260.91	-509.23	-256.90	572.18	242.87	0.33	-0.32
45	8,218	0.60	151.90	8182.19	-262.42	-508.63	-258.42	572.34	242.71	0.13	0.11
46	8,406	0.40	142.50	8370.18	-263.81	-507.77	-259.81	572.21	242.55	0.11	-0.11
47	8,596	0.70	117.60	8560.17	-264.87	-506.34	-260.89	571.43	242.39	0.20	0.16
48	8,783	0.60	79.50	8747.16	-265.22	-504.36	-261.25	569.85	242.26	0.23	-0.05
49	8,971	1.00	74.10	8935.14	-264.60	-501.81	-260.65	567.30	242.20	0.22	0.21
50	9,159	1.50	54.10	9123.10	-262.70	-498.24	-258.78	563.26	242.20	0.35	0.27
51	9,347	2.40	72.20	9310.99	-260.06	-492.50	-256.18	556.95	242.16	0.57	0.48
52	9,535	1.80	15.70	9498.88	-256.01	-487.96	-252.17	551.04	242.32	1.09	-0.32
53	9,723	0.90	80.20	9686.83	-252.92	-485.70	-249.09	547.61	242.49	0.87	-0.48
54	9,911	1.00	38.20	9874.81	-251.38	-483.23	-247.57	544.70	242.52	0.37	0.05
55	10,099	0.70	295.00	10062.80	-249.60	-483.26	-245.80	543.91	242.68	0.72	-0.16
56	10,288	1.40	274.50	10251.76	-248.93	-486.61	-245.10	546.58	242.91	0.41	0.37
57	10,477	0.80	302.80	10440.73	-248.04	-490.02	-244.18	549.22	243.15	0.42	-0.32
58	10,667	1.70	240.90	10630.69	-248.69	-493.59	-244.80	552.70	243.26	0.79	0.47
59	10,854	1.80	268.50	10817.61	-250.11	-498.95	-246.19	558.13	243.38	0.45	0.05
60	11,042	0.90	294.20	11005.55	-249.59	-503.25	-245.63	561.74	243.62	0.57	-0.48
61	11,231	0.70	91.10	11194.55	-249.00	-503.45	-245.04	561.66	243.68	0.83	-0.11
62	11,420	0.20	247.70	11383.54	-249.15	-502.60	-245.19	560.97	243.63	0.47	-0.26
63	11,608	2.10	221.30	11571.50	-251.86	-505.18	-247.88	564.48	243.50	1.02	1.01
64	11,795	2.20	232.90	11758.37	-256.60	-510.30	-252.58	571.19	243.31	0.24	0.05
65	11,983	1.40	237.00	11946.27	-260.03	-515.11	-255.97	577.02	243.22	0.43	-0.43
66	12,039	1.40	242.50	12002.25	-260.72	-516.29	-256.65	578.38	243.21	0.24	0.00
67	12,084	1.80	256.90	12047.24	-261.13	-517.47	-257.06	579.62	243.22	1.25	0.89

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SURVEY CALCULATION PROGRAM

5/16/19 10:48

Company:	Matador Production Co.				
Well Name:	Leslie Federal COM #201H				
Location:	Lea County, NM				
Rig:	Patterson #282	Magnetic Declination:	6.26	REFERENCED TO GRID NORTH	
Job Number:	MSMO-61919				
API #:	30-025-44544				
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55		
Survey Calculation Method:	Minimum Curvature				

PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	17,593	95.4	2.7	12574.36	4878.85	-702.23	4884.22

#	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	12,131	2.00	262.60	12094.21	-261.40	-519.00	-257.32	581.11	243.27	0.58	0.43
69	12,179	6.20	325.60	12142.09	-259.37	-521.29	-255.27	582.25	243.55	11.63	8.75
70	12,226	11.40	354.70	12188.55	-252.64	-523.16	-248.53	580.97	244.22	14.24	11.06
71	12,273	15.90	358.80	12234.21	-241.58	-523.72	-237.45	576.75	245.24	9.79	9.57
72	12,320	19.10	355.90	12279.03	-227.46	-524.41	-223.34	571.62	246.55	7.05	6.81
73	12,367	23.40	352.40	12322.82	-210.54	-526.19	-206.40	566.75	248.19	9.53	9.15
74	12,414	28.80	353.10	12365.01	-190.03	-528.79	-185.87	561.90	250.23	11.51	11.49
75	12,461	34.80	354.60	12404.94	-165.42	-531.41	-161.24	556.56	252.71	12.88	12.77
76	12,555	47.10	348.90	12475.83	-104.67	-540.61	-100.42	550.65	259.04	13.66	13.09
77	12,602	54.90	348.00	12505.38	-68.92	-547.93	-64.61	552.25	262.83	16.66	16.60
78	12,649	58.50	347.50	12531.18	-30.53	-556.27	-26.17	557.10	266.86	7.71	7.66
79	12,696	63.50	348.90	12553.96	9.69	-564.66	14.13	564.74	270.98	10.95	10.64
80	12,743	69.60	351.60	12572.66	52.17	-571.93	56.66	574.31	275.21	14.01	12.98
81	12,791	72.90	351.60	12588.09	97.12	-578.57	101.67	586.67	279.53	6.88	6.88
82	12,894	81.40	350.30	12610.97	196.20	-594.37	200.86	625.92	288.27	8.34	8.25
83	12,988	83.90	350.40	12623.00	288.10	-610.00	292.88	674.61	295.28	2.66	2.66
84	13,082	88.20	350.00	12629.47	380.49	-625.96	385.39	732.52	301.29	4.59	4.57
85	13,177	89.10	349.70	12631.71	473.97	-642.69	479.01	798.56	306.41	1.00	0.95
86	13,271	90.20	349.20	12632.28	566.38	-659.90	571.55	869.63	310.64	1.29	1.17
87	13,365	90.40	351.50	12631.79	659.04	-675.66	664.33	943.85	314.29	2.46	0.21
88	13,459	90.60	355.10	12630.97	752.38	-686.62	757.75	1018.59	317.62	3.84	0.21
89	13,554	90.70	356.20	12629.89	847.10	-693.83	852.52	1094.98	320.68	1.16	0.11
90	13,648	88.30	356.60	12630.71	940.90	-699.73	946.37	1172.57	323.36	2.59	-2.55
91	13,742	89.50	359.50	12632.52	1034.82	-702.93	1040.31	1250.98	325.81	3.34	1.28
92	13,836	90.20	359.00	12632.77	1128.81	-704.16	1134.31	1330.43	328.04	0.92	0.74
93	13,931	91.00	359.70	12631.77	1223.80	-705.24	1229.30	1412.46	330.05	1.12	0.84
94	14,025	92.50	359.30	12628.90	1317.75	-706.05	1323.25	1494.98	331.82	1.65	1.60
95	14,119	89.80	2.10	12627.01	1411.70	-704.91	1417.20	1577.91	333.47	4.14	-2.87
96	14,213	88.20	2.40	12628.65	1505.61	-701.22	1511.08	1660.90	335.03	1.73	-1.70
97	14,307	89.90	2.80	12630.21	1599.50	-696.95	1604.93	1744.75	336.46	1.86	1.81
98	14,401	90.40	2.40	12629.97	1693.40	-692.69	1698.79	1829.60	337.75	0.68	0.53
99	14,495	88.00	1.20	12631.28	1787.34	-689.74	1792.70	1915.81	338.90	2.85	-2.55
100	14,590	88.40	0.90	12634.26	1882.28	-688.00	1887.62	2004.07	339.92	0.53	0.42
101	14,684	89.40	0.90	12636.07	1976.25	-686.52	1981.58	2092.09	340.84	1.06	1.06

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SURVEY CALCULATION PROGRAM

5/16/19 10:48

Company:	Matador Production Co.				
Well Name:	Leslie Federal COM #201H				
Location:	Lea County, NM				
Rig:	Patterson #282	Magnetic Declination:	6.26	REFERENCED TO GRID NORTH	
Job Number:	MSMO-61919				
API #:	30-025-44544				
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55		
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PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
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#	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'
102	14,778	91.20	1.30	12635.57	2070.22	-684.72	2075.54	2180.52	341.70	1.96	1.91
103	14,872	91.80	1.30	12633.11	2164.17	-682.58	2169.46	2269.26	342.49	0.64	0.64
104	14,967	92.70	1.20	12629.38	2259.07	-680.51	2264.34	2359.34	343.24	0.95	0.95
105	15,061	89.10	358.00	12627.91	2353.03	-681.17	2358.31	2449.64	343.85	5.12	-3.83
106	15,155	88.70	356.10	12629.71	2446.88	-686.01	2452.19	2541.23	344.34	2.07	-0.43
107	15,249	86.80	353.20	12633.40	2540.39	-694.76	2545.76	2633.68	344.70	3.69	-2.02
108	15,344	91.60	355.20	12634.73	2634.86	-704.36	2640.31	2727.38	345.03	5.47	5.05
109	15,438	91.90	353.90	12631.86	2728.39	-713.28	2733.91	2820.08	345.35	1.42	0.32
110	15,532	90.70	358.30	12629.73	2822.12	-719.67	2827.69	2912.44	345.69	4.85	-1.28
111	15,626	92.60	358.30	12627.02	2916.04	-722.46	2921.62	3004.20	346.08	2.02	2.02
112	15,721	90.80	356.40	12624.20	3010.88	-726.85	3016.50	3097.38	346.43	2.75	-1.89
113	15,815	91.80	357.00	12622.07	3104.70	-732.26	3110.36	3189.89	346.73	1.24	1.06
114	15,909	88.10	356.00	12622.15	3198.51	-737.99	3204.21	3282.55	347.01	4.08	-3.94
115	16,003	91.40	353.70	12622.56	3292.11	-746.43	3297.87	3375.67	347.23	4.28	3.51
116	16,097	93.20	0.80	12618.78	3385.86	-750.94	3391.66	3468.14	347.50	7.79	1.91
117	16,191	94.40	3.40	12612.55	3479.58	-747.50	3485.35	3558.97	347.88	3.04	1.28
118	16,286	89.90	4.70	12608.99	3574.25	-740.80	3579.96	3650.21	348.29	4.93	-4.74
119	16,380	87.00	1.60	12611.53	3668.05	-735.63	3673.72	3741.09	348.66	4.51	-3.09
120	16,474	87.20	0.50	12616.29	3761.92	-733.91	3767.57	3832.84	348.96	1.19	0.21
121	16,568	87.50	0.60	12620.63	3855.81	-733.01	3861.45	3924.87	349.24	0.34	0.32
122	16,663	90.70	1.80	12622.13	3950.77	-731.02	3956.39	4017.83	349.52	3.60	3.37
123	16,757	91.50	1.80	12620.32	4044.70	-728.07	4050.29	4109.71	349.80	0.85	0.85
124	16,851	92.90	1.30	12616.71	4138.59	-725.53	4144.17	4201.71	350.06	1.58	1.49
125	16,945	92.20	0.40	12612.53	4232.49	-724.14	4238.05	4293.99	350.29	1.21	-0.74
126	17,039	92.30	1.10	12608.84	4326.41	-722.91	4331.95	4386.39	350.51	0.75	0.11
127	17,134	93.70	1.50	12603.87	4421.25	-720.76	4426.78	4479.62	350.74	1.53	1.47
128	17,228	92.30	2.40	12598.95	4515.07	-717.56	4520.56	4571.73	350.97	1.77	-1.49
129	17,322	93.10	2.50	12594.52	4608.87	-713.55	4614.34	4663.78	351.20	0.86	0.85
130	17,416	93.60	2.00	12589.03	4702.64	-709.86	4708.07	4755.92	351.42	0.75	0.53
131	17,510	94.90	2.60	12582.06	4796.30	-706.10	4801.70	4848.00	351.63	1.52	1.38
132	17,534	95.40	2.70	12579.91	4820.18	-705.00	4825.57	4871.46	351.68	2.12	2.08
PTB:	17,593	95.40	2.70	12574.36	4878.85	-702.23	4884.22	4929.13	351.81	0.00	0.00