

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 11 2017

RECEIVED

Mewbourne Oil Company

Eddy County, New Mexico

Sec 6, T24S, R28E

Motley 6-7 W2DE Federal Com #1H

Wellbore #1

Design: Wellbore #1

QES Survey Report

12 June, 2017



Company Name: Newbourn Oil Company
 Well: 6-7 W2DE Federal Com #1H
 Eddy County, New Mexico
 Rig: Patterson #243
 Created By: Shane Robbins
 Date: 6/12/2017

6-7 W2DE Federal Com #1H
 Eddy County, New Mexico
 Q170597 & WT-170490
 Design #2



PROJECT DETAILS: Eddy County, New Mexico

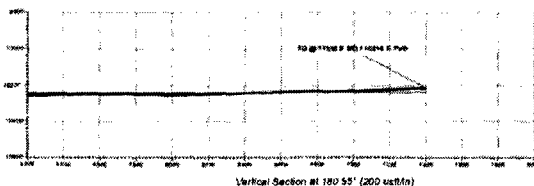
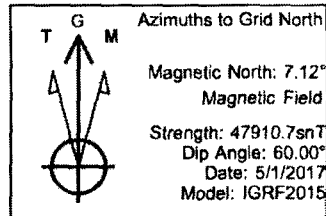
Geodetic System: US State Plane 1987 (Exact solution)
 Datum: NAD 1987 (NAD80 CONUS)
 Ellipsoid: Clarke 1880
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level

WELL DETAILS: Well: 6-7 W2DE Federal Com #1H

Ground Level: 2599.9
 Elevation: 2599.9
 Longitude: 104° 0' 1.302 W

ANNOTATIONS

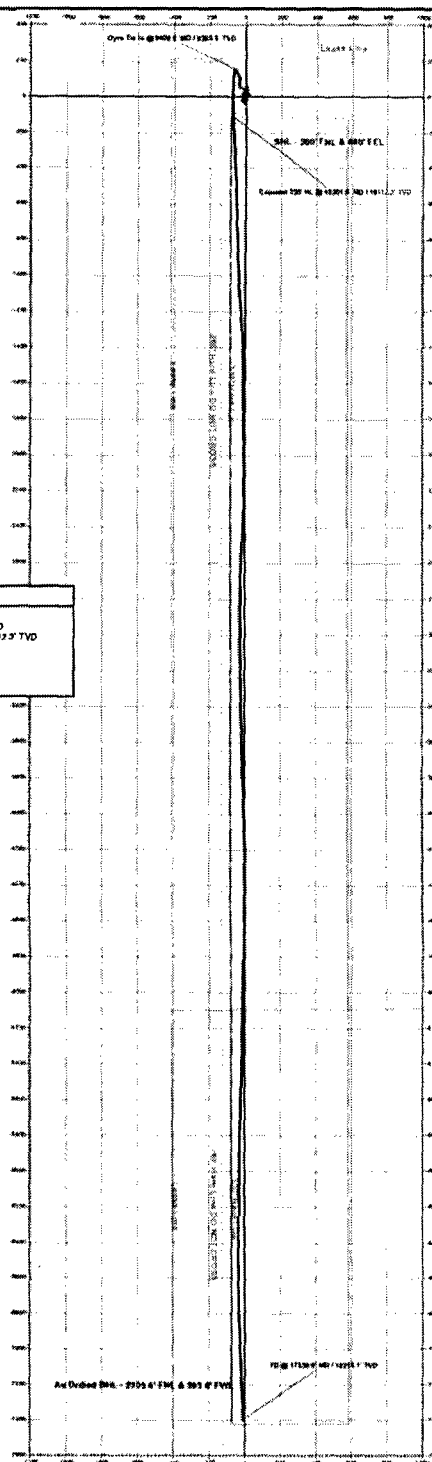
MD	Inc	Az	TVD	+N/-S	+E/-W	Vbct/Departure	Annotation
0400.0	2.51	377.35	8385.5	154.4	-57.2	-195.8	277.8 Gyro Tilt In @ 8400.0 MD / 8385.5 TVD
10201.8	51.87	177.36	10112.3	-110.4	-72.4	511.1	587.7 Crossed 330° HL @ 10091.8 MD / 10112.3 TVD
17520.0	92.40	177.46	10218.1	-7289.7	-8.0	7386.4	7850.9 TD @ 17520.0 MD / 10218.1 TVD



Gyro Tilt In @ 8400.0 MD / 8385.5 TVD

Crossed 330° HL @ 10091.8 MD / 10112.3 TVD

Vertical Section at 180.55° (200 us/in)





Job Number: SVMO-170352
 Company: Mewbourne
 Lease/Well: Motley 6/7BW2DE Fed Com 1H
 Location: Eddy County, NM
 Rig Name: Patterson 243
 RKB: 26'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: Declination See Details Below
 Grid: East To Grid North
 File name: C:\WINSER-1\2017MEWBOU-1\MOMOTLEY6-7BW2-1\1H.SVY
 Date/Time: 16-May-17 / 15:24
 Curve Name: Surface - 9400' M.D. (Rate Gyro)
 Lat: 32.253503 Long: -104.133667

MS Energy

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 180.55
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

Declination To True North: 7.28°
 Grid Convergence Factor: 0° 6' 23.59933"
 Total Correction Mag to Grid: 7.18°

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
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	1.40	216.57	99.99	-.98	-.73	.99	1.22	216.57	1.40
200.00	1.58	224.57	199.96	-2.94	-2.42	2.97	3.81	219.45	.27
300.00	2.15	228.80	299.90	-5.16	-4.80	5.21	7.05	222.93	.59
400.00	1.83	240.06	399.84	-7.19	-7.60	7.27	10.46	226.56	.50
500.00	1.50	253.25	499.80	-8.37	-10.23	8.47	13.22	230.73	.50
600.00	1.08	239.66	599.78	-9.22	-12.30	9.34	15.37	233.14	.52
700.00	1.22	250.45	699.76	-10.05	-14.12	10.19	17.33	234.54	.26
800.00	.86	248.21	799.74	-10.69	-15.82	10.84	19.09	235.95	.36
900.00	.85	228.72	899.73	-11.46	-17.07	11.62	20.56	236.13	.29
1000.00	1.04	237.64	999.71	-12.43	-18.40	12.61	22.20	235.95	.24
1100.00	.92	218.81	1099.70	-13.54	-19.67	13.73	23.88	235.45	.34
1200.00	1.13	226.57	1199.68	-14.85	-20.88	15.05	25.62	234.59	.25



Survey Report

QEC

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 6, T24S, R28E
Well: Motley 6-7 W2DE Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Motley 6-7 W2DE Federal Com #1H
TVD Reference: RKB @ 3136.0usft (Patterson #243)
MD Reference: RKB @ 3136.0usft (Patterson #243)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

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 6, T24S, R28E

Site Position: **From:** Map
Position Uncertainty: 0.0 usft
Northing: 456,000.10 usft
Easting: 561,724.60 usft
Slot Radius: 13-3/16 "
Latitude: 32° 15' 12.612 N
Longitude: 104° 8' 1.202 W
Grid Convergence: 0.11 °

Well Motley 6-7 W2DE Federal Com #1H

Well Position **+N/-S** 0.0 usft **Northing:** 456,000.09 usft **Latitude:** 32° 15' 12.612 N
+E/-W 0.0 usft **Easting:** 561,724.60 usft **Longitude:** 104° 8' 1.202 W
Position Uncertainty 0.0 usft **Wellhead Elevation:** 0.0 usft **Ground Level:** 3,109.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/1/2017	7.23	60.00	47,911

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	180.55

Survey Program Date 6/12/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	9,400.0	Gyro (Wellbore #1)	GYRO-NS	OWSG Gyrocompass Gyro
9,520.0	17,530.0	MWD Survey #2 (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	1.40	216.57	100.0	-1.0	-0.7	1.0	1.40	1.40	0.00
200.0	1.58	224.57	200.0	-2.9	-2.4	3.0	0.27	0.18	8.00
300.0	2.15	228.80	299.9	-5.2	-4.8	5.2	0.59	0.57	4.23
400.0	1.83	240.06	399.8	-7.2	-7.6	7.3	0.50	-0.32	11.26
500.0	1.50	253.25	499.8	-8.4	-10.2	8.5	0.50	-0.33	13.19
600.0	1.08	239.66	599.8	-9.2	-12.3	9.3	0.52	-0.42	-13.59
700.0	1.22	250.45	699.8	-10.1	-14.1	10.2	0.26	0.14	10.79
800.0	0.86	248.21	799.7	-10.7	-15.8	10.8	0.36	-0.36	-2.24
900.0	0.85	228.72	899.7	-11.5	-17.1	11.6	0.29	-0.01	-19.49



Survey Report



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Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Motley 6-7 W2DE Federal Com #1H
TVD Reference: RKB @ 3136.0usft (Patterson #243)
MD Reference: RKB @ 3136.0usft (Patterson #243)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

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	1.04	237.64	999.7	-12.4	-18.4	12.6	0.24	0.19	8.92
1,100.0	0.92	218.81	1,099.7	-13.5	-19.7	13.7	0.34	-0.12	-18.83
1,200.0	1.13	226.57	1,199.7	-14.8	-20.9	15.0	0.25	0.21	7.76
1,300.0	1.23	210.64	1,299.7	-16.4	-22.1	16.7	0.34	0.10	-15.93
1,400.0	1.09	215.60	1,399.6	-18.1	-23.2	18.4	0.17	-0.14	4.96
1,500.0	1.01	187.24	1,499.6	-19.8	-23.9	20.0	0.52	-0.08	-28.36
1,600.0	1.49	123.79	1,599.6	-21.4	-22.9	21.6	1.38	0.48	-63.45
1,700.0	2.64	114.01	1,699.5	-23.1	-19.8	23.2	1.20	1.15	-9.78
1,800.0	2.47	128.49	1,799.4	-25.3	-16.0	25.5	0.67	-0.17	14.48
1,900.0	1.66	144.83	1,899.4	-27.9	-13.4	28.0	0.99	-0.81	16.34
2,000.0	2.66	130.35	1,999.3	-30.5	-10.8	30.6	1.13	1.00	-14.48
2,100.0	2.38	124.64	2,099.2	-33.2	-7.4	33.3	0.38	-0.28	-5.71
2,200.0	1.33	100.24	2,199.2	-34.6	-4.5	34.7	1.29	-1.05	-24.40
2,300.0	1.46	89.77	2,299.1	-34.8	-2.1	34.8	0.29	0.13	-10.47
2,400.0	1.66	17.41	2,399.1	-33.4	-0.4	33.4	1.85	0.20	-72.36
2,500.0	1.90	11.49	2,499.0	-30.4	0.4	30.4	0.30	0.24	-5.92
2,600.0	1.66	14.29	2,599.0	-27.4	1.1	27.4	0.26	-0.24	2.80
2,700.0	1.91	9.72	2,699.0	-24.3	1.7	24.3	0.29	0.25	-4.57
2,800.0	1.81	19.11	2,798.9	-21.2	2.5	21.2	0.32	-0.10	9.39
2,900.0	1.78	19.79	2,898.9	-18.3	3.5	18.2	0.04	-0.03	0.68
3,000.0	1.36	13.36	2,998.8	-15.6	4.3	15.6	0.45	-0.42	-6.43
3,100.0	1.28	349.01	3,098.8	-13.4	4.4	13.3	0.56	-0.08	-24.35
3,200.0	1.16	332.46	3,198.8	-11.4	3.7	11.4	0.37	-0.12	-16.55
3,300.0	1.02	338.69	3,298.7	-9.7	2.9	9.6	0.18	-0.14	6.23
3,400.0	1.11	324.76	3,398.7	-8.0	2.0	8.0	0.27	0.09	-13.93
3,500.0	1.81	349.82	3,498.7	-5.7	1.2	5.7	0.93	0.70	25.06
3,600.0	2.05	346.64	3,598.6	-2.4	0.5	2.4	0.26	0.24	-3.18
3,700.0	1.77	354.66	3,698.6	0.9	0.0	-0.9	0.39	-0.28	8.02
3,800.0	1.94	357.76	3,798.5	4.1	-0.3	-4.1	0.20	0.17	3.10
3,900.0	1.75	352.93	3,698.5	7.3	-0.5	-7.3	0.25	-0.19	-4.83
4,000.0	1.73	1.03	3,998.4	10.3	-0.7	-10.3	0.25	-0.02	8.10
4,100.0	1.79	2.27	4,098.4	13.4	-0.6	-13.4	0.07	0.06	1.24
4,200.0	1.73	357.47	4,198.3	16.5	-0.6	-16.5	0.16	-0.06	-4.80
4,300.0	1.41	341.69	4,298.3	19.1	-1.0	-19.1	0.53	-0.32	-15.78
4,400.0	1.11	332.91	4,398.3	21.2	-1.9	-21.2	0.36	-0.30	-8.78
4,500.0	1.11	335.88	4,498.3	22.9	-2.7	-22.9	0.06	0.00	2.97
4,600.0	1.14	334.34	4,598.2	24.7	-3.5	-24.7	0.04	0.03	-1.54
4,700.0	1.19	334.67	4,698.2	26.5	-4.4	-26.5	0.05	0.05	0.33
4,800.0	1.17	330.41	4,798.2	28.4	-5.4	-28.3	0.09	-0.02	-4.26
4,900.0	1.19	330.36	4,898.2	30.2	-6.4	-30.1	0.02	0.02	-0.05
5,000.0	1.22	330.58	4,998.2	32.0	-7.4	-31.9	0.03	0.03	0.22
5,100.0	1.94	322.18	5,098.1	34.3	-9.0	-34.2	0.75	0.72	-8.40
5,200.0	1.97	321.83	5,198.1	36.9	-11.1	-36.8	0.03	0.03	-0.35



Survey Report



Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 6, T24S, R28E
Well: Motley 6-7 W2DE Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Motley 6-7 W2DE Federal Com #1H
TVD Reference: RKB @ 3136.0usft (Patterson #243)
MD Reference: RKB @ 3136.0usft (Patterson #243)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

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	1.81	319.57	5,298.0	39.5	-13.2	-39.4	0.18	-0.16	-2.26
5,400.0	1.71	310.60	5,398.0	41.7	-15.3	-41.5	0.29	-0.10	-8.97
5,500.0	1.43	321.51	5,497.9	43.6	-17.2	-43.4	0.41	-0.28	10.91
5,600.0	1.41	314.44	5,597.9	45.5	-18.9	-45.3	0.18	-0.02	-7.07
5,700.0	1.92	321.16	5,697.8	47.6	-20.8	-47.4	0.55	0.51	6.72
5,800.0	1.91	320.94	5,797.8	50.2	-22.9	-50.0	0.01	-0.01	-0.22
5,900.0	2.13	289.74	5,897.7	52.1	-25.7	-51.9	1.11	0.22	-31.20
6,000.0	2.13	286.54	5,997.7	53.3	-29.2	-53.0	0.12	0.00	-3.20
6,100.0	2.05	284.62	6,097.6	54.3	-32.7	-54.0	0.11	-0.08	-1.92
6,200.0	2.12	320.52	6,197.5	56.2	-35.7	-55.8	1.29	0.07	35.90
6,300.0	2.13	331.85	6,297.5	59.2	-37.7	-58.9	0.42	0.01	11.33
6,400.0	1.57	332.47	6,397.4	62.1	-39.2	-61.7	0.56	-0.56	0.62
6,500.0	1.07	338.19	6,497.4	64.2	-40.2	-63.8	0.52	-0.50	5.72
6,600.0	2.02	344.64	6,597.4	66.7	-41.0	-66.3	0.96	0.95	6.45
6,700.0	2.07	359.59	6,697.3	70.2	-41.5	-69.8	0.53	0.05	14.95
6,800.0	2.28	9.03	6,797.2	74.0	-41.2	-73.6	0.41	0.21	9.44
6,900.0	2.50	11.83	6,897.1	78.1	-40.4	-77.7	0.25	0.22	2.80
7,000.0	2.56	10.80	6,997.0	82.4	-39.6	-82.0	0.08	0.06	-1.03
7,100.0	2.49	16.80	7,096.9	86.7	-38.5	-86.3	0.27	-0.07	6.00
7,200.0	2.02	42.07	7,196.9	90.1	-36.7	-89.7	1.09	-0.47	25.27
7,300.0	2.96	14.35	7,296.8	93.9	-34.9	-93.6	1.50	0.94	-27.72
7,400.0	3.43	1.57	7,396.6	99.4	-34.2	-99.1	0.85	0.47	-12.78
7,500.0	2.90	357.46	7,496.5	104.9	-34.2	-104.6	0.58	-0.53	-4.11
7,600.0	2.18	345.39	7,596.4	109.3	-34.8	-108.9	0.89	-0.72	-12.07
7,700.0	1.91	334.67	7,696.3	112.6	-36.0	-112.3	0.47	-0.27	-10.72
7,800.0	1.53	322.53	7,796.3	115.2	-37.5	-114.8	0.52	-0.38	-12.14
7,900.0	1.68	325.45	7,896.2	117.5	-39.2	-117.1	0.17	0.15	2.92
8,000.0	1.44	311.87	7,996.2	119.5	-40.9	-119.1	0.44	-0.24	-13.58
8,100.0	1.60	316.04	8,096.1	121.3	-42.8	-120.9	0.19	0.16	4.17
8,200.0	0.93	345.37	8,196.1	123.1	-44.0	-122.7	0.91	-0.67	29.33
8,300.0	0.47	319.46	8,296.1	124.2	-44.5	-123.8	0.55	-0.46	-25.91
8,400.0	0.42	247.13	8,396.1	124.4	-45.1	-124.0	0.53	-0.05	-72.33
8,500.0	1.64	334.23	8,496.1	125.5	-48.0	-125.1	1.67	1.22	87.10
8,600.0	1.41	333.79	8,596.1	127.9	-47.2	-127.5	0.23	-0.23	-0.44
8,700.0	2.17	335.49	8,696.0	130.8	-48.5	-130.3	0.76	0.76	1.70
8,800.0	2.66	342.34	8,795.9	134.7	-50.0	-134.2	0.57	0.49	6.85
8,900.0	2.11	349.45	8,895.8	138.7	-51.1	-138.2	0.62	-0.55	7.11
9,000.0	1.56	353.96	8,995.8	141.9	-51.5	-141.4	0.57	-0.55	4.51
9,100.0	1.37	349.58	9,095.7	144.4	-51.9	-143.9	0.22	-0.19	-4.38
9,200.0	2.19	331.32	9,195.7	147.3	-53.0	-146.7	0.99	0.82	-18.26
9,300.0	2.41	330.67	9,295.6	150.8	-55.0	-150.2	0.22	0.22	-0.65
Gyro Tie In @ 9400.0 'MD / 9395.5 'TVD									
9,400.0	2.51	327.33	9,395.5	154.4	-57.2	-153.9	0.17	0.10	-3.34



Survey Report

QEC

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 6, T24S, R28E
Well: Motley 6-7 W2DE Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Motley 6-7 W2DE Federal Com #1H
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9,520.0	2.20	319.30	9,515.4	158.4	-80.1	-157.8	0.38	-0.26	-8.69
9,553.0	2.20	325.60	9,548.4	159.4	-80.9	-158.8	0.73	0.00	19.09
9,585.0	1.60	320.50	9,580.4	160.3	-81.5	-159.7	1.95	-1.88	-15.94
9,616.0	2.20	207.00	9,611.4	160.1	-82.1	-159.5	10.31	1.94	-386.13
9,647.0	6.40	189.60	9,642.3	157.8	-82.6	-157.2	14.03	13.55	-56.13
9,679.0	9.70	196.10	9,674.0	153.5	-83.7	-152.9	10.68	10.31	20.31
9,711.0	14.30	192.40	9,705.3	147.0	-85.3	-146.4	14.57	14.38	-11.56
9,742.0	17.20	188.90	9,735.1	138.8	-86.8	-138.1	9.84	9.35	-11.29
9,773.0	18.80	188.00	9,764.6	129.3	-88.2	-128.6	5.24	5.16	-2.90
9,804.0	20.80	187.30	9,793.7	118.9	-89.6	-118.2	6.50	6.45	-2.26
9,836.0	22.80	186.80	9,823.4	107.1	-71.0	-106.4	6.28	6.25	-1.56
9,867.0	25.20	184.80	9,851.8	94.5	-72.3	-93.8	8.17	7.74	-6.45
9,899.0	27.00	181.70	9,880.5	80.5	-73.1	-79.8	7.06	5.63	-9.69
9,930.0	28.80	180.60	9,907.9	66.0	-73.4	-65.3	6.04	5.81	-3.55
9,961.0	31.40	180.60	9,934.7	50.4	-73.5	-49.7	8.39	8.39	0.00
9,993.0	34.50	180.30	9,961.6	33.0	-73.7	-32.3	9.70	9.69	-0.94
10,024.0	37.60	179.90	9,986.6	14.8	-73.7	-14.1	10.03	10.00	-1.29
10,055.0	40.40	180.30	10,010.7	-4.7	-73.7	5.4	9.07	9.03	1.29
10,086.0	42.90	180.40	10,033.9	-25.3	-73.9	26.0	8.07	8.06	0.32
10,118.0	45.20	179.90	10,056.9	-47.6	-73.9	48.3	7.27	7.19	-1.56
10,149.0	47.80	178.90	10,078.2	-70.0	-73.7	70.7	8.71	8.39	-3.23
10,180.0	50.20	178.00	10,098.5	-93.4	-73.1	94.1	8.05	7.74	-2.90
Crossed 330' HL @ 10201.9' MD / 10112.3' TVD									
10,201.9	51.97	177.36	10,112.3	-110.4	-72.4	111.1	8.38	8.06	-2.93
10,211.0	52.70	177.10	10,117.9	-117.6	-72.0	118.3	8.38	8.07	-2.83
10,243.0	55.10	176.90	10,136.7	-143.5	-70.7	144.1	7.52	7.50	-0.63
10,274.0	57.40	177.10	10,153.9	-169.2	-69.3	169.9	7.44	7.42	0.65
10,305.0	60.20	176.90	10,170.0	-195.7	-67.9	196.3	9.05	9.03	-0.65
10,336.0	63.50	177.60	10,184.6	-223.0	-66.6	223.6	10.83	10.65	2.26
10,368.0	67.40	177.60	10,197.9	-252.1	-65.4	252.7	12.19	12.19	0.00
10,399.0	70.10	177.40	10,209.1	-280.9	-64.1	281.5	8.73	8.71	-0.65
10,430.0	72.90	176.80	10,219.0	-310.3	-62.6	310.9	9.22	9.03	-1.94
10,480.0	77.70	177.10	10,231.7	-358.6	-60.1	359.1	9.62	9.60	0.60
10,499.0	78.40	176.80	10,235.6	-377.1	-59.1	377.7	3.99	3.68	-1.58
10,531.0	78.60	176.90	10,242.0	-408.4	-57.4	409.0	0.70	0.63	0.31
10,562.0	80.90	176.90	10,247.5	-438.9	-55.7	439.4	7.42	7.42	0.00
10,593.0	83.50	177.40	10,251.7	-469.6	-54.2	470.1	8.54	8.39	1.61
10,625.0	86.00	177.80	10,254.6	-501.4	-52.9	501.9	7.81	7.81	1.25
10,656.0	87.70	178.30	10,256.3	-532.3	-51.8	532.8	5.72	5.48	1.61
10,688.0	87.50	178.50	10,257.7	-564.3	-50.9	564.7	0.88	-0.63	0.63
10,719.0	87.60	178.50	10,259.0	-595.2	-50.1	595.7	0.32	0.32	0.00
10,751.0	87.10	178.30	10,260.5	-627.2	-49.2	627.6	1.68	-1.56	-0.63
10,844.0	87.60	178.50	10,264.8	-720.1	-46.6	720.5	0.58	0.54	0.22
10,938.0	87.30	178.00	10,269.0	-813.9	-43.7	814.3	0.62	-0.32	-0.53



Survey Report

DES

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 6, T24S, R28E
Well: Motley 6-7 W2DE Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Motley 6-7 W2DE Federal Com #1H
TYD Reference: RKB @ 3136.0usft (Patterson #243)
MD Reference: RKB @ 3136.0usft (Patterson #243)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

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)
11,032.0	89.70	178.70	10,271.4	-907.8	-41.0	908.2	2.66	2.55	0.74
11,126.0	88.60	176.60	10,272.8	-1,001.7	-37.2	1,002.1	2.52	-1.17	-2.23
11,219.0	91.30	177.10	10,272.9	-1,094.6	-32.1	1,094.9	2.95	2.90	0.54
11,313.0	89.40	175.70	10,272.3	-1,188.4	-26.2	1,188.6	2.51	-2.02	-1.49
11,407.0	92.10	176.10	10,271.1	-1,282.1	-19.5	1,282.3	2.90	2.87	0.43
11,501.0	90.70	176.10	10,268.8	-1,375.9	-13.1	1,376.0	1.49	-1.49	0.00
11,594.0	92.80	178.90	10,266.0	-1,468.8	-9.0	1,468.8	3.76	2.26	3.01
11,687.0	93.40	179.90	10,260.9	-1,561.6	-8.0	1,561.6	1.25	0.65	1.08
11,781.0	92.80	180.10	10,255.8	-1,655.5	-8.0	1,655.5	0.67	-0.64	0.21
11,875.0	90.80	179.70	10,252.9	-1,749.4	-7.9	1,749.4	2.17	-2.13	-0.43
11,969.0	88.80	179.20	10,253.2	-1,843.4	-7.0	1,843.4	2.19	-2.13	-0.53
12,063.0	86.80	178.00	10,256.8	-1,937.3	-4.7	1,937.3	2.48	-2.13	-1.28
12,157.0	88.30	179.70	10,260.8	-2,031.2	-2.8	2,031.1	2.41	1.60	1.81
12,251.0	91.40	181.00	10,261.1	-2,125.2	-3.4	2,125.1	3.58	3.30	1.38
12,345.0	93.90	179.90	10,256.7	-2,219.1	-4.1	2,219.0	2.91	2.66	-1.17
12,439.0	92.00	182.70	10,251.9	-2,312.9	-6.2	2,312.9	3.60	-2.02	2.98
12,532.0	88.20	183.30	10,251.7	-2,405.8	-11.1	2,405.8	4.14	-4.09	0.65
12,626.0	90.20	183.60	10,253.1	-2,499.6	-16.8	2,499.6	2.15	2.13	0.32
12,719.0	85.80	182.40	10,256.3	-2,592.4	-21.6	2,592.5	4.90	-4.73	-1.29
12,813.0	85.70	182.00	10,263.3	-2,686.0	-25.2	2,686.2	0.44	-0.11	-0.43
12,907.0	87.40	180.30	10,268.9	-2,779.8	-27.1	2,780.0	2.56	1.81	-1.81
13,001.0	89.60	179.20	10,271.4	-2,873.8	-26.7	2,873.9	2.62	2.34	-1.17
13,095.0	89.30	179.70	10,272.3	-2,967.8	-25.8	2,967.9	0.62	-0.32	0.53
13,189.0	88.70	180.10	10,273.9	-3,061.8	-25.6	3,061.9	0.77	-0.64	0.43
13,282.0	91.60	178.90	10,273.7	-3,154.8	-24.8	3,154.9	3.37	3.12	-1.29
13,376.0	92.80	180.10	10,270.1	-3,248.7	-24.0	3,248.8	1.80	1.28	1.28
13,469.0	89.40	178.30	10,268.3	-3,341.6	-22.7	3,341.7	4.14	-3.66	-1.94
13,563.0	88.50	178.30	10,270.0	-3,435.6	-19.9	3,435.6	0.96	-0.96	0.00
13,657.0	90.50	178.90	10,270.8	-3,529.5	-17.6	3,529.6	2.22	2.13	0.64
13,751.0	90.80	178.70	10,269.8	-3,623.5	-15.6	3,623.5	0.38	0.32	-0.21
13,846.0	90.40	178.30	10,268.8	-3,718.5	-13.2	3,718.4	0.60	-0.42	-0.42
13,939.0	90.00	178.20	10,268.5	-3,811.4	-10.3	3,811.4	0.44	-0.43	-0.11
14,033.0	91.90	178.20	10,266.9	-3,905.4	-7.4	3,905.3	2.02	2.02	0.00
14,124.0	91.70	177.40	10,264.0	-3,996.3	-3.9	3,996.1	0.91	-0.22	-0.88
14,218.0	91.50	178.00	10,261.4	-4,090.2	-0.1	4,090.0	0.67	-0.21	0.64
14,312.0	92.10	178.90	10,258.5	-4,184.1	2.4	4,183.9	1.15	0.64	0.96
14,405.0	92.20	178.90	10,255.0	-4,277.0	4.2	4,276.7	0.11	0.11	0.00
14,499.0	90.90	180.10	10,252.4	-4,370.9	5.0	4,370.7	1.88	-1.38	1.28
14,593.0	89.50	181.00	10,252.1	-4,464.9	4.1	4,464.7	1.77	-1.49	0.96
14,687.0	89.30	181.70	10,253.1	-4,558.9	1.9	4,558.7	0.77	-0.21	0.74
14,780.0	88.20	181.90	10,255.1	-4,651.8	-1.0	4,651.6	1.20	-1.18	0.22
14,875.0	88.00	182.00	10,258.3	-4,746.7	-4.2	4,746.6	0.24	-0.21	0.11
14,969.0	87.90	182.60	10,261.6	-4,840.6	-8.0	4,840.4	0.65	-0.11	0.64



Survey Report

DES

Company: Mewbourne Oil Company
Project: Eddy County, New Mexico
Site: Sec 6, T24S, R28E
Well: Motley 6-7 W2DE Federal Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Motley 6-7 W2DE Federal Com #1H
TVD Reference: RKB @ 3136.0usft (Patterson #243)
MD Reference: RKB @ 3136.0usft (Patterson #243)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

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)
15,062.0	90.10	180.60	10,263.2	-4,933.5	-10.6	4,933.4	3.20	2.37	-2.15
15,156.0	90.10	180.40	10,263.1	-5,027.5	-11.4	5,027.4	0.21	0.00	-0.21
15,250.0	91.10	180.60	10,262.1	-5,121.5	-12.2	5,121.4	1.08	1.06	0.21
15,344.0	91.00	180.40	10,260.4	-5,215.5	-13.0	5,215.4	0.24	-0.11	-0.21
15,438.0	91.40	180.40	10,258.4	-5,309.5	-13.7	5,309.4	0.43	0.43	0.00
15,533.0	92.80	182.00	10,254.9	-5,404.4	-15.7	5,404.3	2.24	1.47	1.68
15,626.0	91.10	181.90	10,251.8	-5,497.3	-18.9	5,497.2	1.83	-1.83	-0.11
15,720.0	90.40	181.50	10,250.5	-5,591.2	-21.6	5,591.2	0.86	-0.74	-0.43
15,814.0	89.70	181.90	10,250.4	-5,685.2	-24.4	5,685.2	0.86	-0.74	0.43
15,908.0	88.30	182.00	10,252.1	-5,779.1	-27.6	5,779.1	1.49	-1.49	0.11
16,001.0	87.80	180.10	10,255.3	-5,872.0	-29.3	5,872.0	2.11	-0.54	-2.04
16,095.0	88.60	180.30	10,258.2	-5,966.0	-29.7	5,966.0	0.88	0.85	0.21
16,189.0	92.30	180.30	10,257.5	-6,060.0	-30.2	6,060.0	3.94	3.94	0.00
16,283.0	92.90	180.80	10,253.2	-6,153.9	-31.1	6,153.9	0.83	0.64	0.53
16,376.0	91.40	180.60	10,249.7	-6,246.8	-32.2	6,246.8	1.63	-1.61	-0.22
16,470.0	91.90	180.60	10,247.0	-6,340.7	-33.2	6,340.8	0.53	0.53	0.00
16,564.0	92.20	181.30	10,243.6	-6,434.7	-34.7	6,434.7	0.81	0.32	0.74
16,658.0	91.00	179.90	10,241.0	-6,528.6	-35.7	6,528.7	1.96	-1.28	-1.49
16,752.0	91.80	179.40	10,238.7	-6,622.6	-35.1	6,622.6	1.00	0.85	-0.53
16,847.0	90.20	178.90	10,237.1	-6,717.6	-33.7	6,717.6	1.76	-1.68	-0.53
16,941.0	89.50	178.90	10,237.3	-6,811.5	-31.9	6,811.5	0.74	-0.74	0.00
17,035.0	90.70	178.50	10,237.1	-6,905.5	-29.8	6,905.5	1.35	1.28	-0.43
17,129.0	91.10	177.80	10,235.7	-6,999.5	-26.8	6,999.4	0.86	0.43	-0.74
17,223.0	92.50	176.90	10,232.7	-7,093.3	-22.4	7,093.2	1.77	1.49	-0.96
17,316.0	92.40	176.80	10,228.7	-7,186.1	-17.3	7,185.9	0.15	-0.11	-0.11
17,410.0	92.70	178.00	10,224.6	-7,279.9	-13.0	7,279.7	1.31	0.32	1.28
17,480.0	92.60	177.40	10,221.3	-7,349.8	-10.2	7,349.5	0.67	-0.14	-0.86
TD @ 17530.0' MD / 10219.1' TVD									
17,530.0	92.60	177.40	10,219.1	-7,399.7	-8.0	7,399.4	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,400.0	9,395.5	154.4	-57.2	Gyro Tie In @ 9400.0' MD / 9395.5' TVD
10,201.9	10,112.3	-110.4	-72.4	Crossed 330' HL @ 10201.9' MD / 10112.3' TVD
17,530.0	10,219.1	-7,399.7	-8.0	TD @ 17530.0' MD / 10219.1' TVD

Checked By: _____ Approved By: _____ Date: _____