

Results of Directional Survey

API number:	30-025-41123		
OGRID:		Operator:	MEWBOURNE OIL CO
		Property:	MAD DOG 26 MD STATE COM # 1H

surface	ULSTR:	M	26		T 23S		R 34E
					150 FSL		500 FWL

BH Loc	ULSTR:	D	26		T 23S		R 34E
	15741 MD		11363.1	TVD	664 FNL		331 FWL
					4616 FSL		

Top Perf/OH	ULSTR:	M	26		T 23S		R 34E
	10860 MD		10850.1	TVD	185 FSL		585 FWL

Bot Perf/OH	ULSTR:	D	26		T 23S		R 34E
	15612 MD		11363.2	TVD	766 FNL		410 FWL
					4514 FSL		

	MD	N/S	E/W	VD
	10772	37.50	93.00	10762.56
TOP PERFS/OH	10860	35.47	84.68	10850.14
	10863	35.40	84.40	10853.13
	15603	4356.30	-85.80	11363.04
BOT PERFS/OH	15612	4364.03	-90.38	11363.21
	15635	4383.80	-102.10	11363.63

NEXT TO LAST	15694	4430.80	-137.60	11363.79
LAST READING	15741	4465.90	-168.80	11363.13
TD	15741	4465.90	-168.80	11363.13

Surface Location	150 FS	500 FW
Projected BHL	4616 FS	331 FW
Location of		
Top Perfs/OH	185 FS	585 FW
Bottom Perfs/OH	4514 FS	410 FW

SUMMARY of Subsurface Locations

Surface Location	M-26-23S-34E	150 FS	500 FW	Vert. Depth
Top Perfs/OH	M-26-23S-34E	185 FS	585 FW	10850.14
Bottom Perfs/OH	D-26-23S-34E	4514 FS	410 FW	11363.21
Projected TD	D-26-23S-34E	4616 FS	331 FW	11363.13

MAR 04 2014

OPERATOR MEWBOURNE OIL COMPANY
 WELL/LEASE MAD DOG 26 MD ST COM #1H
 COUNTY LEA

RECEIVED
 FEB 20 2014
 NMOCD ARTESIA

25 4123

STATE OF NEW MEXICO
 DEVIATION REPORT

394	0.50	7,503	1.20
844	2.50	7,681	1.70
1,450	1.80	7,862	1.60
1,766	1.50	7,952	1.70
2,036	1.70	8,546	1.90
2,307	2.30	8,766	2.00
2,488	3.10	8,947	2.00
2,637	3.20	9,126	1.70
2,817	3.50	9,398	3.20
2,997	3.70	9,488	2.80
3,178	4.00	9,577	2.60
3,359	3.80	9,668	2.80
3,540	2.70	9,764	2.50
3,720	2.30	9,858	2.70
3,900	2.80	9,955	2.60
4,081	1.70	10,052	3.40
4,261	3.30	10,145	4.00
4,474	4.90	10,240	4.70
4,623	5.70	10,331	4.50
5,216	1.70	10,426	4.60
5,519	1.60	10,521	6.10
5,912	1.80	10,618	5.90
6,183	1.00		
6,544	1.10		
6,814	0.60		
7,174	1.10		
7,323	1.00		

DIRECTIONAL

HOBBS OCD
 FEB 25 2014
 RECEIVED

BY: Cyndi Reynolds

STATE OF TEXAS

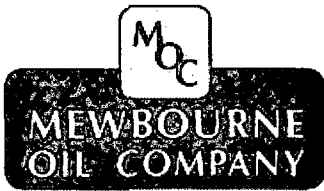
COUNTY OF HARRIS

The foregoing instrument was acknowledged before me on
 Cyndi Reynolds on behalf of Trinidad Drilling, LP.

Feb 18th, 2014, by

Kristin Marie Arroyo
 Notary Public for Harris County, Texas
 My Commission Expires:





25-41123

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FEB 20 2014
NMOCD ARTESIS

Mewbourne Oil Company .

Lea County N. M. Nad (83)
Section 26-23S-34E Mad Dog 26 MD
Mad Dog 26 MD State Com #1H

Original Hole

HOBBS OCD

FEB 25 2014

RECEIVED

Design: Original Hole

Standard Survey Report

18 December, 2013





Stryker Directional Survey Report



Company: Mewbourne Oil Company	Local Co-ordinate Reference: Well Mad Dog 26 MD State Com #1H
Project: Lea County N. M. Nad (83)	TVD Reference: GL 3455 + 20 @ 3475.0usft (Trinidad #110)
Site: Section 26-23S-34E Mad Dog 26 MD	MD Reference: GL 3455 + 20 @ 3475.0usft (Trinidad #110)
Well: Mad Dog 26 MD State Com #1H	North Reference: Grid
Wellbore: Original Hole	Survey Calculation Method: Minimum Curvature
Design: Original Hole	Database: EDM 5000.1 Single User Db

Project Lea County N. M. Nad (83)	System Datum: Mean Sea Level
Map System: US State Plane 1983	
Geo Datum: North American Datum 1983	
Map Zone: New Mexico Eastern Zone	

Site Section 26-23S-34E Mad Dog 26 MD			
Site Position:	Northing: 462,631.60 usft	Latitude:	32° 16' 7.479 N
From: Map	Easting: 815,058.30 usft	Longitude:	103° 26' 51.905 W
Position Uncertainty: 0.0 usft	Slot Radius: 13-3/16 "	Grid Convergence:	0.47 °

Well Mad Dog 26 MD State Com #1H			
Well Position	+N/-S 0.0 usft	Northing: 462,631.60 usft	Latitude: 32° 16' 7.479 N
	+E/-W 0.0 usft	Easting: 815,058.30 usft	Longitude: 103° 26' 51.905 W
Position Uncertainty	0.0 usft	Wellhead Elevation: usft	Ground Level: 3,455.0 usft

Wellbore Original Hole					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/29/2013	7.24	60.19	48,419

Survey Program		Date 12/18/2013			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	10,622.0	VES Gyro Survey #1 (Original Hole)	GyroFlex		
10,772.0	15,741.0	Survey #2 (Original Hole)	MWD	MWD - Standard	

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	0.75	18.07	100.0	0.6	0.2	0.6	0.75	0.75	0.00
200.0	0.58	34.42	200.0	1.7	0.7	1.7	0.25	-0.17	16.35
300.0	0.36	41.04	300.0	2.3	1.2	2.3	0.23	-0.22	6.62
400.0	0.89	74.70	400.0	2.8	2.1	2.8	0.62	0.53	33.66
500.0	1.34	67.91	500.0	3.4	4.0	3.4	0.47	0.45	-6.79
600.0	1.89	66.63	599.9	4.5	6.6	4.5	0.55	0.55	-1.28
700.0	2.45	60.04	699.8	6.2	9.9	6.2	0.61	0.56	-6.59
800.0	2.63	56.25	799.8	8.6	13.7	8.5	0.25	0.18	-3.79
900.0	2.41	49.99	899.7	11.2	17.2	11.2	0.35	-0.22	-6.26
1,000.0	2.15	45.15	999.6	13.9	20.2	13.8	0.32	-0.26	-4.84
1,100.0	1.94	41.00	1,099.5	16.5	22.6	16.4	0.26	-0.21	-4.15
1,200.0	1.74	39.65	1,199.5	18.9	24.7	18.9	0.20	-0.20	-1.35
1,300.0	1.63	35.00	1,299.4	21.2	26.5	21.2	0.18	-0.11	-4.65
1,400.0	1.53	30.46	1,399.4	23.6	27.9	23.5	0.16	-0.10	-4.54
1,500.0	1.44	29.08	1,499.3	25.8	29.2	25.8	0.10	-0.09	-1.38



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Site: Section 26-23S-34E Mad Dog 26 MD	MD Reference: GL 3455 + 20 @ 3475.0usft (Trinidad #110)
Well: Mad Dog 26 MD State Com #1H	North Reference: Grid
Wellbore: Original Hole	Survey Calculation Method: Minimum Curvature
Design: Original Hole	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)
1,600.0	1.46	20.11	1,599.3	28.1	30.3	28.0	0.23	0.02	-8.97
1,700.0	1.26	17.28	1,699.3	30.3	31.1	30.3	0.21	-0.20	-2.83
1,800.0	1.18	13.98	1,799.3	32.4	31.6	32.3	0.11	-0.08	-3.30
1,900.0	1.23	9.72	1,899.2	34.5	32.1	34.4	0.10	0.05	-4.26
2,000.0	1.41	359.73	1,999.2	36.7	32.2	36.7	0.29	0.18	-9.99
2,100.0	1.63	9.89	2,099.2	39.4	32.5	39.3	0.35	0.22	10.16
2,200.0	1.89	12.21	2,199.1	42.4	33.1	42.3	0.27	0.26	2.32
2,300.0	2.35	14.76	2,299.1	46.0	33.9	45.9	0.47	0.46	2.55
2,400.0	2.45	20.09	2,399.0	50.0	35.2	49.9	0.24	0.10	5.33
2,500.0	2.68	23.40	2,498.9	54.1	36.9	54.1	0.27	0.23	3.31
2,600.0	2.67	29.34	2,598.8	58.3	38.9	58.2	0.28	-0.01	5.94
2,700.0	2.85	31.17	2,698.7	62.5	41.4	62.4	0.20	0.18	1.83
2,800.0	3.09	39.32	2,798.5	66.7	44.3	66.6	0.49	0.24	8.15
2,900.0	3.30	40.07	2,898.4	71.0	47.9	70.9	0.21	0.21	0.75
3,000.0	3.54	43.65	2,998.2	75.4	51.9	75.3	0.32	0.24	3.58
3,100.0	3.75	44.44	3,098.0	80.0	56.3	79.9	0.22	0.21	0.79
3,200.0	3.71	46.84	3,197.8	84.5	61.0	84.4	0.16	-0.04	2.40
3,300.0	3.73	42.43	3,297.6	89.1	65.5	89.0	0.29	0.02	-4.41
3,400.0	3.31	43.37	3,397.4	93.6	69.7	93.5	0.42	-0.42	0.94
3,500.0	2.68	39.41	3,497.2	97.5	73.2	97.4	0.66	-0.63	-3.96
3,600.0	1.93	44.09	3,597.2	100.5	75.8	100.4	0.77	-0.75	4.68
3,700.0	1.88	51.32	3,697.1	102.8	78.3	102.6	0.25	-0.05	7.23
3,800.0	2.21	60.87	3,797.0	104.7	81.2	104.6	0.47	0.33	9.55
3,900.0	2.11	69.30	3,897.0	106.3	84.6	106.2	0.33	-0.10	8.43
4,000.0	1.55	77.51	3,996.9	107.3	87.7	107.1	0.62	-0.56	8.21
4,100.0	1.69	88.67	4,096.9	107.6	90.5	107.4	0.34	0.14	11.16
4,200.0	2.28	97.21	4,196.8	107.4	93.9	107.2	0.66	0.59	8.54
4,300.0	3.31	100.09	4,296.7	106.6	98.7	106.5	1.04	1.03	2.88
4,400.0	4.42	95.03	4,396.5	105.8	105.4	105.6	1.16	1.11	-5.06
4,500.0	4.69	90.80	4,496.1	105.4	113.3	105.2	0.43	0.27	-4.23
4,600.0	4.81	92.83	4,595.8	105.1	121.6	104.9	0.21	0.12	2.03
4,700.0	4.83	90.19	4,695.4	104.9	130.0	104.7	0.22	0.02	-2.64
4,800.0	4.39	91.97	4,795.1	104.8	138.1	104.5	0.46	-0.44	1.78
4,900.0	3.52	95.37	4,894.9	104.3	144.9	104.1	0.90	-0.87	3.40
5,000.0	2.66	101.03	4,994.7	103.6	150.3	103.3	0.91	-0.86	5.66
5,100.0	1.84	100.87	5,094.7	102.9	154.1	102.6	0.82	-0.82	-0.16
5,200.0	1.38	92.40	5,194.6	102.5	156.9	102.2	0.52	-0.46	-8.47
5,300.0	1.41	83.09	5,294.6	102.6	159.3	102.3	0.23	0.03	-9.31
5,400.0	1.58	79.17	5,394.6	103.0	161.9	102.7	0.20	0.17	-3.92
5,500.0	1.50	70.50	5,494.5	103.7	164.5	103.4	0.25	-0.08	-8.67
5,600.0	1.45	67.49	5,594.5	104.6	166.9	104.3	0.09	-0.05	-3.01
5,700.0	1.49	61.50	5,694.5	105.7	169.2	105.4	0.16	0.04	-5.99
5,800.0	1.57	60.99	5,794.4	107.0	171.5	106.7	0.08	0.08	-0.51
5,900.0	1.35	59.38	5,894.4	108.3	173.8	108.0	0.22	-0.22	-1.61



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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)
6,000.0	0.98	47.64	5,994.4	109.5	175.4	109.2	0.44	-0.37	-11.74
6,100.0	0.88	46.87	6,094.4	110.6	176.6	110.3	0.10	-0.10	-0.77
6,200.0	0.90	43.47	6,194.3	111.7	177.7	111.3	0.06	0.02	-3.40
6,300.0	0.82	47.19	6,294.3	112.7	178.8	112.4	0.10	-0.08	3.72
6,400.0	0.94	50.16	6,394.3	113.7	179.9	113.4	0.13	0.12	2.97
6,500.0	0.87	54.27	6,494.3	114.7	181.2	114.4	0.10	-0.07	4.11
6,600.0	0.72	59.08	6,594.3	115.5	182.3	115.1	0.16	-0.15	4.81
6,700.0	0.65	61.69	6,694.3	116.1	183.4	115.7	0.08	-0.07	2.61
6,800.0	0.48	68.82	6,794.3	116.5	184.2	116.2	0.18	-0.17	7.13
6,900.0	0.46	77.32	6,894.3	116.7	185.0	116.4	0.07	-0.02	8.50
7,000.0	0.69	115.46	6,994.3	116.5	186.0	116.2	0.43	0.23	38.14
7,100.0	0.80	132.67	7,094.3	115.8	187.0	115.5	0.25	0.11	17.21
7,200.0	0.74	129.93	7,194.3	114.9	188.0	114.6	0.07	-0.06	-2.74
7,300.0	0.82	141.04	7,294.3	114.0	189.0	113.6	0.17	0.08	11.11
7,400.0	0.74	140.22	7,394.2	112.9	189.8	112.6	0.08	-0.08	-0.82
7,500.0	1.06	162.24	7,494.2	111.5	190.5	111.2	0.47	0.32	22.02
7,600.0	1.42	154.03	7,594.2	109.5	191.4	109.2	0.40	0.36	-8.21
7,700.0	1.53	162.26	7,694.2	107.1	192.3	106.8	0.24	0.11	8.23
7,800.0	1.46	168.34	7,794.1	104.6	193.0	104.3	0.17	-0.07	6.08
7,900.0	1.33	170.72	7,894.1	102.2	193.4	101.9	0.14	-0.13	2.38
8,000.0	1.37	175.67	7,994.1	99.9	193.7	99.6	0.12	0.04	4.95
8,100.0	1.37	181.01	8,094.1	97.5	193.8	97.2	0.13	0.00	5.34
8,200.0	1.30	183.93	8,194.0	95.2	193.7	94.8	0.10	-0.07	2.92
8,300.0	1.11	196.83	8,294.0	93.1	193.3	92.8	0.33	-0.19	12.90
8,400.0	1.37	200.17	8,394.0	91.1	192.6	90.7	0.27	0.26	3.34
8,500.0	1.30	237.55	8,494.0	89.3	191.2	89.0	0.86	-0.07	37.38
8,600.0	1.59	264.43	8,593.9	88.6	188.9	88.3	0.73	0.29	26.88
8,700.0	1.79	266.37	8,693.9	88.4	186.0	88.0	0.21	0.20	1.94
8,800.0	1.85	273.61	8,793.8	88.4	182.8	88.0	0.24	0.06	7.24
8,900.0	1.93	264.01	8,893.8	88.3	179.5	88.0	0.33	0.08	-9.60
9,000.0	1.93	256.63	8,993.7	87.7	176.2	87.4	0.25	0.00	-7.38
9,100.0	1.57	243.68	9,093.7	86.7	173.3	86.4	0.53	-0.36	-12.95
9,200.0	1.77	234.37	9,193.6	85.2	170.8	84.9	0.34	0.20	-9.31
9,300.0	2.20	229.50	9,293.6	83.1	168.1	82.8	0.46	0.43	-4.87
9,400.0	2.62	224.84	9,393.5	80.2	165.1	79.9	0.46	0.42	-4.66
9,500.0	2.55	218.91	9,493.4	76.9	162.1	76.6	0.28	-0.07	-5.93
9,600.0	2.36	217.75	9,593.3	73.5	159.4	73.2	0.20	-0.19	-1.16
9,700.0	2.58	219.66	9,693.2	70.1	156.7	69.9	0.23	0.22	1.91
9,800.0	2.41	224.06	9,793.1	66.9	153.8	66.6	0.26	-0.17	4.40
9,900.0	2.33	226.72	9,893.0	64.0	150.9	63.7	0.14	-0.08	2.66
10,000.0	2.68	229.52	9,992.9	61.1	147.6	60.8	0.37	0.35	2.80
10,100.0	3.26	239.84	10,092.8	58.1	143.4	57.9	0.79	0.58	10.32
10,200.0	4.12	241.26	10,192.6	55.0	137.8	54.7	0.86	0.86	1.42



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10,300.0	4.63	242.04	10,292.3	51.4	131.0	51.1	0.51	0.51	0.78
10,400.0	4.14	246.78	10,392.0	48.0	124.2	47.8	0.61	-0.49	4.74
10,500.0	5.10	249.38	10,491.7	45.1	116.7	44.8	0.98	0.96	2.60
10,600.0	5.25	250.25	10,591.3	41.9	108.2	41.8	0.17	0.15	0.87
10,622.0	5.26	252.60	10,613.2	41.3	106.3	41.1	0.98	0.05	10.68
10622' MD VES Gyro									
10,772.0	5.30	255.10	10,762.5	37.5	93.0	37.3	0.16	0.03	1.67
10,863.0	5.90	257.40	10,853.1	35.4	84.4	35.2	0.70	0.66	2.53
10,908.0	11.60	264.60	10,897.6	34.4	77.7	34.3	12.87	12.67	16.00
10,953.0	14.90	276.40	10,941.4	34.6	67.4	34.5	9.45	7.33	26.22
10,998.0	20.90	282.70	10,984.2	37.1	53.8	37.0	13.99	13.33	14.00
11,043.0	26.30	288.90	11,025.4	42.1	36.5	42.0	13.19	12.00	13.78
11,088.0	27.00	293.10	11,065.6	49.3	17.7	49.3	4.47	1.56	9.33
11,133.0	32.40	300.10	11,104.7	59.4	-2.2	59.4	14.24	12.00	15.56
11,179.0	37.50	307.70	11,142.4	74.1	-23.9	74.2	14.56	11.09	16.52
11,224.0	41.50	314.20	11,177.1	92.9	-45.5	93.0	12.77	8.89	14.44
11,269.0	46.70	320.00	11,209.5	115.9	-66.7	116.0	14.62	11.56	12.89
11,314.0	52.00	324.10	11,238.8	142.8	-87.6	143.0	13.65	11.78	9.11
11,359.0	57.20	332.00	11,264.9	173.9	-106.9	174.1	18.38	11.56	17.56
11,404.0	60.40	338.60	11,288.2	208.9	-123.0	209.1	14.42	7.11	14.67
11,449.0	63.00	342.70	11,309.5	246.2	-136.1	246.5	9.88	5.78	9.11
11,494.0	66.10	348.10	11,328.9	285.5	-146.3	285.8	12.84	6.89	12.00
11,539.0	71.20	354.30	11,345.3	326.9	-152.7	327.2	17.12	11.33	13.78
11,584.0	75.20	1.50	11,358.3	369.9	-154.2	370.2	17.71	8.89	16.00
11,630.0	78.30	6.80	11,368.8	414.6	-151.0	414.8	13.08	6.74	11.52
11,675.0	80.20	8.00	11,377.2	458.4	-145.3	458.7	4.97	4.22	2.67
11,720.0	83.70	9.60	11,383.5	502.4	-138.5	502.7	8.54	7.78	3.56
11,756.0	88.00	11.70	11,386.1	537.7	-131.8	537.9	13.29	11.94	5.83
11,810.0	90.70	12.40	11,386.7	590.5	-120.5	590.7	5.17	5.00	1.30
11,842.0	89.50	12.90	11,386.7	621.7	-113.5	621.9	4.06	-3.75	1.56
11,874.0	88.60	13.10	11,387.2	652.9	-106.3	653.1	2.88	-2.81	0.63
11,905.0	88.40	12.60	11,388.0	683.1	-99.4	683.3	1.74	-0.65	-1.61
11,937.0	88.80	12.00	11,388.8	714.4	-92.6	714.5	2.25	1.25	-1.88
11,969.0	88.40	11.90	11,389.6	745.7	-86.0	745.8	1.29	-1.25	-0.31
12,063.0	90.20	10.30	11,390.7	837.9	-67.9	838.0	2.56	1.91	-1.70
12,158.0	91.90	7.30	11,389.0	931.8	-53.4	931.9	3.63	1.79	-3.16
12,253.0	90.40	4.10	11,387.1	1,026.3	-44.0	1,026.3	3.72	-1.58	-3.37
12,348.0	91.00	3.80	11,385.9	1,121.0	-37.4	1,121.1	0.71	0.63	-0.32
12,443.0	90.70	2.70	11,384.5	1,215.9	-32.0	1,215.9	1.20	-0.32	-1.16
12,537.0	92.80	3.60	11,381.7	1,309.7	-26.9	1,309.7	2.43	2.23	0.96
12,632.0	92.90	3.30	11,376.9	1,404.4	-21.2	1,404.4	0.33	0.11	-0.32
12,727.0	91.10	3.90	11,373.6	1,499.1	-15.2	1,499.1	2.00	-1.89	0.63
12,822.0	89.00	4.50	11,373.5	1,593.9	-8.2	1,593.9	2.30	-2.21	0.63



Stryker Directional Survey Report



Company: Mewbourne Oil Company .	Local Co-ordinate Reference: Well Mad Dog 26 MD State Com #1H
Project: Lea County N. M. Nad (83)	TVD Reference: GL 3455 + 20 @ 3475.0usft (Trinidad #110)
Site: Section 26-23S-34E Mad Dog 26 MD	MD Reference: GL 3455 + 20 @ 3475.0usft (Trinidad #110)
Well: Mad Dog 26 MD State Com #1H	North Reference: Grid
Wellbore: Original Hole	Survey Calculation Method: Minimum Curvature
Design: Original Hole	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)
12,917.0	89.70	4.30	11,374.6	1,688.6	-0.9	1,688.6	0.77	0.74	-0.21
13,012.0	89.30	3.80	11,375.4	1,783.3	5.8	1,783.3	0.67	-0.42	-0.53
13,106.0	89.30	3.60	11,376.6	1,877.1	11.8	1,877.1	0.21	0.00	-0.21
13,201.0	89.70	3.80	11,377.4	1,971.9	18.0	1,971.9	0.47	0.42	0.21
13,296.0	89.00	4.00	11,378.5	2,066.7	24.4	2,066.7	0.77	-0.74	0.21
13,391.0	89.00	2.90	11,380.2	2,161.5	30.1	2,161.5	1.16	0.00	-1.16
13,486.0	90.10	0.80	11,380.9	2,256.5	33.2	2,256.4	2.50	1.16	-2.21
13,581.0	90.30	0.60	11,380.6	2,351.5	34.4	2,351.4	0.30	0.21	-0.21
13,676.0	91.00	359.60	11,379.5	2,446.4	34.5	2,446.4	1.28	0.74	-1.05
13,771.0	90.00	358.20	11,378.7	2,541.4	32.7	2,541.4	1.81	-1.05	-1.47
13,866.0	90.00	357.30	11,378.7	2,636.3	29.0	2,636.3	0.95	0.00	-0.95
13,961.0	91.50	357.30	11,377.4	2,731.2	24.5	2,731.2	1.58	1.58	0.00
14,055.0	92.50	358.90	11,374.1	2,825.1	21.4	2,825.1	2.01	1.06	1.70
14,150.0	89.40	358.70	11,372.6	2,920.1	19.4	2,920.0	3.27	-3.26	-0.21
14,245.0	91.80	359.20	11,371.6	3,015.0	17.7	3,015.0	2.58	2.53	0.53
14,339.0	91.50	359.90	11,368.9	3,109.0	16.9	3,109.0	0.81	-0.32	0.74
14,434.0	92.10	1.00	11,365.9	3,203.9	17.7	3,203.9	1.32	0.63	1.16
14,529.0	91.30	359.90	11,363.1	3,298.9	18.4	3,298.9	1.43	-0.84	-1.16
14,623.0	92.20	0.30	11,360.2	3,392.9	18.6	3,392.8	1.05	0.96	0.43
14,686.0	88.80	0.30	11,359.6	3,455.8	18.9	3,455.8	5.40	-5.40	0.00
14,718.0	86.80	359.70	11,360.9	3,487.8	18.9	3,487.8	6.52	-6.25	-1.88
14,814.0	86.90	359.00	11,366.1	3,583.7	17.8	3,583.6	0.74	0.10	-0.73
14,845.0	88.90	359.00	11,367.3	3,614.6	17.3	3,614.6	6.45	6.45	0.00
14,908.0	90.70	359.00	11,367.5	3,677.6	16.2	3,677.6	2.86	2.86	0.00
15,003.0	90.10	359.20	11,366.8	3,772.6	14.7	3,772.6	0.67	-0.63	0.21
15,098.0	91.70	358.70	11,365.3	3,867.6	12.9	3,867.5	1.76	1.68	-0.53
15,193.0	88.10	356.40	11,365.5	3,962.5	8.9	3,962.4	4.50	-3.79	-2.42
15,287.0	90.10	356.80	11,367.0	4,056.3	3.3	4,056.3	2.17	2.13	0.43
15,382.0	90.20	348.10	11,366.7	4,150.4	-9.2	4,150.4	9.16	0.11	-9.16
15,477.0	91.50	342.00	11,365.3	4,242.1	-33.7	4,242.2	6.56	1.37	-6.42
15,540.0	91.50	334.80	11,363.7	4,300.6	-56.8	4,300.7	11.42	0.00	-11.43
15,572.0	90.60	332.50	11,363.1	4,329.3	-71.0	4,329.4	7.72	-2.81	-7.19
15,603.0	89.70	330.40	11,363.0	4,356.5	-85.8	4,356.7	7.37	-2.90	-6.77
15,635.0	88.20	328.30	11,363.6	4,384.0	-102.1	4,384.2	8.06	-4.69	-6.56
15,667.0	90.30	322.30	11,364.0	4,410.3	-120.4	4,410.5	19.86	6.56	-18.75
15,694.0	90.80	318.30	11,363.7	4,431.1	-137.6	4,431.3	14.93	1.85	-14.81
15,741.0	90.80	318.30	11,363.1	4,466.2	-168.9	4,466.5	0.00	0.00	0.00

15741' MD Projected to Bit

Stryker Directional Survey Report



Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Mad Dog 26 MD State Com #1H
Project:	Lea County N. M. Nad (83)	TVD Reference:	GL 3455 + 20 @ 3475.0usft (Trinidad #110)
Site:	Section 26-23S-34E Mad Dog 26 MD	MD Reference:	GL 3455 + 20 @ 3475.0usft (Trinidad #110)
Well:	Mad Dog 26 MD State Com #1H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	EDM 5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		
		+N/-S (usft)	+E/-W (usft)	Comment
10,622.0	10,613.2	41.3	106.3	10622' MD VES Gyro
15,741.0	11,363.1	4,466.2	-168.9	15741' MD Projected to Bit



COMPANY: Mewbourne Oil Company
 WELL: Mad Dog 26 MD State Com #1H
 COUNTY: Lea County N. M. Nad (83)
 DATUM: North American Datum 1983
 RIG: Trinidad #110



GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.77°

OFFICE: 936.582.7296

GEODETTIC ZONE: New Mexico Eastern Zone							
GL 3455 + 20 @ 3475.0usft (Trinidad #110)							
GROUND ELEVATION: 3455.0							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.0	0.0	462631.60	815058.30	32° 16' 7.479 N	103° 26' 51.905 W		

PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	10622.0	5.26	252.60	10613.2	41.3	106.3	0.00	0.00	40.3	
2	10912.0	5.26	252.60	10901.9	33.3	80.9	0.00	0.00	32.6	
3	11677.7	90.40	359.03	11389.9	513.2	29.4	12.00	106.33	512.9	
4	15966.3	90.40	359.03	11360.0	4801.1	-43.1	0.00	0.00	4801.3	PBHL Mad Dog 26 MD State Com #1H

T G M

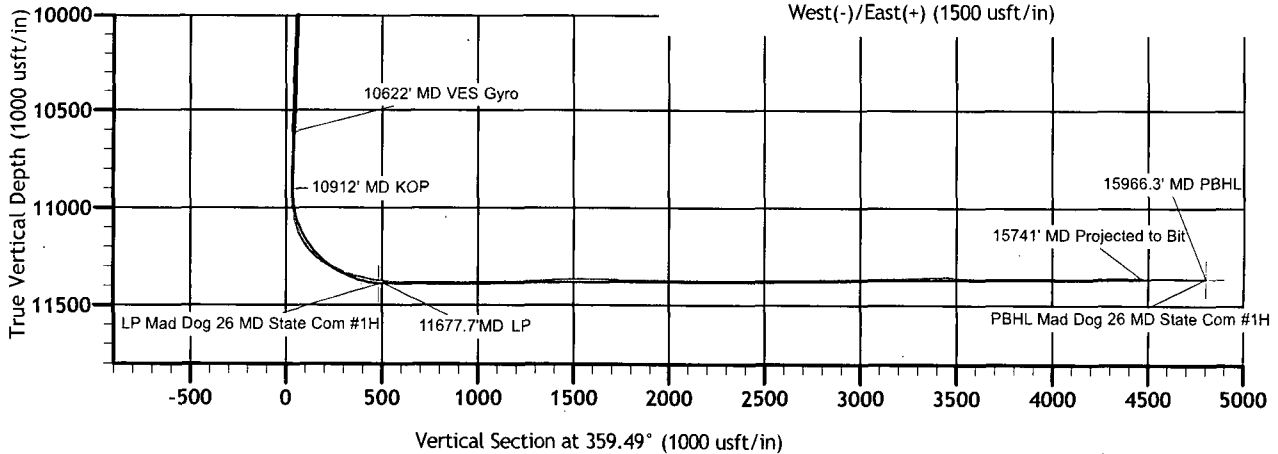
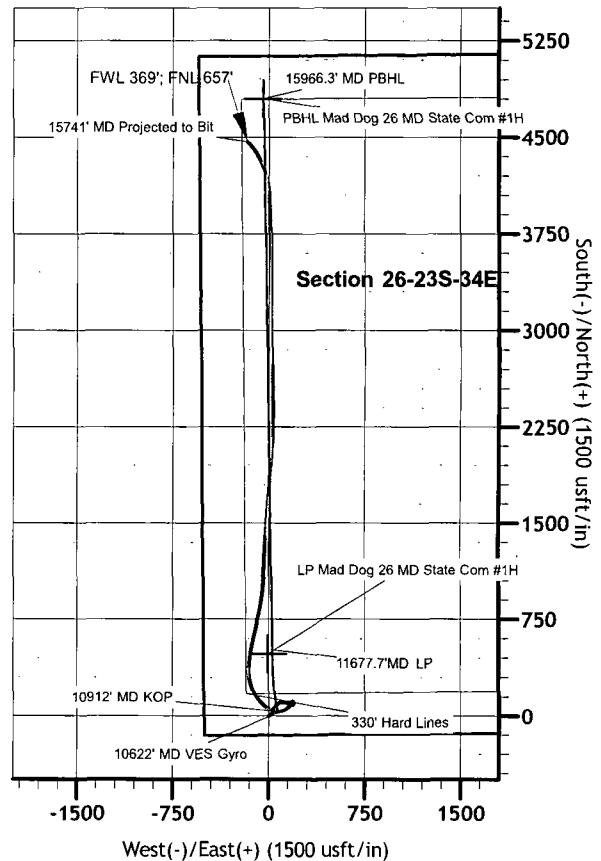
Azimuths to Grid North
 True North: -0.47°
 Magnetic North: 6.77°

Magnetic Field
 Strength: 48418.9snT
 Dip Angle: 60.19°
 Date: 10/29/2013
 Model: IGRF2010

HOBBS OCD

FEB 25 2014

RECEIVED



Vertical Section at 359.49° (1000 usft/in)



Company: MEWBOURNE OIL COMPANY
 Lease/Well: MAD DOG 26 MD STATE COM/No. 001H



Rig Name: TRINIDAD 110
 State/County: NEW MEXICO/EDDY
 Latitude: 32.27, Longitude: -103.45
 GRID North is 0.47 Degrees East of True North
 VS-Azi: 0.00 Degrees

HOBBS OCD
 FEB 25 2014
 RECEIVED

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: MADDOG 1H.ut
 Minimum Curvature Method
 Report Date/Time: 12/26/2013 / 10:10

VAUGHN ENERGY SERVICES
 CORPUS CHRISTI, TX
 800-606-4976

SURVEYOR : JAVIER ESTRADA

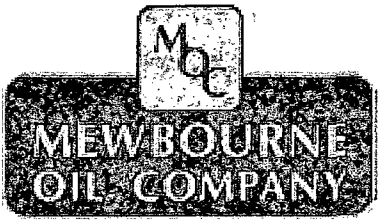
MAD DOG 26 MD STATE COM NO. 001H / API 30-025-41123

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.75	18.07	100.00	0.62	0.20	0.62	0.65	18.07	0.75
200.00	0.58	34.42	199.99	1.66	0.69	1.66	1.79	22.61	0.25
300.00	0.36	41.04	299.99	2.31	1.18	2.31	2.60	27.10	0.22
400.00	0.89	74.70	399.98	2.75	2.14	2.75	3.49	37.86	0.62
500.00	1.34	67.91	499.96	3.40	3.98	3.40	5.23	49.46	0.46
600.00	1.89	66.63	599.92	4.49	6.57	4.49	7.96	55.64	0.56
700.00	2.45	60.04	699.85	6.22	9.94	6.22	11.72	57.98	0.61
800.00	2.63	56.25	799.75	8.56	13.70	8.56	16.15	58.01	0.25
900.00	2.41	49.99	899.66	11.18	17.21	11.18	20.52	56.99	0.35
1000.00	2.15	45.15	999.58	13.86	20.15	13.86	24.46	55.49	0.32
1100.00	1.94	41.00	1099.51	16.46	22.60	16.46	27.96	53.93	0.26
1200.00	1.74	39.65	1199.46	18.91	24.68	18.91	31.09	52.54	0.21
1300.00	1.63	35.00	1299.42	21.24	26.46	21.24	33.93	51.25	0.17
1400.00	1.53	30.46	1399.38	23.56	27.95	23.56	36.56	49.88	0.16
1500.00	1.44	29.08	1499.35	25.81	29.24	25.81	39.00	48.57	0.10
1600.00	1.46	20.11	1599.31	28.10	30.29	28.10	41.32	47.15	0.23
1700.00	1.26	17.28	1699.29	30.34	31.05	30.34	43.42	45.66	0.21
1800.00	1.18	13.98	1799.26	32.39	31.63	32.39	45.27	44.32	0.10
1900.00	1.23	9.72	1899.24	34.45	32.06	34.45	47.06	42.94	0.10

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
2000.00	1.41	359.73	1999.21	36.74	32.24	36.74	48.88	41.26	0.29
2100.00	1.63	9.89	2099.18	39.38	32.47	39.38	51.04	39.51	0.34
2200.00	1.89	12.21	2199.13	42.39	33.07	42.39	53.76	37.96	0.27
2300.00	2.35	14.76	2299.06	45.98	33.94	45.98	57.15	36.43	0.47
2400.00	2.45	20.09	2398.98	49.97	35.19	49.97	61.12	35.16	0.25
2500.00	2.68	23.40	2498.88	54.13	36.86	54.13	65.49	34.25	0.27
2600.00	2.67	29.34	2598.77	58.31	38.93	58.31	70.11	33.73	0.28
2700.00	2.85	31.17	2698.65	62.46	41.36	62.46	74.91	33.51	0.19
2800.00	3.09	39.32	2798.52	66.67	44.35	66.67	80.08	33.63	0.49
2900.00	3.30	40.07	2898.36	70.96	47.91	70.96	85.62	34.03	0.21
3000.00	3.54	43.65	2998.18	75.39	51.89	75.39	91.52	34.54	0.32
3100.00	3.75	44.44	3097.98	79.96	56.31	79.96	97.80	35.15	0.22
3200.00	3.71	46.84	3197.77	84.51	60.96	84.51	104.20	35.81	0.16
3300.00	3.73	42.43	3297.56	89.12	65.52	89.12	110.61	36.32	0.29
3400.00	3.31	43.37	3397.37	93.62	69.69	93.62	116.71	36.66	0.43
3500.00	2.68	39.41	3497.23	97.53	73.16	97.53	121.92	36.87	0.66
3600.00	1.93	44.09	3597.15	100.54	75.82	100.54	125.92	37.02	0.77
3700.00	1.88	51.32	3697.10	102.78	78.27	102.78	129.18	37.29	0.25
3800.00	2.21	60.87	3797.03	104.74	81.23	104.74	132.55	37.79	0.48
3900.00	2.11	69.30	3896.96	106.33	84.63	106.33	135.90	38.52	0.33
4000.00	1.55	77.51	3996.91	107.27	87.68	107.27	138.54	39.26	0.61
4100.00	1.69	88.67	4096.87	107.60	90.48	107.60	140.58	40.06	0.35
4200.00	2.28	97.21	4196.81	107.38	93.93	107.38	142.67	41.18	0.65
4300.00	3.31	100.09	4296.69	106.63	98.74	106.63	145.33	42.80	1.04
4400.00	4.42	95.03	4396.46	105.79	105.42	105.79	149.34	44.90	1.16
4500.00	4.69	90.80	4496.15	105.39	113.35	105.39	154.77	47.08	0.43
4600.00	4.81	92.83	4595.80	105.13	121.63	105.13	160.76	49.16	0.20
4700.00	4.83	90.19	4695.45	104.90	130.02	104.90	167.07	51.10	0.22
4800.00	4.39	91.97	4795.13	104.76	138.06	104.76	173.31	52.81	0.46
4900.00	3.52	95.37	4894.89	104.34	144.94	104.34	178.59	54.25	0.91
5000.00	2.66	101.03	4994.74	103.61	150.28	103.61	182.53	55.42	0.90
5100.00	1.84	100.87	5094.66	102.86	154.13	102.86	185.30	56.28	0.83
5200.00	1.38	92.40	5194.62	102.51	156.91	102.51	187.43	56.84	0.51
5300.00	1.41	83.09	5294.59	102.61	159.34	102.61	189.52	57.22	0.23
5400.00	1.58	79.17	5394.56	103.01	161.91	103.01	191.90	57.53	0.19
5500.00	1.50	70.50	5494.52	103.71	164.49	103.71	194.46	57.77	0.24
5600.00	1.45	67.49	5594.49	104.63	166.89	104.63	196.98	57.92	0.09
5700.00	1.49	61.50	5694.46	105.73	169.20	105.73	199.52	58.00	0.16
5800.00	1.57	60.99	5794.42	107.01	171.54	107.01	202.18	58.04	0.08
5900.00	1.35	59.38	5894.39	108.27	173.74	108.27	204.72	58.07	0.23

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
6000.00	0.98	47.64	5994.37	109.45	175.39	109.45	206.74	58.03	0.44
6100.00	0.88	46.87	6094.36	110.55	176.58	110.55	208.34	57.95	0.10
6200.00	0.90	43.47	6194.34	111.65	177.69	111.65	209.86	57.86	0.06
6300.00	0.82	47.19	6294.33	112.71	178.76	112.71	211.32	57.77	0.10
6400.00	0.94	50.16	6394.32	113.72	179.91	113.72	212.84	57.70	0.13
6500.00	0.87	54.27	6494.31	114.69	181.15	114.69	214.41	57.66	0.09
6600.00	0.72	59.08	6594.30	115.46	182.31	115.46	215.79	57.65	0.17
6700.00	0.65	61.69	6694.29	116.05	183.35	116.05	216.99	57.67	0.07
6800.00	0.48	68.82	6794.29	116.47	184.24	116.47	217.96	57.70	0.19
6900.00	0.46	77.32	6894.28	116.71	185.01	116.71	218.75	57.76	0.07
7000.00	0.69	115.46	6994.28	116.53	185.95	116.53	219.44	57.92	0.44
7100.00	0.80	132.67	7094.27	115.80	187.00	115.80	219.95	58.23	0.25
7200.00	0.74	129.93	7194.26	114.92	188.01	114.92	220.35	58.56	0.07
7300.00	0.82	141.04	7294.25	113.95	188.95	113.95	220.65	58.91	0.17
7400.00	0.74	140.22	7394.24	112.90	189.81	112.90	220.85	59.26	0.08
7500.00	1.06	162.24	7494.23	111.52	190.51	111.52	220.75	59.66	0.46
7600.00	1.42	154.03	7594.21	109.53	191.33	109.53	220.47	60.21	0.40
7700.00	1.53	162.26	7694.17	107.14	192.28	107.14	220.12	60.87	0.24
7800.00	1.46	168.34	7794.14	104.63	192.95	104.63	219.49	61.53	0.17
7900.00	1.33	170.72	7894.11	102.24	193.39	102.24	218.75	62.14	0.15
8000.00	1.37	175.67	7994.08	99.90	193.67	99.90	217.92	62.71	0.13
8100.00	1.37	181.01	8094.05	97.51	193.74	97.51	216.89	63.28	0.13
8200.00	1.30	183.93	8194.03	95.19	193.64	95.19	215.77	63.82	0.10
8300.00	1.11	196.83	8294.00	93.13	193.28	93.13	214.55	64.27	0.33
8400.00	1.37	200.17	8393.98	91.08	192.59	91.08	213.04	64.69	0.27
8500.00	1.30	237.55	8493.96	89.35	191.22	89.35	211.07	64.95	0.86
8600.00	1.59	264.43	8593.93	88.61	188.89	88.61	208.64	64.87	0.73
8700.00	1.79	266.37	8693.88	88.38	185.95	88.38	205.89	64.58	0.21
8800.00	1.85	273.61	8793.83	88.38	182.78	88.38	203.03	64.19	0.24
8900.00	1.93	264.01	8893.78	88.31	179.49	88.31	200.04	63.80	0.33
9000.00	1.93	256.63	8993.72	87.74	176.18	87.74	196.82	63.53	0.25
9100.00	1.57	243.68	9093.67	86.74	173.31	86.74	193.81	63.41	0.53
9200.00	1.77	234.37	9193.63	85.24	170.83	85.24	190.91	63.48	0.33
9300.00	2.20	229.50	9293.57	83.09	168.11	83.09	187.52	63.70	0.47
9400.00	2.62	224.84	9393.48	80.22	165.04	80.22	183.50	64.08	0.46
9500.00	2.55	218.91	9493.38	76.87	162.04	76.87	179.35	64.62	0.28
9600.00	2.36	217.75	9593.29	73.52	159.38	73.52	175.52	65.24	0.20
9700.00	2.58	219.66	9693.20	70.16	156.69	70.16	171.68	65.88	0.24
9800.00	2.41	224.06	9793.10	66.92	153.79	66.92	167.72	66.48	0.25
9900.00	2.33	226.72	9893.02	64.01	150.85	64.01	163.87	67.01	0.14

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
10000.00	2.68	229.52	9992.92	61.10	147.59	61.10	159.74	67.51	0.37
10100.00	3.26	239.84	10092.79	58.16	143.36	58.16	154.70	67.92	0.78
10200.00	4.12	241.26	10192.58	55.00	137.75	55.00	148.32	68.23	0.87
10300.00	4.63	242.04	10292.29	51.38	131.03	51.38	140.75	68.59	0.51
10400.00	4.14	246.78	10391.99	48.07	124.15	48.07	133.13	68.84	0.61
10500.00	5.10	249.38	10491.67	45.08	116.66	45.08	125.07	68.88	0.98
10600.00	5.25	250.25	10591.26	41.96	108.20	41.96	116.05	68.80	0.17
10622.00	5.26	252.60	10613.17	41.32	106.29	41.32	114.04	68.76	0.98

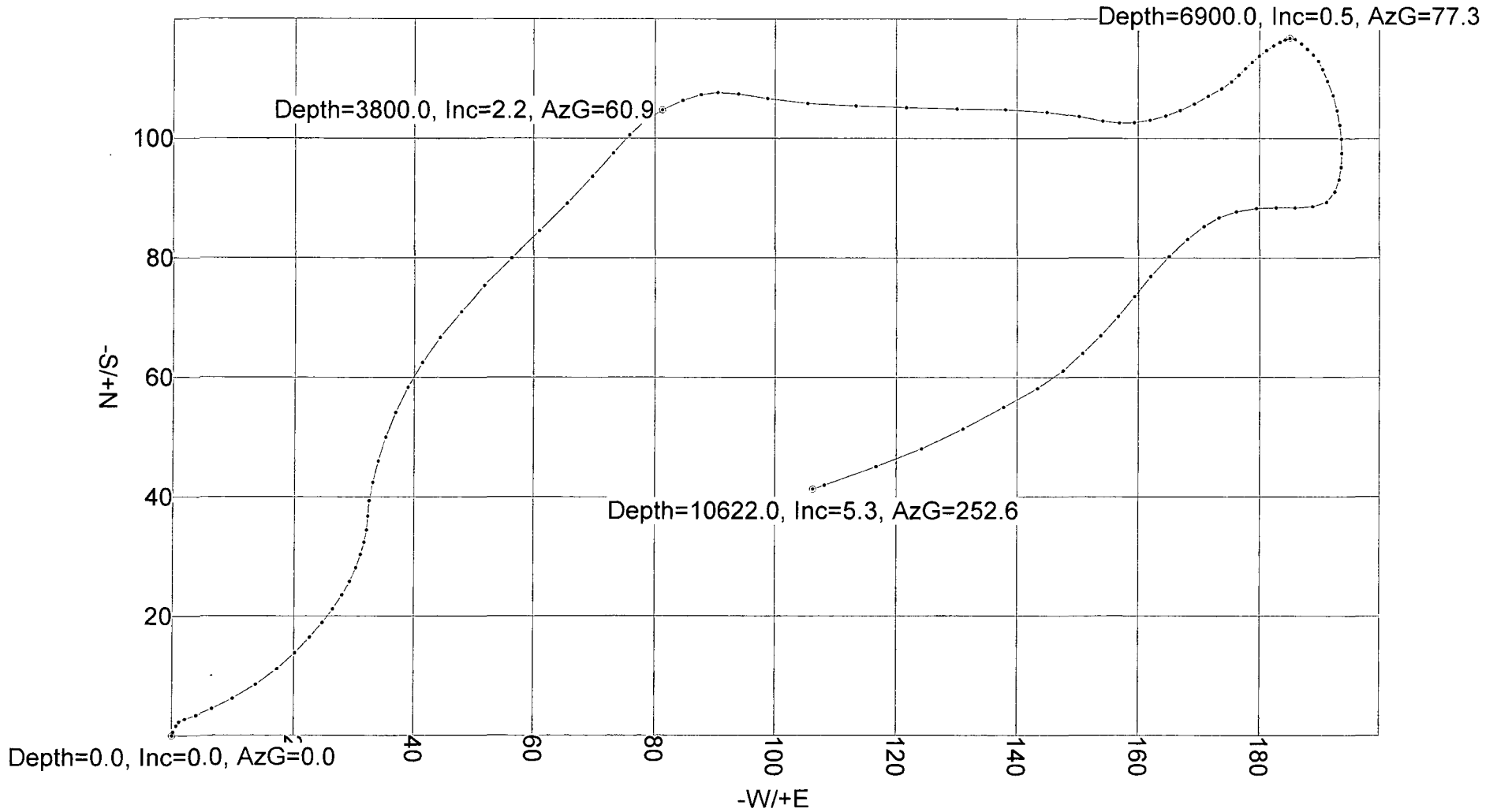


VAUGHN ENERGY SERVICES
CORPUS CHRISTI, TX
800-606-4976
SURVEYOR : JAVIER ESTRADA
MAD DOG 26 MD STATE COM NO. 001H / API 30-025-41123

HOBBS OCD

FEB 25 2014

RECEIVED



VES SURVEY DATE: 12/03/2013



Stryker Energy Directional Services, LLC

- FINAK - HOBBS OCD
 FEB 10 2014

SURVEY CALCULATION REPORT
 Minimum Curvature Calculations

Operator: Mewbourne Oil Company
 Lease Name: Mad Dog 26 MD State #1H
 API /Job Number: #30-025-41123 C131173
 Comments: Tie-in to Vaughn Energy Gyro Survey
 Survey Company: Stryker Energy Services

12/18/13

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 Target Angle: 90.40 Degrees
 Section Plane: 359.90 Degrees
 Declination Corrected to Grid: 6.77 Degrees
 Bit to Survey Offset: 46 Feet

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Lead Driller: Thad Bryant

Survey Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	+Above	Distance
												-Below	From
												Target	Proposed Line
T/I	10622	5.26	252.60	N/A	10,613.20	40.3	41.30	106.30	N/A	0.0	10613.5	779.5	-134.0
1	10772	5.30	255.10	150	10,762.56	37.3	37.5	93.0	0.0	0.2	10762.8	630.2	93.1
2	10863	5.90	257.40	91	10,853.13	35.2	35.4	84.4	0.7	0.7	10853.4	539.6	84.5
3	10908	11.60	264.60	45	10,897.59	34.3	34.4	77.7	12.7	12.9	10897.8	495.2	77.7
4	10953	14.90	276.40	45	10,941.39	34.5	34.6	67.4	7.3	9.4	10941.6	451.4	67.5
5	10998	20.90	282.70	45	10,984.20	37.0	37.1	53.8	13.3	14.0	10984.5	408.6	53.9
6	11043	26.30	288.90	45	11,025.43	42.0	42.1	36.5	12.0	13.2	11025.7	367.3	36.6
7	11088	27.00	293.10	45	11,065.65	49.3	49.3	17.7	1.6	4.5	11066.0	327.0	17.8
8	11133	32.40	300.10	45	11,104.73	59.4	59.4	-2.2	12.0	14.2	11105.1	287.9	-2.1
9	11179	37.50	307.70	46	11,142.44	74.2	74.1	-23.9	11.1	14.6	11143.0	250.1	-23.8
10	11224	41.50	314.20	45	11,177.18	93.0	92.9	-45.5	8.9	12.8	11177.8	215.2	-45.3
11	11269	46.70	320.00	45	11,209.49	116.0	115.9	-66.7	11.6	14.6	11210.3	182.7	-66.5
12	11314	52.00	324.10	45	11,238.80	143.0	142.8	-87.6	11.8	13.7	11239.8	153.2	-87.4
13	11359	57.20	332.00	45	11,264.89	174.1	173.9	-107.0	11.6	18.4	11266.1	126.9	-106.6
14	11404	60.40	338.60	45	11,288.22	209.1	208.9	-123.0	7.1	14.4	11289.7	103.3	-122.6
15	11449	63.00	342.70	45	11,309.56	246.5	246.2	-136.1	5.8	9.9	11311.3	81.7	-135.7
16	11494	66.10	348.10	45	11,328.90	285.8	285.5	-146.3	6.9	12.8	11330.9	62.1	-145.8
17	11539	71.20	354.30	45	11,345.29	327.2	326.9	-152.7	11.3	17.1	11347.6	45.4	-152.1



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Survey Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	+Above	Distance
												-Below	From
												Target	Proposed Line
18	11584	75.20	1.50	45	11,358.31	370.2	369.9	-154.2	8.9	17.7	11360.9	32.1	-153.6
19	11630	78.30	6.80	46	11,368.86	414.8	414.6	-151.0	6.7	13.1	11371.8	21.3	-150.2
20	11675	80.20	8.00	45	11,377.26	458.7	458.4	-145.3	4.2	5.0	11380.5	12.6	-144.5
21	11720	83.70	9.60	45	11,383.56	502.7	502.4	-138.5	7.8	8.5	11387.1	6.0	-137.6
22	11756	88.00	11.70	36	11,386.16	537.9	537.7	-131.8	11.9	13.3	11389.9	3.1	-130.9
23	11810	90.70	12.40	54	11,386.78	590.7	590.5	-120.5	5.0	5.2	11390.9	2.1	-119.5
24	11842	89.50	12.90	32	11,386.72	621.9	621.7	-113.5	-3.8	4.1	11391.1	2.0	-112.5
25	11874	88.60	13.10	32	11,387.25	653.1	652.9	-106.3	-2.8	2.9	11391.8	1.2	-105.2
26	11905	88.40	12.60	31	11,388.06	683.3	683.1	-99.5	-0.6	1.7	11392.8	0.2	-98.3
27	11937	88.80	12.00	32	11,388.84	714.5	714.4	-92.6	1.2	2.3	11393.8	-0.8	-91.4
28	11969	88.40	11.90	32	11,389.63	745.8	745.7	-86.0	-1.2	1.3	11394.8	-1.8	-84.7
29	12063	90.20	10.30	94	11,390.77	838.0	837.9	-67.9	1.9	2.6	11396.6	-3.6	-66.5
30	12158	91.90	7.30	95	11,389.03	931.8	931.8	-53.4	1.8	3.6	11395.5	-2.5	-51.8
31	12253	90.40	4.10	95	11,387.13	1,026.3	1,026.2	-44.0	-1.6	3.7	11394.3	-1.3	-42.2
32	12348	91.00	3.80	95	11,385.97	1,121.1	1,121.0	-37.4	0.6	0.7	11393.8	-0.8	-35.5
33	12443	90.70	2.70	95	11,384.56	1,215.9	1,215.8	-32.0	-0.3	1.2	11393.0	0.0	-29.9
34	12537	92.80	3.60	94	11,381.69	1,309.7	1,309.6	-26.9	2.2	2.4	11390.8	2.2	-24.6
35	12632	92.90	3.30	95	11,376.96	1,404.4	1,404.3	-21.2	0.1	0.3	11386.8	6.3	-18.7



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Survey Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	+Above	Distance
												-Below	From
												Target	Proposed Line
36	12727	91.10	3.90	95	11,373.65	1,499.1	1,499.1	-15.2	-1.9	2.0	11384.1	8.9	-12.6
37	12822	89.00	4.50	95	11,373.56	1,593.8	1,593.8	-8.2	-2.2	2.3	11384.7	8.3	-5.5
38	12917	89.70	4.30	95	11,374.64	1,688.5	1,688.5	-1.0	0.7	0.8	11386.4	6.6	2.0
39	13012	89.30	3.80	95	11,375.47	1,783.3	1,783.3	5.8	-0.4	0.7	11387.9	5.1	8.9
40	13106	89.30	3.60	94	11,376.62	1,877.1	1,877.1	11.8	0.0	0.2	11389.7	3.3	15.1
41	13201	89.70	3.80	95	11,377.45	1,971.8	1,971.9	17.9	0.4	0.5	11391.2	1.8	21.4
42	13296	89.00	4.00	95	11,378.53	2,066.6	2,066.6	24.4	-0.7	0.8	11393.0	0.1	28.0
43	13391	89.00	2.90	95	11,380.18	2,161.4	2,161.5	30.1	0.0	1.2	11395.3	-2.2	33.9
44	13486	90.10	0.80	95	11,380.93	2,256.3	2,256.4	33.2	1.2	2.5	11396.7	-3.7	37.1
45	13581	90.30	0.60	95	11,380.60	2,351.3	2,351.4	34.4	0.2	0.3	11397.0	-4.0	38.5
46	13676	91.00	359.60	95	11,379.52	2,446.3	2,446.4	34.5	0.7	1.3	11396.6	-3.6	38.8
47	13771	90.00	358.20	95	11,378.69	2,541.3	2,541.3	32.7	-1.1	1.8	11396.4	-3.4	37.1
48	13866	90.00	357.30	95	11,378.69	2,636.2	2,636.3	29.0	0.0	0.9	11397.1	-4.1	33.6
49	13961	91.50	357.30	95	11,377.45	2,731.1	2,731.2	24.5	1.6	1.6	11396.5	-3.5	29.3
50	14055	92.50	358.90	94	11,374.17	2,825.0	2,825.0	21.4	1.1	2.0	11393.9	-0.9	26.3
51	14150	89.40	358.70	95	11,372.59	2,919.9	2,920.0	19.4	-3.3	3.3	11393.0	0.0	24.5
52	14245	91.80	359.20	95	11,371.60	3,014.9	3,014.9	17.6	2.5	2.6	11392.6	0.4	22.9
53	14339	91.50	359.90	94	11,368.89	3,108.9	3,108.9	16.9	-0.3	0.8	11390.6	2.4	22.3



Stryker Energy Directional Services, LLC

SURVEY CALCULATION REPORT

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Survey Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	+Above	Distance
												-Below	From
												Target	Proposed Line
54	14434	92.10	1.00	95	11,365.91	3,203.8	3,203.9	17.7	0.6	1.3	11388.3	4.7	23.2
55	14529	91.30	359.90	95	11,363.09	3,298.8	3,298.8	18.4	-0.8	1.4	11386.1	6.9	24.2
56	14623	92.20	0.30	94	11,360.22	3,392.7	3,392.8	18.6	1.0	1.0	11383.9	9.1	24.5
57	14686	88.80	0.30	63	11,359.67	3,455.7	3,455.7	18.9	-5.4	5.4	11383.8	9.2	24.9
58	14718	86.80	359.70	32	11,360.90	3,487.7	3,487.7	18.9	-6.3	6.5	11385.2	7.8	25.0
59	14814	86.90	359.00	96	11,366.17	3,583.5	3,583.5	17.8	0.1	0.7	11391.2	1.8	24.1
60	14845	88.90	359.00	31	11,367.31	3,614.5	3,614.5	17.3	6.5	6.5	11392.5	0.5	23.6
61	14908	90.70	359.00	63	11,367.53	3,677.5	3,677.5	16.2	2.9	2.9	11393.2	-0.2	22.6
62	15003	90.10	359.20	95	11,366.87	3,772.5	3,772.5	14.7	-0.6	0.7	11393.2	-0.2	21.3
63	15098	91.70	358.70	95	11,365.37	3,867.4	3,867.5	12.9	1.7	1.8	11392.4	0.7	19.7
64	15193	88.10	356.40	95	11,365.54	3,962.3	3,962.3	8.9	-3.8	4.5	11393.2	-0.2	15.8
65	15287	90.10	356.80	94	11,367.02	4,056.1	4,056.1	3.3	2.1	2.2	11395.3	-2.3	10.4
66	15382	90.20	348.10	95	11,366.77	4,150.2	4,150.2	-9.2	0.1	9.2	11395.7	-2.7	-1.9
67	15477	91.50	342.00	95	11,365.36	4,242.0	4,241.9	-33.7	1.4	6.6	11395.0	-1.9	-26.3
68	15540	91.50	334.80	63	11,363.71	4,300.5	4,300.4	-56.8	0.0	11.4	11393.7	-0.7	-49.3
69	15572	90.60	332.50	32	11,363.12	4,329.2	4,329.0	-71.0	-2.8	7.7	11393.3	-0.3	-63.4
70	15603	89.70	330.40	31	11,363.04	4,356.4	4,356.3	-85.8	-2.9	7.4	11393.5	-0.4	-78.2
71	15635	88.20	328.30	32	11,363.63	4,384.0	4,383.8	-102.1	-4.7	8.1	11394.2	-1.2	-94.5



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Lead Driller: Thad Bryant

Survey Number	Measured Depth	Drift (Degrees)	Azimuth (Degrees)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	BUR	DLS	KBTVD	+Above -Below Target	Distance From Proposed Line
72	15667	90.30	322.30	32	11,364.04	4,410.3	4,410.1	-120.3	6.6	19.9	11394.8	-1.8	-112.6
73	15694	90.80	318.30	27	11,363.79	4,431.1	4,430.8	-137.6	1.9	14.9	11394.7	-1.7	-129.8
EOH	15741	90.80	318.30	47	11,363.13	4,466.2	4,465.9	-168.8	0.0	0.0	11394.3	-1.3	-161.0

+

Closure Distance: 4469.1 Feet
 Closure Direction: 357.8 Degrees
 Distance from Line: -161.0 Feet Right of Section Line

Curve				Lateral Targets								
Target	1	2	3	Target	1	2	3	4	5	6	7	8
VS	513.2			MD	12300	12800	13300	13800	14300	14800	15300	15800
TVD	11389.9			TVD	11385.5	11382	11378.6	11375.1	11371.6	11368.1	11364.6	11361.2
				INC	92.7							

Closure Distance @ EOH: 4518.3 Feet
 Closure Direction @ EOH: 357.4 Degrees
 Distance from line @ EOH: -195.2 Feet Left of Section Line