

Mewbourne Oil Co

Eddy County, New Mexico

Sec 22-20S-25E

Quick Draw 22 DE #1H

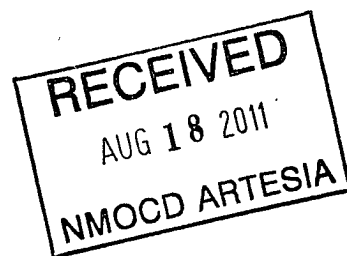
Wellbore #1

Survey: MWD Survey

DDC Survey Report

05 July, 2011

30-015-38474



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well Quick Draw 22 DE #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3470.0usft (Patterson UTI #101)
Site:	Sec 22-20S-25E	MD Reference:	WELL @ 3470.0usft (Patterson UTI #101)
Well:	Quick Draw 22 DE #1H	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 22-20S-25E		
Site Position:		Northing:	569,466.97 usft
From:	Map	Easting:	455,035.44 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 33' 55.754 N
		Longitude:	104° 28' 45.428 W
		Grid Convergence:	-0.08 °

Well	Quick Draw 22 DE #1H		
Well Position	+N/-S	0.0 usft	Northing: 569,466.97 usft
	+E/-W	0.0 usft	Easting: 455,035.44 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 33' 55.754 N
		Longitude:	104° 28' 45.428 W
		Ground Level:	3,451.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/4/2011	8.07	60.35	48,754

Design	Wellbore #1				
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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	179.99

Survey Program	Date 7/5/2011			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.0	1,858.0	Gyro (Wellbore #1)	Good_gyro	Good Gyro
1,927.0	4,505.0	MWD Survey (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										
	1,858.0	0.43	285.04	1,858.0	1.2	-10.1	-1.2	0.00	0.00	0.00
	1,927.0	0.20	314.80	1,927.0	1.4	-10.5	-1.4	0.40	-0.33	43.13
	1,989.0	0.10	324.40	1,989.0	1.5	-10.6	-1.5	0.17	-0.16	15.48
	2,020.0	0.30	359.30	2,019.9	1.6	-10.6	-1.6	0.73	0.65	112.58
	2,051.0	0.30	337.80	2,050.9	1.8	-10.6	-1.8	0.36	0.00	-69.35
	2,082.0	1.50	176.00	2,081.9	1.4	-10.6	-1.4	5.77	3.87	-521.94
	2,113.0	4.50	174.60	2,112.9	-0.2	-10.5	0.2	9.68	9.68	-4.52
	2,145.0	7.60	176.00	2,144.7	-3.5	-10.2	3.5	9.70	9.69	4.38
	2,177.0	11.10	178.00	2,176.3	-8.7	-10.0	8.7	10.98	10.94	6.25

DDC
Survey Report



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Site:	Sec 22-20S-25E	MD Reference:	WELL @ 3470.0usft (Patterson UTI #101)
Well:	Quick Draw 22 DE #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)	
2,208.0	14.60	178.90	2,206.5	-15.6	-9.8	15.6	11.31	11.29	2.90	
2,240.0	18.10	179.60	2,237.2	-24.6	-9.7	24.6	10.95	10.94	2.19	
2,271.0	21.30	180.90	2,266.4	-35.1	-9.7	35.1	10.42	10.32	4.19	
2,302.0	24.40	180.70	2,295.0	-47.1	-9.9	47.1	10.00	10.00	-0.65	
2,334.0	27.40	180.00	2,323.7	-61.1	-10.0	61.1	9.42	9.38	-2.19	
2,366.0	30.50	180.10	2,351.7	-76.6	-10.0	76.6	9.69	9.69	0.31	
2,397.0	33.90	179.80	2,378.0	-93.1	-10.0	93.1	10.98	10.97	-0.97	
2,428.0	37.90	179.20	2,403.1	-111.3	-9.8	111.3	12.95	12.90	-1.94	
2,460.0	41.70	178.80	2,427.6	-131.7	-9.5	131.7	11.90	11.88	-1.25	
Crossed Hard Line @ 2465' MD										
2,465.0	42.09	178.75	2,431.4	-135.1	-9.4	135.1	7.77	7.74	-1.01	
2,491.0	44.10	178.50	2,450.4	-152.8	-9.0	152.8	7.77	7.74	-0.96	
2,523.0	46.30	179.10	2,472.9	-175.5	-8.5	175.5	7.00	6.88	1.88	
2,554.0	48.80	180.20	2,493.8	-198.4	-8.4	198.4	8.48	8.06	3.55	
2,586.0	51.80	180.30	2,514.3	-223.0	-8.5	223.0	9.38	9.38	0.31	
2,617.0	54.60	180.00	2,532.8	-247.8	-8.5	247.8	9.07	9.03	-0.97	
2,649.0	57.90	180.30	2,550.6	-274.4	-8.6	274.4	10.34	10.31	0.94	
2,681.0	61.20	180.30	2,566.8	-302.0	-8.7	302.0	10.31	10.31	0.00	
2,712.0	64.60	179.80	2,580.9	-329.6	-8.8	329.6	11.06	10.97	-1.61	
2,744.0	68.10	179.60	2,593.8	-358.9	-8.6	358.9	10.95	10.94	-0.63	
2,775.0	71.80	179.60	2,604.4	-388.0	-8.4	388.0	11.94	11.94	0.00	
2,807.0	75.50	179.60	2,613.4	-418.7	-8.2	418.7	11.56	11.56	0.00	
2,839.0	78.60	179.10	2,620.6	-449.9	-7.8	449.9	9.81	9.69	-1.56	
2,870.0	81.50	179.70	2,625.9	-480.5	-7.5	480.5	9.55	9.35	1.94	
2,889.0	82.90	179.10	2,628.5	-499.3	-7.3	499.3	8.01	7.37	-3.16	
2,989.0	87.20	179.00	2,637.1	-598.9	-5.7	598.9	4.30	4.30	-0.10	
3,020.0	88.80	180.00	2,638.2	-629.8	-5.4	629.8	6.09	5.16	3.23	
3,051.0	89.30	180.00	2,638.7	-660.8	-5.4	660.8	1.61	1.61	0.00	
3,110.0	90.50	181.30	2,638.8	-719.8	-6.1	719.8	3.00	2.03	2.20	
3,173.0	90.30	178.90	2,638.4	-782.8	-6.2	782.8	3.82	-0.32	-3.81	
3,237.0	89.70	178.20	2,638.4	-846.8	-4.6	846.8	1.44	-0.94	-1.09	
3,301.0	89.10	180.80	2,639.1	-910.8	-4.0	910.8	4.17	-0.94	4.06	
3,365.0	89.50	179.10	2,639.9	-974.8	-3.9	974.8	2.73	0.63	-2.66	
3,428.0	88.60	179.10	2,640.9	-1,037.8	-3.0	1,037.8	1.43	-1.43	0.00	
3,491.0	89.40	179.10	2,642.0	-1,100.8	-2.0	1,100.8	1.27	1.27	0.00	
3,555.0	90.20	179.50	2,642.2	-1,164.7	-1.2	1,164.7	1.40	1.25	0.63	
3,619.0	90.00	178.80	2,642.1	-1,228.7	-0.2	1,228.7	1.14	-0.31	-1.09	
3,682.0	90.00	180.40	2,642.1	-1,291.7	0.2	1,291.7	2.54	0.00	2.54	
3,746.0	89.50	179.10	2,642.4	-1,355.7	0.5	1,355.7	2.18	-0.78	-2.03	
3,810.0	90.40	179.40	2,642.4	-1,419.7	1.3	1,419.7	1.48	1.41	0.47	
3,874.0	89.80	179.10	2,642.3	-1,483.7	2.2	1,483.7	1.05	-0.94	-0.47	
3,937.0	89.80	180.60	2,642.6	-1,546.7	2.3	1,546.7	2.38	0.00	2.38	
4,001.0	90.60	180.20	2,642.3	-1,610.7	1.9	1,610.7	1.40	1.25	-0.63	

DDC
Survey Report



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Site:	Sec 22-20S-25E	MD Reference:	WELL @ 3470.0usft (Patterson UTI #101)
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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)
4,064.0	90.20	178.50	2,641.9	-1,673.7	2.6	1,673.7	2.77	-0.63	-2.70
4,128.0	90.00	180.20	2,641.8	-1,737.7	3.3	1,737.7	2.67	-0.31	2.66
4,192.0	89.60	181.10	2,642.0	-1,801.7	2.6	1,801.7	1.54	-0.63	1.41
4,256.0	88.80	181.00	2,642.9	-1,865.7	1.4	1,865.7	1.26	-1.25	-0.16
4,320.0	89.80	181.00	2,643.7	-1,929.7	0.3	1,929.7	1.56	1.56	0.00
4,383.0	89.50	181.00	2,644.1	-1,992.7	-0.8	1,992.7	0.48	-0.48	0.00
4,446.0	88.80	182.30	2,645.0	-2,055.6	-2.6	2,055.6	2.34	-1.11	2.06
4,457.0	88.50	181.10	2,645.3	-2,066.6	-2.9	2,066.6	11.24	-2.73	-10.91
Projection to Bit									
4,505.0	88.50	181.10	2,646.5	-2,114.6	-3.9	2,114.6	0.00	0.00	0.00

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,858.0	1,858.0	1.2	-10.1	Tie into Gyro
2,465.0	2,431.4	-135.1	-9.4	Crossed Hard Line @ 2465' MD
4,505.0	2,646.5	-2,114.6	-3.9	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____

Company Name Mewbourne Oil Co
Quick Draw 22 DE #1H
Eddy County, New Mexico
Rig Patterson UTI #101
Created By Shane Robbins
Date 7/5/2011

Quick Draw 22 DE #1H
Eddy County, New Mexico
Q110078 & WT-11360

Mewbourne Oil Company



Azimuths to Grid North

Correction. 8 15°

Magnetic Field

Strength: 48754.3snT

Dip Angle 60 35°

Date 2/4/2011

Model: IGRF2010

WELL DETAILS Quick Draw 22 DE #1H

		Ground Level		3451 0	
+N/-S	+E/-W	North	East	Latitude	Longitude
0 0	0 0	509466 97	455035 44	32° 33' 56 754 N	104° 28' 45.428 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	TVD	+N/-S	+E/-W	North	East	Latitude	Longitude
PBHL Quick Draw 22 DE #1H TC #1 -plan hits target center	2647 0	-2115 0	0 3	567351 96	455035 69	32° 33' 34 824 N	104° 28' 45 391 W

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V-Sect	Departure	Annotation
1958 0	0 43	285 04	1858 0	1 2	-10 1	-1 2	12 0	Tie into Gyro
2465 0	42 09	179 75	2431 4	-135 1	-9 4	135 1	148 9	Crossed Hard Line @ 2465' MD
4509 0	86 50	181 10	2646 5	-2114 5	-3 9	2114 5	2129 5	Projection to Bit

