

Results of Directional Survey

API number:	30-025-40391		
OGRID:		Operator:	MEWBOURNE OIL CO
		Property:	RED HILLS WEST 21 FEDERAL COM # 2H

surface	ULSTR:	C	21	T 26S	R 32E
				150 FNL	2350 FWL

BH Loc	ULSTR:	N	21	T 26S	R 32E
13368	MD	8945.0	TVD	5002 FNL	2277 FWL

Top Perf/OH	ULSTR:	C	21	T 26S	R 32E
9390	MD	8902.7	TVD	1027 FNL	2376 FWL

Bot Perf/OH	ULSTR:	N	21	T 26S	R 32E
13333	MD	8945.5	TVD	4967 FNL	2280 FWL

	MD	N/S	E/W	VD
	9375	-861.70	26.10	8902.1
TOP PERFS/OH	9390	-876.68	25.72	8902.67
	9438	-924.60	24.50	8904.50
	13317	-4801.10	-69.40	8945.70
BOT PERFS/OH	13333	-4817.07	-70.49	8945.48
	13367	-4851.00	-72.80	8945.00

NEXT TO LAST	13317	-4801.10	-69.40	8945.70
LAST READING	13367	-4851.00	-72.80	8945.00
TD	13368	-4852.00	-72.87	8944.99

Surface Location	150	FN	2350	FW
Projected BHL	5002	FN	2277	FW
Location of				
Top Perfs/OH	1027	FN	2376	FW
Bottom Perfs/OH	4967	FN	2280	FW

SUMMARY of Subsurface Locations

Surface Location	C-21-26S-32E	150	FN	2350	FW	Vert. Depth
Top Perfs/OH	C-21-26S-32E	1027	FN	2376	FW	8902.67
Bottom Perfs/OH	N-21-26S-32E	4967	FN	2280	FW	8945.48
Projected TD	N-21-26S-32E	5002	FN	2277	FW	8944.99

APR 26 2012

OPERATOR
WELL/LEASE
COUNTY

Mewbourne Oil Company
Red Hills West 21 Fed Com #2H
Lea

HOBBS OCD

APR 23 2012

STATE OF NEW MEXICO
DEVIATION REPORT

RECEIVED

755	3.14
1,073	1.57
1,392	0.41
1,679	0.29
2,092	1.16
2,472	0.82
2,792	1.80
3,046	1.03
3,333	2.44
3,461	3.24
3,556	2.39
3,716	2.80
3,875	2.86
3,971	3.45
4,193	4.39
4,098	4.19
4,287	3.99
4,565	1.42
4,818	0.70
5,073	0.87
5,487	0.30
5,964	0.92
6,376	1.54
6,631	1.31
7,094	1.42
7,361	1.51
7,709	2.04

SUR: C-21-26s-32e, 150/N & 2350/W
BHL: N-21-26s-32e, 5002/N & 2277/W
API # 30-025-40391

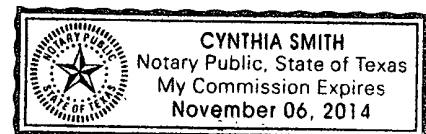
STATE OF TEXAS

COUNTY OF MIDLAND

BY: Kyle Hollingsworth

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

Cynthia Smith
Notary Public for Midland County, Texas
My Commission Expires: 11/06/14





Company: Mewbourne Oil Company
Lease/Well: Red Hills West "21" Fed Com/2H
Location: 29 Miles W/SW Of Jal
Rig Name: Patterson 45
State/County: New Mexico/Lea
Latitude: 32.04
GRID North is 0.35 Degrees East of True North
VS-Azi: 180.93 Degrees



Depth Reference : RKB = 23 Feet

DRILLOG HA GYRO SURVEY CALCULATIONS

Filename: ...lls west 21 fed com #2h_ed.ut

Minimum Curvature Method

Report Date/Time: 2/28/2012 / 09:49

Vaughn Energy Services

Gardendale, Texas

432-563-5444

Surveyor: Seth Hardin

Red Hills West "21" Fed Com 2H / API 30-025-40391

SUR: C-21-26s-32e, 150/N & 2350/W
BHL: N-21-26s-32e, 5002/N & 2277/W
API # 30-025-40391

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	0.35	97.79	100.00	-0.04	0.30	0.04	0.31	97.79	0.35
200.00	1.43	99.47	199.99	-0.29	1.84	0.26	1.86	98.92	1.08
300.00	2.29	109.41	299.93	-1.16	4.96	1.08	5.09	103.16	0.91
400.00	2.65	112.59	399.84	-2.71	8.97	2.56	9.37	106.80	0.38
500.00	2.53	127.98	499.74	-4.96	12.85	4.75	13.77	111.10	0.70
600.00	2.68	123.16	599.64	-7.60	16.55	7.33	18.21	114.66	0.26
700.00	2.94	125.89	699.51	-10.38	20.58	10.04	23.05	116.76	0.29
800.00	2.69	118.86	799.39	-13.01	24.71	12.61	27.93	117.77	0.43
900.00	2.35	109.27	899.30	-14.82	28.70	14.36	32.31	117.31	0.54
1000.00	1.87	114.81	999.23	-16.19	32.13	15.66	35.97	116.74	0.52
1100.00	1.46	124.08	1099.19	-17.59	34.66	17.02	38.87	116.90	0.49
1200.00	0.90	135.98	1199.17	-18.86	36.26	18.27	40.88	117.48	0.61
1300.00	0.72	140.54	1299.16	-19.91	37.21	19.31	42.20	118.15	0.19
1400.00	0.65	150.72	1399.15	-20.89	37.88	20.28	43.26	118.88	0.14
1500.00	0.65	168.95	1499.14	-21.94	38.27	21.32	44.12	119.83	0.21
1600.00	0.49	174.48	1599.14	-22.92	38.42	22.30	44.74	120.82	0.17
1700.00	0.65	180.01	1699.13	-23.91	38.46	23.29	45.29	121.87	0.17
1800.00	0.71	198.83	1799.13	-25.07	38.26	24.44	45.74	123.23	0.23
1900.00	0.97	215.46	1899.12	-26.34	37.57	25.73	45.89	125.04	0.35
2000.00	1.01	221.45	1999.10	-27.70	36.49	27.10	45.81	127.20	0.11

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
2100.00	1.08	225.07	2099.08	-29.02	35.24	28.45	45.66	129.47	0.09
2200.00	0.93	236.90	2199.07	-30.13	33.90	29.58	45.35	131.63	0.25
2300.00	0.67	241.92	2299.06	-30.85	32.71	30.31	44.96	133.33	0.27
2400.00	0.80	249.21	2399.05	-31.37	31.54	30.85	44.48	134.84	0.16
2500.00	1.47	253.07	2499.03	-31.99	29.66	31.50	43.62	137.16	0.67
2600.00	1.28	242.69	2599.00	-32.87	27.44	32.42	42.82	140.15	0.31
2700.00	1.47	233.32	2698.97	-34.15	25.43	33.73	42.58	143.33	0.29
2800.00	1.41	224.85	2798.94	-35.79	23.53	35.40	42.83	146.67	0.22
2900.00	1.25	217.58	2898.91	-37.52	22.00	37.16	43.50	149.62	0.23
3000.00	0.57	127.20	2998.91	-38.68	21.73	38.33	44.37	150.68	1.37
3100.00	1.36	89.29	3098.89	-38.97	23.31	38.58	45.41	149.11	0.98
3200.00	2.10	77.01	3198.84	-38.54	26.29	38.11	46.65	145.70	0.82
3300.00	2.21	64.51	3298.77	-37.30	29.81	36.81	47.75	141.37	0.48
3400.00	3.08	68.38	3398.67	-35.48	34.05	34.92	49.18	136.18	0.90
3500.00	2.67	69.14	3498.54	-33.66	38.72	33.03	51.31	131.00	0.42
3600.00	2.24	71.98	3598.45	-32.23	42.76	31.53	53.54	127.01	0.44
3700.00	2.29	85.90	3698.37	-31.48	46.60	30.72	56.24	124.04	0.55
3800.00	2.99	96.68	3798.27	-31.64	51.19	30.81	60.18	121.72	0.86
3900.00	2.57	109.17	3898.15	-32.68	55.90	31.77	64.75	120.31	0.74
4000.00	3.35	116.78	3998.02	-34.73	60.62	33.74	69.86	119.81	0.87
4100.00	4.19	122.89	4097.80	-38.03	66.29	36.95	76.43	119.84	0.93
4200.00	4.37	124.61	4197.52	-42.18	72.49	41.00	83.87	120.19	0.22
4300.00	3.27	124.24	4297.30	-45.95	77.99	44.67	90.51	120.50	1.09
4400.00	2.53	126.90	4397.17	-48.87	82.11	47.54	95.55	120.76	0.76
4500.00	2.08	132.46	4497.09	-51.42	85.21	50.03	99.52	121.11	0.50
4600.00	1.60	133.47	4597.03	-53.61	87.56	52.18	102.67	121.48	0.48
4700.00	1.40	134.91	4697.00	-55.43	89.44	53.97	105.23	121.79	0.20
4800.00	1.43	145.28	4796.97	-57.32	91.02	55.84	107.57	122.20	0.26
4900.00	1.17	143.43	4896.94	-59.17	92.34	57.66	109.67	122.65	0.26
5000.00	1.01	149.40	4996.93	-60.75	93.40	59.23	111.42	123.04	0.19
5100.00	0.79	169.71	5096.91	-62.20	93.97	60.66	112.69	123.50	0.39
5200.00	0.64	188.22	5196.91	-63.43	94.02	61.90	113.42	124.01	0.28
5300.00	0.51	201.79	5296.90	-64.40	93.77	62.87	113.76	124.48	0.18
5400.00	0.13	225.60	5396.90	-64.89	93.53	63.37	113.83	124.76	0.40
5500.00	0.17	243.95	5496.90	-65.04	93.31	63.52	113.74	124.88	0.06
5600.00	0.32	256.76	5596.90	-65.17	92.91	63.65	113.48	125.05	0.16
5700.00	0.44	262.05	5696.90	-65.28	92.25	63.78	113.02	125.29	0.12
5800.00	0.43	273.01	5796.89	-65.32	91.50	63.82	112.43	125.52	0.08
5900.00	0.56	269.85	5896.89	-65.30	90.65	63.82	111.72	125.77	0.13
6000.00	0.76	265.01	5996.88	-65.36	89.50	63.90	110.82	126.14	0.22
6100.00	0.95	273.23	6096.87	-65.37	88.01	63.93	109.63	126.61	0.22
6200.00	1.18	269.24	6196.85	-65.34	86.15	63.93	108.12	127.18	0.25

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
6300.00	1.08	268.03	6296.83	-65.38	84.17	64.01	106.58	127.84	0.11
6400.00	1.37	269.67	6396.81	-65.42	82.04	64.08	104.93	128.57	0.29
6500.00	1.39	259.61	6496.78	-65.65	79.65	64.35	103.22	129.50	0.24
6600.00	1.44	251.55	6596.75	-66.27	77.26	65.00	101.79	130.62	0.20
6700.00	1.37	244.34	6696.72	-67.18	74.99	65.95	100.68	131.85	0.19
6800.00	1.52	242.71	6796.69	-68.31	72.74	67.12	99.78	133.20	0.16
6900.00	1.55	233.85	6896.65	-69.71	70.46	68.56	99.12	134.69	0.24
7000.00	1.24	243.61	6996.62	-71.00	68.40	69.88	98.58	136.07	0.39
7100.00	1.18	233.11	7096.60	-72.09	66.61	71.00	98.15	137.26	0.23
7200.00	1.06	227.60	7196.58	-73.33	65.11	72.26	98.06	138.40	0.16
7300.00	0.95	221.97	7296.57	-74.57	63.87	73.52	98.18	139.42	0.15
7400.00	1.10	218.69	7396.55	-75.94	62.71	74.91	98.49	140.45	0.17
7500.00	1.23	215.89	7496.53	-77.56	61.48	76.55	98.97	141.60	0.14
7600.00	1.45	218.08	7596.50	-79.42	60.07	78.44	99.58	142.90	0.22
7700.00	1.41	216.51	7696.47	-81.41	58.56	80.45	100.28	144.27	0.05
7800.00	1.65	210.53	7796.44	-83.64	57.09	82.71	101.27	145.68	0.29
7900.00	1.67	197.33	7896.40	-86.28	55.93	85.36	102.82	147.05	0.38
8000.00	1.59	202.11	7996.36	-88.95	54.97	88.05	104.57	148.28	0.16
8106.00	1.40	214.06	8102.32	-91.38	53.69	90.50	105.99	149.56	0.34

Mewbourne Oil Co

Eddy County, New Mexico

Sec 21, T26S, R32E

Red Hills West 21 Federal Com #2H

Wellbore #1

Survey: DDC MWD Surveys

SUR: C-21-26s-32e, 150/N & 2350/W
BHL: N-21-26s-32e, 5002/N & 2277/W
API # 30-025-40391

DDC Survey Report

05 March, 2012



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Red Hills West 21 Federal Com #2H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3175.0usft (Patterson)
Site:	Sec 21, T26S, R32E	MD Reference:	WELL @ 3175.0usft (Patterson)
Well:	Red Hills West 21 Federal Com #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

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

Site: Sec 21, T26S, R32E					
Site Position:		Northing:	377,079.35 usft	Latitude:	32° 2' 6.091 N
From:	Map	Easting:	702,291.85 usft	Longitude:	103° 40' 49.893 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well:	Red Hills West 21 Federal Com #2H					
Well Position	+N-S	0.0 usft	Northing:	377,079.35 usft	Latitude:	32° 2' 6.091 N
	+E-W	0.0 usft	Easting:	702,291.85 usft	Longitude:	103° 40' 49.893 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,155.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/6/2012	7.54	59.98	48,427

Design:	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N-S	+E/W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	180.93	

Survey Program		Date	3/5/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	8,106.0	GYRO (Wellbore #1)	Good_gyro	Good Gyro	
8,167.0	13,367.0	DDC MWD Surveys (Wellbore #1)	MWD default	MWD - Standard	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8106'MD: Tie Into Gyro									
8,106.0	1.40	214.06	8,102.3	-91.4	53.7	90.5	0.00	0.00	0.00
8,167.0	1.40	216.70	8,163.3	-92.6	52.8	91.7	0.11	0.00	4.33
8198'MD: Begin MWD Survey									
8,198.0	1.30	215.50	8,194.3	-93.2	52.4	92.3	0.34	-0.32	-3.87
8,229.0	1.20	209.20	8,225.3	-93.7	52.0	92.9	0.55	-0.32	-20.32
8,261.0	1.20	222.40	8,257.3	-94.3	51.6	93.4	0.86	0.00	41.25
8,294.0	2.40	196.90	8,290.3	-95.2	51.2	94.4	4.29	3.64	-77.27
8,327.0	6.00	182.30	8,323.2	-97.6	50.9	96.8	11.29	10.91	-44.24

DDC Survey Report



Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 21, T26S, R32E
Well: Red Hills West 21 Federal Com #2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Red Hills West 21 Federal Com #2H
TVD Reference: WELL @ 3175.0usft (Patterson)
MD Reference: WELL @ 3175.0usft (Patterson)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
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)
8,358.0	9.90	180.50	8,353.9	-101.9	50.8	101.0	12.60	12.58	-5.81
8,390.0	13.00	182.80	8,385.2	-108.2	50.6	107.4	9.79	9.69	7.19
8,422.0	16.80	184.00	8,416.1	-116.4	50.1	115.6	11.91	11.88	3.75
8,454.0	20.30	183.50	8,446.5	-126.6	49.5	125.8	10.95	10.94	-1.56
8,486.0	24.20	181.40	8,476.1	-138.7	49.0	137.9	12.44	12.19	-6.56
8,518.0	26.90	179.50	8,505.0	-152.5	48.9	151.7	8.82	8.44	-5.94
8,549.0	29.30	179.50	8,532.3	-167.1	49.0	166.3	7.74	7.74	0.00
8575' MD / 8554' TVD Hardline Crossing									
8,574.6	31.30	179.58	8,554.4	-180.0	49.1	179.2	7.81	7.81	0.32
8,581.0	31.80	179.60	8,559.9	-183.4	49.1	182.5	7.81	7.81	0.29
8,613.0	34.50	179.50	8,586.6	-200.9	49.3	200.0	8.44	8.44	-0.31
8,645.0	37.30	179.10	8,612.6	-219.6	49.5	218.8	8.78	8.75	-1.25
8,677.0	39.80	179.60	8,637.6	-239.6	49.7	238.7	7.87	7.81	1.56
8,708.0	42.40	179.50	8,660.9	-259.9	49.9	259.1	8.39	8.39	-0.32
8,739.0	44.60	180.50	8,683.4	-281.3	49.9	280.4	7.44	7.10	3.23
8,770.0	47.80	182.10	8,704.9	-303.6	49.4	302.8	10.97	10.32	5.16
8,802.0	50.40	182.80	8,725.8	-327.8	48.3	327.0	8.29	8.13	2.19
8,834.0	53.50	182.30	8,745.6	-353.0	47.2	352.2	9.77	9.69	-1.56
8,866.0	56.40	182.30	8,763.9	-379.1	46.2	378.3	9.06	9.06	0.00
8,898.0	59.40	182.30	8,780.9	-406.2	45.1	405.4	9.38	9.38	0.00
8,930.0	62.10	182.30	8,796.6	-434.1	44.0	433.3	8.44	8.44	0.00
8,962.0	64.40	182.30	8,811.0	-462.7	42.8	461.9	7.19	7.19	0.00
8,994.0	66.00	182.60	8,824.4	-491.7	41.6	490.9	5.07	5.00	0.94
9,026.0	68.80	183.30	8,836.7	-521.2	40.0	520.5	8.98	8.75	2.19
9,058.0	71.30	183.50	8,847.6	-551.2	38.3	550.5	7.83	7.81	0.63
9,090.0	73.20	182.40	8,857.4	-581.6	36.7	581.0	6.78	5.94	-3.44
9,122.0	73.10	182.60	8,866.6	-612.2	35.4	611.6	0.67	-0.31	0.63
9,154.0	74.70	182.40	8,875.5	-643.0	34.0	642.3	5.04	5.00	-0.63
9,185.0	77.70	182.40	8,882.9	-673.0	32.8	672.4	9.68	9.68	0.00
9,218.0	81.10	181.90	8,889.0	-705.4	31.5	704.8	10.41	10.30	-1.52
9,249.0	82.90	182.10	8,893.3	-736.1	30.5	735.5	5.84	5.81	0.65
9,281.0	85.10	182.10	8,896.6	-767.9	29.3	767.3	6.88	6.88	0.00
9,375.0	88.20	181.80	8,902.1	-861.7	26.1	861.2	3.31	3.30	-0.32
9,438.0	87.50	181.20	8,904.5	-924.6	24.5	924.1	1.46	-1.11	-0.95
9,502.0	88.20	181.10	8,906.9	-988.6	23.2	988.1	1.10	1.09	-0.16
9,565.0	88.40	180.50	8,908.8	-1,051.5	22.3	1,051.0	1.00	0.32	-0.95
9,629.0	88.30	181.60	8,910.6	-1,115.5	21.1	1,115.0	1.73	-0.16	1.72
9,693.0	88.60	181.20	8,912.3	-1,179.5	19.6	1,179.0	0.78	0.47	-0.63
9,756.0	89.30	181.90	8,913.5	-1,242.4	17.9	1,242.0	1.57	1.11	1.11
9,820.0	87.30	181.20	8,915.4	-1,306.4	16.1	1,305.9	3.31	-3.13	-1.09
9,884.0	87.40	180.70	8,918.3	-1,370.3	15.1	1,369.9	0.80	0.16	-0.78
9,947.0	85.70	179.30	8,922.1	-1,433.2	15.1	1,432.7	3.49	-2.70	-2.22
10,010.0	88.00	179.80	8,925.6	-1,496.1	15.6	1,495.6	3.74	3.65	0.79
10,074.0	88.60	179.60	8,927.5	-1,560.0	15.9	1,559.6	0.99	0.94	-0.31

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Red Hills West 21 Federal Com #2H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3175.0usft (Patterson)
Site:	Sec 21, T26S, R32E	MD Reference:	WELL @ 3175.0usft (Patterson)
Well:	Red Hills West 21 Federal Com #2H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,138.0	90.50	179.80	8,928.0	-1,624.0	16.2	1,623.6	2.99	2.97	0.31
10,201.0	90.40	179.60	8,927.5	-1,687.0	16.6	1,686.5	0.35	-0.16	-0.32
10,265.0	90.80	179.60	8,926.8	-1,751.0	17.0	1,750.5	0.63	0.63	0.00
10,329.0	90.00	181.10	8,926.4	-1,815.0	16.6	1,814.5	2.66	-1.25	2.34
10,393.0	89.00	181.10	8,926.9	-1,879.0	15.4	1,878.5	1.56	-1.56	0.00
10,456.0	89.40	181.60	8,927.8	-1,942.0	13.9	1,941.5	1.02	0.63	0.79
10,520.0	89.50	181.20	8,928.4	-2,006.0	12.3	2,005.5	0.64	0.16	-0.63
10,583.0	89.30	181.40	8,929.1	-2,068.9	10.9	2,068.5	0.45	-0.32	0.32
10,647.0	88.90	181.20	8,930.1	-2,132.9	9.5	2,132.5	0.70	-0.63	-0.31
10,710.0	88.70	181.10	8,931.4	-2,195.9	8.2	2,195.5	0.35	-0.32	-0.16
10,774.0	88.50	180.70	8,933.0	-2,259.9	7.2	2,259.4	0.70	-0.31	-0.63
10,838.0	89.80	181.10	8,933.9	-2,323.8	6.2	2,323.4	2.13	2.03	0.63
10,901.0	90.00	181.10	8,934.0	-2,386.8	5.0	2,386.4	0.32	0.32	0.00
10,964.0	90.10	180.90	8,934.0	-2,449.8	3.9	2,449.4	0.35	0.16	-0.32
11,028.0	90.30	181.10	8,933.8	-2,513.8	2.8	2,513.4	0.44	0.31	0.31
11,092.0	89.70	180.90	8,933.8	-2,577.8	1.6	2,577.4	0.99	-0.94	-0.31
11,155.0	87.10	181.90	8,935.5	-2,640.8	0.1	2,640.4	4.42	-4.13	1.59
11,218.0	89.20	181.40	8,937.6	-2,703.7	-1.7	2,703.4	3.43	3.33	-0.79
11,282.0	87.80	180.90	8,939.2	-2,767.7	-3.0	2,767.3	2.32	-2.19	-0.78
11,346.0	90.40	182.10	8,940.2	-2,831.6	-4.7	2,831.3	4.47	4.06	1.88
11,409.0	90.70	181.40	8,939.6	-2,894.6	-6.6	2,894.3	1.21	0.48	-1.11
11,473.0	90.90	181.20	8,938.7	-2,958.6	-8.0	2,958.3	0.44	0.31	-0.31
11,537.0	90.60	181.10	8,937.9	-3,022.5	-9.3	3,022.3	0.49	-0.47	-0.16
11,600.0	90.60	181.20	8,937.2	-3,085.5	-10.6	3,085.3	0.16	0.00	0.16
11,663.0	89.40	180.90	8,937.2	-3,148.5	-11.7	3,148.3	1.96	-1.90	-0.48
11,727.0	88.70	180.90	8,938.3	-3,212.5	-12.7	3,212.3	1.09	-1.09	0.00
11,791.0	89.30	181.20	8,939.4	-3,276.5	-13.9	3,276.3	1.05	0.94	0.47
11,855.0	89.30	181.10	8,940.2	-3,340.5	-15.2	3,340.3	0.16	0.00	-0.16
11,919.0	89.60	182.10	8,940.8	-3,404.4	-17.0	3,404.3	1.63	0.47	1.56
11,982.0	89.40	181.40	8,941.4	-3,467.4	-18.9	3,467.2	1.16	-0.32	-1.11
12,046.0	89.90	181.20	8,941.8	-3,531.4	-20.4	3,531.2	0.84	0.78	-0.31
12,109.0	89.60	181.10	8,942.0	-3,594.4	-21.6	3,594.2	0.50	-0.48	-0.16
12,173.0	90.10	181.10	8,942.2	-3,658.4	-22.9	3,658.2	0.78	0.78	0.00
12,236.0	90.30	180.90	8,942.0	-3,721.3	-24.0	3,721.2	0.45	0.32	-0.32
12,300.0	89.20	181.40	8,942.3	-3,785.3	-25.2	3,785.2	1.89	-1.72	0.78
12,364.0	89.60	181.90	8,942.9	-3,849.3	-27.1	3,849.2	1.00	0.63	0.78
12,427.0	89.60	182.40	8,943.4	-3,912.3	-29.5	3,912.2	0.79	0.00	0.79
12,491.0	89.80	182.10	8,943.7	-3,976.2	-32.0	3,976.2	0.56	0.31	-0.47
12,554.0	89.90	181.40	8,943.9	-4,039.2	-33.9	4,039.2	1.12	0.16	-1.11
12,618.0	90.20	180.90	8,943.8	-4,103.2	-35.2	4,103.2	0.91	0.47	-0.78
12,681.0	90.80	180.70	8,943.3	-4,166.2	-36.1	4,166.2	1.00	0.95	-0.32
12,745.0	90.10	182.30	8,942.8	-4,230.1	-37.7	4,230.2	2.73	-1.09	2.50
12,808.0	88.60	182.80	8,943.5	-4,293.1	-40.5	4,293.1	2.51	-2.38	0.79

DDC Survey Report



Company: Mewbourne Oil Co
Project: Eddy County, New Mexico
Site: Sec 21, T26S, R32E
Well: Red Hills West 21 Federal Com #2H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Red Hills West 21 Federal Com #2H
TVD Reference: WELL @ 3175.0usft (Patterson)
MD Reference: WELL @ 3175.0usft (Patterson)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

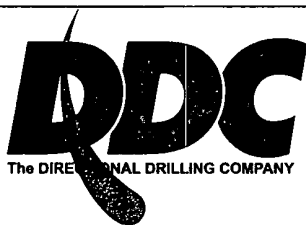
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,872.0	88.70	183.70	8,945.0	-4,356.9	-44.2	4,357.1	1.41	0.16	1.41
12,936.0	89.10	183.30	8,946.2	-4,420.8	-48.1	4,421.0	0.88	0.63	-0.63
12,999.0	88.80	183.30	8,947.4	-4,483.7	-51.7	4,483.9	0.48	-0.48	0.00
13,063.0	89.70	182.80	8,948.2	-4,547.6	-55.1	4,547.9	1.61	1.41	-0.78
13,127.0	89.00	183.20	8,948.9	-4,611.5	-58.4	4,611.8	1.26	-1.09	0.63
13,190.0	91.10	183.20	8,948.9	-4,674.4	-62.0	4,674.8	3.33	3.33	0.00
13,254.0	91.10	183.20	8,947.7	-4,738.3	-65.5	4,738.7	0.00	0.00	0.00
13,317.0	92.40	183.90	8,945.7	-4,801.1	-69.4	4,801.6	2.34	2.06	1.11
13367'MD / 8945'TVD Total Depth - PBHL-Red Hills West 21 Federal Com #2H									
13,367.0	89.27	183.90	8,945.0	-4,851.0	-72.8	4,851.5	6.26	-6.26	0.00

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,106.0	8,102.3	-91.4	53.7	8106'MD Tie into Gyro
8,198.0	8,194.3	-93.2	52.4	8198'MD: Begin MWD Survey
8,574.6	8,554.4	-180.0	49.1	8575'MD / 8554'TVD Hardline Crossing
13,367.0	8,945.0	-4,851.0	-72.8	13367'MD / 8945'TVD Total Depth

Checked By: _____ Approved By: _____ Date: _____

Red Hills West 21 Federal Com #2H
Eddy County, New Mexico
Q110606 & WT-12088

Mewbourne Oil Company



Magnetic North 7.20°

Magnetic Field
Strength: 48427 5nT
Dip Angle: 59.98°
Date: 2/6/2012
Model: IGRF2010

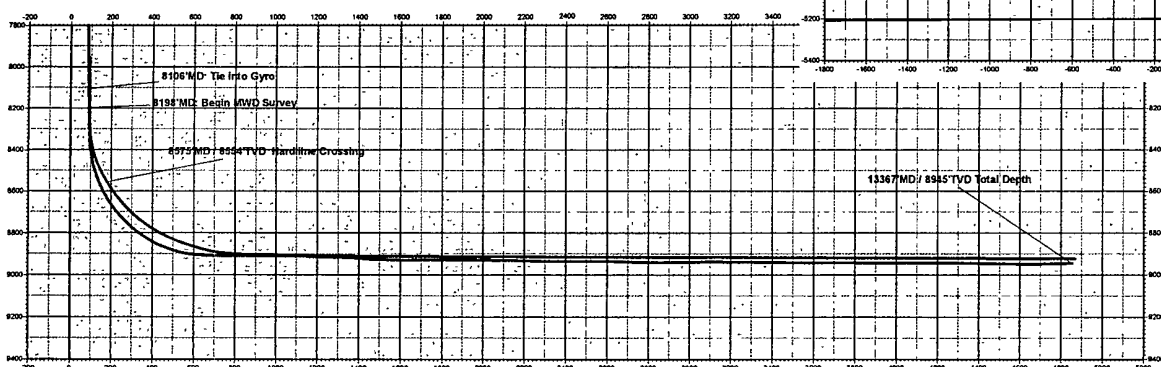
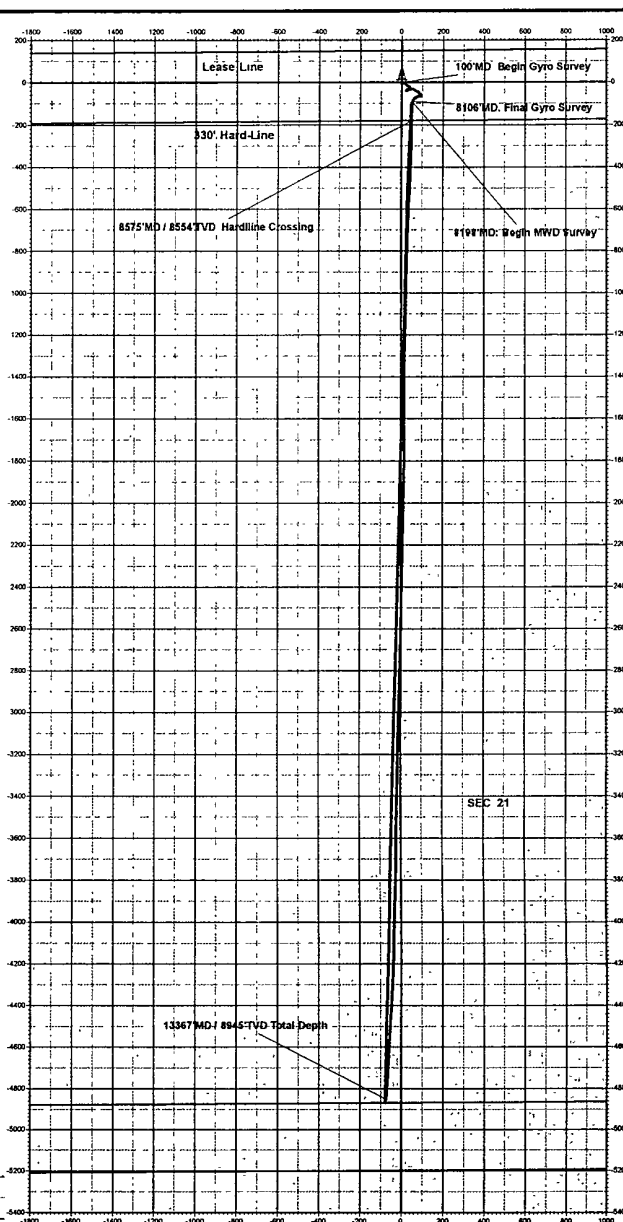
WELL DETAILS		Red Hills West 21 Federal Com #2H			
+N1-S	+E1-W	Ground Level,	3155 0		
0 0	0 0	Northing	Easting	Latitude	Longitude
		377078 35	702281.86	32° 2' 6 091 N	103° 40' 49 893 W

PROJECT DETAILS: Eddy County, New Mexico

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

DESIGN TARGET DETAILS							
Name:	FWD	MAGS	(A)W	Humping	Easing	Landing	Longueur
APRIS - Road to the West 21 Fwd at C-063820	-4999 1		79 1	172219 26	M02712 26	52° 1' 17 821 N 102° 40' 51 55 W	

ANNOTATIONS									
MID	Inc	Azi	TVD	Hu-8	+G-W	Vlled	Departure	Annotation	
126 0	0.26	87.79	100.0	0.0	0.0	0.0	0.3	100MD	Begin Oyn Survey
130 0	1.45	214.08	102.3	0.0	0.0	0.0	0.0	110MD	End Oyn Survey
130 0	0.45	214.08	102.3	0.0	0.0	0.0	0.0	110MD	Begin Oyn Survey
130 0	0.45	214.08	102.3	0.0	0.0	0.0	0.0	110MD	End Oyn Survey
130 0	1.30	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
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130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	End MTDV
130 0	0.87	215.50	119.43	-45.2	0.0	82.3	212	819MD	Begin MTDV



Vertical Section at 180 93° (200 usf/in)