

MEWBOURNE OIL

Dog Canyon

Eddy County, NM

Crow Flats "28" Federal #3H

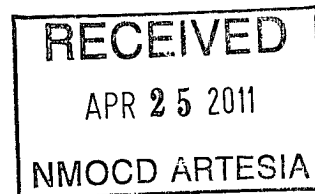
VH - Job #32K1210984

30-015-38269

Survey: Actual

SDI Standard Survey Report

21 December, 2010



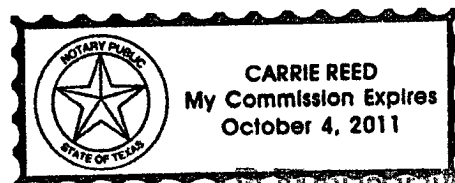
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notorized this date 31st of December, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



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JAN 10 2011

BY:

Scientific Drilling International, Inc.

SDI Standard Survey Report

Company:	MEWBOURNE OIL	Local Co-ordinate Reference:	Well Crow Flats "28" Federal #3H
Project:	Dog Canyon	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Crow Flats "28" Federal #3H	North Reference:	Grid
Wellbore:	VH - Job #32K1210984	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K1210984	Database:	EDM-Regulatory

Project	Dog Canyon		
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	Eddy County, NM		
Site Position:		Northing:	688,039.35 usft
From:	Lat/Long	Easting:	549,951.52 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	32° 53' 29.020 N
		Longitude:	104° 10' 14.170 W
		Grid Convergence:	0.09 °

Well	Crow Flats "28" Federal #3H, Directional (Baker)		
Well Position	+N/-S	0.0 usft	Northing: 688,039.35 usft
	+E/-W	0.0 usft	Easting: 549,951.52 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 53' 29.020 N
		Longitude:	104° 10' 14.170 W
		Ground Level:	0.0 usft

Wellbore	VH - Job #32K1210984		
Magnetics	Model Name	Sample Date	Declination
	BGGM2010	12/14/2010	(°)
			8.04
			Dip Angle
			(°)
			60.72
			Field Strength
			(nT)
			49,060

Design	VH - Job #32K1210984		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			271.28

Survey Program	Date 12/21/2010		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	5,884.0	Actual (VH - Job #32K1210984)	Keeper
			Description
			Keeper Gyro

Survey			
Measured Depth	Inclination	Azimuth	True Vertical
(usft)	(°)	(°)	Depth
0.0	0.00	0.00	0.0
100.0	0.21	311.29	100.0
200.0	0.13	77.29	200.0
300.0	0.29	348.74	300.0
400.0	0.21	174.99	400.0
500.0	0.18	157.87	500.0
600.0	0.19	149.05	600.0
700.0	0.18	141.93	700.0
800.0	0.11	119.83	800.0
900.0	0.14	122.23	900.0
1,000.0	0.16	84.85	1,000.0
1,100.0	0.13	68.88	1,100.0
			North/South
			(usft)
			0.0
			0.1
			0.3
			0.5
			0.6
			0.3
			0.0
			-0.3
			0.4
			-0.6
			0.9
			-0.6
			East/West
			(usft)
			0.0
			-0.1
			-0.2
			-0.1
			-0.1
			0.1
			0.3
			0.4
			0.6
			0.6
			1.1
			1.1
			Closure Azimuth
			(°)
			0.00
			311.29
			328.31
			349.15
			347.26
			347.46
			97.00
			136.18
			135.16
			131.58
			125.04
			116.57
			Closure Distance
			(usft)
			0.0
			0.2
			0.3
			0.5
			0.6
			0.3
			0.1
			0.4
			0.6
			0.8
			1.1
			1.3

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Well:	Crow Flats "28" Federal #3H	North Reference:	Grid
Wellbore:	VH - Job #32K1210984	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K1210984	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
1,200.0	0.15	46.18	1,200.0	-0.4	1.3	107.98	1.4	
1,300.0	0.21	12.93	1,300.0	-0.2	1.5	96.23	1.5	
1,400.0	0.23	340.23	1,400.0	0.2	1.4	81.68	1.4	
1,500.0	0.33	342.68	1,500.0	0.7	1.3	62.17	1.4	
1,600.0	0.34	354.11	1,600.0	1.2	1.2	42.98	1.7	
1,700.0	0.41	331.22	1,700.0	1.9	1.0	27.29	2.1	
1,800.0	0.52	341.49	1,800.0	2.6	0.6	13.83	2.7	
1,900.0	0.49	339.66	1,900.0	3.4	0.3	5.77	3.4	
2,000.0	0.68	319.97	2,000.0	4.3	-0.2	357.54	4.3	
2,100.0	0.86	302.59	2,100.0	5.1	-1.2	346.88	5.3	
2,200.0	0.76	304.48	2,200.0	5.9	-2.4	338.12	6.4	
2,300.0	0.57	288.33	2,300.0	6.5	-3.4	332.24	7.3	
2,400.0	0.48	306.06	2,399.9	6.9	-4.2	328.46	8.0	
2,500.0	0.28	333.76	2,499.9	7.3	-4.7	327.56	8.7	
2,600.0	0.24	319.14	2,599.9	7.7	-4.9	327.53	9.1	
2,700.0	0.22	307.70	2,699.9	8.0	-5.2	326.95	9.5	
2,800.0	0.14	4.14	2,799.9	8.2	-5.3	327.02	9.8	
2,900.0	0.07	85.09	2,899.9	8.3	-5.3	327.76	9.9	
3,000.0	0.12	151.75	2,999.9	8.3	-5.2	328.03	9.7	
3,100.0	0.19	154.15	3,099.9	8.0	-5.0	327.89	9.5	
3,200.0	0.27	162.85	3,199.9	7.6	-4.9	327.39	9.1	
3,300.0	0.36	138.72	3,299.9	7.2	-4.6	327.28	8.5	
3,400.0	0.60	149.20	3,399.9	6.5	-4.1	327.50	7.7	
3,500.0	0.58	163.33	3,499.9	5.6	-3.7	326.19	6.7	
3,600.0	0.37	169.64	3,599.9	4.8	-3.5	323.49	5.9	
3,700.0	0.30	173.15	3,699.9	4.2	-3.4	320.61	5.4	
3,800.0	0.28	155.11	3,799.9	3.7	-3.3	318.27	4.9	
3,900.0	0.23	152.69	3,899.9	3.3	-3.1	316.74	4.5	
4,000.0	0.20	207.39	3,999.9	3.0	-3.1	313.80	4.3	
4,100.0	0.13	241.91	4,099.9	2.8	-3.3	310.10	4.3	
4,200.0	0.14	244.60	4,199.9	2.6	-3.5	307.26	4.4	
4,300.0	0.21	264.00	4,299.9	2.6	-3.8	304.33	4.6	
4,400.0	0.14	254.36	4,399.9	2.5	-4.1	301.79	4.8	
4,500.0	0.27	252.95	4,499.9	2.4	-4.4	298.74	5.0	
4,600.0	0.14	231.57	4,599.9	2.3	-4.7	295.67	5.3	
4,700.0	0.32	228.40	4,699.9	2.0	-5.0	291.79	5.4	
4,800.0	0.35	247.02	4,799.9	1.7	-5.5	287.18	5.8	
4,900.0	0.43	246.62	4,899.9	1.4	-6.2	283.18	6.3	
5,000.0	0.44	231.10	4,999.9	1.1	-6.8	278.79	6.9	
5,100.0	0.49	230.71	5,099.9	0.5	-7.4	274.16	7.4	
5,200.0	0.36	237.41	5,199.9	0.1	-8.0	270.71	8.0	
5,300.0	0.14	221.99	5,299.9	-0.2	-8.4	268.90	8.4	
5,400.0	0.65	119.68	5,399.9	-0.5	-8.0	266.18	8.0	
5,500.0	0.81	111.43	5,499.9	-1.1	-6.8	261.06	6.9	

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Wellbore:	VH - Job #32K1210984	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K1210984	Database:	EDM-Regulatory

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
5,600.0	1.11	115.14	5,599.9	-1.7	-5.3	251.73	5.6	
5,700.0	1.21	105.23	5,699.9	-2.4	-3.4	234.28	4.2	
5,800.0	1.55	100.81	5,799.8	-3.0	-1.0	199.20	3.1	
5,884.0	1.50	101.50	5,883.8	-3.4	1.2	161.09	3.6	



Scientific Drilling
Directional Drilling Operations

Project: Dog Canyon
Eddy County, NM
Well: Crow Flats "28" Federal #3H
Wellbore: VH - Job #32K1210984
Design: VH - Job #32K1210984



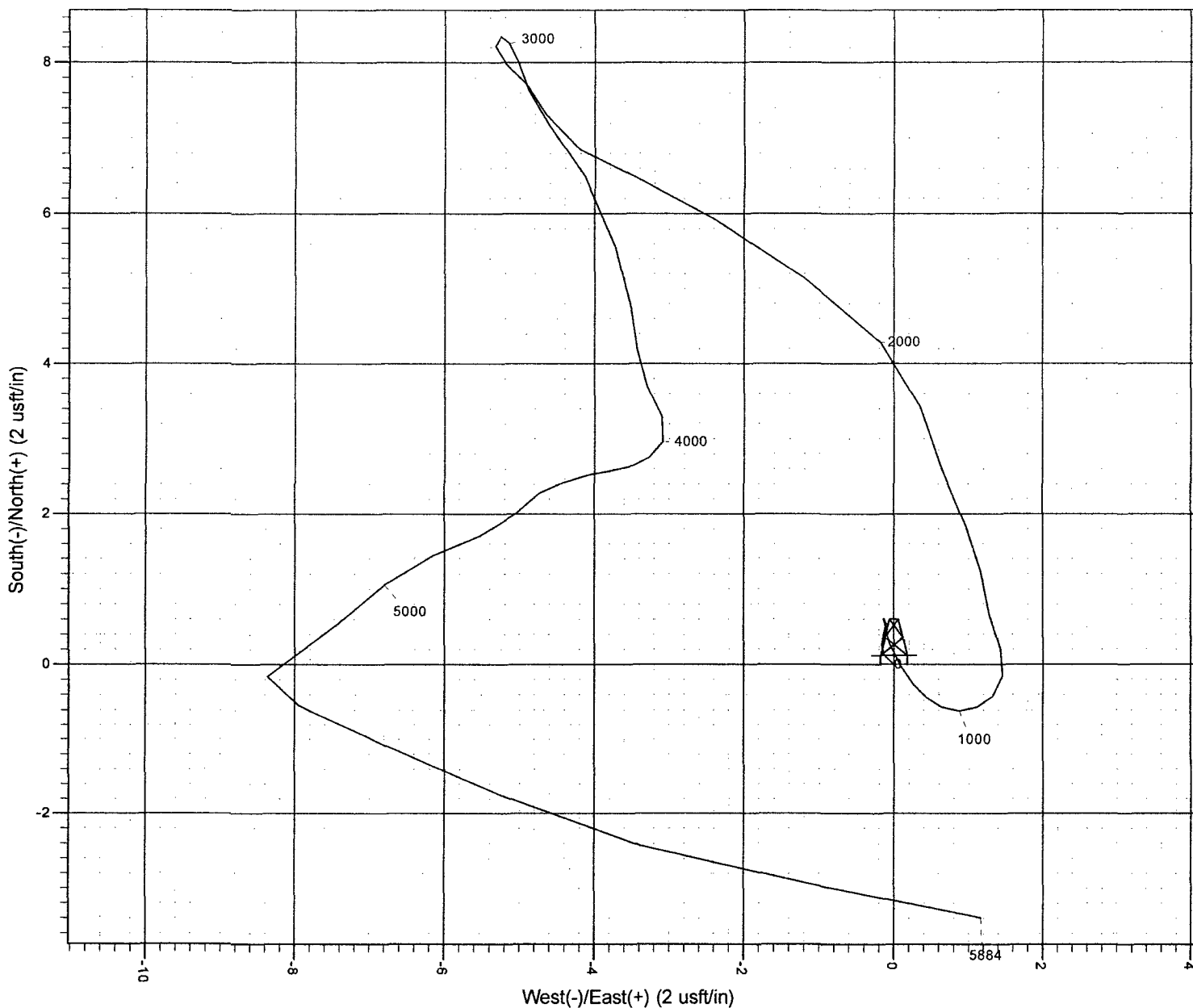
Azimuths to Grid North
True North: -0.09°
Magnetic North: 7.95°

Magnetic Field
Strength: 49060.0snT
Dip Angle: 60.72°
Date: 12/14/2010
Model: BGGM2010

WELL DETAILS: Crow Flats "28" Federal #3H
WELL @ 0.0usft (Original Well Elev)

Ground Level: 0.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	688039.35	549951.52	32° 53' 29.020 N	104° 10' 14.170 W	



PROJECT DETAILS: Dog Canyon
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

SITE DETAILS: Eddy County, NM
Site Centre Latitude: 32° 53' 29.020 N
Longitude: 104° 10' 14.170 W
Positional Uncertainty: 0.0
Convergence: 0.09
Local North: Grid