



September 12, 2018

**NM OIL CONSERVATION
ARTESIA DISTRICT**

OCT 04 2018

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

RECEIVED

Attn: Jackie Lathan

Re: Mewbourne Oil Company
Pavo Macho 31 32 B2DA Fed Com #1H
Palmillo: Bone Spring, East
Eddy County, New Mexico
API# 30-015-43787

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>
Victor Anguiano	Original Hole	113ft. to 11,561ft.	05-23-18 to 06-07-18	MWD Survey
Victor Anguiano	Side Track #1	11,616ft. to 17,288ft.	06-08-18 to 06-16-18	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.


Eric 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\Pavo Macho 31 32 B2DA Fed Com #1H\M181057

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



September 12, 2018

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Eric Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of May 23, 2018, through June 7, 2018 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 113 feet to a depth of 11,561 feet. June 8, 2018, through June 16, 2018 conduct or supervise the taking of a SEDS Side Track #1 MWD Survey from a depth of 11,616 feet to a depth of 17,288 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 Pavo Macho 31 32 B2DA Fed Com #1H, API # **30-15-43787** 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.


Eric Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

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P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA
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:			
From:	Map	Northing:	621,788.50 usft
Position Uncertainty:	0.0 usft	Easting:	565,388.00 usft
		Slot Radius:	13-3/16 "
		Latitude:	32° 42' 33.170 N
		Longitude:	104° 7' 14.694 W
		Grid Convergence:	0.11 "

Well	Pavo Macho 31-32 B2DA Fed 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° 42' 33.170 N
		Longitude:	104° 7' 14.694 W
		Ground Level:	3,418.0 usft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	4/24/2018	7.15
		Dip Angle	60.41
		Field Strength	48,078.94207340

Design	Original Hole		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
		Direction	219.13

Survey Program	Date 6/19/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
113.0	11,561.0	MWD Survey (Original Hole)	MWD
			Description
			MWD v3:standard declination



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
0.0	0.00	0.00	0.0	3,445.0	0.0	0.0	0.0	0.00
113.0	0.04	184.68	113.0	3,332.0	0.0	0.0	0.0	184.68
275.0	0.44	277.80	275.0	3,170.0	0.0	-0.6	0.6	268.97
357.0	1.10	343.70	357.0	3,088.0	0.8	-1.2	1.4	304.22
416.0	1.00	344.70	416.0	3,029.0	1.8	-1.5	2.3	321.53
475.0	1.20	334.60	475.0	2,970.0	2.9	-1.9	3.4	327.26
536.0	1.40	341.60	536.0	2,909.0	4.2	-2.4	4.8	330.45
595.0	1.40	345.80	594.9	2,850.1	5.5	-2.8	6.2	333.50
655.0	1.50	348.80	654.9	2,790.1	7.0	-3.1	7.7	336.21
717.0	1.50	354.10	716.9	2,728.1	8.6	-3.3	9.3	338.85
748.0	1.60	349.10	747.9	2,697.1	9.5	-3.5	10.1	339.90
843.0	1.60	351.80	842.8	2,602.2	12.1	-3.9	12.7	342.09
938.0	1.80	350.70	937.8	2,507.2	14.9	-4.3	15.5	343.74
1,032.0	1.10	338.10	1,031.8	2,413.2	17.2	-4.9	17.8	344.03
1,106.0	1.10	333.90	1,105.8	2,339.2	18.5	-5.5	19.3	343.44
1,185.0	1.20	338.90	1,184.7	2,260.3	19.9	-6.1	20.8	342.92
1,233.0	1.30	340.60	1,232.7	2,212.3	20.9	-6.5	21.9	342.77
1,295.0	2.30	249.40	1,294.7	2,150.3	21.1	-7.9	22.5	339.54
1,359.0	2.50	244.30	1,358.7	2,086.3	20.1	-10.3	22.6	332.73
1,422.0	3.20	236.30	1,421.6	2,023.4	18.5	-13.0	22.6	324.80
1,488.0	3.30	233.40	1,485.5	1,959.5	16.4	-16.0	22.9	315.69
1,549.0	3.60	213.80	1,548.4	1,896.6	13.7	-18.6	23.1	306.37
1,611.0	3.60	213.80	1,610.2	1,834.8	10.4	-20.7	23.2	296.73
1,675.0	3.40	216.70	1,674.1	1,770.9	7.2	-23.0	24.1	287.50
1,738.0	3.30	214.50	1,737.0	1,708.0	4.3	-25.1	25.5	279.61
1,804.0	3.00	214.10	1,802.9	1,642.1	1.3	-27.2	27.2	272.65
1,898.0	2.80	217.80	1,896.8	1,548.2	-2.6	-30.0	30.1	265.05



Stryker Directional MWD Surveys



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
1,993.0	2.60	214.50	1,991.7	1,453.3	-6.2	-32.6	33.2	259.22
2,088.0	3.80	222.90	2,086.5	1,358.5	-10.3	-36.0	37.4	254.04
2,182.0	3.80	222.50	2,180.3	1,264.7	-14.9	-40.2	42.8	249.70
2,277.0	3.60	223.50	2,275.1	1,169.9	-19.3	-44.4	48.4	246.44
2,371.0	3.60	224.00	2,369.0	1,076.0	-23.6	-48.4	53.9	244.01
2,465.0	3.60	224.50	2,462.8	982.2	-27.8	-52.6	59.5	242.09
2,560.0	3.70	223.40	2,557.6	887.4	-32.2	-56.8	65.3	240.44
2,654.0	3.60	222.30	2,651.4	793.6	-36.6	-60.8	71.0	238.98
2,748.0	3.30	222.50	2,745.2	699.8	-40.8	-64.6	76.4	237.77
2,842.0	3.40	199.60	2,839.1	605.9	-45.4	-67.4	81.3	236.05
2,936.0	3.50	198.90	2,932.9	512.1	-50.7	-69.3	85.9	233.79
3,030.0	3.50	198.60	3,026.7	418.3	-56.2	-71.1	90.6	231.70
3,124.0	3.40	202.60	3,120.5	324.5	-61.4	-73.1	95.5	229.95
3,219.0	3.40	199.00	3,215.4	229.6	-66.7	-75.1	100.5	228.39
3,313.0	3.30	200.80	3,309.2	135.8	-71.9	-77.0	105.3	226.96
3,407.0	3.50	202.20	3,403.0	42.0	-77.1	-79.0	110.4	225.72
3,502.0	3.40	198.80	3,497.9	-52.9	-82.4	-81.0	115.6	224.51
3,596.0	3.30	201.40	3,591.7	-146.7	-87.6	-82.9	120.6	223.42
3,690.0	3.20	200.50	3,685.6	-240.6	-92.6	-84.8	125.5	222.49
3,785.0	3.00	200.00	3,780.4	-335.4	-97.4	-86.6	130.3	221.64
3,879.0	2.90	201.00	3,874.3	-429.3	-101.9	-88.3	134.8	220.90
3,973.0	3.00	214.10	3,968.2	-523.2	-106.2	-90.5	139.5	220.44
4,068.0	2.80	216.00	4,063.1	-618.1	-110.1	-93.3	144.3	220.26
4,162.0	2.70	211.40	4,156.9	-711.9	-113.8	-95.8	148.8	220.07
4,256.0	2.80	211.80	4,250.8	-805.8	-117.7	-98.1	153.2	219.82
4,351.0	2.80	214.20	4,345.7	-900.7	-121.6	-100.6	157.8	219.62
4,445.0	2.60	213.80	4,439.6	-994.6	-125.2	-103.1	162.2	219.47



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Survey

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4,539.0	3.60	216.10	4,533.5	-1,088.5	-129.4	-106.0	167.3	219.33
4,633.0	3.50	214.60	4,627.3	-1,182.3	-134.1	-109.4	173.1	219.20
4,727.0	3.70	219.30	4,721.1	-1,276.1	-138.9	-113.0	179.0	219.13
4,822.0	3.70	218.80	4,815.9	-1,370.9	-143.6	-116.8	185.1	219.13
4,916.0	3.80	218.70	4,909.7	-1,464.7	-148.4	-120.7	191.3	219.11
5,010.0	3.90	219.40	5,003.5	-1,558.5	-153.3	-124.7	197.6	219.11
5,105.0	3.80	222.80	5,098.3	-1,653.3	-158.1	-128.8	204.0	219.17
5,199.0	3.80	226.10	5,192.1	-1,747.1	-162.6	-133.2	210.2	219.33
5,293.0	3.70	224.80	5,285.9	-1,840.9	-166.9	-137.6	216.3	219.50
5,388.0	3.50	229.60	5,380.7	-1,935.7	-170.9	-142.0	222.2	219.71
5,482.0	3.40	231.90	5,474.5	-2,029.5	-174.5	-146.3	227.7	219.98
5,576.0	3.20	238.20	5,568.4	-2,123.4	-177.8	-150.8	233.0	220.32
5,671.0	3.10	238.80	5,663.2	-2,218.2	-180.3	-155.2	237.9	220.72
5,765.0	2.80	239.20	5,757.1	-2,312.1	-182.8	-159.4	242.5	221.07
5,859.0	2.70	239.30	5,851.0	-2,406.0	-185.1	-163.2	246.8	221.40
5,953.0	2.30	237.10	5,944.9	-2,499.9	-187.3	-166.7	250.7	221.67
6,048.0	2.30	223.20	6,039.8	-2,594.8	-189.7	-169.6	254.5	221.80
6,142.0	2.80	200.00	6,133.7	-2,688.7	-193.3	-171.7	258.5	221.62
6,236.0	2.90	197.80	6,227.6	-2,782.6	-197.7	-173.2	262.8	221.23
6,331.0	2.60	187.20	6,322.5	-2,877.5	-202.1	-174.2	266.8	220.76
6,425.0	2.70	182.80	6,416.4	-2,971.4	-206.4	-174.6	270.4	220.22
6,519.0	2.10	182.60	6,510.3	-3,065.3	-210.4	-174.8	273.5	219.72
6,614.0	2.20	178.40	6,605.3	-3,160.3	-213.9	-174.8	276.3	219.25
6,708.0	2.00	186.50	6,699.2	-3,254.2	-217.4	-174.9	279.0	218.83
6,802.0	1.80	197.00	6,793.1	-3,348.1	-220.4	-175.6	281.8	218.54
6,897.0	2.00	210.40	6,888.1	-3,443.1	-223.3	-176.8	284.8	218.38



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6,909.9	2.00	211.79	6,900.9	-3,455.9	-223.6	-177.1	285.2	218.37
B.B. Pavo Macho 31-32 B2DA fed Com 1H								
6,991.0	2.00	220.60	6,982.0	-3,537.0	-225.9	-178.7	288.1	218.35
7,042.0	2.10	222.40	7,033.0	-3,588.0	-227.3	-178.9	289.9	218.37
7,105.0	5.00	137.70	7,095.9	-3,650.9	-230.2	-178.9	291.5	217.85
7,137.0	8.70	128.00	7,127.7	-3,682.7	-232.6	-176.0	291.7	217.11
7,168.0	12.20	117.10	7,158.2	-3,713.2	-235.5	-171.2	291.1	216.01
7,199.0	15.80	112.80	7,188.2	-3,743.2	-238.6	-164.3	289.7	214.56
7,231.0	19.70	111.70	7,218.7	-3,773.7	-242.3	-155.3	287.8	212.66
7,262.0	24.30	107.90	7,247.4	-3,802.4	-246.2	-144.4	285.4	210.39
7,294.0	27.70	103.40	7,276.2	-3,831.2	-249.9	-130.9	282.1	207.84
7,325.0	31.30	98.40	7,303.2	-3,858.2	-252.8	-115.9	278.1	204.63
7,357.0	34.40	94.10	7,330.1	-3,885.1	-254.7	-98.6	273.1	201.18
7,388.0	37.50	89.30	7,355.2	-3,910.2	-255.2	-80.5	267.6	197.50
7,420.0	38.50	90.20	7,380.4	-3,935.4	-255.1	-60.8	262.2	193.40
7,451.0	41.50	90.80	7,404.1	-3,959.1	-255.3	-40.8	258.5	189.09
7,482.0	43.30	90.70	7,427.0	-3,982.0	-255.5	-19.9	256.3	184.46
7,514.0	46.50	86.50	7,449.7	-4,004.7	-255.0	2.6	255.0	179.41
7,546.0	50.70	83.30	7,470.8	-4,025.8	-252.8	26.5	254.2	174.01
7,577.0	55.20	81.20	7,489.5	-4,044.5	-249.5	51.0	254.6	168.44
7,608.0	60.10	80.60	7,506.1	-4,061.1	-245.3	76.9	257.1	162.60
7,640.0	66.10	80.80	7,520.6	-4,075.6	-240.7	105.0	262.6	156.43
7,671.0	71.10	82.00	7,531.9	-4,086.9	-238.4	133.5	271.5	150.54
7,703.0	75.30	85.30	7,541.1	-4,096.1	-233.0	164.0	284.9	144.86
7,734.0	78.30	87.80	7,548.2	-4,103.2	-231.2	194.1	301.9	139.99
7,765.0	81.10	89.20	7,553.7	-4,108.7	-230.4	224.6	321.8	135.73
7,789.0	82.80	89.90	7,557.1	-4,112.1	-230.2	248.4	338.6	132.83



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7,884.0	87.40	92.00	7,563.5	-4,118.5	-231.5	323.0	397.4	125.62
7,959.0	91.00	92.80	7,564.8	-4,119.8	-235.4	417.9	479.7	119.39
8,022.2	89.52	90.11	7,564.6	-4,119.6	-237.0	481.1	536.3	118.23
LP Pavo Macho 31-32 B2DA Fed Com 1H								
8,053.0	88.80	88.80	7,565.0	-4,120.0	-238.8	511.9	584.0	114.82
8,147.0	88.00	88.10	7,567.8	-4,122.8	-234.2	605.8	649.5	111.14
8,241.0	86.90	86.10	7,571.8	-4,128.8	-229.5	699.6	738.3	108.16
8,338.0	86.50	88.20	7,577.3	-4,132.3	-224.7	794.3	825.5	105.80
8,430.0	89.80	89.30	7,580.3	-4,135.3	-222.7	888.2	915.7	104.07
8,525.0	90.90	88.70	7,579.7	-4,134.7	-221.0	983.2	1,007.8	102.67
8,619.0	91.70	87.80	7,577.6	-4,132.6	-218.2	1,077.2	1,099.0	101.45
8,714.0	89.70	87.30	7,578.4	-4,131.4	-214.1	1,172.1	1,191.5	100.35
8,809.0	89.60	87.00	7,577.0	-4,132.0	-209.4	1,268.9	1,284.1	99.38
8,903.0	90.60	85.80	7,578.9	-4,131.9	-203.6	1,360.8	1,375.9	98.51
8,998.0	87.60	90.10	7,578.4	-4,133.4	-200.3	1,455.7	1,489.4	97.83
9,092.0	91.40	92.30	7,579.2	-4,134.2	-202.2	1,549.6	1,582.7	97.43
9,187.0	91.30	92.30	7,578.9	-4,131.9	-206.0	1,644.5	1,657.4	97.14
9,282.0	86.60	89.10	7,578.7	-4,133.7	-207.2	1,739.4	1,751.7	96.79
9,377.0	86.20	89.00	7,584.6	-4,139.6	-205.6	1,834.2	1,845.7	96.40
9,473.0	86.30	90.50	7,590.9	-4,145.9	-205.2	1,930.0	1,940.9	96.07
9,568.0	92.00	92.50	7,592.3	-4,147.3	-207.7	2,024.9	2,035.6	95.86
9,663.0	92.20	92.20	7,588.8	-4,143.8	-211.6	2,119.8	2,130.3	95.70
9,758.0	92.10	92.60	7,585.3	-4,140.3	-215.6	2,214.6	2,225.1	95.56
9,853.0	89.50	89.30	7,584.0	-4,139.0	-217.1	2,309.6	2,319.8	95.37
9,948.0	88.30	87.60	7,585.8	-4,140.8	-214.6	2,404.5	2,414.1	95.10
10,043.0	88.60	86.20	7,590.0	-4,145.0	-209.4	2,499.3	2,508.1	94.79
10,139.0	86.50	87.20	7,595.8	-4,150.8	-203.9	2,595.0	2,603.0	94.49



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-28E Pavo Macho 31-32 B2DA
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

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
10,234.0	92.00	90.40	7,597.0	-4,152.0	-201.9	2,889.9	2,897.5	94.29
10,328.0	92.10	89.80	7,593.7	-4,148.7	-202.1	2,783.8	2,791.2	94.15
10,424.0	89.20	91.90	7,592.8	-4,147.6	-203.5	2,879.8	2,887.0	94.04
10,518.0	90.10	91.30	7,593.1	-4,148.1	-206.1	2,973.8	2,980.9	93.97
10,614.0	87.10	92.40	7,595.5	-4,150.5	-209.2	3,068.7	3,076.8	93.90
10,709.0	88.20	92.70	7,599.4	-4,154.4	-213.5	3,164.5	3,171.7	93.86
10,804.0	86.80	91.90	7,603.5	-4,158.5	-217.3	3,259.3	3,266.6	93.81
10,899.0	88.70	92.60	7,607.3	-4,162.3	-221.0	3,354.2	3,361.4	93.77
10,994.0	87.10	92.00	7,610.7	-4,165.7	-224.8	3,449.0	3,456.4	93.73
11,088.0	87.70	88.40	7,615.0	-4,170.0	-225.1	3,542.9	3,550.1	93.64
11,183.0	91.40	89.10	7,615.8	-4,170.8	-223.1	3,637.9	3,644.7	93.51
11,278.0	90.10	88.00	7,614.5	-4,169.5	-220.7	3,732.8	3,739.4	93.38
11,372.0	89.10	87.20	7,615.2	-4,170.2	-218.7	3,828.7	3,832.9	93.24
11,467.0	91.30	88.20	7,614.8	-4,169.8	-212.9	3,921.7	3,927.4	93.11
11,561.0	92.00	87.80	7,612.1	-4,167.1	-209.6	4,015.6	4,021.0	92.99
11,656.0	92.50	87.50	7,608.4	-4,163.4	-205.7	4,110.4	4,115.6	92.87
11,776.0	92.50	87.50	7,603.2	-4,158.2	-200.5	4,230.2	4,234.9	92.71

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

Survey Annotations

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



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA
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)		System Datum: Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Section 31-32-18S-29E Pavo Macho 31-32 B2DA Fed Co		
Site Position:		Northing:	621,788.50 usft
From: Map		Easting:	565,388.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 42' 33.170 N
		Longitude:	104° 7' 14.694 W
		Grid Convergence:	0.11 "

Well	Pavo Macho 31-32 B2DA Fed 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° 42' 33.170 N
		Longitude:	104° 7' 14.694 W
		Ground Level:	3,418.0 usft

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	4/24/2018	7.15
		Dip Angle	60.41
		Field Strength	48,078.94207340
		(nT)	

Design	Original Hole		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	Tie On Depth:
	(usft)	(usft)	0.0
	0.0	0.0	Direction
		0.0	(°)
			219.13

Survey Program	Date 6/19/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
113.0	11,561.0	MWD Survey (Original Hole)	MWD
			Description
			MWD v3: standard declination



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA
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

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
11,561.0	92.00	87.80	7,612.1	-4,187.1	-209.6	4,015.6	4,021.0	92.99
B.B. Pavo Macho 31-32 B2DA fed Com 1H - LP Pavo Macho 31-32 B2DA Fed Com 1H								
11,616.0	87.70	81.90	7,612.3	-4,187.3	-204.7	4,070.3	4,075.5	92.88
11,710.0	87.30	81.70	7,616.4	-4,171.4	-191.3	4,183.3	4,167.7	92.63
11,805.0	88.00	83.90	7,620.3	-4,175.3	-179.4	4,257.4	4,261.2	92.41
11,900.0	88.50	86.10	7,623.2	-4,178.2	-171.1	4,352.0	4,355.4	92.25
11,994.0	88.70	87.10	7,625.5	-4,180.5	-165.6	4,445.8	4,448.9	92.13
12,089.0	89.80	89.00	7,626.7	-4,181.7	-162.3	4,540.7	4,543.6	92.05
12,184.0	88.70	89.70	7,628.0	-4,183.0	-161.3	4,635.7	4,638.5	91.99
12,278.0	89.30	90.40	7,629.6	-4,184.6	-161.3	4,729.7	4,732.5	91.95
12,373.0	89.70	90.90	7,630.4	-4,185.4	-162.4	4,824.7	4,827.4	91.93
12,468.0	88.50	89.60	7,631.9	-4,186.9	-162.8	4,919.7	4,922.4	91.90
12,562.0	90.10	90.70	7,633.1	-4,188.1	-163.1	5,013.7	5,016.3	91.86
12,657.0	90.40	91.30	7,632.7	-4,187.7	-164.7	5,108.7	5,111.3	91.85
12,751.0	90.50	91.60	7,631.9	-4,186.9	-167.1	5,202.6	5,205.3	91.84
12,846.0	89.80	91.80	7,631.7	-4,186.7	-169.9	5,297.6	5,300.3	91.84
12,941.0	89.10	92.10	7,632.6	-4,187.6	-173.2	5,392.5	5,395.3	91.84
13,035.0	87.80	93.30	7,635.1	-4,180.1	-177.6	5,486.4	5,489.3	91.85
13,130.0	86.90	94.10	7,639.5	-4,194.5	-183.7	5,581.1	5,584.1	91.89
13,224.0	87.80	90.30	7,643.9	-4,198.9	-187.3	5,674.9	5,678.0	91.89
13,319.0	89.40	91.00	7,646.2	-4,201.2	-188.4	5,769.9	5,772.9	91.87
13,413.0	90.90	90.80	7,645.9	-4,200.9	-189.9	5,863.8	5,866.9	91.85
13,508.0	91.30	90.40	7,644.1	-4,199.1	-190.9	5,958.8	5,961.9	91.83
13,602.0	92.40	90.60	7,641.1	-4,196.1	-191.7	6,052.8	6,055.8	91.81
13,697.0	90.80	91.20	7,638.4	-4,193.4	-193.2	6,147.7	6,150.7	91.80
13,792.0	92.10	91.20	7,638.0	-4,191.0	-195.2	6,242.7	6,245.7	91.79
13,886.0	90.10	88.90	7,634.2	-4,189.2	-195.2	6,336.6	6,339.6	91.76



Stryker Directional MWD Surveys



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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

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
13,981.0	87.50	89.00	7,638.2	-4,191.2	-193.5	6,431.6	8,434.5	91.72
14,075.0	87.60	89.10	7,640.2	-4,195.2	-191.9	6,525.5	8,528.3	91.68
14,170.0	87.70	89.60	7,644.1	-4,199.1	-190.9	6,620.4	8,623.2	91.65
14,264.0	84.90	88.40	7,650.2	-4,205.2	-189.2	6,714.2	8,716.8	91.61
14,359.0	88.50	89.10	7,657.3	-4,212.3	-187.2	6,808.9	8,811.5	91.57
14,453.0	85.80	88.20	7,663.6	-4,218.6	-185.0	6,902.6	8,905.1	91.53
14,548.0	88.20	88.90	7,668.6	-4,223.6	-182.8	6,997.5	8,999.9	91.49
14,643.0	89.00	89.90	7,670.9	-4,225.9	-181.6	7,092.4	7,094.8	91.47
14,737.0	90.30	91.90	7,671.5	-4,226.5	-183.0	7,186.4	7,188.6	91.46
14,831.0	89.40	91.60	7,671.7	-4,226.7	-185.9	7,280.4	7,282.7	91.46
14,925.0	92.70	92.60	7,670.0	-4,225.0	-189.4	7,374.3	7,376.7	91.47
15,020.0	92.80	92.70	7,685.5	-4,220.5	-193.7	7,469.1	7,471.6	91.49
15,114.0	92.10	92.50	7,661.4	-4,216.4	-198.0	7,562.9	7,565.5	91.50
15,209.0	91.00	91.90	7,658.9	-4,213.9	-201.6	7,657.8	7,660.4	91.51
15,303.0	88.70	91.30	7,659.1	-4,214.1	-204.3	7,751.7	7,754.4	91.51
15,397.0	91.20	90.70	7,659.2	-4,214.2	-205.9	7,845.7	7,848.4	91.50
15,492.0	90.80	90.70	7,657.5	-4,212.5	-207.1	7,940.7	7,943.4	91.49
15,587.0	88.60	90.70	7,658.0	-4,213.0	-208.2	8,035.7	8,038.4	91.48
15,681.0	88.40	90.40	7,660.5	-4,215.5	-209.1	8,129.6	8,132.3	91.47
15,776.0	88.00	89.90	7,663.5	-4,218.5	-209.4	8,224.6	8,227.3	91.46
15,870.0	87.20	89.80	7,667.4	-4,222.4	-209.1	8,318.5	8,321.1	91.44
15,965.0	88.00	89.00	7,673.0	-4,228.0	-208.1	8,413.3	8,415.9	91.42
16,059.0	90.60	89.30	7,675.8	-4,230.8	-208.7	8,507.3	8,509.8	91.39
16,154.0	89.40	89.30	7,675.8	-4,230.8	-205.6	8,602.3	8,604.7	91.37
16,249.0	88.90	89.20	7,678.9	-4,233.9	-204.3	8,697.2	8,699.6	91.35
16,343.0	84.70	88.90	7,685.8	-4,240.8	-202.8	8,790.9	8,793.3	91.32
16,438.0	87.80	87.60	7,692.0	-4,247.0	-199.9	8,885.7	8,887.9	91.29



Stryker Directional MWD Surveys



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Section 31-32-18S-29E Pavo Macho 31-32 B2DA
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

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)
16,532.0	92.60	88.70	7,691.7	-4,246.7	-196.9	8,979.6	8,981.7	91.28
16,627.0	93.50	88.80	7,686.6	-4,241.6	-194.6	9,074.4	9,076.5	91.23
16,722.0	91.10	88.80	7,682.8	-4,237.8	-192.5	9,169.3	9,171.3	91.20
16,816.0	90.10	89.70	7,681.8	-4,236.8	-191.2	9,263.3	9,265.3	91.18
16,911.0	89.10	90.40	7,682.5	-4,237.5	-191.3	9,358.3	9,360.2	91.17
17,005.0	88.00	90.20	7,684.9	-4,239.9	-191.6	9,452.3	9,454.2	91.16
17,100.0	89.60	91.10	7,686.8	-4,241.8	-192.9	9,547.2	9,549.2	91.16
17,194.0	89.60	91.20	7,687.5	-4,242.5	-194.6	9,641.2	9,643.2	91.16
17,288.0	90.30	91.90	7,687.6	-4,242.6	-197.3	9,735.2	9,737.2	91.16
17,345.0	90.30	91.80	7,687.3	-4,242.3	-199.2	9,792.1	9,794.2	91.17

17345.0' 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)	
17,345.0	7,687.3	-199.2	9,792.1	17345.0' MD Projected to Bit

GEODETIC ZONE: New Mexico East 3001										
3418 + 27 @ 3445.0usft (Patterson 560)										
GROUND ELEVATION: 3418.0										
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot			
	0.0	0.0	621788.50	565388.00	32° 42' 33.170 N	104° 7' 14.694 W				
PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	6991.0	2.00	220.60	6982.0	-225.9	-178.7	0.00	0.00	-172.8	
2	7091.0	0.00	0.00	7082.0	-227.2	-179.9	2.00	180.00	-173.9	
3	7094.6	0.00	0.00	7085.6	-227.2	-179.9	0.00	0.00	-173.9	
4	7838.1	89.22	90.15	7563.0	-228.5	291.1	12.00	90.15	296.9	
5	17343.6	89.22	90.15	7692.0	-252.9	9795.7	0.00	0.00	9799.0	PBHL Pavo Macho 31-32 B2DA Fed com 1H

