

Mewbourne Oil Co

Eddy County, New Mexico

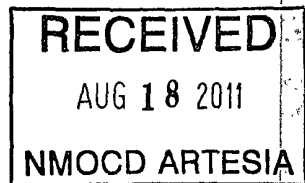
Sec 15/22-20S-25E

Limousine 15 ML #1H

30-015-38472

Wellbore #1

Survey: MWD



DDC Survey Report

18 July, 2011



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Limousine 15 ML #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3469 0usft (Patterson UTI #101)
Site:	Sec 15/22-20S-25E	MD Reference:	WELL @ 3469 0usft (Patterson UTI #101)
Well:	Limousine 15 ML #1H	North Reference:	Grd
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 15/22-20S-25E			
Site Position:		Northing:	569,416.72 usft	Latitude: 32° 33' 55.256 N
From:	Map	Easting:	454,985.22 usft	Longitude: 104° 28' 46.014 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence: -0.08 °

Well	Limousine 15 ML #1H			
Well Position	+N/-S	0.0 usft	Northing:	569,416.72 usft
	+E/-W	0.0 usft	Easting:	454,985.22 usft
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft
			Ground Level:	3,450.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	7/5/2011	8.02	60.34	48,713

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	359.61

Survey Program	Date: 7/18/2011				
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
200.0	1,967.0	GRYO (Wellbore #1)	Good_gyro	Good Gyro	
2,022.0	4,941.0	MWD (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)
Tie into Gyro									
1,967.0	0.41	273.55	1,966.9	4.9	-19.3	5.0	0.00	0.00	0.00
2,022.0	0.40	319.00	2,021.9	5.0	-19.6	5.2	0.57	-0.02	82.64
2,053.0	1.10	343.10	2,052.9	5.4	-19.8	5.5	2.43	2.26	77.74
2,085.0	3.50	356.60	2,084.8	6.7	-19.9	6.8	7.64	7.50	42.19
2,115.0	6.20	359.70	2,114.7	9.2	-20.0	9.3	9.04	9.00	10.33
2,147.0	9.50	1.00	2,146.4	13.6	-20.0	13.7	10.33	10.31	4.06
2,179.0	12.40	1.30	2,177.8	19.6	-19.8	19.8	9.06	9.06	0.94
2,210.0	15.00	3.00	2,208.0	27.0	-19.6	27.1	8.49	8.39	5.48
2,242.0	17.80	4.30	2,238.7	36.0	-19.0	36.1	8.82	8.75	4.06

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Site:	Sec 15/22-20S-25E	MD Reference:	WELL @ 3469.0usft (Patterson UTI #101)
Well:	Limousine 15 ML #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000 1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,273.0	20.90	5.20	2,267.9	46.2	-18.1	46.3	10.05	10.00	2.90
2,304.0	24.00	4.80	2,296.5	58.0	-17.1	58.1	10.01	10.00	-1.29
2,335.0	27.40	4.60	2,324.5	71.4	-16.0	71.5	10.97	10.97	-0.65
2,366.0	30.50	4.70	2,351.6	86.4	-14.8	86.5	10.00	10.00	0.32
2,398.0	33.70	4.70	2,378.7	103.3	-13.4	103.4	10.00	10.00	0.00
2,430.0	36.60	4.70	2,404.9	121.7	-11.9	121.7	9.06	9.06	0.00
2,461.0	39.60	4.10	2,429.3	140.7	-10.4	140.8	9.75	9.68	-1.94
2,492.0	42.30	3.30	2,452.7	161.0	-9.1	161.1	8.87	8.71	-2.58
2,524.0	45.30	3.30	2,475.8	183.1	-7.8	183.2	9.38	9.38	0.00
2,556.0	48.00	3.30	2,497.7	206.4	-6.5	206.4	8.44	8.44	0.00
2,587.0	51.20	3.30	2,517.8	229.9	-5.1	229.9	10.32	10.32	0.00
Crossed Hard Line @ 2606' MD									
2,606.2	53.18	3.17	2,529.6	245.1	-4.3	245.1	10.34	10.32	-0.66
2,618.0	54.40	3.10	2,536.6	254.6	-3.7	254.6	10.34	10.32	-0.63
2,650.0	57.90	2.70	2,554.4	281.1	-2.4	281.1	10.99	10.94	-1.25
2,681.0	61.10	2.30	2,570.1	307.8	-1.2	307.8	10.38	10.32	-1.29
2,713.0	64.60	1.60	2,584.7	336.2	-0.3	336.2	11.11	10.94	-2.19
2,744.0	67.80	1.30	2,597.2	364.6	0.4	364.6	10.36	10.32	-0.97
2,775.0	70.90	1.20	2,608.2	393.6	1.1	393.6	10.00	10.00	-0.32
2,807.0	74.40	1.30	2,617.7	424.1	1.7	424.1	10.94	10.94	0.31
2,838.0	77.80	1.10	2,625.1	454.2	2.4	454.2	10.99	10.97	-0.65
2,870.0	80.90	0.60	2,631.1	485.6	2.8	485.6	9.81	9.69	-1.56
2,901.0	83.40	0.20	2,635.3	516.3	3.0	516.3	8.17	8.06	-1.29
2,933.0	86.70	0.20	2,638.0	548.2	3.2	548.2	10.31	10.31	0.00
Crossed Hard Line @ 2960' MD									
2,960.0	88.84	0.43	2,639.1	575.2	3.3	575.2	7.96	7.92	0.83
3,005.0	92.40	0.80	2,638.6	620.2	3.8	620.1	7.96	7.92	0.83
3,065.0	91.70	0.50	2,636.5	680.1	4.5	680.1	1.27	-1.17	-0.50
3,122.0	91.30	0.60	2,635.0	737.1	5.0	737.1	0.72	-0.70	0.18
3,183.0	91.70	0.50	2,633.4	798.1	5.6	798.0	0.68	0.66	-0.16
3,245.0	91.90	0.10	2,631.4	860.1	5.9	860.0	0.72	0.32	-0.65
3,304.0	91.60	0.20	2,629.6	919.0	6.1	919.0	0.54	-0.51	0.17
3,365.0	92.30	359.80	2,627.6	980.0	6.1	979.9	1.32	1.15	-0.66
3,427.0	91.60	359.30	2,625.4	1,042.0	5.6	1,041.9	1.39	-1.13	-0.81
3,489.0	92.40	359.30	2,623.3	1,103.9	4.8	1,103.9	1.29	1.29	0.00
3,553.0	93.40	359.00	2,620.0	1,167.8	3.9	1,167.8	1.63	1.56	-0.47
3,615.0	92.60	358.80	2,616.8	1,229.7	2.7	1,229.7	1.33	-1.29	-0.32
3,679.0	92.30	359.00	2,614.1	1,293.7	1.5	1,293.6	0.56	-0.47	0.31
3,742.0	92.70	358.70	2,611.3	1,356.6	0.2	1,356.6	0.79	0.63	-0.48
3,806.0	92.80	359.00	2,608.2	1,420.5	-1.1	1,420.5	0.49	0.16	0.47
3,869.0	92.20	359.40	2,605.5	1,483.4	-2.0	1,483.4	1.14	-0.95	0.63
3,933.0	92.20	358.20	2,603.0	1,547.4	-3.3	1,547.4	1.87	0.00	-1.88
3,996.0	92.60	357.90	2,600.4	1,610.3	-5.4	1,610.3	0.79	0.63	-0.48

DDC
Survey Report



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Site:	Sec 15/22-20S-25E	MD Reference:	WELL @ 3469.0usft (Patterson UTI #101)
Well:	Limousine 15 ML #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
4,059.0	92.20	357.50	2,597.8	1,673.2	-8.0	1,673.2	0.90	-0.63	-0.63
4,123.0	92.10	358.10	2,595.4	1,737.1	-10.4	1,737.1	0.95	-0.16	0.94
4,187.0	93.10	358.70	2,592.5	1,801.0	-12.2	1,801.0	1.82	1.56	0.94
4,250.0	92.70	359.20	2,589.3	1,863.9	-13.4	1,864.0	1.02	-0.63	0.79
4,314.0	91.70	358.40	2,586.8	1,927.8	-14.7	1,927.9	2.00	-1.56	-1.25
4,377.0	93.10	359.70	2,584.2	1,990.8	-15.7	1,990.8	3.03	2.22	2.06
4,441.0	93.50	0.40	2,580.5	2,054.7	-15.7	2,054.7	1.26	0.63	1.09
4,505.0	92.70	0.20	2,577.0	2,118.6	-15.3	2,118.6	1.29	-1.25	-0.31
4,568.0	92.20	0.30	2,574.3	2,181.5	-15.1	2,181.6	0.81	-0.79	0.16
4,632.0	91.90	0.00	2,572.0	2,245.5	-14.9	2,245.5	0.66	-0.47	-0.47
4,696.0	91.50	0.20	2,570.1	2,309.4	-14.8	2,309.5	0.70	-0.63	0.31
4,760.0	91.20	359.80	2,568.6	2,373.4	-14.8	2,373.5	0.78	-0.47	-0.63
4,822.0	91.60	359.70	2,567.1	2,435.4	-15.1	2,435.5	0.67	0.65	-0.16
4,886.0	91.30	359.30	2,565.5	2,499.4	-15.6	2,499.4	0.78	-0.47	-0.63
TD									
4,941.0	91.10	359.30	2,564.4	2,554.4	-16.3	2,554.4	0.36	-0.36	0.00

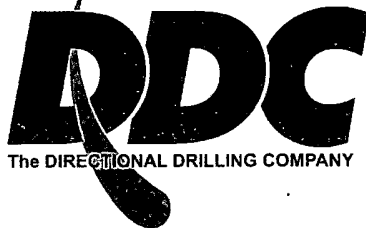
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		
		+N/-S (usft)	+E/-W (usft)	Comment
1,967.0	1,966.9	4.9	-19.3	Tie into Gyro
2,606.2	2,529.6	245.1	-4.3	Crossed Hard Line @ 2606' MD
2,960.0	2,639.1	575.2	3.3	Crossed Hard Line @ 2960' MD
4,941.0	2,564.4	2,554.4	-16.3	TD

Checked By: _____ Approved By: _____ Date: _____

Company Name: Mewbourne Oil Co
 Limousine 15 ML #1H
 Eddy County, New Mexico
 Rig Patterson UTI #101
 Created By Shane Robbins
 Date: 7/18/2011

Mewbourne Oil Company

Limousine 15 ML #1H
 Eddy County, New Mexico
Q110080 & WT-11386



Azimuths to Grid North

Magnetic North: 8.10°

Magnetic Field

Strength: 48713.2snT

Dip Angle: 60.34°

Date: 7/5/2011

Model: IGRF2010

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

WELL DETAILS Limousine 15 ML #1H

		Ground Level		3450 0	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	569416.72	454985.22	32° 33' 55.256 N	104° 28' 46.014 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1967.0	0.41	273.55	1966.9	4.9	-19.3	5.0	20.2	Tie Into Gyro
2606.2	53.18	3.17	2529.6	245.1	-4.3	245.1	261.4	Crossed Hard Line @ 2606' MD
2960.0	88.84	0.43	2639.1	575.2	3.3	575.2	591.6	Crossed Hard Line @ 2960' MD
4941.0	91.10	359.30	2564.4	2554.4	-16.3	2554.4	2571.0	TD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL Limousine 15 ML #1H - plan hits target center	2563.0	2555.4	-17.3	571972.10	454967.90	32° 34' 20.543 N	104° 28' 46.257 W

