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7821 Will Rogers Blvd.
Fort Worth, Texas 76140
817.568.1038 (office)
817.568.1499 (fax)
www.msdir.com

MS Directional Survey Data Certification

MS Directional Job Number: MSMO-64705
Survey Type: MWD
Operating Company: Matador Production Co.
Well Name & Number: Leslie Federal COM #021H
Location: Lea County, NM
API Number: 30-025-44543
Tie In Depth: Surface
Surveyed Depths: 134' – 14,086' MD
Projected TD Survey: 14,151' MD
Dates Performed: 04/24/2019 – 05/09/2019

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.

Nathaniel LeBlanc

Digitally signed by:

MWD Surveyor Name: Nate LeBlanc

Date: 05-17-2019

Email: Nate.LeBlanc@msdir.com

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Company:	Matador Production Co.		
Well Name:	Leslie Federal COM #021H		
Location:	Lea County, NM		
Rig:	Patterson #282	Magnetic Declination:	6.10
Job Number:	MSMO-64705		
API #:	30-025-44543		
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55
Survey Calculation Method:	Minimum Curvature		

Survey Calculation Worksheet														
PTB:	MD		INC		AZM		TVD		N/S		E/W		VS	
	14,151		90.2		358.2		9160.19		4878.99		-786.06		4885.01	
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure		DLS/ 100	BUR/ 100'			
								Distance	Azm					
TIE IN	0	0.00	0.00	0.00	0.00	0.00			0.00					
1	134	0.10	2.80	134.00	0.12	0.01	0.12	0.12	2.80	0.07	0.07			
2	316	0.20	182.00	316.00	-0.04	0.00	-0.04	0.04	176.75	0.16	0.05			
3	504	0.80	133.40	503.99	-1.27	0.94	-1.28	1.58	143.40	0.36	0.32			
4	685	0.40	150.00	684.98	-2.69	2.18	-2.70	3.46	140.97	0.24	-0.22			
5	871	0.70	101.90	870.97	-3.48	3.61	-3.51	5.02	133.94	0.28	0.16			
6	932	0.80	117.80	931.97	-3.76	4.36	-3.79	5.75	130.79	0.38	0.16			
7	1,061	0.60	86.30	1060.96	-4.14	5.83	-4.18	7.15	125.36	0.33	-0.16			
8	1,250	0.90	126.00	1249.94	-4.94	8.02	-5.01	9.42	121.67	0.31	0.16			
9	1,439	0.90	127.80	1438.92	-6.73	10.39	-6.81	12.38	122.92	0.01	0.00			
10	1,628	0.40	238.00	1627.91	-7.99	11.00	-8.07	13.60	125.97	0.58	-0.26			
11	1,816	0.30	177.20	1815.91	-8.83	10.47	-8.91	13.69	130.13	0.19	-0.05			
12	2,005	1.20	193.50	2004.89	-11.24	10.03	-11.32	15.07	138.26	0.48	0.48			
13	2,193	3.70	222.50	2192.71	-17.63	5.47	-17.67	18.46	162.75	1.44	1.33			
14	2,381	5.60	239.30	2380.09	-26.79	-6.51	-26.74	27.57	193.67	1.23	1.01			
15	2,569	8.10	249.60	2566.74	-36.09	-26.82	-35.88	44.96	216.62	1.48	1.33			
16	2,757	8.20	251.10	2752.84	-45.05	-51.92	-44.64	68.74	229.05	0.12	0.05			
17	2,945	7.80	249.60	2939.01	-53.84	-76.56	-53.24	93.59	234.88	0.24	-0.21			
18	3,133	7.40	249.00	3125.36	-62.62	-99.82	-61.84	117.84	237.90	0.22	-0.21			
19	3,321	7.80	247.60	3311.71	-71.82	-122.92	-70.86	142.36	239.70	0.23	0.21			
20	3,510	7.90	249.10	3498.94	-81.35	-146.91	-80.19	167.93	241.03	0.12	0.05			
21	3,699	7.50	248.10	3686.23	-90.58	-170.49	-89.24	193.05	242.02	0.22	-0.21			
22	3,888	8.00	249.90	3873.51	-99.70	-194.28	-98.17	218.37	242.83	0.29	0.26			
23	4,076	8.50	250.00	4059.56	-108.95	-219.62	-107.22	245.16	243.62	0.27	0.27			
24	4,264	8.30	249.90	4245.54	-118.36	-245.42	-116.43	272.47	244.25	0.11	-0.11			
25	4,452	8.20	247.70	4431.60	-128.11	-270.57	-125.99	299.37	244.66	0.18	-0.05			
26	4,640	7.30	242.40	4617.88	-138.74	-293.56	-136.43	324.69	244.70	0.61	-0.48			
27	4,829	8.20	246.80	4805.16	-149.61	-316.59	-147.12	350.16	244.71	0.57	0.48			
28	5,018	7.70	247.80	4992.34	-159.70	-340.70	-157.02	376.28	244.89	0.27	-0.26			
29	5,208	7.80	251.40	5180.61	-168.62	-364.71	-165.76	401.80	245.19	0.26	0.05			
30	5,397	7.20	252.30	5367.99	-176.32	-388.15	-173.26	426.32	245.57	0.32	-0.32			
31	5,442	7.00	251.30	5412.64	-178.05	-393.43	-174.96	431.84	245.65	0.52	-0.44			
32	5,585	6.60	250.90	5554.64	-183.54	-409.45	-180.31	448.70	245.86	0.28	-0.28			
33	5,774	8.60	252.50	5741.97	-191.34	-433.19	-187.93	473.57	246.17	1.06	1.06			

V09.04.02

Company:	Matador Production Co.				
Well Name:	Leslie Federal COM #021H				
Location:	Lea County, NM				
Rig:	Patterson #282	Magnetic Declination:	6.10	REFERENCED TO GRID NORTH	
Job Number:	MSMO-64705				
API #:	30-025-44543				

Vertical Section Azimuth:	359.55	Proposed Direction:	359.55
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Survey Calculation Method:	Minimum Curvature
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PTB:	MD	INC	AZM	TVD	N/S	E/W	VS
	14,151	90.2	358.2	9160.19	4878.99	-786.06	4885.01

#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
34	5,962	7.90	253.60	5928.02	-199.21	-458.99	-195.60	500.36	246.54	0.38	-0.37
35	6,151	7.90	252.50	6115.23	-206.79	-483.84	-202.98	526.18	246.86	0.08	0.00
36	6,341	7.40	252.70	6303.53	-214.35	-507.98	-210.36	551.35	247.12	0.26	-0.26
37	6,530	7.10	252.10	6491.02	-221.56	-530.71	-217.39	575.10	247.34	0.16	-0.16
38	6,718	6.80	253.90	6677.64	-228.22	-552.46	-223.87	597.74	247.55	0.20	-0.16
39	6,905	6.70	251.60	6863.35	-234.73	-573.45	-230.22	619.63	247.74	0.15	-0.05
40	7,094	6.70	252.50	7051.06	-241.53	-594.42	-236.85	641.62	247.89	0.06	0.00
41	7,283	3.50	242.00	7239.29	-247.55	-610.04	-242.76	658.35	247.91	1.76	-1.69
42	7,472	0.10	222.50	7428.17	-250.38	-615.24	-245.55	664.24	247.86	1.80	-1.80
43	7,661	0.20	328.70	7617.17	-250.22	-615.53	-245.38	664.44	247.88	0.13	0.05
44	7,849	0.20	278.10	7805.16	-249.90	-616.02	-245.05	664.78	247.92	0.09	0.00
45	8,038	0.30	152.90	7994.16	-250.29	-616.12	-245.45	665.02	247.89	0.24	0.05
46	8,227	1.00	163.90	8183.15	-252.32	-615.44	-247.48	665.16	247.71	0.37	0.37
47	8,416	0.70	308.60	8372.14	-253.18	-615.89	-248.34	665.90	247.65	0.86	-0.16
48	8,604	0.30	295.50	8560.13	-252.25	-617.23	-247.40	666.78	247.77	0.22	-0.21
49	8,702	0.20	327.70	8658.13	-252.00	-617.55	-247.14	666.99	247.80	0.17	-0.10
50	8,749	6.50	358.50	8705.03	-249.27	-617.66	-244.41	666.07	248.02	13.47	13.40
51	8,797	12.60	356.50	8752.34	-241.32	-618.06	-236.46	663.50	248.67	12.73	12.71
52	8,891	20.20	350.50	8842.46	-215.04	-621.37	-210.15	657.52	250.91	8.27	8.09
53	8,985	29.30	350.50	8927.73	-176.26	-627.85	-171.33	652.13	254.32	9.68	9.68
54	9,032	34.60	351.50	8967.60	-151.71	-631.73	-146.74	649.69	256.50	11.33	11.28
55	9,079	39.50	351.40	9005.10	-123.71	-635.94	-118.71	647.86	258.99	10.43	10.43
56	9,173	48.40	349.90	9072.71	-59.42	-646.59	-54.34	649.32	264.75	9.53	9.47
57	9,266	59.10	351.20	9127.62	14.46	-658.83	19.64	658.99	271.26	11.56	11.51
58	9,361	69.70	350.90	9168.61	98.97	-672.15	104.25	679.40	278.38	11.16	11.16
59	9,409	76.00	351.30	9182.76	144.26	-679.24	149.59	694.39	281.99	13.15	13.13
60	9,456	81.60	352.30	9191.88	189.88	-685.81	195.26	711.61	285.48	12.10	11.91
61	9,550	87.30	352.40	9200.97	282.57	-698.26	288.04	753.27	292.03	6.06	6.06
62	9,644	90.00	352.20	9203.19	375.68	-710.85	381.26	804.02	297.86	2.88	2.87
63	9,739	90.30	352.40	9202.94	469.83	-723.58	475.50	862.73	303.00	0.38	0.32
64	9,833	90.10	354.00	9202.61	563.16	-734.71	568.92	925.71	307.47	1.72	-0.21
65	9,927	90.40	356.20	9202.20	656.81	-742.74	662.62	991.49	311.49	2.36	0.32
66	10,021	90.40	359.10	9201.54	750.72	-746.59	756.56	1058.76	315.16	3.09	0.00
67	10,115	91.00	0.30	9200.39	844.71	-747.08	850.55	1127.68	318.51	1.43	0.64

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Location:	Lea County, NM		
Rig:	Patterson #282	Magnetic Declination:	6.10 REFERENCED TO GRID NORTH
Job Number:	MSMO-64705		
API #:	30-025-44543		
Vertical Section Azimuth:	359.55	Proposed Direction:	359.55
Survey Calculation Method:	Minimum Curvature		

PTB:	MD	INC		AZM	TVD	N/S	E/W		VS		
	14,151	90.2		358.2	9160.19	4878.99	-786.06		4885.01		
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
68	10,208	91.10	0.80	9198.69	937.69	-746.19	943.52	1198.36	321.49	0.55	0.11
69	10,302	91.20	1.00	9196.80	1031.66	-744.71	1037.48	1272.37	324.18	0.24	0.11
70	10,396	91.80	1.30	9194.34	1125.61	-742.83	1131.41	1348.62	326.58	0.71	0.64
71	10,489	89.80	1.00	9193.04	1218.57	-740.96	1224.36	1426.17	328.70	2.17	-2.15
72	10,583	89.80	1.00	9193.37	1312.56	-739.32	1318.33	1506.46	330.61	0.00	0.00
73	10,677	89.60	1.10	9193.86	1406.54	-737.60	1412.29	1588.21	332.33	0.24	-0.21
74	10,772	89.60	1.20	9194.53	1501.52	-735.69	1507.25	1672.07	333.90	0.11	0.00
75	10,866	91.00	1.60	9194.03	1595.49	-733.39	1601.20	1755.98	335.31	1.55	1.49
76	10,959	91.40	359.70	9192.09	1688.46	-732.34	1694.16	1840.44	336.55	2.09	0.43
77	11,054	92.20	359.80	9189.10	1783.41	-732.75	1789.11	1928.08	337.66	0.85	0.84
78	11,147	92.60	359.30	9185.21	1876.33	-733.48	1882.03	2014.60	338.65	0.69	0.43
79	11,242	91.60	359.60	9181.73	1971.26	-734.39	1976.96	2103.61	339.57	1.10	-1.05
80	11,335	92.10	359.90	9178.73	2064.21	-734.80	2069.91	2191.09	340.41	0.63	0.54
81	11,430	91.20	359.60	9175.99	2159.16	-735.21	2164.87	2280.91	341.20	1.00	-0.95
82	11,524	90.00	359.20	9175.01	2253.15	-736.20	2258.86	2370.38	341.91	1.35	-1.28
83	11,619	88.70	358.90	9176.08	2348.13	-737.77	2353.85	2461.31	342.56	1.40	-1.37
84	11,712	91.50	358.90	9175.92	2441.10	-739.56	2446.84	2550.67	343.15	3.01	3.01
85	11,807	92.20	358.60	9172.85	2536.03	-741.63	2541.78	2642.25	343.70	0.80	0.74
86	11,901	92.70	358.80	9168.84	2629.92	-743.76	2635.68	2733.07	344.21	0.57	0.53
87	11,995	92.20	359.00	9164.82	2723.82	-745.56	2729.59	2824.01	344.69	0.57	-0.53
88	12,089	89.60	359.50	9163.34	2817.79	-746.79	2823.57	2915.07	345.16	2.82	-2.77
89	12,184	88.60	359.30	9164.83	2912.77	-747.79	2918.55	3007.23	345.60	1.07	-1.05
90	12,278	89.30	359.00	9166.56	3006.74	-749.18	3012.54	3098.68	346.01	0.81	0.74
91	12,372	89.40	358.80	9167.62	3100.72	-750.99	3106.52	3190.37	346.39	0.24	0.11
92	12,466	90.30	358.80	9167.87	3194.70	-752.96	3200.51	3282.23	346.74	0.96	0.96
93	12,561	91.20	358.90	9166.62	3289.67	-754.86	3295.50	3375.17	347.08	0.95	0.95
94	12,655	91.80	358.80	9164.16	3383.62	-756.75	3389.46	3467.21	347.39	0.65	0.64
95	12,749	92.80	358.70	9160.39	3477.52	-758.80	3483.37	3559.34	347.69	1.07	1.06
96	12,844	90.90	359.30	9157.33	3572.45	-760.45	3578.31	3652.49	347.98	2.10	-2.00
97	12,937	88.80	359.30	9157.57	3665.44	-761.59	3671.31	3743.72	348.26	2.26	-2.26
98	13,032	88.80	359.20	9159.56	3760.41	-762.83	3766.29	3837.00	348.53	0.11	0.00
99	13,126	88.90	359.40	9161.44	3854.38	-763.98	3860.27	3929.37	348.79	0.24	0.11
100	13,221	89.70	358.90	9162.61	3949.37	-765.39	3955.25	4022.85	349.03	0.99	0.84
101	13,315	89.40	358.90	9163.34	4043.35	-767.20	4049.25	4115.49	349.26	0.32	-0.32

V09.04.02

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	14,151	90.2	358.2	9160.19	4878.99	-786.06	4885.01				
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance	Azm	DLS/ 100	BUR/ 100'
102	13,409	89.80	358.50	9164.00	4137.32	-769.33	4143.23	4208.24	349.47	0.60	0.43
103	13,504	90.90	359.10	9163.42	4232.29	-771.32	4238.22	4302.00	349.67	1.32	1.16
104	13,598	92.30	359.20	9160.79	4326.24	-772.71	4332.18	4394.71	349.87	1.49	1.49
105	13,692	90.60	359.90	9158.42	4420.21	-773.45	4426.15	4487.37	350.07	1.96	-1.81
106	13,787	90.40	358.80	9157.59	4515.20	-774.53	4521.14	4581.14	350.27	1.18	-0.21
107	13,881	88.70	358.10	9158.33	4609.15	-777.07	4615.12	4674.20	350.43	1.96	-1.81
108	13,975	89.30	358.00	9159.97	4703.09	-780.27	4709.07	4767.37	350.58	0.65	0.64
109	14,069	90.10	358.10	9160.46	4797.03	-783.47	4803.03	4860.59	350.72	0.86	0.85
110	14,086	90.20	358.20	9160.41	4814.02	-784.01	4820.03	4877.44	350.75	0.83	0.59
PTB:	14,151	90.20	358.20	9160.19	4878.99	-786.06	4885.01	4941.90	350.85	0.00	0.00