



NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 04 2019

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Mewbourne Oil Company

Eddy County, New Mexico (Nad 83)

Sec 2, T24S, R28E

Skynyrd 2 W0DM Fee #1H

30.015-44802

Wellbore #1

Design: Wellbore #1

QES Survey Report

02 August, 2018



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Skynyrd 2 W0DM Fee #1H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3043.0usft (Patterson #243)
Site:	Sec 2, T24S, R28E	MD Reference:	WELL @ 3043.0usft (Patterson #243)
Well:	Skynyrd 2 W0DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County, New Mexico (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	Sec 2, T24S, R28E		
Site Position:		Northing:	456,163.00 usft
From:	Map	Easting:	625,124.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 15' 13.596 N
		Longitude:	104° 3' 44.254 W
		Grid Convergence:	0.14 °

Well	Skynyrd 2 W0DM Fee #1H		
Well Position	+N/-S	0.0 usft	Northing: 456,162.70 usft
	+E/-W	0.0 usft	Easting: 625,064.70 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 15' 13.595 N
		Longitude:	104° 3' 44.953 W
		Ground Level:	3,016.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/6/2018	7.07	60.00	47,798.30909022

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	190.90	

Survey Program	Date 8/2/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
88.0	88.0	Phoenix Gyros (Wellbore #1)	GYRO-NS	OWSG Gyrocompass Gyro
181.0	14,385.0	QES MWD Surveys (Wellbore #1)	OWSG (Rev2) MWD	OWSG 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
Tie-In @ 88.0' MD / 88.0' TVD									
88.0	0.30	326.30	88.0	0.2	-0.1	-0.2	0.34	0.34	0.00
181.0	0.30	7.80	181.0	0.6	-0.2	-0.6	0.23	0.00	44.62
302.0	1.90	275.40	302.0	1.1	-2.2	-0.7	1.60	1.32	-76.36
486.0	2.40	299.30	485.8	3.3	-8.6	-1.6	0.55	0.27	12.99
669.0	2.40	315.10	668.7	7.9	-14.6	-5.0	0.36	0.00	8.63
861.0	2.90	312.80	860.5	14.0	-21.0	-9.8	0.27	0.26	-1.20
1,052.0	2.60	317.90	1,051.3	20.5	-27.5	-15.0	0.20	-0.16	2.67
1,242.0	2.50	326.90	1,241.1	27.2	-32.6	-20.6	0.22	-0.05	4.74



Survey Report



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Project: Eddy County, New Mexico (Nad 83)
Site: Sec 2, T24S, R28E
Well: Skynyrd 2 W0DM Fee #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Skynyrd 2 W0DM Fee #1H
TVD Reference: WELL @ 3043.0usft (Patterson #243)
MD Reference: WELL @ 3043.0usft (Patterson #243)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
1,432.0	2.70	331.60	1,430.9	34.6	-37.0	-27.0	0.15	0.11	2.47
1,623.0	2.70	325.60	1,621.7	42.3	-41.7	-33.6	0.15	0.00	-3.14
1,720.0	3.30	324.40	1,718.5	46.4	-44.6	-37.2	0.62	0.62	-1.24
1,908.0	1.90	349.00	1,906.3	53.9	-48.4	-43.8	0.94	-0.74	13.09
2,095.0	2.20	13.40	2,093.2	60.4	-48.1	-50.2	0.49	0.16	13.05
2,282.0	2.10	71.40	2,280.1	65.0	-44.0	-55.5	1.12	-0.05	31.02
2,470.0	0.70	317.90	2,468.1	67.0	-41.5	-57.9	1.31	-0.74	-60.37
2,480.0	0.70	294.20	2,478.1	67.0	-41.6	-58.0	2.87	0.00	-237.00
2,642.0	1.00	312.40	2,640.1	68.4	-43.6	-58.9	0.25	0.19	11.23
2,829.0	4.10	305.90	2,826.8	73.4	-50.2	-62.6	1.66	1.66	-3.48
3,015.0	5.30	295.00	3,012.2	81.0	-63.4	-67.5	0.80	0.65	-5.86
3,202.0	5.60	292.40	3,198.4	88.1	-79.6	-71.4	0.21	0.16	-1.39
3,389.0	5.70	294.50	3,384.5	95.4	-96.5	-75.4	0.12	0.05	1.12
3,575.0	4.90	287.10	3,569.7	101.6	-112.5	-78.5	0.56	-0.43	-3.98
3,763.0	5.00	285.90	3,757.0	106.2	-128.1	-80.0	0.08	0.05	-0.64
3,949.0	4.90	283.30	3,942.3	110.2	-143.6	-81.1	0.13	-0.05	-1.40
4,136.0	4.70	281.70	4,128.6	113.6	-158.9	-81.5	0.13	-0.11	-0.86
4,324.0	4.80	278.20	4,316.0	116.3	-174.2	-81.3	0.16	0.05	-1.86
4,511.0	4.80	278.20	4,502.3	118.5	-189.7	-80.5	0.00	0.00	0.00
4,697.0	4.80	277.10	4,687.7	120.6	-205.1	-79.6	0.05	0.00	-0.59
4,885.0	4.70	268.50	4,875.0	121.4	-220.6	-77.5	0.38	-0.05	-4.57
5,072.0	3.80	281.30	5,061.5	122.4	-234.4	-75.9	0.70	-0.48	6.84
5,261.0	4.70	287.60	5,250.0	126.0	-247.9	-76.8	0.54	0.48	3.33
5,449.0	4.50	284.30	5,437.4	130.1	-262.4	-78.2	0.18	-0.11	-1.76
5,637.0	4.10	277.80	5,624.9	132.8	-276.2	-78.2	0.34	-0.21	-3.46
5,835.0	3.50	271.50	5,822.4	134.0	-289.2	-76.9	0.37	-0.30	-3.18
6,012.0	4.00	282.90	5,999.1	135.5	-300.7	-76.2	0.51	0.28	6.44
6,202.0	4.80	286.10	6,188.5	139.2	-314.8	-77.1	0.44	0.42	1.68
6,389.0	3.80	290.50	6,375.0	143.5	-328.1	-78.9	0.56	-0.53	2.35
6,577.0	3.50	278.30	6,562.6	146.5	-339.6	-79.7	0.44	-0.16	-6.49
6,765.0	5.20	258.80	6,750.0	145.7	-353.6	-76.2	1.19	0.90	-10.37
6,953.0	6.20	272.70	6,937.1	144.5	-372.1	-71.5	0.90	0.53	7.39
7,141.0	4.60	271.30	7,124.3	145.2	-389.8	-68.8	0.85	-0.85	-0.74
7,329.0	4.80	265.90	7,311.6	144.8	-405.2	-65.5	0.26	0.11	-2.87
7,517.0	3.70	285.20	7,499.1	145.8	-418.9	-64.0	0.95	-0.59	10.27
7,704.0	2.70	286.80	7,685.8	148.7	-428.9	-64.9	0.54	-0.53	0.86
7,892.0	3.30	284.10	7,873.6	151.3	-438.4	-65.6	0.33	0.32	-1.44
8,080.0	5.00	270.80	8,061.1	152.7	-451.9	-64.5	1.03	0.90	-7.07
8,269.0	4.60	279.00	8,249.4	154.0	-467.6	-62.8	0.42	-0.21	4.34
8,456.0	3.00	263.30	8,436.0	154.6	-479.8	-61.1	1.01	-0.86	-8.40
8,644.0	3.80	276.90	8,623.7	154.8	-490.9	-59.1	0.60	0.43	7.23
8,833.0	3.40	274.10	8,812.3	155.9	-502.7	-58.0	0.23	-0.21	-1.48
9,021.0	1.70	263.40	9,000.1	156.0	-511.1	-56.5	0.94	-0.90	-5.69



Survey Report



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Survey

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9,098.0	0.70	262.70	9,077.1	155.8	-512.7	-56.1	1.30	-1.30	-0.91
9,180.0	3.40	169.90	9,159.1	153.3	-512.7	-53.6	4.27	3.29	-113.17
9,211.0	7.60	181.30	9,189.9	150.4	-512.6	-50.7	13.93	13.55	36.77
9,242.0	11.70	186.80	9,220.5	145.2	-513.0	-45.6	13.54	13.23	17.74
9,274.0	14.50	189.90	9,251.6	138.0	-514.1	-38.3	9.02	8.75	9.69
9,305.0	17.40	189.60	9,281.4	129.7	-515.5	-29.8	9.36	9.35	-0.97
9,337.0	21.30	190.30	9,311.6	119.2	-517.4	-19.2	12.21	12.19	2.19
9,368.0	25.40	192.40	9,340.1	107.2	-519.8	-6.9	13.49	13.23	6.77
9,400.0	29.30	194.70	9,368.5	92.9	-523.3	7.7	12.62	12.19	7.19
9,431.0	33.30	197.30	9,395.0	77.4	-527.7	23.8	13.62	12.90	8.39
9,462.0	35.10	199.90	9,420.6	60.9	-533.3	41.0	7.48	5.81	8.39
9,494.0	38.70	200.30	9,446.2	42.9	-539.9	60.0	11.27	11.25	1.25
9,525.0	43.30	200.30	9,469.6	23.8	-547.0	80.0	14.84	14.84	0.00
9,556.0	47.60	200.60	9,491.3	3.1	-554.7	101.8	13.89	13.87	0.97
9,588.0	51.90	200.80	9,512.0	-19.7	-563.3	125.9	13.45	13.44	0.63
9,619.0	54.70	200.10	9,530.5	-43.0	-572.0	150.4	9.21	9.03	-2.26
9,650.0	57.90	201.00	9,547.7	-67.2	-581.0	175.8	10.60	10.32	2.90
9,682.0	62.90	202.80	9,563.5	-93.0	-591.4	203.1	16.37	15.63	5.63
9,713.0	67.70	204.20	9,576.5	-118.8	-602.7	230.6	16.02	15.48	4.52
9,744.0	73.10	204.50	9,586.9	-145.4	-614.7	259.0	17.44	17.42	0.97
Crossed 330' HL @ 9758.3' MD / 9590.8' TVD									
9,758.3	74.95	204.59	9,590.8	-157.9	-620.4	272.3	12.92	12.90	0.65
9,775.0	77.10	204.70	9,594.8	-172.6	-627.2	288.1	12.92	12.90	0.64
9,807.0	78.10	202.90	9,601.7	-201.2	-639.8	318.6	6.32	3.13	-5.63
9,838.0	79.40	201.30	9,607.8	-229.4	-651.2	348.4	6.57	4.19	-5.16
9,869.0	81.50	200.60	9,612.9	-257.9	-662.1	378.5	7.13	6.77	-2.26
9,928.0	85.80	201.50	9,619.4	-312.6	-683.2	436.2	7.44	7.29	1.53
9,959.0	85.30	201.70	9,621.8	-341.4	-694.6	466.5	1.74	-1.61	0.65
10,022.0	86.30	197.30	9,626.5	-400.6	-715.6	528.7	7.14	1.59	-6.98
10,116.0	89.40	194.70	9,630.0	-490.9	-741.4	622.2	4.30	3.30	-2.77
10,210.0	89.00	192.70	9,631.3	-582.2	-763.7	716.1	2.17	-0.43	-2.13
10,304.0	88.60	194.10	9,633.3	-673.6	-785.5	810.0	1.55	-0.43	1.49
10,397.0	90.60	193.30	9,633.9	-763.9	-807.5	902.8	2.32	2.15	-0.86
10,491.0	92.20	190.80	9,631.6	-855.8	-827.1	996.8	3.16	1.70	-2.66
10,584.0	88.00	184.30	9,631.4	-947.9	-839.3	1,089.6	8.32	-4.52	-6.99
10,679.0	92.50	183.40	9,631.0	-1,042.7	-845.7	1,183.8	4.83	4.74	-0.95
10,772.0	92.30	179.00	9,627.1	-1,135.6	-847.6	1,275.4	4.73	-0.22	-4.73
10,866.0	88.40	177.80	9,626.6	-1,229.5	-845.0	1,367.1	4.34	-4.15	-1.28
10,960.0	87.30	178.10	9,630.1	-1,323.4	-841.7	1,458.7	1.21	-1.17	0.32
11,054.0	88.40	179.60	9,633.6	-1,417.3	-839.8	1,550.5	1.98	1.17	1.60
11,148.0	92.20	181.50	9,633.1	-1,511.3	-840.7	1,643.0	4.52	4.04	2.02
11,242.0	91.10	181.50	9,630.4	-1,605.2	-843.1	1,735.7	1.17	-1.17	0.00
11,336.0	89.40	179.90	9,630.0	-1,699.2	-844.3	1,828.2	2.48	-1.81	-1.70
11,429.0	92.10	181.10	9,628.8	-1,792.2	-845.1	1,919.6	3.18	2.90	1.29

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11,522.0	89.70	179.20	9,627.3	-1,885.1	-845.3	2,011.0	3.29	-2.58	-2.04
11,617.0	88.60	178.50	9,628.7	-1,980.1	-843.4	2,103.9	1.37	-1.16	-0.74
11,710.0	89.20	179.70	9,630.5	-2,073.1	-842.0	2,194.9	1.44	0.65	1.29
11,804.0	91.80	180.30	9,629.7	-2,167.1	-842.0	2,287.2	2.84	2.77	0.64
11,898.0	90.00	180.10	9,628.2	-2,261.1	-842.3	2,379.5	1.93	-1.91	-0.21
11,992.0	88.80	181.80	9,629.2	-2,355.0	-843.9	2,472.1	2.21	-1.28	1.81
12,086.0	89.70	182.50	9,630.4	-2,449.0	-847.4	2,565.0	1.21	0.96	0.74
12,180.0	90.80	182.50	9,630.0	-2,542.9	-851.5	2,658.0	1.17	1.17	0.00
12,274.0	90.00	181.50	9,629.4	-2,636.8	-854.8	2,750.9	1.36	-0.85	-1.06
12,368.0	88.50	181.10	9,630.6	-2,730.8	-856.9	2,843.5	1.65	-1.60	-0.43
12,462.0	91.30	182.00	9,630.8	-2,824.7	-859.4	2,936.3	3.13	2.98	0.96
12,557.0	90.90	181.10	9,628.9	-2,919.7	-862.0	3,030.0	1.04	-0.42	-0.95
12,651.0	89.80	180.60	9,628.4	-3,013.7	-863.4	3,122.6	1.29	-1.17	-0.53
12,745.0	90.60	181.80	9,628.0	-3,107.6	-865.4	3,215.2	1.53	0.85	1.28
12,839.0	91.40	182.70	9,626.4	-3,201.5	-869.1	3,308.1	1.28	0.85	0.96
12,933.0	89.80	182.70	9,625.4	-3,295.4	-873.5	3,401.1	1.70	-1.70	0.00
13,027.0	90.40	183.10	9,625.3	-3,389.3	-878.2	3,494.2	0.77	0.64	0.43
13,122.0	88.80	182.70	9,625.9	-3,484.2	-883.1	3,588.3	1.74	-1.68	-0.42
13,216.0	89.30	180.90	9,627.5	-3,578.1	-886.0	3,681.1	1.99	0.53	-1.91
13,310.0	89.90	178.50	9,628.1	-3,672.1	-885.5	3,773.3	2.63	0.64	-2.55
13,404.0	89.30	178.10	9,628.8	-3,766.1	-882.7	3,865.0	0.77	-0.64	-0.43
13,498.0	90.10	176.00	9,629.3	-3,859.9	-877.9	3,956.3	2.39	0.85	-2.23
13,592.0	88.10	177.60	9,630.8	-3,953.8	-872.6	4,047.4	2.72	-2.13	1.70
13,686.0	90.00	181.80	9,632.3	-4,047.7	-872.1	4,139.6	4.90	2.02	4.47
13,781.0	89.30	182.50	9,632.9	-4,142.7	-875.7	4,233.5	1.04	-0.74	0.74
13,875.0	92.10	184.60	9,631.8	-4,236.5	-881.5	4,326.7	3.72	2.98	2.23
13,969.0	89.30	184.30	9,630.6	-4,330.2	-888.8	4,420.1	3.00	-2.98	-0.32
14,063.0	89.00	184.80	9,632.0	-4,423.8	-896.3	4,513.5	0.62	-0.32	0.53
14,158.0	87.80	184.10	9,634.6	-4,518.5	-903.6	4,607.9	1.46	-1.26	-0.74
14,251.0	87.80	183.80	9,638.2	-4,611.2	-910.0	4,700.1	0.32	0.00	-0.32
14,330.0	88.40	183.40	9,640.8	-4,690.0	-915.0	4,778.4	0.91	0.76	-0.51
TD @ 14385.0' MD / 9642.4' TVD									
14,385.0	88.40	184.00	9,642.4	-4,744.9	-918.6	4,833.0	1.09	0.00	1.09

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
88.0	88.0	0.2	-0.1	Tie-In @ 88.0' MD / 88.0' TVD
9,758.3	9,590.8	-157.9	-620.4	Crossed 330' HL @ 9758.3' MD / 9590.8' TVD
14,385.0	9,642.4	-4,744.9	-918.6	TD @ 14385.0' MD / 9642.4' TVD



Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Skynyrd 2 W0DM Fee #1H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3043.0usft (Patterson #243)
Site:	Sec 2, T24S, R28E	MD Reference:	WELL @ 3043.0usft (Patterson #243)
Well:	Skynyrd 2 W0DM Fee #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Checked By: _____ Approved By: _____ Date: _____