

OPERATOR
WELL/LEASE
COUNTY

Mewbourne Oil Company
Red Hills West Unit 012H
Lea

036-0074

STATE OF NEW MEXICO
DEVIATION REPORT

552	2.15
870	2.60
1158	1.30
1538	2.10
1665	1.30
1993	1.00
2459	0.10
2807	1.20
3136	0.50
3250	0.70
3565	2.40
3977	3.50
4400	0.60
4515	4.10
4864	4.00
5150	5.30
5341	6.00
7311	0.10

30-025-42417

HOBBS OCD

MAY 26 2015

RECEIVED

BY: Briana Welch

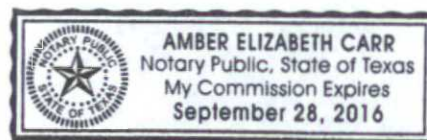
STATE OF TEXAS

COUNTY OF MIDLAND

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

3/31/15, by Briana

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



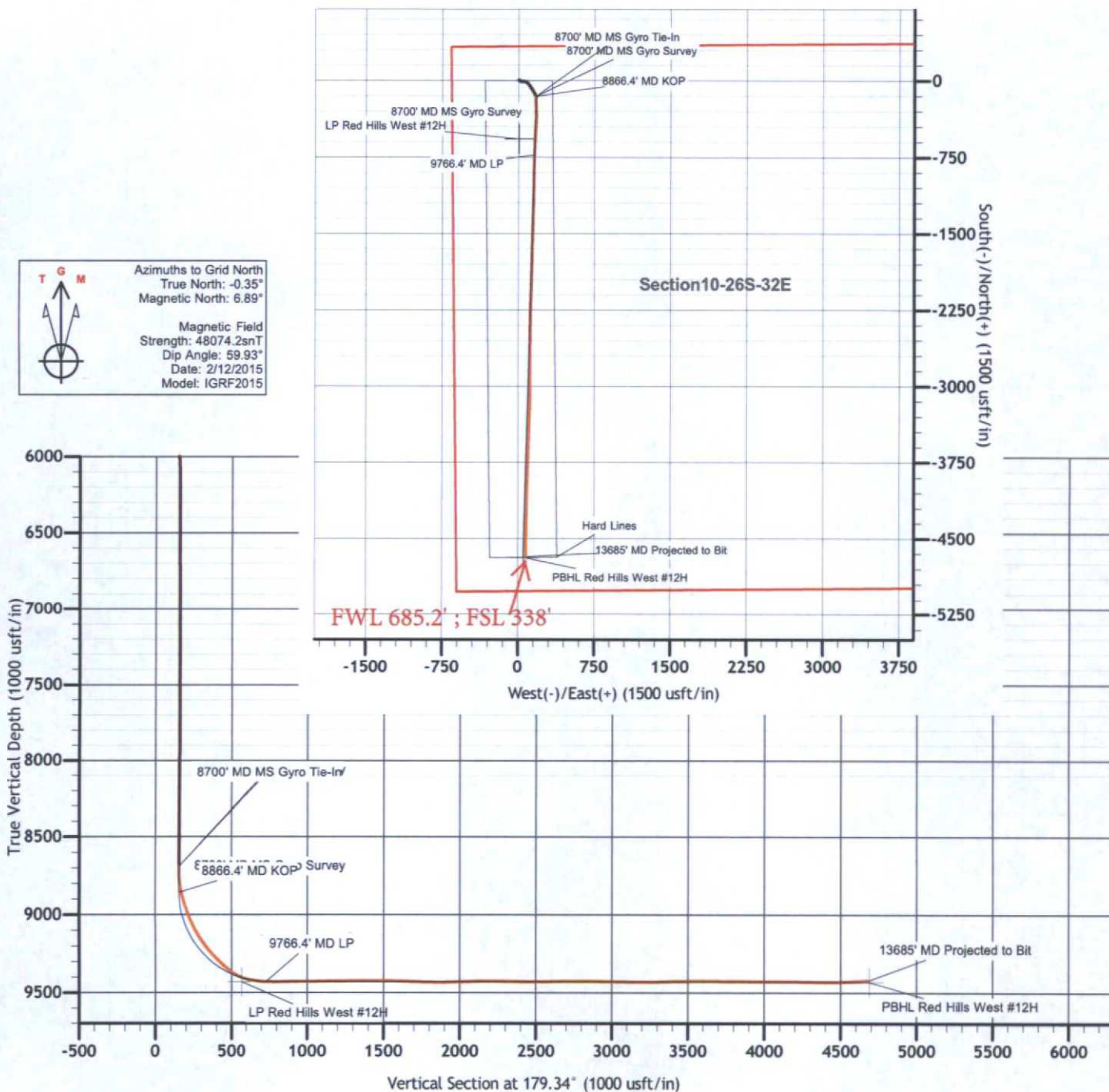
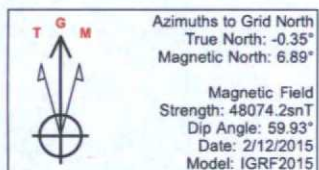
NOV 30 2015

GEODETTIC ZONE: New Mexico East 3001
3250 + 20 @ 3270.0usft (Patterson)
GROUND ELEVATION: 3250.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	387621.50	705853.00	32° 3' 50.201 N	103° 40' 7.770 W	

PLAN SECTIONS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	8700.0	1.00	299.25	8690.7	-155.4	174.3	0.00	0.00	157.4	
2	8750.0	0.00	291.75	8740.7	-155.2	173.9	2.00	-176.26	157.2	
3	8866.4	0.00	291.75	8857.1	-155.2	173.9	0.00	291.75	157.2	
4	9766.4	90.00	181.52	9430.0	-728.0	158.7	10.00	181.52	729.8	
5	13726.1	90.00	181.52	9430.0	-4686.3	53.7	0.00	0.00	4686.6	PBHL Red Hills West #12H





HOBBS OCD

MAY 26 2015

RECEIVED

Mewbourne Oil Company .

Lea County N.M.

Section 10-26S-32E Red Hills West Unit #12H

Red Hills West #12H

Original Hole

Design: Original Hole

Standard Survey Report

16 March, 2015



Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Red Hills West #12H
Project:	Lea County N.M.	TVD Reference:	3250 + 20 @ 3270.0usft (Patterson)
Site:	Section10-26S-32E Red Hills West Unit #12H	MD Reference:	3250 + 20 @ 3270.0usft (Patterson)
Well:	Red Hills West #12H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Project	Lea County N.M.		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Section10-26S-32E Red Hills West Unit #12H		
Site Position:		Northing:	387,621.50 usft
From:	Map	Easting:	705,853.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 50.201 N
		Longitude:	103° 40' 7.770 W
		Grid Convergence:	0.35 °

Well	Red Hills West #12H		
Well Position	+N/-S	0.0 usft	Northing: 387,621.50 usft
	+E/-W	0.0 usft	Easting: 705,853.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	32° 3' 50.201 N
		Longitude:	103° 40' 7.770 W
		Ground Level:	3,250.0 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/12/2015	7.24	59.93	48,074

Design	Original Hole			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	181.52

Survey Program	Date 3/16/2015			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,700.0	MS Gyro Survey (Original Hole)	NSG-CT_WL	Continuous north-seeking gyro on wireline
8,741.0	13,685.0	MWD Survey (Original Hole)	MWD	MWD v3:standard declination

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.30	10.68	100.0	0.3	0.0	-0.3	0.30	0.30	0.00
200.0	0.02	37.39	200.0	0.5	0.1	-0.5	0.28	-0.28	26.71
300.0	0.70	48.72	300.0	0.9	0.6	-1.0	0.68	0.68	11.33
400.0	0.98	63.63	400.0	1.7	1.8	-1.8	0.35	0.28	14.91
500.0	1.19	69.47	500.0	2.5	3.5	-2.6	0.24	0.21	5.84
600.0	1.18	97.35	599.9	2.7	5.5	-2.9	0.57	-0.01	27.88
700.0	1.41	122.43	699.9	1.9	7.6	-2.1	0.61	0.23	25.08
800.0	1.41	139.21	799.9	0.3	9.4	-0.6	0.41	0.00	16.78
900.0	1.30	144.47	899.9	-1.5	10.9	1.2	0.17	-0.11	5.26

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Well:	Red Hills West #12H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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	1.30	143.04	999.8	-3.4	12.2	3.0	0.03	0.00	-1.43
1,100.0	1.37	139.67	1,099.8	-5.2	13.7	4.8	0.11	0.07	-3.37
1,200.0	1.45	137.47	1,199.8	-7.0	15.3	6.6	0.10	0.08	-2.20
1,300.0	1.64	135.93	1,299.7	-9.0	17.2	8.5	0.19	0.19	-1.54
1,400.0	1.87	108.94	1,399.7	-10.5	19.7	10.0	0.85	0.23	-26.99
1,500.0	1.79	107.45	1,499.6	-11.5	22.7	10.9	0.09	-0.08	-1.49
1,600.0	1.56	102.94	1,599.6	-12.3	25.6	11.6	0.26	-0.23	-4.51
1,700.0	1.42	97.65	1,699.6	-12.8	28.1	12.0	0.20	-0.14	-5.29
1,800.0	1.15	97.46	1,799.5	-13.1	30.3	12.3	0.27	-0.27	-0.19
1,900.0	0.98	100.36	1,899.5	-13.4	32.2	12.5	0.18	-0.17	2.90
2,000.0	0.95	102.13	1,999.5	-13.7	33.8	12.8	0.04	-0.03	1.77
2,100.0	0.88	92.89	2,099.5	-13.9	35.4	13.0	0.16	-0.07	-9.24
2,200.0	0.61	106.65	2,199.5	-14.1	36.7	13.1	0.32	-0.27	13.76
2,300.0	0.34	101.08	2,299.5	-14.3	37.5	13.3	0.27	-0.27	-5.57
2,400.0	0.42	56.06	2,399.5	-14.2	38.1	13.1	0.30	0.08	-45.02
2,500.0	0.36	33.09	2,499.5	-13.7	38.6	12.7	0.17	-0.06	-22.97
2,600.0	0.91	8.01	2,599.5	-12.6	38.8	11.6	0.60	0.55	-25.08
2,700.0	1.13	348.05	2,699.5	-10.9	38.7	9.9	0.41	0.22	-19.96
2,800.0	0.61	294.87	2,799.5	-9.7	38.1	8.7	0.91	-0.52	-53.18
2,900.0	1.06	249.46	2,899.4	-9.8	36.7	8.8	0.77	0.45	-45.41
3,000.0	1.02	224.43	2,999.4	-10.8	35.2	9.8	0.45	-0.04	-25.03
3,100.0	0.69	150.87	3,099.4	-11.9	34.9	11.0	1.06	-0.33	-73.56
3,200.0	0.73	131.22	3,199.4	-12.9	35.7	11.9	0.25	0.04	-19.65
3,300.0	1.48	93.35	3,299.4	-13.4	37.4	12.4	1.01	0.75	-37.87
3,400.0	1.88	87.45	3,399.4	-13.4	40.4	12.3	0.44	0.40	-5.90
3,500.0	2.32	79.30	3,499.3	-12.9	44.0	11.7	0.53	0.44	-8.15
3,600.0	2.23	85.60	3,599.2	-12.4	47.9	11.1	0.27	-0.09	6.30
3,700.0	2.19	80.80	3,699.1	-11.9	51.7	10.6	0.19	-0.04	-4.80
3,800.0	2.19	82.44	3,799.1	-11.4	55.5	9.9	0.06	0.00	1.64
3,900.0	3.03	100.49	3,899.0	-11.6	60.0	10.0	1.17	0.84	18.05
4,000.0	3.53	109.15	3,998.8	-13.1	65.5	11.4	0.70	0.50	8.66
4,100.0	3.78	118.27	4,098.6	-15.7	71.3	13.8	0.63	0.25	9.12
4,200.0	4.72	127.06	4,198.3	-19.7	77.5	17.6	1.14	0.94	8.79
4,300.0	5.40	132.61	4,297.9	-25.4	84.3	23.1	0.84	0.68	5.55
4,400.0	4.64	134.05	4,397.5	-31.4	90.6	29.0	0.77	-0.76	1.44
4,500.0	4.39	138.09	4,497.2	-37.0	96.1	34.5	0.40	-0.25	4.04
4,600.0	4.04	141.87	4,597.0	-42.7	100.8	40.0	0.45	-0.35	3.78
4,700.0	4.24	141.98	4,696.7	-48.3	105.3	45.5	0.20	0.20	0.11
4,800.0	4.34	146.22	4,796.4	-54.4	109.7	51.5	0.33	0.10	4.24
4,900.0	4.49	145.58	4,896.1	-60.8	114.0	57.7	0.16	0.15	-0.64
5,000.0	4.76	146.48	4,995.8	-67.5	118.5	64.3	0.28	0.27	0.90
5,100.0	5.10	146.90	5,095.4	-74.6	123.2	71.3	0.34	0.34	0.42
5,200.0	5.44	147.14	5,195.0	-82.3	128.2	78.9	0.34	0.34	0.24

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Design:	Original Hole	Database:	Stryker_EDM

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	5.92	147.92	5,294.5	-90.7	133.5	87.1	0.49	0.48	0.78
5,400.0	5.87	148.39	5,394.0	-99.4	138.9	95.7	0.07	-0.05	0.47
5,500.0	5.95	148.15	5,493.5	-108.2	144.3	104.3	0.08	0.08	-0.24
5,600.0	6.03	149.29	5,592.9	-117.1	149.8	113.1	0.14	0.08	1.14
5,700.0	6.13	150.90	5,692.3	-126.3	155.0	122.1	0.20	0.10	1.61
5,800.0	5.94	152.04	5,791.8	-135.5	160.1	131.2	0.22	-0.19	1.14
5,900.0	5.58	151.74	5,891.3	-144.4	164.8	139.9	0.36	-0.36	-0.30
6,000.0	3.97	143.45	5,990.9	-151.4	169.2	146.9	1.75	-1.61	-8.29
6,100.0	2.82	126.88	6,090.8	-155.7	173.2	151.0	1.50	-1.15	-16.57
6,200.0	1.33	86.36	6,190.7	-157.1	176.3	152.4	2.00	-1.49	-40.52
6,300.0	0.22	38.65	6,290.7	-156.9	177.6	152.1	1.19	-1.11	-47.71
6,400.0	0.09	238.93	6,390.7	-156.8	177.6	152.0	0.31	-0.13	-159.72
6,500.0	0.13	233.49	6,490.7	-156.9	177.5	152.1	0.04	0.04	-5.44
6,600.0	0.18	287.90	6,590.7	-156.9	177.2	152.1	0.15	0.05	54.41
6,700.0	0.12	94.30	6,690.7	-156.8	177.2	152.1	0.30	-0.06	166.40
6,800.0	0.15	87.49	6,790.7	-156.8	177.4	152.1	0.03	0.03	-6.81
6,900.0	0.15	200.74	6,890.7	-157.0	177.5	152.2	0.25	0.00	113.25
7,000.0	0.12	226.10	6,990.7	-157.2	177.4	152.4	0.07	-0.03	25.36
7,100.0	0.15	15.16	7,090.7	-157.1	177.4	152.3	0.26	0.03	149.06
7,200.0	0.12	27.51	7,190.7	-156.9	177.4	152.1	0.04	-0.03	12.35
7,300.0	0.11	251.95	7,290.7	-156.8	177.4	152.1	0.21	-0.01	-135.56
7,400.0	0.16	40.16	7,390.7	-156.7	177.4	152.0	0.26	0.05	148.21
7,500.0	0.17	197.66	7,490.7	-156.8	177.4	152.0	0.32	0.01	157.50
7,600.0	0.18	215.00	7,590.7	-157.1	177.3	152.3	0.05	0.01	17.34
7,700.0	0.09	296.09	7,690.7	-157.1	177.1	152.4	0.19	-0.09	81.09
7,800.0	0.14	194.95	7,790.7	-157.2	177.0	152.5	0.18	0.05	-101.14
7,900.0	0.05	320.08	7,890.7	-157.3	177.0	152.6	0.17	-0.09	125.13
8,000.0	0.08	9.86	7,990.7	-157.2	177.0	152.5	0.06	0.03	49.78
8,100.0	0.08	11.85	8,090.7	-157.1	177.0	152.3	0.00	0.00	1.99
8,200.0	0.10	20.68	8,190.7	-156.9	177.0	152.2	0.02	0.02	8.83
8,300.0	0.14	329.66	8,290.7	-156.7	177.0	152.0	0.11	0.04	-51.02
8,400.0	0.26	346.50	8,390.7	-156.4	176.9	151.7	0.13	0.12	16.84
8,500.0	0.22	309.10	8,490.7	-156.1	176.7	151.3	0.16	-0.04	-37.40
8,600.0	0.84	273.31	8,590.7	-155.9	175.8	151.2	0.67	0.62	-35.79
8,700.0	1.00	299.25	8,690.7	-155.4	174.3	150.8	0.44	0.16	25.94
8700' MD MS Gyro Survey									
8,741.0	1.30	267.80	8,731.7	-155.3	173.5	150.6	1.68	0.73	-76.71
8,773.0	3.00	209.40	8,763.6	-156.0	172.8	151.4	8.03	5.31	-182.50
8,804.0	6.20	195.60	8,794.5	-158.3	171.9	153.7	10.85	10.32	-44.52
8,836.0	9.80	189.60	8,826.2	-162.7	171.0	158.1	11.53	11.25	-18.75
8,868.0	13.50	188.40	8,857.6	-169.1	170.0	164.5	11.59	11.56	-3.75
8,900.0	15.60	186.10	8,888.5	-177.1	169.0	172.5	6.81	6.56	-7.19
8,932.0	17.00	182.50	8,919.2	-186.0	168.3	181.5	5.39	4.38	-11.25

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Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,963.0	18.50	178.00	8,948.8	-195.4	168.3	190.9	6.55	4.84	-14.52
8,995.0	19.90	175.00	8,979.0	-205.9	169.0	201.4	5.35	4.38	-9.38
9,027.0	21.80	175.80	9,008.9	-217.3	169.9	212.7	6.00	5.94	2.50
9,059.0	23.60	177.00	9,038.4	-229.6	170.6	225.0	5.81	5.63	3.75
9,090.0	25.50	176.80	9,066.6	-242.5	171.3	237.9	6.13	6.13	-0.65
9,122.0	27.90	176.80	9,095.2	-256.8	172.1	252.2	7.50	7.50	0.00
9,154.0	30.10	177.90	9,123.2	-272.3	172.9	267.7	7.07	6.88	3.44
9,185.0	32.30	178.60	9,149.7	-288.4	173.3	283.7	7.19	7.10	2.26
9,217.0	35.30	178.60	9,176.3	-306.2	173.8	301.5	9.38	9.38	0.00
9,249.0	38.30	178.40	9,201.9	-325.3	174.3	320.6	9.38	9.38	-0.63
9,281.0	41.50	178.60	9,226.4	-345.9	174.8	341.1	10.01	10.00	0.63
9,313.0	42.00	179.90	9,250.3	-367.2	175.1	362.4	3.12	1.56	4.06
9,345.0	45.20	180.70	9,273.5	-389.2	175.0	384.4	10.15	10.00	2.50
9,376.0	46.90	182.10	9,295.0	-411.5	174.4	406.8	6.38	5.48	4.52
9,408.0	46.10	184.10	9,317.0	-434.7	173.2	430.0	5.18	-2.50	6.25
9,440.0	48.00	182.30	9,338.8	-458.1	171.9	453.4	7.22	5.94	-5.63
9,472.0	52.40	182.50	9,359.3	-482.7	170.8	477.9	13.76	13.75	0.63
9,504.0	58.10	184.00	9,377.5	-508.9	169.3	504.2	18.22	17.81	4.69
9,536.0	64.00	185.50	9,393.0	-536.8	167.0	532.2	18.89	18.44	4.69
9,568.0	70.60	185.60	9,405.4	-566.1	164.2	561.6	20.63	20.63	0.31
9,592.5	75.58	184.07	9,412.5	-589.5	162.2	585.0	21.20	20.34	-6.23
LP Red Hills West #12H									
9,597.0	76.50	183.80	9,413.6	-593.9	161.9	589.3	21.20	20.37	-6.06
9,629.0	79.50	182.10	9,420.2	-625.1	160.3	620.6	10.72	9.38	-5.31
9,661.0	81.30	181.40	9,425.6	-656.6	159.3	652.2	6.02	5.63	-2.19
9,693.0	84.30	181.20	9,429.6	-688.4	158.6	683.9	9.40	9.38	-0.63
9,725.0	87.10	181.30	9,432.0	-720.3	157.9	715.8	8.76	8.75	0.31
9,756.0	89.50	181.10	9,432.9	-751.3	157.2	746.8	7.77	7.74	-0.65
9,788.0	90.10	180.60	9,433.0	-783.3	156.8	778.8	2.44	1.88	-1.56
9,852.0	91.70	180.40	9,432.0	-847.2	156.2	842.8	2.52	2.50	-0.31
9,915.0	90.30	181.10	9,430.9	-910.2	155.4	905.8	2.48	-2.22	1.11
9,978.0	90.40	181.70	9,430.5	-973.2	153.8	968.8	0.97	0.16	0.95
10,042.0	90.50	180.60	9,430.0	-1,037.2	152.6	1,032.8	1.73	0.16	-1.72
10,105.0	92.00	180.80	9,428.6	-1,100.2	151.8	1,095.7	2.40	2.38	0.32
10,169.0	91.40	181.40	9,426.7	-1,164.1	150.6	1,159.7	1.33	-0.94	0.94
10,232.0	89.80	180.80	9,426.1	-1,227.1	149.4	1,222.7	2.71	-2.54	-0.95
10,296.0	90.40	180.60	9,426.0	-1,291.1	148.6	1,286.7	0.99	0.94	-0.31
10,359.0	89.80	181.40	9,425.9	-1,354.1	147.5	1,349.7	1.59	-0.95	1.27
10,423.0	91.40	182.50	9,425.2	-1,418.0	145.3	1,413.7	3.03	2.50	1.72
10,485.0	89.80	182.40	9,424.5	-1,480.0	142.6	1,475.7	2.59	-2.58	-0.16
10,549.0	88.60	182.10	9,425.4	-1,543.9	140.1	1,539.7	1.93	-1.88	-0.47
10,613.0	88.90	181.50	9,426.8	-1,607.9	138.1	1,603.7	1.05	0.47	-0.94
10,676.0	87.00	180.60	9,429.1	-1,670.8	137.0	1,666.6	3.34	-3.02	-1.43
10,740.0	88.40	181.40	9,431.7	-1,734.8	135.9	1,730.5	2.52	2.19	1.25

Company:	Mewbourne Oil Company	Local Co-ordinate Reference:	Well Red Hills West #12H
Project:	Lea County N.M.	TVD Reference:	3250 + 20 @ 3270.0usft (Patterson)
Site:	Section10-26S-32E Red Hills West Unit #12H	MD Reference:	3250 + 20 @ 3270.0usft (Patterson)
Well:	Red Hills West #12H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

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)
10,803.0	88.00	181.30	9,433.6	-1,797.7	134.4	1,793.5	0.65	-0.63	-0.16
10,867.0	90.50	182.30	9,434.5	-1,861.7	132.4	1,857.5	4.21	3.91	1.56
10,930.0	91.30	181.80	9,433.5	-1,924.6	130.1	1,920.5	1.50	1.27	-0.79
10,994.0	91.80	181.80	9,431.8	-1,988.6	128.1	1,984.5	0.78	0.78	0.00
11,057.0	92.40	181.30	9,429.4	-2,051.5	126.4	2,047.4	1.24	0.95	-0.79
11,121.0	90.40	182.10	9,427.9	-2,115.4	124.5	2,111.4	3.37	-3.13	1.25
11,185.0	90.50	182.00	9,427.4	-2,179.4	122.2	2,175.4	0.22	0.16	-0.16
11,248.0	91.10	181.10	9,426.5	-2,242.4	120.5	2,238.4	1.72	0.95	-1.43
11,312.0	88.10	180.80	9,426.9	-2,306.4	119.4	2,302.4	4.71	-4.69	-0.47
11,375.0	87.40	180.20	9,429.4	-2,369.3	118.9	2,365.3	1.46	-1.11	-0.95
11,439.0	90.00	180.60	9,430.9	-2,433.3	118.4	2,429.3	4.11	4.06	0.63
11,502.0	90.20	180.20	9,430.8	-2,496.3	118.0	2,492.3	0.71	0.32	-0.63
11,566.0	91.30	180.40	9,429.9	-2,560.3	117.7	2,556.3	1.75	1.72	0.31
11,630.0	92.10	180.60	9,428.0	-2,624.2	117.1	2,620.2	1.29	1.25	0.31
11,693.0	91.20	180.60	9,426.2	-2,687.2	116.5	2,683.2	1.43	-1.43	0.00
11,756.0	89.10	180.50	9,426.0	-2,750.2	115.9	2,746.2	3.34	-3.33	-0.16
11,852.0	90.80	179.90	9,426.1	-2,846.2	115.5	2,842.1	1.88	1.77	-0.63
11,884.0	89.90	180.00	9,425.9	-2,878.2	115.5	2,874.1	2.83	-2.81	0.31
11,948.0	88.60	179.90	9,426.8	-2,942.2	115.6	2,938.1	2.04	-2.03	-0.16
12,012.0	88.60	180.10	9,428.3	-3,006.2	115.6	3,002.1	0.31	0.00	0.31
12,139.0	88.20	179.40	9,431.9	-3,133.1	116.2	3,128.9	0.63	-0.31	-0.55
12,234.0	90.60	182.70	9,432.9	-3,228.1	114.4	3,223.9	4.29	2.53	3.47
12,329.0	92.40	183.00	9,430.4	-3,322.9	109.7	3,318.8	1.92	1.89	0.32
12,425.0	90.70	181.40	9,427.8	-3,418.8	106.0	3,414.8	2.43	-1.77	-1.67
12,520.0	91.00	182.20	9,426.4	-3,513.8	103.0	3,509.8	0.90	0.32	0.84
12,615.0	89.90	182.60	9,425.6	-3,608.7	99.0	3,604.8	1.23	-1.16	0.42
12,711.0	89.50	182.60	9,426.1	-3,704.6	94.7	3,700.8	0.42	-0.42	0.00
12,806.0	90.10	181.40	9,426.5	-3,799.5	91.4	3,795.7	1.41	0.63	-1.26
12,901.0	89.20	181.60	9,427.1	-3,894.5	88.9	3,890.7	0.97	-0.95	0.21
12,996.0	89.50	181.20	9,428.1	-3,989.4	86.6	3,985.7	0.53	0.32	-0.42
13,091.0	90.80	180.60	9,427.9	-4,084.4	85.1	4,080.7	1.51	1.37	-0.63
13,186.0	88.20	181.10	9,428.7	-4,179.4	83.7	4,175.7	2.79	-2.74	0.53
13,282.0	88.70	181.10	9,431.3	-4,275.3	81.8	4,271.7	0.52	0.52	0.00
13,377.0	89.90	181.00	9,432.5	-4,370.3	80.1	4,366.7	1.27	1.26	-0.11
13,472.0	91.30	180.10	9,431.5	-4,465.3	79.2	4,461.6	1.75	1.47	-0.95
13,566.0	92.40	180.30	9,428.4	-4,559.3	78.8	4,555.6	1.19	1.17	0.21
13,642.0	93.40	179.80	9,424.6	-4,635.2	78.8	4,631.4	1.47	1.32	-0.66
13,685.0	93.40	179.80	9,422.0	-4,678.1	78.9	4,674.3	0.00	0.00	0.00
13685' MD Projected to Bit - PBHL Red Hills West #12H									



Stryker Directional Survey Report



Company:	Mewbourne Oil Company .	Local Co-ordinate Reference:	Well Red Hills West #12H
Project:	Lea County N.M.	TVD Reference:	3250 + 20 @ 3270.0usft (Patterson)
Site:	Section10-26S-32E Red Hills West Unit #12H	MD Reference:	3250 + 20 @ 3270.0usft (Patterson)
Well:	Red Hills West #12H	North Reference:	Grid
Wellbore:	Original Hole	Survey Calculation Method:	Minimum Curvature
Design:	Original Hole	Database:	Stryker_EDM

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,700.0	8,690.7	-155.4	174.3	8700' MD MS Gyro Survey
13,685.0	9,422.0	-4,678.1	78.9	13685' MD Projected to Bit



March 27, 2015

New Mexico Energy, Minerals and Natural Resources Department
Attn: Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Attn: Jackie Lathan

Re: Mewbourne Oil Company
Red Hills West Unit #012H
Jennings; Upper Bone Spring Shale
Lea County, New Mexico
API# 30-025-42417

Enclosed please find the original and one (1) copy of the survey performed on the reference well by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C. Other information required by your office is as follows:

<u>Name & Title</u>	<u>Drainhole No.</u>	<u>Survey Depths</u>	<u>Dates Performed</u>	<u>Type Survey</u>
Paul Niewiowski	Original Hole	8,741ft. to 13,642ft.	03-04-15 to 03-15-15	MWD Survey

A certified plat on which the bottom-hole location is oriented to both surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.


Todd Estes

Enclosures

CC:

Mewbourne Oil Company
Attn: Frosty Lathan
P.O. Box 5720
Hobbs, NM 88241

Mewbourne Oil Company
Attn: Robin Terrell
P.O. Box 5720
Hobbs, NM 88241

NMEMaNRD\Mewbourne Oil Company\Red Hills West Unit #12\M151028

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163



March 27, 2015

HOBBS OCD
MAY 26 2015
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Survey Certification Report

STATE OF TEXAS

COUNTY OF Montgomery

I, Todd Estes, certify that I am employed by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C., and that I did on the day(s) of March 04, 2015 thru March 15, 2015, conduct or supervise the taking of a SEDS MWD Survey from a depth of 8,741 feet to a depth of 13,642 feet; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mewbourne Oil Company, for the Red Hills West Unit #012H well, API # **30-025-42417** in Lea County, New Mexico; and that I have reviewed this report and find that it conforms to the principles as set forth by STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

Todd Estes

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.

STRYKER ENERGY DIRECTIONAL SERVICES, L.L.C.
P.O. Box 1250
Montgomery, TX 77356
Office (936) 582-7296 * Fax (936)-588-4163

Stryker Directional

Red Hills West #12H

Company: Mewbourne Oil Company	Local Co-ordinate Reference: Well Red Hills West #12H
Project: Lea County N.M.	TVD Reference: 3250 + 20 @ 3270.0usft (Patterson)
Site: Section10-26S-32E Red Hills West Unit #12H	MD Reference: 3250 + 20 @ 3270.0usft (Patterson)
Well: Red Hills West #12H	North Reference: Grid
Wellbore: Original Hole	Survey Calculation Method: Minimum Curvature
Design: Original Hole	Database: Stryker_EDM

Project: Lea County N.M.	System Datum: Mean Sea Level
Map System: US State Plane 1927 (Exact solution)	
Geo Datum: NAD 1927 (NADCON CONUS)	
Map Zone: New Mexico East 3001	

Site: Section10-26S-32E Red Hills West Unit #12H	
Site Position:	North: 387,621.50 usft
From:	East: 705,853.00 usft
Position Uncertainty: Map 0.0 usft	Slot Radius: 13-3/16 "
	Latitude: 32° 3' 50.201 N
	Longitude: 103° 40' 7.770 W
	Grid Convergence: 0.35 °

Well: Red Hills West #12H	
Well Position: +N/-S 0.0 usft	North: 387,621.50 usft
Position Uncertainty: +E/-W 0.0 usft	East: 705,853.00 usft
	Wellhead Elevation: 0.0 usft
	Latitude: 32° 3' 50.201 N
	Longitude: 103° 40' 7.770 W
	Ground Level: 3,250.0 usft

Wellbore: Original Hole	
Magnetics:	
Model Name: IGRF2015	Sample Date: 2/12/2015
	Declination (°): 7.24
	Dip Angle (°): 59.93
	Field Strength (nT): 48,074

Design: Original Hole	
Audit Notes:	
Version: 1.0	Phase: ACTUAL
Vertical Section:	Tie On Depth:
	+E/-W (usft): 0.0
	+N/-S (usft): 0.0
	Direction (°): 181.52
	Depth From (TVD) (usft): 0.0

HOBBSOCD

MAY 26 2015

RECEIVED

Stryker Directional

Red Hills West #12H

Company: Mewbourne Oil Company .
Project: Lea County N.M.
Site: Section10-26S-32E Red Hills West Unit #12H
Well: Red Hills West #12H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Red Hills West #12H
TVD Reference: 3250 + 20 @ 3270.0usft (Patterson)
MD Reference: 3250 + 20 @ 3270.0usft (Patterson)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey Program	Date	3/16/2015
From (usft)	To (usft)	Survey (Wellbore)
100.0	8,700.0	MS Gyro Survey (Original Hole)
8,741.0	13,685.0	MWD Survey (Original Hole)

Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
	8,700.0	1.00	299.25	8,690.7	-155.4	174.3	150.8	233.6	131.72	0.00
	8,741.0	1.30	267.80	8,731.7	-155.3	173.5	150.6	232.9	131.82	1.68
	8,773.0	3.00	209.40	8,763.6	-156.0	172.8	151.4	232.8	132.08	8.03
	8,804.0	6.20	195.60	8,794.5	-158.3	171.9	153.7	233.7	132.65	10.85
	8,836.0	9.80	189.60	8,826.2	-162.7	171.0	158.1	236.0	133.67	11.53
	8,868.0	13.50	188.40	8,857.6	-169.1	170.0	164.5	239.8	134.84	11.59
	8,900.0	15.60	186.10	8,888.5	-177.1	169.0	172.5	244.8	136.33	6.81
	8,932.0	17.00	182.50	8,919.2	-186.0	168.3	181.5	250.9	137.85	5.39
	8,963.0	18.50	178.00	8,948.8	-195.4	168.3	190.9	257.9	139.27	6.55
	8,995.0	19.90	175.00	8,979.0	-205.9	169.0	201.4	266.4	140.63	5.35
	9,027.0	21.80	175.80	9,008.9	-217.3	169.9	212.7	275.8	141.98	6.00
	9,059.0	23.60	177.00	9,038.4	-229.6	170.6	225.0	286.1	143.38	5.81
	9,090.0	25.50	176.80	9,066.6	-242.5	171.3	237.9	296.9	144.76	6.13
	9,122.0	27.90	176.80	9,095.2	-256.8	172.1	252.2	309.2	146.17	7.50
	9,154.0	30.10	177.90	9,123.2	-272.3	172.9	267.7	322.6	147.60	7.07
	9,185.0	32.30	178.60	9,149.7	-288.4	173.3	283.7	336.5	148.99	7.19
	9,217.0	35.30	178.60	9,176.3	-306.2	173.8	301.5	352.1	150.42	9.37
	9,249.0	38.30	178.40	9,201.9	-325.3	174.3	320.6	369.1	151.82	9.38
	9,281.0	41.50	178.60	9,226.4	-345.9	174.8	341.1	387.5	153.19	10.01
	9,313.0	42.00	179.90	9,250.3	-367.2	175.1	362.4	406.8	154.50	3.12
	9,345.0	45.20	180.70	9,273.5	-389.2	175.0	384.4	426.7	155.79	10.15

Description
Continuous north-seeking gyro on wireline
MWD v3-standard declination

Tool Name
NSG-CT_WL
MWD

Stryker Directional

Red Hills West #12H

Company:
Project:
Site:
Well:
Wellbore:
Design:

Mewbourne Oil Company
Lea County N.M.
Section 10-26S-32E Red Hills West Unit #12H
Red Hills West #12H
Original Hole
Original Hole

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well Red Hills West #12H
3250 + 20 @ 3270.0usft (Patterson)
3250 + 20 @ 3270.0usft (Patterson)
Grid
Minimum Curvature
Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	D Leg (°/100usft)
9,376.0	46.90	182.10	9,295.0	-411.5	174.4	406.8	447.0	157.03	6.38
9,408.0	46.10	184.10	9,317.0	-434.7	173.2	430.0	467.9	158.28	5.18
9,440.0	48.00	182.30	9,338.8	-458.1	171.9	453.4	489.3	159.43	7.22
9,472.0	52.40	182.50	9,359.3	-482.7	170.8	477.9	512.0	160.51	13.76
9,504.0	58.10	184.00	9,377.5	-508.9	169.3	504.2	536.3	161.59	18.22
9,536.0	64.00	185.50	9,393.0	-536.8	167.0	532.2	562.2	162.72	18.89
9,568.0	70.60	185.60	9,405.4	-566.1	164.2	561.6	589.5	163.83	20.63
9,597.0	76.50	183.80	9,413.6	-593.9	161.9	589.3	615.5	164.75	21.20
9,629.0	79.50	182.10	9,420.2	-625.1	160.3	620.6	645.3	165.62	10.72
9,661.0	81.30	181.40	9,425.6	-656.6	159.3	652.2	675.7	166.36	6.02
9,693.0	84.30	181.20	9,429.6	-688.4	158.6	683.9	706.4	167.03	9.40
9,725.0	87.10	181.30	9,432.0	-720.3	157.9	715.8	737.4	167.64	8.76
9,756.0	89.50	181.10	9,432.9	-751.3	157.2	746.8	767.5	168.18	7.77
9,788.0	90.10	180.60	9,433.0	-783.3	156.8	778.8	798.8	168.68	2.44
9,852.0	91.70	180.40	9,432.0	-847.2	156.2	842.8	861.5	169.55	2.52
9,915.0	90.30	181.10	9,430.9	-910.2	155.4	905.8	923.4	170.31	2.48
9,978.0	90.40	181.70	9,430.5	-973.2	153.8	968.8	985.3	171.02	0.97
10,042.0	90.50	180.60	9,430.0	-1,037.2	152.6	1,032.8	1,048.3	171.63	1.73
10,105.0	92.00	180.80	9,428.6	-1,100.2	151.8	1,095.7	1,110.6	172.14	2.40
10,168.0	91.40	181.40	9,426.7	-1,164.1	150.6	1,159.7	1,173.8	172.63	1.33
10,232.0	89.80	180.80	9,426.1	-1,227.1	149.4	1,222.7	1,236.2	173.06	2.71
10,296.0	90.40	180.60	9,426.0	-1,291.1	148.6	1,286.7	1,299.6	173.44	0.99
10,359.0	89.80	181.40	9,425.9	-1,354.1	147.5	1,349.7	1,362.1	173.78	1.59
10,423.0	91.40	182.50	9,425.2	-1,418.0	145.3	1,413.7	1,425.5	174.15	3.03
10,485.0	89.80	182.40	9,424.5	-1,480.0	142.6	1,475.7	1,486.8	174.49	2.59
10,549.0	88.60	182.10	9,425.4	-1,543.9	140.1	1,539.7	1,550.3	174.81	1.93
10,613.0	88.90	181.50	9,426.8	-1,607.9	138.1	1,603.7	1,613.8	175.09	1.05

Stryker Directional

Red Hills West #12H

Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 10-26S-32E Red Hills West Unit #12H
Well: Red Hills West #12H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Red Hills West #12H
TVD Reference: 3250 + 20 @ 3270.0usft (Patterson)
MD Reference: 3250 + 20 @ 3270.0usft (Patterson)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	D Leg (°/100usft)
10,676.0	87.00	180.60	9,429.1	-1,670.8	137.0	1,666.6	1,676.4	175.31	3.34
10,740.0	88.40	181.40	9,431.7	-1,734.8	135.9	1,730.5	1,740.1	175.52	2.52
10,803.0	88.00	181.30	9,433.6	-1,797.7	134.4	1,793.5	1,802.7	175.73	0.65
10,867.0	90.50	182.30	9,434.5	-1,861.7	132.4	1,857.5	1,866.4	175.93	4.21
10,930.0	91.30	181.80	9,433.5	-1,924.6	130.1	1,920.5	1,929.0	176.13	1.50
10,994.0	91.80	181.80	9,431.8	-1,988.6	128.1	1,984.5	1,992.7	176.31	0.78
11,057.0	92.40	181.30	9,429.4	-2,051.5	126.4	2,047.4	2,055.4	176.47	1.24
11,121.0	90.40	182.10	9,427.9	-2,115.4	124.5	2,111.4	2,119.1	176.63	3.37
11,185.0	90.50	182.00	9,427.4	-2,179.4	122.2	2,175.4	2,182.8	176.79	0.22
11,248.0	91.10	181.10	9,426.5	-2,242.4	120.5	2,238.4	2,245.6	176.92	1.72
11,312.0	88.10	180.80	9,426.9	-2,306.4	119.4	2,302.4	2,309.4	177.04	4.71
11,375.0	87.40	180.20	9,429.4	-2,369.3	118.9	2,365.3	2,372.3	177.13	1.46
11,439.0	90.00	180.60	9,430.9	-2,433.3	118.4	2,429.3	2,436.2	177.21	4.11
11,502.0	90.20	180.20	9,430.8	-2,496.3	118.0	2,492.3	2,499.1	177.29	0.71
11,566.0	91.30	180.40	9,429.9	-2,560.3	117.7	2,556.3	2,563.0	177.37	1.75
11,630.0	92.10	180.60	9,428.0	-2,624.2	117.1	2,620.2	2,626.9	177.44	1.29
11,693.0	91.20	180.60	9,426.2	-2,687.2	116.5	2,683.2	2,689.7	177.52	1.43
11,756.0	89.10	180.50	9,426.0	-2,750.2	115.9	2,746.2	2,752.6	177.59	3.34
11,820.0	90.80	179.90	9,426.1	-2,813.2	115.5	2,812.1	2,818.5	177.68	1.88
11,884.0	89.90	180.00	9,425.9	-2,876.2	115.5	2,874.1	2,880.5	177.70	2.83
11,948.0	88.60	179.90	9,426.8	-2,939.2	115.6	2,938.1	2,944.5	177.75	2.04
12,012.0	88.60	180.10	9,428.3	-3,002.2	115.6	3,002.1	3,008.4	177.80	0.31
12,139.0	88.20	179.40	9,431.9	-3,133.1	116.2	3,128.9	3,135.3	177.88	0.63
12,234.0	90.60	182.70	9,432.9	-3,228.1	114.4	3,223.9	3,230.1	177.97	4.29
12,329.0	92.40	183.00	9,430.4	-3,322.9	109.7	3,318.8	3,324.7	178.11	1.92
12,425.0	90.70	181.40	9,427.8	-3,418.8	106.0	3,414.8	3,420.5	178.22	2.43
12,520.0	91.00	182.20	9,426.4	-3,513.8	103.0	3,509.8	3,515.3	178.32	0.90

Stryker Directional

Red Hills West #12H

Company: Mewbourne Oil Company
Project: Lea County N.M.
Site: Section 10-26S-32E Red Hills West Unit #12H
Well: Red Hills West #12H
Wellbore: Original Hole
Design: Original Hole

Local Co-ordinate Reference: Well Red Hills West #12H
TVD Reference: 3250 + 20 @ 3270.0usft (Patterson)
MD Reference: 3250 + 20 @ 3270.0usft (Patterson)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Stryker_EDM

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	Closure Distance (usft)	Closure Azimuth (°)	DLeg (°/100usft)
12,615.0	89.90	182.60	9,425.6	-3,608.7	99.0	3,604.8	3,610.0	178.43	1.23
12,711.0	89.50	182.60	9,426.1	-3,704.6	94.7	3,700.8	3,705.8	178.54	0.42
12,806.0	90.10	181.40	9,426.5	-3,799.5	91.4	3,795.7	3,800.6	178.62	1.41
12,901.0	89.20	181.60	9,427.1	-3,894.5	88.9	3,890.7	3,895.5	178.69	0.97
12,996.0	89.50	181.20	9,428.1	-3,989.4	86.6	3,985.7	3,990.4	178.76	0.53
13,091.0	90.80	180.60	9,427.9	-4,084.4	85.1	4,080.7	4,085.3	178.81	1.51
13,186.0	88.20	181.10	9,428.7	-4,179.4	83.7	4,175.7	4,180.2	178.85	2.79
13,282.0	88.70	181.10	9,431.3	-4,275.3	81.8	4,271.7	4,276.1	178.90	0.52
13,377.0	89.90	181.00	9,432.5	-4,370.3	80.1	4,366.7	4,371.1	178.95	1.27
13,472.0	91.30	180.10	9,431.5	-4,465.3	79.2	4,461.6	4,466.0	178.98	1.75
13,566.0	92.40	180.30	9,428.4	-4,559.3	78.8	4,555.6	4,559.9	179.01	1.19
13,642.0	93.40	179.80	9,424.6	-4,635.2	78.8	4,631.4	4,635.8	179.03	1.47
13,685.0	93.40	179.80	9,422.0	-4,678.1	78.9	4,674.3	4,678.8	179.03	0.00

13685' MD Projected to Bit

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
13,685.0	9,422.0	-4,678.1	78.9	13685' MD Projected to Bit



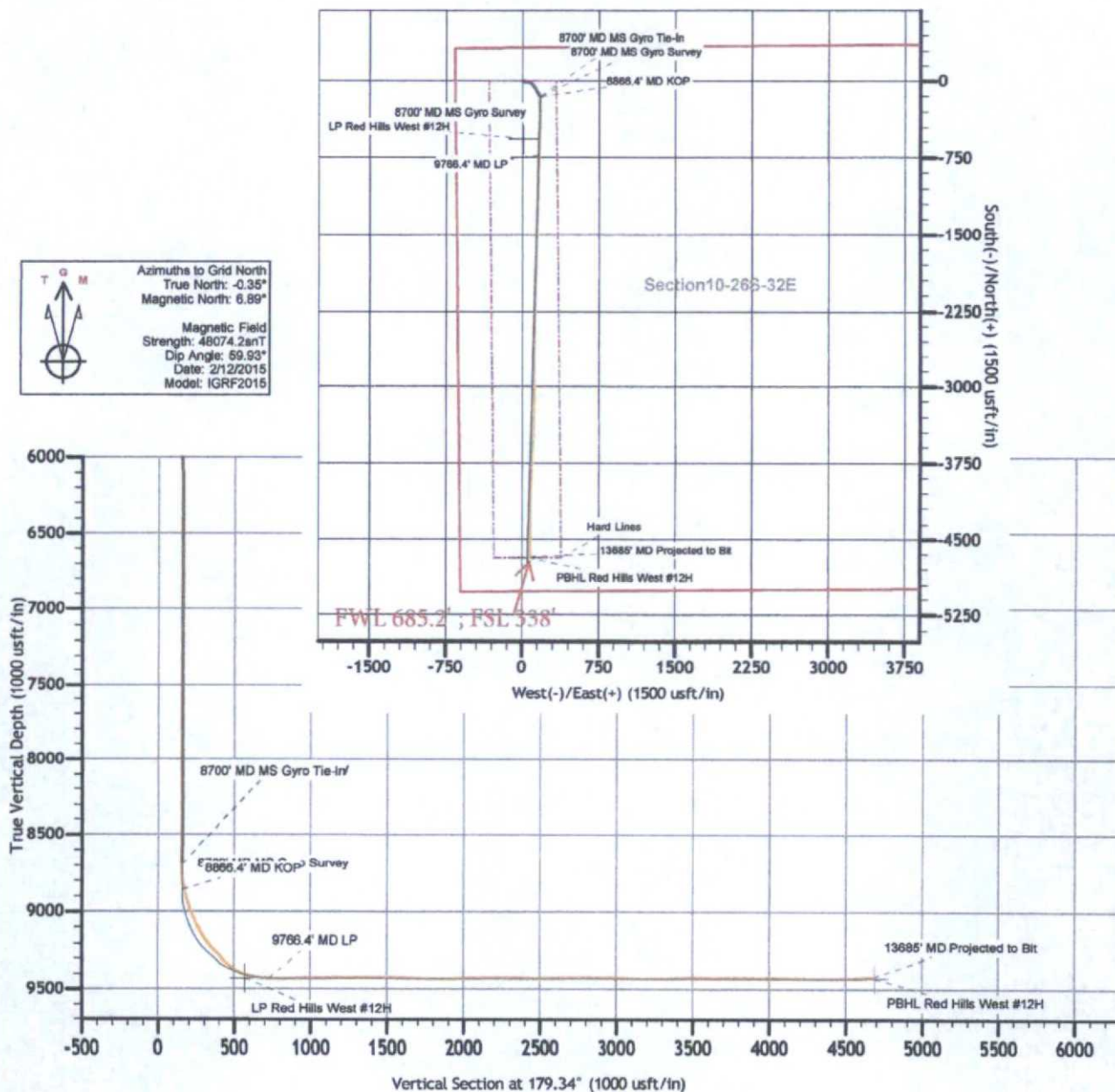
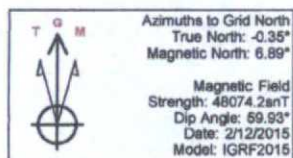
COMPANY: Mewbourne Oil Company .
 WELL: Red Hills West #12H
 COUNTY: Lea County N.M.
 DATUM: NAD 1927 (NADCON CONUS)
 RIG: Patterson

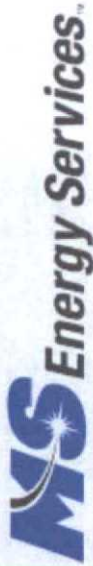


GRID CORRECTION: To convert a Magnetic Direction to a Grid Direction, Add 6.89°

GEODETIC ZONE: New Mexico East 3001									
3250 + 20 @ 3270.0usft (Patterson)									
GROUND ELEVATION: 3250.0									
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot			
0.0	0.0	387621.50	705853.00	32° 3' 50.201 N	103° 40' 7.770 W				

PLAN SECTIONS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	8700.0	1.00	299.25	8690.7	-155.4	174.3	0.00	0.00	157.4	
2	8750.0	0.00	291.75	8740.7	-155.2	173.9	2.00	-176.28	157.2	
3	8866.4	0.00	291.75	8857.1	-155.2	173.9	0.00	291.75	157.2	
4	9766.4	90.00	181.52	9430.0	-728.0	158.7	10.00	181.52	729.8	
5	13726.1	90.00	181.52	9430.0	-4686.3	53.7	0.00	0.00	4686.6	PBHL Red Hills West #12H





Job Number: SVMO-150183
Company: Mewbourne Oil & Gas
Lease/Well: Red Hills West Unit 12H
Location: Lea County, NM
Rig Name: Patterson #36
RKB: 22'
G.L. or M.S.L.: GL

State/Country: New Mexico/USA
Declination: 6.89°
Grid: East To Grid North
File name: S:\2015SU-1\MEWBOU-1\MO\REDHIL-1112H.SVY
Date/Time: 04-Mar-15 / 08:37
Curve Name: Surface - 8700' M.D. (Rate Gyro)

MS SURVEY

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 179.34
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
Surface MD to 8700' MD is, to the best of
our knowledge a true and accurate account of
the well bore.
Joseph Brink 3/4/15
MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.30	10.68	100.00	.26	.05	-.26	.26	10.68	.30
200.00	.02	37.39	200.00	.53	.11	-.53	.54	11.51	.28
300.00	.70	48.72	300.00	.95	.58	-.94	1.11	31.41	.68
400.00	.98	63.63	399.99	1.73	1.80	-1.71	2.50	46.21	.35
500.00	1.19	69.47	499.97	2.47	3.54	-2.43	4.32	55.08	.24
600.00	1.18	97.35	599.95	2.70	5.53	-2.64	6.16	63.96	.57
700.00	1.41	122.43	699.92	1.91	7.59	-1.83	7.83	75.86	.61
800.00	1.41	139.21	799.89	.32	9.44	-.21	9.44	88.05	.41
900.00	1.30	144.47	899.86	-1.53	10.90	1.66	11.01	98.01	.17

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
1000.00	1.30	143.04	999.84	-3.36	12.24	3.50	12.69	105.36	.03
1100.00	1.37	139.67	1099.81	-5.18	13.70	5.34	14.64	110.72	.11
1200.00	1.45	137.47	1199.78	-7.02	15.33	7.20	16.86	114.62	.10
1300.00	1.64	135.93	1299.75	-8.98	17.18	9.18	19.38	117.61	.19
1400.00	1.87	108.94	1399.70	-10.54	19.71	10.77	22.36	118.13	.85
1500.00	1.79	107.45	1499.65	-11.54	22.75	11.80	25.51	116.90	.09
1600.00	1.56	102.94	1599.61	-12.31	25.56	12.61	28.38	115.72	.26
1700.00	1.42	97.65	1699.57	-12.78	28.12	13.11	30.89	114.45	.20
1800.00	1.15	97.46	1799.55	-13.08	30.34	13.43	33.04	113.32	.27
1900.00	.98	100.36	1899.53	-13.36	32.18	13.73	34.84	112.55	.18
2000.00	.95	102.13	1999.52	-13.69	33.83	14.08	36.50	112.03	.04
2100.00	.88	92.89	2099.50	-13.90	35.41	14.31	38.04	111.44	.16
2200.00	.61	106.65	2199.49	-14.09	36.68	14.52	39.30	111.02	.32
2300.00	.34	101.08	2299.49	-14.30	37.49	14.73	40.12	110.89	.27
2400.00	.42	56.06	2399.49	-14.16	38.08	14.59	40.63	110.39	.30
2500.00	.36	33.09	2499.49	-13.69	38.56	14.13	40.91	109.55	.17
2600.00	.91	8.01	2599.48	-12.64	38.84	13.09	40.84	108.03	.60
2700.00	1.13	348.05	2699.46	-10.89	38.75	11.33	40.25	105.70	.41
2800.00	.61	294.87	2799.45	-9.70	38.06	10.14	39.27	104.30	.91
2900.00	1.06	249.46	2899.44	-9.80	36.71	10.22	37.99	104.95	.77
3000.00	1.02	224.43	2999.43	-10.76	35.22	11.17	36.83	106.99	.45
3100.00	.69	150.87	3099.42	-11.92	34.89	12.32	36.87	108.87	1.06
3200.00	.73	131.22	3199.41	-12.87	35.66	13.28	37.91	109.84	.25
3300.00	1.48	93.35	3299.39	-13.36	37.43	13.79	39.74	109.65	1.01
3400.00	1.88	87.45	3399.35	-13.37	40.36	13.83	42.51	108.32	.44
3500.00	2.32	79.30	3499.28	-12.92	43.99	13.42	45.84	106.36	.53
3600.00	2.23	85.60	3599.20	-12.39	47.91	12.94	49.49	104.50	.27
3700.00	2.19	80.80	3699.13	-11.94	51.74	12.53	53.10	102.99	.19
3800.00	2.19	82.44	3799.06	-11.38	55.52	12.02	56.67	101.58	.06

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
3900.00	3.03	100.49	3898.95	-11.61	60.01	12.30	61.13	100.95	1.17
4000.00	3.53	109.15	3998.79	-13.10	65.52	13.85	66.82	101.31	.70
4100.00	3.78	118.27	4098.59	-15.67	71.33	16.49	73.03	102.39	.63
4200.00	4.72	127.06	4198.31	-19.71	77.52	20.60	79.99	104.27	1.14
4300.00	5.40	132.61	4297.92	-25.38	84.26	26.35	88.00	106.76	.84
4400.00	4.64	134.05	4397.54	-31.38	90.64	32.42	95.91	109.09	.77
4500.00	4.39	138.09	4497.23	-37.04	96.10	38.14	102.99	111.08	.40
4600.00	4.04	141.87	4596.96	-42.66	100.83	43.81	109.48	112.93	.45
4700.00	4.24	141.98	4696.70	-48.34	105.28	49.55	115.85	114.66	.20
4800.00	4.34	146.22	4796.42	-54.40	109.66	55.66	122.41	116.38	.33
4900.00	4.49	145.58	4896.12	-60.77	113.98	62.08	129.17	118.07	.16
5000.00	4.76	146.48	4995.80	-67.46	118.48	68.82	136.34	119.65	.28
5100.00	5.10	146.90	5095.43	-74.64	123.20	76.05	144.05	121.21	.34
5200.00	5.44	147.14	5195.00	-82.35	128.20	83.82	152.37	122.71	.34
5300.00	5.92	147.92	5294.51	-90.70	133.51	92.23	161.40	124.19	.49
5400.00	5.87	148.39	5393.98	-99.42	138.93	101.02	170.84	125.59	.07
5500.00	5.95	148.15	5493.45	-108.18	144.35	109.83	180.38	126.85	.08
5600.00	6.03	149.29	5592.91	-117.10	149.76	118.81	190.11	128.02	.14
5700.00	6.13	150.90	5692.34	-126.28	155.04	128.06	199.96	129.16	.20
5800.00	5.94	152.04	5791.79	-135.51	160.07	137.35	209.73	130.25	.22
5900.00	5.58	151.74	5891.28	-144.37	164.79	146.26	219.09	131.22	.36
6000.00	3.97	143.45	5990.93	-151.43	169.16	153.37	227.04	131.84	1.75
6100.00	2.82	126.88	6090.76	-155.69	173.19	157.67	232.88	131.95	1.50
6200.00	1.33	86.36	6190.70	-157.09	176.31	159.11	236.14	131.70	2.00
6300.00	.22	38.65	6290.69	-156.87	177.59	158.90	236.95	131.45	1.19
6400.00	.09	238.93	6390.69	-156.76	177.64	158.79	236.92	131.43	.31
6500.00	.13	233.49	6490.68	-156.87	177.49	158.90	236.87	131.47	.04
6600.00	.18	287.90	6590.68	-156.89	177.24	158.92	236.70	131.51	.15
6700.00	.12	94.30	6690.68	-156.84	177.20	158.88	236.64	131.51	.30

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
6800.00	.15	87.49	6790.68	-156.85	177.43	158.88	236.82	131.48	.03
6900.00	.15	200.74	6890.68	-156.96	177.52	159.00	236.96	131.48	.25
7000.00	.12	226.10	6990.68	-157.16	177.40	159.19	237.00	131.54	.07
7100.00	.15	15.16	7090.68	-157.10	177.36	159.14	236.93	131.54	.26
7200.00	.12	27.51	7190.68	-156.89	177.44	158.92	236.85	131.48	.04
7300.00	.11	251.95	7290.68	-156.82	177.40	158.86	236.78	131.48	.21
7400.00	.16	40.16	7390.68	-156.75	177.39	158.78	236.72	131.46	.26
7500.00	.17	197.66	7490.68	-156.78	177.44	158.81	236.78	131.46	.32
7600.00	.18	215.00	7590.68	-157.05	177.30	159.08	236.86	131.53	.05
7700.00	.09	296.09	7690.68	-157.14	177.14	159.17	236.80	131.58	.19
7800.00	.14	194.95	7790.68	-157.23	177.04	159.26	236.78	131.61	.18
7900.00	.05	320.08	7890.68	-157.31	176.98	159.34	236.79	131.63	.17
8000.00	.08	9.86	7990.68	-157.21	176.97	159.24	236.71	131.62	.06
8100.00	.08	11.85	8090.68	-157.07	176.99	159.10	236.64	131.59	.00
8200.00	.10	20.68	8190.68	-156.92	177.04	158.95	236.57	131.55	.02
8300.00	.14	329.66	8290.68	-156.74	177.01	158.76	236.43	131.52	.11
8400.00	.26	346.50	8390.68	-156.41	176.89	158.44	236.12	131.48	.13
8500.00	.22	309.10	8490.68	-156.07	176.69	158.09	235.75	131.45	.16
8600.00	.84	273.31	8590.68	-155.90	175.81	157.92	234.98	131.57	.67
Last Survey Depth Recorded									
8700.00	1.00	299.25	8690.66	-155.44	174.32	157.43	233.55	131.72	.44