



Drilling Services
10000 West County Rd. 116
P.O. Box 61028
Midland, TX USA 79711
Tel. (432) 561-8892 Fax (432) 561-8895

Mewbourne Oil Co.
PO Box 5270
Hobbs, NM 88241

Date: August 27, 2018

Attention: Kyle Freidenbloom

Re: Mewbourne Oil Co.
Well: South Loving 2/11 WOCF State Com 1H
Eddy County, New Mexico

30.015-44967

NM OIL CONSERVATION
ARTESIA DISTRICT

DEC 12 2018

RECEIVED

Enclosed, please find the original survey performed on the referenced well by Precision Energy Services, Inc. (P-5 No. 676004), a Weatherford company. Other information required by your office is as follows:

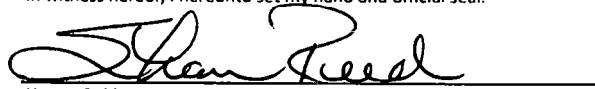
Name & Title Of Surveyor	Well Number	Surveyed Depths	Dates Performed	Type of Survey
Domingo Estrada MWD Supervisor	1H	597 MD 16,548 MD	8/6/2018 8/26/2018	Measurement While Drilling

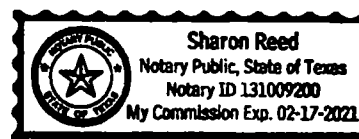
A notarized plan vs. actual is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Domingo Estrada
MWD Ops. Coordinator

On this, the 28th day of August, 2018, before me a notary public, the undersigned officer, personally appeared Domingo Estrada, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument, and acknowledged that he executed the same for the purposes therein contained.

In witness hereof, I hereunto set my hand and official seal.


Notary Public





5D Survey Report

Mewbourne Oil Company

Field Name: *Mewbourne Oil Company (Nad 83 NMEZ)*
Site Name: *South Loving 2/11 Pad*
Well Name: *South Loving 2/11 WOCF State Com 1H*
File number: *13266380*
Survey: *Definitive survey*

27 August 2018





South Loving 2/11 WOCF State Com 1H

Field Name: Mewbourne Oil Company (Nad 83 NMEZ)

Map Units: US ft

Company Name: Mewbourne Oil Company

Vertical Reference Datum (VRD): Mean Sea Level

Projected Coordinate System: NAD83 / New Mexico East (ftUS)

Comment:

Units: US ft

North Reference: Grid

Convergence Angle: 0.09

Site: South Loving 2/11 Pad

Elevation above MSL: 3152.00 US ft

Comment: Eddy Co., NM

Slot: South Loving 2/11 WOCF State Com 1H

Slot TVD Reference: Ground Elevation

Elevation above MSL: 3152.00 US ft

Comment:

Well: South Loving 2/11 WOCF State Com 1H

Type: Main well

UWI:

File Number: 13266380

Comment: Patterson 217

Closure Distance: 7301.62 US ft

Closure Azimuth: 173.96°

Vertical Section: Position of Origin (Relative to Slot centre)

+N/-S: 0.00 US ft

+E/-W: 0.00 US ft

Az: 179.53°

Drill floor: Survey Name: Definitive Survey

Rig Height (Drill Floor): 27.00 US ft

Elevation above MSL: 3179.00 US ft

Inclination: 0.00°

Azimuth: 0.00°

Survey Name: Definitive Survey

Date: 19/Jun/2018

Survey Tool: See Survey Tool Ranges below.

Comment:

Company:

Magnetic Model:

Model Name: bggm2018

Date: 25/Jul/2018

Field Strength: 47835.0nT

Declination: 7.18°

Dip: 59.93°

Tie Point:

MD: 0.00 US ft

Inclination: 0.00°

Azimuth: 0.00°

TVD: 0.00 US ft

North Offset: 0.00 US ft

East Offset: 0.00 US ft

Survey Tool Ranges:

Name	Start MD(USft)	End MD(USft)	Source Survey
GYRO-NS-OW	0.00	452.50	Phoenix Gyro
MWD	452.50	2258.00	MWD 1
MWD	2258.00	7800.00	MWD 2

SD Survey Report

Survey Tool Ranges:

Name	Start MD(usft)	End MD(usft)	Source Survey
MWD	7800.00	8642.00	MWD 3
MWD	8642.00	8801.00	MWD 4
MWD	8801.00	9458.00	MWD 5
MWD	9458.00	15081.00	MWD 6
MWD	15081.00	15176.00	MWD 7
MWD	15176.00	16605.00	MWD 8

Wellpath created using minimum curvature.

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
TD (US ft)	Inc (°)	AZ (°)	TVD (US ft)	NS (US ft)	E Offset (US ft)	E Offset (US ft)	DFS (US ft)	Depth (US ft)	Easting (US ft)	Comment
452.50	0.30	134.14	452.49	0.22	-0.20	1.71	0.27	455848.50	593264.21	Tie onto Phoenix Gyro
597.00	1.00	143.66	596.98	1.50	-1.48	2.72	0.49	455847.22	593265.22	First WFT MWD Svy
687.00	2.35	72.27	686.95	1.59	-1.55	4.95	2.49	455847.15	593267.45	
747.00	3.42	66.37	746.87	0.52	-0.46	7.76	1.85	455848.24	593270.26	
812.00	3.37	64.89	811.76	-1.04	1.13	11.26	0.16	455849.83	593273.76	
876.00	3.08	52.95	875.66	-2.84	2.96	14.34	1.14	455851.66	593276.84	
940.00	4.02	36.08	939.54	-5.67	5.81	17.03	2.18	455854.51	593279.53	
1003.00	5.75	37.34	1002.30	-9.94	10.11	20.25	2.75	455858.81	593282.75	
1067.00	7.19	47.05	1065.90	-15.18	15.38	25.13	2.82	455864.08	593287.63	
1130.00	6.91	49.65	1128.42	-20.27	20.52	30.90	0.67	455869.22	593293.40	
1194.00	6.03	52.86	1192.01	-24.75	25.05	36.51	1.49	455873.75	593299.01	
1257.00	4.95	56.14	1254.72	-28.22	28.56	41.41	1.78	455877.26	593303.91	
1321.00	4.71	53.87	1318.50	-31.27	31.65	45.82	0.48	455880.35	593308.32	
1384.00	4.47	51.34	1381.29	-34.30	34.71	49.83	0.50	455883.41	593312.33	
1448.00	4.03	50.20	1445.12	-37.26	37.70	53.51	0.70	455886.40	593316.01	
1511.00	4.29	57.15	1507.95	-39.93	40.40	57.19	0.90	455889.10	593319.69	
1575.00	4.88	62.41	1571.75	-42.45	42.96	61.61	1.13	455891.66	593324.11	
1638.00	5.02	68.35	1634.51	-44.67	45.22	66.55	0.84	455893.92	593329.05	
1702.00	5.06	79.61	1698.27	-46.17	46.76	71.92	1.54	455895.46	593334.42	
1765.00	4.22	82.08	1761.06	-46.95	47.58	76.95	1.37	455896.28	593339.45	
1829.00	3.20	73.15	1824.93	-47.75	48.42	81.00	1.83	455897.12	593343.50	
1927.00	4.40	52.35	1922.71	-50.80	51.51	86.59	1.85	455900.21	593349.09	
2021.00	5.14	58.43	2016.39	-55.15	55.92	93.03	0.95	455904.62	593355.53	
2117.00	5.10	64.82	2112.01	-59.16	59.98	100.56	0.60	455908.68	593363.06	
2212.00	3.99	44.95	2206.71	-63.24	64.12	106.72	2.01	455912.82	593369.22	
2258.00	3.92	41.28	2252.60	-65.54	66.43	108.88	0.57	455915.13	593371.38	
2406.00	3.44	42.52	2400.30	-72.56	73.51	115.22	0.33	455922.21	593377.72	
2500.00	4.93	62.46	2494.05	-76.46	77.45	120.71	2.19	455926.15	593383.21	
2688.00	4.86	65.25	2681.36	-83.41	84.52	135.10	0.13	455933.22	593397.60	
2877.00	4.49	64.55	2869.73	-89.83	91.06	149.06	0.20	455939.76	593411.56	
3065.00	3.79	66.15	3057.24	-95.40	96.73	161.38	0.38	455945.43	593423.88	
3253.00	5.34	59.81	3244.64	-102.21	103.64	174.63	0.87	455952.34	593437.13	
3441.00	4.66	60.46	3431.92	-110.25	111.81	188.83	0.36	455960.51	593451.33	
3630.00	6.49	57.26	3620.02	-119.69	121.37	204.50	0.98	455970.07	593467.00	
3819.00	6.40	60.00	3807.83	-130.58	132.41	222.61	0.17	455981.11	593485.11	
4009.00	6.49	63.11	3996.63	-140.58	142.56	241.35	0.19	455991.26	593503.85	
4199.00	6.13	65.00	4185.48	-149.57	151.71	260.13	0.22	456000.41	593522.63	
4389.00	5.64	50.25	4374.49	-159.69	161.97	276.50	0.83	456010.67	593539.00	
4579.00	4.42	49.52	4563.75	-170.31	172.69	289.25	0.64	456021.39	593551.75	
4768.00	4.82	58.99	4752.14	-179.03	181.51	301.59	0.45	456030.21	593564.09	
4956.00	3.99	56.52	4939.58	-186.60	189.19	313.82	0.45	456037.89	593576.32	
5145.00	5.13	56.34	5127.98	-194.81	197.50	326.33	0.60	456046.20	593588.83	
5335.00	4.12	55.81	5317.36	-203.25	206.04	339.05	0.53	456054.74	593601.55	
5525.00	5.38	59.73	5506.70	-211.47	214.37	352.39	0.68	456063.07	593614.89	
5714.00	4.38	66.51	5695.02	-218.69	221.71	366.66	0.61	456070.41	593629.16	
5904.00	3.48	79.01	5884.57	-222.58	225.70	378.98	0.65	456074.40	593641.48	

SD Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)											Comment
ID (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	B.Offset (US ft)	E.Offset (US ft)	DLS (° 100US ft)	Northng (US ft)	Eastng (US ft)		
6093.00	3.62	59.94	6073.22	-226.58	229.78	389.77	0.63	456078.48	593652.27		
6282.00	3.94	41.38	6261.81	-234.36	237.64	399.23	0.67	456086.34	593661.73		
6471.00	4.81	49.89	6450.26	-244.25	247.62	409.58	0.57	456096.32	593672.08		
6660.00	7.66	54.25	6638.12	-256.59	260.09	425.87	1.53	456108.79	593688.37		
6850.00	5.75	62.04	6826.82	-268.30	271.95	444.56	1.11	456120.65	593707.06		
7040.00	3.08	69.83	7016.24	-274.41	278.17	457.76	1.44	456126.87	593720.26		
7230.00	3.76	64.28	7205.90	-278.79	282.64	468.16	0.40	456131.34	593730.66		
7420.00	4.58	44.02	7395.41	-286.86	290.80	479.05	0.88	456139.50	593741.55		
7610.00	5.18	58.90	7584.73	-296.64	300.68	491.66	0.73	456149.38	593754.16		
7800.00	4.62	54.40	7774.03	-305.41	309.57	505.23	0.36	456158.27	593767.73		
7989.00	3.09	61.68	7962.60	-312.17	316.42	515.90	0.85	456165.12	593778.40		
8179.00	5.52	70.54	8152.05	-317.54	321.89	529.03	1.32	456170.59	593791.53		
8369.00	3.76	78.60	8341.42	-321.70	326.17	543.75	0.99	456174.87	593806.25		
8558.00	2.52	89.45	8530.14	-322.88	327.43	553.98	0.72	456176.13	593816.48		
8642.00	2.10	93.24	8614.07	-322.78	327.36	557.37	0.53	456176.06	593819.87		
8674.00	2.14	95.66	8646.05	-322.68	327.27	558.55	0.31	456175.97	593821.05		
8737.00	7.76	147.36	8708.81	-318.95	323.57	562.01	10.55	456172.27	593824.51		
8769.00	11.96	146.72	8740.33	-314.33	318.98	565.00	13.13	456167.68	593827.50		
8801.00	15.97	145.96	8771.37	-307.87	312.55	569.29	12.54	456161.25	593831.79		
8832.00	19.56	144.56	8800.89	-300.06	304.79	574.68	11.66	456153.49	593837.18		
8863.00	23.18	142.89	8829.76	-290.91	295.69	581.38	11.84	456144.39	593843.88		
8895.00	27.03	143.89	8858.73	-279.95	284.79	589.46	12.10	456133.49	593851.96		
8926.00	30.53	147.50	8885.90	-267.54	272.46	597.85	12.60	456121.16	593860.35		
8958.00	33.79	151.76	8912.99	-252.77	257.76	606.43	12.40	456106.46	593868.93		
8989.00	37.50	155.01	8938.18	-236.55	241.60	614.50	13.43	456090.30	593877.00		
9021.00	41.03	157.01	8962.95	-217.98	223.10	622.72	11.72	456071.80	593885.22		
9052.00	44.27	158.21	8985.75	-198.50	203.68	630.71	10.78	456052.38	593893.21		
9084.00	46.72	160.16	9008.18	-177.10	182.35	638.81	8.80	456031.05	593901.31		
9115.00	48.99	161.82	9028.98	-155.31	160.62	646.29	8.33	456009.32	593908.79		
9147.00	52.06	162.75	9049.32	-131.72	137.09	653.80	9.85	455985.79	593916.30		
9179.00	56.19	163.20	9068.07	-106.87	112.30	661.39	12.96	455961.00	593923.89		
9210.00	60.01	163.32	9084.45	-81.61	87.10	668.97	12.33	455935.80	593931.47		
9242.00	62.03	163.03	9099.95	-54.75	60.31	677.07	6.36	455909.01	593939.57		
9273.00	65.18	161.84	9113.73	-28.22	33.84	685.46	10.73	455882.54	593947.96		
9305.00	68.52	161.07	9126.31	-0.25	5.95	694.81	10.67	455854.65	593957.31		
9336.00	71.58	161.06	9136.88	27.39	-21.61	704.27	9.87	455827.09	593966.77		
9368.00	74.12	161.19	9146.32	56.40	-50.54	714.16	7.95	455798.16	593976.66		
9400.00	77.15	161.31	9154.26	85.83	-79.89	724.12	9.48	455768.81	593986.62		
9431.00	80.01	161.21	9160.40	114.68	-108.66	733.88	9.23	455740.04	593996.38		
9458.00	82.42	161.54	9164.52	140.03	-133.95	742.41	9.01	455714.75	594004.91		
9516.00	84.25	163.76	9171.25	195.15	-188.93	759.58	4.94	455659.77	594022.08		
9547.00	86.08	163.86	9173.86	224.89	-218.59	768.19	5.91	455630.11	594030.69		
9579.00	88.11	165.04	9175.49	255.74	-249.38	776.76	7.34	455599.32	594039.26		
9674.00	90.07	168.82	9176.99	348.42	-341.89	798.23	4.48	455506.81	594060.73		
9769.00	90.14	170.29	9176.82	441.98	-435.31	815.46	1.55	455413.39	594077.96		
9864.00	89.23	172.01	9177.34	535.96	-529.17	830.07	2.05	455319.53	594092.57		
9959.00	92.38	174.01	9176.01	630.32	-623.44	841.63	3.93	455225.26	594104.13		
10054.00	88.81	173.20	9175.02	724.79	-717.83	852.21	3.85	455130.87	594114.71		
10149.00	88.18	174.97	9177.52	819.33	-812.29	862.00	1.98	455036.41	594124.50		
10244.00	87.62	177.52	9181.00	914.10	-907.01	868.21	2.75	454941.69	594130.71		
10339.00	92.80	181.40	9180.65	1009.05	-1001.95	869.11	6.81	454846.75	594131.61		
10434.00	92.38	181.69	9176.36	1103.89	-1096.82	866.55	0.54	454751.88	594129.05		
10529.00	90.98	182.09	9173.57	1198.77	-1191.73	863.42	1.53	454656.97	594125.92		
10623.00	91.26	181.48	9171.74	1292.68	-1285.66	860.49	0.71	454563.04	594122.99		
10718.00	89.58	179.43	9171.04	1387.66	-1380.65	859.74	2.79	454468.05	594122.24		
10813.00	90.35	178.88	9171.10	1482.65	-1475.64	861.14	1.00	454373.06	594123.64		
10908.00	86.85	179.57	9173.42	1577.61	-1570.59	862.42	3.76	454278.11	594124.92		
11003.00	86.99	180.05	9178.52	1672.47	-1665.45	862.74	0.53	454183.25	594125.24		
11098.00	91.12	178.87	9180.09	1767.43	-1760.41	863.63	4.52	454088.29	594126.13		

5D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)											Comment
TD (US ft)	Inc (°)	As (°)	TVD (US ft)	VS (US ft)	H.Offset (US ft)	E.Offset (US ft)	DLS (± 100US ft)	Northing (US ft)	Easting (US ft)		
11193.00	92.10	180.06	9177.42	1862.39	-1855.36	864.52	1.62	453993.34	594127.02		
11288.00	92.66	180.47	9173.47	1957.30	-1950.28	864.08	0.73	453898.42	594126.58		
11383.00	89.44	180.75	9171.73	2052.26	-2045.25	863.07	3.40	453803.45	594125.57		
11477.00	89.02	181.68	9173.00	2146.21	-2139.21	861.08	1.09	453709.49	594123.58		
11572.00	87.83	181.72	9175.61	2241.10	-2234.14	858.26	1.25	453614.56	594120.76		
11667.00	90.00	182.30	9177.41	2335.99	-2329.05	854.93	2.36	453519.65	594117.43		
11762.00	89.72	181.40	9177.64	2430.91	-2424.00	851.86	0.99	453424.70	594114.36		
11857.00	88.67	182.65	9178.97	2525.81	-2518.93	848.50	1.72	453329.77	594111.00		
11951.00	89.44	181.59	9180.52	2619.70	-2612.85	845.03	1.39	453235.85	594107.53		
12046.00	90.56	177.49	9180.52	2714.67	-2707.83	845.79	4.47	453140.87	594108.29		
12141.00	91.68	178.51	9178.67	2809.62	-2802.75	849.10	1.59	453045.95	594111.60		
12236.00	90.70	178.94	9176.69	2904.59	-2897.70	851.22	1.13	452951.00	594113.72		
12330.00	90.28	179.02	9175.89	2998.58	-2991.68	852.89	0.45	452857.02	594115.39		
12426.00	87.41	179.38	9177.82	3094.55	-3087.65	854.23	3.01	452761.05	594116.73		
12521.00	89.37	180.00	9180.49	3189.51	-3182.60	854.74	2.16	452666.10	594117.24		
12616.00	89.02	179.99	9181.83	3284.49	-3277.59	854.75	0.37	452571.11	594117.25		
12711.00	93.08	179.85	9180.09	3379.46	-3372.56	854.89	4.28	452476.14	594117.39		
12806.00	92.66	179.29	9175.33	3474.34	-3467.43	855.60	0.74	452381.27	594118.10		
12900.00	92.80	180.12	9170.85	3568.23	-3561.32	856.08	0.89	452287.38	594118.58		
12995.00	89.79	181.19	9168.71	3663.17	-3656.28	855.00	3.36	452192.42	594117.50		
13089.00	88.53	180.48	9170.09	3757.14	-3750.26	853.63	1.54	452098.44	594116.13		
13184.00	92.03	182.28	9169.62	3852.07	-3845.21	851.34	4.14	452003.49	594113.84		
13279.00	91.40	182.31	9166.78	3946.91	-3940.09	847.54	0.66	451908.61	594110.04		
13373.00	89.72	181.68	9165.86	4040.82	-4034.03	844.26	1.91	451814.67	594106.76		
13468.00	90.14	181.83	9165.98	4135.75	-4128.98	841.35	0.47	451719.72	594103.85		
13563.00	89.51	181.78	9166.27	4230.67	-4223.93	838.36	0.67	451624.77	594100.86		
13658.00	88.67	181.69	9167.77	4325.59	-4318.88	835.49	0.89	451529.82	594097.99		
13753.00	90.84	179.11	9168.18	4420.56	-4413.86	834.82	3.55	451434.84	594097.32		
13848.00	89.02	177.56	9168.30	4515.53	-4508.81	837.58	2.52	451339.89	594100.08		
13943.00	91.54	179.71	9167.83	4610.51	-4603.77	839.85	3.49	451244.93	594102.35		
14038.00	91.54	180.18	9165.28	4705.47	-4698.74	839.94	0.49	451149.96	594102.44		
14133.00	89.30	178.39	9164.58	4800.46	-4793.72	841.12	3.02	451054.98	594103.62		
14228.00	89.72	178.83	9165.40	4895.44	-4888.69	843.43	0.64	450960.01	594105.93		
14323.00	91.40	180.56	9164.47	4990.43	-4983.67	843.93	2.54	450865.03	594106.43		
14418.00	92.24	181.87	9161.45	5085.34	-5078.60	841.92	1.64	450770.10	594104.42		
14512.00	91.61	181.63	9158.29	5179.21	-5172.50	839.05	0.72	450676.20	594101.55		
14607.00	85.93	179.03	9160.33	5274.13	-5267.43	838.50	6.57	450581.27	594101.00		
14702.00	87.62	180.19	9165.68	5368.98	-5362.28	839.15	2.16	450486.42	594101.65		
14797.00	88.74	180.18	9168.69	5463.92	-5457.23	838.84	1.18	450391.47	594101.34		
14892.00	88.25	180.31	9171.19	5558.88	-5552.19	838.43	0.53	450296.51	594100.93		
14987.00	90.28	180.99	9172.41	5653.85	-5647.17	837.36	2.25	450201.53	594099.86		
15081.00	91.54	182.47	9170.91	5747.77	-5741.11	834.52	2.07	450107.59	594097.02		
15176.00	88.88	180.98	9170.56	5842.68	-5836.06	831.66	3.21	450012.64	594094.16		
15268.00	89.86	182.44	9171.58	5934.61	-5928.01	828.91	1.91	449920.69	594091.41		
15363.00	91.12	180.41	9170.76	6029.55	-6022.97	826.55	2.51	449825.73	594089.05		
15458.00	91.75	181.26	9168.38	6124.49	-6117.93	825.17	1.11	449730.77	594087.67		
15553.00	90.77	181.26	9166.30	6219.42	-6212.88	823.08	1.03	449635.82	594085.58		
15649.00	91.40	182.22	9164.48	6315.33	-6308.82	820.17	1.20	449539.88	594082.67		
15744.00	90.07	178.94	9163.26	6410.29	-6403.79	819.20	3.73	449444.91	594081.70		
15839.00	90.00	178.66	9163.20	6505.29	-6498.77	821.19	0.30	449349.93	594083.69		
15934.00	88.32	178.05	9164.59	6600.25	-6593.72	823.92	1.88	449254.98	594086.42		
16029.00	88.39	181.47	9167.32	6695.20	-6688.66	824.32	3.60	449160.04	594086.82		
16124.00	90.35	185.56	9168.37	6789.94	-6783.45	818.50	4.77	449065.25	594081.00		
16218.00	91.47	190.62	9166.87	6882.85	-6876.47	805.27	5.51	448972.23	594067.77		
16313.00	90.91	188.89	9164.90	6976.31	-6970.08	789.18	1.91	448878.62	594051.68		
16408.00	92.24	185.21	9162.29	7070.44	-7064.30	777.53	4.12	448784.40	594040.03		
16503.00	90.21	182.29	9160.26	7165.15	-7159.06	771.32	3.74	448689.64	594033.82		
16548.00	89.30	181.10	9160.45	7210.12	-7204.04	769.99	3.33	448644.66	594032.49	Last WFT MWD Sys	

3D Survey Report

Survey Points: (Relative to Slot centre)(TVD relative to Drill Floor)										
PD (US ft)	Inc (°)	Alt (")	TVD (US ft)	NS (US ft)	N. Offset (US ft)	E. Offset (US ft)	PES (° 100.5 ft)	Bottoming (US ft)	Easting (US ft)	Comment
16605.00	89.30	181.10	9161.15	7267.09	-7261.03	768.89	0.00	448587.67	594031.39	Proj to TD