

30-015-43331

Mewbourne Oil Company

Eddy County, New Mexico

Sec 27, T26S, R27E

Owl Draw 27/22 B2MD Fed Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

21 October, 2015



HP Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 27, T26S, R27E
Well: Owl Draw 27/22 B2MD Fed Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Owl Draw 27/22 B2MD Fed Com #1H
TVD Reference: WELL @ 3202.0usft (Patterson #231)
MD Reference: WELL @ 3202.0usft (Patterson #231)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass

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 Sec 27, T26S, R27E

Site Position: **Northing:** 365,989.90 usft **Latitude:** 32° 0' 22.078 N
From: Map **Easting:** 546,071.90 usft **Longitude:** 104° 11' 4.927 W
Position Uncertainty: 0.0 usft **Slot Radius:** 13-3/16 " **Grid Convergence:** 0.08 °

Well Owl Draw 27/22 B2MD Fed Com #1H
Well Position **+N/-S** 0.0 usft **Northing:** 365,989.90 usft **Latitude:** 32° 0' 22.078 N
+E/-W 0.0 usft **Easting:** 546,071.90 usft **Longitude:** 104° 11' 4.927 W
Position Uncertainty 0.0 usft **Wellhead Elevation:** 0.0 usft **Ground Level:** 3,175.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/24/2015	7.40	59.78	47,920

Design Wellbore #1

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 0.0 359.51

Survey Program **Date** 10/21/2015

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	6,928.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
6,934.0	17,430.0	MWD (Wellbore #1)	MWD default	MWD - Standard

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	0.45	51.38	100.0	0.2	0.3	0.2	0.45	0.45	0.00
200.0	0.63	258.91	200.0	0.4	0.1	0.4	1.05	0.18	-152.47
300.0	1.04	240.70	300.0	-0.2	-1.3	-0.2	0.48	0.41	-18.21
400.0	1.05	241.63	400.0	-1.0	-2.9	-1.0	0.02	0.01	0.93
500.0	0.66	62.65	500.0	-1.2	-3.1	-1.2	1.71	-0.39	-178.98
600.0	0.85	70.12	600.0	-0.7	-1.9	-0.7	0.21	0.19	7.47
700.0	0.70	230.42	700.0	-0.8	-1.7	-0.8	1.53	-0.15	160.30
800.0	0.74	11.68	800.0	-0.6	-2.1	-0.6	1.36	0.04	141.26
900.0	1.66	327.12	899.9	1.3	-2.7	1.3	1.25	0.92	-44.56

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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)
1,000.0	1.28	337.71	999.9	3.5	-3.9	3.5	0.47	-0.38	10.59
1,100.0	1.21	135.33	1,099.9	3.8	-3.6	3.8	2.44	-0.07	157.62
1,200.0	1.26	117.27	1,199.9	2.5	-1.9	2.6	0.39	0.05	-18.06
1,300.0	1.51	97.64	1,299.8	1.9	0.4	1.9	0.53	0.25	-19.63
1,400.0	2.06	90.22	1,399.8	1.7	3.5	1.6	0.60	0.55	-7.42
1,500.0	2.95	96.92	1,499.7	1.4	7.9	1.3	0.94	0.89	6.70
1,600.0	2.18	99.79	1,599.6	0.7	12.3	0.6	0.78	-0.77	2.87
1,700.0	0.44	282.27	1,699.6	0.5	13.8	0.4	2.62	-1.74	-177.52
1,800.0	1.35	103.77	1,799.6	0.3	14.6	0.2	1.79	0.91	-178.50
1,900.0	1.68	101.29	1,899.5	-0.3	17.1	-0.4	0.34	0.33	-2.48
2,000.0	0.83	125.02	1,999.5	-1.0	19.2	-1.2	0.98	-0.85	23.73
2,100.0	1.71	247.70	2,099.5	-2.0	18.4	-2.1	2.27	0.88	122.68
2,200.0	1.44	245.20	2,199.5	-3.1	15.9	-3.2	0.28	-0.27	-2.50
2,300.0	1.12	249.13	2,299.4	-3.9	13.8	-4.1	0.33	-0.32	3.93
2,400.0	0.64	217.90	2,399.4	-4.7	12.5	-4.8	0.66	-0.48	-31.23
2,500.0	0.42	268.83	2,499.4	-5.2	11.8	-5.3	0.50	-0.22	50.93
2,600.0	0.34	233.57	2,599.4	-5.4	11.2	-5.5	0.24	-0.08	-35.26
2,700.0	0.40	231.03	2,699.4	-5.8	10.7	-5.8	0.06	0.06	-2.54
2,800.0	0.46	11.64	2,799.4	-5.6	10.5	-5.7	0.81	0.06	140.61
2,900.0	0.35	23.46	2,899.4	-4.9	10.7	-5.0	0.14	-0.11	11.82
3,000.0	0.19	305.71	2,999.4	-4.5	10.7	-4.6	0.36	-0.16	-77.75
3,100.0	0.30	102.05	3,099.4	-4.5	10.8	-4.6	0.48	0.11	156.34
3,200.0	0.41	234.49	3,199.4	-4.8	10.8	-4.8	0.65	0.11	132.44
3,300.0	0.46	253.37	3,299.4	-5.1	10.1	-5.2	0.15	0.05	18.88
3,400.0	0.35	270.14	3,399.4	-5.2	9.4	-5.3	0.16	-0.11	16.77
3,500.0	0.24	267.92	3,499.4	-5.2	8.9	-5.3	0.11	-0.11	-2.22
3,600.0	0.40	295.98	3,599.4	-5.0	8.4	-5.1	0.22	0.16	28.06
3,700.0	0.61	85.65	3,699.4	-4.9	8.6	-4.9	0.98	0.21	149.67
3,800.0	0.66	233.46	3,799.4	-5.2	8.7	-5.2	1.22	0.05	147.81
3,900.0	0.62	253.14	3,899.4	-5.7	7.7	-5.7	0.22	-0.04	19.68
4,000.0	0.64	255.64	3,999.4	-6.0	6.7	-6.0	0.03	0.02	2.50
4,100.0	0.96	117.59	4,099.4	-6.5	6.9	-6.5	1.50	0.32	-138.05
4,200.0	0.86	337.34	4,199.4	-6.2	7.3	-6.2	1.71	-0.10	-140.25
4,300.0	1.03	189.36	4,299.4	-6.4	6.9	-6.4	1.82	0.17	-147.98
4,400.0	0.78	260.25	4,399.4	-7.4	6.1	-7.4	1.07	-0.25	70.89
4,500.0	0.69	118.62	4,499.3	-7.8	5.9	-7.8	1.39	-0.09	-141.63
4,600.0	0.43	126.56	4,599.3	-8.3	6.7	-8.3	0.27	-0.26	7.94
4,700.0	0.29	261.45	4,699.3	-8.5	6.8	-8.6	0.67	-0.14	134.89
4,800.0	0.48	36.76	4,799.3	-8.3	6.8	-8.3	0.72	0.19	135.31
4,900.0	0.24	283.85	4,899.3	-7.9	6.8	-7.9	0.61	-0.24	-112.91
5,000.0	0.37	254.83	4,999.3	-7.9	6.3	-8.0	0.20	0.13	-29.02
5,100.0	0.29	237.58	5,099.3	-8.1	5.8	-8.2	0.13	-0.08	-17.25
5,200.0	0.50	203.38	5,199.3	-8.7	5.4	-8.7	0.31	0.21	-34.20

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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)
5,300.0	0.60	112.88	5,299.3	-9.3	5.7	-9.3	0.78	0.10	-90.50
5,400.0	0.51	26.23	5,399.3	-9.1	6.4	-9.1	0.76	-0.09	-86.65
5,500.0	0.51	272.10	5,499.3	-8.6	6.2	-8.7	0.86	0.00	-114.13
5,600.0	0.50	129.90	5,599.3	-8.9	6.0	-9.0	0.96	-0.01	-142.20
5,700.0	0.76	20.66	5,699.3	-8.6	6.6	-8.6	1.04	0.26	-109.24
5,800.0	0.90	343.46	5,799.3	-7.2	6.6	-7.3	0.55	0.14	-37.20
5,900.0	1.10	308.79	5,899.3	-5.8	5.7	-5.9	0.63	0.20	-34.67
6,000.0	1.24	268.17	5,999.3	-5.3	3.8	-5.3	0.82	0.14	-40.62
6,100.0	1.38	281.96	6,099.3	-5.1	1.6	-5.1	0.34	0.14	13.79
6,200.0	1.86	300.34	6,199.2	-4.0	-1.0	-4.0	0.70	0.48	18.38
6,300.0	2.46	295.74	6,299.1	-2.2	-4.4	-2.2	0.62	0.60	-4.60
6,400.0	2.97	285.84	6,399.0	-0.6	-8.8	-0.5	0.69	0.51	-9.90
6,500.0	2.82	283.29	6,498.9	0.7	-13.7	0.8	0.20	-0.15	-2.55
6,600.0	1.61	249.14	6,598.8	0.7	-17.4	0.9	1.74	-1.21	-34.15
6,700.0	1.40	223.82	6,698.8	-0.6	-19.5	-0.5	0.69	-0.21	-25.32
6,800.0	1.45	202.30	6,798.8	-2.7	-20.9	-2.5	0.53	0.05	-21.52
Tie into GYRO @ 6928' MD / 6927' TVD									
6,928.0	1.88	207.16	6,926.7	-6.1	-22.4	-5.9	0.35	0.34	3.80
6,934.0	1.90	208.40	6,932.7	-6.2	-22.5	-6.0	0.76	0.33	20.67
6,982.0	0.10	338.70	6,980.7	-6.9	-22.9	-6.7	4.10	-3.75	271.46
7,029.0	4.60	18.20	7,027.6	-5.1	-22.3	-4.9	9.62	9.57	84.04
7,078.0	8.20	19.60	7,076.3	0.1	-20.6	0.3	7.35	7.35	2.86
7,125.0	12.60	14.50	7,122.6	8.2	-18.1	8.4	9.56	9.36	-10.85
7,173.0	17.50	12.60	7,168.9	20.3	-15.3	20.5	10.26	10.21	-3.96
7,220.0	22.10	11.60	7,213.1	35.9	-11.9	36.0	9.81	9.79	-2.13
7,268.0	25.50	14.00	7,257.0	54.8	-7.6	54.8	7.36	7.08	5.00
7,315.0	27.00	15.40	7,299.2	74.9	-2.3	74.9	3.45	3.19	2.98
7,364.0	31.20	15.10	7,342.0	97.9	3.9	97.8	8.58	8.57	-0.61
7,411.0	37.20	15.40	7,380.8	123.3	10.9	123.2	12.77	12.77	0.64
7,459.0	44.80	15.90	7,417.0	153.6	19.4	153.5	15.85	15.83	1.04
Crossed Hard Line @ 7468' MD / 7424' TVD									
7,468.4	46.82	15.43	7,423.6	160.1	21.2	159.9	21.76	21.46	-5.04
7,506.0	54.90	13.80	7,447.3	188.3	28.5	188.1	21.76	21.50	-4.33
7,523.0	58.50	12.60	7,456.6	202.2	31.8	201.9	21.98	21.18	-7.06
7,555.0	64.30	11.00	7,471.9	229.6	37.5	229.3	18.65	18.13	-5.00
7,586.0	69.50	6.80	7,484.1	257.8	41.9	257.4	20.89	16.77	-13.55
7,617.0	73.70	4.90	7,493.9	287.1	44.9	286.7	14.74	13.55	-6.13
7,649.0	76.30	3.10	7,502.2	317.9	47.0	317.5	9.77	8.13	-5.63
7,681.0	78.90	2.80	7,509.0	349.1	48.6	348.7	8.18	8.13	-0.94
7,713.0	80.30	1.00	7,514.8	380.6	49.7	380.1	7.05	4.38	-5.63
7,744.0	82.20	2.20	7,519.5	411.2	50.5	410.7	7.23	6.13	3.87
7,776.0	85.30	0.00	7,523.0	443.0	51.1	442.5	11.86	9.69	-6.88
7,808.0	87.40	1.50	7,525.1	474.9	51.6	474.4	8.06	6.56	4.69
7,840.0	87.80	0.10	7,526.4	506.9	52.0	506.4	4.55	1.25	-4.38

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7,872.0	88.00	1.20	7,527.6	538.9	52.4	538.4	3.49	0.63	3.44
7,935.0	88.60	1.90	7,529.4	601.8	54.1	601.3	1.46	0.95	1.11
8,031.0	88.80	0.10	7,531.6	697.8	55.7	697.3	1.89	0.21	-1.88
8,127.0	89.70	0.10	7,532.9	793.7	55.9	793.2	0.94	0.94	0.00
8,222.0	90.70	1.90	7,532.5	888.7	57.6	888.2	2.17	1.05	1.89
8,317.0	91.10	0.50	7,531.0	983.7	59.6	983.1	1.53	0.42	-1.47
8,413.0	92.20	359.60	7,528.3	1,079.7	59.6	1,079.1	1.48	1.15	-0.94
8,508.0	90.00	358.90	7,526.5	1,174.6	58.4	1,174.1	2.43	-2.32	-0.74
8,604.0	90.60	0.00	7,526.0	1,270.6	57.5	1,270.1	1.31	0.63	1.15
8,699.0	88.80	358.40	7,526.5	1,365.6	56.2	1,365.1	2.54	-1.89	-1.68
8,794.0	89.80	358.00	7,527.6	1,460.5	53.2	1,460.0	1.13	1.05	-0.42
8,890.0	90.50	357.50	7,527.4	1,556.5	49.4	1,556.0	0.90	0.73	-0.52
8,985.0	87.10	357.10	7,529.3	1,651.3	44.9	1,650.9	3.60	-3.58	-0.42
9,080.0	88.80	356.60	7,532.7	1,746.1	39.7	1,745.7	1.87	1.79	-0.53
9,176.0	90.00	357.10	7,533.8	1,842.0	34.4	1,841.6	1.35	1.25	0.52
9,271.0	90.10	357.30	7,533.7	1,936.8	29.8	1,936.5	0.24	0.11	0.21
9,366.0	89.90	356.10	7,533.7	2,031.7	24.3	2,031.4	1.28	-0.21	-1.26
9,462.0	90.50	356.30	7,533.3	2,127.5	18.0	2,127.2	0.66	0.63	0.21
9,557.0	91.30	355.40	7,531.8	2,222.2	11.1	2,222.0	1.27	0.84	-0.95
9,652.0	90.90	357.00	7,530.0	2,317.0	4.8	2,316.9	1.74	-0.42	1.68
9,747.0	89.70	358.20	7,529.5	2,411.9	0.8	2,411.8	1.79	-1.26	1.26
9,842.0	90.50	357.70	7,529.4	2,506.8	-2.6	2,506.8	0.99	0.84	-0.53
9,938.0	91.90	356.10	7,527.3	2,602.7	-7.8	2,602.6	2.21	1.46	-1.67
10,028.0	92.20	358.50	7,524.1	2,692.5	-12.0	2,692.5	2.69	0.33	2.67
10,123.0	91.10	2.60	7,521.4	2,787.4	-11.1	2,787.4	4.47	-1.16	4.32
10,218.0	91.50	2.20	7,519.2	2,882.3	-7.1	2,882.3	0.60	0.42	-0.42
10,314.0	92.00	2.20	7,516.3	2,978.2	-3.4	2,978.1	0.52	0.52	0.00
10,409.0	90.80	2.40	7,514.0	3,073.1	0.4	3,073.0	1.28	-1.26	0.21
10,504.0	90.00	3.80	7,513.3	3,168.0	5.5	3,167.8	1.70	-0.84	1.47
10,600.0	88.30	1.20	7,514.7	3,263.8	9.7	3,263.6	3.24	-1.77	-2.71
10,695.0	88.70	2.10	7,517.2	3,358.8	12.4	3,358.5	1.04	0.42	0.95
10,790.0	89.40	1.20	7,518.8	3,453.7	15.2	3,453.5	1.20	0.74	-0.95
10,886.0	90.00	1.00	7,519.3	3,549.7	17.0	3,549.4	0.66	0.63	-0.21
10,981.0	90.40	0.30	7,519.0	3,644.7	18.1	3,644.4	0.85	0.42	-0.74
11,076.0	90.90	0.00	7,517.9	3,739.7	18.3	3,739.4	0.61	0.53	-0.32
11,172.0	89.90	359.20	7,517.2	3,835.7	17.7	3,835.4	1.33	-1.04	-0.83
11,267.0	89.00	358.50	7,518.1	3,930.7	15.8	3,930.4	1.20	-0.95	-0.74
11,362.0	89.30	358.00	7,519.5	4,025.6	12.9	4,025.3	0.61	0.32	-0.53
11,457.0	89.30	358.50	7,520.7	4,120.5	10.0	4,120.3	0.53	0.00	0.53
11,553.0	88.70	358.00	7,522.4	4,216.5	7.0	4,216.3	0.81	-0.63	-0.52
11,648.0	88.80	356.40	7,524.5	4,311.4	2.4	4,311.2	1.69	0.11	-1.68
11,743.0	90.00	358.50	7,525.5	4,406.2	-1.8	4,406.1	2.55	1.26	2.21
11,838.0	90.60	358.20	7,525.0	4,501.2	-4.6	4,501.1	0.71	0.63	-0.32

HP Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 27, T26S, R27E
Well: Owl Draw 27/22 B2MD Fed Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Owl Draw 27/22 B2MD Fed Com #1H
TVD Reference: WELL @ 3202.0usft (Patterson #231)
MD Reference: WELL @ 3202.0usft (Patterson #231)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass

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)
11,934.0	90.80	357.80	7,523.8	4,597.1	-7.9	4,597.0	0.47	0.21	-0.42
12,029.0	91.30	357.50	7,522.0	4,692.0	-11.8	4,692.0	0.61	0.53	-0.32
12,124.0	90.00	357.50	7,521.0	4,786.9	-16.0	4,786.9	1.37	-1.37	0.00
12,220.0	90.00	359.40	7,521.0	4,882.9	-18.6	4,882.9	1.98	0.00	1.98
12,315.0	90.00	359.40	7,521.0	4,977.9	-19.5	4,977.9	0.00	0.00	0.00
12,410.0	90.00	358.20	7,521.0	5,072.9	-21.5	5,072.9	1.26	0.00	-1.26
12,506.0	89.60	1.40	7,521.3	5,168.9	-21.9	5,168.9	3.36	-0.42	3.33
12,601.0	90.40	0.80	7,521.3	5,263.8	-20.0	5,263.8	1.05	0.84	-0.63
12,696.0	91.00	0.10	7,520.1	5,358.8	-19.3	5,358.8	0.97	0.63	-0.74
12,792.0	90.80	357.80	7,518.6	5,454.8	-21.1	5,454.8	2.40	-0.21	-2.40
12,887.0	90.50	359.40	7,517.6	5,549.8	-23.4	5,549.8	1.71	-0.32	1.68
12,982.0	90.70	0.80	7,516.6	5,644.8	-23.2	5,644.7	1.49	0.21	1.47
13,078.0	89.10	359.80	7,516.7	5,740.7	-22.7	5,740.7	1.97	-1.67	-1.04
13,173.0	89.30	2.40	7,518.1	5,835.7	-20.9	5,835.7	2.74	0.21	2.74
13,268.0	89.10	1.40	7,519.4	5,930.6	-17.7	5,930.6	1.07	-0.21	-1.05
13,363.0	89.10	0.00	7,520.9	6,025.6	-16.6	6,025.5	1.47	0.00	-1.47
13,459.0	89.60	1.40	7,522.0	6,121.6	-15.4	6,121.5	1.55	0.52	1.46
13,554.0	90.10	359.20	7,522.2	6,216.6	-14.9	6,216.5	2.37	0.53	-2.32
13,649.0	90.20	358.70	7,522.0	6,311.6	-16.7	6,311.5	0.54	0.11	-0.53
13,745.0	91.40	1.20	7,520.6	6,407.6	-16.7	6,407.5	2.89	1.25	2.60
13,840.0	92.60	2.90	7,517.3	6,502.4	-13.3	6,502.3	2.19	1.26	1.79
13,935.0	90.00	4.30	7,515.1	6,597.2	-7.4	6,597.0	3.11	-2.74	1.47
14,030.0	90.50	3.10	7,514.7	6,692.0	-1.2	6,691.8	1.37	0.53	-1.26
14,126.0	89.30	5.80	7,514.9	6,787.7	6.2	6,787.4	3.08	-1.25	2.81
14,221.0	89.30	5.60	7,516.1	6,882.2	15.6	6,881.9	0.21	0.00	-0.21
14,316.0	89.00	5.20	7,517.5	6,976.8	24.6	6,976.3	0.53	-0.32	-0.42
14,412.0	88.90	4.90	7,519.2	7,072.4	33.0	7,071.9	0.33	-0.10	-0.31
14,507.0	88.70	2.80	7,521.2	7,167.2	39.4	7,166.6	2.22	-0.21	-2.21
14,603.0	88.80	2.20	7,523.3	7,263.1	43.6	7,262.4	0.63	0.10	-0.63
14,698.0	89.20	3.10	7,525.0	7,357.9	48.0	7,357.3	1.04	0.42	0.95
14,793.0	89.90	3.80	7,525.7	7,452.8	53.7	7,452.0	1.04	0.74	0.74
14,888.0	90.50	1.90	7,525.4	7,547.7	58.4	7,546.9	2.10	0.63	-2.00
14,983.0	91.00	2.10	7,524.1	7,642.6	61.7	7,641.8	0.57	0.53	0.21
15,078.0	91.80	1.70	7,521.8	7,737.5	64.9	7,736.7	0.94	0.84	-0.42
15,174.0	87.30	2.20	7,522.6	7,833.4	68.1	7,832.5	4.72	-4.69	0.52
15,269.0	87.80	3.60	7,526.6	7,928.2	73.0	7,927.3	1.56	0.53	1.47
15,364.0	89.60	1.90	7,528.8	8,023.1	77.5	8,022.1	2.61	1.89	-1.79
15,459.0	90.00	2.10	7,529.1	8,118.0	80.8	8,117.0	0.47	0.42	0.21
15,555.0	89.70	0.50	7,529.4	8,214.0	83.0	8,213.0	1.70	-0.31	-1.67
15,650.0	91.40	1.50	7,528.5	8,309.0	84.7	8,307.9	2.08	1.79	1.05
15,746.0	92.00	1.20	7,525.6	8,404.9	86.9	8,403.8	0.70	0.63	-0.31
15,847.0	92.20	359.60	7,521.9	8,505.8	87.6	8,504.8	1.60	0.20	-1.58
15,943.0	91.70	359.20	7,518.6	8,601.8	86.6	8,600.7	0.67	-0.52	-0.42

HP Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 27, T26S, R27E
Well: Owl Draw 27/22 B2MD Fed Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Owl Draw 27/22 B2MD Fed Com #1H
TVD Reference: WELL @ 3202.0usft (Patterson #231)
MD Reference: WELL @ 3202.0usft (Patterson #231)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass

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)
16,038.0	92.20	359.40	7,515.4	8,696.7	85.5	8,695.6	0.57	0.53	0.21
16,133.0	90.00	0.80	7,513.6	8,791.7	85.6	8,790.6	2.74	-2.32	1.47
16,229.0	89.10	358.20	7,514.3	8,887.6	84.8	8,886.6	2.87	-0.94	-2.71
16,324.0	89.50	358.20	7,515.5	8,982.6	81.8	8,981.6	0.42	0.42	0.00
16,420.0	90.50	358.20	7,515.5	9,078.5	78.8	9,077.5	1.04	1.04	0.00
16,515.0	89.30	358.00	7,515.7	9,173.5	75.6	9,172.5	1.28	-1.26	-0.21
16,610.0	90.00	357.30	7,516.3	9,268.4	71.7	9,267.5	1.04	0.74	-0.74
16,706.0	88.50	356.40	7,517.5	9,364.3	66.5	9,363.3	1.82	-1.56	-0.94
16,801.0	88.80	356.30	7,519.7	9,459.0	60.4	9,458.2	0.33	0.32	-0.11
16,897.0	89.20	355.70	7,521.4	9,554.8	53.7	9,554.0	0.75	0.42	-0.63
16,992.0	90.00	355.50	7,522.1	9,649.5	46.4	9,648.7	0.87	0.84	-0.21
17,087.0	90.70	357.00	7,521.5	9,744.3	40.2	9,743.6	1.74	0.74	1.58
17,183.0	90.30	356.40	7,520.7	9,840.1	34.7	9,839.5	0.75	-0.42	-0.63
17,278.0	90.80	355.50	7,519.8	9,934.9	28.0	9,934.3	1.08	0.53	-0.95
17,374.0	92.10	355.40	7,517.3	10,030.5	20.4	10,030.0	1.36	1.35	-0.10
TD @ 17430' MD / 7515' TVD									
17,430.0	92.10	355.40	7,515.3	10,086.3	15.9	10,085.8	0.00	0.00	0.00

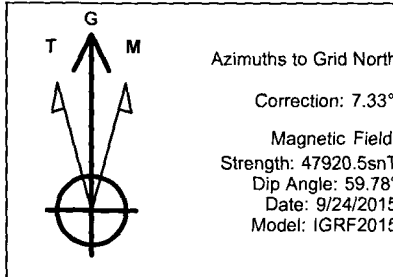
Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,928.0	6,926.7	-6.1	-22.4	Tie into GYRO @ 6928' MD / 6927' TVD
7,468.4	7,423.6	160.1	21.2	Crossed Hard Line @ 7468' MD / 7424' TVD
17,430.0	7,515.3	10,086.3	15.9	TD @ 17430' MD / 7515' TVD

Checked By: _____	Approved By: _____	Date: _____
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Company Name: Mawbourne Oil Company
 Owl Draw 27/22 B2MD Fed Com #1H
 Eddy County, New Mexico
 Rig: Patterson #231
 Created By: Shane Robbins
 Date: 10/20/2015

Owl Draw 27/22 B2MD Fed Com #1H
 Eddy County, New Mexico
 Q150735 & WT-150632
 Target Change #2



PROJECT DETAILS: Eddy County, New Mexico	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

WELL DETAILS: Owl Draw 27/22 B2MD Fed Com #1H					
		Ground Level	3175.0		
+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude
0.0	0.0	35968.90	545071.90	32° 0' 22.07" N	104° 11' 4.927" W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude
PBHL Owl Draw 27/22 B2MD Fed Com #1H TC#2 7543.0	10092.4	-86.0		370082.30	545085.90	32° 2' 1.961" N	104° 11' 5.765" W
- plan into target center							

ANNOTATIONS									
MD	Inc	Adj	TVD	+N/-S	+E/-W	Vsact	Depth	Annotation	
6928.9	1.88	207.18	6025.7	-6.1	-22.4	-6.0	119.4	Tn into CYRO @ 6025' MD / 6027' TVD	
7468.4	45.82	15.43	7423.6	160.1	21.2	159.9	209.7	Crossed Hard Line @ 7468' MD / 7424' TVD	
17439.9	92.16	355.49	7616.3	10060.3	16.8	10065.8	10228.8	TD @ 17439' MD / 7616' TVD	

