

Results of Directional Survey

API number:	30-025-41701		
OGRID:		Operator:	MEWBOURNE OIL CO
		Property:	EXCALIBER 17 LI FEDERAL COM # 1H

surface	ULSTR:	L	17	T	19S	R	33E
				1700	FSL	210	FWL

BH Loc	ULSTR:	I	17	T	19S	R	33E
14400	MD	9967.1	TVD	1760	FSL	329	FEL
						4951	FWL

Top Perf/OH	ULSTR:	L	17	T	19S	R	33E
10281	MD	9924.7	TVD	1771	FSL	834	FWL

Bot Perf/OH	ULSTR:	I	17	T	19S	R	33E
14301	MD	9965.2	TVD	1759	FSL	428	FEL
						4852	FWL

	MD	N/S	E/W	VD
	10270	70.00	612.90	9924.5
TOP PERFS/OH	10281	71.20	623.83	9924.71
	10333	76.90	675.50	9925.70
	14256	58.60	4596.50	9964.80
BOT PERFS/OH	14301	58.81	4641.50	9965.23
	14319	58.90	4659.50	9965.40

NEXT TO LAST	14345	59.40	4685.50	9965.90
LAST READING	14400	60.40	4740.50	9967.10
TD	14400	60.40	4740.50	9967.10

Surface Location	1700	FS	210	FW
Projected BHL	1760	FS	4951	FW
Location of				
Top Perfs/OH	1771	FS	834	FW
Bottom Perfs/OH	1759	FS	4852	FW

SUMMARY of Subsurface Locations

Surface Location	L-17-19S-33E	1700	FS	210	FW	Vert. Depth
Top Perfs/OH	L-17-19S-33E	1771	FS	834	FW	9924.71
Bottom Perfs/OH	I-17-19S-33E	1759	FS	4852	FW	9965.23
Projected TD	I-17-19S-33E	1760	FS	4951	FW	9967.10

FEB 20 2015

Mewbourne Oil Co

Lea County, New Mexico (Nad 83)

Sec 17,T19S,R33E

Excalibur 17 LI Federal Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

29 July, 2014



Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 LI Federal Com #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	Well @ 3655.0usft (Patterson #46)
Site:	Sec 17,T19S,R33E	MD Reference:	Well @ 3655.0usft (Patterson #46)
Well:	Excalibur 17 LI Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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 LI Federal Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 603,603.30 usft
	+E/-W	0.0 usft	Easting: 738,359.60 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 39' 27.790 N
		Longitude:	103° 41' 35.330 W
		Ground Level:	3,635.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	6/26/2014	7.30
			Dip Angle
			(°)
			60.49
			Field Strength
			(nT)
			48,559

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
			Direction
			(°)
			89.72

Survey Program	Date 7/29/2014		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	9,200.0	Gyro Survey (Wellbore #1)	Good_gyro
9,291.0	14,400.0	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	0.12	211.71	100.0	-0.1	-0.1	-0.1	0.12	0.12	0.00
200.0	0.17	16.49	200.0	0.0	-0.1	-0.1	0.29	0.05	164.78
300.0	0.37	231.90	300.0	-0.1	-0.3	-0.3	0.52	0.20	-144.59
400.0	0.29	330.03	400.0	-0.1	-0.7	-0.7	0.50	-0.08	98.13
500.0	0.18	209.66	500.0	0.0	-0.9	-0.9	0.41	-0.11	-120.37
600.0	0.21	351.59	600.0	0.1	-1.0	-1.0	0.37	0.03	141.93
700.0	0.12	200.96	700.0	0.1	-1.0	-1.0	0.32	-0.09	-150.63
800.0	0.16	319.96	800.0	0.1	-1.2	-1.2	0.24	0.04	119.00
900.0	0.16	148.31	900.0	0.1	-1.2	-1.2	0.32	0.00	-171.65

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 LI Federal Com #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	Well @ 3655.0usft (Patterson #46)
Site:	Sec 17,T19S,R33E	MD Reference:	Well @ 3655.0usft (Patterson #46)
Well:	Excalibur 17 LI Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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	0.17	283.15	1,000.0	0.1	-1.2	-1.2	0.30	0.01	134.84
1,100.0	0.28	156.34	1,100.0	-0.1	-1.3	-1.3	0.41	0.11	-126.81
1,200.0	0.42	224.14	1,200.0	-0.6	-1.5	-1.5	0.41	0.14	67.80
1,300.0	0.28	173.49	1,300.0	-1.1	-1.7	-1.7	0.33	-0.14	-50.65
1,400.0	0.69	204.37	1,400.0	-1.9	-1.9	-1.9	0.47	0.41	30.88
1,500.0	0.30	162.25	1,500.0	-2.7	-2.1	-2.1	0.51	-0.39	-42.12
1,600.0	0.62	161.23	1,600.0	-3.5	-1.8	-1.8	0.32	0.32	-1.02
1,700.0	0.51	178.33	1,700.0	-4.4	-1.6	-1.6	0.20	-0.11	17.10
1,800.0	0.47	134.46	1,800.0	-5.2	-1.3	-1.3	0.37	-0.04	-43.87
1,900.0	0.82	125.23	1,900.0	-5.9	-0.4	-0.5	0.36	0.35	-9.23
2,000.0	0.50	115.74	2,000.0	-6.5	0.5	0.5	0.34	-0.32	-9.49
2,100.0	0.74	111.91	2,100.0	-6.9	1.5	1.5	0.24	0.24	-3.83
2,200.0	0.78	104.94	2,199.9	-7.3	2.8	2.7	0.10	0.04	-6.97
2,300.0	1.11	77.42	2,299.9	-7.3	4.4	4.3	0.55	0.33	-27.52
2,400.0	1.56	65.42	2,399.9	-6.5	6.6	6.5	0.53	0.45	-12.00
2,500.0	2.83	62.04	2,499.8	-4.8	10.0	10.0	1.28	1.27	-3.38
2,600.0	3.54	63.92	2,599.7	-2.3	14.9	14.9	0.72	0.71	1.88
2,700.0	4.10	64.85	2,699.5	0.6	20.9	21.0	0.56	0.56	0.93
2,800.0	4.39	68.19	2,799.2	3.5	27.7	27.8	0.38	0.29	3.34
2,900.0	4.46	68.55	2,898.9	6.4	34.9	34.9	0.08	0.07	0.36
3,000.0	3.45	77.26	2,998.6	8.5	41.5	41.5	1.17	-1.01	8.71
3,100.0	2.71	82.47	3,098.5	9.4	46.7	46.8	0.79	-0.74	5.21
3,200.0	2.47	86.43	3,198.4	9.9	51.2	51.3	0.30	-0.24	3.96
3,300.0	2.02	88.30	3,298.3	10.1	55.1	55.2	0.46	-0.45	1.87
3,400.0	1.43	77.50	3,398.3	10.4	58.1	58.2	0.67	-0.59	-10.80
3,500.0	0.74	55.06	3,498.3	11.0	59.9	59.9	0.80	-0.69	-22.44
3,600.0	0.57	17.75	3,598.2	11.9	60.6	60.6	0.45	-0.17	-37.31
3,700.0	0.45	350.20	3,698.2	12.7	60.6	60.7	0.27	-0.12	-27.55
3,800.0	0.14	25.94	3,798.2	13.2	60.6	60.7	0.35	-0.31	35.74
3,900.0	0.39	21.52	3,898.2	13.7	60.8	60.9	0.25	0.25	-4.42
4,000.0	0.32	20.05	3,998.2	14.2	61.0	61.1	0.07	-0.07	-1.47
4,100.0	0.65	6.34	4,098.2	15.1	61.2	61.3	0.35	0.33	-13.71
4,200.0	0.18	31.57	4,198.2	15.8	61.3	61.4	0.49	-0.47	25.23
4,300.0	0.68	4.51	4,298.2	16.5	61.5	61.5	0.53	0.50	-27.06
4,400.0	0.16	329.88	4,398.2	17.2	61.4	61.5	0.56	-0.52	-34.63
4,500.0	0.30	311.00	4,498.2	17.5	61.2	61.3	0.16	0.14	-18.88
4,600.0	0.68	6.15	4,598.2	18.3	61.0	61.1	0.57	0.38	55.15
4,700.0	0.38	4.55	4,698.2	19.2	61.1	61.2	0.30	-0.30	-1.60
4,800.0	0.67	311.12	4,798.2	19.9	60.7	60.8	0.54	0.29	-53.43
4,900.0	0.70	325.06	4,898.2	20.8	59.9	60.0	0.17	0.03	13.94
5,000.0	0.79	313.34	4,998.2	21.8	59.1	59.2	0.18	0.09	-11.72
5,100.0	0.59	334.68	5,098.2	22.7	58.3	58.5	0.32	-0.20	21.34
5,200.0	0.32	351.57	5,198.2	23.4	58.1	58.2	0.30	-0.27	16.89

Survey Report



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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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	0.82	320.71	5,298.2	24.3	57.6	57.7	0.57	0.50	-30.86
5,400.0	0.68	323.55	5,398.2	25.3	56.8	56.9	0.14	-0.14	2.84
5,500.0	0.67	308.36	5,498.2	26.1	56.0	56.1	0.18	-0.01	-15.19
5,600.0	0.83	319.09	5,598.2	27.1	55.0	55.2	0.21	0.16	10.73
5,700.0	1.14	325.45	5,698.1	28.4	54.0	54.1	0.33	0.31	6.36
5,800.0	1.11	331.21	5,798.1	30.1	53.0	53.1	0.12	-0.03	5.76
5,900.0	0.61	325.37	5,898.1	31.4	52.2	52.4	0.51	-0.50	-5.84
6,000.0	0.72	305.50	5,998.1	32.2	51.4	51.5	0.25	0.11	-19.87
6,100.0	1.11	267.89	6,098.1	32.5	49.9	50.1	0.70	0.39	-37.61
6,200.0	0.97	294.31	6,198.1	32.8	48.2	48.3	0.49	-0.14	26.42
6,300.0	1.16	289.12	6,298.1	33.5	46.4	46.6	0.21	0.19	-5.19
6,400.0	1.10	261.48	6,398.0	33.7	44.5	44.7	0.54	-0.06	-27.64
6,500.0	0.86	292.29	6,498.0	33.8	42.9	43.1	0.57	-0.24	30.81
6,600.0	0.97	276.94	6,598.0	34.2	41.4	41.5	0.27	0.11	-15.35
6,700.0	1.01	275.61	6,698.0	34.4	39.6	39.8	0.05	0.04	-1.33
6,800.0	0.98	270.71	6,798.0	34.5	37.9	38.1	0.09	-0.03	-4.90
6,900.0	1.10	305.56	6,898.0	35.1	36.3	36.4	0.63	0.12	34.85
7,000.0	1.09	277.18	6,998.0	35.7	34.6	34.7	0.54	-0.01	-28.38
7,100.0	0.91	278.31	7,097.9	36.0	32.8	33.0	0.18	-0.18	1.13
7,200.0	1.06	288.07	7,197.9	36.4	31.2	31.3	0.22	0.15	9.76
7,300.0	0.81	296.16	7,297.9	37.0	29.6	29.8	0.28	-0.25	8.09
7,400.0	0.75	305.19	7,397.9	37.7	28.5	28.7	0.14	-0.06	9.03
7,500.0	0.67	288.52	7,497.9	38.2	27.4	27.6	0.22	-0.08	-16.67
7,600.0	0.66	299.81	7,597.9	38.7	26.3	26.5	0.13	-0.01	11.29
7,700.0	0.37	310.58	7,697.9	39.2	25.6	25.8	0.30	-0.29	10.77
7,800.0	0.12	255.04	7,797.9	39.4	25.2	25.4	0.32	-0.25	-55.54
7,900.0	0.35	101.54	7,897.9	39.3	25.4	25.6	0.46	0.23	-153.50
8,000.0	0.73	114.87	7,997.9	39.0	26.3	26.5	0.40	0.38	13.33
8,100.0	0.27	10.46	8,097.9	38.9	26.9	27.1	0.84	-0.46	-104.41
8,200.0	0.30	227.33	8,197.9	39.0	26.8	27.0	0.54	0.03	-143.13
8,300.0	0.54	221.94	8,297.9	38.5	26.3	26.5	0.24	0.24	-5.39
8,400.0	1.01	243.72	8,397.9	37.7	25.2	25.4	0.55	0.47	21.78
8,500.0	1.24	221.72	8,497.8	36.5	23.7	23.8	0.49	0.23	-22.00
8,600.0	0.24	176.63	8,597.8	35.5	23.0	23.1	1.08	-1.00	-45.09
8,700.0	0.91	134.76	8,697.8	34.7	23.5	23.7	0.75	0.67	-41.87
8,800.0	1.32	148.06	8,797.8	33.2	24.7	24.9	0.48	0.41	13.30
8,900.0	1.60	165.20	8,897.8	30.9	25.7	25.8	0.52	0.28	17.14
9,000.0	0.91	170.89	8,997.8	28.7	26.2	26.3	0.70	-0.69	5.69
9,100.0	1.24	185.92	9,097.7	26.9	26.2	26.3	0.43	0.33	15.03
Gyro Tie-In @ 9200' MD / 9198' TVD									
9,200.0	1.15	202.09	9,197.7	24.9	25.7	25.8	0.35	-0.09	16.17
9,291.0	1.90	219.30	9,288.7	22.9	24.4	24.5	0.96	0.82	18.91
9,323.0	1.40	218.90	9,320.7	22.1	23.8	23.9	1.56	-1.56	-1.25

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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)
9,355.0	1.80	227.40	9,352.7	21.5	23.2	23.3	1.45	1.25	26.56
9,387.0	4.40	80.40	9,384.6	21.4	24.0	24.1	18.72	8.13	-459.38
9,419.0	7.70	74.80	9,416.4	22.1	27.3	27.4	10.46	10.31	-17.50
9,450.0	10.90	73.80	9,447.0	23.5	32.1	32.2	10.34	10.32	-3.23
9,482.0	14.60	75.20	9,478.2	25.4	38.9	39.1	11.60	11.56	4.38
9,514.0	17.80	77.60	9,509.0	27.4	47.6	47.7	10.21	10.00	7.50
9,546.0	20.80	80.10	9,539.2	29.5	58.0	58.1	9.72	9.38	7.81
9,578.0	23.80	83.60	9,568.8	31.2	70.0	70.2	10.25	9.38	10.94
9,610.0	25.90	87.80	9,597.8	32.2	83.4	83.6	8.57	6.56	13.13
9,642.0	28.70	88.90	9,626.2	32.6	98.1	98.2	8.89	8.75	3.44
9,674.0	31.10	88.50	9,654.0	32.9	114.0	114.2	7.53	7.50	-1.25
Crossed 330' Hard Line @ 9692' MD / 9670' TVD									
9,692.3	32.81	87.26	9,669.5	33.3	123.7	123.9	10.02	9.35	-6.79
9,706.0	34.10	86.40	9,680.9	33.7	131.2	131.4	10.02	9.41	-6.26
9,738.0	37.50	87.10	9,706.9	34.8	149.9	150.1	10.70	10.63	2.19
9,770.0	40.80	86.10	9,731.7	36.0	170.1	170.3	10.50	10.31	-3.13
9,802.0	44.30	85.00	9,755.3	37.7	191.7	191.8	11.18	10.94	-3.44
9,833.0	48.20	85.00	9,776.7	39.6	214.0	214.2	12.58	12.58	0.00
9,865.0	51.00	85.30	9,797.4	41.7	238.2	238.4	8.78	8.75	0.94
9,897.0	53.50	87.10	9,817.0	43.3	263.5	263.7	8.99	7.81	5.63
9,929.0	57.00	87.50	9,835.3	44.6	289.7	290.0	10.99	10.94	1.25
9,961.0	60.50	87.50	9,851.9	45.8	317.1	317.3	10.94	10.94	0.00
9,992.0	64.10	87.50	9,866.3	47.0	344.5	344.7	11.61	11.61	0.00
10,024.0	67.40	87.80	9,879.4	48.2	373.6	373.9	10.35	10.31	0.94
10,056.0	70.40	86.10	9,890.9	49.8	403.4	403.7	10.60	9.38	-5.31
10,088.0	74.10	84.70	9,900.7	52.2	433.8	434.1	12.29	11.56	-4.38
10,120.0	77.60	84.70	9,908.5	55.1	464.7	465.0	10.94	10.94	0.00
10,150.0	81.10	85.00	9,914.1	57.7	494.1	494.3	11.71	11.67	1.00
10,270.0	88.90	83.20	9,924.5	70.0	612.9	613.2	6.67	6.50	-1.50
10,333.0	89.00	84.30	9,925.7	76.9	675.5	675.9	1.75	0.16	1.75
10,396.0	90.10	89.20	9,926.2	80.4	738.4	738.8	7.97	1.75	7.78
10,460.0	90.80	89.90	9,925.7	80.9	802.4	802.7	1.55	1.09	1.09
10,523.0	90.80	90.30	9,924.8	80.8	865.4	865.7	0.63	0.00	0.63
10,586.0	91.10	89.90	9,923.7	80.7	928.3	928.7	0.79	0.48	-0.63
10,650.0	91.00	89.60	9,922.6	81.0	992.3	992.7	0.49	-0.16	-0.47
10,713.0	91.10	89.60	9,921.4	81.4	1,055.3	1,055.7	0.16	0.16	0.00
10,777.0	90.30	89.60	9,920.6	81.9	1,119.3	1,119.7	1.25	-1.25	0.00
10,839.0	90.60	89.60	9,920.1	82.3	1,181.3	1,181.7	0.48	0.48	0.00
10,903.0	90.40	89.20	9,919.6	83.0	1,245.3	1,245.7	0.70	-0.31	-0.63
10,966.0	91.00	91.00	9,918.8	82.9	1,308.3	1,308.7	3.01	0.95	2.86
11,030.0	91.10	91.30	9,917.6	81.6	1,372.3	1,372.7	0.49	0.16	0.47
11,093.0	90.60	91.30	9,916.7	80.2	1,435.3	1,435.6	0.79	-0.79	0.00
11,156.0	90.80	91.30	9,915.9	78.7	1,498.2	1,498.6	0.32	0.32	0.00
11,220.0	88.90	91.00	9,916.1	77.5	1,562.2	1,562.6	3.01	-2.97	-0.47

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 LI Federal Com #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	Well @ 3655.0usft (Patterson #46)
Site:	Sec 17,T19S,R33E	MD Reference:	Well @ 3655.0usft (Patterson #46)
Well:	Excalibur 17 LI Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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)
11,283.0	88.20	91.30	9,917.7	76.2	1,625.2	1,625.5	1.21	-1.11	0.48
11,346.0	87.60	91.70	9,920.0	74.5	1,688.1	1,688.5	1.14	-0.95	0.63
11,409.0	88.50	92.00	9,922.1	72.5	1,751.0	1,751.4	1.51	1.43	0.48
11,472.0	89.40	91.70	9,923.3	70.5	1,814.0	1,814.3	1.51	1.43	-0.48
11,536.0	89.20	91.30	9,924.1	68.8	1,878.0	1,878.3	0.70	-0.31	-0.63
11,599.0	88.50	91.00	9,925.3	67.5	1,941.0	1,941.3	1.21	-1.11	-0.48
11,662.0	88.90	91.00	9,926.8	66.4	2,003.9	2,004.2	0.63	0.63	0.00
11,725.0	89.70	90.30	9,927.5	65.7	2,066.9	2,067.2	1.69	1.27	-1.11
11,789.0	89.40	90.30	9,928.0	65.4	2,130.9	2,131.2	0.47	-0.47	0.00
11,852.0	89.20	90.30	9,928.8	65.1	2,193.9	2,194.2	0.32	-0.32	0.00
11,915.0	88.90	89.60	9,929.9	65.1	2,256.9	2,257.2	1.21	-0.48	-1.11
11,979.0	89.40	87.80	9,930.8	66.6	2,320.9	2,321.2	2.92	0.78	-2.81
12,042.0	89.20	87.50	9,931.6	69.1	2,383.8	2,384.1	0.57	-0.32	-0.48
12,105.0	90.10	88.50	9,932.0	71.3	2,446.8	2,447.1	2.14	1.43	1.59
12,169.0	89.90	89.60	9,932.0	72.4	2,510.8	2,511.1	1.75	-0.31	1.72
12,232.0	89.60	89.60	9,932.2	72.8	2,573.8	2,574.1	0.48	-0.48	0.00
12,295.0	88.20	89.20	9,933.4	73.5	2,636.7	2,637.1	2.31	-2.22	-0.63
12,359.0	88.20	90.60	9,935.5	73.6	2,700.7	2,701.0	2.19	0.00	2.19
12,422.0	88.20	91.70	9,937.4	72.4	2,763.7	2,764.0	1.75	0.00	1.75
12,485.0	89.00	91.70	9,939.0	70.5	2,826.6	2,826.9	1.27	1.27	0.00
12,548.0	89.20	90.60	9,940.0	69.2	2,889.6	2,889.9	1.77	0.32	-1.75
12,611.0	88.50	91.00	9,941.2	68.3	2,952.6	2,952.9	1.28	-1.11	0.63
12,675.0	89.70	92.00	9,942.2	66.7	3,016.5	3,016.8	2.44	1.88	1.56
12,738.0	90.10	92.00	9,942.3	64.5	3,079.5	3,079.8	0.63	0.63	0.00
12,801.0	89.20	92.70	9,942.7	61.9	3,142.5	3,142.7	1.81	-1.43	1.11
12,864.0	89.70	92.40	9,943.3	59.1	3,205.4	3,205.6	0.93	0.79	-0.48
12,928.0	90.60	92.40	9,943.2	56.4	3,269.3	3,269.6	1.41	1.41	0.00
12,991.0	89.90	93.10	9,942.9	53.4	3,332.3	3,332.5	1.57	-1.11	1.11
13,054.0	89.40	92.00	9,943.3	50.6	3,395.2	3,395.4	1.92	-0.79	-1.75
13,118.0	89.40	91.30	9,943.9	48.7	3,459.2	3,459.4	1.09	0.00	-1.09
13,181.0	89.60	90.60	9,944.5	47.7	3,522.1	3,522.3	1.16	0.32	-1.11
13,244.0	89.70	90.60	9,944.9	47.0	3,585.1	3,585.3	0.16	0.16	0.00
13,307.0	90.30	89.90	9,944.9	46.8	3,648.1	3,648.3	1.46	0.95	-1.11
13,371.0	88.30	89.20	9,945.7	47.3	3,712.1	3,712.3	3.31	-3.13	-1.09
13,433.0	87.60	88.90	9,947.9	48.3	3,774.1	3,774.3	1.23	-1.13	-0.48
13,497.0	86.60	88.20	9,951.1	49.9	3,838.0	3,838.2	1.91	-1.56	-1.09
13,559.0	86.90	88.20	9,954.6	51.8	3,899.9	3,900.1	0.48	0.48	0.00
13,623.0	86.90	87.80	9,958.1	54.1	3,963.7	3,963.9	0.62	0.00	-0.63
13,686.0	87.40	88.50	9,961.2	56.1	4,026.6	4,026.8	1.36	0.79	1.11
13,749.0	89.70	88.90	9,962.8	57.5	4,089.6	4,089.8	3.71	3.65	0.63
13,813.0	90.10	88.50	9,962.9	59.0	4,153.5	4,153.8	0.88	0.63	-0.63
13,876.0	89.40	88.90	9,963.2	60.4	4,216.5	4,216.8	1.28	-1.11	0.63
13,939.0	89.60	89.90	9,963.8	61.1	4,279.5	4,279.8	1.62	0.32	1.59

Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Excalibur 17 LI Federal Com #1H
Project:	Lea County, New Mexico (Nad 83)	TVD Reference:	Well @ 3655.0usft (Patterson #46)
Site:	Sec 17,T19S,R33E	MD Reference:	Well @ 3655.0usft (Patterson #46)
Well:	Excalibur 17 LI Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM Compass

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)
14,003.0	89.20	90.60	9,964.4	60.8	4,343.5	4,343.8	1.26	-0.63	1.09
14,066.0	89.70	90.60	9,965.0	60.1	4,406.5	4,406.8	0.79	0.79	0.00
14,129.0	90.80	90.60	9,964.8	59.5	4,469.5	4,469.7	1.75	1.75	0.00
14,192.0	89.70	90.30	9,964.5	59.0	4,532.5	4,532.7	1.81	-1.75	-0.48
14,256.0	89.70	90.30	9,964.8	58.6	4,596.5	4,596.7	0.00	0.00	0.00
14,319.0	89.20	89.20	9,965.4	58.9	4,659.5	4,659.7	1.92	-0.79	-1.75
14,345.0	88.70	88.90	9,965.9	59.4	4,685.5	4,685.7	2.24	-1.92	-1.15
TD @ 14440' MD / 9967' TVD									
14,400.0	88.70	88.90	9,967.1	60.4	4,740.5	4,740.7	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,200.0	9,197.7	24.9	25.7	Gyro Tie-In @ 9200' MD / 9198' TVD
9,692.3	9,669.5	33.3	123.7	Crossed 330' Hard Line @ 9692' MD / 9670' TVD
14,400.0	9,967.1	60.4	4,740.5	TD @ 14440' MD / 9967' TVD

Checked By: _____ Approved By: _____ Date: _____



SURVEY CALCULATION PROGRAM

TARGET DETAILS

OPERATOR: Mewbourne Oil Com.										Supervisors:		TARGET N-S Directional			
WELL: Excalibur 17 LI Federal Com 17 #1H										Will Elilson DD		TARGET E-W			
LOCATION: LEA										Barry Simmons DD		TARGET RADIUS			
JOB NUMBER: WT-140615										Anthony Carrasco MWD		TARGET DISPLACEMENT			
Curr< Prev< DIFF										Justin Young MWD		TARGET CLOSURE			
S/Ahead PROJ										Justin S. Co. Rep		TARGET KBTVD Horizontal			
Slide Seen A/BR BRN JNT D/S										Larry Sutton Co. Rep		DIP AZ			
0.00 0.00 0.0										Patterson 46 Rig		DIP DEG UP+/DN-			
Target EOC MD TVD Vertical Section N-S E-W										Sec/Plane 89.72		TARGET INCLINATION			
										TARGET TRACKING TO CENTER		Magnetic Declination			
SVY NUM MD INC TRUE AZM COURSE LENGTH TVD SECT N-S E-W DLS/ 100										ABOVE(+) RIGHT(+) BELOW(-) LEFT(-)		CLOSURE CLOSURE BUILD WALK DIR DISTANCE RATE/ RATE/ (DEG AZ) (FEET) °/100' °/100'			
Tie	9200	1.15	202.09	9200.00	9197.71		24.80	25.72		700.48	0.00	46.04	35.73		
1	9291	1.90	219.30	91.00	9288.68	24.53	22.79	24.42	0.96	609.49	-22.67	46.98	33.40	0.82	0.50
2	9323	1.40	218.90	32.00	9320.66	23.95	22.07	23.84	1.56	577.49	-21.95	47.21	32.49	-1.56	-0.04
3	9355	1.80	227.40	32.00	9352.65	23.33	21.43	23.22	1.45	545.50	-21.31	47.30	31.60	1.25	0.74
4	9387	4.40	80.40	32.00	9384.63	24.17	21.29	24.07	18.72	513.54	-21.17	48.50	32.13	8.12	-18.58
5	9419	7.70	74.80	32.00	9416.44	27.45	22.06	27.35	10.46	481.76	-21.92	51.11	35.13	10.31	-1.84
6	9450	10.90	73.80	31.00	9447.03	32.28	23.42	32.17	10.34	451.24	-23.26	53.94	39.79	10.32	-0.52
7	9482	14.60	75.20	32.00	9478.24	39.10	25.30	38.97	11.60	420.14	-25.11	57.01	46.46	11.56	0.97
8	9514	17.80	77.60	32.00	9508.96	47.78	27.38	47.65	10.21	389.53	-27.14	60.12	54.96	10.00	2.09
9	9546	20.80	80.10	32.00	9539.16	58.17	29.41	58.03	9.72	359.48	-29.12	63.13	65.05	9.37	2.58
10	9578	23.80	83.60	32.00	9568.77	70.20	31.10	70.04	10.25	330.05	-30.76	66.06	76.64	9.38	4.15
11	9610	25.90	87.80	32.00	9597.80	83.60	32.09	83.45	8.57	301.20	-31.68	68.97	89.40	6.56	5.51
12	9642	28.70	88.90	32.00	9626.24	98.27	32.51	98.12	8.89	272.97	-32.03	71.67	103.36	8.75	1.58
13	9674	31.10	88.50	32.00	9653.98	114.22	32.87	114.06	7.53	245.46	-32.31	73.92	118.70	7.50	-0.56
14	9706	34.10	86.40	32.00	9680.93	131.44	33.65	131.28	10.02	218.75	-33.01	75.62	135.53	9.38	-3.17
15	9738	37.50	87.10	32.00	9706.88	150.13	34.71	149.97	10.70	193.06	-33.97	76.97	153.93	10.62	1.15
16	9770	40.80	86.10	32.00	9731.70	170.30	35.91	170.13	10.50	168.53	-35.08	78.08	173.88	10.31	-1.77
17	9802	44.30	85.00	32.00	9755.27	191.88	37.60	191.70	11.18	145.27	-36.66	78.90	195.35	10.94	-2.09
18	9833	48.20	85.00	31.00	9776.70	214.20	39.55	214.00	12.58	124.15	-38.50	79.53	217.63	12.58	0.00
19	9865	51.00	85.30	32.00	9797.44	238.48	41.61	238.28	8.78	103.75	-40.44	80.10	241.89	8.75	0.64
20	9897	53.50	87.10	32.00	9817.03	263.74	43.28	263.53	8.99	84.52	-41.99	80.67	267.06	7.81	3.99
21	9929	57.00	87.50	32.00	9835.26	290.00	44.51	289.79	10.99	66.66	-43.10	81.27	293.19	10.94	0.92
22	9961	60.50	87.50	32.00	9851.86	317.33	45.71	317.11	10.94	50.44	-44.16	81.80	320.39	10.94	0.00
23	9992	64.10	87.50	31.00	9866.27	344.76	46.90	344.53	11.61	36.42	-45.22	82.25	347.71	11.61	0.00

- FINAL -



SURVEY CALCULATION PROGRAM

TARGET DETAILS

OPERATOR: Mewbourne Oil Com.								Supervisors:				TARGET N-S		Directional	
WELL:		Excalibur 17 LI Federal Com 17 #1H						Will Elilson		DD		TARGET E-W			
LOCATION:		LEA						Barry Simmons		DD		TARGET RADIUS			
JOB NUMBER:		WT-140615						Anthony Carrasco		MWD		TARGET DISPLACEMENT			
Curr<	Prev<	DIFF		S/Ahead		PROJ		Justin Young		MWD		TARGET CLOSURE			
		0.0				0.00		Justin S.		Co. Rep		TARGET KBTVD		Horizontal	
Slide Seen		A/BR		BRN		JNT		D/S		Larry Sutton		Co. Rep		DIP AZ	
0.00			0.00		0.0			Patterson 46		Rig		DIP DEG UP+/DN-		-0.81	
												TARGET INCLINATION		89.20	
Target EOC		MD		TVD		Vertical Section		N-S		E-W		Sec/Plane		89.72	
												TARGET TRACKING			
SVY				TRUE		COURSE		DLS/		ABOVE(+)		RIGHT(+)		TO CENTER	
NUM		MD		INC		AZM		LENGTH		TVD		SECT		N-S	
24		10024		67.40		87.80		32.00		9879.41		373.91		48.10	
25		10056		70.40		86.10		32.00		9890.93		403.72		49.69	
26		10088		74.10		84.70		32.00		9900.69		434.11		52.14	
27		10120		77.60		84.70		32.00		9908.51		465.01		55.00	
28		10150		81.10		85.00		30.00		9914.05		494.38		57.65	
29		10270		88.90		83.20		120.00		9924.50		613.25		69.94	
30		10333		89.00		84.30		63.00		9925.66		675.90		76.80	
31		10396		90.10		89.20		63.00		9926.15		738.80		80.37	
32		10460		90.80		89.90		64.00		9925.65		802.79		80.87	
33		10523		90.80		90.30		63.00		9924.77		865.78		80.76	
34		10586		91.10		89.90		63.00		9923.72		928.77		80.65	
35		10650		91.00		89.60		64.00		9922.55		992.76		80.93	
36		10713		91.10		89.60		63.00		9921.40		1055.75		81.37	
37		10777		90.30		89.60		64.00		9920.62		1119.75		81.81	
38		10839		90.60		89.60		62.00		9920.13		1181.74		82.25	
39		10903		90.40		89.20		64.00		9919.57		1245.74		82.92	
40		10966		91.00		91.00		63.00		9918.80		1308.73		82.81	
41		11030		91.10		91.30		64.00		9917.63		1372.70		81.52	
42		11093		90.60		91.30		63.00		9916.69		1435.67		80.09	
43		11156		90.80		91.30		63.00		9915.92		1498.64		78.67	
44		11220		88.90		91.00		64.00		9916.09		1562.62		77.38	
45		11283		88.20		91.30		63.00		9917.68		1625.58		76.12	
46		11346		87.60		91.70		63.00		9919.99		1688.51		74.47	
47		11409		88.50		92.00		63.00		9922.14		1751.42		72.44	

OPERATOR:		Mewbourne Oil Com.							Supervisors:			TARGET N-S		Directional		
WELL:		Excalibur 17 LI Federal Com 17 #1H LEA WT-140615							Will Elilson		DD	TARGET E-W				
LOCATION:									Barry Simmons		DD	TARGET RADIUS				
JOB NUMBER:									Anthony Carrasco		MWD	TARGET DISPLACEMENT				
Curr<	Prev<	DIFF		S/Ahead			PROJ	Justin Young		MWD	TARGET CLOSURE					
		0.0					0.00	Justin S.		Co. Rep	TARGET KBTVD		Horizontal	9897.82		
Slide Seen		A/BR		BRN		JNT		D/S	Larry Sutton		Co. Rep	DIP AZ		89.72		
0.00				0.00		0.0			Patterson 46		Rig	DIP DEG UP+/DN-		-0.81		
												Rig	TARGET INCLINATION		89.20	
Target EOC		MD	TVD	Vertical Section		N-S	E-W	Sec/Plane	89.72	TARGET TRACKING TO CENTER		Magnetic Declination		6.95		
SVY NUM	MD	INC	TRUE AZM	COURSE LENGTH	TVD	SECT	N-S	E-W	DLS/ 100	ABOVE(+) BELOW(-)	RIGHT(+) LEFT(-)	DIR (DEG AZ)	CLOSURE DISTANCE (FEET)	BUILD RATE/ %/100'	WALK RATE/ %/100'	
48	11472	89.40	91.70	63.00	9923.29	1814.37	70.40	1814.05	1.51	0.18	-61.54	87.78	1815.41	1.43	-0.43	
49	11536	89.20	91.30	64.00	9924.07	1878.33	68.73	1878.02	0.70	0.30	-59.55	87.90	1879.28	-0.31	-0.56	
50	11599	88.50	91.00	63.00	9925.34	1941.30	67.46	1940.99	1.21	-0.07	-57.98	88.01	1942.17	-1.11	-0.43	
51	11662	88.90	91.00	63.00	9926.77	2004.27	66.36	2003.97	0.63	-0.61	-56.57	88.10	2005.07	0.63	0.00	
52	11725	89.70	90.30	63.00	9927.54	2067.26	65.65	2066.96	1.69	-0.49	-55.55	88.18	2068.00	1.27	-1.00	
53	11789	89.40	90.30	64.00	9928.04	2131.25	65.31	2130.96	0.47	-0.09	-54.90	88.24	2131.96	-0.47	0.00	
54	11852	89.20	90.30	63.00	9928.81	2194.24	64.98	2193.95	0.32	0.03	-54.26	88.30	2194.91	-0.32	0.00	
55	11915	88.90	89.60	63.00	9929.85	2257.23	65.04	2256.94	1.21	-0.12	-54.01	88.35	2257.88	-0.48	-1.00	
56	11979	89.40	87.80	64.00	9930.80	2321.21	66.49	2320.92	2.92	-0.17	-55.15	88.36	2321.87	0.78	-2.52	
57	12042	89.20	87.50	63.00	9931.57	2384.17	69.07	2383.86	0.57	-0.05	-57.42	88.34	2384.86	-0.32	-0.43	
58	12105	90.10	88.50	63.00	9931.96	2447.14	71.27	2446.82	2.14	0.46	-59.31	88.33	2447.85	1.43	1.42	
59	12169	89.90	89.60	64.00	9931.96	2511.13	72.33	2510.81	1.75	1.36	-60.06	88.35	2511.85	-0.31	1.54	
60	12232	89.60	89.60	63.00	9932.23	2574.13	72.77	2573.80	0.48	1.98	-60.20	88.38	2574.83	-0.48	0.00	
61	12295	88.20	89.20	63.00	9933.44	2637.11	73.43	2636.79	2.31	1.66	-60.55	88.40	2637.81	-2.22	-0.57	
62	12359	88.20	90.60	64.00	9935.45	2701.08	73.55	2700.75	2.19	0.56	-60.35	88.44	2701.76	0.00	1.96	
63	12422	88.20	91.70	63.00	9937.43	2764.03	72.28	2763.71	1.75	-0.53	-58.77	88.50	2764.65	0.00	1.57	
64	12485	89.00	91.70	63.00	9938.97	2826.97	70.41	2826.66	1.27	-1.18	-56.60	88.57	2827.54	1.27	0.00	
65	12548	89.20	90.60	63.00	9939.96	2889.94	69.15	2889.64	1.77	-1.28	-55.03	88.63	2890.47	0.32	-1.57	
66	12611	88.50	91.00	63.00	9941.22	2952.92	68.27	2952.62	1.28	-1.66	-53.84	88.68	2953.41	-1.11	0.57	
67	12675	89.70	92.00	64.00	9942.23	3016.88	66.59	3016.59	2.44	-1.76	-51.85	88.74	3017.32	1.88	1.40	
68	12738	90.10	92.00	63.00	9942.34	3079.83	64.40	3079.55	0.63	-0.98	-49.35	88.80	3080.22	0.63	0.00	
69	12801	89.20	92.70	63.00	9942.72	3142.76	61.81	3142.50	1.81	-0.47	-46.45	88.87	3143.10	-1.43	1.00	
70	12864	89.70	92.40	63.00	9943.33	3205.68	59.01	3205.43	0.93	-0.19	-43.34	88.95	3205.97	0.79	-0.43	
71	12928	90.60	92.40	64.00	9943.16	3269.61	56.33	3269.37	1.41	0.88	-40.35	89.01	3269.86	1.41	0.00	



SURVEY CALCULATION PROGRAM

TARGET DETAILS

OPERATOR: Mewbourne Oil Com.										Supervisors:		TARGET N-S Directional					
WELL: Excalibur 17 LI Federal Com 17 #1H										Will Elilson DD		TARGET E-W					
LOCATION: LEA										Barry Simmons DD		TARGET RADIUS					
JOB NUMBER: WT-140615										Anthony Carrasco MWD		TARGET DISPLACEMENT					
Justin Young MWD										Justin S. Co. Rep		TARGET CLOSURE					
Larry Sutton Co. Rep										Patterson 46 Rig		TARGET KBTVD Horizontal					
Slide Seen A/BR BRN JNT D/S										Sec/Plane 89.72		TARGET TRACKING TO CENTER					
Target EOC MD TVD Vertical Section N-S E-W										ABOVE(+)		RIGHT(+)		DIR		CLOSURE	
SVY NUM MD INC TRUE AZM COURSE LENGTH TVD SECT N-S E-W										BELOW(-)		LEFT(-)		DISTANCE		BUILD RATE/	
72 12991 89.90 93.10 63.00 9942.89 3332.52 53.31 3332.30 1.57										2.05		-37.02		89.08		3332.73	
73 13054 89.40 92.00 63.00 9943.27 3395.44 50.50 3395.23 1.92										2.55		-33.91		89.15		3395.61	
74 13118 89.40 91.30 64.00 9943.94 3459.40 48.66 3459.20 1.09										2.79		-31.76		89.19		3459.55	
75 13181 89.60 90.60 63.00 9944.49 3522.38 47.62 3522.19 1.16										3.13		-30.40		89.23		3522.51	
76 13244 89.70 90.60 63.00 9944.88 3585.38 46.96 3585.19 0.16										3.63		-29.44		89.25		3585.50	
77 13307 90.30 89.90 63.00 9944.88 3648.37 46.68 3648.19 1.46										4.52		-28.85		89.27		3648.49	
78 13371 88.30 89.20 64.00 9945.66 3712.36 47.18 3712.18 3.31										4.65		-29.04		89.27		3712.48	
79 13433 87.60 88.90 62.00 9947.88 3774.32 48.21 3774.13 1.23										3.31		-29.77		89.27		3774.44	
80 13497 86.60 88.20 64.00 9951.11 3838.22 49.83 3838.02 1.91										0.97		-31.07		89.26		3838.35	
81 13559 86.90 88.20 62.00 9954.63 3900.10 51.77 3899.89 0.48										-1.67		-32.71		89.24		3900.24	
82 13623 86.90 87.80 64.00 9958.09 3963.98 54.00 3963.76 0.62										-4.23		-34.63		89.22		3964.13	
83 13686 87.40 88.50 63.00 9961.22 4026.88 56.04 4026.65 1.36										-6.47		-36.36		89.20		4027.04	
84 13749 89.70 88.90 63.00 9962.82 4089.84 57.46 4089.61 3.71										-7.17		-37.48		89.19		4090.01	
85 13813 90.10 88.50 64.00 9962.93 4153.83 58.92 4153.59 0.88										-6.38		-38.62		89.19		4154.01	
86 13876 89.40 88.90 63.00 9963.20 4216.82 60.35 4216.58 1.28										-5.77		-39.74		89.18		4217.01	
87 13939 89.60 89.90 63.00 9963.75 4279.82 61.00 4279.57 1.62										-5.42		-40.09		89.18		4280.00	
88 14003 89.20 90.60 64.00 9964.42 4343.81 60.73 4343.56 1.26										-5.19		-39.50		89.20		4343.99	
89 14066 89.70 90.60 63.00 9965.03 4406.80 60.07 4406.56 0.79										-4.90		-38.53		89.22		4406.97	
90 14129 90.80 90.60 63.00 9964.75 4469.79 59.41 4469.55 1.75										-3.74		-37.56		89.24		4469.95	
91 14192 89.70 90.30 63.00 9964.48 4532.78 58.91 4532.55 1.81										-2.57		-36.76		89.26		4532.93	
92 14256 89.70 90.30 64.00 9964.81 4596.78 58.58 4596.55 0.00										-2.00		-36.11		89.27		4596.92	
93 14319 89.20 89.20 63.00 9965.42 4659.77 58.85 4659.54 1.92										-1.72		-36.08		89.28		4659.91	
94 14345 88.70 88.90 26.00 9965.89 4685.77 59.28 4685.53 2.24										-1.83		-36.38		89.28		4685.91	
TD 14400 88.70 88.90 55.00 9967.14 4740.75 60.34 4740.51 0.00										-2.30		-37.17		89.27		4740.89	

HOBBS OCD

OCT 01 2014

RECEIVED

Company Name: Mewbourne Oil Co
 Excalibur 17 LI Federal Com #1H
 Lea County, New Mexico (Nad 83)
 Rig: Patterson #46
 Created By: Will Jircik
 Date: 07/29/2014

Excalibur 17 LI Federal Com #1H
 Lea County, New Mexico (Nad 83)
Q140688 & WT-140615
 Design #2 - Tied to Gyro

PROJECT DETAILS: Lea 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: Excalibur 17 LI Federal Com #1H

Ground Level: 3835.0
 +N/-S +E/-W Northing Easting Latitude Longitude
 0.0 0.0 603603.30 738359.60 32° 39' 27.790 N 103° 41' 35.330 W



Azimuths to Grid North

Magnetic North: 6.95°

Magnetic Field
 Strength: 48558.9snT
 Dip Angle: 60.49°
 Date: 6/26/2014
 Model: IGRF2010

Mewbourne Oil Company

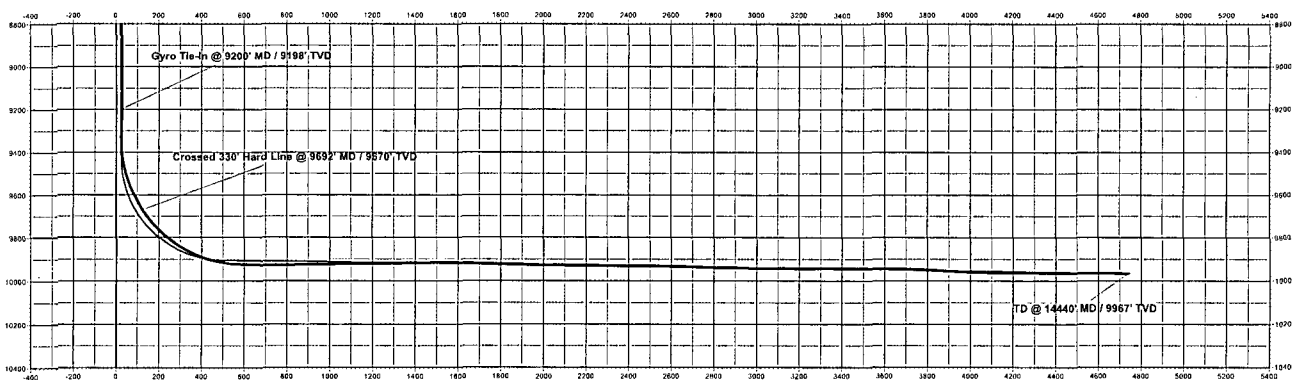
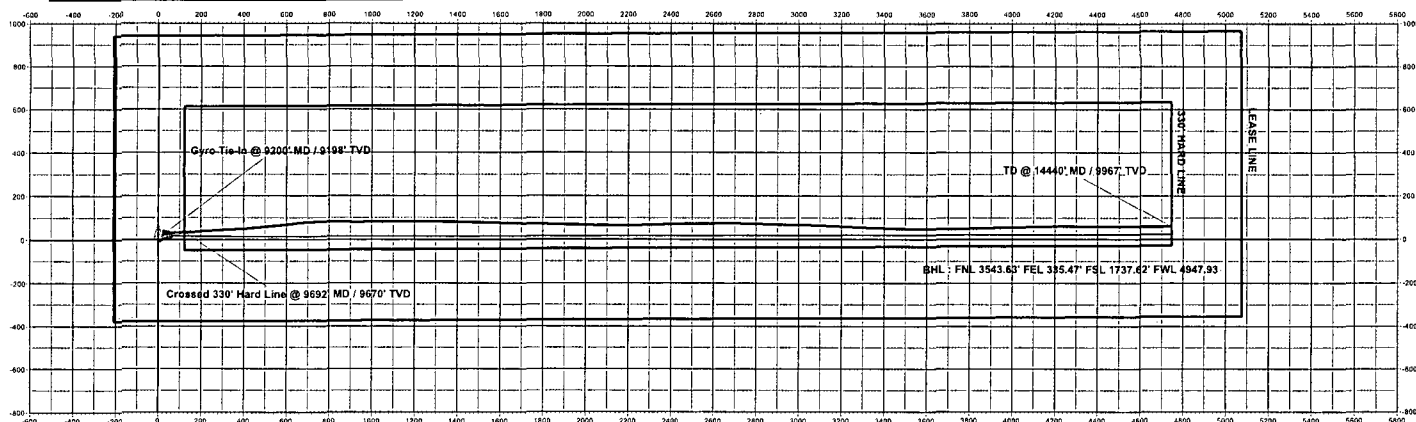


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Excalibur 17 LI Federal Com #1H D#2 9965.0	22.8	4746.1	603626.10	743105.69	32° 39' 27.729 N	103° 40' 39.614 W	
- plan hits target center							

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
9200.0	1.15	202.09	9197.7	24.9	25.7	25.8	147.7	Gyro Tie-In @ 9200' MD / 9198' TVD
9692.3	32.61	81.25	9669.5	33.3	123.7	123.9	254.7	Crossed 330' Hard Line @ 9692' MD / 9670' TVD
14400.0	88.70	88.90	9967.1	60.4	4740.5	4740.7	4874.3	TD @ 14440' MD / 9967' TVD



Vertical Section at 89.72° (200 usft/in)

Company Rep	<u>JUSTIN HERRISON</u>
Field	<u>Bone Spring</u>
BOT Service Rep	<u>Michael Martinez</u>
District Location	<u>Odessa, TX</u>



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	BTC / BUTT	0.03826	10,200.00	7,240	541
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,333.31	5,350	4,960
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD	9965.00		KOP		9993.69		Open Hole	6.125	Casing Vol. (bbl)	382.4
Carry Fluid Weight (ppg)			8.4		Propant Content (ppa)				Max Drill Out Size	0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
Liner Top 1	10292414	JR Slv w 4.750" Alt Seal Bore ID	9993.69	4.00	5.750	3.913				

Zone Length	H4090400008	S-3 Casing Hanger Packer	9997.69	4.63	5.875	3.875				
	H299900281	Combo Collar (4-1/2 LT&C)	10002.32	0.58	5.000	4.500				
zone 20	H299710014	4-1/2" 13.5# LT&C Spacer Nipple	10002.90	7.49	4.500	3.938				
		7 Jnts 4-1/2" 13.5# LT&C csg	10010.39	270.81	3.920					
380.5	H810090200	3.500" EXPress Sleeve (Zone 20)	10281.20	2.40	5.630		3.448	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10283.60	90.65	4.500	3.920				
zone 19	H409360008	582 OH PACKER #19	10374.25	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	10378.14	90.61	4.500	3.920				
230	H810090199	3.438" EXPress Sleeve (Zone 19)	10468.75	2.40	5.630		3.385	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	10471.15	133.12	4.500	3.920				
zone 18	H409360008	582 OH PACKER #18	10604.27	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	10608.16	90.67	4.500	3.920				
231	H810090198	3.375" EXPress Sleeve (Zone 18)	10698.83	2.40	5.630		3.323	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	10701.23	134.04	4.500	3.920				
zone 17	H409360008	582 OH PACKER #17	10835.27	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	10839.16	90.64	4.500	3.920				
187.6	H810090197	3.313" EXPress Sleeve (Zone 17)	10929.80	2.40	5.630		3.260	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	10932.20	90.66	4.500	3.920				
zone 16	H409360008	582 OH PACKER #16	11022.86	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11026.75	90.65	4.500	3.920				
232.9	H810090196	3.250" EXPress Sleeve (Zone 16)	11117.40	2.40	5.630		3.198	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	11119.80	135.95	4.500	3.920				

Operating Company Mewbourne Oil Co.
 Well Name & Number XCALIBUR 17 LI FED COM 1
 Sales Ticket Number 0
 Date 7/29/2014

Company Rep JUSTIN HERRISON
 Field Bone Spring
 BOT Service Rep Michael Martinez
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse		
Casing	7.000	26.00	110000	6.276	6.151	BTC / BUTT	0.03826	10,200.00	7,240	541		
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,333.31	5,350	4,960		
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-		
TVD		9965.00		KOP		9993.69		Open Hole		6.125	Casing Vol. (bbl)	382.4
Carry Fluid Weight (ppg)			8.4		Propan Content (ppa)					Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
zone 15 185.9	H409360008	582 OH PACKER #15	11255.75	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11259.64	90.24	4.500	3.920				
	H810090195	3.188" EXPress Sleeve (Zone 15)	11349.88	2.40	5.630		3.135	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11352.28	89.33	4.500	3.920				
zone 14 230.1	H409360008	582 OH PACKER #14	11441.61	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11445.50	89.03	4.500	3.920				
	H810090194	3.125" EXPress Sleeve (Zone 14)	11534.53	2.40	5.630		3.073	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	11536.93	134.74	4.500	3.920				
zone 13 186.3	H409360008	582 OH PACKER #13	11671.67	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11675.56	89.71	4.500	3.920				
	H810090193	3.063" EXPress Sleeve (Zone 13)	11765.27	2.40	5.630		3.010	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	11767.67	90.30	4.500	3.920				
zone 12 230.1	H409360008	582 OH PACKER #12	11857.97	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	11861.86	89.72	4.500	3.920				
	H810090192	3.00" EXPress Sleeve (Zone 12)	11951.58	2.40	5.630		2.948	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	11953.98	134.09	4.500	3.920				
zone 11 226.9	H409360008	582 OH PACKER #11	12088.07	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	12091.96	88.75	4.500	3.920				
	H810090191	2.938" EXPress Sleeve (Zone 11)	12180.71	2.40	5.630		2.885	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	12183.11	131.84	4.500	3.920				
zone 10 183.8	H409360008	582 OH PACKER #10	12314.95	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	12318.84	88.72	4.500	3.920				
	H810090190	2.875" EXPress Sleeve (Zone 10)	12407.56	2.40	5.630		2.823	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	12409.96	88.75	4.500	3.920				
zone 9	H409360008	582 OH PACKER #9	12498.71	3.89	5.820	3.875		2154		
		2 Jnts 4-1/2" 13.5# LT&C csg	12502.60	88.73	4.500	3.920				

Operating Company Mewbourne Oil Co.
 Well Name & Number XCALIBUR 17 LI FED COM 1
 Sales Ticket Number 0
 Date 7/29/2014

Company Rep JUSTIN HERRISON
 Field Bone Spring
 BOT Service Rep Michael Martinez
 District Location Odessa, TX



	Size	Weight	Grade	ID	Drift	Thread	Capacity	Length	Burst	Collapse
Casing	7.000	26.00	110000	6.276	6.151	BTC / BUTT	0.03826	10,200.00	7,240	541
Top Liner	4.500	13.50	110000	3.920	3.795	LTC / 8RD	0.01493	4,333.31	5,350	4,960
Bott Liner	0.000	0.00	0	0.000	0.000	0	0.00000	-	-	-
TVD		9965.00	KOP		9993.69	Open Hole		6.125	Casing Vol. (bbl)	382.4
Carry Fluid Weight (ppg)		8.4	Propan Content (ppa)					Max Drill Out Size		0

	Comm. Number	Description	Depth	Length	OD	ID	Ball Seat ID	Shear Press.	Max Rate (BPM)	Displ. (BBL)
228.1	H810090189	2.813" EXPress Sleeve (Zone 9)	12591.33	2.40	5.630		2.760	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	12593.73	133.09	4.500	3.920				
	H409360008	582 OH PACKER #8	12726.82	3.89	5.820	3.875		2154		
zone 8		2 Jnts 4-1/2" 13.5# LT&C csg	12730.71	88.63	4.500	3.920				
230.1	H810090188	2.750" EXPress Sleeve (Zone 8)	12819.34	2.40	5.630		2.698	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	12821.74	135.20	4.500	3.920				
	H409360008	582 OH PACKER #7	12956.94	3.89	5.820	3.875		2154		
zone 7		2 Jnts 4-1/2" 13.5# LT&C csg	12960.83	89.70	4.500	3.920				
231	H810090187	2.688" EXPress Sleeve (Zone 7)	13050.53	2.40	5.630		2.635	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	13052.93	135.01	4.500	3.920				
	H409360008	582 OH PACKER #6	13187.94	3.89	5.820	3.875		2154		
zone 6		2 Jnts 4-1/2" 13.5# LT&C csg	13191.83	88.32	4.500	3.920				
183.3	H810090186	2.625" EXPress Sleeve (Zone 6)	13280.15	2.40	5.630		2.573	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	13282.55	88.64	4.500	3.920				
	H409360008	582 OH PACKER #5	13371.19	3.89	5.820	3.875		2154		
zone 5		2 Jnts 4-1/2" 13.5# LT&C csg	13375.08	89.72	4.500	3.920				
230.1	H810090185	2.563" EXPress Sleeve (Zone 5)	13464.80	2.40	5.630		2.510	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	13467.20	134.08	4.500	3.920				
	H409360008	582 OH PACKER #4	13601.28	3.89	5.820	3.875		2154		
zone 4		2 Jnts 4-1/2" 13.5# LT&C csg	13605.17	88.77	4.500	3.920				
184.7	H810090184	2.500" EXPress Sleeve (Zone 4)	13693.94	2.40	5.630		2.448	2286		
		2 Jnts 4-1/2" 13.5# LT&C csg	13696.34	89.72	4.500	3.920				
	H409360008	582 OH PACKER #3	13786.06	3.89	5.820	3.875		2154		
zone 3		2 Jnts 4-1/2" 13.5# LT&C csg	13789.95	90.66	4.500	3.920				
232	H810090183	2.438" EXPress Sleeve (Zone 3)	13880.61	2.40	5.630		2.385	2286		
		3 Jnts 4-1/2" 13.5# LT&C csg	13883.01	135.01	4.500	3.920				

Company Rep	JUSTIN HERRISON
Field	Bone Spring
BOT Service Rep	Michael Martinez
District Location	Odessa, TX

[illegible]