



NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 20 2017

RECEIVED

Mewbourne Oil Company

Eddy County, New Mexico

Section 6-21S-27E Roscoe 6 B3AD Fed Com 1H

Roscoe 6 B3AD Fed Com 1H

30-015-43168

Original Hole

Design: Original Hole

Standard Survey Report

21 March, 2017





Microsoft Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 6-21S-27E Roscoe 6 B3AD Fed Com 1H
Well: Roscoe 6 B3AD Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Roscoe 6 B3AD Fed Com 1H
TVD Reference: 3228 + 27 @ 3255.0usft (Patterson 242)
MD Reference: 3228 + 27 @ 3255.0usft (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 Section 6-21S-27E Roscoe 6 B3AD Fed Com 1H

Site Position: **Map** **Northing:** 552,539.40 usft **Latitude:** 32° 31' 8.364 N
From: **Easting:** 534,698.60 usft **Longitude:** 104° 13' 14.742 W
Position Uncertainty: 0.0 usft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.06 °

Well Roscoe 6 B3AD Fed Com 1H

Well Position **+N/-S** 0.0 usft **Northing:** 552,539.40 usft **Latitude:** 32° 31' 8.364 N
+E/-W 0.0 usft **Easting:** 534,698.60 usft **Longitude:** 104° 13' 14.742 W
Position Uncertainty 0.0 usft **Wellhead Elevation:** 27.0 usft **Ground Level:** 3,228.0 usft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/1/2017	7.32	60.23	48,082.93157257

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	126.28

Survey Program Date 3/21/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,820.0	Phoenix Tech Survey (Original Hole)	GyroFlex	
7,889.0	13,315.0	MWD 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	0.50	55.42	100.0	0.2	0.4	0.1	0.50	0.50	0.00
200.0	0.77	72.94	200.0	0.7	1.4	0.7	0.33	0.27	17.52
300.0	1.04	57.76	300.0	1.4	2.8	1.4	0.36	0.27	-15.18
400.0	1.14	53.02	400.0	2.5	4.3	2.0	0.13	0.10	-4.74
500.0	1.31	41.45	499.9	3.9	5.9	2.4	0.30	0.17	-11.57
600.0	1.21	52.35	599.9	5.4	7.5	2.8	0.26	-0.10	10.90
700.0	1.40	26.01	699.9	7.2	8.8	2.9	0.62	0.19	-26.34
800.0	1.56	18.02	799.9	9.5	9.8	2.3	0.26	0.16	-7.99

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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	1.31	22.91	899.8	11.9	10.7	1.6	0.28	-0.25	4.89
1,000.0	1.51	22.06	999.8	14.2	11.6	1.0	0.20	0.20	-0.85
1,100.0	1.52	14.68	1,099.8	16.7	12.4	0.2	0.20	0.01	-7.38
1,200.0	1.49	20.03	1,199.7	19.2	13.2	-0.7	0.14	-0.03	5.35
1,300.0	1.49	26.52	1,299.7	21.6	14.2	-1.3	0.17	0.00	6.49
1,400.0	0.84	61.95	1,399.7	23.1	15.5	-1.2	0.94	-0.65	35.43
1,500.0	1.08	144.24	1,499.7	22.7	16.7	0.0	1.28	0.24	82.29
1,600.0	1.13	138.30	1,599.6	21.2	17.9	1.9	0.12	0.05	-5.94
1,700.0	1.38	133.08	1,699.6	19.6	19.4	4.1	0.27	0.25	-5.22
1,800.0	1.19	128.62	1,799.6	18.1	21.1	6.3	0.21	-0.19	-4.46
1,900.0	1.13	139.02	1,899.6	16.7	22.6	8.3	0.22	-0.06	10.40
2,000.0	1.25	147.87	1,999.6	15.1	23.8	10.3	0.22	0.12	8.85
2,100.0	1.46	150.54	2,099.5	13.0	25.0	12.4	0.22	0.21	2.67
2,200.0	1.32	152.56	2,199.5	10.9	26.2	14.6	0.15	-0.14	2.02
2,300.0	1.07	158.77	2,299.5	9.0	27.0	16.5	0.28	-0.25	6.21
2,400.0	0.97	158.44	2,399.5	7.3	27.7	18.0	0.10	-0.10	-0.33
2,500.0	1.01	176.56	2,499.4	5.7	28.0	19.2	0.31	0.04	18.12
2,600.0	0.90	165.83	2,599.4	4.0	28.3	20.4	0.21	-0.11	-10.73
2,700.0	1.04	162.30	2,699.4	2.4	28.8	21.8	0.15	0.14	-3.53
2,800.0	0.87	157.94	2,799.4	0.8	29.3	23.1	0.18	-0.17	-4.36
2,900.0	0.69	149.33	2,899.4	-0.4	29.9	24.3	0.21	-0.18	-8.61
3,000.0	0.58	150.59	2,999.4	-1.3	30.5	25.3	0.11	-0.11	1.26
3,100.0	0.60	116.45	3,099.4	-2.0	31.2	26.3	0.35	0.02	-34.14
3,200.0	0.49	109.30	3,199.4	-2.4	32.1	27.2	0.13	-0.11	-7.15
3,300.0	0.34	69.42	3,299.4	-2.4	32.7	27.8	0.32	-0.15	-39.88
3,400.0	0.51	35.24	3,399.4	-2.0	33.3	28.0	0.30	0.17	-34.18
3,500.0	0.85	13.56	3,499.4	-0.9	33.7	27.7	0.42	0.34	-21.68
3,600.0	0.97	12.07	3,599.4	0.7	34.0	27.0	0.12	0.12	-1.49
3,700.0	1.11	353.04	3,699.3	2.5	34.1	26.0	0.37	0.14	-19.03
3,800.0	1.17	357.71	3,799.3	4.4	33.9	24.7	0.11	0.06	4.67
3,900.0	1.51	350.04	3,899.3	6.8	33.7	23.1	0.38	0.34	-7.67
4,000.0	1.26	28.23	3,999.3	9.0	34.0	22.0	0.94	-0.25	38.19
4,100.0	1.22	3.59	4,099.2	11.1	34.6	21.3	0.53	-0.04	-24.64
4,200.0	1.38	355.16	4,199.2	13.3	34.5	19.9	0.25	0.16	-8.43
4,300.0	1.35	352.71	4,299.2	15.7	34.3	18.3	0.07	-0.03	-2.45
4,400.0	1.25	345.14	4,399.2	17.9	33.8	16.7	0.20	-0.10	-7.57
4,500.0	1.02	352.54	4,499.1	19.9	33.4	15.2	0.27	-0.23	7.40
4,600.0	1.06	345.54	4,599.1	21.6	33.1	13.9	0.13	0.04	-7.00
4,700.0	0.97	346.08	4,699.1	23.4	32.7	12.5	0.09	-0.09	0.54
4,800.0	1.03	338.24	4,799.1	25.0	32.1	11.1	0.15	0.06	-7.84
4,900.0	0.97	338.45	4,899.1	26.6	31.5	9.6	0.06	-0.06	0.21
5,000.0	1.12	313.88	4,999.1	28.1	30.5	7.9	0.47	0.15	-24.57

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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)
5,100.0	1.24	306.45	5,099.0	29.4	28.9	5.9	0.19	0.12	-7.43
5,200.0	1.71	299.99	5,199.0	30.8	26.7	3.3	0.50	0.47	-6.46
5,300.0	2.59	300.53	5,298.9	32.7	23.5	-0.4	0.88	0.88	0.54
5,400.0	2.43	293.01	5,398.8	34.7	19.6	-4.7	0.37	-0.16	-7.52
5,500.0	2.17	303.92	5,498.8	36.6	16.1	-8.7	0.51	-0.26	10.91
5,600.0	2.22	306.24	5,598.7	38.8	12.9	-12.5	0.10	0.05	2.32
5,700.0	2.54	313.58	5,698.6	41.4	9.8	-16.6	0.44	0.32	7.34
5,800.0	2.50	316.59	5,798.5	44.5	6.7	-21.0	0.14	-0.04	3.01
5,900.0	2.41	318.57	5,898.4	47.7	3.8	-25.2	0.12	-0.09	1.98
6,000.0	2.39	322.85	5,998.3	50.9	1.1	-29.2	0.18	-0.02	4.28
6,100.0	1.91	334.27	6,098.3	54.1	-0.9	-32.7	0.64	-0.48	11.42
6,200.0	0.89	358.47	6,198.2	56.4	-1.6	-34.6	1.16	-1.02	24.20
6,300.0	1.09	112.70	6,298.2	56.8	-0.7	-34.2	1.67	0.20	114.23
6,400.0	0.89	97.99	6,398.2	56.3	0.9	-32.6	0.32	-0.20	-14.71
6,500.0	1.15	129.04	6,498.2	55.6	2.5	-30.9	0.60	0.26	31.05
6,600.0	1.70	112.59	6,598.2	54.4	4.6	-28.5	0.68	0.55	-16.45
6,700.0	1.47	151.33	6,698.1	52.7	6.6	-25.9	1.07	-0.23	38.74
6,800.0	1.61	174.93	6,798.1	50.2	7.3	-23.8	0.64	0.14	23.60
6,900.0	1.66	177.77	6,898.0	47.3	7.5	-21.9	0.10	0.05	2.84
7,000.0	1.96	185.62	6,998.0	44.2	7.4	-20.2	0.39	0.30	7.85
7,100.0	2.62	170.10	7,097.9	40.2	7.6	-17.6	0.90	0.66	-15.52
7,200.0	3.72	160.28	7,197.8	34.9	9.1	-13.3	1.22	1.10	-9.82
7,300.0	6.57	157.26	7,297.3	26.6	12.4	-5.7	2.86	2.85	-3.02
7,400.0	6.58	161.63	7,396.7	15.9	16.4	3.9	0.50	0.01	4.37
7,500.0	5.60	169.00	7,496.1	5.6	19.2	12.1	1.25	-0.98	7.37
7,600.0	4.69	174.75	7,595.7	-3.2	20.5	18.4	1.04	-0.91	5.75
7,700.0	2.92	177.70	7,695.5	-9.8	21.0	22.7	1.78	-1.77	2.95
7,800.0	2.51	180.27	7,795.4	-14.6	21.0	25.6	0.43	-0.41	2.57
7,820.0	2.57	175.95	7,815.4	-15.5	21.1	26.1	1.00	0.30	-21.60
7820' MD Phoenix Gyro Surveys									
7,889.0	2.80	197.30	7,884.3	-18.6	20.7	27.7	1.48	0.33	30.94
7,952.0	4.60	327.50	7,947.2	-18.0	18.9	25.8	10.72	2.86	206.67
8,015.0	4.80	329.40	8,010.0	-13.6	16.2	21.1	0.40	0.32	3.02
8,077.0	4.80	334.60	8,071.8	-9.0	13.7	16.4	0.70	0.00	8.39
8,108.0	7.50	336.60	8,102.6	-6.0	12.4	13.5	8.74	8.71	6.45
8,139.0	11.40	332.90	8,133.2	-1.4	10.2	9.0	12.73	12.58	-11.94
8,170.0	15.40	327.40	8,163.3	4.8	6.6	2.4	13.53	12.90	-17.74
8,202.0	18.70	323.50	8,193.9	12.5	1.2	-6.4	10.91	10.31	-12.19
8,233.0	21.50	320.80	8,223.0	20.9	-5.3	-16.7	9.51	9.03	-8.71
8,264.0	24.60	321.40	8,251.6	30.4	-12.9	-28.4	10.03	10.00	1.94
8,295.0	27.50	322.20	8,279.4	41.1	-21.4	-41.5	9.42	9.35	2.58
8,326.0	29.80	324.00	8,306.6	53.0	-30.3	-55.8	7.92	7.42	5.81
8,357.0	33.10	325.60	8,333.1	66.2	-39.6	-71.1	10.98	10.65	5.16

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8,389.0	36.20	327.30	8,359.4	81.4	-49.6	-88.2	10.15	9.69	5.31
8,420.0	39.60	328.60	8,383.8	97.5	-59.7	-105.8	11.27	10.97	4.19
8,451.0	43.50	328.20	8,407.0	115.0	-70.5	-124.9	12.61	12.58	-1.29
8,482.0	47.00	326.70	8,428.9	133.6	-82.4	-145.4	11.80	11.29	-4.84
8,513.0	51.10	325.80	8,449.2	153.0	-95.4	-167.4	13.41	13.23	-2.90
8,544.0	53.80	325.70	8,468.1	173.3	-109.2	-190.6	8.71	8.71	-0.32
8,576.0	56.30	326.30	8,486.4	195.1	-123.9	-215.3	7.96	7.81	1.88
8,607.0	59.20	326.10	8,502.9	216.9	-138.4	-239.9	9.37	9.35	-0.65
8,638.0	61.90	326.50	8,518.2	239.3	-153.4	-265.3	8.78	8.71	1.29
8,669.0	66.60	326.00	8,531.6	262.5	-168.9	-291.5	15.23	15.16	-1.61
8,700.0	69.60	325.90	8,543.2	286.3	-185.0	-318.6	9.68	9.68	-0.32
8,725.0	72.80	326.60	8,551.2	306.0	-198.2	-340.8	13.07	12.80	2.80
8,753.0	74.80	331.80	8,559.1	329.1	-211.9	-365.6	19.21	7.14	18.57
8,785.0	77.00	327.90	8,566.9	355.9	-227.5	-394.0	13.67	6.88	-12.19
8,816.0	80.00	326.70	8,573.0	381.5	-243.9	-422.4	10.39	9.68	-3.87
8,847.0	83.10	324.10	8,577.6	406.7	-261.3	-451.4	12.99	10.00	-8.39
8,878.0	85.00	323.50	8,580.8	431.6	-279.6	-480.8	6.42	6.13	-1.94
8,909.0	86.40	321.30	8,583.1	456.1	-298.4	-510.4	8.39	4.52	-7.10
8,940.0	87.50	318.20	8,584.8	479.7	-318.4	-540.5	10.60	3.55	-10.00
8,972.0	88.60	314.20	8,585.9	502.8	-340.5	-572.0	12.96	3.44	-12.50
9,003.0	89.00	310.80	8,586.5	523.7	-363.4	-602.8	11.04	1.29	-10.97
9,034.0	89.70	307.80	8,586.9	543.4	-387.4	-633.8	9.94	2.26	-9.68
9,065.0	89.80	304.80	8,587.0	561.7	-412.4	-664.8	9.68	0.32	-9.68
9,096.0	90.50	300.90	8,586.9	578.5	-438.4	-695.7	12.78	2.26	-12.58
9,128.0	91.20	298.00	8,586.5	594.3	-466.3	-727.5	9.32	2.19	-9.06
9,159.0	91.70	294.80	8,585.7	608.0	-494.0	-758.0	10.44	1.61	-10.32
9,190.0	92.30	290.40	8,584.6	619.9	-522.6	-788.1	14.32	1.94	-14.19
9,221.0	91.70	286.50	8,583.5	629.7	-552.0	-817.6	12.72	-1.94	-12.58
9,252.0	90.90	282.70	8,582.8	637.6	-582.0	-846.4	12.52	-2.58	-12.26
9,280.3	90.72	278.71	8,582.4	642.8	-609.8	-872.0	14.08	-0.62	-14.06
LP Roscoe 6 B3AD Fed Com 1H									
9,284.0	90.70	278.20	8,582.4	643.4	-613.4	-875.2	14.08	-0.63	-14.06
9,315.0	90.60	275.00	8,582.0	646.9	-644.2	-902.1	10.33	-0.32	-10.32
9,346.0	90.30	274.30	8,581.8	649.4	-675.1	-928.5	2.46	-0.97	-2.26
9,440.0	90.20	273.00	8,581.3	655.4	-768.9	-1,007.7	1.39	-0.11	-1.38
9,533.0	90.20	272.50	8,581.0	659.9	-861.8	-1,085.2	0.54	0.00	-0.54
9,627.0	89.90	271.70	8,580.9	663.3	-955.7	-1,163.0	0.91	-0.32	-0.85
9,720.0	91.00	271.20	8,580.2	665.7	-1,048.7	-1,239.3	1.30	1.18	-0.54
9,814.0	91.20	271.10	8,578.4	667.6	-1,142.7	-1,316.2	0.24	0.21	-0.11
9,907.0	90.90	270.70	8,576.7	669.0	-1,235.7	-1,392.0	0.54	-0.32	-0.43
10,001.0	91.60	270.10	8,574.7	669.7	-1,329.6	-1,468.1	0.98	0.74	-0.64
10,095.0	93.10	271.90	8,570.8	671.3	-1,423.5	-1,544.8	2.49	1.60	1.91
10,188.0	93.60	271.80	8,565.4	674.3	-1,516.3	-1,621.4	0.55	0.54	-0.11



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TVD Reference: 3228 + 27 @ 3255.0usft (Patterson 242)
MD Reference: 3228 + 27 @ 3255.0usft (Patterson 242)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
10,282.0	91.60	271.80	8,561.1	677.3	-1,610.2	-1,698.8	2.13	-2.13	0.00
10,375.0	92.30	272.60	8,557.9	680.8	-1,703.0	-1,775.8	1.14	0.75	0.86
10,469.0	92.20	272.40	8,554.2	684.9	-1,796.9	-1,853.8	0.24	-0.11	-0.21
10,562.0	92.50	272.60	8,550.4	689.0	-1,889.7	-1,931.1	0.39	0.32	0.22
10,656.0	91.70	272.30	8,547.0	693.0	-1,983.6	-2,009.1	0.91	-0.85	-0.32
10,750.0	90.10	272.30	8,545.5	696.8	-2,077.5	-2,087.0	1.70	-1.70	0.00
10,843.0	90.10	272.40	8,545.3	700.6	-2,170.4	-2,164.2	0.11	0.00	0.11
10,937.0	91.60	273.30	8,544.0	705.3	-2,264.3	-2,242.6	1.86	1.60	0.96
11,030.0	92.10	274.70	8,541.0	711.7	-2,357.0	-2,321.2	1.60	0.54	1.51
11,124.0	90.30	274.50	8,539.0	719.3	-2,450.7	-2,401.2	1.93	-1.91	-0.21
11,217.0	92.30	276.20	8,536.9	727.9	-2,543.2	-2,481.0	2.82	2.15	1.83
11,310.0	91.60	276.10	8,533.7	737.9	-2,635.6	-2,561.3	0.76	-0.75	-0.11
11,403.0	90.90	276.50	8,531.7	748.1	-2,728.1	-2,641.9	0.87	-0.75	0.43
11,497.0	91.80	276.80	8,529.5	759.0	-2,821.4	-2,723.6	1.01	0.96	0.32
11,591.0	89.20	276.60	8,528.6	770.0	-2,914.7	-2,805.3	2.77	-2.77	-0.21
11,684.0	90.10	276.70	8,529.2	780.7	-3,007.1	-2,886.1	0.97	0.97	0.11
11,777.0	94.20	277.30	8,525.7	792.0	-3,099.3	-2,967.2	4.46	4.41	0.65
11,871.0	93.40	275.60	8,519.5	802.6	-3,192.5	-3,048.6	2.00	-0.85	-1.81
11,965.0	95.00	275.20	8,512.6	811.4	-3,285.9	-3,129.0	1.75	1.70	-0.43
12,058.0	93.10	273.80	8,506.0	818.7	-3,378.3	-3,207.9	2.54	-2.04	-1.51
12,151.0	93.90	274.10	8,500.4	825.1	-3,470.9	-3,286.3	0.92	0.86	0.32
12,245.0	90.20	273.40	8,497.0	831.2	-3,564.7	-3,365.5	4.01	-3.94	-0.74
12,338.0	89.50	272.50	8,497.2	836.0	-3,657.5	-3,443.2	1.23	-0.75	-0.97
12,432.0	91.50	272.30	8,496.4	839.9	-3,751.4	-3,521.2	2.14	2.13	-0.21
12,525.0	92.20	272.10	8,493.4	843.5	-3,844.3	-3,598.2	0.78	0.75	-0.22
12,619.0	91.50	271.80	8,490.4	846.7	-3,938.2	-3,675.8	0.81	-0.74	-0.32
12,713.0	91.30	272.00	8,488.1	849.8	-4,032.1	-3,753.4	0.30	-0.21	0.21
12,806.0	90.70	271.20	8,486.5	852.4	-4,125.1	-3,829.8	1.08	-0.65	-0.86
12,900.0	91.20	271.50	8,484.9	854.6	-4,219.1	-3,906.9	0.62	0.53	0.32
12,994.0	90.60	270.70	8,483.4	856.4	-4,313.0	-3,983.7	1.06	-0.64	-0.85
13,087.0	94.40	271.40	8,479.4	858.1	-4,405.9	-4,059.6	4.15	4.09	0.75
13,180.0	93.40	272.20	8,473.1	861.0	-4,498.6	-4,136.1	1.38	-1.08	0.86
13,248.0	92.00	270.80	8,469.8	862.8	-4,566.5	-4,191.9	2.91	-2.06	-2.06
13,315.0	92.00	270.80	8,467.5	863.8	-4,633.5	-4,246.4	0.00	0.00	0.00

13315.0' MD Projected to Bit - PBHL Roscoe 6 B3AD Fed Com 1H



Microsoft Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 6-21S-27E Roscoe 6 B3AD Fed Com 1H
Well: Roscoe 6 B3AD Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Roscoe 6 B3AD Fed Com 1H
TVD Reference: 3228 + 27 @ 3255.0usft (Patterson 242)
MD Reference: 3228 + 27 @ 3255.0usft (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)	
7,820.0	7,815.4	-15.5	21.1	7820' MD Phoenix Gyro Surveys
13,315.0	8,467.5	863.8	-4,633.5	13315.0' MD Projected to Bit



April 12, 2017

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
Roscoe 6 B3AD Federal Com #001H
Avalon; Bone Spring (Gas)
Eddy County, New Mexico
API# 30-015-43168

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>
David Calabrese	Original Hole	7,889ft. to 13,248ft.	03-03-17 to 03-21-17	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\Roscoe 6 B3AD Federal Com #1H\M171013

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

Office (936) 582-7296 * Fax (936)-588-4163



April 12, 2017

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 03, 2017, through March 21, 2017 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 7,889 feet to a depth of 13,248 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 Roscoe 6 B3AD Federal Com #001H well, API # **30-015-43168** 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.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163**



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 6-21S-27E Roscoe 6 B3AD Fed Com 1H
Well: Roscoe 6 B3AD Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Roscoe 6 B3AD Fed Com 1H
TVD Reference: 3228 + 27 @ 3255.0usft (Patterson 242)
MD Reference: 3228 + 27 @ 3255.0usft (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	Section 6-21S-27E Roscoe 6 B3AD Fed Com 1H		
Site Position:		Northing:	552,539.40 usft
From: Map		Easting:	534,698.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 31' 8.364 N
		Longitude:	104° 13' 14.742 W
		Grid Convergence:	0.06 °

Well	Roscoe 6 B3AD Fed Com 1H		
Well Position	+N/-S	0.0 usft	Northing: 552,539.40 usft
	+E/-W	0.0 usft	Easting: 534,698.60 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	27.0 usft
		Latitude:	32° 31' 8.364 N
		Longitude:	104° 13' 14.742 W
		Ground Level:	3,228.0usft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	2/1/2017	(°)
			7.32
			Dip Angle
			(°)
			60.23
			Field Strength
			(nT)
			48,082.93157257

Design	Original Hole		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			126.28



Microsoft
MWD Surveys



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Database: Stryker_EDM

Survey Program Date 3/21/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	7,820.0	Phoenix Tech Survey (Original Hole)	GyroFlex	
7,889.0	13,315.0	MWD Survey (Original Hole)	MWD	MWD v3 standard declination

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	
7,820.0	2.57	175.95	7,815.4	-15.5	21.1	26.1	126.28	Tie-In
7,889.0	2.80	197.30	7,884.3	-18.6	20.7	27.8	132.00	
7,952.0	4.60	327.50	7,947.2	-18.0	18.9	26.0	133.59	
8,015.0	4.80	329.40	8,010.0	-13.6	16.2	21.1	129.99	
8,077.0	4.80	334.60	8,071.8	-9.0	13.7	16.4	123.19	
8,108.0	7.50	336.60	8,102.6	-6.0	12.4	13.7	115.70	
8,139.0	11.40	332.90	8,133.2	-1.4	10.2	10.3	97.66	
8,170.0	15.40	327.40	8,163.3	4.8	6.6	8.1	53.64	
8,202.0	18.70	323.50	8,193.9	12.5	1.2	12.6	5.55	
8,233.0	21.50	320.80	8,223.0	20.9	-5.3	21.6	345.71	
8,264.0	24.60	321.40	8,251.6	30.4	-12.9	33.0	336.92	
8,295.0	27.50	322.20	8,279.4	41.1	-21.4	46.3	332.53	
8,326.0	29.80	324.00	8,306.6	53.0	-30.3	61.0	330.25	
8,357.0	33.10	325.60	8,333.1	66.2	-39.6	77.1	329.11	
8,389.0	36.20	327.30	8,359.4	81.4	-49.6	95.3	328.61	
8,420.0	39.60	328.60	8,383.8	97.5	-59.7	114.3	328.51	
8,451.0	43.50	328.20	8,407.0	115.0	-70.5	134.9	328.49	
8,482.0	47.00	326.70	8,428.9	133.6	-82.4	156.9	328.34	
8,513.0	51.10	325.80	8,449.2	153.0	-95.4	180.3	328.07	
8,544.0	53.80	325.70	8,468.1	173.3	-109.2	204.9	327.79	
8,576.0	56.30	326.30	8,486.4	195.1	-123.9	231.1	327.59	



Microsoft
MWD Surveys



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Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
8,607.0	59.20	326.10	8,502.9	216.9	-138.4	257.3	327.45
8,638.0	61.90	326.50	8,518.2	239.3	-153.4	284.3	327.34
8,669.0	66.60	326.00	8,531.6	262.5	-168.9	312.2	327.24
8,700.0	69.60	325.90	8,543.2	286.3	-185.0	340.9	327.13
8,725.0	72.80	326.60	8,551.2	306.0	-198.2	364.6	327.07
8,753.0	74.80	331.80	8,559.1	329.1	-211.9	391.4	327.22
8,785.0	77.00	327.90	8,566.9	355.9	-227.5	422.4	327.41
8,816.0	80.00	326.70	8,573.0	381.5	-243.9	452.8	327.40
8,847.0	83.10	324.10	8,577.6	406.7	-261.3	483.5	327.28
8,878.0	85.00	323.50	8,580.8	431.6	-279.6	514.2	327.07
8,909.0	86.40	321.30	8,583.1	456.1	-298.4	545.0	326.80
8,940.0	87.50	318.20	8,584.8	479.7	-318.4	575.8	326.43
8,972.0	88.60	314.20	8,585.9	502.8	-340.5	607.3	325.89
9,003.0	89.00	310.80	8,586.5	523.7	-363.4	637.5	325.25
9,034.0	89.70	307.80	8,586.9	543.4	-387.4	667.3	324.51
9,065.0	89.80	304.80	8,587.0	561.7	-412.4	696.8	323.72
9,096.0	90.50	300.90	8,586.9	578.5	-438.4	725.9	322.85
9,128.0	91.20	298.00	8,586.5	594.3	-466.3	755.3	321.88
9,159.0	91.70	294.80	8,585.7	608.0	-494.0	783.4	320.91
9,190.0	92.30	290.40	8,584.6	619.9	-522.6	810.8	319.87
9,221.0	91.70	286.50	8,583.5	629.7	-552.0	837.4	318.76
9,252.0	90.90	282.70	8,582.8	637.6	-582.0	863.2	317.61
9,280.4	90.72	278.71	8,582.4	642.8	-609.8	886.1	316.51
LP Roscoe 6 B3AD Fed Com 1H							
9,284.0	90.70	278.20	8,582.4	643.4	-613.4	888.9	316.36
9,315.0	90.60	275.00	8,582.0	646.9	-644.2	913.0	315.12
9,346.0	90.30	274.30	8,581.8	649.4	-675.1	936.8	313.89



Microsoft
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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
9,440.0	90.20	273.00	8,581.3	655.4	-768.9	1,010.4	310.44
9,533.0	90.20	272.50	8,581.0	659.9	-861.8	1,085.4	307.44
9,627.0	89.90	271.70	8,580.9	663.3	-955.7	1,163.4	304.76
9,720.0	91.00	271.20	8,580.2	665.7	-1,048.7	1,242.1	302.41
9,814.0	91.20	271.10	8,578.4	667.6	-1,142.7	1,323.4	300.29
9,907.0	90.90	270.70	8,576.7	669.0	-1,235.7	1,405.1	298.43
10,001.0	91.60	270.10	8,574.7	669.7	-1,329.6	1,488.7	296.73
10,095.0	93.10	271.90	8,570.8	671.3	-1,423.5	1,573.9	295.25
10,188.0	93.60	271.80	8,565.4	674.3	-1,516.3	1,659.5	293.97
10,282.0	91.60	271.80	8,561.1	677.3	-1,610.2	1,746.8	292.81
10,375.0	92.30	272.60	8,557.9	680.8	-1,703.0	1,834.1	291.79
10,469.0	92.20	272.40	8,554.2	684.9	-1,796.9	1,923.0	290.87
10,562.0	92.50	272.60	8,550.4	689.0	-1,889.7	2,011.4	290.03
10,656.0	91.70	272.30	8,547.0	693.0	-1,983.6	2,101.1	289.26
10,750.0	90.10	272.30	8,545.5	696.8	-2,077.5	2,191.2	288.54
10,843.0	90.10	272.40	8,545.3	700.6	-2,170.4	2,280.7	287.89
10,937.0	91.60	273.30	8,544.0	705.3	-2,264.3	2,371.6	287.30
11,030.0	92.10	274.70	8,541.0	711.7	-2,357.0	2,462.1	286.80
11,124.0	90.30	274.50	8,539.0	719.3	-2,450.7	2,554.0	286.36
11,217.0	92.30	276.20	8,536.9	727.9	-2,543.2	2,645.4	285.97
11,310.0	91.60	276.10	8,533.7	737.9	-2,635.6	2,737.0	285.64
11,403.0	90.90	276.50	8,531.7	748.1	-2,728.1	2,828.8	285.34
11,497.0	91.80	276.80	8,529.5	759.0	-2,821.4	2,921.7	285.06
11,591.0	89.20	276.60	8,528.6	770.0	-2,914.7	3,014.7	284.80
11,684.0	90.10	276.70	8,529.2	780.7	-3,007.1	3,106.8	284.55
11,777.0	94.20	277.30	8,525.7	792.0	-3,099.3	3,198.9	284.34
11,871.0	93.40	275.60	8,519.5	802.6	-3,192.5	3,291.9	284.11



Microsoft
MWD Surveys



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
11,985.0	95.00	275.20	8,512.6	811.4	-3,285.9	3,384.6	283.87
12,058.0	93.10	273.80	8,506.0	818.7	-3,378.3	3,476.1	283.62
12,151.0	93.90	274.10	8,500.4	825.1	-3,470.9	3,567.7	283.37
12,245.0	90.20	273.40	8,497.0	831.2	-3,564.7	3,660.3	283.13
12,338.0	89.50	272.50	8,497.2	836.0	-3,657.5	3,751.9	282.87
12,432.0	91.50	272.30	8,496.4	839.9	-3,751.4	3,844.3	282.62
12,525.0	92.20	272.10	8,493.4	843.5	-3,844.3	3,935.8	282.38
12,619.0	91.50	271.80	8,490.4	846.7	-3,938.2	4,028.2	282.13
12,713.0	91.30	272.00	8,488.1	849.8	-4,032.1	4,120.7	281.90
12,806.0	90.70	271.20	8,486.5	852.4	-4,125.1	4,212.2	281.68
12,900.0	91.20	271.50	8,484.9	854.6	-4,219.1	4,304.7	281.45
12,994.0	90.60	270.70	8,483.4	856.4	-4,313.0	4,397.2	281.23
13,087.0	94.40	271.40	8,479.4	858.1	-4,405.9	4,488.7	281.02
13,180.0	93.40	272.20	8,473.1	861.0	-4,498.6	4,580.3	280.84
13,248.0	92.00	270.80	8,469.8	862.8	-4,566.5	4,647.3	280.70
13,315.0	92.00	270.80	8,467.5	863.8	-4,633.5	4,713.3	280.56

13315.0' MD Projected to Bit - PBHL Roscoe 6 B3AD Fed Com 1H

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
13,315.0	8,467.5	863.8	-4,633.5	13315.0' MD Projected to Bit

Checked By: _____ Approved By: _____ Date: _____



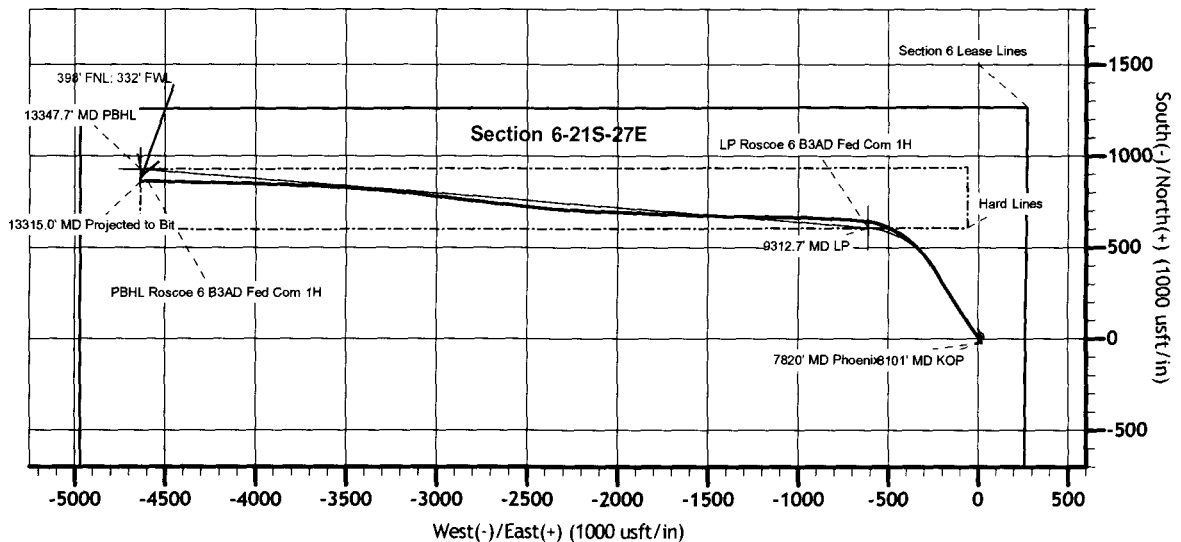
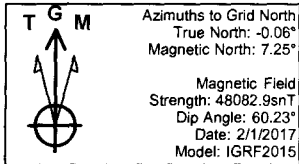
COMPANY: Mewbourne Oil Company
WELL: Roscoe 6 B3AD Fed Com 1H
COUNTY: Eddy County, New Mexico
DATUM: NAD 1927 (NADCON CONUS)
RIG: Patterson Patterson 242



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.26°

OFFICE: 936.582.7296

GEODETIC ZONE: New Mexico East 3001										Slot
3228 + 27 @ 3255.0usft (Patterson 242)										
GROUND ELEVATION: 3228.0										
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude					
0.0	0.0	552539.40	534698.60	32° 31' 8.364 N	104° 13' 14.742 W					
PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	7820.0	2.57	175.95	7815.4	-15.5	21.1	0.00	0.00	-23.7	
2	7948.5	0.00	0.00	7943.8	-18.3	21.3	2.00	180.00	-24.5	
3	8101.0	0.00	0.00	8096.3	-18.3	21.3	0.00	0.00	-24.5	
4	8867.8	90.00	326.75	8584.4	389.9	-246.4	11.74	326.75	318.1	LP Roscoe 6 B3AD Fed Com 1H
5	9312.7	91.78	274.54	8577.0	608.9	-616.0	11.74	-87.76	723.5	PBHL Roscoe 6 B3AD Fed Com 1H
6	13347.7	91.78	274.54	8452.0	928.1	-4636.4	0.00	0.00	4728.4	



SHL 1270' FNL; 265' FEL
Section 6-21S-27E
PBHL 330' FNL; 330' FWL
Section 6-21S-27E

