

30-025-40342



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DISTRICT II-ARTESIA O.C.D.

Mewbourne Oil Company

Lea County N.M.

Section 16-9-21S-34E Rebel 16-9 B2OJ St Com 1H

Rebel 16-9 B2OJ State Com 1H

Original Hole

Plan: Plan#1

Standard Planning Report

04 January, 2018



Database:	Stryker_EDM	Local Co-ordinate Reference:	Well Rebel 16-9 B2OJ State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	3728 + 27 @ 3755.0usft (Patterson 220)
Project:	Lea County N.M.	MD Reference:	3728 + 27 @ 3755.0usft (Patterson 220)
Site:	Section 16-9-21S-34E Rebel 16-9 B2OJ St Com 1H	North Reference:	Grid
Well:	Rebel 16-9 B2OJ State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#1		

Project	Lea County N.M.		
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 16-9-21S-34E Rebel 16-9 B2OJ St Com 1H				
Site Position:	Northing:	536,640.90 usft	Latitude:	32° 28' 20.621 N	
From:	Map	Easting:	765,439.70 usft	Longitude:	103° 28' 21.480 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.46 °

Well	Rebel 16-9 B2OJ State Com 1H					
Well Position	+N/-S	0.0 usft	Northing:	536,640.90 usft	Latitude:	32° 28' 20.621 N
	+E/-W	0.0 usft	Easting:	765,439.70 usft	Longitude:	103° 28' 21.480 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	27.0 usft	Ground Level:	3,728.0 usft	

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2015	1/4/2018	6.87	60.30	48,036.96496828

Design Plan#1

Audit Notes:

Version:	Phase:	PLAN	Tie On Depth:	15,315.0
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Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	0.41

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
15,315.0	90.60	0.90	10,877.9	4,612.4	46.9	0.00	0.00	0.00	0.00	
15,442.6	91.59	0.10	10,875.5	4,740.0	48.0	1.00	0.78	-0.63	-38.95	
17,978.5	91.59	0.10	10,805.0	7,274.9	52.3	0.00	0.00	0.00	0.00	PBHL Rebel 16-9 B

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Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 16-9-21S-34E Rebel 16-9 B2OJ St
Com 1H
Well: Rebel 16-9 B2OJ State Com 1H
Wellbore: Original Hole
Design: Plan#1

Local Co-ordinate Reference: Well Rebel 16-9 B2OJ State Com 1H
TVD Reference: 3728 + 27 @ 3755.0usft (Patterson 220)
MD Reference: 3728 + 27 @ 3755.0usft (Patterson 220)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned 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
206.0	0.30	109.50	206.0	-0.2	0.5	-0.2	0.15	0.15	0.00
406.0	0.50	112.40	406.0	-0.7	1.8	-0.7	0.10	0.10	1.45
474.7	0.50	117.70	474.7	-0.9	2.3	-0.9	0.07	0.00	7.71
664.4	0.40	91.70	664.4	-1.3	3.7	-1.3	0.12	-0.05	-13.71
854.1	0.40	78.70	854.1	-1.2	5.0	-1.2	0.05	0.00	-6.85
1,043.8	0.40	63.10	1,043.8	-0.8	6.3	-0.8	0.06	0.00	-8.22
1,233.6	0.90	129.40	1,233.6	-1.4	8.0	-1.4	0.43	0.26	34.93
1,423.3	0.60	111.30	1,423.2	-2.8	10.1	-2.7	0.20	-0.16	-9.54
1,613.0	0.30	128.90	1,612.9	-3.4	11.4	-3.3	0.17	-0.16	9.28
1,802.7	0.20	148.90	1,802.6	-4.0	12.0	-3.9	0.07	-0.05	10.54
1,992.4	0.20	234.60	1,992.3	-4.5	11.9	-4.4	0.14	0.00	45.18
2,182.2	0.40	229.70	2,182.1	-5.1	11.1	-5.0	0.11	0.11	-2.58
2,371.9	0.20	158.70	2,371.8	-5.9	10.7	-5.8	0.20	-0.11	-37.43
2,561.6	0.20	81.90	2,561.5	-6.1	11.2	-6.0	0.13	0.00	-40.48
2,751.3	0.30	3.50	2,751.2	-5.6	11.5	-5.5	0.17	0.05	-41.33
2,941.0	0.20	358.70	2,940.9	-4.7	11.5	-4.7	0.05	-0.05	-2.53
3,130.8	0.60	84.20	3,130.7	-4.3	12.5	-4.2	0.33	0.21	45.05
3,320.5	0.40	71.90	3,320.4	-4.0	14.1	-3.9	0.12	-0.11	-6.48
3,510.2	0.20	68.40	3,510.1	-3.7	15.1	-3.6	0.11	-0.11	-1.85
3,699.9	0.50	161.40	3,699.8	-4.3	15.6	-4.2	0.29	0.16	49.02
3,889.6	0.20	200.10	3,889.5	-5.4	15.8	-5.3	0.19	-0.16	20.40
4,079.4	0.30	162.80	4,079.3	-6.2	15.8	-6.1	0.10	0.05	-19.65
4,269.1	0.10	110.60	4,269.0	-6.8	16.1	-6.6	0.13	-0.11	-27.52
4,458.8	0.30	251.70	4,458.7	-7.0	15.8	-6.9	0.20	0.11	74.38
4,648.5	0.90	220.50	4,648.4	-8.3	14.4	-8.2	0.35	0.32	-16.45
4,838.2	1.70	246.50	4,838.0	-10.5	10.8	-10.4	0.51	0.42	13.71
5,028.0	1.10	259.20	5,027.8	-12.0	6.5	-11.9	0.35	-0.32	6.69
5,407.4	1.20	248.30	5,407.1	-14.1	-0.8	-14.1	0.06	0.03	-2.87
5,597.1	1.10	249.50	5,596.8	-15.5	-4.4	-15.5	0.05	-0.05	0.63
5,786.8	0.40	256.90	5,786.5	-16.3	-6.7	-16.3	0.37	-0.37	3.90
5,976.6	0.10	212.10	5,976.3	-16.6	-7.4	-16.6	0.18	-0.16	-23.60
6,166.3	0.10	270.90	6,166.0	-16.7	-7.7	-16.8	0.05	0.00	31.00
6,925.2	0.20	16.70	6,924.9	-15.4	-8.0	-15.5	0.03	0.01	13.94
7,114.9	0.30	6.30	7,114.6	-14.6	-7.8	-14.7	0.06	0.05	-5.48
7,304.6	0.20	326.90	7,304.3	-13.9	-8.0	-13.9	0.10	-0.05	-20.77
7,684.0	0.20	258.50	7,683.7	-13.4	-9.0	-13.5	0.06	0.00	-18.03
7,873.8	0.20	314.60	7,873.4	-13.3	-9.5	-13.3	0.10	0.00	29.56
8,063.5	0.40	311.30	8,063.1	-12.6	-10.3	-12.7	0.11	0.11	-1.74
8,253.2	0.70	318.10	8,252.8	-11.3	-11.5	-11.4	0.16	0.16	3.58
8,632.6	0.30	218.40	8,632.2	-10.4	-13.7	-10.5	0.21	-0.11	-26.28
8,822.4	0.30	148.50	8,822.0	-11.2	-13.7	-11.3	0.18	0.00	-36.83
9,012.1	0.70	112.90	9,011.7	-12.0	-12.4	-12.1	0.26	0.21	-18.77
9,201.8	0.40	204.70	9,201.4	-13.1	-11.6	-13.2	0.43	-0.16	48.39
9,391.5	0.80	149.50	9,391.1	-14.8	-11.2	-14.9	0.35	0.21	-29.10
9,581.2	0.40	98.50	9,580.8	-16.1	-9.9	-16.1	0.33	-0.21	-26.88
10,150.4	0.40	175.50	10,150.0	-18.3	-7.8	-18.4	0.09	0.00	13.53
10,340.1	0.10	177.70	10,339.7	-19.2	-7.7	-19.2	0.16	-0.16	1.16
10,476.0	8.70	12.30	10,475.1	-9.2	-5.5	-9.3	6.47	6.33	-121.71
10,508.0	12.50	15.50	10,506.5	-3.5	-4.1	-3.6	12.01	11.88	10.00
10,539.0	16.60	15.10	10,536.5	4.0	-2.0	4.0	13.23	13.23	-1.29
10,571.0	20.10	14.20	10,566.9	13.7	0.5	13.7	10.97	10.94	-2.81
10,603.0	23.70	12.50	10,596.6	25.3	3.2	25.4	11.42	11.25	-5.31

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Planned 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)
10,634.0	27.50	10.10	10,624.5	38.5	5.9	38.5	12.70	12.26	-7.74
10,666.0	31.00	9.20	10,652.4	53.9	8.5	53.9	11.02	10.94	-2.81
10,698.0	34.20	7.40	10,679.4	70.9	10.9	71.0	10.45	10.00	-5.63
10,729.0	37.60	5.60	10,704.5	89.0	13.0	89.1	11.48	10.97	-5.81
10,761.0	41.30	5.00	10,729.2	109.2	14.9	109.4	11.62	11.56	-1.88
10,793.0	44.90	4.60	10,752.6	131.0	16.7	131.1	11.28	11.25	-1.25
10,824.0	48.80	3.80	10,773.8	153.6	18.3	153.7	12.72	12.58	-2.58
10,856.0	52.60	3.20	10,794.0	178.3	19.8	178.4	11.96	11.88	-1.88
10,887.0	55.60	3.50	10,812.2	203.4	21.3	203.5	9.71	9.68	0.97
10,917.0	59.40	3.60	10,828.3	228.6	22.9	228.8	12.67	12.67	0.33
10,949.0	63.60	4.00	10,843.6	256.7	24.7	256.8	13.17	13.13	1.25
10,980.0	68.70	4.40	10,856.1	284.9	26.8	285.1	16.49	16.45	1.29
11,012.0	74.50	4.80	10,866.2	315.2	29.3	315.4	18.16	18.13	1.25
11,040.0	78.90	3.20	10,872.7	342.4	31.2	342.6	16.67	15.71	-5.71
11,050.0	80.50	2.70	10,874.4	352.2	31.7	352.4	16.74	16.00	-5.00
11,129.0	86.60	358.00	10,883.3	430.6	32.1	430.8	9.72	7.72	-5.95
11,224.0	87.70	357.80	10,888.0	525.4	28.6	525.6	1.18	1.16	-0.21
11,292.0	88.30	358.50	10,890.4	593.4	26.5	593.5	1.36	0.88	1.03
11,390.0	89.00	358.70	10,892.7	691.3	24.1	691.5	0.74	0.71	0.20
11,485.0	89.50	358.60	10,894.0	786.3	21.8	786.4	0.54	0.53	-0.11
11,579.0	89.20	358.90	10,895.0	880.2	19.8	880.4	0.45	-0.32	0.32
11,674.0	89.90	359.10	10,895.8	975.2	18.1	975.3	0.77	0.74	0.21
11,769.0	90.90	359.10	10,895.1	1,070.2	16.6	1,070.3	1.05	1.05	0.00
11,864.0	90.70	358.70	10,893.8	1,165.2	14.8	1,165.3	0.47	-0.21	-0.42
11,959.0	90.40	358.60	10,892.9	1,260.2	12.6	1,260.2	0.33	-0.32	-0.11
12,053.0	89.30	358.20	10,893.1	1,354.1	9.9	1,354.2	1.25	-1.17	-0.43
12,148.0	88.80	358.80	10,894.7	1,449.1	7.4	1,449.1	0.82	-0.53	0.63
12,243.0	88.10	359.40	10,897.3	1,544.0	6.0	1,544.0	0.97	-0.74	0.63
12,338.0	88.40	0.90	10,900.2	1,639.0	6.2	1,639.0	1.61	0.32	1.58
12,433.0	89.10	0.90	10,902.2	1,733.9	7.7	1,733.9	0.74	0.74	0.00
12,527.0	89.30	2.30	10,903.6	1,827.9	10.3	1,827.9	1.50	0.21	1.49
12,622.0	90.30	2.40	10,903.9	1,922.8	14.2	1,922.9	1.06	1.05	0.11
12,717.0	90.30	1.80	10,903.4	2,017.7	17.7	2,017.8	0.63	0.00	-0.63
12,812.0	90.90	2.00	10,902.4	2,112.7	20.8	2,112.8	0.67	0.63	0.21
12,907.0	91.90	3.40	10,900.1	2,207.5	25.3	2,207.7	1.81	1.05	1.47
13,001.0	93.20	3.60	10,895.9	2,301.3	31.1	2,301.4	1.40	1.38	0.21
13,096.0	94.40	3.00	10,889.6	2,395.9	36.5	2,396.1	1.41	1.26	-0.63
13,191.0	93.40	2.60	10,883.1	2,490.6	41.1	2,490.8	1.13	-1.05	-0.42
13,286.0	92.10	1.20	10,878.6	2,585.4	44.3	2,585.7	2.01	-1.37	-1.47
13,381.0	89.80	359.90	10,877.0	2,680.4	45.2	2,680.6	2.78	-2.42	-1.37
13,476.0	90.30	358.60	10,876.9	2,775.4	44.0	2,775.6	1.47	0.53	-1.37
13,571.0	90.30	358.00	10,876.4	2,870.3	41.1	2,870.5	0.63	0.00	-0.63
13,666.0	89.30	357.90	10,876.7	2,965.3	37.7	2,965.5	1.06	-1.05	-0.11
13,761.0	88.70	357.90	10,878.4	3,060.2	34.3	3,060.4	0.63	-0.63	0.00
13,856.0	88.90	358.00	10,880.4	3,155.1	30.9	3,155.2	0.24	0.21	0.11
13,951.0	87.90	357.70	10,883.0	3,250.0	27.3	3,250.1	1.10	-1.05	-0.32
14,046.0	88.80	357.10	10,885.8	3,344.9	23.0	3,344.9	1.14	0.95	-0.63
14,141.0	89.90	357.30	10,886.9	3,439.7	18.3	3,439.8	1.18	1.16	0.21
14,236.0	89.50	356.90	10,887.4	3,534.6	13.5	3,534.6	0.60	-0.42	-0.42
14,331.0	87.80	358.70	10,889.6	3,629.5	9.9	3,629.5	2.61	-1.79	1.89
14,426.0	90.10	0.60	10,891.3	3,724.5	9.3	3,724.5	3.14	2.42	2.00
14,521.0	90.50	1.50	10,890.8	3,819.5	11.1	3,819.4	1.04	0.42	0.95
14,616.0	91.40	1.90	10,889.3	3,914.4	13.9	3,914.4	1.04	0.95	0.42

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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)
14,711.0	91.50	2.70	10,886.9	4,009.3	17.7	4,009.3	0.85	0.11	0.84
14,805.0	90.90	3.30	10,884.9	4,103.2	22.6	4,103.2	0.90	-0.64	0.64
14,900.0	90.20	4.20	10,884.0	4,197.9	28.8	4,198.0	1.20	-0.74	0.95
14,995.0	90.00	4.00	10,883.8	4,292.7	35.6	4,292.8	0.30	-0.21	-0.21
15,090.0	92.00	2.60	10,882.2	4,387.5	41.1	4,387.7	2.57	2.11	-1.47
15,185.0	91.10	1.50	10,879.6	4,482.4	44.5	4,482.6	1.50	-0.95	-1.16
15,255.0	90.60	0.90	10,878.6	4,552.4	45.9	4,552.6	1.12	-0.71	-0.86
15,315.0	90.60	0.90	10,877.9	4,612.4	46.9	4,612.6	0.00	0.00	0.00
15315' MD Tie-In Berry 16 St Com 1H									
15,400.0	91.26	0.37	10,876.5	4,697.4	47.8	4,697.6	1.00	0.78	-0.63
15,442.6	91.59	0.10	10,875.5	4,740.0	48.0	4,740.2	1.00	0.78	-0.63
15,500.0	91.59	0.10	10,873.9	4,797.3	48.1	4,797.6	0.00	0.00	0.00
15,600.0	91.59	0.10	10,871.1	4,897.3	48.3	4,897.5	0.00	0.00	0.00
15,700.0	91.59	0.10	10,868.3	4,997.3	48.4	4,997.5	0.00	0.00	0.00
15,800.0	91.59	0.10	10,865.5	5,097.2	48.6	5,097.4	0.00	0.00	0.00
15,900.0	91.59	0.10	10,862.8	5,197.2	48.8	5,197.4	0.00	0.00	0.00
16,000.0	91.59	0.10	10,860.0	5,297.1	48.9	5,297.4	0.00	0.00	0.00
16,100.0	91.59	0.10	10,857.2	5,397.1	49.1	5,397.3	0.00	0.00	0.00
16,200.0	91.59	0.10	10,854.4	5,497.1	49.3	5,497.3	0.00	0.00	0.00
16,300.0	91.59	0.10	10,851.7	5,597.0	49.4	5,597.2	0.00	0.00	0.00
16,400.0	91.59	0.10	10,848.9	5,697.0	49.6	5,697.2	0.00	0.00	0.00
16,500.0	91.59	0.10	10,846.1	5,796.9	49.8	5,797.2	0.00	0.00	0.00
16,600.0	91.59	0.10	10,843.3	5,896.9	50.0	5,897.1	0.00	0.00	0.00
16,700.0	91.59	0.10	10,840.5	5,996.9	50.1	5,997.1	0.00	0.00	0.00
16,800.0	91.59	0.10	10,837.8	6,096.8	50.3	6,097.0	0.00	0.00	0.00
16,900.0	91.59	0.10	10,835.0	6,196.8	50.5	6,197.0	0.00	0.00	0.00
17,000.0	91.59	0.10	10,832.2	6,296.8	50.6	6,297.0	0.00	0.00	0.00
17,100.0	91.59	0.10	10,829.4	6,396.7	50.8	6,396.9	0.00	0.00	0.00
17,200.0	91.59	0.10	10,826.6	6,496.7	51.0	6,496.9	0.00	0.00	0.00
17,300.0	91.59	0.10	10,823.9	6,596.6	51.1	6,596.8	0.00	0.00	0.00
17,400.0	91.59	0.10	10,821.1	6,696.6	51.3	6,696.8	0.00	0.00	0.00
17,500.0	91.59	0.10	10,818.3	6,796.6	51.5	6,796.8	0.00	0.00	0.00
17,600.0	91.59	0.10	10,815.5	6,896.5	51.7	6,896.7	0.00	0.00	0.00
17,700.0	91.59	0.10	10,812.7	6,996.5	51.8	6,996.7	0.00	0.00	0.00
17,800.0	91.59	0.10	10,810.0	7,096.4	52.0	7,096.6	0.00	0.00	0.00
17,900.0	91.59	0.10	10,807.2	7,196.4	52.2	7,196.6	0.00	0.00	0.00
17,978.5	91.59	0.10	10,805.0	7,274.9	52.3	7,275.1	0.00	0.00	0.00
PBHL Rebel 16-9 B2OJ St Com 1H									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL Rebel 16-9 B2C	0.00	0.00	10,805.0	7,274.9	52.3	543,915.80	765,492.00	32° 29' 32.601 N	103° 28' 20.184 W
- plan hits target center									
- Point									

Database:	Stryker_EDM	Local Co-ordinate Reference:	Well Rebel 16-9 B2OJ State Com 1H
Company:	Mewbourne Oil Company	TVD Reference:	3728 + 27 @ 3755.0usft (Patterson 220)
Project:	Lea County N.M.	MD Reference:	3728 + 27 @ 3755.0usft (Patterson 220)
Site:	Section 16-9-21S-34E Rebel 16-9 B2OJ St Com 1H	North Reference:	Grid
Well:	Rebel 16-9 B2OJ State Com 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	Plan#1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
15,315.0	10,877.9	4,612.4	46.9	15315' MD Tie-In Berry 16 St Com 1H



February 21, 2018

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

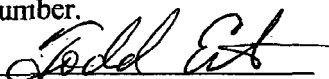
Attn: Jackie Lathan

Re: Mewbourne Oil Company
Rebel 16 9 B2OJ State Com #001H
Berry; Bone Spring, South
Lea County, New Mexico
API# 30-025-43540

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>
Martin Pina	Original Hole	15,279ft. to 17,917ft.	01-17-18 to 01-26-18	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\Rebel 16 9 B2OJ State Com #1H\M181006

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



February 21, 2018

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 January 17, 2018, through January 26, 2018 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 15,279 feet to a depth of 17,917 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 Rebel 16 9 B2OJ State Com #001H well, API # **30-025-43540** in Lea 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.

A handwritten signature in black ink, appearing to read "Todd Estes", written over a horizontal line.

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

Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 16-9-21S-34E Rebel 16-9 B2OJ St Com
Well: Rebel 16-9 B2OJ State Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Rebel 16-9 B2OJ State Com 1H
TVD Reference: 3749 @ 3749.0usft
MD Reference: 3749 @ 3749.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Project	Lea County N.M.		
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 16-9-21S-34E Rebel 16-9 B2OJ St Com 1H		
Site Position:		Northing:	536,640.90 usft
From:	Map	Easting:	765,439.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 28' 20.621 N
		Longitude:	103° 28' 21.480 W
		Grid Convergence:	0.46 °

Well	Rebel 16-9 B2OJ State Com 1H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	27.0 usft
		Latitude:	32° 28' 20.621 N
		Longitude:	103° 28' 21.480 W
		Ground Level:	3,728.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/4/2018	6.87	60.30	48,036.96496828

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	0.58	

Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 16-9-21S-34E Rebel 16-9 B2OJ St Com
Well: Rebel 16-9 B2OJ State Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Rebel 16-9 B2OJ State Com 1H
TVD Reference: 3749 @ 3749.0usft
MD Reference: 3749 @ 3749.0usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey Program		Date	1/25/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
200.0	15,249.0	Survey #1 (Original Hole)	MWD	MWD v3:standard declination	
15,279.0	17,972.0	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 (°)	
15,249.0	90.60	0.90	10,880.5	4,552.5	41.8	4,552.7	0.53	Tie-In
15,279.0	91.10	0.50	10,880.1	4,582.5	42.1	4,582.7	0.53	
15,374.0	89.10	358.90	10,879.9	4,677.5	41.6	4,677.6	0.51	
15,469.0	93.00	359.20	10,878.1	4,772.4	40.0	4,772.6	0.48	
15,564.0	94.50	0.10	10,871.9	4,867.2	39.5	4,867.4	0.46	
15,592.0	95.10	0.60	10,869.6	4,895.1	39.6	4,895.3	0.46	
15,687.0	91.80	0.50	10,863.9	4,989.9	40.5	4,990.1	0.47	
15,782.0	91.10	0.40	10,861.5	5,084.9	41.3	5,085.0	0.47	
15,877.0	91.60	0.40	10,859.2	5,179.8	42.0	5,180.0	0.46	
15,971.0	92.70	0.60	10,855.7	5,273.8	42.8	5,273.9	0.46	
16,066.0	92.10	1.00	10,851.7	5,368.7	44.1	5,368.9	0.47	
16,162.0	90.90	0.60	10,849.2	5,464.6	45.4	5,464.8	0.48	
16,257.0	91.60	0.80	10,847.1	5,559.6	46.6	5,559.8	0.48	
16,352.0	92.40	0.70	10,843.8	5,654.5	47.8	5,654.7	0.48	
16,447.0	89.80	0.60	10,842.0	5,749.5	48.9	5,749.7	0.49	
16,542.0	90.90	0.80	10,841.4	5,844.5	50.1	5,844.7	0.49	
16,637.0	91.60	0.70	10,839.4	5,939.5	51.3	5,939.7	0.50	
16,732.0	92.30	0.50	10,836.1	6,034.4	52.3	6,034.6	0.50	
16,827.0	93.00	0.50	10,831.7	6,129.3	53.1	6,129.5	0.50	
16,922.0	91.60	0.50	10,827.9	6,224.2	54.0	6,224.5	0.50	
17,017.0	90.80	359.50	10,825.9	6,319.2	54.0	6,319.4	0.49	

Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 16-9-21S-34E Rebel 16-9 B2OJ St Com
Well: Rebel 16-9 B2OJ State Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Rebel 16-9 B2OJ State Com 1H
TVD Reference: 3749 @ 3749.0usft
MD Reference: 3749 @ 3749.0usft
North Reference: Grid
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 (°)
17,112.0	91.40	359.20	10,824.1	6,414.2	52.9	6,414.4	0.47
17,207.0	92.30	358.60	10,821.0	6,509.1	51.1	6,509.3	0.45
17,303.0	93.20	357.90	10,816.4	6,604.9	48.1	6,605.1	0.42
17,397.0	91.00	358.10	10,813.0	6,698.8	44.9	6,699.0	0.38
17,493.0	91.50	357.80	10,810.9	6,794.7	41.4	6,794.9	0.35
17,588.0	89.80	358.00	10,809.8	6,889.7	38.0	6,889.8	0.32
17,683.0	89.80	357.40	10,810.1	6,984.6	34.1	6,984.7	0.28
17,778.0	91.20	357.10	10,809.3	7,079.5	29.6	7,079.5	0.24
17,873.0	92.00	356.50	10,806.7	7,174.3	24.3	7,174.3	0.19
17,917.0	92.40	356.40	10,805.0	7,218.2	21.6	7,218.2	0.17
17,971.9	92.40	356.40	10,802.7	7,272.9	18.1	7,272.9	0.14
PBHL Rebel 16-9 B2OJ St Com 1H							
17,972.0	92.40	356.40	10,802.7	7,273.0	18.1	7,273.0	0.14
17972.0' MD Projected to Bit							

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/S (usft)	+E/-W (usft)	
17,972.0	10,802.7	7,273.0	18.1	17972.0' MD Projected to Bit

MAY 23 2018



COMPANY: Mewbourne Oil Company
WELL: Rebel 16-9 B2OJ State Com 1H
COUNTY: Lea County N.M.
DATUM: NAD 1927 (NADCON CONUS)

RECEIVED



OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.40°

GEODETTIC ZONE: New Mexico East 3001
3728 + 27 @ 3755.0usft (Patterson 220)
GROUND ELEVATION: 3728.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	536640.90	765439.70	32° 28' 20.621 N	103° 28' 21.480 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	15315.0	90.60	0.90	10877.9	4612.4	46.9	0.00	0.00	4612.6	
2	15442.6	91.59	0.10	10875.5	4740.0	48.0	1.00	-38.95	4740.2	
3	17978.5	91.59	0.10	10805.0	7274.9	52.3	0.00	0.00	7275.1	PBHL Rebel 16-9 B2OJ St Com 1H

SHL: 316' FSL; 2095' FEL
Section 16-21S-34E
PBHL: 2310' FSL; 1980 FEL
Section 9-21S-34E

