



MEWBOURNE
OIL COMPANY

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 04 2018

RECEIVED

Mewbourne Oil Company

Eddy County, New Mexico

Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co

Pavo Macho 31-32 B2DA Fed Com #1H

30-015-43787

Original Hole

Survey: MWD Survey

Standard Survey Report

19 June, 2018





Stryker Directional Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co
Well: Pavo Macho 31-32 B2DA Fed Com #1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pavo Macho 31-32 B2DA Fed Com #1H
TVD Reference: 3418 + 27 @ 3445.0usft (Patterson 560)
MD Reference: 3418 + 27 @ 3445.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

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

System Datum: Mean Sea Level

Site Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co

Site Position: **Northing:** 621,788.50 usft **Latitude:** 32° 42' 33.170 N
From: Map **Easting:** 565,388.00 usft **Longitude:** 104° 7' 14.694 W
Position Uncertainty: 0.0 usft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.11 °

Well Pavo Macho 31-32 B2DA Fed Com #1H

Well Position **+N/-S** 0.0 usft **Northing:** 621,788.50 usft **Latitude:** 32° 42' 33.170 N
+E/-W 0.0 usft **Easting:** 565,388.00 usft **Longitude:** 104° 7' 14.694 W
Position Uncertainty 0.0 usft **Wellhead Elevation:** 27.0 usft **Ground Level:** 3,418.0 usft

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/24/2018	7.15	60.41	48,078.94207339

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	219.13

Survey Program Date 6/19/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
113.0	11,561.0	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
113.0	0.04	184.68	113.0	0.0	0.0	0.0	0.04	0.04	0.00
275.0	0.44	277.80	275.0	0.0	-0.6	0.4	0.27	0.25	57.48
357.0	1.10	343.70	357.0	0.8	-1.2	0.1	1.22	0.80	80.37
416.0	1.00	344.70	416.0	1.8	-1.5	-0.5	0.17	-0.17	1.69
475.0	1.20	334.60	475.0	2.9	-1.9	-1.1	0.47	0.34	-17.12
536.0	1.40	341.60	536.0	4.2	-2.4	-1.7	0.42	0.33	11.48
595.0	1.40	345.80	594.9	5.5	-2.8	-2.6	0.17	0.00	7.12
655.0	1.50	348.80	654.9	7.0	-3.1	-3.5	0.21	0.17	5.00
717.0	1.50	354.10	716.9	8.6	-3.3	-4.6	0.22	0.00	8.55

Stryker Directional Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Pavo Macho 31-32 B2DA Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3418 + 27 @ 3445.0usft (Patterson 560)
Site:	Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co	MD Reference:	3418 + 27 @ 3445.0usft (Patterson 560)
Well:	Pavo Macho 31-32 B2DA Fed Com #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)
748.0	1.60	349.10	747.9	9.5	-3.5	-5.2	0.54	0.32	-16.13
843.0	1.60	351.80	842.8	12.1	-3.9	-6.9	0.08	0.00	2.84
938.0	1.80	350.70	937.8	14.9	-4.3	-8.8	0.21	0.21	-1.16
1,032.0	1.10	338.10	1,031.8	17.2	-4.9	-10.2	0.81	-0.74	-13.40
1,106.0	1.10	333.90	1,105.8	18.5	-5.5	-10.9	0.11	0.00	-5.68
1,185.0	1.20	338.90	1,184.7	19.9	-6.1	-11.6	0.18	0.13	6.33
1,233.0	1.30	340.60	1,232.7	20.9	-6.5	-12.1	0.22	0.21	3.54
1,295.0	2.30	249.40	1,294.7	21.1	-7.9	-11.4	4.30	1.61	-147.10
1,359.0	2.50	244.30	1,358.7	20.1	-10.3	-9.0	0.46	0.31	-7.97
1,422.0	3.20	236.30	1,421.6	18.5	-13.0	-6.1	1.28	1.11	-12.70
1,486.0	3.30	233.40	1,485.5	16.4	-16.0	-2.6	0.30	0.16	-4.53
1,549.0	3.60	213.80	1,548.4	13.7	-18.6	1.1	1.92	0.48	-31.11
1,611.0	3.60	213.80	1,610.2	10.4	-20.7	5.0	0.00	0.00	0.00
1,675.0	3.40	216.70	1,674.1	7.2	-23.0	8.9	0.42	-0.31	4.53
1,738.0	3.30	214.50	1,737.0	4.3	-25.1	12.6	0.26	-0.16	-3.49
1,804.0	3.00	214.10	1,802.9	1.3	-27.2	16.2	0.46	-0.45	-0.61
1,898.0	2.80	217.80	1,896.8	-2.6	-30.0	20.9	0.29	-0.21	3.94
1,993.0	2.60	214.50	1,991.7	-6.2	-32.6	25.4	0.27	-0.21	-3.47
2,088.0	3.80	222.90	2,086.5	-10.3	-36.0	30.7	1.35	1.26	8.84
2,182.0	3.80	222.50	2,180.3	-14.9	-40.2	36.9	0.03	0.00	-0.43
2,277.0	3.60	223.50	2,275.1	-19.3	-44.4	43.0	0.22	-0.21	1.05
2,371.0	3.60	224.00	2,369.0	-23.6	-48.4	48.9	0.03	0.00	0.53
2,465.0	3.60	224.50	2,462.8	-27.8	-52.6	54.8	0.03	0.00	0.53
2,560.0	3.70	223.40	2,557.6	-32.2	-56.8	60.8	0.13	0.11	-1.16
2,654.0	3.60	222.30	2,651.4	-36.6	-60.8	66.8	0.13	-0.11	-1.17
2,748.0	3.30	222.50	2,745.2	-40.8	-64.6	72.4	0.32	-0.32	0.21
2,842.0	3.40	199.60	2,839.1	-45.4	-67.4	77.7	1.42	0.11	-24.36
2,936.0	3.50	198.90	2,932.9	-50.7	-69.3	83.1	0.12	0.11	-0.74
3,030.0	3.50	198.60	3,026.7	-56.2	-71.1	88.4	0.02	0.00	-0.32
3,124.0	3.40	202.60	3,120.5	-61.4	-73.1	93.8	0.28	-0.11	4.26
3,219.0	3.40	199.00	3,215.4	-66.7	-75.1	99.1	0.22	0.00	-3.79
3,313.0	3.30	200.80	3,309.2	-71.9	-77.0	104.3	0.15	-0.11	1.91
3,407.0	3.50	202.20	3,403.0	-77.1	-79.0	109.6	0.23	0.21	1.49
3,502.0	3.40	198.60	3,497.9	-82.4	-81.0	115.1	0.25	-0.11	-3.79
3,596.0	3.30	201.40	3,591.7	-87.6	-82.9	120.2	0.20	-0.11	2.98
3,690.0	3.20	200.50	3,685.6	-92.6	-84.8	125.3	0.12	-0.11	-0.96
3,785.0	3.00	200.00	3,780.4	-97.4	-86.6	130.2	0.21	-0.21	-0.53
3,879.0	2.90	201.00	3,874.3	-101.9	-88.3	134.7	0.12	-0.11	1.06
3,973.0	3.00	214.10	3,968.2	-106.2	-90.5	139.5	0.72	0.11	13.94
4,068.0	2.80	216.00	4,063.1	-110.1	-93.3	144.3	0.23	-0.21	2.00
4,162.0	2.70	211.40	4,156.9	-113.8	-95.8	148.7	0.26	-0.11	-4.89
4,256.0	2.80	211.80	4,250.8	-117.7	-98.1	153.2	0.11	0.11	0.43

Stryker Directional Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co
Well: Pavo Macho 31-32 B2DA Fed Com #1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pavo Macho 31-32 B2DA Fed Com #1H
TVD Reference: 3418 + 27 @ 3445.0usft (Patterson 560)
MD Reference: 3418 + 27 @ 3445.0usft (Patterson 560)
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)
4,351.0	2.80	214.20	4,345.7	-121.6	-100.6	157.8	0.12	0.00	2.53
4,445.0	2.60	213.80	4,439.6	-125.2	-103.1	162.2	0.21	-0.21	-0.43
4,539.0	3.60	216.10	4,533.5	-129.4	-106.0	167.3	1.07	1.06	2.45
4,633.0	3.50	214.60	4,627.3	-134.1	-109.4	173.1	0.15	-0.11	-1.60
4,727.0	3.70	219.30	4,721.1	-138.9	-113.0	179.0	0.38	0.21	5.00
4,822.0	3.70	218.80	4,815.9	-143.6	-116.8	185.1	0.03	0.00	-0.53
4,916.0	3.80	218.70	4,909.7	-148.4	-120.7	191.3	0.11	0.11	-0.11
5,010.0	3.90	219.40	5,003.5	-153.3	-124.7	197.6	0.12	0.11	0.74
5,105.0	3.80	222.80	5,098.3	-158.1	-128.8	204.0	0.26	-0.11	3.58
5,199.0	3.80	226.10	5,192.1	-162.6	-133.2	210.2	0.23	0.00	3.51
5,293.0	3.70	224.80	5,285.9	-166.9	-137.6	216.3	0.14	-0.11	-1.38
5,388.0	3.50	229.60	5,380.7	-170.9	-142.0	222.2	0.38	-0.21	5.05
5,482.0	3.40	231.90	5,474.5	-174.5	-146.3	227.7	0.18	-0.11	2.45
5,576.0	3.20	238.20	5,568.4	-177.6	-150.8	232.9	0.44	-0.21	6.70
5,671.0	3.10	238.80	5,663.2	-180.3	-155.2	237.8	0.11	-0.11	0.63
5,765.0	2.80	239.20	5,757.1	-182.8	-159.4	242.4	0.32	-0.32	0.43
5,859.0	2.70	239.30	5,851.0	-185.1	-163.2	246.6	0.11	-0.11	0.11
5,953.0	2.30	237.10	5,944.9	-187.3	-166.7	250.5	0.44	-0.43	-2.34
6,048.0	2.30	223.20	6,039.8	-189.7	-169.6	254.2	0.59	0.00	-14.63
6,142.0	2.80	200.00	6,133.7	-193.3	-171.7	258.3	1.21	0.53	-24.68
6,236.0	2.90	197.80	6,227.6	-197.7	-173.2	262.6	0.16	0.11	-2.34
6,331.0	2.60	187.20	6,322.5	-202.1	-174.2	266.7	0.62	-0.32	-11.16
6,425.0	2.70	182.80	6,416.4	-206.4	-174.6	270.3	0.24	0.11	-4.68
6,519.0	2.10	182.60	6,510.3	-210.4	-174.8	273.5	0.64	-0.64	-0.21
6,614.0	2.20	178.40	6,605.3	-213.9	-174.8	276.3	0.20	0.11	-4.42
6,708.0	2.00	186.50	6,699.2	-217.4	-174.9	279.0	0.38	-0.21	8.62
6,802.0	1.80	197.00	6,793.1	-220.4	-175.6	281.8	0.43	-0.21	11.17
6,897.0	2.00	210.40	6,888.1	-223.3	-176.8	284.8	0.51	0.21	14.11
6,909.9	2.00	211.79	6,900.9	-223.6	-177.1	285.2	0.38	-0.03	10.82
B.B. Pavo Macho 31-32 B2DA fed Com 1H									
6,991.0	2.00	220.60	6,982.0	-225.9	-178.7	288.0	0.38	0.00	10.86
7,042.0	2.10	222.40	7,033.0	-227.3	-179.9	289.9	0.23	0.20	3.53
7,105.0	5.00	137.70	7,095.9	-230.2	-178.9	291.4	8.32	4.60	-134.44
7,137.0	8.70	126.00	7,127.7	-232.6	-176.0	291.5	12.30	11.56	-36.56
7,168.0	12.20	117.10	7,158.2	-235.5	-171.2	290.7	12.40	11.29	-28.71
7,199.0	15.80	112.80	7,188.2	-238.6	-164.3	288.8	12.08	11.61	-13.87
7,231.0	19.70	111.70	7,218.7	-242.3	-155.3	286.0	12.23	12.19	-3.44
7,262.0	24.30	107.90	7,247.4	-246.2	-144.4	282.1	15.53	14.84	-12.26
7,294.0	27.70	103.40	7,276.2	-249.9	-130.9	276.5	12.28	10.63	-14.06
7,325.0	31.30	98.40	7,303.2	-252.8	-115.9	269.2	14.06	11.61	-16.13
7,357.0	34.40	94.10	7,330.1	-254.7	-98.6	259.8	12.12	9.69	-13.44
7,388.0	37.50	89.30	7,355.2	-255.2	-80.5	248.7	13.51	10.00	-15.48
7,420.0	38.50	90.20	7,380.4	-255.1	-60.8	236.2	3.57	3.13	2.81

Stryker Directional Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co
Well: Pavo Macho 31-32 B2DA Fed Com #1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pavo Macho 31-32 B2DA Fed Com #1H
TVD Reference: 3418 + 27 @ 3445.0usft (Patterson 560)
MD Reference: 3418 + 27 @ 3445.0usft (Patterson 560)
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)
7,451.0	41.50	90.80	7,404.1	-255.3	-40.8	223.8	9.76	9.68	1.94
7,482.0	43.30	90.70	7,427.0	-255.5	-19.9	210.8	5.81	5.81	-0.32
7,514.0	46.50	86.50	7,449.7	-255.0	2.6	196.1	13.63	10.00	-13.13
7,546.0	50.70	83.30	7,470.8	-252.8	26.5	179.4	15.11	13.13	-10.00
7,577.0	55.20	81.20	7,489.5	-249.5	51.0	161.3	15.49	14.52	-6.77
7,608.0	60.10	80.60	7,506.1	-245.3	76.9	141.8	15.89	15.81	-1.94
7,640.0	66.10	80.80	7,520.6	-240.7	105.0	120.5	18.76	18.75	0.63
7,671.0	71.10	82.00	7,531.9	-236.4	133.5	99.1	16.53	16.13	3.87
7,703.0	75.30	85.30	7,541.1	-233.0	164.0	77.3	16.42	13.13	10.31
7,734.0	78.30	87.80	7,548.2	-231.2	194.1	56.9	12.46	9.68	8.06
7,765.0	81.10	89.20	7,553.7	-230.4	224.6	37.0	10.07	9.03	4.52
7,789.0	82.80	89.90	7,557.1	-230.2	248.4	21.9	7.65	7.08	2.92
7,864.0	87.40	92.00	7,563.5	-231.5	323.0	-24.3	6.74	6.13	2.80
7,959.0	91.00	92.80	7,564.8	-235.4	417.9	-81.1	3.88	3.79	0.84
8,022.2	89.52	90.11	7,564.6	-237.0	481.1	-119.7	4.86	-2.34	-4.26
LP Pavo Macho 31-32 B2DA Fed Com 1H									
8,053.0	88.80	88.80	7,565.0	-236.8	511.9	-139.4	4.86	-2.34	-4.26
8,147.0	88.00	88.10	7,567.6	-234.2	605.8	-200.6	1.13	-0.85	-0.74
8,241.0	86.90	86.10	7,571.8	-229.5	699.6	-263.5	2.43	-1.17	-2.13
8,336.0	86.50	88.20	7,577.3	-224.7	794.3	-326.9	2.25	-0.42	2.21
8,430.0	89.80	89.30	7,580.3	-222.7	888.2	-387.8	3.70	3.51	1.17
8,525.0	90.90	88.70	7,579.7	-221.0	983.2	-449.0	1.32	1.16	-0.63
8,619.0	91.70	87.80	7,577.6	-218.2	1,077.2	-510.5	1.28	0.85	-0.96
8,714.0	89.70	87.30	7,576.4	-214.1	1,172.1	-573.5	2.17	-2.11	-0.53
8,809.0	89.60	87.00	7,577.0	-209.4	1,266.9	-637.0	0.33	-0.11	-0.32
8,903.0	90.60	85.90	7,576.9	-203.6	1,360.8	-700.8	1.58	1.06	-1.17
8,998.0	87.60	90.10	7,578.4	-200.3	1,455.7	-763.2	5.43	-3.16	4.42
9,092.0	91.40	92.30	7,579.2	-202.2	1,549.6	-821.0	4.67	4.04	2.34
9,187.0	91.30	92.30	7,576.9	-206.0	1,644.5	-877.9	0.11	-0.11	0.00
9,282.0	86.60	89.10	7,578.7	-207.2	1,739.4	-936.9	5.98	-4.95	-3.37
9,377.0	86.20	89.00	7,584.6	-205.6	1,834.2	-998.0	0.43	-0.42	-0.11
9,473.0	86.30	90.50	7,590.9	-205.2	1,930.0	-1,058.7	1.56	0.10	1.56
9,568.0	92.00	92.50	7,592.3	-207.7	2,024.9	-1,116.7	6.36	6.00	2.11
9,663.0	92.20	92.20	7,588.8	-211.6	2,119.8	-1,173.5	0.38	0.21	-0.32
9,758.0	92.10	92.60	7,585.3	-215.6	2,214.6	-1,230.3	0.43	-0.11	0.42
9,853.0	89.50	89.30	7,584.0	-217.1	2,309.6	-1,289.0	4.42	-2.74	-3.47
9,948.0	88.30	87.60	7,585.8	-214.6	2,404.5	-1,350.9	2.19	-1.26	-1.79
10,043.0	86.60	86.20	7,590.0	-209.4	2,499.3	-1,414.7	2.32	-1.79	-1.47
10,139.0	86.50	87.20	7,595.8	-203.9	2,595.0	-1,479.3	1.04	-0.10	1.04
10,234.0	92.00	90.40	7,597.0	-201.9	2,689.9	-1,540.8	6.70	5.79	3.37
10,328.0	92.10	89.80	7,593.7	-202.1	2,783.8	-1,599.9	0.65	0.11	-0.64
10,424.0	89.20	91.90	7,592.6	-203.5	2,879.8	-1,659.4	3.73	-3.02	2.19

Stryker Directional Survey Report



Company: Mewbourne Oil Company Project: Eddy County, New Mexico Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co Well: Pavo Macho 31-32 B2DA Fed Com #1H Wellbore: Original Hole Design: Original Hole	Local Co-ordinate Reference: Well Pavo Macho 31-32 B2DA Fed Com #1H TVD Reference: 3418 + 27 @ 3445.0usft (Patterson 560) MD Reference: 3418 + 27 @ 3445.0usft (Patterson 560) 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)
10,518.0	90.10	91.30	7,593.1	-206.1	2,973.8	-1,716.6	1.15	0.96	-0.64
10,614.0	87.10	92.40	7,595.5	-209.2	3,069.7	-1,774.8	3.33	-3.13	1.15
10,709.0	88.20	92.70	7,599.4	-213.5	3,164.5	-1,831.3	1.20	1.16	0.32
10,804.0	86.80	91.90	7,603.5	-217.3	3,259.3	-1,888.2	1.70	-1.47	-0.84
10,899.0	88.70	92.60	7,607.3	-221.0	3,354.2	-1,945.2	2.13	2.00	0.74
10,994.0	87.10	92.00	7,610.7	-224.8	3,449.0	-2,002.1	1.80	-1.68	-0.63
11,088.0	87.70	88.40	7,615.0	-225.1	3,542.9	-2,061.1	3.88	0.64	-3.83
11,183.0	91.40	89.10	7,615.8	-223.1	3,637.9	-2,122.6	3.96	3.89	0.74
11,278.0	90.10	88.00	7,614.5	-220.7	3,732.8	-2,184.4	1.79	-1.37	-1.16
11,372.0	89.10	87.20	7,615.2	-216.7	3,826.7	-2,246.7	1.36	-1.06	-0.85
11,467.0	91.30	88.20	7,614.8	-212.9	3,921.7	-2,309.5	2.54	2.32	1.05
11,561.0	92.00	87.80	7,612.1	-209.6	4,015.6	-2,371.3	0.86	0.74	-0.43
11,656.0	92.50	87.50	7,608.4	-205.7	4,110.4	-2,434.2	0.61	0.53	-0.32
11,776.0	92.50	87.50	7,603.2	-200.5	4,230.2	-2,513.8	0.00	0.00	0.00

11776' MD Projected to Bit - PBHL Pavo Macho 31-32 B2DA Fed com 1H

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,776.0	7,603.2	-200.5	4,230.2	11776' MD Projected to Bit