



30-025-44321

Mewbourne Oil Company

Lea County N. M. Nad (83)

Section 3-22S-34E Ram 3 B2PA State Com #2H

Ram 3 B2PA State Com #2H

Original Hole

Design: Original Hole

Standard Survey Report

22 March, 2018



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ram 3 B2PA State Com #2H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3590 +27 @ 3617.0usft (Patterson 220)
Site:	Section 3-22S-34E Ram 3 B2PA State Com #2H	MD Reference:	3590 +27 @ 3617.0usft (Patterson 220)
Well:	Ram 3 B2PA State Com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Project	Lea County N. M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Section 3-22S-34E Ram 3 B2PA State Com #2H				
Site Position:		Northing:	515,483.10 usft	Latitude:	32° 24' 50.547 N
From:	Map	Easting:	813,607.80 usft	Longitude:	103° 27' 3.727 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.47 °

Well	Ram 3 B2PA State Com #2H					
Well Position	+N/-S	0.0 usft	Northing:	515,483.10 usft	Latitude:	32° 24' 50.547 N
	+E/-W	0.0 usft	Easting:	813,607.80 usft	Longitude:	103° 27' 3.727 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	27.0 usft	Ground Level:	3,590.0 usft

Wellbore	Original Hole
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/7/2018	6.84	60.25	47,996.01289477

Design	Original Hole
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Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	29.51

Survey Program	Date 3/22/2018
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From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	5,628.0	Phoenix Tech Survey (Original Hole)	SRG-GYRO-MS	surface readout gyro multishot
5,720.0	15,090.0	MWD2 Survey (Original Hole)	MWD	MWD v3:standard declination

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.35	33.41	100.0	0.3	0.2	0.3	0.35	0.35	0.00
200.0	0.36	110.60	200.0	0.4	0.6	0.7	0.44	0.01	77.19
300.0	0.25	44.97	300.0	0.4	1.1	0.9	0.34	-0.11	-65.63
400.0	0.20	82.13	400.0	0.6	1.4	1.2	0.15	-0.05	37.16
500.0	0.26	104.24	500.0	0.6	1.8	1.4	0.11	0.06	22.11
600.0	0.42	94.95	600.0	0.5	2.4	1.6	0.17	0.16	-9.29
700.0	0.64	107.29	700.0	0.3	3.3	1.9	0.25	0.22	12.34
800.0	0.39	338.84	800.0	0.5	3.7	2.2	0.93	-0.25	-128.45
900.0	0.15	75.57	900.0	0.8	3.7	2.5	0.43	-0.24	96.73

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ram 3 B2PA State Com #2H
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Well:	Ram 3 B2PA State Com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	0.06	242.46	1,000.0	0.8	3.8	2.6	0.21	-0.09	166.89
1,100.0	0.22	136.69	1,100.0	0.7	3.9	2.5	0.24	0.16	-105.77
1,200.0	0.55	96.96	1,200.0	0.5	4.5	2.6	0.41	0.33	-39.73
1,300.0	0.75	68.94	1,300.0	0.6	5.6	3.3	0.37	0.20	-28.02
1,400.0	0.80	49.60	1,400.0	1.3	6.7	4.4	0.26	0.05	-19.34
1,500.0	0.52	41.65	1,500.0	2.1	7.5	5.5	0.29	-0.28	-7.95
1,600.0	0.70	354.57	1,600.0	3.1	7.8	6.5	0.51	0.18	-47.08
1,700.0	0.58	328.71	1,700.0	4.1	7.5	7.2	0.31	-0.12	-25.86
1,800.0	0.46	283.63	1,799.9	4.6	6.8	7.4	0.41	-0.12	-45.08
1,900.0	0.28	239.67	1,899.9	4.6	6.2	7.1	0.32	-0.18	-43.96
2,000.0	0.47	131.58	1,999.9	4.2	6.3	6.8	0.62	0.19	-108.09
2,100.0	0.41	100.48	2,099.9	3.9	7.0	6.8	0.24	-0.06	-31.10
2,200.0	0.58	23.34	2,199.9	4.3	7.5	7.4	0.63	0.17	-77.14
2,300.0	0.63	58.32	2,299.9	5.0	8.2	8.4	0.37	0.05	34.98
2,400.0	0.39	20.17	2,399.9	5.6	8.8	9.2	0.40	-0.24	-38.15
2,500.0	0.56	29.86	2,499.9	6.4	9.1	10.0	0.19	0.17	9.69
2,600.0	0.67	40.39	2,599.9	7.2	9.7	11.1	0.16	0.11	10.53
2,700.0	0.84	48.62	2,699.9	8.2	10.7	12.4	0.20	0.17	8.23
2,800.0	1.14	46.94	2,799.9	9.3	12.0	14.0	0.30	0.30	-1.68
2,900.0	0.99	37.55	2,899.9	10.7	13.2	15.8	0.23	-0.15	-9.39
3,000.0	1.28	46.06	2,999.9	12.2	14.5	17.7	0.33	0.29	8.51
3,100.0	1.37	54.24	3,099.8	13.6	16.3	19.9	0.21	0.09	8.18
3,200.0	1.24	61.72	3,199.8	14.8	18.2	21.9	0.21	-0.13	7.48
3,300.0	1.52	52.47	3,299.8	16.2	20.2	24.0	0.36	0.28	-9.25
3,400.0	1.49	39.14	3,399.7	18.0	22.1	26.5	0.35	-0.03	-13.33
3,500.0	1.59	62.36	3,499.7	19.6	24.2	29.0	0.63	0.10	23.22
3,600.0	1.22	66.33	3,599.7	20.7	26.4	31.0	0.38	-0.37	3.97
3,700.0	1.21	67.56	3,699.7	21.5	28.3	32.7	0.03	-0.01	1.23
3,800.0	1.20	74.53	3,799.6	22.2	30.3	34.3	0.15	-0.01	6.97
3,900.0	1.20	68.28	3,899.6	22.9	32.3	35.8	0.13	0.00	-6.25
4,000.0	1.52	73.53	3,999.6	23.6	34.5	37.6	0.34	0.32	5.25
4,100.0	1.47	67.73	4,099.5	24.5	37.0	39.5	0.16	-0.05	-5.80
4,200.0	1.51	68.95	4,199.5	25.5	39.4	41.6	0.05	0.04	1.22
4,300.0	2.16	80.20	4,299.5	26.3	42.5	43.8	0.74	0.65	11.25
4,400.0	3.75	94.48	4,399.3	26.3	47.6	46.4	1.74	1.59	14.28
4,500.0	3.81	112.91	4,499.1	24.8	53.9	48.1	1.21	0.06	18.43
4,600.0	3.09	94.04	4,598.9	23.3	59.7	49.7	1.34	-0.72	-18.87
4,700.0	3.70	98.75	4,698.8	22.6	65.6	52.0	0.67	0.61	4.71
4,800.0	3.21	101.26	4,798.6	21.6	71.5	54.0	0.51	-0.49	2.51
4,900.0	2.89	100.08	4,898.4	20.6	76.7	55.7	0.33	-0.32	-1.18
5,000.0	2.75	101.80	4,998.3	19.7	81.5	57.3	0.16	-0.14	1.72
5,100.0	2.71	101.93	5,098.2	18.7	86.2	58.7	0.04	-0.04	0.13
5,200.0	2.36	102.81	5,198.1	17.7	90.5	60.0	0.35	-0.35	0.88

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	2.43	100.69	5,298.0	16.9	94.6	61.3	0.11	0.07	-2.12
5,400.0	2.53	102.61	5,397.9	16.0	98.9	62.6	0.13	0.10	1.92
5,500.0	2.21	107.17	5,497.8	15.0	102.9	63.7	0.37	-0.32	4.56
5,600.0	2.13	116.26	5,597.8	13.6	106.4	64.2	0.35	-0.08	9.09
5,628.0	2.04	116.72	5,625.7	13.1	107.3	64.2	0.33	-0.32	1.64
5628' MD Gyro Survey									
5,720.0	1.50	116.00	5,717.7	11.8	109.8	64.4	0.59	-0.59	-0.78
5,781.0	2.10	178.00	5,778.7	10.4	110.6	63.5	3.15	0.98	101.64
5,876.0	3.30	190.20	5,873.6	5.9	110.2	59.4	1.39	1.26	12.84
5,970.0	3.50	189.00	5,967.4	0.4	109.2	54.2	0.23	0.21	-1.28
6,065.0	3.40	186.20	6,062.2	-5.2	108.5	48.9	0.21	-0.11	-2.95
6,159.0	3.30	207.60	6,156.1	-10.4	106.9	43.6	1.33	-0.11	22.77
6,253.0	3.30	208.60	6,249.9	-15.2	104.4	38.2	0.06	0.00	1.06
6,348.0	3.30	204.20	6,344.8	-20.1	101.9	32.8	0.27	0.00	-4.63
6,443.0	3.20	207.00	6,439.6	-24.9	99.6	27.4	0.20	-0.11	2.95
6,537.0	3.50	207.80	6,533.5	-29.8	97.1	21.9	0.32	0.32	0.85
6,632.0	3.30	201.90	6,628.3	-34.9	94.7	16.3	0.42	-0.21	-6.21
6,726.0	3.30	209.60	6,722.1	-39.8	92.4	10.9	0.47	0.00	8.19
6,820.0	3.50	204.10	6,816.0	-44.7	89.9	5.3	0.41	0.21	-5.85
6,915.0	3.50	208.60	6,910.8	-49.9	87.3	-0.4	0.29	0.00	4.74
7,009.0	3.40	209.20	7,004.6	-54.9	84.5	-6.1	0.11	-0.11	0.64
7,104.0	3.50	205.00	7,099.4	-60.0	81.9	-11.8	0.29	0.11	-4.42
7,199.0	3.70	207.10	7,194.3	-65.3	79.3	-17.8	0.25	0.21	2.21
7,293.0	3.60	212.10	7,288.1	-70.5	76.4	-23.7	0.35	-0.11	5.32
7,388.0	3.20	206.20	7,382.9	-75.4	73.6	-29.4	0.56	-0.42	-6.21
7,482.0	3.10	210.90	7,476.8	-80.0	71.2	-34.5	0.29	-0.11	5.00
7,577.0	3.30	205.80	7,571.6	-84.6	68.6	-39.8	0.37	0.21	-5.37
7,672.0	3.10	214.10	7,666.5	-89.2	66.0	-45.1	0.53	-0.21	8.74
7,766.0	2.70	209.40	7,760.3	-93.2	63.5	-49.9	0.49	-0.43	-5.00
7,861.0	2.70	218.00	7,855.2	-97.0	61.0	-54.3	0.43	0.00	9.05
7,955.0	2.90	215.70	7,949.1	-100.6	58.3	-58.9	0.24	0.21	-2.45
8,050.0	2.60	222.20	8,044.0	-104.2	55.4	-63.4	0.46	-0.32	6.84
8,144.0	3.80	217.00	8,137.9	-108.2	52.1	-68.5	1.31	1.28	-5.53
8,240.0	3.70	218.70	8,233.7	-113.2	48.3	-74.7	0.16	-0.10	1.77
8,334.0	3.80	197.80	8,327.5	-118.5	45.4	-80.8	1.45	0.11	-22.23
8,429.0	3.30	202.50	8,422.3	-124.1	43.4	-86.6	0.61	-0.53	4.95
8,523.0	3.10	197.40	8,516.1	-129.0	41.6	-91.7	0.37	-0.21	-5.43
8,617.0	3.10	205.20	8,610.0	-133.7	39.8	-96.8	0.45	0.00	8.30
8,712.0	2.40	201.20	8,704.9	-137.9	38.0	-101.3	0.76	-0.74	-4.21
8,806.0	3.30	197.80	8,798.8	-142.3	36.4	-105.9	0.97	0.96	-3.62
8,901.0	3.90	188.80	8,893.6	-148.1	35.1	-111.6	0.87	0.63	-9.47
8,995.0	3.50	187.20	8,987.4	-154.1	34.2	-117.2	0.44	-0.43	-1.70
9,090.0	4.40	209.70	9,082.2	-160.1	32.1	-123.6	1.87	0.95	23.68

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Well:	Ram 3 B2PA State Com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,185.0	4.00	215.60	9,176.9	-166.0	28.3	-130.5	0.62	-0.42	6.21
9,279.0	3.70	221.40	9,270.7	-170.9	24.4	-136.7	0.52	-0.32	6.17
9,374.0	4.20	229.20	9,365.5	-175.5	19.8	-143.0	0.77	0.53	8.21
9,469.0	2.90	227.20	9,460.3	-179.4	15.4	-148.6	1.37	-1.37	-2.11
9,563.0	1.00	215.50	9,554.2	-181.7	13.1	-151.7	2.05	-2.02	-12.45
9,658.0	9.00	222.20	9,648.8	-187.9	7.7	-159.7	8.43	8.42	7.05
9,709.2	4.52	223.49	9,699.7	-192.3	3.6	-165.6	8.75	-8.74	2.51
B.B. Ram 3 B2PA St Com #2H									
9,752.0	0.80	235.60	9,742.4	-193.7	2.2	-167.5	8.75	-8.70	28.34
9,770.0	1.30	351.00	9,760.4	-193.6	2.0	-167.5	9.97	2.78	641.11
9,827.0	3.30	343.20	9,817.3	-191.4	1.5	-165.8	3.54	3.51	-13.68
9,859.0	7.50	353.50	9,849.2	-188.4	1.0	-163.5	13.42	13.13	32.19
9,890.0	11.00	355.90	9,879.8	-183.5	0.5	-159.4	11.36	11.29	7.74
9,922.0	14.20	355.30	9,911.0	-176.5	0.0	-153.6	10.01	10.00	-1.88
9,953.0	16.40	354.80	9,940.9	-168.4	-0.7	-146.9	7.11	7.10	-1.61
9,985.0	19.00	354.50	9,971.4	-158.7	-1.6	-138.9	8.13	8.13	-0.94
10,016.0	22.30	355.60	10,000.4	-147.8	-2.6	-129.9	10.72	10.65	3.55
10,047.0	26.10	358.50	10,028.6	-135.1	-3.2	-119.1	12.84	12.26	9.35
10,079.0	30.40	1.40	10,056.8	-120.0	-3.2	-106.0	14.10	13.44	9.06
10,110.0	34.90	2.70	10,082.9	-103.2	-2.6	-91.1	14.69	14.52	4.19
10,142.0	37.80	5.10	10,108.7	-84.3	-1.3	-74.0	10.09	9.06	7.50
10,174.0	40.70	5.50	10,133.5	-64.2	0.6	-55.6	9.10	9.06	1.25
10,205.0	44.70	3.90	10,156.3	-43.2	2.3	-36.5	13.37	12.90	-5.16
10,237.0	49.40	2.40	10,178.1	-19.8	3.6	-15.5	15.08	14.69	-4.69
10,269.0	53.70	1.40	10,197.9	5.2	4.4	6.7	13.66	13.44	-3.13
10,300.0	57.10	2.20	10,215.5	30.7	5.2	29.3	11.17	10.97	2.58
10,332.0	59.80	2.00	10,232.3	57.9	6.2	53.5	8.45	8.44	-0.63
10,363.0	62.20	1.60	10,247.3	85.0	7.1	77.5	7.82	7.74	-1.29
10,394.0	65.70	1.40	10,260.9	112.9	7.8	102.1	11.31	11.29	-0.65
10,426.0	68.20	1.40	10,273.5	142.3	8.5	128.0	7.81	7.81	0.00
10,457.0	71.00	1.40	10,284.3	171.4	9.2	153.7	9.03	9.03	0.00
10,489.0	75.80	1.00	10,293.4	202.0	9.9	180.7	15.05	15.00	-1.25
10,520.0	80.90	0.90	10,299.7	232.4	10.4	207.3	16.45	16.45	-0.32
10,552.0	85.30	0.70	10,303.5	264.1	10.8	235.2	13.76	13.75	-0.63
10,577.7	88.27	1.02	10,304.9	289.8	11.2	257.7	11.63	11.56	1.25
LP Ram 3 B2PA State Com #2H									
10,584.0	89.00	1.10	10,305.1	296.1	11.3	263.2	11.63	11.56	1.25
10,682.0	91.50	2.40	10,304.7	394.0	14.3	349.9	2.88	2.55	1.33
10,777.0	91.60	1.40	10,302.1	488.9	17.4	434.1	1.06	0.11	-1.05
10,871.0	90.90	0.50	10,300.0	582.9	19.0	516.6	1.21	-0.74	-0.96
10,965.0	90.20	359.80	10,299.1	676.9	19.3	598.5	1.05	-0.74	-0.74
11,059.0	89.90	359.30	10,299.1	770.9	18.5	680.0	0.62	-0.32	-0.53
11,154.0	90.90	359.40	10,298.4	865.9	17.4	762.1	1.06	1.05	0.11
11,248.0	91.40	358.80	10,296.5	959.8	16.0	843.2	0.83	0.53	-0.64

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ram 3 B2PA State Com #2H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3590 +27 @ 3617.0usft (Patterson 220)
Site:	Section 3-22S-34E Ram 3 B2PA State Com #2H	MD Reference:	3590 +27 @ 3617.0usft (Patterson 220)
Well:	Ram 3 B2PA State Com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,342.0	91.60	357.80	10,294.1	1,053.8	13.2	923.5	1.08	0.21	-1.06
11,437.0	92.30	357.10	10,290.8	1,148.6	9.0	1,004.0	1.04	0.74	-0.74
11,532.0	86.10	357.10	10,292.1	1,243.4	4.1	1,084.2	6.53	-6.53	0.00
11,626.0	85.50	356.60	10,299.0	1,337.0	-1.0	1,163.1	0.83	-0.64	-0.53
11,721.0	89.20	355.90	10,303.4	1,431.7	-7.2	1,242.4	3.96	3.89	-0.74
11,816.0	91.30	357.10	10,303.0	1,526.5	-13.0	1,322.1	2.55	2.21	1.26
11,910.0	89.90	354.80	10,302.0	1,620.3	-19.6	1,400.4	2.86	-1.49	-2.45
12,005.0	90.90	355.70	10,301.4	1,714.9	-27.5	1,478.9	1.42	1.05	0.95
12,099.0	93.80	358.40	10,297.5	1,808.7	-32.3	1,558.1	4.21	3.09	2.87
12,194.0	90.30	0.40	10,294.1	1,903.6	-33.3	1,640.2	4.24	-3.68	2.11
12,288.0	91.30	1.40	10,292.8	1,997.6	-31.9	1,722.8	1.50	1.06	1.06
12,383.0	94.10	2.40	10,288.3	2,092.4	-28.7	1,806.8	3.13	2.95	1.05
12,472.0	94.80	2.10	10,281.4	2,181.1	-25.2	1,885.7	0.86	0.79	-0.34
12,567.0	95.70	2.60	10,272.7	2,275.6	-21.4	1,969.9	1.08	0.95	0.53
12,661.0	93.10	2.90	10,265.5	2,369.2	-16.9	2,053.6	2.78	-2.77	0.32
12,756.0	88.40	359.90	10,264.3	2,464.2	-14.5	2,137.3	5.87	-4.95	-3.16
12,850.0	88.70	0.00	10,266.6	2,558.1	-14.6	2,219.0	0.34	0.32	0.11
12,944.0	88.40	359.90	10,269.0	2,652.1	-14.7	2,300.8	0.34	-0.32	-0.11
13,039.0	87.80	0.00	10,272.2	2,747.1	-14.8	2,383.4	0.64	-0.63	0.11
13,134.0	90.10	358.90	10,273.9	2,842.0	-15.7	2,465.6	2.68	2.42	-1.16
13,228.0	89.70	358.90	10,274.1	2,936.0	-17.5	2,546.5	0.43	-0.43	0.00
13,322.0	91.30	358.60	10,273.3	3,030.0	-19.6	2,627.2	1.73	1.70	-0.32
13,417.0	91.70	358.60	10,270.8	3,124.9	-21.9	2,708.7	0.42	0.42	0.00
13,511.0	90.60	2.60	10,268.9	3,218.9	-20.9	2,791.0	4.41	-1.17	4.26
13,605.0	89.40	357.30	10,268.9	3,312.8	-21.0	2,872.7	5.78	-1.28	-5.64
13,699.0	89.20	357.10	10,270.0	3,406.7	-25.6	2,952.1	0.30	-0.21	-0.21
13,794.0	90.00	357.30	10,270.7	3,501.6	-30.2	3,032.4	0.87	0.84	0.21
13,889.0	93.20	358.80	10,268.0	3,596.5	-33.4	3,113.4	3.72	3.37	1.58
13,983.0	93.70	358.70	10,262.4	3,690.3	-35.5	3,194.0	0.54	0.53	-0.11
14,078.0	93.50	359.30	10,256.4	3,785.1	-37.1	3,275.7	0.66	-0.21	0.63
14,173.0	92.20	0.70	10,251.7	3,880.0	-37.1	3,358.3	2.01	-1.37	1.47
14,267.0	89.20	1.90	10,250.5	3,973.9	-35.0	3,441.1	3.44	-3.19	1.28
14,362.0	88.60	2.10	10,252.4	4,068.9	-31.7	3,525.4	0.67	-0.63	0.21
14,456.0	88.40	2.20	10,254.8	4,162.8	-28.2	3,608.8	0.24	-0.21	0.11
14,551.0	90.20	1.50	10,256.0	4,257.7	-25.1	3,692.9	2.03	1.89	-0.74
14,645.0	91.00	1.80	10,255.0	4,351.7	-22.4	3,776.0	0.91	0.85	0.32
14,739.0	90.80	2.20	10,253.5	4,445.6	-19.1	3,859.4	0.48	-0.21	0.43
14,833.0	91.60	2.40	10,251.6	4,539.5	-15.3	3,943.0	0.88	0.85	0.21
14,927.0	91.30	2.50	10,249.2	4,633.4	-11.3	4,026.7	0.34	-0.32	0.11
15,021.0	90.90	2.20	10,247.4	4,727.3	-7.5	4,110.3	0.53	-0.43	-0.32
15,034.0	90.10	1.80	10,247.3	4,740.3	-7.0	4,121.8	6.88	-6.15	-3.08
15,090.0	90.10	1.80	10,247.2	4,796.2	-5.3	4,171.4	0.00	0.00	0.00

15090.0' MD Projected to Bit - PBHL Ram 3 B2PA State Com #2H



Microsoft Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ram 3 B2PA State Com #2H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3590 +27 @ 3617.0usft (Patterson 220)
Site:	Section 3-22S-34E Ram 3 B2PA State Com #2H	MD Reference:	3590 +27 @ 3617.0usft (Patterson 220)
Well:	Ram 3 B2PA State Com #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,628.0	5,625.7	13.1	107.3	5628' MD Gyro Survey
15,090.0	10,247.2	4,796.2	-5.3	15090.0' MD Projected to Bit



COMPANY: Mewbourne Oil Company
WELL: Ram 3 B2PA State Com #2H
COUNTY: Lea County N. M. Nad (83)
DATUM: North American Datum 1983
RIG: Patterson 220

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.37°



OFFICE: 936.582.729

NOBBS OCD
AUG 14 2018
RECEIVED

GEODETIC ZONE: New Mexico Eastern Zone
3590 +27 @ 3617.0usft (Patterson 220)

GROUND ELEVATION: 3590.0

+N/-S	+E/-W	North	East	Latitude	Longitude	Slot
0.0	0.0	515483.10	813607.80	32° 24' 50.547 N	103° 27' 3.727 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	5628.0	2.04	116.72	5625.7	13.1	107.3	0.00	0.00	12.7	
2	5764.0	0.00	0.00	5761.7	12.0	109.4	1.50	180.00	11.6	
3	5999.2	3.53	205.54	5996.8	5.5	106.3	1.50	205.54	5.1	
4	9473.9	3.53	205.54	9464.9	-187.5	14.1	0.00	0.00	-187.5	
5	9709.2	0.00	0.00	9700.0	-194.0	11.0	1.50	180.00	-194.0	B.B. Ram 3 B2PA St Com #2H
6	9838.8	0.00	0.00	9829.6	-194.0	11.0	0.00	0.00	-194.0	
7	10595.1	90.76	359.65	10307.0	289.8	8.1	12.00	359.65	289.8	PBHL Ram 3 B2PA State Com #2H
8	15113.1	90.76	359.65	10247.0	4807.3	-19.2	0.00	0.00	4807.3	

SHL: 205' FSL; 560' FEL
Section 3-22S-34E
PBHL: 330' FNL; 550' FEL
Section 3-22S-34E



Azimuths to Grid North
True North: -0.47°
Magnetic North: 6.37°

Magnetic Field
Strength: 47996.0snT
Dip Angle: 60.25°
Date: 2/7/2018
Model: IGRF2015

