

15-43464

Mewbourne Oil Company .

Eddy County, New Mexico

Section 34-23S Yarbbirds 34 W2OB Fee #1H

Yarbbirds 34 W2OB Fee #1H

Original Hole

Design: Original Hole

Standard Survey Report

13 April, 2016

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Yardbirds 34 W2OB Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
Site:	Section 34-23S Yardbirds 34 W2OB Fee #1H	MD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
Well:	Yardbirds 34 W2OB Fee #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	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	Section 34-23S Yardbirds 34 W2OB Fee #1H				
Site Position:		Northing:	456,418.40 usft	Latitude:	32° 15' 16.359 N
From:	Map	Easting:	580,296.30 usft	Longitude:	104° 4' 24.920 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.14 °

Well	Yardbirds 34 W2OB Fee #1H				
Well Position	+N/-S	0.0 usft	Northing:	456,418.40 usft	Latitude: 32° 15' 16.359 N
	+E/-W	0.0 usft	Easting:	580,296.30 usft	Longitude: 104° 4' 24.920 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	27.0 usft	Ground Level: 3,025.0 usft

Wellbore	Original Hole				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/5/2016	7.33	60.03	48,045

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	274.11

Survey Program		Date 4/13/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	9,604.0	Stryker Gyro Survey #1 (Original Hole)	SRG-GYRO-MS	surface readout gyro multishot	
9,696.0	10,401.0	MWD Survey (Original Hole)	MWD	MWD v3:standard declination	
10,177.0	15,090.0	STK #1 (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	1.60	32.64	100.0	1.2	0.8	-0.7	1.60	1.60	0.00	
200.0	1.71	21.37	199.9	3.7	2.0	-1.8	0.34	0.11	-11.27	
300.0	2.53	349.94	299.9	7.3	2.2	-1.7	1.39	0.82	-31.43	
400.0	3.68	336.46	399.7	12.4	0.5	0.4	1.35	1.15	-13.48	
500.0	1.26	349.68	499.6	16.4	-0.9	2.1	2.47	-2.42	13.22	
600.0	0.23	94.30	599.6	17.5	-0.9	2.2	1.34	-1.03	104.62	
700.0	0.82	134.37	699.6	17.0	-0.2	1.4	0.66	0.59	40.07	
800.0	0.90	181.86	799.6	15.7	0.3	0.9	0.70	0.08	47.49	

Stryker Directional Survey Report

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Site:	Section 34-23S Yardbirds 34 W2OB Fee #1H	MD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
Well:	Yardbirds 34 W2OB 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)
900.0	0.72	162.46	899.6	14.3	0.4	0.6	0.33	-0.18	-19.40
1,000.0	0.86	19.92	999.6	14.4	0.9	0.2	1.50	0.14	-142.54
1,100.0	1.04	23.57	1,099.6	16.0	1.5	-0.3	0.19	0.18	3.65
1,200.0	0.36	72.95	1,199.6	16.9	2.2	-0.9	0.85	-0.68	49.38
1,300.0	0.23	59.86	1,299.6	17.1	2.6	-1.4	0.15	-0.13	-13.09
1,400.0	0.09	16.86	1,399.6	17.3	2.8	-1.6	0.18	-0.14	-43.00
1,500.0	0.21	55.08	1,499.6	17.4	3.0	-1.7	0.15	0.12	38.22
1,600.0	0.44	78.20	1,599.6	17.6	3.5	-2.3	0.26	0.23	23.12
1,700.0	0.31	105.96	1,699.6	17.6	4.2	-2.9	0.22	-0.13	27.76
1,800.0	0.42	85.69	1,799.6	17.6	4.8	-3.5	0.17	0.11	-20.27
1,900.0	1.27	113.75	1,899.6	17.2	6.2	-4.9	0.92	0.85	28.06
2,000.0	1.37	121.70	1,999.5	16.1	8.2	-7.0	0.21	0.10	7.95
2,100.0	0.93	131.33	2,099.5	14.9	9.8	-8.7	0.48	-0.44	9.63
2,200.0	0.51	140.74	2,199.5	14.0	10.7	-9.7	0.43	-0.42	9.41
2,300.0	0.91	150.14	2,299.5	13.0	11.4	-10.4	0.42	0.40	9.40
2,400.0	0.57	156.76	2,399.5	11.9	12.0	-11.1	0.35	-0.34	6.62
2,500.0	0.48	223.78	2,499.5	11.1	11.9	-11.1	0.58	-0.09	67.02
2,600.0	0.20	289.51	2,599.5	10.9	11.4	-10.6	0.44	-0.28	65.73
2,700.0	0.20	234.61	2,699.5	10.8	11.1	-10.3	0.18	0.00	-54.90
2,800.0	0.30	304.70	2,799.5	10.9	10.8	-10.0	0.30	0.10	70.09
2,900.0	0.14	254.56	2,899.5	11.0	10.4	-9.6	0.24	-0.16	-50.14
3,000.0	0.12	278.87	2,999.5	11.0	10.2	-9.4	0.06	-0.02	24.31
3,100.0	0.23	287.62	3,099.5	11.0	9.9	-9.1	0.11	0.11	8.75
3,200.0	0.31	259.38	3,199.5	11.1	9.5	-8.6	0.15	0.08	-28.24
3,300.0	0.50	253.85	3,299.5	10.9	8.8	-8.0	0.19	0.19	-5.53
3,400.0	0.31	289.86	3,399.5	10.9	8.1	-7.3	0.31	-0.19	36.01
3,500.0	0.40	233.24	3,499.5	10.7	7.6	-6.8	0.35	0.09	-56.62
3,600.0	0.41	232.19	3,599.5	10.3	7.0	-6.3	0.01	0.01	-1.05
3,700.0	0.39	228.54	3,699.5	9.9	6.5	-5.7	0.03	-0.02	-3.65
3,800.0	0.75	220.66	3,799.5	9.1	5.8	-5.1	0.37	0.36	-7.88
3,900.0	0.72	249.85	3,899.5	8.4	4.8	-4.2	0.37	-0.03	29.19
4,000.0	0.46	252.80	3,999.4	8.1	3.8	-3.2	0.26	-0.26	2.95
4,100.0	0.45	236.83	4,099.4	7.8	3.1	-2.5	0.13	-0.01	-15.97
4,200.0	0.65	205.78	4,199.4	7.0	2.5	-2.0	0.35	0.20	-31.05
4,300.0	0.57	215.10	4,299.4	6.1	2.0	-1.5	0.13	-0.08	9.32
4,400.0	0.47	219.17	4,399.4	5.4	1.4	-1.0	0.11	-0.10	4.07
4,500.0	0.47	232.40	4,499.4	4.8	0.9	-0.5	0.11	0.00	13.23
4,600.0	0.67	201.10	4,599.4	4.0	0.3	0.0	0.36	0.20	-31.30
4,700.0	0.65	234.96	4,699.4	3.2	-0.4	0.6	0.38	-0.02	33.86
4,800.0	0.78	205.20	4,799.4	2.2	-1.1	1.3	0.39	0.13	-29.76
4,900.0	0.86	213.43	4,899.4	1.0	-1.8	1.9	0.14	0.08	8.23
5,000.0	0.89	220.37	4,999.4	-0.2	-2.7	2.7	0.11	0.03	6.94
5,100.0	0.85	209.08	5,099.4	-1.5	-3.6	3.5	0.18	-0.04	-11.29

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Well:	Yardbirds 34 W2OB 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)
5,200.0	0.78	206.56	5,199.4	-2.7	-4.3	4.1	0.08	-0.07	-2.52
5,300.0	0.55	224.46	5,299.4	-3.7	-4.9	4.6	0.31	-0.23	17.90
5,400.0	0.59	188.41	5,399.4	-4.5	-5.3	5.0	0.35	0.04	-36.05
5,500.0	0.38	234.27	5,499.3	-5.2	-5.7	5.3	0.42	-0.21	45.86
5,600.0	0.41	195.58	5,599.3	-5.8	-6.0	5.6	0.26	0.03	-38.69
5,700.0	0.34	165.20	5,699.3	-6.4	-6.0	5.6	0.21	-0.07	-30.38
5,800.0	0.63	219.34	5,799.3	-7.1	-6.3	5.8	0.51	0.29	54.14
5,900.0	0.78	189.33	5,899.3	-8.2	-6.8	6.2	0.39	0.15	-30.01
6,000.0	0.49	210.21	5,999.3	-9.3	-7.1	6.4	0.37	-0.29	20.88
6,100.0	0.61	174.76	6,099.3	-10.2	-7.3	6.5	0.35	0.12	-35.45
6,200.0	0.77	192.22	6,199.3	-11.4	-7.4	6.5	0.26	0.16	17.46
6,300.0	0.66	107.52	6,299.3	-12.2	-7.0	6.1	0.97	-0.11	-84.70
6,400.0	0.97	80.56	6,399.3	-12.2	-5.6	4.7	0.49	0.31	-26.96
6,500.0	0.06	48.03	6,499.3	-12.0	-4.7	3.8	0.92	-0.91	-32.53
6,600.0	0.82	277.30	6,599.3	-11.9	-5.4	4.5	0.86	0.76	-130.73
6,700.0	1.15	303.70	6,699.3	-11.3	-6.9	6.1	0.55	0.33	26.40
6,800.0	0.73	256.64	6,799.3	-10.9	-8.4	7.6	0.84	-0.42	-47.06
6,900.0	1.09	359.94	6,899.3	-10.1	-9.0	8.2	1.44	0.36	103.30
7,000.0	1.87	5.45	6,999.2	-7.5	-8.8	8.3	0.79	0.78	5.51
7,100.0	2.03	3.95	7,099.2	-4.1	-8.6	8.2	0.17	0.16	-1.50
7,200.0	1.89	6.36	7,199.1	-0.7	-8.3	8.2	0.16	-0.14	2.41
7,300.0	1.22	330.90	7,299.1	1.9	-8.6	8.7	1.14	-0.67	-35.46
7,400.0	1.37	321.61	7,399.0	3.8	-9.8	10.1	0.26	0.15	-9.29
7,500.0	1.83	325.44	7,499.0	6.0	-11.5	11.9	0.47	0.46	3.83
7,600.0	1.28	317.43	7,599.0	8.1	-13.2	13.7	0.59	-0.55	-8.01
7,700.0	0.78	294.99	7,699.0	9.3	-14.5	15.2	0.63	-0.50	-22.44
7,800.0	0.75	299.19	7,798.9	9.9	-15.7	16.4	0.06	-0.03	4.20
7,900.0	0.69	277.03	7,898.9	10.3	-16.9	17.6	0.28	-0.06	-22.16
8,000.0	0.79	279.00	7,998.9	10.4	-18.2	18.9	0.10	0.10	1.97
8,100.0	0.68	248.24	8,098.9	10.3	-19.4	20.1	0.40	-0.11	-30.76
8,200.0	0.82	238.46	8,198.9	9.7	-20.6	21.2	0.19	0.14	-9.78
8,300.0	0.92	249.39	8,298.9	9.1	-21.9	22.5	0.19	0.10	10.93
8,400.0	1.36	258.91	8,398.9	8.6	-23.8	24.4	0.48	0.44	9.52
8,500.0	0.89	275.87	8,498.9	8.4	-25.8	26.3	0.57	-0.47	16.96
8,600.0	0.62	17.70	8,598.9	9.0	-26.4	27.0	1.18	-0.27	101.83
8,700.0	1.48	132.80	8,698.8	8.6	-25.3	25.8	1.83	0.86	115.10
8,800.0	1.14	116.85	8,798.8	7.3	-23.4	23.9	0.50	-0.34	-15.95
8,900.0	0.92	98.40	8,898.8	6.7	-21.8	22.2	0.40	-0.22	-18.45
9,000.0	0.28	88.89	8,998.8	6.6	-20.7	21.1	0.65	-0.64	-9.51
9,100.0	0.48	226.34	9,098.8	6.4	-20.8	21.2	0.71	0.20	137.45
9,200.0	1.17	231.63	9,198.8	5.4	-21.9	22.2	0.69	0.69	5.29
9,300.0	1.09	248.83	9,298.8	4.5	-23.6	23.8	0.35	-0.08	17.20
9,400.0	0.93	236.41	9,398.8	3.7	-25.1	25.3	0.27	-0.16	-12.42

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Yardbirds 34 W2OB Fee #1H
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Site:	Section 34-23S Yardbirds 34 W2OB Fee #1H	MD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
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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)
9,500.0	0.82	245.40	9,498.7	2.9	-26.5	26.6	0.18	-0.11	8.99
9,600.0	0.82	214.31	9,598.7	2.0	-27.5	27.6	0.44	0.00	-31.09
9,604.0	0.77	216.67	9,602.7	2.0	-27.5	27.6	1.49	-1.25	59.00
9604' MD Stryker Gyro Survey									
9,696.0	1.50	194.10	9,694.7	0.3	-28.2	28.2	0.92	0.79	-24.53
9,759.0	1.50	56.50	9,757.7	0.0	-27.7	27.6	4.44	0.00	-218.41
9,790.0	4.30	32.10	9,788.7	1.2	-26.8	26.8	9.67	9.03	-78.71
9,821.0	8.20	27.10	9,819.5	4.1	-25.1	25.4	12.69	12.58	-16.13
9,853.0	11.90	26.40	9,851.0	9.1	-22.6	23.2	11.57	11.56	-2.19
9,884.0	14.10	25.60	9,881.2	15.4	-19.6	20.6	7.12	7.10	-2.58
9,916.0	16.20	23.10	9,912.1	23.0	-16.1	17.7	6.87	6.56	-7.81
9,947.0	18.20	21.00	9,941.7	31.5	-12.7	14.9	6.75	6.45	-6.77
9,979.0	19.70	20.60	9,971.9	41.2	-9.0	11.9	4.71	4.69	-1.25
10,010.0	20.90	21.10	10,001.0	51.3	-5.2	8.8	3.91	3.87	1.61
10,042.0	22.30	21.90	10,030.8	62.2	-0.9	5.3	4.47	4.38	2.50
10,073.0	23.90	22.30	10,059.3	73.5	3.7	1.6	5.19	5.16	1.29
10,101.0	25.44	22.75	10,084.7	84.3	8.2	-2.1	5.53	5.48	1.62
10101' MD Top of Plug									
10,104.0	25.60	22.80	10,087.4	85.5	8.7	-2.5	5.53	5.49	1.52
10,135.0	26.40	24.10	10,115.3	98.0	14.1	-7.0	3.17	2.58	4.19
10,177.0	24.90	33.30	10,153.2	113.9	22.8	-14.6	10.12	-3.57	21.90
10,208.0	26.70	40.20	10,181.1	124.6	30.8	-21.8	11.29	5.81	22.26
10,240.0	29.00	42.20	10,209.4	135.9	40.7	-30.9	7.76	7.19	6.25
10,272.0	32.30	40.20	10,236.9	148.2	51.4	-40.7	10.79	10.31	-6.25
10,303.0	34.90	39.50	10,262.7	161.3	62.4	-50.7	8.48	8.39	-2.26
10,335.0	36.90	35.50	10,288.6	176.2	73.8	-61.0	9.63	6.25	-12.50
10,366.0	39.80	33.10	10,313.0	192.1	84.7	-70.7	10.51	9.35	-7.74
10,398.0	42.50	30.70	10,337.1	210.0	95.8	-80.5	9.77	8.44	-7.50
10,429.0	44.70	29.30	10,359.5	228.5	106.5	-89.8	7.75	7.10	-4.52
10,460.0	46.80	29.20	10,381.1	247.9	117.3	-99.2	6.78	6.77	-0.32
10,492.0	50.00	28.40	10,402.4	268.9	128.8	-109.2	10.17	10.00	-2.50
10,523.0	54.90	26.70	10,421.3	290.6	140.2	-119.0	16.39	15.81	-5.48
10,554.0	60.90	25.30	10,437.7	314.2	151.7	-128.8	19.73	19.35	-4.52
10,586.0	66.80	23.70	10,451.8	340.4	163.6	-138.8	18.98	18.44	-5.00
10,618.0	70.50	19.50	10,463.5	368.1	174.5	-147.7	16.82	11.56	-13.13
10,649.0	75.10	14.30	10,472.6	396.4	183.1	-154.2	21.83	14.84	-16.77
10,681.0	81.50	13.20	10,479.1	426.8	190.6	-159.5	20.28	20.00	-3.44
10,713.0	84.40	14.00	10,483.1	457.7	198.0	-164.7	9.40	9.06	2.50
10,744.0	86.80	13.20	10,485.4	487.7	205.3	-169.8	8.16	7.74	-2.58
10,776.0	89.00	13.10	10,486.6	518.9	212.6	-174.8	6.88	6.88	-0.31
10,807.0	90.90	12.60	10,486.6	549.1	219.5	-179.5	6.34	6.13	-1.61
10,838.0	91.00	12.90	10,486.1	579.3	226.3	-184.2	1.02	0.32	0.97
10,870.0	90.80	13.10	10,485.6	610.5	233.5	-189.1	0.88	-0.63	0.63
10,901.0	89.50	11.90	10,485.5	640.8	240.2	-193.7	5.71	-4.19	-3.87

Stryker Directional Survey Report

Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Yardbirds 34 W2OB Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
Site:	Section 34-23S Yardbirds 34 W2OB Fee #1H	MD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
Well:	Yardbirds 34 W2OB 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)
10,996.0	91.60	7.10	10,484.6	734.4	255.9	-202.6	5.51	2.21	-5.05
11,090.0	91.60	2.10	10,482.0	828.0	263.4	-203.4	5.32	0.00	-5.32
11,184.0	87.10	0.70	10,483.1	922.0	265.7	-199.0	5.01	-4.79	-1.49
11,279.0	88.10	358.60	10,487.0	1,016.9	265.1	-191.6	2.45	1.05	-2.21
11,374.0	89.90	0.00	10,488.7	1,111.9	264.0	-183.6	2.40	1.89	1.47
11,468.0	89.20	358.00	10,489.4	1,205.8	262.3	-175.2	2.25	-0.74	-2.13
11,562.0	89.80	357.80	10,490.3	1,299.8	258.9	-165.1	0.67	0.64	-0.21
11,656.0	89.50	359.20	10,490.8	1,393.7	256.4	-155.9	1.52	-0.32	1.49
11,751.0	89.40	359.30	10,491.8	1,488.7	255.2	-147.8	0.15	-0.11	0.11
11,846.0	89.20	359.20	10,492.9	1,583.7	253.9	-139.8	0.24	-0.21	-0.11
11,940.0	87.60	357.40	10,495.5	1,677.6	251.1	-130.3	2.56	-1.70	-1.91
12,034.0	91.40	358.40	10,496.4	1,771.5	247.7	-120.1	4.18	4.04	1.06
12,129.0	87.90	355.30	10,496.9	1,866.4	242.5	-108.1	4.92	-3.68	-3.26
12,223.0	88.00	354.70	10,500.3	1,959.9	234.3	-93.3	0.65	0.11	-0.64
12,318.0	89.40	1.80	10,502.5	2,054.8	231.4	-83.6	7.62	1.47	7.47
12,412.0	92.00	2.60	10,501.3	2,148.7	235.0	-80.4	2.89	2.77	0.85
12,506.0	91.10	2.50	10,498.8	2,242.6	239.2	-77.9	0.96	-0.96	-0.11
12,600.0	89.90	0.20	10,497.9	2,336.6	241.4	-73.4	2.76	-1.28	-2.45
12,695.0	90.10	358.90	10,497.9	2,431.6	240.7	-65.8	1.38	0.21	-1.37
12,789.0	90.50	0.30	10,497.5	2,525.6	240.0	-58.4	1.55	0.43	1.49
12,883.0	86.50	357.40	10,499.9	2,619.5	238.1	-49.8	5.26	-4.26	-3.09
12,978.0	89.10	358.50	10,503.6	2,714.3	234.7	-39.6	2.97	2.74	1.16
13,073.0	88.70	357.50	10,505.4	2,809.3	231.4	-29.5	1.13	-0.42	-1.05
13,167.0	90.90	358.70	10,505.7	2,903.2	228.3	-19.7	2.67	2.34	1.28
13,262.0	91.20	0.60	10,504.0	2,998.2	227.7	-12.3	2.02	0.32	2.00
13,356.0	86.70	358.90	10,505.7	3,092.1	227.3	-5.1	5.12	-4.79	-1.81
13,451.0	91.50	0.90	10,507.2	3,187.1	227.1	1.8	5.47	5.05	2.11
13,546.0	91.20	1.30	10,504.9	3,282.0	229.0	6.8	0.53	-0.32	0.42
13,640.0	89.10	359.10	10,504.7	3,376.0	229.3	13.2	3.24	-2.23	-2.34
13,734.0	90.10	1.80	10,505.4	3,470.0	230.0	19.2	3.06	1.06	2.87
13,829.0	91.30	2.40	10,504.2	3,564.9	233.5	22.5	1.41	1.26	0.63
13,924.0	92.00	359.70	10,501.5	3,659.9	235.2	27.6	2.93	0.74	-2.84
14,019.0	90.10	1.50	10,499.7	3,754.8	236.2	33.4	2.75	-2.00	1.89
14,113.0	91.50	3.80	10,498.4	3,848.7	240.6	35.8	2.86	1.49	2.45
14,208.0	87.40	358.20	10,499.3	3,943.7	242.2	41.0	7.30	-4.32	-5.89
14,303.0	93.80	0.90	10,498.3	4,038.6	241.5	48.5	7.31	6.74	2.84
14,334.0	93.80	0.30	10,496.3	4,069.5	241.8	50.4	1.93	0.00	-1.94
14,365.0	90.30	359.90	10,495.2	4,100.5	241.9	52.6	11.36	-11.29	-1.29
14,397.0	87.10	359.70	10,495.9	4,132.5	241.8	55.0	10.02	-10.00	-0.63
14,429.0	86.50	359.50	10,497.7	4,164.4	241.5	57.5	1.98	-1.88	-0.63
14,460.0	86.90	359.40	10,499.5	4,195.4	241.2	60.0	1.33	1.29	-0.32
14,492.0	86.40	359.30	10,501.3	4,227.3	240.9	62.7	1.59	-1.56	-0.31
14,524.0	86.50	359.10	10,503.3	4,259.3	240.4	65.4	0.70	0.31	-0.63

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Yardbirds 34 W2OB Fee #1H
Project:	Eddy County, New Mexico	TVD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
Site:	Section 34-23S Yardbirds 34 W2OB Fee #1H	MD Reference:	3025 + 27 @ 3052.0usft (Patterson 250)
Well:	Yardbirds 34 W2OB 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)
14,555.0	86.70	359.30	10,505.1	4,290.2	240.0	68.0	0.91	0.65	0.65
14,587.0	86.80	359.60	10,507.0	4,322.1	239.7	70.6	0.99	0.31	0.94
14,618.0	85.30	359.60	10,509.1	4,353.1	239.5	73.1	4.84	-4.84	0.00
14,650.0	86.30	359.30	10,511.4	4,385.0	239.2	75.7	3.26	3.13	-0.94
14,681.0	88.00	359.20	10,513.0	4,415.9	238.8	78.3	5.49	5.48	-0.32
14,713.0	88.80	359.60	10,513.9	4,447.9	238.4	80.9	2.79	2.50	1.25
14,744.0	90.70	0.60	10,514.0	4,478.9	238.5	83.1	6.93	6.13	3.23
14,776.0	91.30	1.30	10,513.5	4,510.9	239.0	84.8	2.88	1.88	2.19
14,807.0	90.20	1.50	10,513.0	4,541.9	239.8	86.3	3.61	-3.55	0.65
14,838.0	90.50	1.80	10,512.9	4,572.9	240.7	87.6	1.37	0.97	0.97
14,870.0	89.10	0.60	10,513.0	4,604.9	241.3	89.3	5.76	-4.38	-3.75
14,901.0	89.10	0.20	10,513.5	4,635.9	241.6	91.3	1.29	0.00	-1.29
14,933.0	90.30	0.50	10,513.6	4,667.9	241.8	93.4	3.87	3.75	0.94
14,964.0	92.20	1.10	10,512.9	4,698.9	242.2	95.1	6.43	6.13	1.94
15,037.0	90.90	1.40	10,511.0	4,771.8	243.8	98.8	1.83	-1.78	0.41
15,090.0	90.90	1.40	10,510.1	4,824.8	245.1	101.3	0.00	0.00	0.00
15090' MD Projected to Bit									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,604.0	9,602.7	2.0	-27.5	9604' MD Stryker Gyro Survey
10,101.0	10,084.7	84.3	8.2	10101' MD Top of Plug
15,090.0	10,510.1	4,824.8	245.1	15090' MD Projected to Bit



April 19, 2016

New Mexico Energy, Minerals and Natural Resources Department
Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Attn: Jackie Lathan

Re: Mewbourne Oil Company
Yardbirds 34 W2OB Fee #001H
Culebra Bluff; Wolfcamp, South (Gas)
Eddy County, New Mexico
API# 30-015-43464

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Chris Alley	Original Hole	Surface to 9,604ft.	03/10/2016	Gyro Survey
Scott Kelly	Original Hole	9,696ft. to 10,733ft.	03-11-16 to 03-15-16	MWD Survey
Scott Kelly	Sidetrack #1	10,135ft. to 15,037ft.	03-17-16 to 04-02-16	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Todd Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Yardbirds 34 W2OB Fee #1HM161009

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163



April 19, 2016

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of March 10, 2016 conduct or supervise the taking of a SEDS Gyro Survey from Surface to a depth of 9,604 feet; and that I did on the day(s) of March 11, 2016, through March 15, 2016 conduct or supervise the taking of a SEDS Original MWD Survey from a depth of 9,696 feet to a depth of 10,733 feet; and that I did on the day(s) of March 17, 2016, through April 02, 2016 conduct or supervise the taking of a SEDS MWD "Sidetrack" Survey from a depth of 10,135 feet to a depth of 15,037 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Yardbirds 34 W2OB Fee #001H well, API # 30-015-43464 in Eddy County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.


Todd Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

**STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
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