

Results of Directional Survey

API number:	30-025-41255		
OGRID:		Operator:	MEWBOURNE OIL CO
		Property:	EXCALIBUR 17 MP FEDERAL COM # 1H

surface	ULSTR:	N M	17	T	19S	R	33E
				500	FSL	20	FWL

BH Loc	ULSTR:	P	17	T	19S	R	33E
14475	MD	9908.7	TVD	551	FSL	443	FEL
						4837	FWL

Top Perf/OH	ULSTR:	N	17	T	19S	R	33E
10150	MD	9833.2	TVD	600	FSL	514	FWL

Bot Perf/OH	ULSTR:	P	17	T	19S	R	33E
14342	MD	9906.6	TVD	550	FSL	576	FEL
						4704	FWL

	MD	N/S	E/W	VD
	10139	100.10	483.00	9832.4
TOP PERFS/OH	10150	99.82	493.96	9833.18
	10170	99.30	513.90	9834.60
	14322	49.40	4664.20	9906.30
BOT PERFS/OH	14342	49.59	4684.20	9906.62
	14385	50.00	4727.20	9907.30

NEXT TO LAST	14425	50.50	4767.20	9907.90
LAST READING	14475	51.20	4817.20	9908.70
TD	14475	51.20	4817.20	9908.70

Surface Location	500	FS	20	FW
Projected BHL	551	FS	4837	FW
Location of				
Top Perfs/OH	600	FS	514	FW
Bottom Perfs/OH	550	FS	4704	FW

SUMMARY of Subsurface Locations

Surface Location	N-17-19S-33E	500	FS	20	FW	Vert. Depth
Top Perfs/OH	N-17-19S-33E	600	FS	514	FW	9833.18
Bottom Perfs/OH	P-17-19S-33E	550	FS	4704	FW	9906.62
Projected TD	P-17-19S-33E	551	FS	4837	FW	9908.70

APR 07 2014

OPERATOR MEWBOURNE OIL COMPANY
WELL/LEASE EXCALIBUR 17 MP FED COM 1H
COUNTY LEA

075-0101

STATE OF NEW MEXICO
DEVIATION REPORT

425	0.77
856	2.61
1,096	1.00
1,383	2.17
1,658	0.75
1,878	0.79
2,225	0.92
2,609	2.44
2,860	3.25
2,926	3.90
2,979	3.32
3,080	2.82
3,210	2.35
3,464	2.23
3,761	2.54
4,202	1.58
4,584	0.95
4,995	0.91
5,386	0.62
5,766	0.25
6,233	1.82
6,589	1.47
7,001	1.76
7,474	0.90
7,883	0.46
8,359	0.21
8,771	1.00

HOBBS OCD

FEB 13 2014

RECEIVED

STATE OF TEXAS

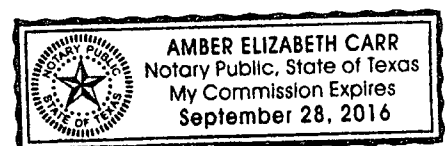
BY: Steve Moore

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Steve Moore on behalf of Patterson-UTI Drilling Company LLC.

12/18/13, by

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



Mewbourne Oil Co

Lea County, New Mexico (Nad 83)

Sec 17,T19S,R33E

Excalibur 17 MP #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

05 December, 2013

HOBBS OCD

FEB 13 2014

RECEIVED



DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 MP #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3647.0usft (Patterson #75)
Site:	Sec 17,T19S,R33E	MD Reference:	WELL @ 3647.0usft (Patterson #75)
Well:	Excalibur 17 MP #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Lea 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 17,T19S,R33E		
Site Position:		Northing:	602,402.30 usft
From:	Map	Easting:	738,174.70 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 39' 15.917 N
		Longitude:	103° 41' 37.577 W
		Grid Convergence:	0.35 °

Well	Excalibur 17 MP #1H		
Well Position	+N/-S	0.0 usft	Northing: 602,402.30 usft
	+E/-W	0.0 usft	Easting: 738,174.70 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 39' 15.917 N
		Longitude:	103° 41' 37.577 W
		Ground Level:	3,627.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	5/7/2013	7.44
			60.52
			48,671

Design	Wellbore #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			89.73

Survey Program	Date 12/5/2013		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	9,165.0	Multi-Shot Gyro (Wellbore #1)	Good_gyro
9,229.0	14,475.0	MWD (Wellbore #1)	MWD default
			Description
			Good Gyro
			MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.32	328.24	100.0	0.2	-0.1	-0.1	0.32	0.32	0.00
200.0	0.56	300.77	200.0	0.7	-0.7	-0.7	0.31	0.24	-27.47
300.0	0.67	282.48	300.0	1.1	-1.7	-1.7	0.22	0.11	-18.29
400.0	0.66	275.44	400.0	1.3	-2.8	-2.8	0.08	-0.01	-7.04
500.0	1.01	278.69	500.0	1.5	-4.3	-4.3	0.35	0.35	3.25
600.0	1.44	277.32	600.0	1.8	-6.4	-6.4	0.43	0.43	-1.37
700.0	1.69	275.63	699.9	2.1	-9.1	-9.1	0.25	0.25	-1.69
800.0	1.92	275.07	799.9	2.4	-12.3	-12.2	0.23	0.23	-0.56
900.0	1.92	273.39	899.8	2.6	-15.6	-15.6	0.06	0.00	-1.68

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 MP #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3647.0usft (Patterson #75)
Site:	Sec.17,T19S,R33E	MD Reference:	WELL @ 3647.0usft (Patterson #75)
Well:	Excalibur 17 MP #1H	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)
1,000.0	1.83	269.28	999.8	2.7	-18.9	-18.9	0.16	-0.09	-4.11
1,100.0	1.50	261.65	1,099.7	2.5	-21.8	-21.8	0.40	-0.33	-7.63
1,200.0	1.23	253.60	1,199.7	2.0	-24.1	-24.1	0.33	-0.27	-8.05
1,300.0	1.22	250.52	1,299.7	1.3	-26.1	-26.1	0.07	-0.01	-3.08
1,400.0	1.17	247.68	1,399.6	0.6	-28.1	-28.1	0.08	-0.05	-2.84
1,500.0	0.82	233.87	1,499.6	-0.2	-29.6	-29.6	0.42	-0.35	-13.81
1,600.0	0.68	229.97	1,599.6	-1.0	-30.6	-30.6	0.15	-0.14	-3.90
1,700.0	0.60	233.25	1,699.6	-1.7	-31.5	-31.5	0.09	-0.08	3.28
1,800.0	0.50	235.75	1,799.6	-2.3	-32.3	-32.3	0.10	-0.10	2.50
1,900.0	0.44	241.37	1,899.6	-2.7	-33.0	-33.0	0.08	-0.06	5.62
2,000.0	0.43	249.68	1,999.6	-3.0	-33.7	-33.7	0.06	-0.01	8.31
2,100.0	0.45	244.41	2,099.6	-3.3	-34.4	-34.4	0.05	0.02	-5.27
2,200.0	0.37	249.67	2,199.6	-3.6	-35.0	-35.0	0.09	-0.08	5.26
2,300.0	0.33	333.38	2,299.6	-3.5	-35.5	-35.5	0.47	-0.04	83.71
2,400.0	1.15	13.95	2,399.6	-2.2	-35.3	-35.4	0.92	0.82	40.57
2,500.0	1.77	27.27	2,499.5	0.1	-34.4	-34.4	0.70	0.62	13.32
2,600.0	2.11	27.00	2,599.5	3.1	-32.9	-32.8	0.34	0.34	-0.27
2,700.0	2.65	27.88	2,699.4	6.8	-30.9	-30.9	0.54	0.54	0.88
2,800.0	3.14	34.39	2,799.3	11.1	-28.3	-28.3	0.59	0.49	6.51
2,900.0	3.26	37.04	2,899.1	15.6	-25.0	-25.0	0.19	0.12	2.65
3,000.0	3.17	36.48	2,999.0	20.1	-21.7	-21.6	0.10	-0.09	-0.56
3,100.0	2.75	26.86	3,098.8	24.5	-19.0	-18.8	0.65	-0.42	-9.62
3,200.0	2.46	17.75	3,198.7	28.7	-17.2	-17.1	0.50	-0.29	-9.11
3,300.0	2.27	12.97	3,298.6	32.7	-16.1	-16.0	0.27	-0.19	-4.78
3,400.0	1.98	8.10	3,398.6	36.3	-15.4	-15.3	0.34	-0.29	-4.87
3,500.0	1.96	5.10	3,498.5	39.7	-15.0	-14.9	0.11	-0.02	-3.00
3,600.0	2.02	3.74	3,598.5	43.2	-14.8	-14.6	0.08	0.06	-1.36
3,700.0	2.43	352.59	3,698.4	47.0	-14.9	-14.7	0.59	0.41	-11.15
3,800.0	2.35	349.02	3,798.3	51.1	-15.6	-15.4	0.17	-0.08	-3.57
3,900.0	2.18	346.53	3,898.2	55.0	-16.4	-16.2	0.20	-0.17	-2.49
4,000.0	1.99	344.21	3,998.1	58.5	-17.3	-17.1	0.21	-0.19	-2.32
4,100.0	1.72	346.86	4,098.1	61.7	-18.2	-17.9	0.28	-0.27	2.65
4,200.0	1.68	347.38	4,198.1	64.6	-18.8	-18.5	0.04	-0.04	0.52
4,300.0	1.50	347.66	4,298.0	67.3	-19.4	-19.1	0.18	-0.18	0.28
4,400.0	1.01	356.32	4,398.0	69.4	-19.8	-19.4	0.52	-0.49	8.66
4,500.0	0.81	348.87	4,498.0	71.0	-20.0	-19.6	0.23	-0.20	-7.45
4,600.0	0.67	334.38	4,598.0	72.2	-20.3	-20.0	0.23	-0.14	-14.49
4,700.0	0.49	327.19	4,698.0	73.1	-20.8	-20.5	0.19	-0.18	-7.19
4,800.0	0.51	317.86	4,798.0	73.8	-21.4	-21.0	0.08	0.02	-9.33
4,900.0	0.57	311.75	4,898.0	74.5	-22.0	-21.7	0.08	0.06	-6.11
5,000.0	0.78	297.69	4,997.9	75.1	-23.0	-22.6	0.27	0.21	-14.06
5,100.0	0.68	329.77	5,097.9	75.9	-23.9	-23.5	0.41	-0.10	32.08
5,200.0	0.41	343.69	5,197.9	76.8	-24.3	-23.9	0.30	-0.27	13.92

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 MP #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3647.0usft (Patterson #75)
Site:	Sec 17,T19S,R33E	MD Reference:	WELL @ 3647.0usft (Patterson #75)
Well:	Excalibur 17 MP #1H	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)
5,300.0	0.29	358.28	5,297.9	77.4	-24.4	-24.0	0.15	-0.12	14.59
5,400.0	0.23	359.32	5,397.9	77.8	-24.4	-24.1	0.06	-0.06	1.04
5,500.0	0.24	341.94	5,497.9	78.2	-24.5	-24.1	0.07	0.01	-17.38
5,600.0	0.37	332.21	5,597.9	78.7	-24.7	-24.3	0.14	0.13	-9.73
5,700.0	0.65	318.02	5,697.9	79.4	-25.2	-24.9	0.31	0.28	-14.19
5,800.0	0.79	315.98	5,797.9	80.3	-26.1	-25.7	0.14	0.14	-2.04
5,900.0	0.95	308.53	5,897.9	81.4	-27.2	-26.8	0.20	0.16	-7.45
6,000.0	1.25	287.30	5,997.9	82.2	-28.9	-28.5	0.50	0.30	-21.23
6,100.0	1.24	279.90	6,097.9	82.7	-31.0	-30.6	0.16	-0.01	-7.40
6,200.0	1.28	269.24	6,197.8	82.9	-33.2	-32.8	0.24	0.04	-10.66
6,300.0	1.38	269.30	6,297.8	82.9	-35.5	-35.1	0.10	0.10	0.06
6,400.0	1.33	271.40	6,397.8	82.9	-37.9	-37.5	0.07	-0.05	2.10
6,500.0	1.29	283.60	6,497.8	83.2	-40.1	-39.7	0.28	-0.04	12.20
6,600.0	1.34	282.17	6,597.7	83.7	-42.4	-42.0	0.06	0.05	-1.43
6,700.0	1.36	283.37	6,697.7	84.2	-44.7	-44.3	0.03	0.02	1.20
6,800.0	1.30	289.82	6,797.7	84.8	-46.9	-46.5	0.16	-0.06	6.45
6,900.0	1.25	294.88	6,897.7	85.7	-48.9	-48.5	0.12	-0.05	5.06
7,000.0	1.28	297.06	6,997.6	86.7	-50.9	-50.5	0.06	0.03	2.18
7,100.0	1.31	300.94	7,097.6	87.8	-52.9	-52.5	0.09	0.03	3.88
7,200.0	1.15	299.64	7,197.6	88.8	-54.8	-54.3	0.16	-0.16	-1.30
7,300.0	1.03	300.69	7,297.6	89.8	-56.4	-56.0	0.12	-0.12	1.05
7,400.0	0.91	304.83	7,397.5	90.7	-57.8	-57.4	0.14	-0.12	4.14
7,500.0	0.73	312.84	7,497.5	91.6	-59.0	-58.5	0.21	-0.18	8.01
7,600.0	0.82	318.65	7,597.5	92.6	-59.9	-59.5	0.12	0.09	5.81
7,700.0	0.67	334.66	7,697.5	93.6	-60.6	-60.2	0.26	-0.15	16.01
7,800.0	0.69	348.34	7,797.5	94.7	-61.0	-60.5	0.16	0.02	13.68
7,900.0	0.71	343.84	7,897.5	95.9	-61.3	-60.8	0.06	0.02	-4.50
8,000.0	0.76	348.73	7,997.5	97.2	-61.6	-61.1	0.08	0.05	4.89
8,100.0	0.95	31.29	8,097.5	98.5	-61.3	-60.8	0.65	0.19	42.56
8,200.0	0.36	46.58	8,197.5	99.5	-60.6	-60.2	0.61	-0.59	15.29
8,300.0	0.17	88.29	8,297.5	99.7	-60.2	-59.8	0.26	-0.19	41.71
8,400.0	0.32	204.17	8,397.5	99.4	-60.2	-59.7	0.42	0.15	115.88
8,500.0	0.66	145.32	8,497.5	98.7	-60.0	-59.5	0.57	0.34	-58.85
8,600.0	1.29	127.02	8,597.5	97.6	-58.8	-58.3	0.69	0.63	-18.30
8,700.0	0.71	169.51	8,697.4	96.3	-57.8	-57.3	0.90	-0.58	42.49
8,800.0	0.46	186.27	8,797.4	95.3	-57.7	-57.2	0.30	-0.25	16.76
8,900.0	0.30	209.12	8,897.4	94.6	-57.9	-57.4	0.22	-0.16	22.85
9,000.0	0.27	207.78	8,997.4	94.2	-58.1	-57.7	0.03	-0.03	-1.34
9,100.0	0.46	149.51	9,097.4	93.6	-58.0	-57.6	0.39	0.19	-58.27
Tie In @ 9165' MD / 9162' TVD									
9,165.0	0.46	143.93	9,162.4	93.2	-57.7	-57.3	0.07	0.00	-8.58
9,229.0	1.30	232.00	9,226.4	92.5	-58.1	-57.7	2.13	1.31	137.61
9,260.0	0.80	167.40	9,257.4	92.1	-58.4	-57.9	3.87	-1.61	-208.39

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17.MP #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3647.0usft (Patterson #75)
Site:	Sec 17,T19S,R33E	MD Reference:	WELL @ 3647.0usft (Patterson #75)
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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)
9,292.0	3.50	91.40	9,289.4	91.9	-57.3	-56.9	10.61	8.44	-237.50
9,324.0	6.90	81.90	9,321.3	92.1	-54.5	-54.0	10.92	10.63	-29.69
9,355.0	9.70	74.00	9,351.9	93.1	-50.1	-49.7	9.73	9.03	-25.48
9,387.0	12.80	72.40	9,383.3	94.9	-44.1	-43.7	9.74	9.69	-5.00
9,419.0	15.20	73.70	9,414.4	97.2	-36.7	-36.3	7.56	7.50	4.06
9,450.0	18.40	78.80	9,444.0	99.3	-28.0	-27.6	11.36	10.32	16.45
Crossed Lease Line @ 9477' MD / 9469' TVD									
9,476.6	19.73	78.88	9,469.2	100.9	-19.5	-19.0	5.00	5.00	0.32
9,482.0	20.00	78.90	9,474.3	101.3	-17.7	-17.2	5.00	5.00	0.29
9,514.0	21.60	77.50	9,504.2	103.6	-6.6	-6.1	5.24	5.00	-4.38
9,545.0	24.60	82.30	9,532.7	105.7	5.4	5.9	11.42	9.68	15.48
9,577.0	27.80	84.60	9,561.4	107.3	19.4	19.9	10.49	10.00	7.19
9,608.0	32.00	85.40	9,588.3	108.7	34.8	35.3	13.61	13.55	2.58
9,640.0	34.80	88.80	9,615.0	109.5	52.4	52.9	10.52	8.75	10.63
9,671.0	38.40	87.70	9,639.9	110.1	70.9	71.4	11.80	11.61	-3.55
9,703.0	42.40	88.60	9,664.2	110.8	91.6	92.1	12.63	12.50	2.81
9,734.0	46.60	88.60	9,686.3	111.3	113.3	113.8	13.55	13.55	0.00
9,766.0	51.40	89.30	9,707.3	111.7	137.4	138.0	15.09	15.00	2.19
9,797.0	55.40	90.00	9,725.8	111.9	162.3	162.9	13.03	12.90	2.26
9,829.0	58.80	91.40	9,743.2	111.5	189.2	189.7	11.24	10.63	4.38
9,861.0	62.30	92.50	9,758.9	110.6	217.0	217.6	11.34	10.94	3.44
9,892.0	65.30	93.50	9,772.6	109.1	244.8	245.3	10.10	9.68	3.23
9,924.0	68.40	93.50	9,785.2	107.3	274.2	274.7	9.69	9.69	0.00
9,955.0	71.10	93.70	9,795.9	105.5	303.2	303.7	8.73	8.71	0.65
Crossed Hard Line @ 9963' MD / 9798' TVD									
9,962.6	71.74	93.48	9,798.3	105.1	310.4	310.9	8.85	8.43	-2.85
9,987.0	73.80	92.80	9,805.6	103.8	333.7	334.1	8.85	8.44	-2.80
10,018.0	76.80	91.80	9,813.4	102.6	363.6	364.1	10.17	9.68	-3.23
10,050.0	79.00	91.20	9,820.1	101.8	394.9	395.4	7.12	6.88	-1.88
10,081.0	80.80	91.10	9,825.6	101.2	425.4	425.9	5.82	5.81	-0.32
10,113.0	83.60	90.70	9,829.9	100.7	457.1	457.6	8.84	8.75	-1.25
10,139.0	85.50	91.70	9,832.4	100.1	483.0	483.4	8.25	7.31	3.85
10,170.0	86.30	91.50	9,834.6	99.3	513.9	514.3	2.66	2.58	-0.65
10,202.0	89.40	91.50	9,835.8	98.4	545.8	546.3	9.69	9.69	0.00
10,234.0	90.30	92.00	9,835.9	97.4	577.8	578.3	3.22	2.81	1.56
10,265.0	91.00	91.70	9,835.5	96.4	608.8	609.3	2.46	2.26	-0.97
10,329.0	90.80	91.80	9,834.5	94.5	672.8	673.2	0.35	-0.31	0.16
10,392.0	90.20	91.30	9,834.0	92.8	735.7	736.2	1.24	-0.95	-0.79
10,456.0	88.90	90.20	9,834.5	91.9	799.7	800.2	2.66	-2.03	-1.72
10,519.0	88.00	90.90	9,836.2	91.3	862.7	863.1	1.81	-1.43	1.11
10,582.0	88.50	91.30	9,838.1	90.1	925.7	926.1	1.02	0.79	0.63
10,645.0	87.70	91.10	9,840.2	88.8	988.6	989.0	1.31	-1.27	-0.32
10,709.0	87.70	91.50	9,842.8	87.4	1,052.6	1,053.0	0.62	0.00	0.63
10,772.0	88.20	91.70	9,845.0	85.6	1,115.5	1,115.9	0.85	0.79	0.32

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 MP #1H
Project:	Lea County, New Mexico (Nad:83)	TVD Reference:	WELL @ 3647.0usft (Patterson #75)
Site:	Sec 17, T19S, R33E	MD Reference:	WELL @ 3647.0usft (Patterson #75)
Well:	Excalibur 17 MP #1H	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)
10,836.0	89.20	91.50	9,846.5	83.8	1,179.4	1,179.8	1.59	1.56	-0.31
10,899.0	89.20	92.00	9,847.3	81.9	1,242.4	1,242.8	0.79	0.00	0.79
10,962.0	88.20	91.10	9,848.8	80.2	1,305.4	1,305.7	2.14	-1.59	-1.43
11,025.0	88.50	91.30	9,850.6	78.9	1,368.3	1,368.7	0.57	0.48	0.32
11,089.0	89.30	90.90	9,851.8	77.6	1,432.3	1,432.7	1.40	1.25	-0.63
11,152.0	88.60	91.70	9,853.0	76.2	1,495.3	1,495.6	1.69	-1.11	1.27
11,215.0	88.70	91.80	9,854.5	74.3	1,558.2	1,558.6	0.22	0.16	0.16
11,279.0	89.20	91.80	9,855.6	72.3	1,622.2	1,622.5	0.78	0.78	0.00
11,342.0	89.60	91.70	9,856.3	70.4	1,685.2	1,685.5	0.65	0.63	-0.16
11,406.0	89.60	90.60	9,856.7	69.1	1,749.1	1,749.4	1.72	0.00	-1.72
11,470.0	90.40	90.10	9,856.7	68.7	1,813.1	1,813.4	1.47	1.25	-0.78
11,532.0	89.10	90.20	9,857.0	68.5	1,875.1	1,875.4	2.10	-2.10	0.16
11,595.0	89.30	90.90	9,857.9	67.9	1,938.1	1,938.4	1.16	0.32	1.11
11,658.0	90.00	90.80	9,858.3	67.0	2,001.1	2,001.4	1.12	1.11	-0.16
11,721.0	88.40	90.60	9,859.1	66.2	2,064.1	2,064.4	2.56	-2.54	-0.32
11,785.0	88.70	90.60	9,860.8	65.5	2,128.1	2,128.4	0.47	0.47	0.00
11,848.0	87.60	90.10	9,862.8	65.2	2,191.0	2,191.3	1.92	-1.75	-0.79
11,912.0	88.40	89.70	9,865.0	65.3	2,255.0	2,255.3	1.40	1.25	-0.63
11,975.0	89.10	89.70	9,866.4	65.6	2,318.0	2,318.3	1.11	1.11	0.00
12,038.0	89.30	89.90	9,867.3	65.8	2,381.0	2,381.3	0.45	0.32	0.32
12,101.0	90.20	89.40	9,867.6	66.2	2,444.0	2,444.3	1.63	1.43	-0.79
12,164.0	89.50	90.10	9,867.7	66.5	2,507.0	2,507.3	1.57	-1.11	1.11
12,227.0	90.30	90.10	9,867.8	66.4	2,570.0	2,570.3	1.27	1.27	0.00
12,291.0	88.70	89.70	9,868.4	66.5	2,634.0	2,634.3	2.58	-2.50	-0.63
12,354.0	89.10	90.10	9,869.6	66.6	2,697.0	2,697.2	0.90	0.63	0.63
12,417.0	88.20	89.20	9,871.1	67.0	2,759.9	2,760.2	2.02	-1.43	-1.43
12,480.0	88.50	89.40	9,872.9	67.7	2,822.9	2,823.2	0.57	0.48	0.32
12,543.0	90.00	89.40	9,873.7	68.4	2,885.9	2,886.2	2.38	2.38	0.00
12,607.0	88.90	89.40	9,874.3	69.1	2,949.9	2,950.2	1.72	-1.72	0.00
12,670.0	87.80	90.60	9,876.2	69.1	3,012.9	3,013.2	2.58	-1.75	1.90
12,734.0	88.00	91.10	9,878.5	68.1	3,076.8	3,077.1	0.84	0.31	0.78
12,797.0	88.50	91.10	9,880.4	66.9	3,139.8	3,140.1	0.79	0.79	0.00
12,861.0	89.40	91.10	9,881.6	65.7	3,203.7	3,204.0	1.41	1.41	0.00
12,924.0	90.60	90.80	9,881.6	64.6	3,266.7	3,267.0	1.96	1.90	-0.48
12,988.0	89.10	91.30	9,881.8	63.5	3,330.7	3,331.0	2.47	-2.34	0.78
13,051.0	89.10	91.80	9,882.8	61.8	3,393.7	3,393.9	0.79	0.00	0.79
13,115.0	90.00	92.20	9,883.3	59.5	3,457.7	3,457.9	1.54	1.41	0.63
13,178.0	88.60	91.30	9,884.0	57.6	3,520.6	3,520.8	2.64	-2.22	-1.43
13,242.0	88.60	90.80	9,885.6	56.4	3,584.6	3,584.8	0.78	0.00	-0.78
13,305.0	89.20	90.60	9,886.8	55.7	3,647.6	3,647.8	1.00	0.95	-0.32
13,368.0	88.60	90.90	9,888.0	54.8	3,710.6	3,710.8	1.06	-0.95	0.48
13,432.0	88.50	91.50	9,889.6	53.5	3,774.5	3,774.7	0.95	-0.16	0.94
13,495.0	88.90	91.50	9,891.1	51.8	3,837.5	3,837.7	0.63	0.63	0.00

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur.17 MP #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	WELL @ 3647.0usft (Patterson #75)
Site:	Sec 17.T19S.R33E	MD Reference:	WELL @ 3647.0usft (Patterson #75)
Well:	Excalibur.17 MP #1H	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)	
13,559.0	89.30	91.70	9,892.1	50.1	3,901.4	3,901.6	0.70	0.63	0.31	
13,623.0	88.20	91.30	9,893.5	48.4	3,965.4	3,965.6	1.83	-1.72	-0.63	
13,686.0	88.30	90.90	9,895.4	47.2	4,028.4	4,028.5	0.65	0.16	-0.63	
13,750.0	89.10	90.40	9,896.8	46.5	4,092.3	4,092.5	1.47	1.25	-0.78	
13,813.0	89.50	90.10	9,897.6	46.2	4,155.3	4,155.5	0.79	0.63	-0.48	
13,877.0	88.10	89.90	9,898.9	46.2	4,219.3	4,219.5	2.21	-2.19	-0.31	
13,940.0	88.80	89.20	9,900.7	46.7	4,282.3	4,282.5	1.57	1.11	-1.11	
14,003.0	88.20	89.90	9,902.3	47.2	4,345.3	4,345.4	1.46	-0.95	1.11	
14,067.0	89.00	89.90	9,903.9	47.3	4,409.3	4,409.4	1.25	1.25	0.00	
14,131.0	89.50	89.70	9,904.7	47.5	4,473.2	4,473.4	0.84	0.78	-0.31	
14,194.0	90.50	89.20	9,904.7	48.1	4,536.2	4,536.4	1.77	1.59	-0.79	
14,258.0	88.90	89.50	9,905.0	48.8	4,600.2	4,600.4	2.54	-2.50	0.47	
14,322.0	88.90	89.50	9,906.3	49.4	4,664.2	4,664.4	0.00	0.00	0.00	
14,385.0	89.20	89.40	9,907.3	50.0	4,727.2	4,727.4	0.50	0.48	-0.16	
14,425.0	89.10	89.20	9,907.9	50.5	4,767.2	4,767.4	0.56	-0.25	-0.50	
TD @ 14475' MD / 9909' TVD										
14,475.0	89.10	89.20	9,908.7	51.2	4,817.2	4,817.4	0.00	0.00	0.00	

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,165.0	9,162.4	93.2	-57.7	Tie In @ 9165' MD / 9162' TVD
9,476.6	9,469.2	100.9	-19.5	Crossed Lease Line @ 9477' MD / 9469' TVD
9,962.6	9,798.3	105.1	310.4	Crossed Hard Line @ 9963' MD / 9798' TVD
14,475.0	9,908.7	51.2	4,817.2	TD @ 14475' MD / 9909' TVD

Checked By: _____	Approved By: _____	Date: _____
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