



Mewbourne Oil Company

Eddy County, New Mexico

Section 3-24S-28E Yardbirds 3 W2AP 1H

Yardbirds 3 W2AP Fee 1H

30.015 - 42935

Original Hole

Design: Original Hole

Standard Survey Report

08 May, 2017



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section3-24S-28E Yardbirds 3 W2AP 1H
Well: Yardbirds 3 W2AP Fee 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Yardbirds 3 W2AP Fee 1H
TVD Reference: 3018 +27 @ 3045.0usft (Patterson 242)
MD Reference: 3018 +27 @ 3045.0usft (Patterson 242)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Project	Eddy County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Section3-24S-28E Yardbirds 3 W2AP 1H

Site Position:
From: Map
Position Uncertainty: 0.0 usft
Northing: 456,087.30 usft
Easting: 582,201.70 usft
Slot Radius: 13-3/16 "
Latitude: 32° 15' 13.036 N
Longitude: 104° 4' 2.740 W
Grid Convergence: 0.14 °

Well Yardbirds 3 W2AP Fee 1H

Well Position +N/-S 0.0 usft **Northing:** 456,087.30 usft **Latitude:** 32° 15' 13.036 N
+E/-W 0.0 usft **Easting:** 582,201.70 usft **Longitude:** 104° 4' 2.740 W
Position Uncertainty 0.0 usft **Wellhead Elevation:** 27.0 usft **Ground Level:** 3,018.0 usft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/13/2017	7.20	60.01	47,923.73337841

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	332.73

Survey Program Date 5/8/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
175.0	15,190.0	Vertical MWD Survey (Original Hole)	MWD+IGRF	OWSG MWD + IGRF or WMM

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
175.0	0.70	339.90	175.0	1.0	-0.4	1.1	0.40	0.40	0.00
353.0	0.70	342.70	353.0	3.1	-1.1	3.2	0.02	0.00	1.57
532.0	0.50	276.80	532.0	4.2	-2.2	4.7	0.38	-0.11	-36.82
723.0	0.70	285.40	723.0	4.6	-4.1	6.0	0.11	0.10	4.50
913.0	0.90	293.10	912.9	5.5	-6.6	7.9	0.12	0.11	4.05
1,103.0	1.10	321.30	1,102.9	7.5	-9.1	10.9	0.28	0.11	14.84
1,293.0	1.10	319.80	1,292.9	10.3	-11.4	14.4	0.02	0.00	-0.79
1,483.0	1.30	311.00	1,482.8	13.1	-14.2	18.2	0.14	0.11	-4.63
1,613.0	1.50	299.90	1,612.8	14.9	-16.8	21.0	0.26	0.15	-8.54



Microsoft Survey Report



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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)
1,800.0	1.00	307.50	1,799.8	17.2	-20.2	24.5	0.28	-0.27	4.06
1,987.0	1.50	130.50	1,986.7	16.6	-19.7	23.7	1.34	0.27	-94.65
2,174.0	3.10	130.00	2,173.6	11.7	-13.9	16.8	0.86	0.86	-0.27
2,361.0	3.00	127.80	2,360.3	5.5	-6.2	7.7	0.08	-0.05	-1.18
2,457.0	2.20	100.50	2,456.2	3.6	-2.4	4.3	1.51	-0.83	-28.44
2,646.0	1.00	80.30	2,645.1	3.2	2.8	1.6	0.69	-0.63	-10.69
2,833.0	0.80	89.40	2,832.1	3.5	5.7	0.5	0.13	-0.11	4.87
3,020.0	0.90	71.60	3,019.1	4.0	8.4	-0.3	0.15	0.05	-9.52
3,207.0	1.10	64.20	3,206.1	5.2	11.4	-0.6	0.13	0.11	-3.96
3,394.0	0.40	50.30	3,393.1	6.4	13.5	-0.5	0.38	-0.37	-7.43
3,581.0	0.30	48.00	3,580.1	7.2	14.4	-0.2	0.05	-0.05	-1.23
3,769.0	0.20	56.60	3,768.1	7.7	15.0	-0.1	0.06	-0.05	4.57
3,955.0	0.40	5.90	3,954.1	8.5	15.4	0.5	0.17	0.11	-27.26
4,142.0	0.40	14.60	4,141.0	9.8	15.6	1.6	0.03	0.00	4.65
4,329.0	0.50	1.00	4,328.0	11.2	15.8	2.8	0.08	0.05	-7.27
4,516.0	0.40	336.60	4,515.0	12.6	15.5	4.1	0.11	-0.05	-13.05
4,703.0	0.40	22.00	4,702.0	13.9	15.5	5.2	0.17	0.00	24.28
4,890.0	0.30	16.10	4,889.0	14.9	15.9	6.0	0.06	-0.05	-3.16
5,077.0	1.60	317.60	5,076.0	17.3	14.3	8.9	0.78	0.70	-31.28
5,264.0	3.90	321.90	5,262.8	24.3	8.6	17.6	1.23	1.23	2.30
5,451.0	4.00	322.40	5,449.3	34.4	0.7	30.3	0.06	0.05	0.27
5,638.0	4.00	323.10	5,635.9	44.8	-7.2	43.1	0.03	0.00	0.37
5,825.0	3.20	323.80	5,822.5	54.2	-14.2	54.7	0.43	-0.43	0.37
6,012.0	2.40	313.50	6,009.3	61.2	-20.1	63.6	0.50	-0.43	-5.51
6,198.0	1.90	305.00	6,195.1	65.6	-25.5	70.0	0.32	-0.27	-4.57
6,385.0	2.40	333.20	6,382.0	70.9	-29.8	76.6	0.62	0.27	15.08
6,572.0	1.90	22.90	6,568.9	77.2	-30.3	82.5	1.00	-0.27	26.58
6,759.0	1.40	45.60	6,755.8	81.7	-27.5	85.2	0.44	-0.27	12.14
6,946.0	1.10	50.30	6,942.8	84.4	-24.5	86.3	0.17	-0.16	2.51
7,133.0	2.30	346.90	7,129.7	89.2	-24.0	90.3	1.10	0.64	-33.90
7,320.0	3.10	351.30	7,316.5	97.9	-25.6	98.7	0.44	0.43	2.35
7,507.0	1.10	9.10	7,503.4	104.6	-26.1	105.0	1.11	-1.07	9.52
7,694.0	2.70	8.10	7,690.3	110.8	-25.2	110.0	0.86	0.86	-0.53
7,881.0	2.20	354.10	7,877.1	118.7	-24.9	116.9	0.42	-0.27	-7.49
8,069.0	2.60	350.10	8,064.9	126.5	-26.0	124.4	0.23	0.21	-2.13
8,255.0	3.10	343.50	8,250.7	135.5	-28.2	133.3	0.32	0.27	-3.55
8,442.0	2.30	335.20	8,437.5	143.7	-31.2	142.0	0.48	-0.43	-4.44
8,629.0	1.10	6.80	8,624.4	148.9	-32.5	147.3	0.79	-0.64	16.90
8,816.0	2.00	355.10	8,811.3	154.0	-32.6	151.8	0.51	0.48	-8.26
9,004.0	1.00	330.10	8,999.3	158.6	-33.7	156.5	0.62	-0.53	-13.30
9,191.0	1.50	317.80	9,186.2	161.9	-36.2	160.4	0.30	0.27	-6.58
9,378.0	1.20	320.70	9,373.2	165.2	-39.0	164.7	0.16	-0.16	1.55
9,565.0	0.70	330.80	9,560.1	167.7	-40.8	167.8	0.28	-0.27	5.40
9,753.0	0.70	5.20	9,748.1	169.9	-41.3	169.9	0.22	0.00	18.30

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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)
9,847.0	0.40	275.50	9,842.1	170.5	-41.6	170.6	0.86	-0.32	-95.43
9,868.0	0.30	242.30	9,863.1	170.4	-41.7	170.6	1.06	-0.48	-158.10
9,899.0	0.70	195.30	9,894.1	170.2	-41.8	170.5	1.75	1.29	-151.61
9,904.3	1.26	193.46	9,899.4	170.1	-41.8	170.4	10.65	10.63	-34.72
BB Yardbirds 3 W2AP Fee 1H									
9,930.0	4.00	191.90	9,925.1	169.0	-42.1	169.5	10.65	10.65	-6.08
9,961.0	7.40	193.00	9,955.9	166.0	-42.8	167.1	10.97	10.97	3.55
9,992.0	9.80	194.10	9,986.6	161.5	-43.8	163.6	7.76	7.74	3.55
10,023.0	12.10	193.00	10,017.0	155.8	-45.2	159.2	7.45	7.42	-3.55
10,055.0	14.40	190.20	10,048.2	148.6	-46.7	153.4	7.46	7.19	-8.75
10,086.0	16.20	189.30	10,078.1	140.5	-48.1	146.9	5.86	5.81	-2.90
10,117.0	17.60	188.70	10,107.7	131.6	-49.5	139.6	4.55	4.52	-1.94
10,148.0	19.40	188.40	10,137.1	121.9	-50.9	131.7	5.81	5.81	-0.97
10,179.0	21.80	187.00	10,166.1	111.1	-52.4	122.7	7.90	7.74	-4.52
10,210.0	24.70	185.30	10,194.6	98.9	-53.7	112.5	9.60	9.35	-5.48
10,242.0	27.20	184.90	10,223.4	85.0	-54.9	100.7	7.83	7.81	-1.25
10,273.0	29.70	184.20	10,250.6	70.2	-56.1	88.1	8.14	8.06	-2.26
10,304.0	32.40	182.40	10,277.2	54.3	-57.0	74.4	9.21	8.71	-5.81
10,335.0	34.90	181.00	10,303.0	37.1	-57.5	59.3	8.44	8.06	-4.52
10,366.0	37.30	180.60	10,328.1	18.8	-57.8	43.2	7.78	7.74	-1.29
10,397.0	40.20	180.00	10,352.2	-0.6	-57.9	26.0	9.43	9.35	-1.94
10,429.0	43.10	179.80	10,376.1	-21.8	-57.8	7.1	9.07	9.06	-0.63
10,460.0	46.50	180.70	10,398.1	-43.7	-57.9	-12.3	11.16	10.97	2.90
10,491.0	49.90	181.50	10,418.8	-66.8	-58.4	-32.6	11.14	10.97	2.58
10,522.0	53.60	181.80	10,438.0	-91.1	-59.1	-53.9	11.96	11.94	0.97
10,554.0	56.40	181.80	10,456.3	-117.3	-59.9	-76.8	8.75	8.75	0.00
10,585.0	58.30	181.00	10,473.1	-143.4	-60.5	-99.7	6.50	6.13	-2.58
10,616.0	61.30	180.90	10,488.6	-170.2	-61.0	-123.3	9.68	9.68	-0.32
10,647.0	65.60	180.60	10,502.5	-197.9	-61.3	-147.8	13.90	13.87	-0.97
10,678.0	69.80	179.90	10,514.3	-226.6	-61.5	-173.2	13.71	13.55	-2.26
10,709.0	72.40	179.60	10,524.3	-255.9	-61.3	-199.3	8.44	8.39	-0.97
10,741.0	74.80	180.20	10,533.3	-286.6	-61.3	-226.6	7.71	7.50	1.88
10,769.0	77.50	181.30	10,540.0	-313.8	-61.6	-250.6	10.37	9.64	3.93
10,923.0	85.80	184.70	10,562.4	-465.8	-69.7	-382.1	5.81	5.39	2.21
11,017.0	88.00	184.10	10,567.5	-559.3	-76.9	-461.9	2.43	2.34	-0.64
11,033.6	88.72	183.89	10,567.9	-575.9	-78.0	-476.2	4.49	4.30	-1.29
LP Yardbirds 3 W2AP Fee 1H									
11,110.0	92.00	182.90	10,567.5	-652.1	-82.5	-541.8	4.49	4.30	-1.29
11,205.0	90.90	183.20	10,565.1	-747.0	-87.6	-623.8	1.20	-1.16	0.32
11,299.0	89.10	183.80	10,565.1	-840.8	-93.3	-704.6	2.02	-1.91	0.64
11,392.0	90.90	183.00	10,565.1	-933.6	-98.8	-784.6	2.12	1.94	-0.86
11,486.0	90.80	182.90	10,563.7	-1,027.5	-103.7	-865.8	0.15	-0.11	-0.11
11,580.0	88.40	182.70	10,564.3	-1,121.4	-108.3	-947.1	2.56	-2.55	-0.21



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11,673.0	88.00	182.80	10,567.2	-1,214.2	-112.7	-1,027.6	0.44	-0.43	0.11
11,767.0	92.50	183.30	10,566.8	-1,308.1	-117.7	-1,108.7	4.82	4.79	0.53
11,860.0	91.30	181.90	10,563.8	-1,400.9	-121.9	-1,189.3	1.98	-1.29	-1.51
11,954.0	87.20	178.70	10,565.0	-1,494.9	-122.4	-1,272.6	5.53	-4.36	-3.40
12,047.0	86.50	177.90	10,570.1	-1,587.7	-119.7	-1,356.3	1.14	-0.75	-0.86
12,141.0	95.80	180.50	10,568.2	-1,681.6	-118.4	-1,440.4	10.27	9.89	2.77
12,235.0	94.00	180.80	10,560.2	-1,775.2	-119.4	-1,523.1	1.94	-1.91	0.32
12,328.0	91.30	181.20	10,555.9	-1,868.1	-121.0	-1,604.9	2.93	-2.90	0.43
12,422.0	88.70	182.70	10,555.9	-1,962.0	-124.2	-1,687.0	3.19	-2.77	1.60
12,515.0	87.80	182.80	10,558.7	-2,054.9	-128.7	-1,767.4	0.97	-0.97	0.11
12,609.0	85.60	182.00	10,564.1	-2,148.6	-132.6	-1,849.0	2.49	-2.34	-0.85
12,702.0	90.00	181.30	10,567.7	-2,241.5	-135.3	-1,930.3	4.79	4.73	-0.75
12,796.0	88.20	180.10	10,569.2	-2,335.5	-136.5	-2,013.3	2.30	-1.91	-1.28
12,889.0	87.60	180.10	10,572.6	-2,428.4	-136.6	-2,095.8	0.65	-0.65	0.00
12,983.0	90.40	180.60	10,574.2	-2,522.4	-137.2	-2,179.1	3.03	2.98	0.53
13,077.0	90.90	183.50	10,573.2	-2,616.3	-140.6	-2,261.0	3.13	0.53	3.09
13,170.0	91.10	183.00	10,571.5	-2,709.1	-145.8	-2,341.1	0.58	0.22	-0.54
13,264.0	90.50	181.90	10,570.2	-2,803.0	-149.8	-2,422.8	1.33	-0.64	-1.17
13,357.0	89.80	180.60	10,570.0	-2,896.0	-151.9	-2,504.5	1.59	-0.75	-1.40
13,451.0	88.00	178.10	10,571.8	-2,990.0	-150.8	-2,588.5	3.28	-1.91	-2.66
13,544.0	89.10	179.40	10,574.1	-3,082.9	-148.8	-2,672.0	1.83	1.18	1.40
13,638.0	90.90	182.10	10,574.1	-3,176.9	-150.0	-2,755.0	3.45	1.91	2.87
13,731.0	90.20	182.00	10,573.2	-3,269.8	-153.3	-2,836.1	0.76	-0.75	-0.11
13,825.0	89.50	181.00	10,573.5	-3,363.8	-155.8	-2,918.5	1.30	-0.74	-1.06
13,918.0	88.40	180.60	10,575.2	-3,456.8	-157.1	-3,000.5	1.26	-1.18	-0.43
14,012.0	88.70	181.20	10,577.6	-3,550.7	-158.6	-3,083.3	0.71	0.32	0.64
14,106.0	88.70	179.70	10,579.7	-3,644.7	-159.3	-3,166.5	1.60	0.00	-1.60
14,199.0	90.30	179.30	10,580.5	-3,737.7	-158.5	-3,249.5	1.77	1.72	-0.43
14,293.0	90.40	179.40	10,579.9	-3,831.7	-157.4	-3,333.6	0.15	0.11	0.11
14,386.0	90.20	179.00	10,579.5	-3,924.7	-156.1	-3,416.8	0.48	-0.22	-0.43
14,480.0	89.90	178.30	10,579.4	-4,018.6	-153.9	-3,501.4	0.81	-0.32	-0.74
14,573.0	89.10	178.70	10,580.2	-4,111.6	-151.5	-3,585.1	0.96	-0.86	0.43
14,667.0	89.60	182.00	10,581.3	-4,205.6	-152.1	-3,668.4	3.55	0.53	3.51
14,760.0	88.40	182.60	10,582.9	-4,298.5	-155.8	-3,749.2	1.44	-1.29	0.65
14,854.0	91.00	183.20	10,583.4	-4,392.4	-160.5	-3,830.5	2.84	2.77	0.64
14,948.0	91.60	183.80	10,581.2	-4,486.2	-166.3	-3,911.2	0.90	0.64	0.64
15,041.0	90.70	183.00	10,579.4	-4,579.0	-171.8	-3,991.2	1.29	-0.97	-0.86
15,135.0	91.10	183.20	10,577.9	-4,672.8	-176.9	-4,072.3	0.48	0.43	0.21
15,142.0	91.00	183.10	10,577.8	-4,679.8	-177.3	-4,078.3	2.02	-1.43	-1.43
15,190.0	91.00	183.10	10,576.9	-4,727.7	-179.9	-4,119.7	0.00	0.00	0.00

15190' MD Projected to Bit - PBHL Yardbirds 3 W2AP Fee 1H



Microsoft Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section3-24S-28E Yardbirds 3 W2AP 1H
Well: Yardbirds 3 W2AP Fee 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Yardbirds 3 W2AP Fee 1H
TVD Reference: 3018 +27 @ 3045.0usft (Patterson 242)
MD Reference: 3018 +27 @ 3045.0usft (Patterson 242)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
15,190.0	10,576.9	-4,727.7	-179.9	15190' MD Projected to Bit