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Mewbourne Oil Company

Eddy County, New Mexico (Nad 83)

Sec 25, T23S, R26E

Ghostrider 25/36 W0AP Federal Com #2H

30.015-44461

Wellbore #1

Design: Wellbore #1

QES Survey Report

28 June, 2018





Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico (Nad 83)
Site: Sec 25, T23S, R26E
Well: Ghost rider 25/36 W0AP Federal Com #2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Ghost rider 25/36 W0AP Federal Com #2H
TVD Reference: WELL @ 3248.0usft (Patterson #230)
MD Reference: WELL @ 3248.0usft (Patterson #230)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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 25, T23S, R26E

Site Position:		Northing:	466,454.50 usft	Latitude:	32° 16' 56.362 N
From:	Map	Easting:	570,342.40 usft	Longitude:	104° 14' 22.117 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.05 °

Well	Ghost rider 25/36 W0AP Federal Com #2H					
Well Position	+N/-S	0.0 usft	Northing:	466,454.50 usft	Latitude:	32° 16' 56.362 N
	+E/-W	0.0 usft	Easting:	570,342.40 usft	Longitude:	104° 14' 22.117 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,221.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/2/2018	7.17	60.00	47,812.68356636

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	184.59

Survey Program Date 6/24/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
126.0	18,900.0	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
First MWD Survey @ 126.0' MD / 126.0' TVD									
126.0	0.30	39.20	126.0	0.3	0.2	-0.3	0.24	0.24	0.00
183.0	0.40	1.40	183.0	0.6	0.3	-0.6	0.43	0.18	-66.32
243.0	0.70	102.80	243.0	0.7	0.7	-0.7	1.45	0.50	169.00
304.0	1.10	79.70	304.0	0.7	1.6	-0.8	0.87	0.66	-37.87
366.0	0.90	72.00	366.0	1.0	2.7	-1.2	0.39	-0.32	-12.42
426.0	0.80	49.30	426.0	1.4	3.4	-1.7	0.58	-0.17	-37.83
484.0	1.20	41.10	484.0	2.1	4.1	-2.4	0.73	0.69	-14.14
577.0	0.90	69.00	576.9	3.1	5.5	-3.5	0.63	-0.32	30.00
666.0	1.40	73.40	665.9	3.7	7.1	-4.2	0.57	0.56	4.94

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
757.0	1.40	80.90	756.9	4.2	9.3	-4.9	0.20	0.00	8.24
855.0	1.50	79.00	854.9	4.6	11.8	-5.5	0.11	0.10	-1.94
949.0	0.30	254.80	948.9	4.8	12.7	-5.8	1.91	-1.28	187.02
1,043.0	0.30	48.80	1,042.9	4.9	12.7	-5.9	0.62	0.00	163.83
1,137.0	1.00	133.90	1,136.9	4.5	13.4	-5.5	1.08	0.74	90.53
1,232.0	0.10	316.50	1,231.9	3.9	14.0	-5.1	1.16	-0.95	-186.74
1,326.0	0.30	216.10	1,325.9	3.8	13.8	-4.9	0.35	0.21	-106.81
1,420.0	0.90	93.80	1,419.8	3.6	14.4	-4.7	1.16	0.64	-130.11
1,514.0	0.80	111.50	1,513.8	3.3	15.7	-4.5	0.30	-0.11	18.83
1,608.0	0.80	152.30	1,607.8	2.5	16.6	-3.8	0.59	0.00	43.40
1,702.0	1.00	222.30	1,701.8	1.3	16.4	-2.6	1.11	0.21	74.47
1,803.0	0.90	224.90	1,802.8	0.0	15.2	-1.3	0.11	-0.10	2.57
1,906.0	1.60	292.90	1,905.8	0.0	13.3	-1.1	1.47	0.68	66.02
2,000.0	4.90	303.30	1,999.6	2.8	8.8	-3.4	3.55	3.51	11.06
2,095.0	5.50	303.30	2,094.2	7.5	1.6	-7.6	0.63	0.63	0.00
2,189.0	6.10	295.60	2,187.8	12.1	-6.7	-11.5	1.04	0.64	-8.19
2,284.0	6.20	292.20	2,282.2	16.2	-16.0	-14.9	0.40	0.11	-3.58
2,378.0	6.60	289.30	2,375.6	19.9	-25.8	-17.8	0.55	0.43	-3.09
2,472.0	6.40	288.40	2,469.0	23.4	-35.9	-20.4	0.24	-0.21	-0.96
2,566.0	4.80	279.60	2,562.6	25.7	-44.7	-22.0	1.93	-1.70	-9.36
2,660.0	4.60	278.70	2,656.2	26.9	-52.3	-22.6	0.23	-0.21	-0.96
2,754.0	4.60	276.10	2,749.9	27.9	-59.8	-23.0	0.22	0.00	-2.77
2,848.0	4.20	287.70	2,843.7	29.3	-66.8	-23.9	1.04	-0.43	12.34
2,942.0	4.20	290.00	2,937.4	31.5	-73.3	-25.6	0.18	0.00	2.45
3,037.0	4.40	289.80	3,032.2	34.0	-80.0	-27.5	0.21	0.21	-0.21
3,132.0	4.20	287.10	3,126.9	36.2	-86.8	-29.2	0.30	-0.21	-2.84
3,226.0	4.10	287.30	3,220.6	38.2	-93.3	-30.7	0.11	-0.11	0.21
3,320.0	4.20	284.30	3,314.4	40.1	-99.8	-32.0	0.25	0.11	-3.19
3,415.0	4.00	285.20	3,409.1	41.8	-106.4	-33.2	0.22	-0.21	0.95
3,509.0	4.30	284.00	3,502.9	43.5	-113.0	-34.4	0.33	0.32	-1.28
3,604.0	4.30	284.90	3,597.6	45.3	-119.9	-35.6	0.07	0.00	0.95
3,698.0	4.10	282.60	3,691.4	46.9	-126.6	-36.7	0.28	-0.21	-2.45
3,793.0	4.50	277.60	3,786.1	48.2	-133.6	-37.3	0.58	0.42	-5.26
3,887.0	4.40	279.60	3,879.8	49.3	-140.8	-37.8	0.20	-0.11	2.13
3,982.0	4.90	298.40	3,974.5	51.8	-147.9	-39.8	1.68	0.53	19.79
4,076.0	4.80	297.50	4,068.2	55.5	-155.0	-43.0	0.13	-0.11	-0.96
4,171.0	4.80	295.00	4,162.9	59.0	-162.1	-45.9	0.22	0.00	-2.63
4,266.0	4.80	293.60	4,257.5	62.3	-169.3	-48.6	0.12	0.00	-1.47
4,361.0	4.60	293.80	4,352.2	65.4	-176.5	-51.1	0.21	-0.21	0.21
4,455.0	4.60	294.50	4,445.9	68.5	-183.3	-53.6	0.06	0.00	0.74
4,551.0	4.70	291.70	4,541.6	71.6	-190.5	-56.1	0.26	0.10	-2.92
4,645.0	4.40	294.40	4,635.3	74.5	-197.4	-58.5	0.39	-0.32	2.87
4,740.0	4.10	291.90	4,730.0	77.3	-203.8	-60.7	0.37	-0.32	-2.63



Survey Report



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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)
4,835.0	3.90	290.80	4,824.8	79.7	-210.0	-62.6	0.23	-0.21	-1.16
4,930.0	4.00	290.70	4,919.6	82.0	-216.1	-64.4	0.11	0.11	-0.11
5,024.0	3.80	292.40	5,013.4	84.3	-222.1	-66.3	0.25	-0.21	1.81
5,119.0	3.40	288.70	5,108.2	86.5	-227.6	-68.0	0.49	-0.42	-3.89
5,214.0	3.30	291.40	5,203.0	88.4	-232.9	-69.4	0.20	-0.11	2.84
5,309.0	4.20	285.20	5,297.8	90.3	-238.8	-70.9	1.04	0.95	-6.53
5,403.0	4.50	284.30	5,391.5	92.1	-245.7	-72.1	0.33	0.32	-0.96
5,498.0	4.30	283.80	5,486.2	93.8	-252.7	-73.3	0.21	-0.21	-0.53
5,586.0	3.90	284.10	5,574.0	95.4	-258.8	-74.3	0.46	-0.45	0.34
5,681.0	3.70	287.10	5,668.8	97.0	-264.9	-75.5	0.30	-0.21	3.16
5,775.0	3.30	288.00	5,762.6	98.8	-270.4	-76.8	0.43	-0.43	0.96
5,870.0	4.80	280.10	5,857.4	100.3	-276.9	-77.8	1.68	1.58	-8.32
5,964.0	4.80	278.40	5,951.1	101.6	-284.6	-78.5	0.15	0.00	-1.81
6,058.0	4.90	275.90	6,044.7	102.6	-292.5	-78.8	0.25	0.11	-2.66
6,153.0	4.50	281.30	6,139.4	103.7	-300.2	-79.4	0.63	-0.42	5.68
6,247.0	4.50	279.90	6,233.1	105.1	-307.5	-80.1	0.12	0.00	-1.49
6,341.0	4.40	279.80	6,326.8	106.3	-314.7	-80.8	0.11	-0.11	-0.11
6,436.0	4.10	280.60	6,421.6	107.6	-321.6	-81.5	0.32	-0.32	0.84
6,531.0	4.00	287.50	6,516.3	109.2	-328.1	-82.6	0.52	-0.11	7.26
6,625.0	5.40	285.40	6,610.0	111.3	-335.5	-84.1	1.50	1.49	-2.23
6,720.0	5.40	284.30	6,704.6	113.6	-344.1	-85.7	0.11	0.00	-1.16
6,814.0	4.60	286.60	6,798.2	115.8	-352.0	-87.3	0.88	-0.85	2.45
6,908.0	5.40	288.00	6,891.9	118.3	-359.8	-89.1	0.86	0.85	1.49
7,002.0	5.60	285.90	6,985.5	120.9	-368.4	-91.0	0.30	0.21	-2.23
7,097.0	4.80	285.00	7,080.1	123.2	-376.7	-92.6	0.85	-0.84	-0.95
7,191.0	4.00	284.00	7,173.8	125.0	-383.7	-93.9	0.85	-0.85	-1.06
7,286.0	4.80	285.40	7,268.5	126.8	-390.8	-95.2	0.85	0.84	1.47
7,381.0	6.10	284.90	7,363.1	129.2	-399.5	-96.8	1.37	1.37	-0.53
7,475.0	5.10	282.40	7,456.6	131.4	-408.4	-98.3	1.09	-1.06	-2.66
7,570.0	5.70	278.50	7,551.2	133.0	-417.2	-99.2	0.74	0.63	-4.11
7,664.0	4.30	276.20	7,644.8	134.1	-425.3	-99.6	1.50	-1.49	-2.45
7,759.0	4.30	290.30	7,739.6	135.7	-432.2	-100.7	1.11	0.00	14.84
7,854.0	5.70	295.90	7,834.2	139.0	-439.8	-103.3	1.56	1.47	5.89
7,948.0	6.80	296.10	7,927.6	143.5	-449.0	-107.1	1.17	1.17	0.21
8,043.0	6.70	299.10	8,022.0	148.6	-458.9	-111.4	0.39	-0.11	3.16
8,138.0	5.20	304.20	8,116.5	153.7	-467.3	-115.9	1.67	-1.58	5.37
8,232.0	4.60	298.20	8,210.1	157.9	-474.1	-119.5	0.84	-0.64	-6.38
8,303.0	4.10	294.90	8,280.9	160.3	-478.9	-121.5	0.79	-0.70	-4.65
8,351.0	4.70	273.80	8,328.8	161.2	-482.4	-122.1	3.57	1.25	-43.96
8,383.0	8.60	263.20	8,360.6	161.0	-486.1	-121.6	12.73	12.19	-33.13
8,415.0	14.30	253.40	8,391.9	159.6	-492.3	-119.7	18.76	17.81	-30.63
8,445.0	20.00	244.30	8,420.6	156.3	-500.5	-115.7	20.95	19.00	-30.33
8,476.0	25.30	237.20	8,449.2	150.4	-510.8	-109.0	19.21	17.10	-22.90



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8,510.0	32.00	229.10	8,479.0	140.5	-523.8	-98.2	22.74	19.71	-23.82
8,542.0	38.30	222.30	8,505.2	127.6	-536.9	-84.3	23.15	19.69	-21.25
8,573.0	42.70	217.20	8,528.8	112.2	-549.7	-67.8	17.76	14.19	-16.45
8,604.0	45.60	214.40	8,551.0	94.6	-562.3	-49.3	11.27	9.35	-9.03
8,635.0	46.40	208.90	8,572.5	75.7	-574.0	-29.5	13.02	2.58	-17.74
8,666.0	46.30	202.60	8,593.9	55.5	-583.7	-8.6	14.70	-0.32	-20.32
8,698.0	46.60	198.90	8,616.0	33.8	-591.9	13.7	8.43	0.94	-11.56
8,730.0	47.80	197.70	8,637.7	11.5	-599.3	36.5	4.65	3.75	-3.75
8,761.0	49.70	196.10	8,658.2	-10.8	-606.1	59.3	7.25	6.13	-5.16
8,793.0	52.50	194.90	8,678.3	-34.8	-612.7	83.7	9.22	8.75	-3.75
8,824.0	55.70	193.60	8,696.5	-59.1	-618.9	108.5	10.87	10.32	-4.19
8,856.0	58.90	193.80	8,713.7	-85.3	-625.3	135.0	10.01	10.00	0.63
8,887.0	62.20	194.50	8,729.0	-111.5	-631.9	161.7	10.83	10.65	2.26
8,919.0	65.40	194.70	8,743.1	-139.2	-639.1	189.9	10.02	10.00	0.63
330' HL Crossed @ 8927.7' MD / 8746.7' TVD									
8,927.7	66.05	194.64	8,746.7	-146.9	-641.1	197.7	7.52	7.50	-0.63
8,951.0	67.80	194.50	8,755.8	-167.7	-646.5	218.9	7.52	7.50	-0.62
8,982.0	69.30	194.30	8,767.1	-195.6	-653.7	247.3	4.88	4.84	-0.65
9,013.0	70.90	194.30	8,777.7	-223.8	-660.9	276.0	5.16	5.16	0.00
9,045.0	71.90	194.70	8,787.9	-253.2	-668.5	305.9	3.34	3.13	1.25
9,077.0	73.80	194.70	8,797.3	-282.8	-676.2	336.0	5.94	5.94	0.00
9,108.0	76.10	194.70	8,805.4	-311.7	-683.8	365.5	7.42	7.42	0.00
9,140.0	78.80	194.50	8,812.3	-342.0	-691.7	396.2	8.46	8.44	-0.63
9,150.0	79.70	194.30	8,814.2	-351.5	-694.2	405.9	9.21	9.00	-2.00
9,217.0	83.00	194.30	8,824.3	-415.7	-710.5	471.2	4.93	4.93	0.00
9,249.0	86.30	193.10	8,827.3	-446.6	-718.1	502.6	10.97	10.31	-3.75
9,280.0	89.60	191.90	8,828.4	-476.8	-724.8	533.3	11.33	10.65	-3.87
9,312.0	90.00	191.30	8,828.5	-508.2	-731.2	565.1	2.25	1.25	-1.88
9,343.0	90.00	191.00	8,828.5	-538.6	-737.2	595.9	0.97	0.00	-0.97
9,374.0	90.30	190.80	8,828.4	-569.0	-743.1	626.7	1.16	0.97	-0.65
9,406.0	90.30	190.80	8,828.2	-600.5	-749.1	658.5	0.00	0.00	0.00
9,437.0	90.00	190.50	8,828.2	-630.9	-754.8	689.3	1.37	-0.97	-0.97
9,469.0	90.00	190.10	8,828.2	-662.4	-760.5	721.2	1.25	0.00	-1.25
9,500.0	89.90	190.30	8,828.2	-692.9	-766.0	752.0	0.72	-0.32	0.65
9,532.0	90.00	190.10	8,828.2	-724.4	-771.7	783.9	0.70	0.31	-0.63
9,563.0	90.50	190.10	8,828.1	-754.9	-777.1	814.7	1.61	1.61	0.00
9,626.0	90.10	189.80	8,827.7	-817.0	-788.0	877.4	0.79	-0.63	-0.48
9,721.0	87.90	184.10	8,829.4	-911.2	-799.5	972.3	6.43	-2.32	-6.00
9,816.0	92.50	179.20	8,829.1	-1,006.1	-802.2	1,067.1	7.07	4.84	-5.16
9,911.0	90.90	179.40	8,826.3	-1,101.1	-801.0	1,161.7	1.70	-1.68	0.21
10,005.0	91.30	179.90	8,824.5	-1,195.1	-800.5	1,255.3	0.68	0.43	0.53
10,100.0	89.00	179.40	8,824.2	-1,290.1	-799.9	1,349.9	2.48	-2.42	-0.53
10,195.0	88.50	180.10	8,826.3	-1,385.0	-799.5	1,444.6	0.91	-0.53	0.74
10,289.0	90.00	180.40	8,827.5	-1,479.0	-799.9	1,538.3	1.63	1.60	0.32

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ghost rider 25/36 W0AP Federal Com #2H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3248.0usft (Patterson #230)
Site:	Sec 25, T23S, R26E	MD Reference:	WELL @ 3248.0usft (Patterson #230)
Well:	Ghost rider 25/36 W0AP Federal Com #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
10,385.0	88.80	179.70	8,828.5	-1,575.0	-800.0	1,634.0	1.45	-1.25	-0.73
10,479.0	90.00	179.90	8,829.5	-1,669.0	-799.6	1,727.7	1.29	1.28	0.21
10,573.0	89.30	179.70	8,830.1	-1,763.0	-799.3	1,821.3	0.77	-0.74	-0.21
10,668.0	89.30	179.60	8,831.2	-1,858.0	-798.7	1,916.0	0.11	0.00	-0.11
10,763.0	92.20	180.10	8,830.0	-1,953.0	-798.5	2,010.6	3.10	3.05	0.53
10,857.0	91.30	179.90	8,827.1	-2,046.9	-798.5	2,104.3	0.98	-0.96	-0.21
10,952.0	89.90	180.40	8,826.1	-2,141.9	-798.7	2,199.0	1.56	-1.47	0.53
11,047.0	89.40	179.70	8,826.7	-2,236.9	-798.8	2,293.7	0.91	-0.53	-0.74
11,142.0	92.30	179.20	8,825.3	-2,331.9	-797.9	2,388.3	3.10	3.05	-0.53
11,237.0	91.40	178.90	8,822.2	-2,426.8	-796.3	2,482.8	1.00	-0.95	-0.32
11,331.0	91.50	179.60	8,819.8	-2,520.8	-795.1	2,576.3	0.75	0.11	0.74
11,426.0	92.90	181.50	8,816.2	-2,615.7	-796.0	2,671.0	2.48	1.47	2.00
11,521.0	90.00	183.10	8,813.8	-2,710.6	-799.8	2,765.9	3.49	-3.05	1.68
11,616.0	87.90	183.40	8,815.5	-2,805.4	-805.2	2,860.9	2.23	-2.21	0.32
11,711.0	86.30	181.70	8,820.3	-2,900.2	-809.4	2,955.7	2.46	-1.68	-1.79
11,806.0	86.70	180.40	8,826.1	-2,995.0	-811.2	3,050.3	1.43	0.42	-1.37
11,900.0	88.50	179.60	8,830.1	-3,088.9	-811.2	3,143.9	2.10	1.91	-0.85
11,995.0	92.90	179.90	8,828.9	-3,183.9	-810.8	3,238.6	4.64	4.63	0.32
12,090.0	90.70	179.40	8,825.9	-3,278.8	-810.2	3,333.2	2.37	-2.32	-0.53
12,185.0	89.40	178.30	8,825.9	-3,373.8	-808.3	3,427.7	1.79	-1.37	-1.16
12,280.0	91.80	178.00	8,824.9	-3,468.8	-805.2	3,522.1	2.55	2.53	-0.32
12,374.0	90.70	178.00	8,822.8	-3,562.7	-801.9	3,615.4	1.17	-1.17	0.00
12,469.0	92.00	178.50	8,820.6	-3,657.6	-799.0	3,709.8	1.47	1.37	0.53
12,564.0	90.10	177.80	8,818.8	-3,752.5	-796.0	3,804.2	2.13	-2.00	-0.74
12,659.0	89.30	177.60	8,819.3	-3,847.4	-792.1	3,898.5	0.87	-0.84	-0.21
12,754.0	89.40	177.80	8,820.4	-3,942.4	-788.3	3,992.8	0.24	0.11	0.21
12,849.0	89.10	177.80	8,821.6	-4,037.3	-784.7	4,087.1	0.32	-0.32	0.00
12,943.0	90.40	181.00	8,822.1	-4,131.3	-783.7	4,180.7	3.67	1.38	3.40
13,038.0	87.30	179.90	8,824.0	-4,226.2	-784.4	4,275.5	3.46	-3.26	-1.16
13,133.0	88.70	181.10	8,827.3	-4,321.2	-785.3	4,370.2	1.94	1.47	1.26
13,228.0	89.30	181.00	8,828.9	-4,416.1	-787.0	4,465.0	0.64	0.63	-0.11
13,322.0	93.00	180.10	8,827.0	-4,510.1	-787.9	4,558.7	4.05	3.94	-0.96
13,417.0	90.80	179.40	8,823.9	-4,605.0	-787.5	4,653.3	2.43	-2.32	-0.74
13,511.0	90.50	181.10	8,822.8	-4,699.0	-787.9	4,747.0	1.84	-0.32	1.81
13,606.0	90.80	180.80	8,821.8	-4,794.0	-789.5	4,841.8	0.45	0.32	-0.32
13,701.0	88.80	180.30	8,822.1	-4,889.0	-790.4	4,936.6	2.17	-2.11	-0.53
13,795.0	90.80	181.70	8,822.4	-4,983.0	-792.0	5,030.4	2.60	2.13	1.49
13,889.0	90.00	181.10	8,821.8	-5,076.9	-794.3	5,124.2	1.06	-0.85	-0.64
13,984.0	90.10	181.50	8,821.7	-5,171.9	-796.5	5,219.1	0.43	0.11	0.42
14,079.0	88.90	180.80	8,822.5	-5,266.9	-798.4	5,313.9	1.46	-1.26	-0.74
14,173.0	88.30	179.70	8,824.8	-5,360.9	-798.8	5,407.6	1.33	-0.64	-1.17
14,268.0	89.70	180.40	8,826.5	-5,455.8	-798.9	5,502.3	1.65	1.47	0.74
14,363.0	93.30	181.30	8,824.0	-5,550.8	-800.3	5,597.0	3.91	3.79	0.95



Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ghost rider 25/36 W0AP Federal Com #2H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3248.0usft (Patterson #230)
Site:	Sec 25, T23S, R26E	MD Reference:	WELL @ 3248.0usft (Patterson #230)
Well:	Ghost rider 25/36 W0AP Federal Com #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
14,457.0	93.80	181.70	8,818.2	-5,644.6	-802.8	5,690.7	0.68	0.53	0.43
14,552.0	92.20	183.10	8,813.2	-5,739.4	-806.7	5,785.5	2.24	-1.68	1.47
14,647.0	90.90	182.20	8,810.6	-5,834.2	-811.1	5,880.4	1.66	-1.37	-0.95
14,741.0	86.40	181.10	8,812.8	-5,928.1	-813.8	5,974.2	4.93	-4.79	-1.17
14,835.0	86.50	181.00	8,818.6	-6,021.9	-815.5	6,067.9	0.15	0.11	-0.11
14,929.0	86.90	181.50	8,824.1	-6,115.7	-817.6	6,161.6	0.68	0.43	0.53
15,024.0	89.70	181.30	8,826.9	-6,210.7	-819.9	6,256.4	2.95	2.95	-0.21
15,119.0	88.60	180.10	8,828.3	-6,305.6	-821.1	6,351.1	1.71	-1.16	-1.26
15,213.0	88.50	178.50	8,830.7	-6,399.6	-819.9	6,444.7	1.70	-0.11	-1.70
15,308.0	93.50	180.30	8,829.0	-6,494.6	-818.9	6,539.3	5.59	5.26	1.89
15,403.0	93.30	179.90	8,823.4	-6,589.4	-819.1	6,633.8	0.47	-0.21	-0.42
15,497.0	92.80	180.30	8,818.4	-6,683.3	-819.3	6,727.4	0.68	-0.53	0.43
15,592.0	92.30	178.70	8,814.1	-6,778.2	-818.4	6,821.9	1.76	-0.53	-1.68
15,686.0	92.20	178.90	8,810.5	-6,872.1	-816.5	6,915.4	0.24	-0.11	0.21
15,781.0	90.50	179.20	8,808.2	-6,967.0	-814.9	7,009.9	1.82	-1.79	0.32
15,875.0	88.70	178.20	8,808.9	-7,061.0	-812.8	7,103.4	2.19	-1.91	-1.06
15,970.0	88.00	178.20	8,811.6	-7,155.9	-809.8	7,197.7	0.74	-0.74	0.00
16,064.0	88.90	178.30	8,814.1	-7,249.8	-806.9	7,291.1	0.96	0.96	0.11
16,159.0	91.00	178.50	8,814.2	-7,344.8	-804.2	7,385.6	2.22	2.21	0.21
16,254.0	90.20	177.80	8,813.2	-7,439.7	-801.2	7,480.0	1.12	-0.84	-0.74
16,349.0	90.80	177.80	8,812.4	-7,534.6	-797.5	7,574.3	0.63	0.63	0.00
16,443.0	91.20	178.50	8,810.8	-7,628.6	-794.5	7,667.7	0.86	0.43	0.74
16,538.0	91.40	179.70	8,808.6	-7,723.5	-793.0	7,762.2	1.28	0.21	1.26
16,633.0	90.10	181.30	8,807.4	-7,818.5	-793.8	7,857.0	2.17	-1.37	1.68
16,727.0	88.30	181.50	8,808.7	-7,912.5	-796.1	7,950.8	1.93	-1.91	0.21
16,822.0	90.50	184.50	8,809.7	-8,007.3	-801.1	8,045.8	3.92	2.32	3.16
16,916.0	90.30	186.10	8,809.0	-8,100.9	-809.8	8,139.7	1.72	-0.21	1.70
17,011.0	92.40	186.60	8,806.8	-8,195.3	-820.3	8,234.7	2.27	2.21	0.53
17,105.0	91.20	186.90	8,803.8	-8,288.6	-831.3	8,328.6	1.32	-1.28	0.32
17,197.0	91.90	185.70	8,801.3	-8,380.0	-841.4	8,420.5	1.51	0.76	-1.30
17,291.0	89.80	183.60	8,799.9	-8,473.7	-849.0	8,514.5	3.16	-2.23	-2.23
17,374.0	90.70	183.60	8,799.6	-8,556.5	-854.3	8,597.4	1.08	1.08	0.00
17,436.0	88.30	182.90	8,800.1	-8,618.4	-857.8	8,659.4	4.03	-3.87	-1.13
17,499.0	87.80	181.90	8,802.3	-8,681.3	-860.4	8,722.3	1.77	-0.79	-1.59
17,594.0	87.80	179.70	8,805.9	-8,776.2	-861.7	8,817.1	2.31	0.00	-2.32
17,688.0	87.20	179.00	8,810.0	-8,870.1	-860.7	8,910.6	0.98	-0.64	-0.74
17,782.0	86.40	179.00	8,815.3	-8,964.0	-859.0	9,004.0	0.85	-0.85	0.00
17,877.0	85.80	179.20	8,821.7	-9,058.7	-857.5	9,098.3	0.67	-0.63	0.21
17,971.0	86.50	178.20	8,828.0	-9,152.5	-855.4	9,191.6	1.30	0.74	-1.06
18,065.0	87.90	176.20	8,832.6	-9,246.3	-850.8	9,284.7	2.60	1.49	-2.13
18,158.0	90.00	175.90	8,834.3	-9,339.0	-844.4	9,376.7	2.28	2.26	-0.32
18,252.0	92.30	176.20	8,832.4	-9,432.8	-837.9	9,469.6	2.47	2.45	0.32
18,346.0	92.80	177.30	8,828.3	-9,526.5	-832.6	9,562.6	1.28	0.53	1.17



Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Ghost rider 25/36 W0AP Federal Com #2H
Project:	Eddy County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3248.0usft (Patterson #230)
Site:	Sec 25, T23S, R26E	MD Reference:	WELL @ 3248.0usft (Patterson #230)
Well:	Ghost rider 25/36 W0AP Federal Com #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
18,441.0	92.30	176.80	8,824.0	-9,621.3	-827.7	9,656.7	0.74	-0.53	-0.53
18,535.0	91.40	177.60	8,821.0	-9,715.2	-823.2	9,749.9	1.28	-0.96	0.85
18,629.0	87.60	175.90	8,821.8	-9,809.0	-817.8	9,843.0	4.43	-4.04	-1.81
18,724.0	86.70	176.10	8,826.5	-9,903.6	-811.2	9,936.8	0.97	-0.95	0.21
18,818.0	85.70	176.20	8,832.8	-9,997.2	-804.9	10,029.6	1.07	-1.06	0.11
18,845.0	86.20	174.30	8,834.7	-10,024.1	-802.7	10,056.1	7.26	1.85	-7.04
TD @ 18900.0' MD / 8838.3' TVD									
18,900.0	86.20	174.30	8,838.3	-10,078.7	-797.2	10,110.1	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
126.0	126.0	0.3	0.2	First MWD Survey @ 126.0' MD / 126.0' TVD
8,927.7	8,746.7	-146.9	-641.1	330' HL Crossed @ 8927.7' MD / 8746.7' TVD
18,900.0	8,838.3	-10,078.7	-797.2	TD @ 18900.0' MD / 8838.3' TVD

Checked By: _____	Approved By: _____	Date: _____
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Company Name: Mewbourne Oil Company
 Ghost Rider 25/36 W0AP Federal Com #2H
 Eddy County, New Mexico (Nad 83)
 Rig: Patterson 523
 Created By: Shane Robinson
 Date: 6/24/2018

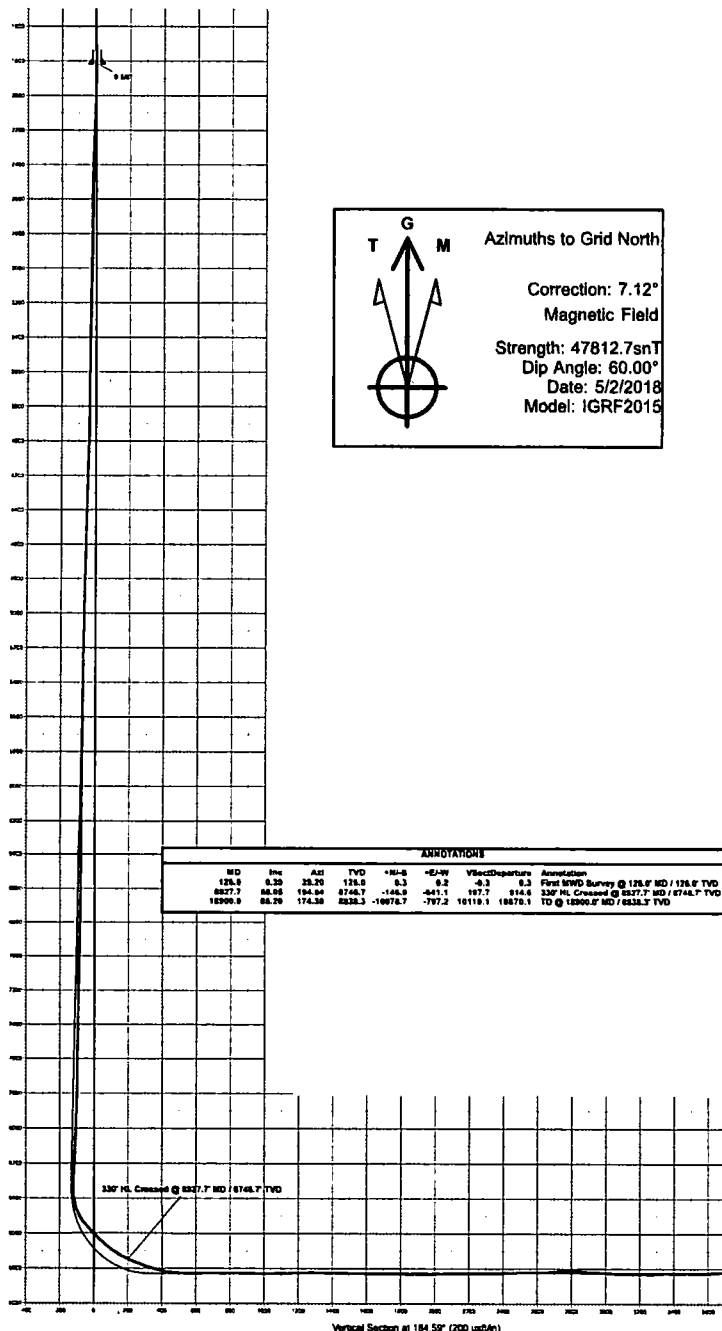
Ghost Rider 25/36 W0AP Federal Com #2H
 Eddy County, New Mexico (Nad 83)
 Q180613 & WT-180528
 Design #2



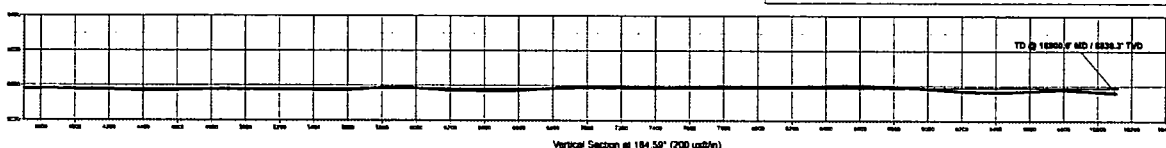
PROJECT DETAILS: Eddy County, New Mexico (Nad 83)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

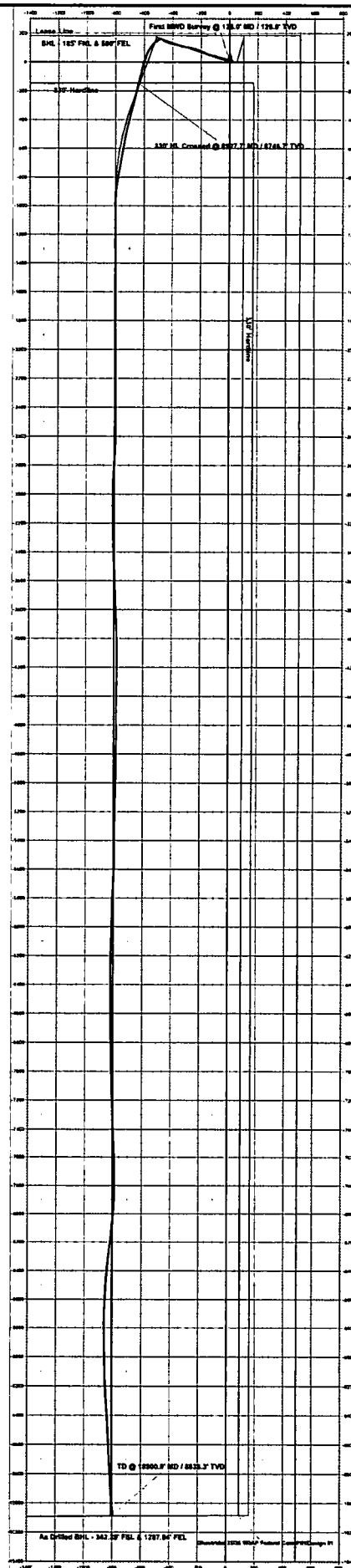
WELL DETAILS: Ghost Rider 25/36 W0AP Federal Com #2H					
MD	Inc	AS	TVD	MD-B	MD-W
126.9	6.35	23.20	126.9	6.3	6.3
827.7	66.95	134.34	827.7	-146.9	-147.1
12900.9	88.29	174.38	12900.9	-797.2	-797.2



Vertical Section at 184.50° (200 units/in)



Vertical Section at 184.50° (200 units/in)



As Drilled BHL - M2.32' PBL @ 1297.04' PBL

TD @ 12900.9' MD / 8833.7 TVD