



NM OIL CONSERVATION

ARTESIA DISTRICT

OCT 11 2016

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Mewbourne Oil Company

Eddy County, New Mexico

Sec 13, T26S, R29E

Fuller 13/24 B2LM Fed #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

29 December, 2015

30-015-43009





DDC
Survey Report



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Fuller 13/24 B2LM Fed #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 2977.0usft (Patterson #231)
Site:	Sec 13, T26S, R29E	MD Reference:	WELL @ 2977.0usft (Patterson #231)
Well:	Fuller 13/24 B2LM Fed #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		
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 13, T26S, R29E					
Site Position:		Northings:	379,076.30 usft	Latitude:	32° 2' 29.752 N
From:	Map	Easting:	620,635.10 usft	Longitude:	103° 56' 38.424 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well:	Fuller 13/24 B2LM Fed #1H					
Well Position	+N/-S	0.0 usft	Northings:	379,076.30 usft	Latitude:	32° 2' 29.752 N
	+E/-W	0.0 usft	Easting:	620,635.10 usft	Longitude:	103° 56' 38.424 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	2,957.0 usft	

Wellbore:	Wellbore #1
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/16/2015	7.28	59.85	47,955

Design:	Wellbore #1
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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	180.02

Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	12/29/2015	100.0	8,100.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro
		8,196.0	16,158.0	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	0.42	89.92	100.0	0.0	0.4	0.0	0.42	0.42	0.00
	200.0	1.07	124.18	200.0	-0.5	1.5	0.5	0.76	0.65	34.26
	300.0	1.29	110.92	300.0	-1.5	3.3	1.4	0.35	0.22	-13.26
	400.0	1.39	132.79	399.9	-2.7	5.3	2.7	0.52	0.10	21.87
	500.0	1.85	169.17	499.9	-5.1	6.5	5.1	1.10	0.46	36.38
	600.0	2.31	177.34	599.8	-8.7	6.9	8.7	0.55	0.46	8.17
	700.0	2.54	192.29	699.8	-12.9	6.5	12.9	0.67	0.23	14.95
	800.0	2.84	197.44	799.6	-17.4	5.3	17.4	0.38	0.30	5.15
	900.0	2.68	202.25	899.5	-21.9	3.6	21.9	0.28	-0.16	4.81



DDC Survey Report



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Project: Eddy County, New Mexico
Site: Sec 13, T26S, R29E
Well: Fuller 13/24 B2LM Fed #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Fuller 13/24 B2LM Fed #1H
TVD Reference: WELL @ 2977.0usft (Patterson #231)
MD Reference: WELL @ 2977.0usft (Patterson #231)
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)
1,000.0	2.10	206.99	999.4	-25.7	1.9	25.7	0.61	-0.58	4.74
1,100.0	2.11	194.31	1,099.4	-29.1	0.6	29.1	0.46	0.01	-12.68
1,200.0	2.22	203.64	1,199.3	-32.7	-0.6	32.7	0.37	0.11	9.33
1,300.0	2.00	205.28	1,299.2	-36.0	-2.1	36.0	0.23	-0.22	1.64
1,400.0	2.00	201.18	1,399.2	-39.2	-3.5	39.2	0.14	0.00	-4.10
1,500.0	1.99	209.75	1,499.1	-42.4	-5.0	42.4	0.30	-0.01	8.57
1,600.0	2.00	210.98	1,599.0	-45.4	-6.7	45.4	0.04	0.01	1.23
1,700.0	2.00	209.52	1,699.0	-48.4	-8.5	48.4	0.05	0.00	-1.46
1,800.0	1.85	213.66	1,798.9	-51.3	-10.3	51.3	0.20	-0.15	4.14
1,900.0	1.52	223.85	1,898.9	-53.6	-12.1	53.6	0.44	-0.33	10.19
2,000.0	1.43	223.55	1,998.9	-55.4	-13.8	55.4	0.09	-0.09	-0.30
2,100.0	1.63	231.14	2,098.8	-57.2	-15.8	57.2	0.28	0.20	7.59
2,200.0	1.73	231.16	2,198.8	-59.1	-18.1	59.1	0.10	0.10	0.02
2,300.0	2.12	226.65	2,298.7	-61.3	-20.6	61.3	0.42	0.39	-4.51
2,400.0	1.95	222.47	2,398.7	-63.8	-23.1	63.8	0.23	-0.17	-4.18
2,500.0	2.10	135.44	2,498.6	-66.4	-23.0	66.4	2.79	0.15	-87.03
2,600.0	2.46	127.19	2,598.5	-69.0	-20.0	69.0	0.49	0.36	-8.25
2,700.0	4.04	114.69	2,698.4	-71.7	-15.1	71.7	1.72	1.58	-12.50
2,800.0	6.00	113.44	2,798.0	-75.3	-7.1	75.3	1.96	1.96	-1.25
2,900.0	7.27	109.19	2,897.3	-79.4	3.7	79.4	1.36	1.27	-4.25
3,000.0	6.00	103.81	2,996.6	-82.8	14.7	82.8	1.41	-1.27	-5.38
3,100.0	4.54	110.61	3,096.2	-85.4	23.5	85.4	1.59	-1.46	6.80
3,200.0	3.20	116.65	3,196.0	-88.1	29.7	88.0	1.40	-1.34	6.04
3,300.0	2.53	114.97	3,295.9	-90.2	34.2	90.2	0.68	-0.67	-1.68
3,400.0	2.41	121.10	3,395.8	-92.3	38.0	92.2	0.29	-0.12	6.13
3,500.0	2.24	123.60	3,495.7	-94.4	41.5	94.4	0.20	-0.17	2.50
3,600.0	1.93	118.41	3,595.6	-96.3	44.6	96.3	0.36	-0.31	-5.19
3,700.0	1.36	110.32	3,695.6	-97.5	47.2	97.5	0.61	-0.57	-8.09
3,800.0	1.13	116.77	3,795.6	-98.4	49.1	98.4	0.27	-0.23	6.45
3,900.0	0.99	91.26	3,895.5	-98.8	50.9	98.8	0.49	-0.14	-25.51
4,000.0	0.49	119.44	3,995.5	-99.1	52.1	99.0	0.60	-0.50	28.18
4,100.0	0.33	102.45	4,095.5	-99.3	52.8	99.3	0.20	-0.16	-16.99
4,200.0	0.19	145.55	4,195.5	-99.5	53.2	99.5	0.23	-0.14	43.10
4,300.0	0.19	203.36	4,295.5	-99.8	53.2	99.8	0.18	0.00	57.81
4,400.0	0.36	257.98	4,395.5	-100.0	52.8	100.0	0.29	0.17	54.62
4,500.0	0.41	243.93	4,495.5	-100.3	52.2	100.2	0.11	0.05	-14.05
4,600.0	0.45	260.69	4,595.5	-100.5	51.5	100.5	0.13	0.04	16.76
4,700.0	0.54	298.00	4,695.5	-100.3	50.7	100.3	0.33	0.09	37.31
4,800.0	0.64	279.20	4,795.5	-100.0	49.7	100.0	0.22	0.10	-18.80
4,900.0	0.63	281.62	4,895.5	-99.8	48.6	99.8	0.03	-0.01	2.42
5,000.0	0.68	278.18	4,995.5	-99.6	47.5	99.6	0.06	0.05	-3.44
5,100.0	0.66	275.33	5,095.5	-99.5	46.3	99.5	0.04	-0.02	-2.85
5,200.0	0.53	298.08	5,195.5	-99.2	45.3	99.2	0.27	-0.13	22.75



DDC Survey Report



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Site: Sec 13, T26S, R29E
Well: Fuller 13/24 B2LM Fed #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Fuller 13/24 B2LM Fed #1H
TVD Reference: WELL @ 2977.0usft (Patterson #231)
MD Reference: WELL @ 2977.0usft (Patterson #231)
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)
5,300.0	0.90	289.71	5,295.5	-98.7	44.2	98.7	0.38	0.37	-8.37
5,400.0	1.01	316.60	5,395.5	-97.8	42.9	97.8	0.46	0.11	26.89
5,500.0	1.14	320.84	5,495.4	-96.4	41.6	96.4	0.15	0.13	4.24
5,600.0	0.99	316.80	5,595.4	-95.0	40.4	95.0	0.17	-0.15	-4.04
5,700.0	0.50	289.97	5,695.4	-94.2	39.4	94.2	0.59	-0.49	-26.83
5,800.0	0.34	317.81	5,795.4	-93.9	38.8	93.9	0.25	-0.16	27.84
5,900.0	0.65	304.68	5,895.4	-93.3	38.1	93.3	0.33	0.31	-13.13
6,000.0	0.66	273.10	5,995.4	-93.0	37.1	93.0	0.36	0.01	-31.58
6,100.0	0.55	280.72	6,095.4	-92.9	36.0	92.8	0.14	-0.11	7.62
6,200.0	0.67	257.05	6,195.4	-92.9	35.0	92.9	0.28	0.12	-23.67
6,300.0	0.68	263.61	6,295.4	-93.1	33.8	93.1	0.08	0.01	6.56
6,400.0	0.39	225.11	6,395.4	-93.4	33.0	93.4	0.45	-0.29	-38.50
6,500.0	0.95	216.14	6,495.4	-94.3	32.3	94.3	0.57	0.56	-8.97
6,600.0	1.06	213.66	6,595.4	-95.7	31.3	95.7	0.12	0.11	-2.48
6,700.0	1.19	208.74	6,695.3	-97.4	30.3	97.4	0.16	0.13	-4.92
6,800.0	1.14	216.00	6,795.3	-99.1	29.2	99.1	0.16	-0.05	7.26
6,900.0	1.32	225.20	6,895.3	-100.8	27.8	100.7	0.27	0.18	9.20
7,000.0	1.81	238.13	6,995.3	-102.4	25.6	102.4	0.60	0.49	12.93
7,100.0	3.26	273.05	7,095.2	-103.1	21.4	103.1	2.06	1.45	34.92
7,200.0	3.59	292.63	7,195.0	-101.7	15.7	101.7	1.21	0.33	19.58
7,300.0	3.46	341.51	7,294.8	-97.7	11.9	97.7	2.92	-0.13	48.88
7,400.0	3.37	344.69	7,394.6	-92.0	10.1	92.0	0.21	-0.09	3.18
7,500.0	3.26	348.98	7,494.5	-86.3	8.8	86.3	0.27	-0.11	4.29
7,600.0	4.04	27.72	7,594.3	-80.4	9.9	80.4	2.53	0.78	38.74
7,700.0	3.24	15.43	7,694.1	-74.6	12.3	74.6	1.11	-0.80	-12.29
7,800.0	5.02	350.97	7,793.8	-67.5	12.4	67.5	2.47	1.78	-24.46
7,900.0	4.25	353.38	7,893.5	-59.5	11.2	59.5	0.79	-0.77	2.41
8,000.0	3.49	8.36	7,993.3	-52.8	11.3	52.8	1.26	-0.76	14.98
Gyro Tie-in @ 8100' MD / 8093' TVD									
8,100.0	3.36	12.68	8,093.1	-47.0	12.3	47.0	0.29	-0.13	4.32
8,196.0	2.80	15.50	8,189.0	-42.0	13.6	42.0	0.60	-0.58	2.94
8,228.0	0.80	85.30	8,220.9	-41.2	14.0	41.2	8.23	-6.25	218.13
8,259.0	6.40	154.90	8,251.9	-42.7	15.0	42.7	19.89	18.06	224.52
8,291.0	11.90	157.40	8,283.5	-47.4	17.0	47.4	17.23	17.19	7.81
8,322.0	18.50	161.40	8,313.4	-55.0	19.8	55.0	21.55	21.29	12.90
8,354.0	23.00	162.50	8,343.3	-65.8	23.3	65.8	14.11	14.06	3.44
8,385.0	25.20	171.30	8,371.6	-78.1	26.1	78.1	13.57	7.10	28.39
8,417.0	29.40	170.70	8,400.0	-92.6	28.4	92.6	13.15	13.13	-1.88
8,449.0	33.70	171.60	8,427.3	-109.2	31.0	109.1	13.52	13.44	2.81
8,480.0	37.60	173.00	8,452.5	-127.1	33.4	127.0	12.85	12.58	4.52
8,512.0	40.40	177.40	8,477.3	-147.1	35.1	147.1	12.30	8.75	13.75
8,543.0	41.50	178.30	8,500.7	-167.4	35.8	167.4	4.03	3.55	2.90
8,575.0	42.20	179.70	8,524.6	-188.8	36.2	188.7	3.65	2.19	4.38



DDC
Survey Report



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Site:	Sec 13, T26S, R29E	MD Reference:	WELL @ 2977.0usft (Patterson #231)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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)
8,606.0	42.20	180.20	8,547.5	-209.6	36.2	209.6	1.08	0.00	1.61
8,638.0	43.80	180.90	8,571.0	-231.4	36.0	231.4	5.22	5.00	2.19
8,669.0	45.80	181.30	8,592.9	-253.2	35.6	253.2	6.52	6.45	1.29
Crossed Hard Line @ 8678' MD / 8599' TVD									
8,678.1	46.48	181.39	8,599.3	-259.8	35.4	259.8	7.53	7.50	0.96
8,701.0	48.20	181.60	8,614.8	-276.6	35.0	276.6	7.53	7.50	0.93
8,732.0	48.90	180.40	8,635.3	-299.9	34.6	299.9	3.68	2.26	-3.87
8,763.0	49.80	178.80	8,655.5	-323.4	34.7	323.4	4.87	2.90	-5.16
8,795.0	50.30	177.90	8,676.0	-347.9	35.4	347.9	2.66	1.56	-2.81
8,826.0	51.50	177.90	8,695.6	-371.9	36.3	371.9	3.87	3.87	0.00
8,858.0	52.10	177.60	8,715.4	-397.1	37.3	397.1	2.01	1.88	-0.94
8,889.0	54.60	177.60	8,733.9	-421.9	38.4	421.9	8.06	8.06	0.00
8,921.0	55.80	177.20	8,752.1	-448.2	39.6	448.2	3.89	3.75	-1.25
8,952.0	57.70	178.30	8,769.1	-474.1	40.6	474.1	6.81	6.13	3.55
8,983.0	58.70	178.50	8,785.5	-500.4	41.3	500.4	3.27	3.23	0.65
9,015.0	60.60	180.10	8,801.6	-528.0	41.6	528.0	7.34	5.94	5.00
9,084.0	66.50	181.10	8,832.4	-589.8	41.0	589.8	8.65	8.55	1.45
9,115.0	69.70	182.00	8,843.9	-618.5	40.2	618.5	10.67	10.32	2.90
9,147.0	72.40	181.60	8,854.3	-648.8	39.2	648.7	8.52	8.44	-1.25
9,179.0	73.30	180.60	8,863.8	-679.3	38.7	679.3	4.10	2.81	-3.13
9,210.0	73.50	179.90	8,872.6	-709.0	38.5	709.0	2.26	0.65	-2.26
9,241.0	76.60	179.90	8,880.6	-739.0	38.6	739.0	10.00	10.00	0.00
9,273.0	79.80	179.70	8,887.1	-770.3	38.7	770.3	10.02	10.00	-0.63
9,305.0	81.90	179.50	8,892.2	-801.9	38.9	801.9	6.59	6.56	-0.63
9,336.0	81.70	178.60	8,896.7	-832.6	39.4	832.6	2.95	-0.65	-2.90
9,399.0	81.10	178.80	8,906.1	-894.8	40.8	894.8	1.00	-0.95	0.32
9,494.0	87.30	179.00	8,915.7	-989.3	42.6	989.3	6.53	6.53	0.21
9,588.0	89.10	178.80	8,918.6	-1,083.2	44.5	1,083.2	1.93	1.91	-0.21
9,683.0	90.80	180.20	8,918.7	-1,178.2	45.3	1,178.2	2.32	1.79	1.47
9,778.0	89.90	179.50	8,918.1	-1,273.2	45.5	1,273.2	1.20	-0.95	-0.74
9,872.0	92.90	180.20	8,915.8	-1,367.2	45.8	1,367.2	3.28	3.19	0.74
9,967.0	92.60	179.50	8,911.3	-1,462.1	46.0	1,462.1	0.80	-0.32	-0.74
10,062.0	92.00	180.40	8,907.5	-1,557.0	46.1	1,557.0	1.14	-0.63	0.95
10,156.0	89.00	180.10	8,906.6	-1,651.0	45.7	1,651.0	3.21	-3.19	-0.32
10,250.0	87.80	179.90	8,909.3	-1,744.9	45.7	1,744.9	1.29	-1.28	-0.21
10,345.0	89.30	179.50	8,911.7	-1,839.9	46.2	1,839.9	1.63	1.58	-0.42
10,440.0	90.90	180.40	8,911.5	-1,934.9	46.3	1,934.9	1.93	1.68	0.95
10,534.0	89.90	179.50	8,910.8	-2,028.9	46.4	2,028.9	1.43	-1.06	-0.96
10,629.0	89.80	179.40	8,911.1	-2,123.9	47.3	2,123.9	0.15	-0.11	-0.11
10,724.0	89.80	179.20	8,911.4	-2,218.9	48.4	2,218.9	0.21	0.00	-0.21
10,818.0	88.80	178.50	8,912.6	-2,312.9	50.3	2,312.8	1.30	-1.06	-0.74
10,913.0	87.40	178.50	8,915.7	-2,407.8	52.8	2,407.7	1.47	-1.47	0.00
11,007.0	90.50	178.80	8,917.4	-2,501.7	55.0	2,501.7	3.31	3.30	0.32
11,102.0	89.20	177.20	8,917.7	-2,596.6	58.3	2,596.6	2.17	-1.37	-1.68



DDC Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 13, T26S, R29E
Well: Fuller 13/24 B2LM Fed #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Fuller 13/24 B2LM Fed #1H
TVD Reference: WELL @ 2977.0usft (Patterson #231)
MD Reference: WELL @ 2977.0usft (Patterson #231)
North Reference: Grid
Survey/Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)
11,196.0	93.00	180.90	8,915.9	-2,690.6	59.9	2,690.6	5.64	4.04	3.94
11,291.0	91.90	181.30	8,911.8	-2,785.5	58.1	2,785.5	1.23	-1.16	0.42
11,385.0	92.30	181.40	8,908.4	-2,879.4	55.9	2,879.4	0.44	0.43	0.11
11,480.0	90.60	182.00	8,906.0	-2,974.3	53.0	2,974.3	1.90	-1.79	0.63
11,574.0	89.80	183.60	8,905.7	-3,068.2	48.4	3,068.2	1.90	-0.85	1.70
11,668.0	88.30	182.30	8,907.2	-3,162.1	43.6	3,162.0	2.11	-1.60	-1.38
11,762.0	90.30	182.70	8,908.4	-3,256.0	39.5	3,255.9	2.17	2.13	0.43
11,857.0	88.80	181.40	8,909.1	-3,350.9	36.1	3,350.9	2.09	-1.58	-1.37
11,951.0	91.90	182.00	8,908.5	-3,444.8	33.3	3,444.8	3.36	3.30	0.64
12,046.0	91.60	179.90	8,905.6	-3,539.8	31.8	3,539.8	2.23	-0.32	-2.21
12,140.0	90.50	180.10	8,903.9	-3,633.8	31.8	3,633.7	1.19	-1.17	0.21
12,235.0	89.30	179.20	8,904.1	-3,728.7	32.3	3,728.7	1.58	-1.26	-0.95
12,329.0	88.20	179.40	8,906.1	-3,822.7	33.5	3,822.7	1.19	-1.17	0.21
12,424.0	87.40	179.00	8,909.8	-3,917.6	34.8	3,917.6	0.94	-0.84	-0.42
12,519.0	88.60	177.90	8,913.1	-4,012.5	37.4	4,012.5	1.71	1.26	-1.16
12,613.0	88.60	175.80	8,915.4	-4,106.4	42.5	4,106.3	2.23	0.00	-2.23
12,707.0	90.00	176.90	8,916.5	-4,200.2	48.5	4,200.1	1.89	1.49	1.17
12,802.0	92.40	176.70	8,914.5	-4,295.0	53.8	4,295.0	2.54	2.53	-0.21
12,896.0	92.30	177.20	8,910.7	-4,388.8	58.8	4,388.8	0.54	-0.11	0.53
12,990.0	92.50	178.30	8,906.8	-4,482.6	62.5	4,482.6	1.19	0.21	1.17
13,084.0	90.90	176.90	8,904.0	-4,576.5	66.4	4,576.5	2.26	-1.70	-1.49
13,178.0	91.80	178.50	8,901.7	-4,670.4	70.2	4,670.4	1.95	0.96	1.70
13,272.0	89.90	177.60	8,900.4	-4,764.3	73.4	4,764.3	2.24	-2.02	-0.96
13,365.0	89.70	177.40	8,900.7	-4,857.2	77.5	4,857.2	0.30	-0.22	-0.22
13,459.0	88.60	177.40	8,902.1	-4,951.1	81.7	4,951.1	1.17	-1.17	0.00
13,553.0	88.60	178.30	8,904.4	-5,045.0	85.3	5,045.0	0.96	0.00	0.96
13,648.0	90.70	179.20	8,905.0	-5,140.0	87.3	5,140.0	2.40	2.21	0.95
13,742.0	91.80	179.20	8,902.9	-5,234.0	88.6	5,233.9	1.17	1.17	0.00
13,836.0	89.70	178.50	8,901.7	-5,327.9	90.5	5,327.9	2.35	-2.23	-0.74
13,931.0	94.60	180.20	8,898.1	-5,422.8	91.6	5,422.8	5.46	5.16	1.79
14,025.0	94.70	180.20	8,890.5	-5,516.5	91.3	5,516.5	0.11	0.11	0.00
14,120.0	94.20	180.80	8,883.1	-5,611.2	90.5	5,611.2	0.82	-0.53	0.63
14,214.0	94.40	180.10	8,876.1	-5,704.9	89.7	5,704.9	0.77	0.21	-0.74
14,309.0	93.80	179.40	8,869.3	-5,799.7	90.1	5,799.7	0.97	-0.63	-0.74
14,403.0	89.30	180.10	8,866.7	-5,893.6	90.5	5,893.6	4.84	-4.79	0.74
14,435.0	87.80	180.90	8,867.5	-5,925.6	90.3	5,925.6	5.31	-4.69	2.50
14,466.0	87.40	180.80	8,868.8	-5,956.6	89.8	5,956.6	1.33	-1.29	-0.32
14,498.0	87.00	180.60	8,870.4	-5,988.6	89.4	5,988.5	1.40	-1.25	-0.63
14,529.0	86.70	180.90	8,872.1	-6,019.5	89.0	6,019.5	1.37	-0.97	0.97
14,561.0	86.10	180.90	8,874.1	-6,051.4	88.5	6,051.4	1.88	-1.88	0.00
14,592.0	85.60	180.80	8,876.4	-6,082.4	88.0	6,082.3	1.64	-1.61	-0.32
14,624.0	85.10	180.80	8,879.0	-6,114.2	87.6	6,114.2	1.56	-1.56	0.00
14,656.0	85.20	181.60	8,881.7	-6,146.1	86.9	6,146.1	2.51	0.31	2.50



DDC
Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 13, T26S, R29E
Well: Fuller 13/24 B2LM Fed #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Fuller 13/24 B2LM Fed #1H
TVD Reference: WELL @ 2977.0usft (Patterson #231)
MD Reference: WELL @ 2977.0usft (Patterson #231)
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)
14,688.0	85.70	181.60	8,884.2	-6,178.0	86.0	6,178.0	1.56	1.56	0.00
14,719.0	86.60	181.60	8,886.3	-6,208.9	85.2	6,208.9	2.90	2.90	0.00
14,750.0	86.80	181.60	8,888.1	-6,239.9	84.3	6,239.8	0.65	0.65	0.00
14,781.0	89.00	180.60	8,889.2	-6,270.8	83.7	6,270.8	7.79	7.10	-3.23
14,844.0	92.70	180.80	8,888.3	-6,333.8	82.9	6,333.8	5.88	5.87	0.32
14,876.0	92.20	180.60	8,886.9	-6,365.8	82.6	6,365.8	1.68	-1.56	-0.63
14,907.0	91.70	180.40	8,885.8	-6,396.8	82.3	6,396.7	1.74	-1.61	-0.65
14,939.0	90.70	180.40	8,885.2	-6,428.8	82.1	6,428.7	3.13	-3.13	0.00
14,970.0	89.60	180.20	8,885.1	-6,459.8	81.9	6,459.7	3.61	-3.55	-0.65
15,002.0	89.00	179.70	8,885.5	-6,491.8	81.9	6,491.7	2.44	-1.88	-1.56
15,033.0	89.10	179.90	8,886.0	-6,522.7	82.0	6,522.7	0.72	0.32	0.65
15,064.0	88.90	179.40	8,886.5	-6,553.7	82.2	6,553.7	1.74	-0.65	-1.61
15,096.0	88.30	179.70	8,887.3	-6,585.7	82.5	6,585.7	2.10	-1.88	0.94
15,158.0	90.00	180.90	8,888.2	-6,647.7	82.2	6,647.7	3.36	2.74	1.94
15,252.0	89.10	180.10	8,889.0	-6,741.7	81.3	6,741.7	1.28	-0.96	-0.85
15,347.0	92.80	180.80	8,887.4	-6,836.7	80.6	6,836.7	3.96	3.89	0.74
15,442.0	91.90	180.80	8,883.5	-6,931.6	79.3	6,931.6	0.95	-0.95	0.00
15,536.0	91.50	180.90	8,880.7	-7,025.5	77.9	7,025.5	0.44	-0.43	0.11
15,630.0	90.90	182.50	8,878.7	-7,119.5	75.1	7,119.4	1.82	-0.64	1.70
15,725.0	90.00	184.30	8,878.0	-7,214.3	69.4	7,214.3	2.12	-0.95	1.89
15,820.0	90.80	185.00	8,877.3	-7,309.0	61.7	7,309.0	1.12	0.84	0.74
15,914.0	90.20	185.50	8,876.5	-7,402.6	53.1	7,402.6	0.83	-0.64	0.53
16,009.0	89.30	185.30	8,876.9	-7,497.2	44.2	7,497.1	0.97	-0.95	-0.21
16,103.0	88.60	185.50	8,878.7	-7,590.7	35.4	7,590.7	0.77	-0.74	0.21
TD @ 16158' MD / 8880' TVD									
16,158.0	88.60	185.50	8,880.0	-7,645.5	30.1	7,645.4	0.00	0.00	0.00

Design Annotations:

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
8,100.0	8,093.1	-47.0	12.3	Gyro Tie-in @ 8100' MD / 8093' TVD
8,678.1	8,599.3	-259.8	35.4	Crossed Hard Line @ 8678' MD / 8599' TVD
16,158.0	8,880.0	-7,645.5	30.1	TD @ 16158' MD / 8880' TVD

Checked By: _____ Approved By: _____ Date: _____

OPERATOR
WELL/LEASE
COUNTY

Mewbourne Oil Company
Fuller 13/24 B2LM Fed Com 1H
Eddy, New Mexico

231-0024

STATE OF NEW MEXICO
DEVIATION REPORT

727	0.20
1,530	1.67
1,997	1.93
2,407	1.49
2,900	6.20
3,176	3.52
4,197	0.44
4,367	0.18
4,462	0.44
4,840	1.14
4,934	0.18
6,298	0.50
6,308	0.60
6,777	0.68
6,959	1.14

STATE OF TEXAS

COUNTY OF MIDLAND

BY: _____

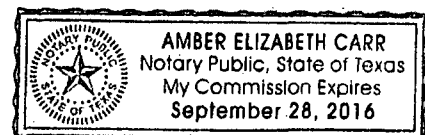
Dora Garcia

The foregoing instrument was acknowledged before me on
Dora Garcia on behalf of Patterson-UTi Drilling Company LLC.

2/4/16

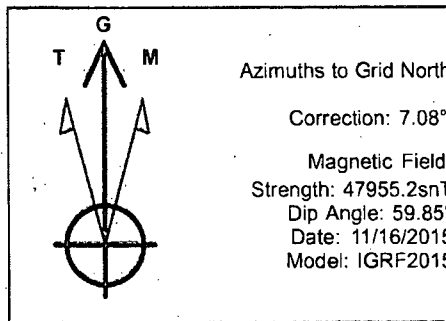
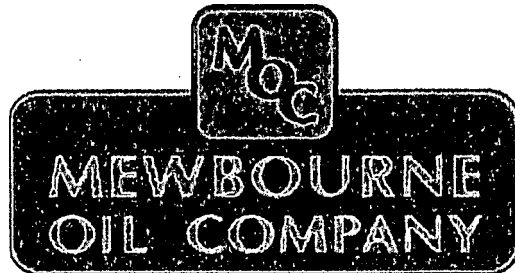
, by

Amber Elizabeth Carr
Notary Public for Midland County, Texas
My Commission Expires:



Company Name: Mawbourne Oil Company
 Fuller 13/24 B2LM Fed #1H
 Eddy County, New Mexico
 Rig: Patterson #231
 Created By: Shane Robbins
 Date: 12/29/2015

Fuller 13/24 B2LM Fed #1H
 Eddy County, New Mexico
 Q150851 & WT-150731
 Design #2 Tied into Gyro



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 DETAIL 1: Fuller 13/24 B2LM Fed #1H					
Ground Level:		2957.0			
+N/-S	+E/-W	Northings	Eastings	Latitude	Longitude
0.0	0.0	370078.38	820833.02	32° 2' 29.752 N	103° 58' 35.424 W

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Northings	Eastings	Latitude
PBHL Fuller 13/24 B2LM Fed #1H	8687.0	-7657.0	-2.1	371416.41	820833.02	32° 1' 13.990 N
- plan hits target center						

ANNOTATIONS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation	
8100.0	3.38	12.88	8093.1	-47.0	12.3	47.0	265.5	Gyro Tie-In @ 8100' MD / 8093' TVD	
8978.1	48.40	181.39	8589.3	-259.8	75.4	259.8	488.3	Crossed Hard Line @ 8978' MD / 8589' TVD	
10158.0	83.60	186.50	8850.0	-7645.5	70.1	7645.4	7655.2	TD @ 10158' MD / 8850' TVD	

