

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

RECEIVED

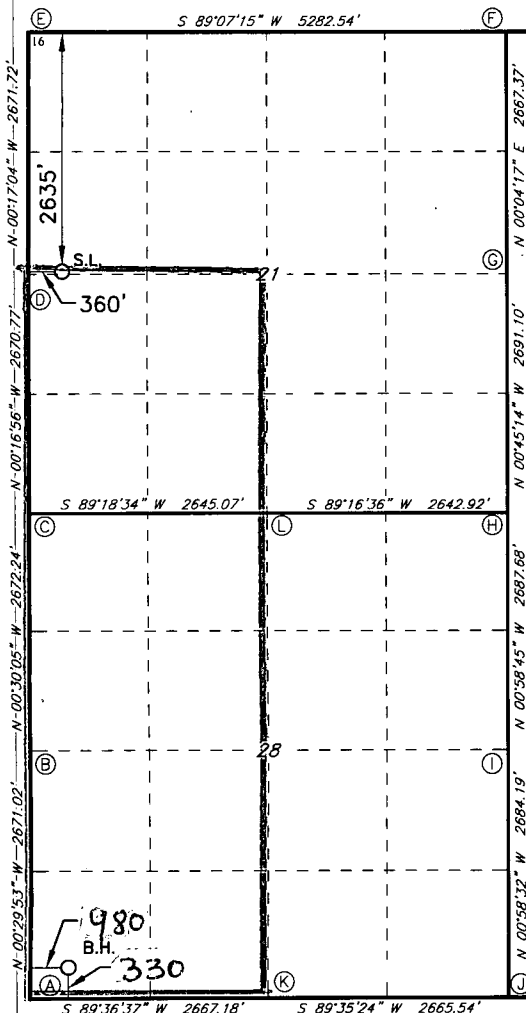
☒ AMENDED REPORT

as drilled

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-46016		² Pool Code 98220		³ Pool Name Purple Sage; Wolfcamp (Gas)					
⁴ Property Code 325688		⁵ Property Name KANSAS 21/28 WOLM FEDERAL COM				⁶ Well Number 2H			
⁷ GRID NO. 14744		⁸ Operator Name MEWBOURNE OIL COMPANY				⁹ Elevation 3031'			
¹⁰ Surface Location									
UL or lot no. E	Section 21	Township 24S	Range 28E	Lot Idn	Feet from the 2635	North/South line NORTH	Feet From the 360	East/West line WEST	County EDDY
¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. M	Section 28	Township 24S	Range 28E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 980	East/West line WEST	County EDDY
¹² Dedicated Acres 480		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



GEODETIC DATA
NAD 83 GRID - NM EAST
SURFACE LOCATION
N: 437785.1 - E: 613495.1
LAT: 32.2033330° N
LONG: 104.1000417° W
BOTTOM HOLE
N: 430063.4 - E: 613592.2
LAT: 32.1821064° N
LONG: 104.0997821° W

CORNER DATA
NAD 83 GRID - NM EAST
A: FOUND BRASS CAP "1942"
N 429730.8 - E 613195.2
B: FOUND BRASS CAP "1942"
N 432401.1 - E 613172.0
C: FOUND BRASS CAP "1942"
N 435072.6 - E 613148.6
D: FOUND BRASS CAP "1942"
N: 437742.8 - E: 613135.4
E: CALCULATED CORNER
N: 440413.8 - E: 613122.2
F: CALCULATED CORNER
N: 440494.9 - E: 618402.9
G: FOUND BRASS CAP "1942"
N: 437828.1 - E: 618399.6
H: FOUND BRASS CAP "1942"
N: 435137.9 - E: 618435.0
I: FOUND BRASS CAP "1942"
N 432451.2 - E 618480.9
J: FOUND BRASS CAP "1942"
N 429768.0 - E 618526.6
K: FOUND BRASS CAP "1942"
N 429748.9 - E 615861.7
L: FOUND BRASS CAP "1942"
N 435104.5 - E 615792.9

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: Jackie Lathan
Date: 11/26/19
Printed Name: Jackie Lathan

E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

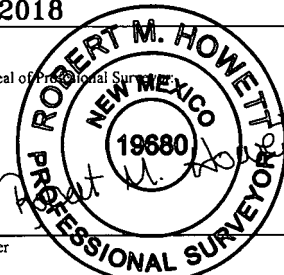
4-05-2018

Date of Survey

Signature and Seal of Professional Surveyor

19680

Certificate Number



RRC - Job No.: LS1804444

Intent ☐ As Drilled ☒

API #
30-015-46016

Operator Name: Mewbourne Oil Company	Property Name: Kansas 21/28 WOLM Fed Com	Well Number #2H
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Kick Off Point (KOP)

UL E	Section 21	Township 24S	Range 29E	Lot	Feet 2579	From N/S FNL	Feet 845	From E/W FWL	County Eddy
Latitude 32.203480					Longitude -104.098468			NAD 83	

First Take Point (FTP)

UL L	Section 21	Township 24S	Range 29E	Lot	Feet 2309	From N/S FSL	Feet 912	From E/W FWL	County Eddy
Latitude 32.202236					Longitude -104.098251			NAD 83	

Last Take Point (LTP)

UL M	Section 29	Township 24S	Range 29E	Lot	Feet 382	From N/S FSL	Feet 980	From E/W FWL	County Eddy
Latitude 32.1822681					Longitude -104.097920			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☒

Is this well an infill well? ☒

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #
30-015-45763

Operator Name: Mewbourne Oil Co.	Property Name: Kansas 21/28 WOLM Fed Com	Well Number 1H
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KZ 06/29/2018

STRYKER

DIRECTIONAL

NM OIL CONSERVATION
ARTESIA DISTRICT

DEC 16 2019

September 10, 2019

RECEIVED

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

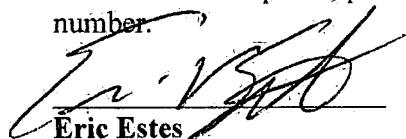
Attn: Jackie Lathan

Re: Mewbourne Oil Company
Kansas 21 28 WOLM Federal Com #2H
Purple Sage; Wolfcamp
Eddy County, New Mexico
API# 30-015-46016

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>
Glenn Thompson	Original Hole	496ft. to 16,997ft.	06-02-19 to 06-20-19	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\Kansas 21 28 WOLM Fed Com #2H\191064

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

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



September 10, 2019

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 June 2, 2019, through June 20, 2019 conduct or supervise the taking of a SEDS Original Hole MWD Survey from a depth of 496feet to a depth of 16,997feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Kansas 21 28 W0LM Federal Com #2H, well API # **30-015-46016** 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.

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

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



Stryker Energy Directional Services
Survey Report Landscape



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad. (83)
Site: Section 21-28-24S-28E Kansas
Well: Kansas 21 28 W0LM Fed.#2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Kansas 21 28 W0LM Fed.#2H
TVD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
MD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5000

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg. (°/100usft)	Northing (usft)	Easting (usft)	
370.0	1.13	14.63	369.9	3.1	-2.5	4.0	321.34	0.00	437,788.25	613,492.58	
Mossberg Fed #1 (150' Rad)											
496.0	2.20	289.40	495.9	5.2	-4.5	6.8	318.96	1.90	437,790.26	613,490.61	
551.0	2.30	284.60	550.9	5.8	-6.6	8.7	311.44	0.39	437,790.88	613,488.55	
742.0	1.30	350.50	741.8	8.9	-10.6	13.8	309.93	1.12	437,793.99	613,484.48	
931.0	1.80	15.70	930.7	13.9	-10.2	17.2	323.73	0.44	437,798.96	613,484.93	
1,120.0	0.70	15.20	1,119.7	17.8	-9.1	20.0	333.06	0.58	437,802.93	613,486.04	
1,310.0	0.70	10.00	1,309.6	20.1	-8.6	21.8	336.93	0.03	437,805.19	613,486.54	
1,500.0	0.60	340.80	1,499.6	22.2	-8.7	23.8	338.62	0.18	437,807.28	613,486.42	
1,693.0	1.90	71.10	1,692.6	24.2	-6.0	24.9	346.09	1.03	437,809.27	613,489.11	
1,883.0	5.50	90.30	1,882.2	25.1	6.1	25.9	13.64	1.98	437,810.24	613,501.20	
2,072.0	1.50	88.10	2,070.8	25.2	17.6	30.7	35.01	2.12	437,810.28	613,512.74	
2,262.0	3.00	101.70	2,260.6	24.3	25.0	34.8	45.86	0.83	437,809.35	613,520.09	
2,428.0	0.90	116.80	2,426.5	22.8	30.4	38.0	53.16	1.29	437,807.88	613,525.51	
2,551.0	1.10	135.20	2,549.5	21.5	32.1	38.6	56.18	0.31	437,806.61	613,527.20	
2,645.0	1.10	142.70	2,643.5	20.1	33.3	38.9	58.81	0.15	437,805.25	613,528.39	
2,739.0	1.80	74.60	2,737.5	19.8	35.3	40.4	60.65	1.83	437,804.92	613,530.36	
2,833.0	4.80	68.10	2,831.3	21.7	40.3	45.8	61.73	3.21	437,806.78	613,535.43	
3,022.0	5.90	68.20	3,019.5	28.6	56.6	63.4	63.21	0.59	437,813.65	613,551.65	
3,212.0	5.60	70.30	3,208.5	35.6	74.2	82.3	64.36	0.27	437,820.72	613,569.32	
3,402.0	5.30	68.10	3,397.7	42.0	91.1	100.3	66.24	0.19	437,827.12	613,586.19	
3,592.0	4.70	79.50	3,586.9	46.7	106.9	116.6	66.39	0.61	437,831.81	613,601.98	
3,781.0	4.70	83.40	3,775.3	49.0	122.2	131.7	68.14	0.17	437,834.11	613,617.29	
3,970.0	4.60	84.80	3,963.7	50.6	137.4	146.4	69.79	0.08	437,835.69	613,632.53	
4,160.0	4.80	84.90	4,153.0	52.0	152.9	161.5	71.23	0.11	437,837.08	613,648.03	
4,349.0	5.40	84.30	4,341.3	53.6	169.7	177.9	72.48	0.32	437,838.67	613,664.76	
4,540.0	4.50	97.30	4,531.6	53.5	186.0	193.6	73.95	0.75	437,838.61	613,681.14	



Stryker Energy Directional Services
Survey Report Landscape



Company: Mewbourne Oil Company
Project: Eddy County, N.M. N4d (83)
Site: Section 21-28-24S-28E Kansas
Well: Kansas 21-28 W0LM Fed #2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Kansas 21 28 W0LM Fed #2H
TVD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
MD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5000

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
4,730.0	4.60	80.50	4,721.0	53.8	200.9	208.0	75.01	0.70	437,838.92	613,696.04	
4,919.0	4.50	79.40	4,909.4	56.4	215.7	223.0	75.34	0.07	437,841.54	613,710.81	
5,109.0	4.80	78.80	5,098.8	59.4	230.8	238.3	75.58	0.16	437,844.45	613,725.93	
5,298.0	4.90	78.30	5,287.1	62.5	246.5	254.3	75.77	0.06	437,847.62	613,741.59	
5,487.0	4.50	74.40	5,475.5	66.2	261.5	269.8	75.81	0.27	437,851.25	613,756.64	
5,677.0	6.10	82.70	5,664.7	69.4	278.7	287.3	76.01	0.93	437,854.54	613,773.83	
5,866.0	5.60	98.10	5,852.7	69.4	297.8	305.8	76.88	0.87	437,854.52	613,792.92	
6,055.0	4.70	114.10	6,040.9	65.0	314.0	320.7	78.31	0.89	437,850.06	613,809.12	
6,244.0	3.90	114.70	6,229.4	59.1	326.9	332.2	79.75	0.42	437,844.21	613,822.03	
6,433.0	4.00	109.60	6,417.9	54.2	339.0	343.3	80.91	0.19	437,839.31	613,834.08	
6,623.0	4.10	81.60	6,607.5	53.0	351.9	355.9	81.44	1.03	437,838.08	613,847.04	
6,812.0	1.80	78.00	6,796.2	54.6	361.5	365.6	81.41	1.22	437,839.69	613,856.63	
7,001.0	4.70	88.40	6,984.9	55.4	372.2	376.3	81.53	1.56	437,840.52	613,867.28	
7,190.0	4.30	90.10	7,173.3	55.6	387.0	391.0	81.82	0.22	437,840.72	613,882.10	
7,379.0	3.90	95.60	7,361.8	55.0	400.5	404.2	82.18	0.30	437,840.08	613,895.59	
7,568.0	4.20	79.10	7,550.4	55.7	413.7	417.4	82.34	0.63	437,840.77	613,908.78	
7,757.0	3.30	80.90	7,739.0	57.8	425.8	429.8	82.27	0.48	437,842.93	613,920.95	
7,946.0	4.40	74.00	7,927.5	60.7	438.2	442.4	82.11	0.63	437,845.79	613,933.29	
8,136.0	4.20	73.60	8,117.0	64.7	451.9	456.5	81.86	0.11	437,849.77	613,946.97	
8,325.0	4.20	98.70	8,305.5	65.6	465.3	469.9	81.98	0.96	437,850.67	613,960.45	
8,515.0	2.40	117.50	8,495.2	62.7	475.8	479.9	82.49	1.09	437,847.78	613,970.86	
8,704.0	1.60	129.50	8,684.1	59.2	481.3	484.9	82.99	0.48	437,844.28	613,976.40	
8,820.4	1.42	127.14	8,800.4	57.3	483.7	487.1	83.25	0.17	437,842.38	613,978.80	
B.B. Kansas 21 28 W0LM Fed #2H											
8,894.0	1.30	125.30	8,874.0	56.2	485.1	488.4	83.39	0.17	437,841.35	613,980.21	
8,956.0	1.10	136.60	8,936.0	55.4	486.1	489.2	83.50	0.50	437,840.51	613,981.19	
9,006.0	1.30	149.90	8,986.0	54.6	486.7	489.8	83.60	0.66	437,839.67	613,981.81	



Stryker Energy Directional Services

Survey Report Landscape



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Kansas 21 28 W0LM Fed #2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3031 + 28 @ 3059.0usft (Patterson.560)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3031 + 28 @ 3059.0usft (Patterson.560)
Well:	Kansas 21 28 W0LM Fed #2H	North Reference:	Grid
Wellbore:	Original Hole:	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole:	Database:	EDM5000

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,038.0	4.40	163.20	9,017.9	53.1	487.2	490.1	83.78	9.84	437,838.18	613,982.34
9,069.0	9.10	164.30	9,048.7	49.6	488.3	490.8	84.20	15.17	437,834.68	613,983.35
9,100.0	13.90	164.80	9,079.1	43.6	489.9	491.8	84.91	15.49	437,828.72	613,984.99
9,132.0	18.60	165.50	9,109.8	35.0	492.2	493.4	85.94	14.70	437,820.07	613,987.28
9,163.0	22.70	166.10	9,138.8	24.4	494.9	495.5	87.18	13.24	437,809.47	613,989.95
9,194.0	26.20	168.50	9,167.0	11.9	497.7	497.8	88.64	11.73	437,796.95	613,992.76
9,226.0	29.50	171.10	9,195.3	-2.9	500.3	500.3	90.33	10.99	437,782.24	613,995.38
9,257.0	32.50	171.90	9,221.9	-18.6	502.6	503.0	92.12	9.77	437,766.45	613,997.74
9,289.0	35.80	171.70	9,248.4	-36.4	505.2	506.5	94.12	10.32	437,748.67	614,000.30
9,320.0	39.00	171.90	9,273.0	-55.1	507.9	510.9	96.19	10.33	437,730.04	614,002.99
9,351.0	42.10	172.00	9,296.5	-75.0	510.7	516.2	98.36	10.00	437,710.09	614,005.81
9,383.0	45.40	172.30	9,319.6	-96.9	513.7	522.8	100.68	10.33	437,688.17	614,008.83
9,414.0	48.80	173.00	9,340.7	-119.4	516.6	530.3	103.02	11.09	437,665.65	614,011.73
9,446.0	51.60	173.80	9,361.2	-143.9	519.5	539.0	105.48	8.87	437,641.24	614,014.59
9,477.0	55.30	173.00	9,379.7	-168.6	522.4	548.9	107.89	12.04	437,616.51	614,017.50
9,509.0	59.30	171.70	9,397.0	-195.3	526.0	561.1	110.37	12.96	437,589.83	614,021.09
9,540.0	64.00	171.20	9,411.7	-222.2	530.1	574.8	112.75	15.23	437,562.86	614,025.15
9,572.0	68.20	171.00	9,424.6	-251.1	534.6	590.6	115.16	13.14	437,533.96	614,029.68
9,604.0	71.50	171.80	9,435.7	-280.8	539.1	607.8	117.52	10.58	437,504.26	614,034.17
9,635.0	75.20	172.20	9,444.6	-310.2	543.2	625.6	119.73	12.00	437,474.85	614,038.30
9,663.0	78.00	173.20	9,451.0	-337.3	546.7	642.3	121.67	10.59	437,447.84	614,041.76
9,711.0	81.10	171.60	9,459.7	-384.0	552.9	673.2	124.78	7.24	437,401.06	614,048.00
9,775.0	81.30	172.40	9,469.5	-446.7	561.7	717.7	128.49	1.27	437,338.43	614,056.80
9,869.0	88.70	175.40	9,477.7	-539.7	571.6	786.2	133.35	8.49	437,245.39	614,066.73
9,964.0	89.10	176.90	9,479.5	-634.5	578.0	858.3	137.67	1.63	437,150.62	614,073.11
10,058.0	91.00	175.90	9,479.5	-728.3	583.9	933.5	141.28	2.28	437,056.81	614,079.01
10,153.0	90.20	175.20	9,478.5	-823.0	591.3	1,013.4	144.30	1.12	436,962.11	614,086.38



Stryker Energy Directional Services
Survey Report Landscape



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 21-28-24S-28E Kansas
Well: Kansas 21 28 WOLM Fed #2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Kansas 21 28 WOLM Fed #2H
TVD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5000

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
10,247.0	89.80	174.70	9,478.5	-916.6	599.6	1,095.3	146.81	0.88	436,868.47	614,094.68	
10,341.0	90.00	174.20	9,478.6	-1,010.2	608.6	1,179.4	148.93	0.57	436,774.91	614,103.75	
10,436.0	90.80	174.80	9,478.0	-1,104.7	617.8	1,265.7	150.79	1.05	436,680.35	614,112.85	
10,530.0	89.00	177.00	9,478.1	-1,198.5	624.5	1,351.4	152.48	3.02	436,586.60	614,119.57	
10,624.0	88.70	177.00	9,480.0	-1,292.3	629.4	1,437.5	154.03	0.32	436,492.75	614,124.49	
10,719.0	89.80	177.00	9,481.3	-1,387.2	634.4	1,525.4	155.43	1.16	436,397.89	614,129.46	
10,813.0	90.30	177.20	9,481.2	-1,481.1	639.1	1,613.1	156.66	0.57	436,304.01	614,134.22	
10,909.0	90.10	177.00	9,480.8	-1,577.0	644.0	1,703.4	157.79	0.29	436,208.14	614,139.08	
11,003.0	90.90	177.80	9,480.0	-1,670.9	648.2	1,792.2	158.80	1.20	436,114.24	614,143.34	
11,097.0	92.00	178.30	9,477.7	-1,764.8	651.4	1,881.2	159.74	1.29	436,020.32	614,146.54	
11,191.0	90.90	180.60	9,475.3	-1,858.7	652.3	1,969.9	160.66	2.71	435,926.37	614,147.44	
11,286.0	89.30	181.30	9,475.1	-1,953.7	650.8	2,059.2	161.58	1.84	435,831.38	614,145.86	
11,381.0	88.60	181.20	9,476.8	-2,048.7	648.7	2,148.9	162.43	0.74	435,736.42	614,143.79	
11,475.0	88.20	181.20	9,479.5	-2,142.6	646.7	2,238.1	163.20	0.43	435,642.48	614,141.82	
11,570.0	89.50	179.70	9,481.4	-2,237.6	646.0	2,329.0	163.90	2.09	435,547.51	614,141.08	
11,664.0	89.80	180.40	9,482.0	-2,331.6	645.9	2,419.4	164.52	0.81	435,453.51	614,141.00	
11,758.0	88.40	181.30	9,483.4	-2,425.6	644.5	2,509.7	165.12	1.77	435,359.54	614,139.60	
11,853.0	89.60	181.50	9,485.1	-2,520.5	642.2	2,601.0	165.71	1.28	435,264.58	614,137.28	
11,947.0	92.20	179.60	9,483.6	-2,614.5	641.3	2,692.0	166.22	3.43	435,170.61	614,136.38	
12,040.0	88.60	179.70	9,483.0	-2,707.5	641.8	2,782.5	166.66	3.87	435,077.63	614,136.95	
12,134.0	87.50	179.60	9,486.2	-2,801.4	642.4	2,874.1	167.08	1.18	434,983.68	614,137.52	
12,228.0	88.70	179.70	9,489.3	-2,895.4	643.0	2,965.9	167.48	1.28	434,889.74	614,138.09	
12,322.0	89.40	180.50	9,490.8	-2,989.3	642.8	3,057.7	167.86	1.13	434,795.75	614,137.93	
12,418.0	89.10	180.10	9,492.1	-3,085.3	642.3	3,151.5	168.24	0.52	434,699.78	614,137.43	
12,512.0	90.80	180.30	9,492.2	-3,179.3	642.0	3,243.5	168.58	1.82	434,605.77	614,137.10	
12,607.0	89.80	179.80	9,491.7	-3,274.3	641.9	3,336.7	168.91	1.18	434,510.77	614,137.02	
12,701.0	90.00	180.40	9,491.8	-3,368.3	641.8	3,428.9	169.21	0.67	434,416.77	614,136.85	



Stryker Energy Directional Services
Survey Report Landscape



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 21-28-24S-28E Kansas
Well: Kansas 21-28 WOLM Fed #2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Kansas 21 28 WOLM Fed #2H
TVD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
MD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5000

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
12,795.0	91.10	181.40	9,490.9	-3,462.3	640.3	3,521.0	169.52	1.58	434,322.79	614,135.38
12,889.0	88.70	181.20	9,491.1	-3,556.3	638.1	3,613.1	169.83	2.56	434,228.82	614,133.24
12,984.0	91.80	181.20	9,490.7	-3,651.2	636.2	3,706.2	170.12	3.26	434,133.86	614,131.25
13,079.0	91.20	178.90	9,488.2	-3,746.2	636.1	3,799.8	170.36	2.50	434,038.89	614,131.17
13,173.0	90.20	178.90	9,487.1	-3,840.2	637.9	3,892.8	170.57	1.06	433,944.92	614,132.98
13,267.0	90.40	179.20	9,486.6	-3,934.2	639.4	3,985.8	170.77	0.38	433,850.93	614,134.53
13,361.0	89.50	179.40	9,486.6	-4,028.2	640.6	4,078.8	170.96	0.98	433,756.94	614,135.68
13,456.0	92.20	180.60	9,485.2	-4,123.1	640.6	4,172.6	171.17	3.11	433,661.96	614,135.68
13,551.0	90.10	179.10	9,483.3	-4,218.1	640.8	4,268.5	171.36	2.72	433,566.99	614,135.93
13,645.0	89.70	178.90	9,483.5	-4,312.1	642.5	4,359.7	171.53	0.48	433,473.01	614,137.57
13,739.0	88.70	178.60	9,484.8	-4,406.1	644.5	4,453.0	171.68	1.11	433,379.04	614,139.62
13,834.0	88.90	179.20	9,486.8	-4,501.0	646.3	4,547.2	171.83	0.67	433,284.08	614,141.45
13,928.0	93.10	180.80	9,485.2	-4,595.0	646.3	4,640.2	171.99	4.78	433,190.12	614,141.45
14,022.0	89.40	179.20	9,483.1	-4,688.9	646.3	4,733.3	172.15	4.29	433,096.16	614,141.45
14,116.0	89.30	179.40	9,484.2	-4,782.9	647.5	4,826.6	172.29	0.24	433,002.17	614,142.60
14,211.0	87.60	179.30	9,486.7	-4,877.9	648.6	4,920.8	172.43	1.79	432,907.22	614,143.67
14,305.0	86.00	178.90	9,492.0	-4,971.7	650.0	5,014.0	172.55	1.75	432,813.38	614,145.15
14,400.0	90.10	179.50	9,495.2	-5,066.6	651.4	5,108.3	172.67	4.36	432,718.46	614,146.47
14,494.0	89.40	178.40	9,495.6	-5,160.6	653.1	5,201.8	172.79	1.39	432,624.48	614,148.20
14,589.0	91.70	181.70	9,494.7	-5,255.6	653.0	5,296.0	172.92	4.23	432,529.50	614,148.11
14,683.0	88.20	180.30	9,494.8	-5,349.6	651.4	5,389.1	173.06	4.01	432,435.54	614,146.47
14,778.0	90.90	181.40	9,495.5	-5,444.5	650.0	5,483.2	173.19	3.07	432,340.56	614,145.06
14,872.0	90.40	181.50	9,494.5	-5,538.5	647.6	5,576.2	173.33	0.54	432,246.60	614,142.69
14,967.0	87.90	179.70	9,495.9	-5,633.5	646.6	5,670.5	173.45	3.24	432,151.62	614,141.69
15,062.0	93.50	181.60	9,494.7	-5,728.4	645.5	5,764.7	173.57	6.22	432,056.68	614,140.61
15,156.0	90.20	178.80	9,491.7	-5,822.4	645.2	5,858.0	173.68	4.60	431,962.75	614,140.29
15,251.0	91.70	179.00	9,490.1	-5,917.3	647.0	5,952.6	173.76	1.59	431,867.78	614,142.11



Stryker Energy Directional Services Survey Report Landscape



Company: Mewbourne Oil Company
Project: Eddy County, N.M. Nad (83)
Site: Section 21-28-24S-28E Kansas
Well: Kansas 21 28 WOLM Fed #2H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Kansas 21 28 WOLM Fed #2H
TVD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
MD Reference: 3031 + 28 @ 3059.0usft (Patterson 560)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5000

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
15,346.0	92.60	180.50	9,486.6	-6,012.2	647.4	6,047.0	173.85	1.84	431,772.85	614,142.53
15,440.0	92.10	180.30	9,482.7	-6,106.2	646.8	6,140.3	173.95	0.57	431,678.94	614,141.87
15,535.0	86.90	178.10	9,483.5	-6,201.1	648.1	6,234.9	174.03	5.94	431,583.99	614,143.20
15,630.0	87.70	178.50	9,488.0	-6,296.0	650.9	6,329.5	174.10	0.94	431,489.14	614,146.01
15,724.0	87.70	179.10	9,491.8	-6,389.9	652.9	6,423.1	174.17	0.64	431,395.23	614,147.98
15,819.0	92.70	182.00	9,491.4	-6,484.8	652.0	6,517.5	174.26	6.08	431,300.28	614,147.07
15,914.0	91.50	181.50	9,488.0	-6,579.7	649.1	6,611.6	174.37	1.37	431,205.39	614,144.17
16,008.0	90.90	181.80	9,488.0	-6,673.7	646.4	6,704.9	174.47	0.71	431,111.45	614,141.46
16,103.0	89.00	180.10	9,486.1	-6,768.6	644.8	6,799.3	174.56	2.68	431,016.47	614,139.89
16,198.0	89.20	180.60	9,487.6	-6,863.6	644.2	6,893.8	174.64	0.57	430,921.48	614,139.31
16,292.0	89.40	179.90	9,488.7	-6,957.6	643.8	6,987.3	174.71	0.77	430,827.49	614,138.90
16,387.0	88.40	179.80	9,490.5	-7,052.6	644.0	7,081.9	174.78	1.06	430,732.51	614,139.14
16,481.0	87.70	177.70	9,493.7	-7,146.5	646.1	7,175.7	174.83	2.35	430,638.59	614,141.19
16,576.0	88.60	176.60	9,496.8	-7,241.3	650.8	7,270.5	174.86	1.50	430,543.76	614,145.91
16,671.0	88.00	176.70	9,499.6	-7,336.1	656.4	7,365.4	174.89	0.64	430,448.97	614,151.46
16,765.0	89.30	177.00	9,501.8	-7,430.0	661.5	7,459.4	174.91	1.42	430,355.14	614,156.63
16,859.0	91.40	176.70	9,501.3	-7,523.8	666.7	7,553.3	174.94	2.26	430,261.29	614,161.79
16,954.0	91.20	177.70	9,499.1	-7,618.7	671.3	7,648.2	174.96	1.07	430,166.43	614,166.43
16,997.0	90.70	177.50	9,498.4	-7,661.6	673.1	7,691.1	174.98	1.25	430,123.47	614,168.23
17,050.0	90.70	177.50	9,497.7	-7,714.6	675.4	7,744.1	175.00	0.00	430,070.52	614,170.54

PBHL Kansas 21 28 WOLM Fed #2H

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
17,050.0	9,497.7	-7,714.6	675.4	17050.0' MD Projected to Bit



COMPANY: Mewbourne Oil Company
WELL: Kansas 21 28 WOLM Fed #2H
COUNTY: Eddy County, N.M. Nad (83)
DATUM: North American Datum 1983
RIG: Patterson 560



OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.89°

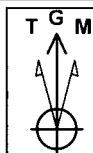
GEODETTIC ZONE: New Mexico Eastern Zone
3031 + 28 @ 3059.0usft (Patterson 560)
GROUND ELEVATION: 3031.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	437785.10	613495.10	32° 12' 11.999 N	104° 6' 0.151 W	

PLAN SECTIONS

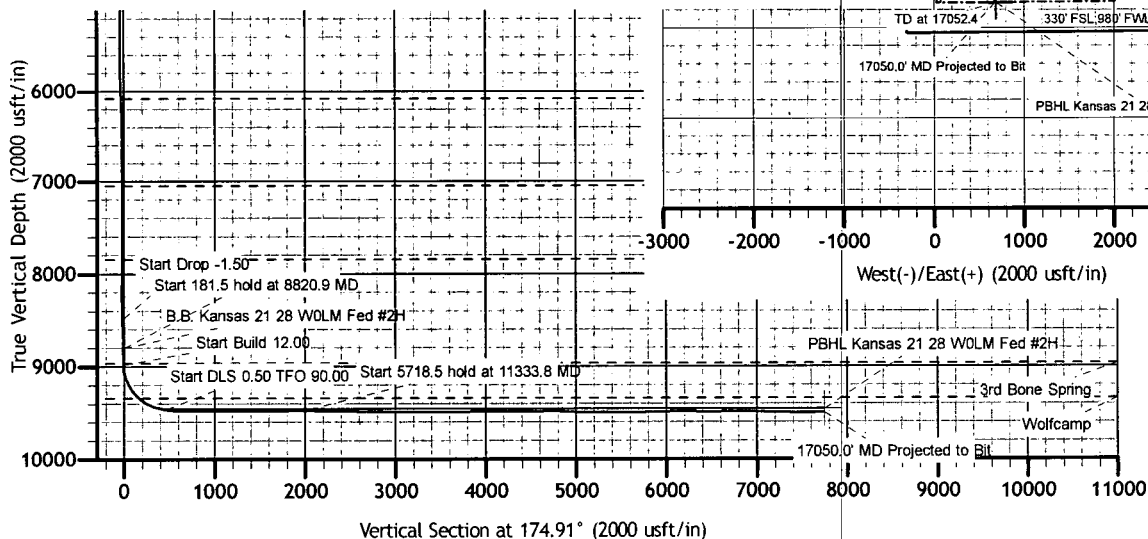
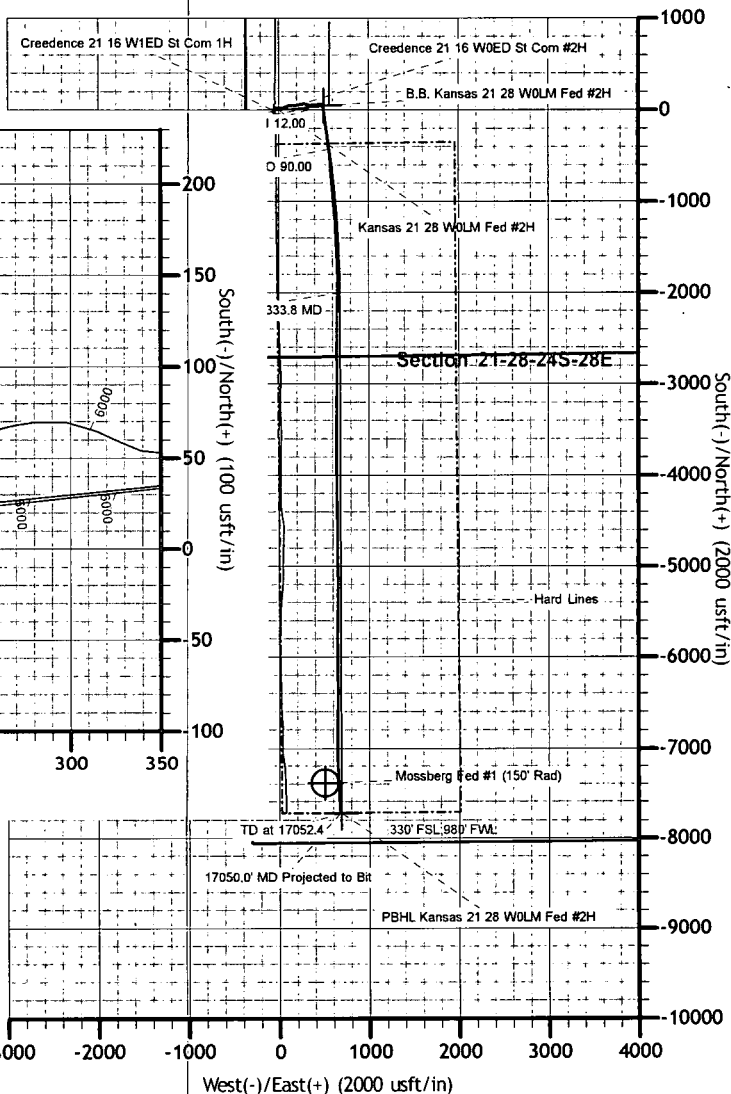
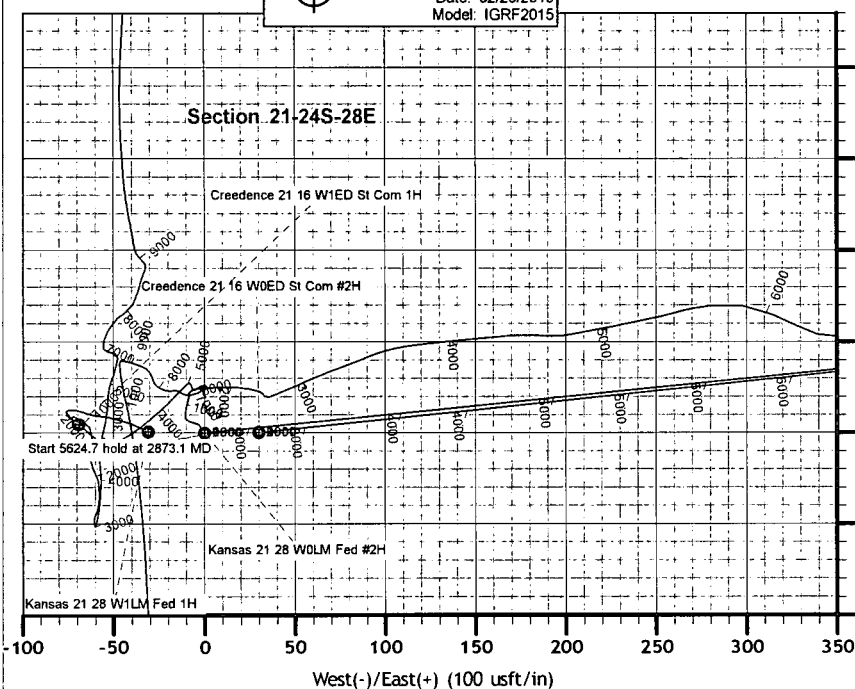
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2550.0	0.00	0.00	2550.0	0.0	0.0	0.00	0.00	0.0	
3	2873.1	4.85	84.29	2872.7	1.4	13.6	1.50	84.29	-0.1	
4	8497.8	4.85	84.29	8477.3	48.6	486.4	0.00	0.00	-5.3	
5	8820.9	0.00	0.00	8800.0	50.0	500.0	1.50	180.00	-5.5	B.B. Kansas 21 28 WOLM Fed #2H
6	9002.4	0.00	0.00	8981.5	50.0	500.0	0.00	0.00	-5.5	
7	9752.4	90.00	172.00	9459.0	-422.8	566.4	12.00	172.00	471.4	
8	11333.8	90.00	179.91	9459.0	-1999.1	678.0	0.50	90.00	2051.3	
9	17052.4	90.00	179.91	9459.0	-7717.6	687.2	0.00	0.00	7748.1	PBHL Kansas 21 28 WOLM Fed #2H

SHL: 2635 FNL; 360° FWL
Section 21-24S-28E
PBHL: 330° FSL; 990° FWL
Section 28-24S-28E



Azimuths to Grid North
True North: -0.12°
Magnetic North: 6.89°

Magnetic Field
Strength: 47700.0nT
Dip Angle: 59.94°
Date: 02/20/2019
Model: IGRF2015





Mewbourne Oil Company

**Eddy County, N.M. Nad (83)
Section 21-28-24S-28E Kansas
Kansas 21 28 W0LM Fed #2H**

Original Hole

Design: Original Hole

Standard Survey Report

20 June, 2019





Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Kansas 21 28 WOLM Fed #2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Well:	Kansas 21 28 WOLM Fed #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

Project	Eddy 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 21-28-24S-28E Kansas		
Site Position:		Northing:	437,785.10 usft
From:	Map	Easting:	613,495.10 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 12' 11.999 N
		Longitude:	104° 6' 0.151 W
		Grid Convergence:	0.12 °

Well	Kansas 21 28 WOLM Fed #2H		
Well Position	+N/-S	0.0 usft	Northing: 437,785.10 usft
	+E/-W	0.0 usft	Easting: 613,495.10 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	28.0 usft
		Latitude:	32° 12' 11.999 N
		Longitude:	104° 6' 0.151 W
		Ground Level:	3,031.0 usft

Wellbore	Original Hole		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2015	02/20/19	7.02	59.94	47,700.04177313

Design	Original Hole		
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Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0

Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	175.00

Survey Program	Date 06/20/19		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
496.0	17,050.0	Survey #1 (Original Hole)	MWD+IGRF
			OWSG MWD + IGRF or WMM

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
370.0	1.13	14.63	369.9	3.1	-2.5	-3.4	0.00	0.00	0.00
Mossberg Fed #1 (150° Rad)									
496.0	2.20	289.40	495.9	5.2	-4.5	-5.5	1.90	0.85	-67.64
551.0	2.30	284.60	550.9	5.8	-6.6	-6.3	0.39	0.18	-8.73
742.0	1.30	350.50	741.8	8.9	-10.6	-9.8	1.12	-0.52	34.50
931.0	1.80	15.70	930.7	13.9	-10.2	-14.7	0.44	0.26	13.33
1,120.0	0.70	15.20	1,119.7	17.8	-9.1	-18.6	0.58	-0.58	-0.26
1,310.0	0.70	10.00	1,309.6	20.1	-8.6	-20.8	0.03	0.00	-2.74
1,500.0	0.60	340.80	1,499.6	22.2	-8.7	-22.9	0.18	-0.05	-15.37
1,693.0	1.90	71.10	1,692.6	24.2	-6.0	-24.6	1.03	0.67	46.79
1,883.0	5.50	90.30	1,882.2	25.1	6.1	-24.5	1.98	1.89	10.11



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Kansas 21 28 W0LM Fed #2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Well:	Kansas 21 28 W0LM Fed #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
2,072.0	1.50	88.10	2,070.8	25.2	17.6	-23.5	2.12	-2.12	-1.16
2,262.0	3.00	101.70	2,260.6	24.3	25.0	-22.0	0.83	0.79	7.16
2,428.0	0.90	116.80	2,426.5	22.8	30.4	-20.0	1.29	-1.27	9.10
2,551.0	1.10	135.20	2,549.5	21.5	32.1	-18.6	0.31	0.16	14.96
2,645.0	1.10	142.70	2,643.5	20.1	33.3	-17.2	0.15	0.00	7.98
2,739.0	1.80	74.60	2,737.5	19.8	35.3	-16.7	1.83	0.74	-72.45
2,833.0	4.80	68.10	2,831.3	21.7	40.3	-18.1	3.21	3.19	-6.91
3,022.0	5.90	66.20	3,019.5	28.6	56.6	-23.5	0.59	0.58	-1.01
3,212.0	5.60	70.30	3,208.5	35.6	74.2	-29.0	0.27	-0.16	2.16
3,402.0	5.30	68.10	3,397.7	42.0	91.1	-33.9	0.19	-0.16	-1.16
3,592.0	4.70	79.50	3,586.9	46.7	106.9	-37.2	0.61	-0.32	6.00
3,781.0	4.70	83.40	3,775.3	49.0	122.2	-38.2	0.17	0.00	2.06
3,970.0	4.60	84.80	3,963.7	50.6	137.4	-38.4	0.08	-0.05	0.74
4,160.0	4.80	84.90	4,153.0	52.0	152.9	-38.4	0.11	0.11	0.05
4,349.0	5.40	84.30	4,341.3	53.6	169.7	-38.6	0.32	0.32	-0.32
4,540.0	4.50	97.30	4,531.6	53.5	186.0	-37.1	0.75	-0.47	6.81
4,730.0	4.60	80.50	4,721.0	53.8	200.9	-36.1	0.70	0.05	-8.84
4,919.0	4.50	79.40	4,909.4	56.4	215.7	-37.4	0.07	-0.05	-0.58
5,109.0	4.80	78.80	5,098.8	59.4	230.8	-39.0	0.16	0.16	-0.32
5,298.0	4.90	78.30	5,287.1	62.5	246.5	-40.8	0.06	0.05	-0.26
5,487.0	4.50	74.40	5,475.5	66.2	261.5	-43.1	0.27	-0.21	-2.06
5,677.0	6.10	82.70	5,664.7	69.4	278.7	-44.9	0.93	0.84	4.37
5,866.0	5.60	98.10	5,852.7	69.4	297.8	-43.2	0.87	-0.26	8.15
6,055.0	4.70	114.10	6,040.9	65.0	314.0	-37.3	0.89	-0.48	8.47
6,244.0	3.90	114.70	6,229.4	59.1	326.9	-30.4	0.42	-0.42	0.32
6,433.0	4.00	109.60	6,417.9	54.2	339.0	-24.4	0.19	0.05	-2.70
6,623.0	4.10	81.60	6,607.5	53.0	351.9	-22.1	1.03	0.05	-14.74
6,812.0	1.80	78.00	6,796.2	54.6	361.5	-22.8	1.22	-1.22	-1.90
7,001.0	4.70	88.40	6,984.9	55.4	372.2	-22.7	1.56	1.53	5.50
7,190.0	4.30	90.10	7,173.3	55.6	387.0	-21.7	0.22	-0.21	0.90
7,379.0	3.90	95.60	7,361.8	55.0	400.5	-19.8	0.30	-0.21	2.91
7,568.0	4.20	79.10	7,550.4	55.7	413.7	-19.4	0.63	0.16	-8.73
7,757.0	3.30	80.90	7,739.0	57.8	425.8	-20.5	0.48	-0.48	0.95
7,946.0	4.40	74.00	7,927.5	60.7	438.2	-22.2	0.63	0.58	-3.65
8,136.0	4.20	73.60	8,117.0	64.7	451.9	-25.0	0.11	-0.11	-0.21
8,325.0	4.20	98.70	8,305.5	65.6	465.3	-24.7	0.96	0.00	13.28
8,515.0	2.40	117.50	8,495.2	62.7	475.8	-20.9	1.09	-0.95	9.89
8,704.0	1.60	129.50	8,684.1	59.2	481.3	-17.0	0.48	-0.42	6.35
8,820.4	1.42	127.14	8,800.4	57.3	483.7	-14.9	0.17	-0.16	-2.03
B.B. Kansas 21 28 W0LM Fed #2H									
8,894.0	1.30	125.30	8,874.0	56.2	485.1	-13.7	0.17	-0.16	-2.50
8,956.0	1.10	136.60	8,936.0	55.4	486.1	-12.8	0.50	-0.32	18.23
9,006.0	1.30	149.90	8,986.0	54.6	486.7	-11.9	0.68	0.40	26.60



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Kansas 21 28 W0LM Fed #2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Well:	Kansas 21 28 W0LM Fed #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
9,038.0	4.40	163.20	9,017.9	53.1	487.2	-10.4	9.84	9.69	41.56
9,069.0	9.10	164.30	9,048.7	49.6	488.3	-6.8	15.17	15.16	3.55
9,100.0	13.90	164.80	9,079.1	43.6	489.9	-0.7	15.49	15.48	1.61
9,132.0	18.60	165.50	9,109.8	35.0	492.2	8.1	14.70	14.69	2.19
9,163.0	22.70	166.10	9,138.8	24.4	494.9	18.9	13.24	13.23	1.94
9,194.0	26.20	168.50	9,167.0	11.9	497.7	31.6	11.73	11.29	7.74
9,226.0	29.50	171.10	9,195.3	-2.9	500.3	46.5	10.99	10.31	8.13
9,257.0	32.50	171.90	9,221.9	-18.6	502.6	62.4	9.77	9.68	2.58
9,289.0	35.80	171.70	9,248.4	-36.4	505.2	80.4	10.32	10.31	-0.63
9,320.0	39.00	171.90	9,273.0	-55.1	507.9	99.1	10.33	10.32	0.65
9,351.0	42.10	172.00	9,296.5	-75.0	510.7	119.3	10.00	10.00	0.32
9,383.0	45.40	172.30	9,319.6	-96.9	513.7	141.4	10.33	10.31	0.94
9,414.0	48.80	173.00	9,340.7	-119.4	516.6	164.1	11.09	10.97	2.26
9,446.0	51.60	173.60	9,361.2	-143.9	519.5	188.6	8.87	8.75	1.88
9,477.0	55.30	173.00	9,379.7	-168.6	522.4	213.5	12.04	11.94	-1.94
9,509.0	59.30	171.70	9,397.0	-195.3	526.0	240.4	12.96	12.50	-4.06
9,540.0	64.00	171.20	9,411.7	-222.2	530.1	267.6	15.23	15.16	-1.61
9,572.0	68.20	171.00	9,424.6	-251.1	534.6	296.8	13.14	13.13	-0.63
9,604.0	71.50	171.80	9,435.7	-280.8	539.1	326.8	10.58	10.31	2.50
9,635.0	75.20	172.20	9,444.6	-310.2	543.2	356.4	12.00	11.94	1.29
9,663.0	78.00	173.20	9,451.0	-337.3	546.7	383.7	10.59	10.00	3.57
9,711.0	81.10	171.60	9,459.7	-384.0	552.9	430.8	7.24	6.46	-3.33
9,775.0	81.30	172.40	9,469.5	-446.7	561.7	494.0	1.27	0.31	1.25
9,869.0	88.70	175.40	9,477.7	-539.7	571.6	587.5	8.49	7.87	3.19
9,964.0	89.10	176.90	9,479.5	-634.5	578.0	682.5	1.63	0.42	1.58
10,058.0	91.00	175.90	9,479.5	-728.3	583.9	776.4	2.28	2.02	-1.06
10,153.0	90.20	175.20	9,478.5	-823.0	591.3	871.4	1.12	-0.84	-0.74
10,247.0	89.80	174.70	9,478.5	-916.6	599.6	965.4	0.68	-0.43	-0.53
10,341.0	90.00	174.20	9,478.6	-1,010.2	608.6	1,059.4	0.57	0.21	-0.53
10,436.0	90.80	174.80	9,478.0	-1,104.7	617.8	1,154.4	1.05	0.84	0.63
10,530.0	89.00	177.00	9,478.1	-1,198.5	624.5	1,248.4	3.02	-1.91	2.34
10,624.0	88.70	177.00	9,480.0	-1,292.3	629.4	1,342.3	0.32	-0.32	0.00
10,719.0	89.80	177.00	9,481.3	-1,387.2	634.4	1,437.3	1.16	1.16	0.00
10,813.0	90.30	177.20	9,481.2	-1,481.1	639.1	1,531.2	0.57	0.53	0.21
10,909.0	90.10	177.00	9,480.8	-1,577.0	644.0	1,627.1	0.29	-0.21	-0.21
11,003.0	90.90	177.80	9,480.0	-1,670.9	648.2	1,721.0	1.20	0.85	0.85
11,097.0	92.00	178.30	9,477.7	-1,764.8	651.4	1,814.9	1.29	1.17	0.53
11,191.0	90.90	180.60	9,475.3	-1,858.7	652.3	1,908.5	2.71	-1.17	2.45
11,286.0	89.30	181.30	9,475.1	-1,953.7	650.8	2,003.0	1.84	-1.68	0.74
11,381.0	88.60	181.20	9,476.8	-2,048.7	648.7	2,097.4	0.74	-0.74	-0.11
11,475.0	88.20	181.20	9,479.5	-2,142.6	646.7	2,190.9	0.43	-0.43	0.00
11,570.0	89.50	179.70	9,481.4	-2,237.6	646.0	2,285.4	2.09	1.37	-1.58
11,664.0	89.80	180.40	9,482.0	-2,331.6	645.9	2,379.0	0.81	0.32	0.74



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Kansas 21 28 W0LM Fed #2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Well:	Kansas 21 28 W0LM Fed #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
11,758.0	88.40	181.30	9,483.4	-2,425.6	644.5	2,472.5	1.77	-1.49	0.96
11,853.0	89.60	181.50	9,485.1	-2,520.5	642.2	2,566.9	1.28	1.26	0.21
11,947.0	92.20	179.60	9,483.6	-2,614.5	641.3	2,660.5	3.43	2.77	-2.02
12,040.0	88.60	179.70	9,483.0	-2,707.5	641.8	2,753.1	3.87	-3.87	0.11
12,134.0	87.50	179.60	9,486.2	-2,801.4	642.4	2,846.8	1.18	-1.17	-0.11
12,228.0	88.70	179.70	9,489.3	-2,895.4	643.0	2,940.4	1.28	1.28	0.11
12,322.0	89.40	180.50	9,490.8	-2,989.3	642.8	3,034.0	1.13	0.74	0.85
12,418.0	89.10	180.10	9,492.1	-3,085.3	642.3	3,129.6	0.52	-0.31	-0.42
12,512.0	90.80	180.30	9,492.2	-3,179.3	642.0	3,223.2	1.82	1.81	0.21
12,607.0	89.80	179.80	9,491.7	-3,274.3	641.9	3,317.8	1.18	-1.05	-0.53
12,701.0	90.00	180.40	9,491.8	-3,368.3	641.8	3,411.5	0.67	0.21	0.64
12,795.0	91.10	181.40	9,490.9	-3,462.3	640.3	3,505.0	1.58	1.17	1.06
12,889.0	88.70	181.20	9,491.1	-3,556.3	638.1	3,598.4	2.56	-2.55	-0.21
12,984.0	91.80	181.20	9,490.7	-3,651.2	636.2	3,692.8	3.26	3.26	0.00
13,079.0	91.20	178.90	9,488.2	-3,746.2	636.1	3,787.4	2.50	-0.63	-2.42
13,173.0	90.20	178.90	9,487.1	-3,840.2	637.9	3,881.2	1.06	-1.06	0.00
13,267.0	90.40	179.20	9,486.6	-3,934.2	639.4	3,974.9	0.38	0.21	0.32
13,361.0	89.50	179.40	9,486.6	-4,028.2	640.6	4,068.7	0.98	-0.96	0.21
13,456.0	92.20	180.60	9,485.2	-4,123.1	640.6	4,163.3	3.11	2.84	1.26
13,551.0	90.10	179.10	9,483.3	-4,218.1	640.8	4,257.9	2.72	-2.21	-1.58
13,645.0	89.70	178.90	9,483.5	-4,312.1	642.5	4,351.7	0.48	-0.43	-0.21
13,739.0	88.70	178.60	9,484.8	-4,406.1	644.5	4,445.5	1.11	-1.06	-0.32
13,834.0	88.90	179.20	9,486.8	-4,501.0	646.3	4,540.2	0.67	0.21	0.63
13,928.0	93.10	180.80	9,485.2	-4,595.0	646.3	4,633.8	4.78	4.47	1.70
14,022.0	89.40	179.20	9,483.1	-4,688.9	646.3	4,727.4	4.29	-3.94	-1.70
14,116.0	89.30	179.40	9,484.2	-4,782.9	647.5	4,821.2	0.24	-0.11	0.21
14,211.0	87.60	179.30	9,486.7	-4,877.9	648.6	4,915.9	1.79	-1.79	-0.11
14,305.0	86.00	178.90	9,492.0	-4,971.7	650.0	5,009.5	1.75	-1.70	-0.43
14,400.0	90.10	179.50	9,495.2	-5,066.6	651.4	5,104.1	4.36	4.32	0.63
14,494.0	89.40	178.40	9,495.6	-5,160.6	653.1	5,197.9	1.39	-0.74	-1.17
14,589.0	91.70	181.70	9,494.7	-5,255.6	653.0	5,292.5	4.23	2.42	3.47
14,683.0	88.20	180.30	9,494.8	-5,349.6	651.4	5,386.0	4.01	-3.72	-1.49
14,778.0	90.90	181.40	9,495.5	-5,444.5	650.0	5,480.5	3.07	2.84	1.16
14,872.0	90.40	181.50	9,494.5	-5,538.5	647.6	5,573.9	0.54	-0.53	0.11
14,967.0	87.90	179.70	9,495.9	-5,633.5	646.6	5,668.4	3.24	-2.63	-1.89
15,062.0	93.50	181.60	9,494.7	-5,728.4	645.5	5,762.9	6.22	5.89	2.00
15,156.0	90.20	178.80	9,491.7	-5,822.4	645.2	5,856.4	4.60	-3.51	-2.98
15,251.0	91.70	179.00	9,490.1	-5,917.3	647.0	5,951.2	1.59	1.58	0.21
15,346.0	92.60	180.50	9,486.6	-6,012.2	647.4	6,045.8	1.84	0.95	1.58
15,440.0	92.10	180.30	9,482.7	-6,106.2	646.8	6,139.3	0.57	-0.53	-0.21
15,535.0	86.90	178.10	9,483.5	-6,201.1	648.1	6,234.0	5.94	-5.47	-2.32
15,630.0	87.70	178.50	9,488.0	-6,296.0	650.9	6,328.7	0.94	0.84	0.42
15,724.0	87.70	179.10	9,491.8	-6,389.9	652.9	6,422.5	0.64	0.00	0.64
15,819.0	92.70	182.00	9,491.4	-6,484.8	652.0	6,517.0	6.08	5.26	3.05



Microsoft
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Kansas 21 28 W0LM Fed #2H
Project:	Eddy County, N.M. Nad (83)	TVD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Site:	Section 21-28-24S-28E Kansas	MD Reference:	3031 + 28 @ 3059.0usft (Patterson 560)
Well:	Kansas 21 28 W0LM Fed #2H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

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)
15,914.0	91.50	181.50	9,488.0	-6,579.7	649.1	6,611.2	1.37	-1.26	-0.53
16,008.0	90.90	181.80	9,486.0	-6,673.7	646.4	6,704.6	0.71	-0.64	0.32
16,103.0	89.00	180.10	9,486.1	-6,768.6	644.8	6,799.1	2.68	-2.00	-1.79
16,198.0	89.20	180.60	9,487.6	-6,863.6	644.2	6,893.6	0.57	0.21	0.53
16,292.0	89.40	179.90	9,488.7	-6,957.6	643.8	6,987.2	0.77	0.21	-0.74
16,387.0	88.40	179.80	9,490.5	-7,052.6	644.0	7,081.9	1.06	-1.05	-0.11
16,481.0	87.70	177.70	9,493.7	-7,146.5	646.1	7,175.6	2.35	-0.74	-2.23
16,576.0	88.60	176.60	9,496.8	-7,241.3	650.8	7,270.5	1.50	0.95	-1.16
16,671.0	88.00	176.70	9,499.6	-7,336.1	656.4	7,365.4	0.64	-0.63	0.11
16,765.0	89.30	177.00	9,501.8	-7,430.0	661.5	7,459.3	1.42	1.38	0.32
16,859.0	91.40	176.70	9,501.3	-7,523.8	666.7	7,553.3	2.26	2.23	-0.32
16,954.0	91.20	177.70	9,499.1	-7,618.7	671.3	7,648.2	1.07	-0.21	1.05
16,997.0	90.70	177.50	9,498.4	-7,661.6	673.1	7,691.1	1.25	-1.16	-0.47
17,050.0	90.70	177.50	9,497.7	-7,714.6	675.4	7,744.1	0.00	0.00	0.00

17050.0' MD Projected to Bit - PBHL Kansas 21 28 W0LM Fed #2H

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
17,050.0	9,497.7	-7,714.6	675.4	17050.0' MD Projected to Bit