



Mewbourne Oil Company

Lea County N. M. Nad (83)

Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H

Pronghorn 15 B3BO Fed Com 1H

Original Hole

Design: Original Hole

Standard Survey Report

20 September, 2018



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Pronghorn 15 B3BO Fed Com 1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Site:	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H	MD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Well:	Pronghorn 15 B3BO Fed Com 1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Project	Lea County N. M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H				
Site Position:		Northing:	478,119.50 usft	Latitude:	32° 18' 40.919 N
From:	Map	Easting:	812,718.20 usft	Longitude:	103° 27' 17.681 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.47 °

Well	Pronghorn 15 B3BO Fed Com 1H				
Well Position	+N/-S	0.0 usft	Northing:	478,119.50 usft	Latitude: 32° 18' 40.919 N
	+E/-W	0.0 usft	Easting:	812,718.20 usft	Longitude: 103° 27' 17.681 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	27.0 usft	Ground Level: 3,394.0 usft

Wellbore	Original Hole				
-----------------	---------------	--	--	--	--

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/25/2018	6.79	60.15	47,888.71685740

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	180.78

Survey Program		Date 9/20/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,711.0	16,230.0	Survey #1 (Original Hole)		

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)
1,711.0	10.87	185.66	1,704.9	-80.5	-1.1	80.5	0.00	0.00	0.00
1,866.0	7.60	191.90	1,857.9	-105.1	-4.6	105.1	2.20	-2.11	4.03
1,960.0	5.00	195.60	1,951.3	-115.1	-7.0	115.2	2.80	-2.77	3.94
2,053.0	0.30	79.50	2,044.2	-119.0	-7.9	119.1	5.53	-5.05	-124.84
2,146.0	4.20	5.50	2,137.1	-115.5	-7.3	115.6	4.44	4.19	-79.57
2,239.0	5.90	0.30	2,229.7	-107.4	-7.0	107.5	1.89	1.83	-5.59
2,333.0	6.00	0.00	2,323.2	-97.6	-6.9	97.7	0.11	0.11	-0.32
2,426.0	4.60	358.60	2,415.8	-89.0	-7.0	89.1	1.51	-1.51	-1.51
2,519.0	4.40	355.90	2,508.5	-81.8	-7.4	81.8	0.31	-0.22	-2.90
2,613.0	4.20	355.20	2,602.3	-74.7	-7.9	74.8	0.22	-0.21	-0.74

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Pronghorn 15 B3BO Fed Com 1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Site:	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H	MD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Well:	Pronghorn 15 B3BO 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)
2,706.0	4.10	353.40	2,695.0	-68.0	-8.6	68.1	0.18	-0.11	-1.94
2,800.0	3.90	353.00	2,788.8	-61.5	-9.4	61.6	0.21	-0.21	-0.43
2,893.0	3.60	353.30	2,881.6	-55.5	-10.1	55.6	0.32	-0.32	0.32
2,986.0	3.40	352.40	2,974.4	-49.9	-10.8	50.0	0.22	-0.22	-0.97
3,080.0	3.60	351.60	3,068.2	-44.2	-11.6	44.3	0.22	0.21	-0.85
3,173.0	3.00	346.90	3,161.1	-38.9	-12.6	39.1	0.71	-0.65	-5.05
3,266.0	2.90	5.00	3,254.0	-34.2	-12.9	34.4	1.00	-0.11	19.46
3,358.0	2.50	15.00	3,345.9	-29.9	-12.2	30.1	0.67	-0.43	10.87
3,451.0	2.80	24.30	3,438.8	-25.9	-10.7	26.1	0.56	0.32	10.00
3,544.0	3.10	34.70	3,531.6	-21.8	-8.4	21.9	0.66	0.32	11.18
3,638.0	3.60	29.60	3,625.5	-17.1	-5.5	17.2	0.62	0.53	-5.43
3,731.0	2.20	16.00	3,718.4	-12.9	-3.5	12.9	1.67	-1.51	-14.62
3,824.0	2.10	7.50	3,811.3	-9.5	-2.8	9.5	0.36	-0.11	-9.14
3,917.0	2.30	358.20	3,904.2	-5.9	-2.7	5.9	0.44	0.22	-10.00
4,010.0	2.20	2.50	3,997.2	-2.3	-2.6	2.3	0.21	-0.11	4.62
4,103.0	2.30	3.80	4,090.1	1.4	-2.4	-1.4	0.12	0.11	1.40
4,196.0	2.40	2.40	4,183.0	5.2	-2.2	-5.2	0.12	0.11	-1.51
4,289.0	0.50	16.20	4,276.0	7.5	-2.0	-7.5	2.06	-2.04	14.84
4,382.0	0.40	183.60	4,369.0	7.6	-1.9	-7.6	0.96	-0.11	180.00
4,475.0	0.40	168.70	4,462.0	7.0	-1.9	-6.9	0.11	0.00	-16.02
4,568.0	0.50	172.10	4,555.0	6.2	-1.8	-6.2	0.11	0.11	3.66
4,661.0	0.50	160.80	4,648.0	5.5	-1.6	-5.4	0.11	0.00	-12.15
4,754.0	0.50	154.20	4,741.0	4.7	-1.3	-4.7	0.06	0.00	-7.10
4,815.0	0.70	146.20	4,802.0	4.2	-1.0	-4.1	0.35	0.33	-13.11
4,942.0	1.10	146.70	4,928.9	2.5	0.1	-2.5	0.32	0.31	0.39
5,035.0	2.20	247.90	5,021.9	1.1	-1.0	-1.1	2.84	1.18	108.82
5,129.0	5.30	260.80	5,115.7	-0.3	-7.0	0.4	3.40	3.30	13.72
5,222.0	5.90	264.40	5,208.3	-1.5	-16.0	1.7	0.75	0.65	3.87
5,315.0	5.80	275.70	5,300.8	-1.5	-25.4	1.8	1.24	-0.11	12.15
5,409.0	6.30	283.00	5,394.3	0.2	-35.2	0.3	0.98	0.53	7.77
5,502.0	6.30	282.80	5,486.7	2.5	-45.1	-1.8	0.02	0.00	-0.22
5,595.0	5.20	292.60	5,579.2	5.2	-54.0	-4.5	1.58	-1.18	10.54
5,688.0	4.90	295.70	5,671.9	8.6	-61.4	-7.7	0.44	-0.32	3.33
5,781.0	4.80	291.20	5,764.5	11.7	-68.7	-10.8	0.42	-0.11	-4.84
5,874.0	4.30	290.10	5,857.2	14.3	-75.6	-13.3	0.55	-0.54	-1.18
5,967.0	5.70	290.80	5,949.9	17.1	-83.1	-16.0	1.51	1.51	0.75
6,060.0	6.50	290.60	6,042.4	20.6	-92.4	-19.4	0.86	0.86	-0.22
6,153.0	6.50	293.10	6,134.8	24.5	-102.2	-23.1	0.30	0.00	2.69
6,246.0	6.20	293.20	6,227.2	28.6	-111.6	-27.1	0.32	-0.32	0.11
6,339.0	6.10	293.10	6,319.7	32.5	-120.8	-30.9	0.11	-0.11	-0.11
6,432.0	6.00	292.80	6,412.1	36.3	-129.8	-34.6	0.11	-0.11	-0.32
6,525.0	5.50	294.40	6,504.7	40.0	-138.3	-38.2	0.56	-0.54	1.72

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Pronghorn 15 B3BO Fed Com 1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Site:	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H	MD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Well:	Pronghorn 15 B3BO 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)	Buird Rate (°/100usft)	Turn Rate (°/100usft)
6,618.0	5.00	294.10	6,597.3	43.5	-146.1	-41.6	0.54	-0.54	-0.32
6,711.0	5.10	291.60	6,689.9	46.7	-153.6	-44.6	0.26	0.11	-2.69
6,805.0	4.80	291.60	6,783.6	49.7	-161.2	-47.5	0.32	-0.32	0.00
6,899.0	4.80	290.70	6,877.2	52.5	-168.5	-50.3	0.08	0.00	-0.96
6,992.0	4.50	286.70	6,969.9	55.0	-175.7	-52.6	0.47	-0.32	-4.30
7,085.0	4.20	289.20	7,062.7	57.1	-182.4	-54.7	0.38	-0.32	2.69
7,178.0	4.20	285.70	7,155.4	59.2	-188.9	-56.6	0.28	0.00	-3.76
7,272.0	5.60	290.60	7,249.1	61.7	-196.5	-59.1	1.55	1.49	5.21
7,365.0	5.70	287.60	7,341.6	64.7	-205.1	-61.9	0.34	0.11	-3.23
7,458.0	5.00	286.10	7,434.2	67.2	-213.4	-64.3	0.77	-0.75	-1.61
7,552.0	4.40	281.90	7,527.9	69.1	-220.9	-66.1	0.74	-0.64	-4.47
7,645.0	4.40	280.50	7,620.6	70.5	-227.9	-67.4	0.12	0.00	-1.51
7,738.0	5.70	288.40	7,713.3	72.6	-235.8	-69.4	1.58	1.40	8.49
7,831.0	5.60	289.70	7,805.8	75.6	-244.4	-72.3	0.17	-0.11	1.40
7,924.0	5.10	290.30	7,898.4	78.6	-252.6	-75.1	0.54	-0.54	0.65
8,017.0	4.80	293.40	7,991.1	81.5	-260.0	-78.0	0.43	-0.32	3.33
8,110.0	4.40	294.60	8,083.8	84.6	-266.8	-80.9	0.44	-0.43	1.29
8,203.0	4.00	299.70	8,176.5	87.7	-272.9	-84.0	0.59	-0.43	5.48
8,297.0	3.60	299.60	8,270.3	90.7	-278.3	-87.0	0.43	-0.43	-0.11
8,390.0	4.50	299.70	8,363.1	94.0	-284.0	-90.1	0.97	0.97	0.11
8,483.0	4.20	303.40	8,455.8	97.7	-290.0	-93.7	0.44	-0.32	3.98
8,577.0	4.50	293.90	8,549.5	101.1	-296.3	-97.0	0.83	0.32	-10.11
8,671.0	4.40	286.40	8,643.2	103.6	-303.1	-99.5	0.63	-0.11	-7.98
8,764.0	5.00	285.60	8,735.9	105.7	-310.4	-101.5	0.65	0.65	-0.86
8,859.0	4.50	291.70	8,830.6	108.2	-317.9	-103.8	0.75	-0.53	6.42
8,952.0	4.90	289.40	8,923.3	110.8	-325.0	-106.4	0.48	0.43	-2.47
9,045.0	4.20	294.00	9,016.0	113.5	-331.9	-109.0	0.85	-0.75	4.95
9,139.0	6.00	288.40	9,109.6	116.5	-339.7	-111.9	1.98	1.91	-5.96
9,232.0	6.00	285.90	9,202.1	119.3	-349.0	-114.6	0.28	0.00	-2.69
9,326.0	5.60	284.10	9,295.6	121.8	-358.1	-117.0	0.47	-0.43	-1.91
9,420.0	5.10	283.20	9,389.2	123.9	-366.7	-118.9	0.54	-0.53	-0.96
9,513.0	5.10	291.30	9,481.9	126.3	-374.5	-121.2	0.77	0.00	8.71
9,607.0	4.70	294.40	9,575.5	129.4	-381.9	-124.3	0.51	-0.43	3.30
9,700.0	4.70	296.70	9,668.2	132.7	-388.8	-127.4	0.20	0.00	2.47
9,794.0	4.30	295.10	9,761.9	135.9	-395.4	-130.6	0.45	-0.43	-1.70
9,887.0	4.10	296.70	9,854.7	138.9	-401.6	-133.5	0.25	-0.22	1.72
9,981.0	4.80	291.70	9,948.4	141.9	-408.2	-136.3	0.85	0.74	-5.32
10,074.0	4.70	288.40	10,041.1	144.5	-415.5	-138.9	0.31	-0.11	-3.55
10,168.0	4.50	293.20	10,134.8	147.2	-422.5	-141.5	0.46	-0.21	5.11
10,262.0	4.10	289.90	10,228.5	149.8	-429.0	-144.0	0.50	-0.43	-3.51
10,356.0	3.80	289.20	10,322.3	152.0	-435.1	-146.1	0.32	-0.32	-0.74
10,450.0	3.60	285.70	10,416.1	153.8	-440.9	-147.8	0.32	-0.21	-3.72
10,543.0	3.00	289.20	10,508.9	155.4	-446.0	-149.3	0.68	-0.65	3.76

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Pronghorn 15 B3BO Fed Com 1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Site:	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H	MD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Well:	Pronghorn 15 B3BO 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)
10,637.0	1.10	292.10	10,602.9	156.5	-449.2	-150.4	2.02	-2.02	3.09
10,730.0	0.70	289.70	10,695.8	157.1	-450.6	-150.9	0.43	-0.43	-2.58
10,734.2	0.67	290.85	10,700.1	157.1	-450.6	-151.0	0.74	-0.66	27.09
B.B. Pronghorn 15 B3BO Fed Com #1H									
10,780.0	0.40	313.10	10,745.8	157.3	-451.0	-151.2	0.74	-0.59	48.62
10,803.0	0.40	342.70	10,768.8	157.4	-451.1	-151.3	0.89	0.00	128.70
10,834.0	2.30	169.20	10,799.8	156.9	-451.0	-150.8	8.70	6.13	-559.68
10,865.0	6.80	180.10	10,830.7	154.4	-450.9	-148.3	14.72	14.52	35.16
10,897.0	11.10	185.80	10,862.3	149.5	-451.2	-143.4	13.70	13.44	17.81
10,928.0	15.60	182.60	10,892.5	142.4	-451.7	-136.2	14.71	14.52	-10.32
10,959.0	20.30	181.90	10,922.0	132.8	-452.0	-126.7	15.18	15.16	-2.26
10,990.0	24.40	182.90	10,950.6	121.0	-452.5	-114.9	13.28	13.23	3.23
11,021.0	28.30	181.80	10,978.4	107.3	-453.1	-101.1	12.68	12.58	-3.55
11,052.0	32.40	181.50	11,005.2	91.6	-453.5	-85.5	13.23	13.23	-0.97
11,083.0	35.60	182.10	11,030.9	74.3	-454.1	-68.2	10.38	10.32	1.94
11,115.0	38.50	180.10	11,056.4	55.0	-454.4	-48.9	9.81	9.06	-6.25
11,146.0	41.90	179.50	11,080.1	35.0	-454.4	-28.9	11.04	10.97	-1.94
11,177.0	45.60	179.60	11,102.5	13.6	-454.2	-7.4	11.94	11.94	0.32
11,208.0	48.90	178.90	11,123.5	-9.2	-453.9	15.3	10.77	10.65	-2.26
11,239.0	52.10	178.30	11,143.2	-33.1	-453.3	39.2	10.43	10.32	-1.94
11,270.0	54.40	176.80	11,161.8	-57.9	-452.2	64.0	8.37	7.42	-4.84
11,302.0	56.80	175.90	11,179.8	-84.2	-450.6	90.3	7.85	7.50	-2.81
11,333.0	59.90	176.40	11,196.1	-110.6	-448.8	116.6	10.09	10.00	1.61
11,364.0	62.80	176.80	11,211.0	-137.7	-447.2	143.8	9.42	9.35	1.29
11,395.0	65.60	177.30	11,224.5	-165.6	-445.7	171.6	9.15	9.03	1.61
11,434.0	68.40	178.50	11,239.7	-201.5	-444.4	207.5	7.72	7.18	3.08
11,465.0	70.80	178.50	11,250.5	-230.5	-443.7	236.5	7.74	7.74	0.00
11,496.0	73.70	177.70	11,259.9	-260.0	-442.7	266.0	9.67	9.35	-2.58
11,509.7	74.54	177.43	11,263.7	-273.2	-442.1	279.2	6.41	6.13	-1.95
LP Pronghorn 15 B3BO Fed Com 1H									
11,527.0	75.60	177.10	11,268.1	-289.9	-441.3	295.8	6.41	6.13	-1.93
11,558.0	79.30	176.90	11,274.9	-320.1	-439.8	326.0	11.95	11.94	-0.65
11,589.0	84.70	177.40	11,279.2	-350.7	-438.2	356.6	17.49	17.42	1.61
11,620.0	87.60	177.40	11,281.3	-381.6	-436.8	387.5	9.35	9.35	0.00
11,651.0	87.60	176.90	11,282.6	-412.6	-435.3	418.4	1.61	0.00	-1.61
11,713.0	90.10	175.80	11,283.8	-474.4	-431.3	480.2	4.41	4.03	-1.77
11,744.0	89.50	175.50	11,283.9	-505.3	-429.0	511.1	2.16	-1.94	-0.97
11,837.0	89.40	177.50	11,284.8	-598.1	-423.3	603.8	2.15	-0.11	2.15
11,931.0	91.20	179.20	11,284.3	-692.1	-420.6	697.7	2.63	1.91	1.81
12,024.0	93.00	182.90	11,280.9	-785.0	-422.3	790.6	4.42	1.94	3.98
12,118.0	90.50	181.50	11,278.0	-878.9	-425.9	884.6	3.05	-2.66	-1.49
12,211.0	89.70	180.60	11,277.9	-971.9	-427.6	977.6	1.29	-0.86	-0.97

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Pronghorn 15 B3BO Fed Com 1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Site:	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H	MD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Well:	Pronghorn 15 B3BO 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)
12,304.0	89.40	180.30	11,278.6	-1,064.8	-428.3	1,070.5	0.46	-0.32	-0.32
12,398.0	88.50	181.30	11,280.3	-1,158.8	-429.7	1,164.5	1.43	-0.96	1.06
12,491.0	88.30	180.30	11,282.9	-1,251.8	-431.0	1,257.5	1.10	-0.22	-1.08
12,584.0	87.50	179.70	11,286.3	-1,344.7	-431.0	1,350.4	1.08	-0.86	-0.65
12,678.0	90.50	180.30	11,288.0	-1,438.7	-431.0	1,444.4	3.25	3.19	0.64
12,771.0	90.30	180.30	11,287.3	-1,531.7	-431.4	1,537.4	0.22	-0.22	0.00
12,865.0	88.20	179.60	11,288.6	-1,625.7	-431.4	1,631.4	2.35	-2.23	-0.74
12,958.0	93.00	180.90	11,287.6	-1,718.6	-431.8	1,724.3	5.35	5.16	1.40
13,052.0	92.70	180.90	11,282.9	-1,812.5	-433.2	1,818.2	0.32	-0.32	0.00
13,145.0	92.10	180.30	11,279.0	-1,905.4	-434.2	1,911.1	0.91	-0.65	-0.65
13,239.0	88.50	179.00	11,278.5	-1,999.4	-433.6	2,005.1	4.07	-3.83	-1.38
13,332.0	88.50	179.20	11,281.0	-2,092.4	-432.2	2,098.0	0.21	0.00	0.22
13,425.0	89.20	179.50	11,282.8	-2,185.3	-431.1	2,191.0	0.82	0.75	0.32
13,519.0	88.00	178.70	11,285.1	-2,279.3	-429.7	2,284.9	1.53	-1.28	-0.85
13,613.0	87.30	178.40	11,289.0	-2,373.2	-427.3	2,378.7	0.81	-0.74	-0.32
13,706.0	91.00	178.80	11,290.4	-2,466.1	-425.0	2,471.6	4.00	3.98	0.43
13,800.0	91.70	178.10	11,288.1	-2,560.1	-422.5	2,565.5	1.05	0.74	-0.74
13,894.0	91.30	178.60	11,285.7	-2,654.0	-419.8	2,659.4	0.68	-0.43	0.53
13,989.0	89.90	177.80	11,284.7	-2,748.9	-416.8	2,754.3	1.70	-1.47	-0.84
14,082.0	92.60	180.00	11,282.7	-2,841.9	-415.0	2,847.2	3.74	2.90	2.37
14,176.0	91.80	179.90	11,279.1	-2,935.8	-414.9	2,941.2	0.86	-0.85	-0.11
14,270.0	91.90	180.20	11,276.0	-3,029.8	-415.0	3,035.1	0.34	0.11	0.32
14,365.0	90.00	181.70	11,274.4	-3,124.7	-416.6	3,130.1	2.55	-2.00	1.58
14,459.0	89.70	182.30	11,274.7	-3,218.7	-419.8	3,224.1	0.71	-0.32	0.64
14,552.0	89.30	180.40	11,275.5	-3,311.6	-422.0	3,317.0	2.09	-0.43	-2.04
14,646.0	88.10	180.90	11,277.6	-3,405.6	-423.1	3,411.0	1.38	-1.28	0.53
14,740.0	87.30	181.00	11,281.4	-3,499.5	-424.7	3,504.9	0.86	-0.85	0.11
14,834.0	89.30	179.00	11,284.2	-3,593.5	-424.7	3,598.9	3.01	2.13	-2.13
14,928.0	90.90	178.90	11,284.0	-3,687.4	-422.9	3,692.8	1.71	1.70	-0.11
15,022.0	90.60	178.80	11,282.8	-3,781.4	-421.0	3,786.8	0.34	-0.32	-0.11
15,115.0	89.50	178.60	11,282.7	-3,874.4	-418.9	3,879.7	1.20	-1.18	-0.22
15,209.0	91.30	178.80	11,282.1	-3,968.4	-416.8	3,973.6	1.93	1.91	0.21
15,303.0	89.50	177.80	11,281.4	-4,062.3	-414.0	4,067.5	2.19	-1.91	-1.06
15,397.0	91.80	177.00	11,280.3	-4,156.2	-409.8	4,161.4	2.59	2.45	-0.85
15,491.0	93.10	177.50	11,276.3	-4,250.0	-405.2	4,255.1	1.48	1.38	0.53
15,586.0	91.60	177.50	11,272.4	-4,344.8	-401.1	4,349.9	1.58	-1.58	0.00
15,679.0	90.10	180.40	11,271.0	-4,437.8	-399.4	4,442.8	3.51	-1.61	3.12
15,773.0	89.10	181.90	11,271.7	-4,531.8	-401.3	4,536.8	1.92	-1.06	1.60
15,867.0	87.90	182.80	11,274.2	-4,625.7	-405.1	4,630.7	1.60	-1.28	0.96
15,959.0	86.90	182.60	11,278.3	-4,717.5	-409.5	4,722.6	1.11	-1.09	-0.22
16,054.0	89.70	182.50	11,281.2	-4,812.3	-413.7	4,817.5	2.95	2.95	-0.11
16,148.0	89.40	181.40	11,281.9	-4,906.3	-416.9	4,911.4	1.21	-0.32	-1.17
16,174.0	90.50	182.30	11,281.9	-4,932.2	-417.7	4,937.4	5.47	4.23	3.46

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Pronghorn 15 B3BO Fed Com 1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Site:	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H	MD Reference:	3394 + 27 @ 3421.0usft (Patterson 250)
Well:	Pronghorn 15 B3BO 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)
16,230.0	90.50	182.30	11,281.4	-4,988.2	-420.0	4,993.4	0.00	0.00	0.00
16230.0' MD Projectrd to Bit - PBHL Pronghorn 15 B3BO Fed Com 1H									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,230.0	11,281.4	-4,988.2	-420.0	16230.0' MD Projectrd to Bit



COMPANY: Mewbourne Oil Company
WELL: Pronghorn 15 B3BO Fed Com 1H
COUNTY: Lea County N. M. Nad (83)
DATUM: North American Datum 1983
RIG: Patterson 250



OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.32°

GEODETTIC ZONE: New Mexico Eastern Zone

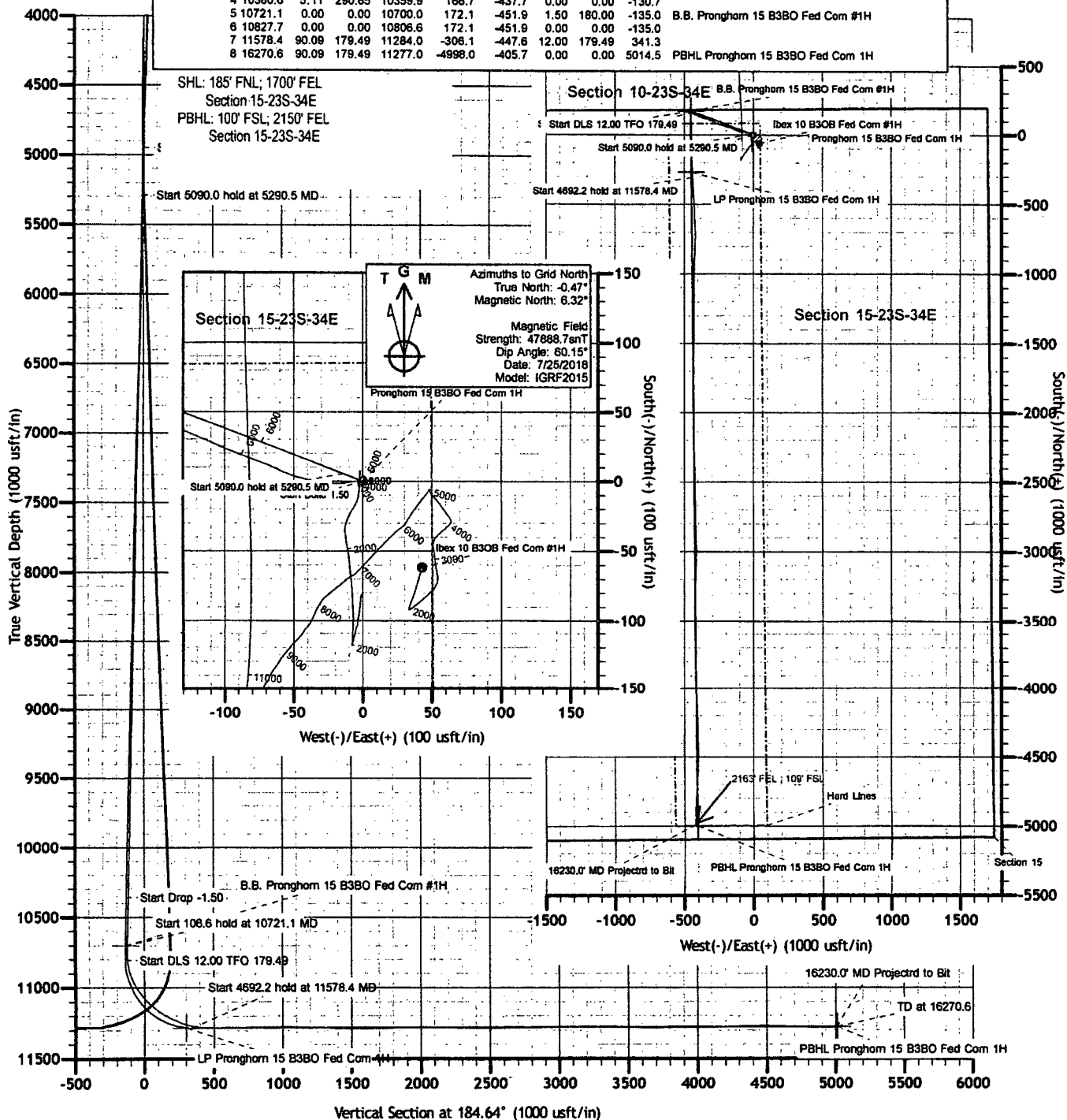
3394 + 27 @ 3421.0usft (Patterson 250)

GROUND ELEVATION: 3394.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	478119.50	812718.20	32° 18' 40.919 N	103° 27' 17.881 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeet	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4950.0	0.00	0.00	4950.0	0.0	0.0	0.00	0.00	0.0	
3	5290.5	5.11	290.85	5290.1	5.4	-14.2	1.50	290.85	-4.2	
4	10380.6	5.11	290.85	10359.9	186.7	-437.7	0.00	0.00	-130.7	
5	10721.1	0.00	0.00	10700.0	172.1	-451.9	1.50	180.00	-135.0	B.B. Pronghorn 15 B3BO Fed Com #1H
6	10827.7	0.00	0.00	10806.6	172.1	-451.9	0.00	0.00	-135.0	
7	11578.4	90.08	179.49	11284.0	-306.1	-447.6	12.00	179.49	341.3	
8	16270.6	90.08	179.49	11277.0	-4998.0	-405.7	0.00	0.00	5014.5	PBHL Pronghorn 15 B3BO Fed Com 1H





October 29, 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
Pronghorn 15 B3BO Federal #001H
Antelope Ridge; Bone Spring,
Lea County, New Mexico
API# 30-025-43903

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	1,711ft. to 16,230ft.	08-31-18 to 09-21-18	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\Pronghorn 15 B3BO Fed Com #1H\M181114

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

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



October 29, 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 August 31, 2018, through September 21, 2018 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 1,711 feet to a depth of 16,230 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 Pronghorn 15 B3BO Federal #1H, well API # **30-025-43903** 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.

Eric 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: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Project	Lea County N. M. Nad (83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Section 15-23S-34E Pronghorn 15 B3BO Fed Com 1H		
Site Position:		Northing:	478,119.50 usft
From: Map		Eastings:	812,718.20 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 18' 40.919 N
		Longitude:	103° 27' 17.681 W
		Grid Convergence:	0.47 "

Well	Pronghorn 15 B3BO Fed Com 1H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Eastings:
Position Uncertainty	0.0 usft		Wellhead Elevation:
			Latitude:
			Longitude:
			Ground Level:

Wellbore	Original Hole		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	7/25/2018	(°)
			6.79
			Dip Angle
			(°)
			60.15
			Field Strength
			(nT)
			47,888.71685740

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
			(°)
			180.78

Survey Program	Date 9/20/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
1,711.0	18,230.0	Survey #1 (Original Hole)	Description



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
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 (°)
1,711.0	10.87	185.66	1,704.9	1,716.1	-80.5	-1.1	80.5	180.78
1,866.0	7.60	191.90	1,857.9	1,563.1	-105.1	-4.6	105.2	182.53
1,980.0	5.00	195.60	1,951.3	1,469.7	-115.1	-7.0	115.3	183.49
2,053.0	0.30	79.50	2,044.2	1,376.8	-119.0	-7.9	119.2	183.79
2,146.0	4.20	5.50	2,137.1	1,283.9	-115.5	-7.3	115.8	183.62
2,239.0	5.90	0.30	2,229.7	1,191.3	-107.4	-7.0	107.6	183.71
2,333.0	6.00	0.00	2,323.2	1,097.8	-97.6	-6.9	97.9	184.06
2,426.0	4.60	358.60	2,415.8	1,005.2	-89.0	-7.0	89.3	184.51
2,519.0	4.40	355.90	2,508.5	912.5	-81.8	-7.4	82.1	185.15
2,613.0	4.20	355.20	2,602.3	818.7	-74.7	-7.9	75.1	186.05
2,706.0	4.10	353.40	2,695.0	726.0	-68.0	-8.6	68.6	187.19
2,800.0	3.90	353.00	2,788.8	632.2	-61.5	-9.4	62.2	188.65
2,893.0	3.60	353.30	2,881.6	539.4	-55.5	-10.1	56.4	190.31
2,986.0	3.40	352.40	2,974.4	446.6	-49.9	-10.8	51.0	192.22
3,080.0	3.60	351.60	3,068.2	352.8	-44.2	-11.6	45.7	194.71
3,173.0	3.00	346.90	3,161.1	259.9	-38.9	-12.6	40.9	197.91
3,266.0	2.90	5.00	3,254.0	167.0	-34.2	-12.9	36.6	200.70
3,358.0	2.50	15.00	3,345.9	75.1	-29.9	-12.2	32.3	202.17
3,451.0	2.80	24.30	3,438.8	-17.8	-25.9	-10.7	28.0	202.51
3,544.0	3.10	34.70	3,531.6	-110.6	-21.8	-8.4	23.3	201.03
3,638.0	3.60	29.60	3,625.5	-204.5	-17.1	-5.5	18.0	197.71
3,731.0	2.20	16.00	3,718.4	-297.4	-12.9	-3.5	13.3	195.36
3,824.0	2.10	7.50	3,811.3	-390.3	-9.5	-2.8	9.9	196.60
3,917.0	2.30	358.20	3,904.2	-483.2	-5.9	-2.7	6.5	204.22
4,010.0	2.20	2.50	3,997.2	-576.2	-2.3	-2.6	3.5	229.48
4,103.0	2.30	3.80	4,090.1	-669.1	1.4	-2.4	2.8	299.79
4,196.0	2.40	2.40	4,183.0	-762.0	5.2	-2.2	5.7	336.80



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
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 (°)
4,289.0	0.50	16.20	4,276.0	-855.0	7.5	-2.0	7.8	344.90
4,382.0	0.40	183.60	4,369.0	-948.0	7.6	-1.9	7.8	345.68
4,475.0	0.40	168.70	4,462.0	-1,041.0	7.0	-1.9	7.2	344.75
4,568.0	0.50	172.10	4,555.0	-1,134.0	6.2	-1.8	6.5	344.09
4,661.0	0.50	160.80	4,648.0	-1,227.0	5.5	-1.6	5.7	343.76
4,754.0	0.50	154.20	4,741.0	-1,320.0	4.7	-1.3	4.9	344.79
4,815.0	0.70	146.20	4,802.0	-1,381.0	4.2	-1.0	4.3	347.05
4,942.0	1.10	146.70	4,928.9	-1,507.9	2.5	0.1	2.5	3.33
5,035.0	2.20	247.90	5,021.9	-1,600.9	1.1	-1.0	1.5	316.53
5,129.0	5.30	260.80	5,115.7	-1,694.7	-0.3	-7.0	7.0	267.55
5,222.0	5.90	264.40	5,208.3	-1,787.3	-1.5	-16.0	16.0	264.81
5,315.0	5.80	275.70	5,300.8	-1,879.8	-1.5	-25.4	25.4	266.73
5,409.0	6.30	283.00	5,394.3	-1,973.3	0.2	-35.2	35.2	270.29
5,502.0	6.30	282.80	5,486.7	-2,065.7	2.5	-45.1	45.2	273.12
5,595.0	5.20	292.60	5,579.2	-2,158.2	5.2	-54.0	54.2	275.51
5,688.0	4.90	295.70	5,671.9	-2,250.9	8.6	-61.4	62.0	277.92
5,781.0	4.80	291.20	5,764.5	-2,343.5	11.7	-68.7	69.6	279.66
5,874.0	4.30	290.10	5,857.2	-2,436.2	14.3	-75.6	76.9	280.71
5,967.0	5.70	290.80	5,949.9	-2,528.9	17.1	-83.1	84.9	281.64
6,060.0	6.50	290.60	6,042.4	-2,621.4	20.6	-92.4	94.7	282.58
6,153.0	6.50	293.10	6,134.8	-2,713.8	24.5	-102.2	105.1	283.50
6,246.0	6.20	293.20	6,227.2	-2,806.2	28.6	-111.6	115.2	284.36
6,339.0	6.10	293.10	6,319.7	-2,898.7	32.5	-120.8	125.1	285.06
6,432.0	6.00	292.80	6,412.1	-2,991.1	36.3	-129.8	134.8	285.63
6,525.0	5.50	294.40	6,504.7	-3,083.7	40.0	-138.3	144.0	286.14
6,618.0	5.00	294.10	6,597.3	-3,176.3	43.5	-146.1	152.5	286.59
6,711.0	5.10	291.60	6,689.9	-3,268.9	46.7	-153.6	160.6	286.91



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
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 (°)
6,805.0	4.80	291.60	6,783.6	-3,362.6	49.7	-161.2	168.7	287.14
6,899.0	4.80	290.70	6,877.2	-3,456.2	52.5	-188.5	176.5	287.32
6,992.0	4.50	286.70	6,969.9	-3,548.9	55.0	-175.7	184.1	287.37
7,085.0	4.20	289.20	7,062.7	-3,641.7	57.1	-182.4	191.1	287.39
7,178.0	4.20	285.70	7,155.4	-3,734.4	59.2	-188.9	197.9	287.40
7,272.0	5.60	290.60	7,249.1	-3,828.1	61.7	-196.5	205.9	287.44
7,365.0	5.70	287.60	7,341.6	-3,920.6	64.7	-205.1	215.1	287.51
7,458.0	5.00	286.10	7,434.2	-4,013.2	67.2	-213.4	223.8	287.49
7,552.0	4.40	281.90	7,527.9	-4,106.9	69.1	-220.9	231.4	287.37
7,645.0	4.40	280.50	7,620.6	-4,199.6	70.5	-227.9	238.5	287.19
7,738.0	5.70	288.40	7,713.3	-4,292.3	72.6	-235.8	246.7	287.12
7,831.0	5.60	289.70	7,805.8	-4,384.8	75.6	-244.4	255.8	287.18
7,924.0	5.10	290.30	7,898.4	-4,477.4	78.6	-252.6	264.5	287.28
8,017.0	4.80	293.40	7,991.1	-4,570.1	81.5	-260.0	272.5	287.41
8,110.0	4.40	294.60	8,083.8	-4,662.8	84.6	-266.8	279.9	287.58
8,203.0	4.00	299.70	8,176.5	-4,755.5	87.7	-272.9	286.6	287.81
8,297.0	3.60	299.60	8,270.3	-4,848.3	90.7	-278.3	292.7	288.06
8,390.0	4.50	299.70	8,363.1	-4,942.1	94.0	-284.0	299.2	288.31
8,483.0	4.20	303.40	8,455.8	-5,034.8	97.7	-290.0	306.0	288.61
8,577.0	4.50	293.90	8,549.5	-5,128.5	101.1	-296.3	313.0	288.83
8,671.0	4.40	286.40	8,643.2	-5,222.2	103.6	-303.1	320.3	288.87
8,764.0	5.00	285.60	8,735.9	-5,314.9	105.7	-310.4	327.9	288.80
8,859.0	4.50	291.70	8,830.6	-5,409.6	108.2	-317.9	335.8	288.79
8,952.0	4.90	289.40	8,923.3	-5,502.3	110.8	-325.0	343.4	288.83
9,045.0	4.20	294.00	9,016.0	-5,595.0	113.5	-331.9	350.8	288.89
9,139.0	6.00	288.40	9,109.6	-5,688.6	116.5	-339.7	359.1	288.93
9,232.0	6.00	285.90	9,202.1	-5,781.1	119.3	-349.0	368.8	288.88



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
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 (°)
9,328.0	5.60	284.10	9,295.6	-5,874.6	121.8	-358.1	378.3	288.78
9,420.0	5.10	283.20	9,389.2	-5,968.2	123.9	-366.7	387.0	288.67
9,513.0	5.10	291.30	9,481.9	-6,060.9	126.3	-374.5	395.3	288.64
9,607.0	4.70	294.40	9,575.5	-6,154.5	129.4	-381.9	403.3	288.72
9,700.0	4.70	296.70	9,668.2	-6,247.2	132.7	-388.8	410.8	288.85
9,794.0	4.30	295.10	9,761.9	-6,340.9	135.9	-395.4	418.2	288.97
9,887.0	4.10	296.70	9,854.7	-6,433.7	138.9	-401.6	424.9	289.08
9,981.0	4.80	291.70	9,948.4	-6,527.4	141.9	-408.2	432.2	289.17
10,074.0	4.70	288.40	10,041.1	-6,620.1	144.5	-415.5	439.9	289.18
10,168.0	4.50	293.20	10,134.8	-6,713.8	147.2	-422.5	447.4	289.21
10,262.0	4.10	289.90	10,228.5	-6,807.5	149.8	-429.0	454.4	289.25
10,356.0	3.80	289.20	10,322.3	-6,901.3	152.0	-435.1	460.9	289.25
10,450.0	3.80	285.70	10,416.1	-6,995.1	153.8	-440.9	467.0	289.23
10,543.0	3.00	289.20	10,508.9	-7,087.9	155.4	-446.0	472.3	289.21
10,637.0	1.10	292.10	10,602.9	-7,181.9	156.5	-449.2	475.7	289.21
10,730.0	0.70	289.70	10,695.8	-7,274.8	157.1	-450.6	477.1	289.22
10,734.2	0.67	290.85	10,700.1	-7,279.1	157.1	-450.6	477.2	289.22
B.B. Pronghorn 15 B3BO Fed Com #1H								
10,780.0	0.40	313.10	10,745.8	-7,324.8	157.3	-451.0	477.6	289.23
10,803.0	0.40	342.70	10,768.8	-7,347.8	157.4	-451.1	477.7	289.24
10,834.0	2.30	169.20	10,799.8	-7,378.8	156.9	-451.0	477.5	289.18
10,865.0	6.80	180.10	10,830.7	-7,409.7	154.4	-450.9	476.6	288.91
10,897.0	11.10	185.80	10,862.3	-7,441.3	149.5	-451.2	475.3	288.33
10,928.0	15.60	182.60	10,892.5	-7,471.5	142.4	-451.7	473.6	287.49
10,959.0	20.30	181.90	10,922.0	-7,501.0	132.8	-452.0	471.1	286.37
10,990.0	24.40	182.90	10,950.6	-7,529.6	121.0	-452.5	468.4	284.97
11,021.0	28.30	181.80	10,978.4	-7,557.4	107.3	-453.1	465.6	283.32



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
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 (")
11,052.0	32.40	181.50	11,005.2	-7,584.2	91.8	-453.5	462.7	281.42
11,083.0	35.60	182.10	11,030.9	-7,609.9	74.3	-454.1	460.1	279.29
11,115.0	38.50	180.10	11,056.4	-7,635.4	55.0	-454.4	457.8	276.91
11,146.0	41.90	179.50	11,080.1	-7,659.1	35.0	-454.4	455.7	274.41
11,177.0	45.60	179.60	11,102.5	-7,681.5	13.8	-454.2	454.4	271.71
11,208.0	48.90	178.90	11,123.5	-7,702.5	-9.2	-453.9	454.0	268.84
11,239.0	52.10	178.30	11,143.2	-7,722.2	-33.1	-453.3	454.5	265.83
11,270.0	54.40	176.80	11,161.8	-7,740.8	-57.9	-452.2	455.9	262.71
11,302.0	56.80	175.90	11,179.8	-7,758.8	-84.2	-450.6	458.4	259.41
11,333.0	59.90	176.40	11,196.1	-7,775.1	-110.6	-448.8	462.2	256.16
11,364.0	62.80	176.80	11,211.0	-7,790.0	-137.7	-447.2	467.9	252.88
11,395.0	65.60	177.30	11,224.5	-7,803.5	-165.6	-445.7	475.5	249.62
11,434.0	68.40	178.50	11,239.7	-7,818.7	-201.5	-444.4	488.0	245.62
11,465.0	70.80	178.50	11,250.5	-7,829.5	-230.5	-443.7	500.0	242.55
11,496.0	73.70	177.70	11,259.9	-7,838.9	-260.0	-442.7	513.4	239.57
11,509.7	74.54	177.43	11,263.7	-7,842.7	-273.2	-442.1	519.7	238.29
LP Pronghorn 15 B3BO Fed Com 1H								
11,527.0	75.80	177.10	11,268.1	-7,847.1	-289.9	-441.3	528.0	236.70
11,558.0	79.30	176.90	11,274.9	-7,853.9	-320.1	-439.8	543.9	233.95
11,589.0	84.70	177.40	11,279.2	-7,858.2	-350.7	-438.2	561.3	231.33
11,620.0	87.60	177.40	11,281.3	-7,860.3	-381.6	-436.8	580.0	228.86
11,651.0	87.60	176.90	11,282.6	-7,861.6	-412.6	-435.3	599.7	226.54
11,713.0	90.10	175.80	11,283.8	-7,862.8	-474.4	-431.3	641.2	222.28
11,744.0	89.50	175.50	11,283.9	-7,862.9	-505.3	-429.0	662.9	220.33
11,837.0	89.40	177.50	11,284.8	-7,863.8	-598.1	-423.3	732.8	215.29
11,931.0	91.20	179.20	11,284.3	-7,863.3	-692.1	-420.6	809.9	211.29
12,024.0	93.00	182.90	11,280.9	-7,859.9	-785.0	-422.3	891.4	208.28



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
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 (°)
12,118.0	90.50	181.50	11,278.0	-7,857.0	-878.9	-425.9	976.6	205.86
12,211.0	89.70	180.60	11,277.9	-7,856.9	-971.9	-427.6	1,061.8	203.75
12,304.0	89.40	180.30	11,278.6	-7,857.6	-1,064.8	-428.3	1,147.8	201.91
12,398.0	88.50	181.30	11,280.3	-7,859.3	-1,158.8	-429.7	1,235.9	200.34
12,491.0	88.30	180.30	11,282.9	-7,861.9	-1,251.8	-431.0	1,323.9	199.00
12,584.0	87.50	179.70	11,286.3	-7,865.3	-1,344.7	-431.0	1,412.1	197.77
12,678.0	90.50	180.30	11,288.0	-7,867.0	-1,438.7	-431.0	1,501.8	196.68
12,771.0	90.30	180.30	11,287.3	-7,866.3	-1,531.7	-431.4	1,591.3	195.73
12,865.0	88.20	179.60	11,288.6	-7,867.6	-1,625.7	-431.4	1,681.9	194.86
12,958.0	93.00	180.90	11,287.6	-7,866.6	-1,718.6	-431.8	1,772.0	194.10
13,052.0	92.70	180.90	11,282.9	-7,861.9	-1,812.5	-433.2	1,863.6	193.44
13,145.0	92.10	180.30	11,279.0	-7,858.0	-1,905.4	-434.2	1,954.3	192.84
13,239.0	88.50	179.00	11,278.5	-7,857.5	-1,999.4	-433.6	2,045.9	192.24
13,332.0	88.50	179.20	11,281.0	-7,860.0	-2,092.4	-432.2	2,136.5	191.67
13,425.0	89.20	179.50	11,282.8	-7,861.8	-2,185.3	-431.1	2,227.4	191.16
13,519.0	88.00	178.70	11,285.1	-7,864.1	-2,279.3	-429.7	2,319.4	190.68
13,613.0	87.30	178.40	11,289.0	-7,868.0	-2,373.2	-427.3	2,411.3	190.21
13,706.0	91.00	178.80	11,290.4	-7,869.4	-2,466.1	-425.0	2,502.5	189.78
13,800.0	91.70	178.10	11,288.1	-7,867.1	-2,560.1	-422.5	2,594.7	189.37
13,894.0	91.30	178.60	11,285.7	-7,864.7	-2,654.0	-419.8	2,687.0	188.99
13,989.0	89.90	177.80	11,284.7	-7,863.7	-2,748.9	-416.8	2,780.3	188.62
14,082.0	92.60	180.00	11,282.7	-7,861.7	-2,841.9	-415.0	2,872.0	188.31
14,176.0	91.80	179.90	11,279.1	-7,858.1	-2,935.8	-414.9	2,965.0	188.04
14,270.0	91.90	180.20	11,276.0	-7,855.0	-3,029.8	-415.0	3,058.0	187.80
14,365.0	90.00	181.70	11,274.4	-7,853.4	-3,124.7	-416.6	3,152.4	187.59
14,459.0	89.70	182.30	11,274.7	-7,853.7	-3,218.7	-419.8	3,245.9	187.43
14,552.0	89.30	180.40	11,275.5	-7,854.5	-3,311.6	-422.0	3,338.4	187.26



Microsoft
MWD Surveys



Company: Mewbourne Oil Company
Project: Lea County N. M. Nad (83)
Site: Section 15-23S-34E Pronghorn 15 B3BO Fed Co
Well: Pronghorn 15 B3BO Fed Com 1H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Pronghorn 15 B3BO Fed Com 1H
TVD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
MD Reference: 3394 + 27 @ 3421.0usft (Patterson 250)
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 (°)
14,646.0	88.10	180.90	11,277.6	-7,856.6	-3,405.6	-423.1	3,431.8	187.08
14,740.0	87.30	181.00	11,281.4	-7,860.4	-3,499.5	-424.7	3,525.2	186.92
14,834.0	89.30	179.00	11,284.2	-7,863.2	-3,593.5	-424.7	3,618.5	186.74
14,928.0	90.90	178.90	11,284.0	-7,863.0	-3,687.4	-422.9	3,711.6	186.54
15,022.0	90.60	178.80	11,282.8	-7,861.8	-3,781.4	-421.0	3,804.8	186.35
15,115.0	89.50	178.60	11,282.7	-7,861.7	-3,874.4	-418.9	3,897.0	186.17
15,209.0	91.30	178.80	11,282.1	-7,861.1	-3,968.4	-416.8	3,990.2	186.00
15,303.0	89.50	177.80	11,281.4	-7,860.4	-4,062.3	-414.0	4,083.4	185.82
15,397.0	91.80	177.00	11,280.3	-7,859.3	-4,156.2	-409.8	4,176.3	185.63
15,491.0	93.10	177.50	11,276.3	-7,855.3	-4,250.0	-405.2	4,269.3	185.45
15,586.0	91.60	177.50	11,272.4	-7,851.4	-4,344.8	-401.1	4,363.3	185.27
15,679.0	90.10	180.40	11,271.1	-7,850.1	-4,437.8	-399.4	4,455.7	185.14
15,773.0	89.10	181.90	11,271.7	-7,850.7	-4,531.8	-401.3	4,549.5	185.06
15,867.0	87.90	182.80	11,274.2	-7,853.2	-4,625.7	-405.1	4,643.4	185.01
15,959.0	86.90	182.60	11,278.3	-7,857.3	-4,717.5	-409.5	4,735.2	184.96
16,054.0	89.70	182.50	11,281.2	-7,860.2	-4,812.3	-413.7	4,830.1	184.91
16,148.0	89.40	181.40	11,281.9	-7,860.9	-4,906.3	-416.9	4,923.9	184.86
16,174.0	90.50	182.30	11,281.9	-7,860.9	-4,932.2	-417.7	4,949.9	184.84
16,230.0	90.50	182.30	11,281.4	-7,860.4	-4,988.2	-420.0	5,005.8	184.81

16230.0' MD Projectrd to Bit - PBHL Pronghorn 15 B3BO Fed Com 1H

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,230.0	11,281.4	-4,988.2	-420.0	16230.0' MD Projectrd to Bit