

OPERATOR
WELL/LEASE
COUNTY

MEWBOURNE OIL COMPANY
Owl Draw 22 WIAP Fed Com 1H
EDDY

187-00118

STATE OF NEW MEXICO
DEVIATION REPORT

15-42475

237	0.47
497	1.27
850	1.05
1,292	0.82
1,769	1.47
2,269	1.20
2,736	0.40
3,211	0.80
3,691	0.50
4,167	1.30
4,643	1.30
5,113	1.30
5,594	1.40
6,057	1.30
6,540	1.20
6,825	2.60
7,111	2.10
7,586	2.20
8,086	2.40

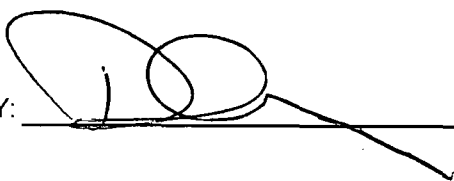
NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 04 2014

RECEIVED

STATE OF TEXAS

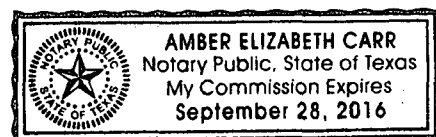
COUNTY OF MIDLAND

BY: 

The foregoing instrument was acknowledged before me on
Daisy Carrillo on behalf of Patterson-UTI Drilling Company LLC.

9/17/14, by


Notary Public for Midland County, Texas
My Commission Expires:



Mewbourne Oil Company .

Eddy County, New Mexico

Section 15, 22 -26S-27E Owl Draw 22 W1AP Fed Com

Owl Draw 22 W1AP Fed Com #1H

Original Hole

Design: Original Hole

Standard Survey Report

24 September, 2014

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 04 2014

RECEIVED

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Owl Draw 22 W1AP Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3149 + 20 @ 3169.0usft (Patterson # 187)
Site:	Section 15, 22 -26S-27E Owl Draw 22 W1AP Fed Com	MD Reference:	3149 + 20 @ 3169.0usft (Patterson # 187)
Well:	Owl Draw 22 W1AP Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	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 15, 22 -26S-27E Owl Draw 22 W1AP Fed Com		
Site Position:		Northing:	376,617.82 usft
From:	Map	Easting:	550,281.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 7.199 N
		Longitude:	104° 10' 15.850 W
		Grid Convergence:	0.09 °

Well	Owl Draw 22 W1AP Fed Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 376,617.82 usft
	+E/-W	0.0 usft	Easting: 550,281.70 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 2' 7.199 N
		Longitude:	104° 10' 15.850 W
		Ground Level:	3,149.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/24/2014	7.48	59.83	48,137

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	179.52

Survey Program	Date 9/24/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,356.0	Survey #1 (Original Hole)	GyroFlex	
8,439.0	13,890.0	MWD Survey #2 (Original Hole)	MWD	MWD v3:standard declination

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.39	348.51	100.0	0.3	-0.1	-0.3	0.39	0.39	0.00
200.0	0.51	341.61	200.0	1.1	-0.3	-1.1	0.13	0.12	-6.90
300.0	1.32	316.25	300.0	2.3	-1.2	-2.4	0.89	0.81	-25.36
400.0	1.52	309.43	400.0	4.0	-3.0	-4.0	0.26	0.20	-6.82
500.0	1.46	311.60	499.9	5.7	-5.0	-5.7	0.08	-0.06	2.17
600.0	1.21	314.14	599.9	7.3	-6.7	-7.3	0.26	-0.25	2.54
700.0	1.11	313.43	699.9	8.7	-8.2	-8.8	0.10	-0.10	-0.71
800.0	1.16	314.40	799.9	10.1	-9.6	-10.1	0.05	0.05	0.97

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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)
900.0	1.26	322.94	899.8	11.6	-11.0	-11.7	0.21	0.10	8.54
1,000.0	1.25	313.24	999.8	13.3	-12.5	-13.4	0.21	-0.01	-9.70
1,100.0	1.07	315.11	1,099.8	14.7	-13.9	-14.8	0.18	-0.18	1.87
1,200.0	1.11	306.40	1,199.8	15.9	-15.3	-16.0	0.17	0.04	-8.71
1,300.0	0.90	313.88	1,299.8	17.0	-16.7	-17.2	0.25	-0.21	7.48
1,400.0	0.83	320.61	1,399.7	18.1	-17.7	-18.3	0.12	-0.07	6.73
1,500.0	0.81	43.06	1,499.7	19.2	-17.7	-19.4	1.08	-0.02	82.45
1,600.0	1.54	78.26	1,599.7	20.0	-15.9	-20.1	0.99	0.73	35.20
1,700.0	1.69	72.10	1,699.7	20.7	-13.2	-20.8	0.23	0.15	-6.16
1,800.0	3.10	80.54	1,799.6	21.6	-9.1	-21.7	1.45	1.41	8.44
1,900.0	4.23	86.40	1,899.4	22.3	-2.8	-22.3	1.19	1.13	5.86
2,000.0	3.89	90.97	1,999.1	22.5	4.3	-22.4	0.47	-0.34	4.57
2,100.0	2.60	94.62	2,099.0	22.2	10.0	-22.2	1.31	-1.29	3.65
2,200.0	1.59	95.57	2,198.9	21.9	13.6	-21.8	1.01	-1.01	0.95
2,300.0	1.34	93.29	2,298.9	21.7	16.2	-21.6	0.26	-0.25	-2.28
2,400.0	1.22	100.54	2,398.8	21.5	18.4	-21.3	0.20	-0.12	7.25
2,500.0	0.94	111.67	2,498.8	21.0	20.2	-20.8	0.35	-0.28	11.13
2,600.0	0.58	106.62	2,598.8	20.5	21.4	-20.3	0.37	-0.36	-5.05
2,700.0	0.30	102.86	2,698.8	20.3	22.2	-20.1	0.28	-0.28	-3.76
2,800.0	0.11	280.79	2,798.8	20.3	22.3	-20.1	0.41	-0.19	177.93
2,900.0	0.30	227.72	2,898.8	20.1	22.0	-19.9	0.25	0.19	-53.07
3,000.0	0.45	225.13	2,998.8	19.7	21.6	-19.5	0.15	0.15	-2.59
3,100.0	0.41	249.08	3,098.8	19.3	21.0	-19.1	0.18	-0.04	23.95
3,200.0	0.56	238.53	3,198.8	18.9	20.2	-18.7	0.17	0.15	-10.55
3,300.0	0.36	239.76	3,298.8	18.5	19.5	-18.3	0.20	-0.20	1.23
3,400.0	0.28	242.94	3,398.8	18.2	19.0	-18.0	0.08	-0.08	3.18
3,500.0	0.21	270.24	3,498.8	18.1	18.6	-17.9	0.13	-0.07	27.30
3,600.0	0.28	272.17	3,598.8	18.1	18.2	-17.9	0.07	0.07	1.93
3,700.0	0.50	228.50	3,698.8	17.8	17.6	-17.7	0.35	0.22	-43.67
3,800.0	0.64	216.47	3,798.8	17.1	17.0	-16.9	0.18	0.14	-12.03
3,900.0	0.92	198.69	3,898.8	15.9	16.4	-15.7	0.37	0.28	-17.78
4,000.0	1.02	198.07	3,998.8	14.3	15.8	-14.1	0.10	0.10	-0.62
4,100.0	1.04	199.61	4,098.7	12.6	15.3	-12.4	0.03	0.02	1.54
4,200.0	1.13	199.05	4,198.7	10.8	14.6	-10.6	0.09	0.09	-0.56
4,300.0	1.22	196.67	4,298.7	8.8	14.0	-8.7	0.10	0.09	-2.38
4,400.0	1.28	201.56	4,398.7	6.8	13.3	-6.6	0.12	0.06	4.89
4,500.0	1.24	204.26	4,498.7	4.7	12.4	-4.6	0.07	-0.04	2.70
4,600.0	1.21	212.18	4,598.6	2.9	11.4	-2.8	0.17	-0.03	7.92
4,700.0	1.23	219.90	4,698.6	1.1	10.2	-1.0	0.17	0.02	7.72
4,800.0	1.29	219.03	4,798.6	-0.6	8.8	0.6	0.06	0.06	-0.87
4,900.0	1.40	215.37	4,898.6	-2.4	7.4	2.5	0.14	0.11	-3.66
5,000.0	1.36	218.50	4,998.5	-4.4	5.9	4.4	0.09	-0.04	3.13

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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)
5,100.0	1.45	221.72	5,098.5	-6.2	4.3	6.3	0.12	0.09	3.22
5,200.0	1.49	215.98	5,198.5	-8.2	2.7	8.3	0.15	0.04	-5.74
5,300.0	1.41	200.45	5,298.4	-10.4	1.5	10.4	0.40	-0.08	-15.53
5,400.0	1.42	195.74	5,398.4	-12.8	0.8	12.8	0.12	0.01	-4.71
5,500.0	1.53	196.28	5,498.4	-15.3	0.1	15.3	0.11	0.11	0.54
5,600.0	1.49	197.54	5,598.3	-17.8	-0.7	17.8	0.05	-0.04	1.26
5,700.0	1.52	202.70	5,698.3	-20.2	-1.6	20.2	0.14	0.03	5.16
5,800.0	1.13	208.74	5,798.3	-22.3	-2.6	22.3	0.41	-0.39	6.04
5,900.0	1.43	157.99	5,898.3	-24.3	-2.6	24.3	1.13	0.30	-50.75
6,000.0	1.55	166.81	5,998.2	-26.8	-1.8	26.8	0.26	0.12	8.82
6,100.0	1.42	170.65	6,098.2	-29.4	-1.3	29.3	0.16	-0.13	3.84
6,200.0	1.20	176.54	6,198.2	-31.6	-1.0	31.6	0.26	-0.22	5.89
6,300.0	1.15	202.16	6,298.1	-33.6	-1.4	33.6	0.52	-0.05	25.62
6,400.0	2.39	178.00	6,398.1	-36.6	-1.7	36.6	1.42	1.24	-24.16
6,500.0	2.07	171.89	6,498.0	-40.5	-1.3	40.5	0.40	-0.32	-6.11
6,600.0	3.04	174.43	6,597.9	-44.9	-0.8	44.9	0.98	0.97	2.54
6,700.0	3.08	178.98	6,697.8	-50.2	-0.5	50.2	0.25	0.04	4.55
6,800.0	2.43	189.28	6,797.7	-55.0	-0.8	55.0	0.81	-0.65	10.30
6,900.0	1.90	195.48	6,897.6	-58.7	-1.6	58.7	0.58	-0.53	6.20
7,000.0	1.09	217.04	6,997.6	-61.1	-2.6	61.0	0.97	-0.81	21.56
7,100.0	1.68	142.35	7,097.5	-63.0	-2.3	63.0	1.74	0.59	-74.69
7,200.0	1.25	160.81	7,197.5	-65.2	-1.0	65.2	0.63	-0.43	18.46
7,300.0	2.52	170.13	7,297.4	-68.4	-0.3	68.4	1.30	1.27	9.32
7,400.0	2.62	107.69	7,397.4	-71.2	2.3	71.2	2.66	0.10	-62.44
7,500.0	2.30	90.83	7,497.3	-72.0	6.4	72.0	0.79	-0.32	-16.86
7,600.0	2.15	96.97	7,597.2	-72.2	10.3	72.3	0.28	-0.15	6.14
7,700.0	2.22	103.71	7,697.1	-72.9	14.1	73.0	0.27	0.07	6.74
7,800.0	2.43	107.55	7,797.0	-74.0	18.0	74.1	0.26	0.21	3.84
7,900.0	2.95	100.29	7,896.9	-75.1	22.5	75.3	0.62	0.52	-7.26
8,000.0	2.73	104.52	7,996.8	-76.2	27.3	76.4	0.30	-0.22	4.23
8,100.0	2.90	124.52	8,096.7	-78.2	31.7	78.4	0.99	0.17	20.00
8,200.0	2.30	121.69	8,196.6	-80.7	35.5	81.0	0.61	-0.60	-2.83
8,300.0	1.70	128.30	8,296.5	-82.6	38.4	83.0	0.64	-0.60	6.61
8,356.0	1.06	136.60	8,352.5	-83.5	39.4	83.9	1.19	-1.14	14.82
8356 MD MS Gyro Survey									
8,439.0	1.10	180.70	8,435.5	-84.9	39.9	85.2	0.98	0.05	53.13
8,470.0	4.20	177.70	8,466.5	-86.3	40.0	86.7	10.01	10.00	-9.68
8,502.0	8.40	176.10	8,498.3	-89.8	40.2	90.2	13.14	13.13	-5.00
8,534.0	12.60	174.90	8,529.7	-95.6	40.6	96.0	13.14	13.13	-3.75
8,565.0	15.60	174.40	8,559.8	-103.2	41.3	103.5	9.69	9.68	-1.61
8,597.0	18.40	176.00	8,590.4	-112.5	42.1	112.8	8.87	8.75	5.00
8,629.0	21.10	179.30	8,620.5	-123.3	42.5	123.6	9.13	8.44	10.31
8,660.0	24.10	181.60	8,649.1	-135.2	42.4	135.5	10.09	9.68	7.42

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,692.0	26.10	182.80	8,678.1	-148.8	41.9	149.1	6.45	6.25	3.75
8,724.0	28.80	182.30	8,706.5	-163.5	41.3	163.8	8.47	8.44	-1.56
8,755.0	31.30	183.30	8,733.3	-179.0	40.5	179.3	8.22	8.06	3.23
8,787.0	33.80	184.10	8,760.3	-196.2	39.4	196.5	7.93	7.81	2.50
8,819.0	36.20	185.80	8,786.5	-214.4	37.8	214.8	8.09	7.50	5.31
8,851.0	38.60	185.50	8,811.9	-233.8	35.9	234.1	7.52	7.50	-0.94
8,882.0	41.50	184.10	8,835.6	-253.7	34.2	253.9	9.80	9.35	-4.52
8,914.0	44.00	183.70	8,859.1	-275.3	32.7	275.6	7.86	7.81	-1.25
8,946.0	45.70	183.90	8,881.8	-297.9	31.2	298.1	5.33	5.31	0.63
8,978.0	48.20	182.80	8,903.7	-321.2	29.9	321.4	8.21	7.81	-3.44
9,009.0	49.90	183.00	8,924.0	-344.6	28.7	344.8	5.51	5.48	0.65
9,041.0	51.40	183.50	8,944.3	-369.3	27.3	369.5	4.84	4.69	1.56
9,073.0	53.60	183.20	8,963.8	-394.6	25.8	394.8	6.92	6.88	-0.94
9,104.0	56.10	182.30	8,981.6	-419.9	24.6	420.1	8.41	8.06	-2.90
9,136.0	58.40	182.10	8,998.9	-446.8	23.6	447.0	7.21	7.19	-0.63
9,168.0	60.20	181.60	9,015.2	-474.3	22.7	474.5	5.78	5.63	-1.56
9,199.0	62.30	182.50	9,030.2	-501.5	21.7	501.7	7.24	6.77	2.90
9,231.0	64.80	183.90	9,044.4	-530.1	20.1	530.2	8.74	7.81	4.38
9,263.0	66.30	184.40	9,057.7	-559.1	18.0	559.3	4.90	4.69	1.56
9,294.0	68.10	185.10	9,069.7	-587.6	15.6	587.7	6.17	5.81	2.26
9,326.0	70.70	185.60	9,080.9	-617.4	12.8	617.5	8.26	8.13	1.56
9,358.0	72.80	185.10	9,090.9	-647.7	10.0	647.8	6.73	6.56	-1.56
9,389.0	74.80	185.50	9,099.6	-677.3	7.2	677.4	6.57	6.45	1.29
9,421.0	77.60	185.10	9,107.2	-708.3	4.4	708.3	8.83	8.75	-1.25
9,453.0	81.90	184.80	9,112.9	-739.6	1.7	739.6	13.47	13.44	-0.94
9,483.0	84.20	184.90	9,116.5	-769.3	-0.9	769.3	7.67	7.67	0.33
9,542.0	88.30	183.70	9,120.4	-828.0	-5.3	827.9	7.24	6.95	-2.03
9,606.0	87.80	183.20	9,122.6	-891.9	-9.1	891.7	1.10	-0.78	-0.78
9,637.0	87.70	183.30	9,123.8	-922.8	-10.9	922.7	0.46	-0.32	0.32
9,701.0	87.50	180.00	9,126.5	-986.7	-12.7	986.6	5.16	-0.31	-5.16
9,764.0	90.10	179.70	9,127.8	-1,049.7	-12.6	1,049.5	4.15	4.13	-0.48
9,827.0	90.00	179.70	9,127.7	-1,112.7	-12.2	1,112.5	0.16	-0.16	0.00
9,922.0	89.70	179.30	9,128.0	-1,207.7	-11.4	1,207.5	0.53	-0.32	-0.42
10,017.0	91.20	179.80	9,127.2	-1,302.7	-10.6	1,302.5	1.66	1.58	0.53
10,113.0	91.40	180.50	9,125.1	-1,398.6	-10.9	1,398.5	0.76	0.21	0.73
10,208.0	89.00	180.40	9,124.7	-1,493.6	-11.6	1,493.5	2.53	-2.53	-0.11
10,303.0	89.30	181.10	9,126.1	-1,588.6	-12.9	1,588.4	0.80	0.32	0.74
10,398.0	88.30	180.40	9,128.1	-1,683.6	-14.1	1,683.4	1.28	-1.05	-0.74
10,493.0	89.20	179.10	9,130.2	-1,778.5	-13.7	1,778.4	1.66	0.95	-1.37
10,588.0	90.40	178.10	9,130.5	-1,873.5	-11.4	1,873.4	1.64	1.26	-1.05
10,682.0	89.80	178.60	9,130.4	-1,967.5	-8.7	1,967.3	0.83	-0.64	0.53
10,777.0	90.60	179.00	9,130.0	-2,062.5	-6.7	2,062.3	0.94	0.84	0.42

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Owl Draw 22 W1AP Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3149 + 20 @ 3169.0usft (Patterson # 187)
Site:	Section 15, 22 -26S-27E Owl Draw 22 W1AP Fed Com	MD Reference:	3149 + 20 @ 3169.0usft (Patterson # 187)
Well:	Owl Draw 22 W1AP 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)
10,872.0	91.20	179.30	9,128.6	-2,157.4	-5.3	2,157.3	0.71	0.63	0.32
10,967.0	90.20	179.50	9,127.4	-2,252.4	-4.3	2,252.3	1.07	-1.05	0.21
11,063.0	90.70	179.70	9,126.6	-2,348.4	-3.6	2,348.3	0.56	0.52	0.21
11,157.0	89.90	179.50	9,126.1	-2,442.4	-3.0	2,442.3	0.88	-0.85	-0.21
11,253.0	90.40	179.30	9,125.9	-2,538.4	-2.0	2,538.3	0.56	0.52	-0.21
11,348.0	90.10	179.30	9,125.5	-2,633.4	-0.8	2,633.3	0.32	-0.32	0.00
11,443.0	89.80	179.70	9,125.6	-2,728.4	0.0	2,728.3	0.53	-0.32	0.42
11,538.0	89.30	180.20	9,126.3	-2,823.4	0.1	2,823.3	0.74	-0.53	0.53
11,633.0	88.10	179.10	9,128.5	-2,918.4	0.7	2,918.3	1.71	-1.26	-1.16
11,728.0	88.30	177.40	9,131.4	-3,013.3	3.6	3,013.2	1.80	0.21	-1.79
11,823.0	89.30	178.00	9,133.4	-3,108.2	7.4	3,108.1	1.23	1.05	0.63
11,918.0	90.20	176.30	9,133.9	-3,203.0	12.1	3,203.0	2.02	0.95	-1.79
12,014.0	91.30	177.00	9,132.6	-3,298.9	17.7	3,298.9	1.36	1.15	0.73
12,109.0	91.70	178.40	9,130.1	-3,393.8	21.5	3,393.8	1.53	0.42	1.47
12,204.0	91.20	179.70	9,127.7	-3,488.7	23.1	3,488.8	1.47	-0.53	1.37
12,299.0	89.40	180.40	9,127.2	-3,583.7	23.0	3,583.8	2.03	-1.89	0.74
12,394.0	87.60	180.20	9,129.7	-3,678.7	22.5	3,678.7	1.91	-1.89	-0.21
12,489.0	88.20	178.60	9,133.2	-3,773.6	23.5	3,773.7	1.80	0.63	-1.68
12,584.0	89.90	178.20	9,134.7	-3,868.5	26.2	3,868.6	1.84	1.79	-0.42
12,679.0	89.60	177.70	9,135.2	-3,963.5	29.6	3,963.6	0.61	-0.32	-0.53
12,774.0	90.90	179.10	9,134.7	-4,058.4	32.2	4,058.6	2.01	1.37	1.47
12,869.0	90.80	178.80	9,133.3	-4,153.4	34.0	4,153.5	0.33	-0.11	-0.32
12,964.0	90.80	178.80	9,132.0	-4,248.4	36.0	4,248.5	0.00	0.00	0.00
13,059.0	91.60	179.10	9,130.0	-4,343.3	37.7	4,343.5	0.90	0.84	0.32
13,154.0	90.30	179.80	9,128.4	-4,438.3	38.6	4,438.5	1.55	-1.37	0.74
13,249.0	89.00	181.20	9,129.0	-4,533.3	37.8	4,533.5	2.01	-1.37	1.47
13,344.0	87.40	179.70	9,132.0	-4,628.3	37.0	4,628.4	2.31	-1.68	-1.58
13,439.0	90.30	179.50	9,133.9	-4,723.2	37.7	4,723.4	3.06	3.05	-0.21
13,534.0	91.40	180.20	9,132.5	-4,818.2	38.0	4,818.4	1.37	1.16	0.74
13,629.0	88.10	179.00	9,132.9	-4,913.2	38.6	4,913.3	3.70	-3.47	-1.26
13,724.0	90.10	179.70	9,134.4	-5,008.2	39.7	5,008.3	2.23	2.11	0.74
13,819.0	91.50	180.00	9,133.1	-5,103.2	39.9	5,103.3	1.51	1.47	0.32
13,849.0	91.30	180.00	9,132.4	-5,133.1	39.9	5,133.3	0.67	-0.67	0.00
13,890.0	91.30	180.00	9,131.4	-5,174.1	39.9	5,174.3	0.00	0.00	0.00
13890' MD Projected to Bit									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,356.0	8,352.5	-83.5	39.4	8356' MD MS Gyro Survey
13,890.0	9,131.4	-5,174.1	39.9	13890' MD Projected to Bit

Stryker Directional Survey Report

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Owl Draw 22 W1AP Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	3149 + 20 @ 3169.0usft (Patterson # 187)
Site:	Section 15; 22 -26S-27E Owl Draw 22 W1AP Fed Com	MD Reference:	3149 + 20 @ 3169.0usft (Patterson # 187)
Well:	Owl Draw 22 W1AP Fed Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM



September 24, 2014

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
Owl Draw 22 W1AP Federal Com #001H
WC-015 S262728A; Wolfcamp (Gas)
Eddy County, New Mexico
API# 30-015-42475

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>
Craig Estes	Original Hole	8,439 ft. to 13,849 ft.	08-08-14 to 08-23-14	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number


Todd Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Owl Draw 22 W1AP Federal Com #1HM141178

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

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



September 24, 2014

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 04 2014

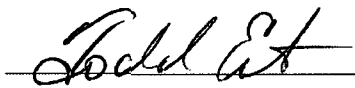
RECEIVED

Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of August 08, 2014 thru August 23, 2014, conduct or supervise the taking of a SEDS MWD Survey from a depth of 8,439 feet to 13,849 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 Owl Draw 22 W1AP Federal Com #001H well, API # **30-015-42475** 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.


Todd Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

P.O. Box 1250

Montgomery, TX 77356

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



Job Number: M141178

Company: Mewbourne Oil Company

Lease/Well: Owl Draw 22 W1AP Fed Com # 1 H Grid: 7.39°

Location: Eddy County

Rig Name: Patterson # 187

RKB: N/A

G.L. or M.S.L.: N/A

State/Country: New Mexico / USA

Declination: 7.39° Corrected To Grid

File name: C:\WINSERVE\DOCS\M141178.SVY

Date/Time: 24-Sep-14 / 09:46

Curve Name: SES MWD SURVEY RAN ON 8-08-14

Styker Energy Directional Services, LLC.

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 179.52
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie-In Data Provided by M/S Gyro Survey									
8356.00	1.10	136.60	8352.50	-83.50	39.40	83.83	92.33	154.74	.00
8439.00	1.10	180.70	8435.49	-84.88	39.94	85.21	93.80	154.80	1.00
8470.00	4.20	177.70	8466.45	-86.31	39.98	86.64	95.12	155.15	10.01
8502.00	8.40	176.10	8498.25	-89.81	40.19	90.15	98.39	155.89	13.14
8534.00	12.60	174.90	8529.71	-95.62	40.66	95.96	103.91	156.97	13.14
8565.00	15.60	174.40	8559.77	-103.14	41.36	103.48	111.13	158.15	9.69
8597.00	18.40	176.00	8590.37	-112.46	42.13	112.81	120.10	159.46	8.87
8629.00	21.10	179.30	8620.48	-123.26	42.56	123.62	130.40	160.95	9.13
8660.00	24.10	181.60	8649.10	-135.17	42.45	135.52	141.68	162.57	10.09
8692.00	26.10	182.80	8678.08	-148.74	41.92	149.08	154.53	164.26	6.45
8724.00	28.80	182.30	8706.47	-163.47	41.27	163.81	168.60	165.83	8.47
8755.00	31.30	183.30	8733.30	-178.97	40.51	179.31	183.50	167.25	8.22
8787.00	33.80	184.10	8760.27	-196.15	39.39	196.48	200.07	168.64	7.93
8819.00	36.20	185.80	8786.49	-214.43	37.80	214.74	217.74	170.00	8.09
8851.00	38.60	185.50	8811.91	-233.78	35.89	234.07	236.51	171.27	7.52
8882.00	41.50	184.10	8835.63	-253.65	34.23	253.93	255.95	172.32	9.80
8914.00	44.00	183.70	8859.13	-275.32	32.75	275.58	277.26	173.22	7.86
8946.00	45.70	183.90	8881.82	-297.84	31.25	298.09	299.47	174.01	5.33
8978.00	48.20	182.80	8903.66	-321.18	29.89	321.42	322.57	174.68	8.21
9009.00	49.90	183.00	8923.98	-344.56	28.71	344.79	345.76	175.24	5.51
9041.00	54.10	183.50	8943.67	-369.73	27.28	369.95	370.74	175.78	13.18
9073.00	53.60	183.20	8962.55	-395.53	25.76	395.73	396.36	176.27	1.74
9104.00	56.10	182.30	8980.40	-420.84	24.55	421.03	421.56	176.66	8.41
9136.00	58.40	182.10	8997.71	-447.73	23.52	447.92	448.35	176.99	7.21

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
9168.00	60.20	181.60	9014.04	-475.23	22.63	475.41	475.77	177.27	5.78
9199.00	62.30	182.50	9028.95	-502.39	21.66	502.56	502.86	177.53	7.24
9231.00	64.80	183.90	9043.20	-530.99	20.06	531.14	531.37	177.84	8.74
9263.00	66.30	184.40	9056.45	-560.05	17.95	560.18	560.34	178.16	4.90
9294.00	68.10	185.10	9068.46	-588.53	15.58	588.64	588.73	178.48	6.17
9326.00	70.70	185.60	9079.72	-618.35	12.79	618.43	618.48	178.82	8.26
9358.00	72.80	185.10	9089.74	-648.60	9.95	648.66	648.68	179.12	6.73
9389.00	74.80	185.50	9098.39	-678.24	7.20	678.28	678.28	179.39	6.57
9421.00	77.60	185.10	9106.02	-709.18	4.33	709.19	709.20	179.65	8.83
9453.00	81.90	184.80	9111.71	-740.55	1.62	740.54	740.55	179.87	13.47
9483.00	84.20	184.90	9115.34	-770.22	-.90	770.18	770.22	180.07	7.67
9542.00	88.30	183.70	9119.20	-828.91	-5.31	828.84	828.93	180.37	7.24
9606.00	87.80	183.20	9121.38	-892.76	-9.16	892.65	892.81	180.59	1.10
9637.00	87.70	183.30	9122.60	-923.69	-10.92	923.56	923.75	180.68	.46
9701.00	87.50	180.00	9125.28	-987.59	-12.76	987.45	987.68	180.74	5.16
9764.00	90.10	179.70	9126.60	-1050.58	-12.59	1050.43	1050.65	180.69	4.15
9827.00	90.00	179.70	9126.54	-1113.57	-12.26	1113.43	1113.64	180.63	.16
9922.00	89.70	179.30	9126.79	-1208.57	-11.44	1208.43	1208.62	180.54	.53
10017.00	91.20	179.80	9126.04	-1303.56	-10.69	1303.43	1303.60	180.47	1.66
10113.00	91.40	180.50	9123.87	-1399.54	-10.94	1399.39	1399.58	180.45	.76
10208.00	89.00	180.40	9123.53	-1494.52	-11.69	1494.37	1494.57	180.45	2.53
10303.00	89.30	181.10	9124.94	-1589.51	-12.93	1589.34	1589.56	180.47	.80
10398.00	88.30	180.40	9126.93	-1684.47	-14.17	1684.30	1684.53	180.48	1.28
10493.00	89.20	179.10	9129.01	-1779.45	-13.76	1779.27	1779.50	180.44	1.66
10588.00	90.40	178.10	9129.34	-1874.42	-11.44	1874.25	1874.45	180.35	1.64
10682.00	89.80	178.60	9129.17	-1968.38	-8.73	1968.23	1968.40	180.25	.83
10777.00	90.60	179.00	9128.84	-2063.35	-6.74	2063.23	2063.37	180.19	.94
10872.00	91.20	179.30	9127.35	-2158.33	-5.33	2158.21	2158.34	180.14	.71
10967.00	90.20	179.50	9126.19	-2253.32	-4.34	2253.20	2253.32	180.11	1.07
11063.00	90.70	179.70	9125.44	-2349.31	-3.67	2349.20	2349.32	180.09	.56
11157.00	89.90	179.50	9124.94	-2443.31	-3.01	2443.20	2443.31	180.07	.88
11253.00	90.40	179.30	9124.69	-2539.30	-2.01	2539.20	2539.30	180.05	.56
11348.00	90.10	179.30	9124.28	-2634.29	-.85	2634.19	2634.29	180.02	.32
11443.00	89.80	179.70	9124.36	-2729.29	-.02	2729.19	2729.29	180.00	.53
11538.00	89.30	180.20	9125.11	-2824.29	.07	2824.19	2824.29	180.00	.74
11633.00	88.10	179.10	9127.26	-2919.26	.65	2919.16	2919.26	179.99	1.71
11728.00	88.30	177.40	9130.25	-3014.16	3.55	3014.09	3014.16	179.93	1.80
11823.00	88.50	176.80	9132.90	-3109.00	8.35	3108.96	3109.01	179.85	.67
11918.00	90.20	176.30	9133.98	-3203.82	14.07	3203.83	3203.85	179.75	1.87
12014.00	91.30	177.00	9132.72	-3299.65	19.68	3299.70	3299.71	179.66	1.36
12109.00	91.70	178.40	9130.23	-3394.53	23.49	3394.61	3394.62	179.60	1.53
12204.00	91.20	179.70	9127.83	-3489.49	25.06	3489.58	3489.58	179.59	1.47
12299.00	89.40	180.40	9127.33	-3584.48	24.98	3584.57	3584.57	179.60	2.03
12394.00	87.60	180.20	9129.82	-3679.45	24.48	3679.52	3679.53	179.62	1.91
12489.00	88.20	178.60	9133.30	-3774.37	25.48	3774.45	3774.46	179.61	1.80

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
12584.00	89.90	178.20	9134.87	-3869.32	28.13	3869.42	3869.42	179.58	1.84
12679.00	89.60	177.70	9135.29	-3964.26	31.53	3964.38	3964.38	179.54	.61
12774.00	90.90	179.10	9134.87	-4059.21	34.18	4059.36	4059.36	179.52	2.01
12869.00	90.80	178.80	9133.47	-4154.19	35.92	4154.34	4154.34	179.50	.33
12964.00	90.80	178.80	9132.14	-4249.16	37.91	4249.33	4249.33	179.49	.00
13059.00	91.60	179.10	9130.15	-4344.12	39.65	4344.30	4344.30	179.48	.90
13154.00	90.30	179.80	9128.57	-4439.10	40.56	4439.28	4439.29	179.48	1.55
13249.00	89.00	181.20	9129.15	-4534.09	39.73	4534.26	4534.26	179.50	2.01
13344.00	87.40	179.70	9132.14	-4629.04	38.99	4629.20	4629.20	179.52	2.31
13439.00	90.30	179.50	9134.04	-4724.00	39.65	4724.17	4724.17	179.52	3.06
13534.00	91.40	180.20	9132.64	-4818.99	39.90	4819.16	4819.16	179.53	1.37
13629.00	88.10	179.00	9133.05	-4913.97	40.56	4914.14	4914.14	179.53	3.70
13724.00	90.10	179.70	9134.54	-5008.95	41.64	5009.12	5009.12	179.52	2.23
13819.00	91.50	180.00	9133.22	-5103.94	41.89	5104.11	5104.11	179.53	1.51
13849.00	91.30	180.00	9132.48	-5133.93	41.89	5134.10	5134.10	179.53	.67

Projection to Bit

13890.00	91.30	180.00	9131.55	-5174.92	41.89	5175.09	5175.09	179.54	.00
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COMPANY: Mewbourne Oil Company
WELL: Owl Draw 22 W1AP Fed Com #1H
COUNTY: Eddy County, New Mexico
DATUM: NAD 1927 (NADCON CONUS)
RIG: Patterson # 187



OFFICE: 936.582.7296

GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 7.39°

GEODETIC ZONE: New Mexico East 3001
3149 + 20 @ 3169.0usft (Patterson # 187)
GROUND ELEVATION: 3149.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	376617.82	550281.70	32° 2' 7.199 N	104° 10' 15.850 W

Slot

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	8356.0	1.06	136.60	8352.5	-83.5	39.4	0.00	0.00	83.8	
2	8556.0	1.06	136.60	8552.5	-86.2	41.9	0.00	0.00	86.5	
3	9419.8	87.09	184.61	9117.6	-628.9	5.6	10.00	48.06	628.9	
4	9448.4	87.09	184.61	9119.0	-657.3	3.3	0.00	0.00	657.3	LP New
5	9739.1	89.90	179.52	9126.6	-947.7	-7.2	2.00	-61.22	947.6	
6	13970.5	89.90	179.52	9134.0	-5178.9	28.6	0.00	0.00	5178.9	PBHL Owl Draw 22W1AP #1H

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LP OWL Draw 22W1AP #1H	9119.0	-560.7	3.3	376057.10	550285.02	32° 2' 1.850 N	104° 10' 15.821 W	Point
LP New	9119.0	-657.3	3.3	375960.52	550285.00	32° 2' 0.694 N	104° 10' 15.823 W	Point
PBHL Owl Draw 22W1AP #1H	9134.0	-5178.9	28.6	371438.95	550310.25	32° 1' 15.945 N	104° 10' 15.808 W	Point

