

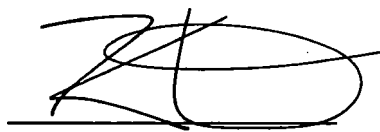
MS Directional Survey Data Certification

MS Directional Job Number: MSMO-57075
Survey Type: MWD
Operating Company: Matador Production Company
Well Name & Number: Florence State 23-23S-34E AR 111H
Location: Lea County, NM
API Number: 30-025-45223
Tie In Depth: Surface
Surveyed Depths: 199' – 14,533' MD
Projected TD Survey: 14,593' MD
Dates Performed: 10/10/2018 – 10/26/2018

HOBBS OCD
APR 17 2019
RECEIVED

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:



MWD Surveyor Name: Kevin Dueitt

Date: 11-09-2018

Email: kdueitt@msdir.com

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Company:		Matador Production Company										
Well Name:		Florence State 23-23S-34E AR 111H										
Location:		Lea County, NM										
Rig:		Patterson #810					Magnetic Declination:		6.35		REFERENCED TO GRID NORTH	
Job Number:		MSMO-57075										
API #:		30-025-45223										
Vertical Section Azimuth:				359.47			Proposed Direction:		359.47			
Survey Calculation Method:				Minimum Curvature								
PTB:	MD		INC		AZM		TVD	N/S		E/W		VS
	14,593		91.3		0		9684.52	5026.29		-33.44		5026.39
#	Depth Feet	Inc Degrees	Azm Degrees	TVD Feet	N/S Feet	E/W Feet	Surface Vert Sec	Closure Distance Azm		DLS/ 100	BUR/ 100'	
TIE IN	0	0.00	0.00	0.00	0.00	0.00		0.00				
1	199	0.80	187.40	198.99	-1.38	-0.18	-1.38	1.39	187.40	0.40	0.40	
2	327	0.60	169.10	326.98	-2.92	-0.17	-2.92	2.93	183.28	0.23	-0.16	
3	508	0.70	165.90	507.97	-4.92	0.28	-4.93	4.93	176.73	0.06	0.06	
4	687	0.70	172.00	686.96	-7.07	0.70	-7.07	7.10	174.35	0.04	0.00	
5	796	0.60	145.50	795.95	-8.20	1.12	-8.21	8.27	172.25	0.29	-0.09	
6	968	0.50	103.80	967.95	-9.12	2.35	-9.14	9.42	165.52	0.23	-0.06	
7	1,158	0.60	65.10	1157.94	-8.90	4.06	-8.94	9.78	155.46	0.20	0.05	
8	1,349	0.50	71.30	1348.93	-8.21	5.76	-8.26	10.03	144.95	0.06	-0.05	
9	1,538	0.70	24.60	1537.92	-6.90	7.02	-6.96	9.84	134.49	0.27	0.11	
10	1,728	0.40	4.20	1727.91	-5.18	7.55	-5.25	9.16	124.44	0.19	-0.16	
11	1,918	0.60	341.70	1917.90	-3.57	7.29	-3.64	8.12	116.12	0.15	0.11	
12	2,108	0.40	338.10	2107.90	-2.01	6.73	-2.08	7.02	106.66	0.11	-0.11	
13	2,299	0.60	358.10	2298.89	-0.39	6.45	-0.45	6.46	93.51	0.14	0.10	
14	2,488	0.20	3.40	2487.88	0.92	6.43	0.86	6.50	81.83	0.21	-0.21	
15	2,678	0.70	0.30	2677.88	2.42	6.46	2.36	6.90	69.50	0.26	0.26	
16	2,867	0.60	9.50	2866.86	4.55	6.63	4.48	8.04	55.56	0.08	-0.05	
17	3,057	0.80	33.10	3056.85	6.64	7.52	6.57	10.03	48.55	0.18	0.11	
18	3,248	0.60	44.10	3247.84	8.47	8.94	8.39	12.32	46.54	0.13	-0.10	
19	3,438	0.50	97.50	3437.83	9.08	10.46	8.98	13.85	49.03	0.26	-0.05	
20	3,628	0.50	29.80	3627.82	9.69	11.69	9.58	15.18	50.34	0.29	0.00	
21	3,819	0.90	6.20	3818.81	11.90	12.27	11.79	17.09	45.85	0.25	0.21	
22	4,009	1.20	11.20	4008.78	15.34	12.81	15.22	19.99	39.87	0.16	0.16	
23	4,199	1.10	245.10	4198.76	16.52	11.55	16.42	20.16	34.94	1.08	-0.05	
24	4,390	1.20	212.10	4389.72	14.06	8.82	13.98	16.60	32.10	0.35	0.05	
25	4,580	0.60	145.00	4579.70	11.56	8.33	11.48	14.25	35.79	0.59	-0.32	
26	4,770	0.80	123.40	4769.69	10.01	10.01	9.92	14.16	45.00	0.17	0.11	
27	4,961	0.60	113.50	4960.67	8.88	12.04	8.77	14.96	53.59	0.12	-0.10	
28	5,055	0.60	100.80	5054.67	8.59	12.98	8.47	15.56	56.49	0.14	0.00	
29	5,147	0.50	84.70	5146.66	8.54	13.85	8.41	16.27	58.35	0.20	-0.11	
30	5,337	0.90	92.40	5336.65	8.55	16.17	8.40	18.29	62.12	0.22	0.21	
31	5,527	0.80	102.60	5526.63	8.20	18.95	8.02	20.65	66.60	0.10	-0.05	
32	5,716	0.90	99.00	5715.61	7.68	21.70	7.48	23.02	70.51	0.06	0.05	
33	5,906	0.80	112.80	5905.59	6.93	24.40	6.71	25.37	74.14	0.12	-0.05	

Company:		Matador Production Company											
Well Name:		Florence State 23-23S-34E AR 111H											
Location:		Lea County, NM											
Rig:		Patterson #810				Magnetic Declination:		6.35		REFERENCED TO GRID NORTH			
Job Number:		MSMO-57075											
API #:		30-025-45223											
Vertical Section Azimuth:		359.47				Proposed Direction:		359.47					
Survey Calculation Method:		Minimum Curvature											
PTB:	MD	INC		AZM		TVD	N/S		E/W		VS		
	14,593	91.3		0		9684.52	5026.29		-33.44		5026.39		
#	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	6,001	1.40	172.70	6000.57	5.52	25.16	5.29	25.76	77.62	1.28	0.63		
35	6,095	1.80	177.30	6094.54	2.91	25.38	2.68	25.54	83.46	0.45	0.43		
36	6,190	2.30	177.80	6189.47	-0.48	25.52	-0.72	25.52	91.09	0.53	0.53		
37	6,285	3.20	193.10	6284.37	-4.97	24.99	-5.20	25.48	101.25	1.21	0.95		
38	6,380	4.00	203.30	6379.18	-10.60	23.08	-10.81	25.40	114.66	1.08	0.84		
39	6,475	4.30	207.00	6473.93	-16.81	20.15	-17.00	26.25	129.84	0.42	0.32		
40	6,664	4.00	206.10	6662.43	-29.05	14.03	-29.18	32.26	154.21	0.16	-0.16		
41	6,854	3.90	208.40	6851.98	-40.68	8.05	-40.75	41.47	168.81	0.10	-0.05		
42	7,045	4.10	210.20	7042.52	-52.30	1.52	-52.31	52.32	178.33	0.12	0.10		
43	7,235	4.20	208.10	7232.02	-64.31	-5.17	-64.25	64.51	184.60	0.10	0.05		
44	7,425	3.60	210.60	7421.58	-75.58	-11.49	-75.47	76.44	188.64	0.33	-0.32		
45	7,615	3.30	208.20	7611.23	-85.53	-17.11	-85.37	87.22	191.31	0.18	-0.16		
46	7,806	3.20	210.90	7801.93	-94.95	-22.44	-94.74	97.57	193.30	0.10	-0.05		
47	7,996	2.80	210.30	7991.67	-103.51	-27.51	-103.25	107.10	194.88	0.21	-0.21		
48	8,186	1.80	215.40	8181.51	-109.95	-31.58	-109.65	114.39	196.02	0.54	-0.53		
49	8,377	1.40	232.60	8372.44	-113.81	-35.17	-113.48	119.12	197.17	0.33	-0.21		
50	8,567	1.00	257.90	8562.40	-115.57	-38.63	-115.20	121.85	198.48	0.34	-0.21		
51	8,756	0.50	275.60	8751.38	-115.83	-41.07	-115.45	122.90	199.52	0.29	-0.26		
52	8,946	1.40	324.00	8941.35	-113.87	-43.26	-113.47	121.81	200.80	0.60	0.47		
53	9,071	1.40	326.80	9066.32	-111.36	-44.99	-110.94	120.10	202.00	0.05	0.00		
54	9,151	3.30	344.60	9146.25	-108.32	-46.14	-107.89	117.74	203.07	2.52	2.38		
55	9,199	11.20	351.60	9193.83	-102.37	-47.19	-101.93	112.72	204.75	16.53	16.46		
56	9,246	17.00	353.60	9239.39	-91.02	-48.62	-90.56	103.19	208.11	12.38	12.34		
57	9,294	17.80	5.60	9285.21	-76.74	-48.69	-76.28	90.88	212.39	7.65	1.67		
58	9,341	21.40	4.30	9329.48	-61.03	-47.34	-60.59	77.24	217.80	7.72	7.66		
59	9,389	26.70	5.50	9373.30	-41.55	-45.65	-41.13	61.73	227.69	11.09	11.04		
60	9,436	27.80	9.30	9415.08	-20.22	-42.87	-19.82	47.40	244.75	4.38	2.34		
61	9,484	33.10	10.20	9456.45	3.74	-38.73	4.10	38.91	275.52	11.08	11.04		
62	9,531	40.00	11.30	9494.18	31.22	-33.49	31.53	45.79	312.99	14.75	14.68		
63	9,578	44.50	10.70	9528.96	62.23	-27.47	62.48	68.03	336.18	9.61	9.57		
64	9,625	49.90	9.50	9560.89	96.17	-21.44	96.37	98.53	347.43	11.64	11.49		
65	9,673	55.00	7.00	9590.13	133.82	-16.01	133.96	134.77	353.18	11.40	10.63		
66	9,720	58.40	3.50	9615.94	172.92	-12.44	173.03	173.37	355.88	9.54	7.23		
67	9,768	61.70	0.20	9639.90	214.48	-11.12	214.57	214.77	357.03	9.10	6.88		

Company:		Matador Production Company												
Well Name:		Florence State 23-23S-34E AR 111H												
Location:		Lea County, NM												
Rig:		Patterson #810					Magnetic Declination:		6.35		REFERENCED TO GRID NORTH			
Job Number:		MSMO-57075												
API #:		30-025-45223												
Vertical Section Azimuth:		359.47					Proposed Direction:		359.47					
Survey Calculation Method:		Minimum Curvature												
PTB:	MD		INC		AZM		TVD		N/S		E/W		VS	
	14,593		91.3		0		9684.52		5026.29		-33.44		5026.39	
#	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	9,815	66.50	358.40	9660.43	256.74	-11.65	256.84	257.00	357.40	10.78	10.21			
69	9,863	69.90	357.70	9678.25	301.27	-13.17	301.38	301.56	357.50	7.21	7.08			
70	9,910	76.30	357.70	9691.91	346.19	-14.97	346.31	346.51	357.52	13.62	13.62			
71	9,958	80.40	359.00	9701.60	393.17	-16.32	393.30	393.50	357.62	8.94	8.54			
72	10,005	83.50	359.80	9708.18	439.69	-16.81	439.83	440.02	357.81	6.81	6.60			
73	10,053	85.90	0.70	9712.61	487.48	-16.60	487.62	487.77	358.05	5.34	5.00			
74	10,100	88.90	1.40	9714.75	534.42	-15.74	534.55	534.65	358.31	6.55	6.38			
75	10,195	92.40	1.40	9713.67	629.37	-13.42	629.47	629.52	358.78	3.68	3.68			
76	10,294	91.40	0.70	9710.39	728.30	-11.61	728.38	728.39	359.09	1.23	-1.01			
77	10,389	92.40	0.60	9707.24	823.24	-10.53	823.30	823.31	359.27	1.06	1.05			
78	10,484	90.30	0.00	9705.00	918.21	-10.03	918.26	918.26	359.37	2.30	-2.21			
79	10,580	91.00	0.40	9703.91	1014.20	-9.70	1014.25	1014.25	359.45	0.84	0.73			
80	10,675	91.90	0.40	9701.50	1109.17	-9.03	1109.20	1109.20	359.53	0.95	0.95			
81	10,770	89.30	359.60	9700.51	1204.15	-9.03	1204.18	1204.19	359.57	2.86	-2.74			
82	10,866	88.70	359.10	9702.19	1300.13	-10.12	1300.17	1300.17	359.55	0.81	-0.62			
83	10,961	89.20	358.80	9703.93	1395.10	-11.86	1395.15	1395.15	359.51	0.61	0.53			
84	11,056	90.00	358.80	9704.59	1490.07	-13.85	1490.14	1490.14	359.47	0.84	0.84			
85	11,151	88.70	358.70	9705.67	1585.04	-15.93	1585.12	1585.12	359.42	1.37	-1.37			
86	11,246	89.50	359.00	9707.16	1680.01	-17.83	1680.11	1680.11	359.39	0.90	0.84			
87	11,341	90.60	359.00	9707.08	1775.00	-19.49	1775.10	1775.10	359.37	1.16	1.16			
88	11,435	89.50	359.60	9706.99	1868.99	-20.64	1869.10	1869.10	359.37	1.33	-1.17			
89	11,530	90.00	359.10	9707.41	1963.98	-21.72	1964.10	1964.10	359.37	0.74	0.53			
90	11,625	90.60	359.70	9706.91	2058.97	-22.71	2059.09	2059.10	359.37	0.89	0.63			
91	11,721	91.40	359.80	9705.24	2154.96	-23.13	2155.08	2155.08	359.39	0.84	0.83			
92	11,816	90.60	359.20	9703.58	2249.94	-23.96	2250.06	2250.06	359.39	1.05	-0.84			
93	11,911	89.20	359.10	9703.74	2344.92	-25.37	2345.06	2345.06	359.38	1.48	-1.47			
94	12,007	89.20	358.20	9705.08	2440.89	-27.63	2441.04	2441.04	359.35	0.94	0.00			
95	12,102	90.00	359.10	9705.75	2535.86	-29.87	2536.02	2536.03	359.33	1.27	0.84			
96	12,197	90.60	359.10	9705.25	2630.84	-31.36	2631.02	2631.03	359.32	0.63	0.63			
97	12,292	91.50	359.70	9703.51	2725.82	-32.35	2726.00	2726.01	359.32	1.14	0.95			
98	12,388	91.60	359.50	9700.91	2821.78	-33.02	2821.97	2821.98	359.33	0.23	0.10			
99	12,483	90.10	359.00	9699.50	2916.76	-34.27	2916.95	2916.96	359.33	1.66	-1.58			
100	12,578	89.20	359.50	9700.08	3011.75	-35.51	3011.95	3011.96	359.32	1.08	-0.95			
101	12,673	89.40	359.40	9701.24	3106.74	-36.42	3106.94	3106.95	359.33	0.24	0.21			

Company:		Matador Production Company									
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Location:		Lea County, NM									
Rig:		Patterson #810				Magnetic Declination:		6.35		REFERENCED TO GRID NORTH ▼	
Job Number:		MSMO-57075									
API #:		30-025-45223									
Vertical Section Azimuth:		359.47				Proposed Direction:		359.47			
Survey Calculation Method:		Minimum Curvature									
PTB:	MD		INC		AZM	TVD	N/S	E/W		VS	
	14,593		91.3		0	9684.52	5026.29	-33.44		5026.39	
#	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	12,768	89.70	359.10	9701.99	3201.73	-37.67	3201.94	3201.95	359.33	0.45	0.32
103	12,863	89.80	358.90	9702.40	3296.71	-39.32	3296.93	3296.95	359.32	0.24	0.11
104	12,958	90.40	358.80	9702.24	3391.69	-41.23	3391.93	3391.94	359.30	0.64	0.63
105	13,053	91.70	359.40	9700.50	3486.66	-42.72	3486.91	3486.92	359.30	1.51	1.37
106	13,149	91.40	359.80	9697.90	3582.62	-43.39	3582.87	3582.89	359.31	0.52	-0.31
107	13,244	91.20	359.80	9695.75	3677.60	-43.72	3677.85	3677.86	359.32	0.21	-0.21
108	13,339	91.90	0.00	9693.18	3772.56	-43.89	3772.81	3772.82	359.33	0.77	0.74
109	13,435	91.20	0.20	9690.58	3868.53	-43.72	3868.77	3868.77	359.35	0.76	-0.73
110	13,530	91.00	0.50	9688.76	3963.51	-43.14	3963.74	3963.74	359.38	0.38	-0.21
111	13,625	89.40	0.70	9688.42	4058.50	-42.15	4058.72	4058.72	359.40	1.70	-1.68
112	13,720	89.80	1.30	9689.09	4153.48	-40.49	4153.68	4153.68	359.44	0.76	0.42
113	13,816	91.30	1.30	9688.17	4249.45	-38.31	4249.62	4249.62	359.48	1.56	1.56
114	13,911	91.70	1.00	9685.68	4344.40	-36.41	4344.55	4344.55	359.52	0.53	0.42
115	14,006	90.20	0.40	9684.10	4439.37	-35.25	4439.51	4439.51	359.55	1.70	-1.58
116	14,101	88.40	359.90	9685.26	4534.36	-35.00	4534.49	4534.50	359.56	1.97	-1.89
117	14,196	89.10	359.80	9687.34	4629.34	-35.25	4629.47	4629.47	359.56	0.74	0.74
118	14,291	89.90	0.30	9688.17	4724.33	-35.16	4724.46	4724.47	359.57	0.99	0.84
119	14,386	90.30	0.50	9688.00	4819.33	-34.50	4819.44	4819.46	359.59	0.47	0.42
120	14,481	91.00	0.50	9686.92	4914.32	-33.67	4914.42	4914.44	359.61	0.74	0.74
121	14,533	91.30	0.00	9685.88	4966.31	-33.44	4966.41	4966.42	359.61	1.12	0.58
PTB:	14,593	91.30	0.00	9684.52	5026.29	-33.44	5026.39	5026.41	359.62	0.00	0.00