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Mewbourne Oil Company

Eddy County, N.M. Nad (83)

Section 28-23S-28E Night Ranger 28 W2AP Fee 1H

Night Ranger 28 W2AP Fee 1H

Original Hole

30-015-44286

Design: Original Hole

Standard Survey Report

28 August, 2018





Microsoft Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 28-23S-28E Night Ranger 28 W2AP Fee 1H
Well: Night Ranger 28 W2AP Fee 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Night Ranger 28 W2AP Fee 1H
TVD Reference: 3036 + 27 @ 3063.0usft (Patterson 560)
MD Reference: 3036 + 27 @ 3063.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Project	Eddy 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 28-23S-28E Night Ranger 28 W2AP Fee 1H			
Site Position:		Northing:	466,693.70 usft	Latitude: 32° 16' 57.980 N
From:	Map	Easting:	617,863.40 usft	Longitude: 104° 5' 8.532 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.13 °

Well	Night Ranger 28 W2AP Fee 1H			
Well Position	+N/-S	0.0 usft	Northing:	466,693.70 usft
	+E/-W	0.0 usft	Easting:	617,863.40 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	27.0 usft
			Ground Level:	3,036.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/6/2018	7.09	60.02	47,821.24881412

Design	Original Hole				
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	214.21	

Survey Program	Date 8/28/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	200.0	Gyro Survey #1 (Original Hole)	NSG-CT_WL	Continuous north-seeking gyro on wireline
215.0	15,075.0	MWD Survey #2 (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	0.04	61.68	100.0	0.0	0.0	0.0	0.04	0.04	0.00
200.0	1.38	215.74	200.0	-0.9	-0.6	1.1	1.42	1.34	154.06
200.0' MD Gyro Survey									
215.0	1.37	211.50	215.0	-1.2	-0.8	1.5	0.68	-0.07	-28.27
315.0	2.20	217.30	314.9	-3.8	-2.6	4.6	0.85	0.83	5.80
357.0	2.20	219.50	356.9	-5.1	-3.6	6.2	0.20	0.00	5.24
415.0	1.60	228.30	414.9	-6.5	-4.9	8.1	1.15	-1.03	15.17
475.0	1.50	228.50	474.9	-7.5	-6.2	9.7	0.17	-0.17	0.33

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Night Ranger 28 W2AP Fee 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3036 + 27 @ 3063.0usft (Patterson 560)
Site:	Section 28-23S-28E Night Ranger 28 W2AP Fee 1H	MD Reference:	3036 + 27 @ 3063.0usft (Patterson 560)
Well:	Night Ranger 28 W2AP Fee 1H	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)
534.0	1.60	231.10	533.8	-8.6	-7.4	11.2	0.21	0.17	4.41
594.0	1.50	232.00	593.8	-9.6	-8.6	12.8	0.17	-0.17	1.50
654.0	1.50	236.40	653.8	-10.5	-9.9	14.2	0.19	0.00	7.33
713.0	1.40	239.60	712.8	-11.3	-11.2	15.6	0.22	-0.17	5.42
777.0	1.50	236.80	776.7	-12.1	-12.6	17.1	0.19	0.16	-4.38
840.0	0.80	224.00	839.7	-12.9	-13.6	18.3	1.18	-1.11	-20.32
934.0	0.40	179.80	933.7	-13.7	-14.0	19.2	0.62	-0.43	-47.02
1,029.0	0.30	166.20	1,028.7	-14.3	-13.9	19.6	0.14	-0.11	-14.32
1,124.0	0.00	16.80	1,123.7	-14.5	-13.9	19.8	0.32	-0.32	0.00
1,218.0	0.20	356.20	1,217.7	-14.4	-13.9	19.7	0.21	0.21	0.00
1,313.0	0.00	23.50	1,312.7	-14.2	-13.9	19.6	0.21	-0.21	0.00
1,407.0	0.10	117.50	1,406.7	-14.2	-13.8	19.5	0.11	0.11	0.00
1,501.0	0.00	112.10	1,500.7	-14.3	-13.8	19.5	0.11	-0.11	0.00
1,595.0	0.20	157.30	1,594.7	-14.4	-13.7	19.6	0.21	0.21	0.00
1,690.0	0.10	182.50	1,689.7	-14.6	-13.6	19.8	0.12	-0.11	26.53
1,784.0	0.20	131.10	1,783.7	-14.8	-13.5	19.9	0.17	0.11	-54.68
1,878.0	0.80	116.70	1,877.7	-15.2	-12.8	19.8	0.65	0.64	-15.32
1,973.0	1.70	119.60	1,972.7	-16.2	-11.0	19.6	0.95	0.95	3.05
2,067.0	1.90	116.10	2,066.7	-17.6	-8.4	19.3	0.24	0.21	-3.72
2,161.0	1.80	117.80	2,160.6	-19.0	-5.7	18.9	0.12	-0.11	1.81
2,256.0	2.20	116.90	2,255.5	-20.5	-2.7	18.5	0.42	0.42	-0.95
2,350.0	2.10	105.90	2,349.5	-21.8	0.5	17.7	0.45	-0.11	-11.70
2,444.0	1.10	92.40	2,443.4	-22.3	3.1	16.7	1.13	-1.06	-14.36
2,500.0	1.00	84.30	2,499.4	-22.3	4.1	16.1	0.32	-0.18	-14.46
2,558.0	0.90	78.00	2,557.4	-22.1	5.1	15.5	0.25	-0.17	-10.86
2,652.0	1.70	48.50	2,651.4	-21.1	6.8	13.6	1.08	0.85	-31.38
2,746.0	1.70	48.80	2,745.4	-19.2	8.9	10.9	0.01	0.00	0.32
2,841.0	3.30	53.00	2,840.3	-16.6	12.2	6.9	1.69	1.68	4.42
2,935.0	3.30	57.00	2,934.1	-13.5	16.6	1.9	0.24	0.00	4.26
3,029.0	3.50	48.60	3,027.9	-10.2	21.0	-3.4	0.57	0.21	-8.94
3,124.0	3.30	47.00	3,122.8	-6.4	25.2	-8.9	0.23	-0.21	-1.68
3,218.0	3.30	50.60	3,216.6	-2.8	29.3	-14.1	0.22	0.00	3.83
3,312.0	3.30	49.60	3,310.5	0.7	33.4	-19.3	0.06	0.00	-1.06
3,406.0	3.60	28.20	3,404.3	5.0	36.9	-24.9	1.40	0.32	-22.77
3,501.0	3.50	26.00	3,499.1	10.2	39.5	-30.7	0.18	-0.11	-2.32
3,595.0	3.30	27.00	3,593.0	15.2	42.0	-36.2	0.22	-0.21	1.06
3,690.0	3.40	24.80	3,687.8	20.2	44.5	-41.7	0.17	0.11	-2.32
3,785.0	3.50	30.00	3,782.6	25.3	47.1	-47.4	0.35	0.11	5.47
3,879.0	3.20	27.20	3,876.5	30.1	49.7	-52.9	0.36	-0.32	-2.98
3,974.0	3.30	50.20	3,971.3	34.2	53.0	-58.1	1.37	0.11	24.21
4,068.0	3.00	54.60	4,065.2	37.4	57.1	-63.0	0.41	-0.32	4.68
4,163.0	3.10	54.90	4,160.0	40.3	61.2	-67.8	0.11	0.11	0.32

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Well:	Night Ranger 28 W2AP Fee 1H	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)
4,258.0	3.00	56.40	4,254.9	43.1	65.4	-72.5	0.13	-0.11	1.58
4,352.0	3.10	56.60	4,348.8	45.9	69.6	-77.1	0.11	0.11	0.21
4,447.0	3.50	54.30	4,443.6	49.0	74.1	-82.2	0.44	0.42	-2.42
4,541.0	3.60	56.10	4,537.4	52.3	78.9	-87.6	0.16	0.11	1.91
4,636.0	3.60	56.20	4,632.2	55.7	83.8	-93.2	0.01	0.00	0.11
4,730.0	3.30	57.20	4,726.1	58.8	88.6	-98.4	0.33	-0.32	1.06
4,825.0	3.90	35.70	4,820.9	62.9	92.7	-104.1	1.54	0.63	-22.63
4,920.0	3.80	34.40	4,915.7	68.1	96.4	-110.5	0.14	-0.11	-1.37
5,014.0	3.50	33.20	5,009.5	73.1	99.7	-116.5	0.33	-0.32	-1.28
5,109.0	3.40	40.20	5,104.3	77.6	103.1	-122.2	0.46	-0.11	7.37
5,203.0	2.90	35.10	5,198.2	81.7	106.3	-127.3	0.61	-0.53	-5.43
5,298.0	3.10	54.30	5,293.0	85.2	109.8	-132.2	1.07	0.21	20.21
5,392.0	2.90	56.00	5,386.9	88.0	113.8	-136.7	0.23	-0.21	1.81
5,487.0	2.90	57.80	5,481.8	90.6	117.8	-141.2	0.10	0.00	1.89
5,582.0	2.90	60.00	5,576.7	93.1	121.9	-145.5	0.12	0.00	2.32
5,676.0	3.00	44.20	5,670.5	96.1	125.7	-150.1	0.87	0.11	-16.81
5,771.0	2.90	44.90	5,765.4	99.5	129.2	-154.9	0.11	-0.11	0.74
5,865.0	2.90	46.30	5,859.3	102.9	132.5	-159.6	0.08	0.00	1.49
5,960.0	2.70	47.40	5,954.2	106.0	135.9	-164.1	0.22	-0.21	1.16
6,055.0	2.40	50.80	6,049.1	108.8	139.1	-168.2	0.35	-0.32	3.58
6,149.0	2.10	51.60	6,143.0	111.1	142.0	-171.7	0.32	-0.32	0.85
6,244.0	1.80	54.90	6,238.0	113.1	144.6	-174.8	0.34	-0.32	3.47
6,338.0	1.40	37.90	6,331.9	114.8	146.5	-177.3	0.66	-0.43	-18.09
6,433.0	1.30	14.90	6,426.9	116.8	147.5	-179.5	0.58	-0.11	-24.21
6,528.0	1.70	6.50	6,521.9	119.2	147.9	-181.8	0.48	0.42	-8.84
6,622.0	3.60	29.60	6,615.8	123.2	149.5	-185.9	2.28	2.02	24.57
6,717.0	3.10	29.40	6,710.6	128.0	152.3	-191.5	0.53	-0.53	-0.21
6,811.0	2.30	27.00	6,804.5	131.9	154.4	-195.9	0.86	-0.85	-2.55
6,906.0	2.70	45.20	6,899.4	135.2	156.8	-200.0	0.93	0.42	19.16
7,001.0	4.00	72.60	6,994.2	137.7	161.6	-204.7	2.13	1.37	28.84
7,095.0	3.90	84.20	7,088.0	139.0	167.9	-209.4	0.86	-0.11	12.34
7,190.0	3.60	66.20	7,182.8	140.6	173.8	-214.0	1.27	-0.32	-18.95
7,285.0	2.60	56.20	7,277.7	143.0	178.3	-218.5	1.19	-1.05	-10.53
7,379.0	2.20	49.70	7,371.6	145.3	181.5	-222.2	0.51	-0.43	-6.91
7,474.0	2.30	71.10	7,466.5	147.1	184.7	-225.5	0.89	0.11	22.53
7,569.0	2.20	80.70	7,561.5	148.0	188.3	-228.3	0.41	-0.11	10.11
7,664.0	2.40	84.70	7,656.4	148.5	192.1	-230.8	0.27	0.21	4.21
7,759.0	2.60	84.30	7,751.3	148.9	196.2	-233.5	0.21	0.21	-0.42
7,853.0	2.20	78.90	7,845.2	149.5	200.1	-236.1	0.49	-0.43	-5.74
7,948.0	1.30	97.80	7,940.2	149.7	202.9	-237.9	1.11	-0.95	19.89
8,043.0	1.10	96.70	8,035.1	149.4	204.9	-238.8	0.21	-0.21	-1.16
8,137.0	0.70	134.90	8,129.1	148.9	206.2	-239.1	0.74	-0.43	40.64
8,232.0	0.70	108.60	8,224.1	148.3	207.2	-239.1	0.34	0.00	-27.68

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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)
8,326.0	0.80	136.90	8,318.1	147.7	208.2	-239.1	0.40	0.11	30.11
8,421.0	1.10	120.10	8,413.1	146.7	209.4	-239.1	0.43	0.32	-17.68
8,516.0	1.30	105.70	8,508.1	146.0	211.2	-239.5	0.38	0.21	-15.16
8,610.0	1.70	116.30	8,602.1	145.1	213.5	-240.0	0.52	0.43	11.28
8,705.0	2.40	106.50	8,697.0	143.9	216.7	-240.8	0.82	0.74	-10.32
8,800.0	2.50	111.50	8,791.9	142.5	220.5	-241.9	0.25	0.11	5.26
8,894.0	2.50	110.50	8,885.8	141.1	224.4	-242.8	0.05	0.00	-1.06
8,989.0	2.20	114.30	8,980.7	139.6	228.0	-243.6	0.36	-0.32	4.00
9,084.0	2.30	117.90	9,075.7	138.0	231.3	-244.1	0.18	0.11	3.79
9,178.0	1.90	107.30	9,169.6	136.6	234.5	-244.8	0.59	-0.43	-11.28
9,273.0	2.10	106.10	9,264.5	135.7	237.6	-245.8	0.22	0.21	-1.26
9,367.0	1.90	82.10	9,358.5	135.4	240.8	-247.4	0.91	-0.21	-25.53
9,462.0	2.30	69.00	9,453.4	136.3	244.2	-250.0	0.66	0.42	-13.79
9,557.0	1.50	78.20	9,548.4	137.2	247.2	-252.4	0.90	-0.84	9.68
9,651.0	1.30	70.10	9,642.3	137.8	249.4	-254.2	0.30	-0.21	-8.62
9,746.0	0.70	54.30	9,737.3	138.6	250.9	-255.6	0.69	-0.63	-16.63
9,809.0	0.19	149.52	9,800.3	138.7	251.2	-255.9	1.18	-0.82	151.24
B.B. Night Ranger 28 W2AP Fee 1H									
9,812.0	0.20	159.20	9,803.3	138.7	251.2	-255.9	1.18	0.49	318.68
9,882.0	0.40	152.20	9,873.3	138.3	251.4	-255.7	0.29	0.29	-10.00
9,913.0	4.30	168.00	9,904.3	137.1	251.7	-254.9	12.63	12.58	50.97
9,945.0	10.40	168.30	9,936.0	133.1	252.5	-252.0	19.06	19.06	0.94
9,976.0	13.70	168.70	9,966.3	126.8	253.8	-247.5	10.65	10.65	1.29
10,008.0	16.70	170.50	9,997.2	118.5	255.3	-241.5	9.49	9.38	5.63
10,039.0	19.80	179.20	10,026.6	108.9	256.1	-234.0	13.29	10.00	28.06
10,071.0	22.20	179.10	10,056.5	97.4	256.3	-224.6	7.50	7.50	-0.31
10,102.0	24.10	180.20	10,085.0	85.2	256.4	-214.6	6.29	6.13	3.55
10,134.0	26.20	179.60	10,114.0	71.6	256.4	-203.4	6.61	6.56	-1.88
10,165.0	29.80	178.30	10,141.4	57.1	256.7	-191.5	11.78	11.61	-4.19
10,197.0	33.30	174.60	10,168.6	40.4	257.7	-178.3	12.49	10.94	-11.56
10,228.0	35.60	173.20	10,194.2	22.9	259.6	-164.9	7.85	7.42	-4.52
10,260.0	38.00	173.10	10,219.8	3.9	261.9	-150.5	7.50	7.50	-0.31
10,291.0	43.30	175.30	10,243.3	-16.2	263.9	-135.0	17.71	17.10	7.10
10,323.0	46.60	176.60	10,266.0	-38.7	265.5	-117.2	10.70	10.31	4.06
10,355.0	48.80	177.60	10,287.5	-62.4	266.7	-98.4	7.25	6.88	3.13
10,386.0	50.90	178.30	10,307.5	-86.0	267.5	-79.2	6.99	6.77	2.26
10,418.0	55.60	178.80	10,326.6	-111.7	268.2	-58.4	14.74	14.69	1.56
10,449.0	58.30	178.50	10,343.5	-137.6	268.8	-37.3	8.75	8.71	-0.97
10,490.0	61.50	178.00	10,364.1	-173.1	269.9	-8.6	7.88	7.80	-1.22
10,521.0	63.10	177.90	10,378.5	-200.5	270.8	13.6	5.17	5.16	-0.32
10,553.0	65.40	178.50	10,392.4	-229.3	271.8	36.9	7.38	7.19	1.88
10,584.0	69.40	178.70	10,404.3	-257.9	272.5	60.1	12.92	12.90	0.65
10,616.0	72.20	178.30	10,414.8	-288.1	273.2	84.7	8.83	8.75	-1.25

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Night Ranger 28 W2AP Fee 1H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3036 + 27 @ 3063.0usft (Patterson 560)
Site:	Section 28-23S-28E Night Ranger 28 W2AP Fee 1H	MD Reference:	3036 + 27 @ 3063.0usft (Patterson 560)
Well:	Night Ranger 28 W2AP Fee 1H	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)
10,648.0	73.40	178.10	10,424.3	-318.7	274.2	109.4	3.80	3.75	-0.63
10,679.0	73.50	177.80	10,433.1	-348.4	275.3	133.4	0.98	0.32	-0.97
10,711.0	75.30	179.00	10,441.7	-379.2	276.1	158.4	6.68	5.63	3.75
10,742.0	75.70	179.80	10,449.5	-409.2	276.4	183.0	2.81	1.29	2.58
10,774.0	77.10	181.20	10,457.0	-440.3	276.2	208.9	6.10	4.38	4.38
10,805.0	77.60	181.10	10,463.8	-470.5	275.6	234.2	1.64	1.61	-0.32
10,837.0	79.40	181.20	10,470.2	-501.9	274.9	260.5	5.63	5.63	0.31
10,868.0	81.10	181.60	10,475.4	-532.4	274.2	286.2	5.63	5.48	1.29
10,900.0	83.00	181.70	10,479.9	-564.1	273.3	312.9	5.95	5.94	0.31
10,903.8	83.30	181.72	10,480.3	-567.9	273.2	316.1	7.96	7.94	0.64
LP Night Ranger 28 W2AP Fee 1H									
10,963.0	88.00	182.10	10,484.8	-626.9	271.2	366.0	7.96	7.94	0.63
11,057.0	89.50	180.50	10,486.9	-720.8	269.1	444.9	2.33	1.60	-1.70
11,152.0	89.60	179.90	10,487.6	-815.8	268.7	523.6	0.64	0.11	-0.63
11,246.0	88.70	179.60	10,489.0	-909.8	269.1	601.1	1.01	-0.96	-0.32
11,341.0	89.00	180.40	10,490.9	-1,004.8	269.1	679.7	0.90	0.32	0.84
11,435.0	90.60	181.80	10,491.2	-1,098.8	267.3	758.4	2.26	1.70	1.49
11,530.0	88.90	178.50	10,491.6	-1,193.7	267.1	837.1	3.91	-1.79	-3.47
11,624.0	89.50	180.40	10,493.0	-1,287.7	268.0	914.3	2.12	0.64	2.02
11,719.0	90.10	182.10	10,493.3	-1,382.7	265.9	994.0	1.90	0.63	1.79
11,813.0	89.30	181.20	10,493.8	-1,476.6	263.2	1,073.2	1.28	-0.85	-0.96
11,908.0	88.00	179.30	10,496.0	-1,571.6	262.8	1,152.0	2.42	-1.37	-2.00
12,002.0	88.60	178.60	10,498.8	-1,665.6	264.5	1,228.7	0.98	0.64	-0.74
12,097.0	91.70	179.20	10,498.6	-1,760.5	266.3	1,306.2	3.32	3.26	0.63
12,192.0	90.00	177.10	10,497.2	-1,855.5	269.4	1,383.0	2.84	-1.79	-2.21
12,286.0	89.60	176.10	10,497.5	-1,949.3	275.0	1,457.5	1.15	-0.43	-1.06
12,381.0	89.80	177.50	10,498.0	-2,044.1	280.3	1,532.9	1.49	0.21	1.47
12,475.0	88.30	175.30	10,499.5	-2,137.9	286.2	1,607.2	2.83	-1.60	-2.34
12,570.0	91.20	180.70	10,500.0	-2,232.8	289.5	1,683.8	6.45	3.05	5.68
12,664.0	89.70	178.30	10,499.2	-2,326.8	290.3	1,761.1	3.01	-1.60	-2.55
12,759.0	90.80	178.40	10,498.8	-2,421.8	293.1	1,838.1	1.16	1.16	0.11
12,853.0	89.90	179.00	10,498.2	-2,515.7	295.2	1,914.6	1.15	-0.96	0.64
12,948.0	88.00	179.90	10,500.0	-2,610.7	296.1	1,992.6	2.21	-2.00	0.95
13,042.0	88.20	181.90	10,503.1	-2,704.6	294.6	2,071.1	2.14	0.21	2.13
13,137.0	88.30	182.20	10,506.0	-2,799.5	291.2	2,151.5	0.33	0.11	0.32
13,231.0	88.80	180.40	10,508.4	-2,893.5	289.1	2,230.4	1.99	0.53	-1.91
13,326.0	91.30	180.10	10,508.3	-2,988.5	288.7	2,309.2	2.65	2.63	-0.32
13,420.0	91.00	179.30	10,506.4	-3,082.5	289.2	2,386.6	0.91	-0.32	-0.85
13,515.0	90.10	178.80	10,505.5	-3,177.4	290.7	2,464.3	1.08	-0.95	-0.53
13,609.0	90.40	179.60	10,505.1	-3,271.4	292.1	2,541.3	0.91	0.32	0.85
13,704.0	90.90	180.40	10,504.0	-3,366.4	292.1	2,619.9	0.99	0.53	0.84
13,798.0	89.40	176.80	10,503.7	-3,460.4	294.4	2,696.3	4.15	-1.60	-3.83



COMPANY: Mewbourne Oil Company
WELL: Night Ranger 28 W2AP Fee 1H
COUNTY: Eddy County, N.M. Nad (83)
DATUM: North American Datum 1983
RIG: Patterson 560



OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.96°

GEODETTIC ZONE: New Mexico Eastern Zone
3036 + 27 @ 3063.0usft (Patterson 560)
GROUND ELEVATION: 3036.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	466693.70	617863.40	32° 16' 57.980 N	104° 5' 8.532 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2625.0	0.00	0.00	2625.0	0.0	0.0	0.00	0.00	0.0	
3	2816.0	2.87	52.66	2815.9	2.9	3.8	1.50	52.66	-2.6	
4	9617.6	2.87	52.66	9609.1	209.1	274.1	0.00	0.00	-190.0	
5	8808.7	0.00	0.00	8800.0	212.0	277.9	1.50	180.00	-192.6	B.B. Night Ranger 28 W2AP Fee 1H
6	9920.7	0.00	0.00	9912.0	212.0	277.9	0.00	0.00	-192.6	
7	10817.3	89.66	179.47	10485.0	-357.5	283.2	10.00	179.47	376.0	
8	15201.0	89.66	179.47	10511.0	-4740.9	323.9	0.00	0.00	4752.0	PBHL Night Ranger 28 W2AP Fee 1H

SHL: 220' FNL; 610' FEL
Section 28-23S-28E
PBHL: 330' FSL; 330' FEL
Section 28-23S-28E



Azimuths to Grid North
True North: -0.13°
Magnetic North: 6.96°

Magnetic Field
Strength: 47821.2nT
Dip Angle: 60.02°
Date: 6/6/2018
Model: IGRF2015

