



30-015-37497

Marbob Energy Corporation

Eddy, NM

Sec. 31, T25S, R28E

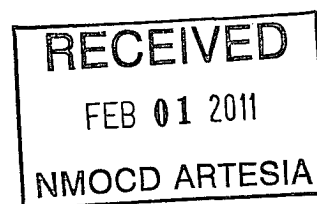
Myox 31 State #13H

Wellbore #1

Survey: MWD Surveys

DDC Survey Report

10 September, 2010





DDC Survey Report



Company: Marbob Energy Corporation
Project: Eddy,NM
Site: Sec. 31, T25S, R28E
Well: Myox 31 State #13H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Myox 31 State #13H
TVD Reference: WELL @ 3020.0usft (Original Well Elev)
MD Reference: WELL @ 3020.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project	Eddy,NM		
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. 31, T25S, R28E		
Site Position:		Northing:	393,116.70 usft
From:	Map	Easting:	566,517.60 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 4' 50.201 N
		Longitude:	104° 7' 6.848 W
		Grid Convergence:	0.11 °

Well	Myox 31 State #13H		
Well Position	+N/-S	0.0 usft	Northing: 393,116.70 usft
	+E/-W	0.0 usft	Easting: 566,517.60 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 4' 50.201 N
		Longitude:	104° 7' 6.848 W
		Ground Level:	3,020.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	8/25/2010	(°)
			7.92
		Dip Angle	(°)
		59.98	
		Field Strength	(nT)
		48,551	

Design	Wellbore #1		
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	(°)
		269.91	

Survey Program	Date 9/10/2010		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.0	5,959.0	Scientific - Gyro Surveys (Wellbore #1)	Good_gyro
6,042.0	11,052.0	MWD Surveys (Wellbore #1)	MWD default
			Description
			Good Gyro
			MWD - Standard

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
Tie-In to Gyro									
5,959.0	0.89	199.85	5,958.2	-2.0	35.3	-35.3	0.00	0.00	0.00
6,042.0	2.50	247.00	6,041.1	-3.3	33.4	-33.4	2.41	1.94	56.81
6,074.0	7.60	261.60	6,073.0	-3.9	30.6	-30.6	16.31	15.94	45.63
6,106.0	12.80	279.70	6,104.5	-3.6	25.1	-25.1	18.90	16.25	56.56
6,138.0	16.00	273.90	6,135.5	-2.7	17.2	-17.2	10.96	10.00	-18.13
6,169.0	19.60	269.20	6,165.0	-2.5	7.7	-7.7	12.49	11.61	-15.16
Cross Hard-Line @ 6191' MD									
6,190.6	21.97	267.89	6,185.2	-2.7	0.0	0.0	11.17	10.96	-6.07



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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)
6,200.0	23.00	267.40	6,193.9	-2.8	-3.6	3.6	11.17	10.99	-5.21
6,232.0	25.40	265.00	6,223.1	-3.7	-16.6	16.6	8.10	7.50	-7.50
6,263.0	27.80	265.60	6,250.8	-4.8	-30.5	30.5	7.79	7.74	1.94
6,295.0	30.40	266.70	6,278.7	-5.9	-46.0	46.0	8.29	8.13	3.44
6,327.0	33.70	269.20	6,305.8	-6.4	-63.0	63.0	11.11	10.31	7.81
6,360.0	36.50	271.50	6,332.8	-6.3	-81.9	81.9	9.38	8.48	6.97
6,392.0	38.80	272.40	6,358.2	-5.6	-101.5	101.5	7.39	7.19	2.81
6,423.0	40.50	273.30	6,382.0	-4.7	-121.2	121.2	5.79	5.48	2.90
6,455.0	43.30	273.50	6,405.9	-3.4	-142.6	142.6	8.76	8.75	0.63
6,487.0	46.80	272.50	6,428.5	-2.2	-165.2	165.2	11.16	10.94	-3.13
6,519.0	49.50	271.00	6,449.8	-1.5	-189.0	189.0	9.13	8.44	-4.69
6,551.0	51.60	268.40	6,470.2	-1.6	-213.7	213.7	9.08	6.56	-8.13
6,582.0	53.80	267.90	6,488.9	-2.4	-238.3	238.3	7.21	7.10	-1.61
6,614.0	55.40	268.40	6,507.5	-3.3	-264.4	264.4	5.16	5.00	1.56
6,646.0	57.10	268.90	6,525.3	-3.9	-291.0	291.0	5.47	5.31	1.56
6,678.0	61.40	269.00	6,541.6	-4.4	-318.5	318.5	13.44	13.44	0.31
6,710.0	65.80	269.20	6,555.8	-4.8	-347.2	347.2	13.76	13.75	0.63
6,741.0	68.00	270.50	6,568.0	-4.9	-375.7	375.7	8.08	7.10	4.19
6,773.0	70.30	271.60	6,579.4	-4.4	-405.6	405.6	7.87	7.19	3.44
6,805.0	73.50	272.10	6,589.3	-3.4	-436.0	436.0	10.11	10.00	1.56
6,837.0	76.70	271.60	6,597.6	-2.4	-466.9	466.9	10.11	10.00	-1.56
6,868.0	80.20	270.60	6,603.8	-1.8	-497.2	497.2	11.72	11.29	-3.23
6,900.0	84.40	270.10	6,608.0	-1.6	-528.9	528.9	13.22	13.13	-1.56
6,932.0	88.70	269.80	6,610.0	-1.6	-560.9	560.9	13.47	13.44	-0.94
6,964.0	90.90	270.50	6,610.1	-1.6	-592.9	592.9	7.21	6.88	2.19
6,995.0	91.00	270.30	6,609.6	-1.3	-623.9	623.9	0.72	0.32	-0.65
7,068.0	90.90	269.00	6,608.4	-1.8	-696.8	696.8	1.79	-0.14	-1.78
7,099.0	91.30	269.30	6,607.8	-2.2	-727.8	727.8	1.61	1.29	0.97
7,131.0	88.90	269.90	6,607.7	-2.5	-759.8	759.8	7.73	-7.50	1.88
7,195.0	87.70	269.20	6,609.6	-3.0	-823.8	823.8	2.17	-1.88	-1.09
7,257.0	89.70	269.50	6,611.0	-3.7	-885.8	885.8	3.26	3.23	0.48
7,321.0	89.80	269.90	6,611.3	-4.0	-949.8	949.8	0.64	0.16	0.63
7,416.0	89.70	269.00	6,611.7	-4.9	-1,044.8	1,044.8	0.95	-0.11	-0.95
7,511.0	89.10	269.40	6,612.7	-6.3	-1,139.7	1,139.8	0.76	-0.63	0.42
7,606.0	90.70	269.80	6,612.9	-6.9	-1,234.7	1,234.8	1.74	1.68	0.42
7,702.0	90.60	270.50	6,611.8	-6.7	-1,330.7	1,330.7	0.74	-0.10	0.73
7,797.0	91.60	270.60	6,610.0	-5.8	-1,425.7	1,425.7	1.06	1.05	0.11
7,861.0	91.20	269.90	6,608.4	-5.5	-1,489.7	1,489.7	1.26	-0.63	-1.09
7,924.0	90.40	269.20	6,607.5	-6.0	-1,552.7	1,552.7	1.69	-1.27	-1.11
7,988.0	90.60	269.20	6,607.0	-6.9	-1,616.7	1,616.7	0.31	0.31	0.00
8,051.0	89.80	269.70	6,606.7	-7.5	-1,679.7	1,679.7	1.50	-1.27	0.79
8,146.0	89.70	269.50	6,607.1	-8.1	-1,774.7	1,774.7	0.24	-0.11	-0.21
8,242.0	89.40	269.10	6,607.9	-9.3	-1,870.7	1,870.7	0.52	-0.31	-0.42



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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)
8,337.0	89.50	268.80	6,608.8	-11.0	-1,965.6	1,965.7	0.33	0.11	-0.32
8,433.0	90.20	268.50	6,609.1	-13.3	-2,061.6	2,061.6	0.79	0.73	-0.31
8,560.0	89.10	268.30	6,609.8	-16.8	-2,188.6	2,188.6	0.88	-0.87	-0.16
8,687.0	89.80	268.80	6,611.1	-20.1	-2,315.5	2,315.5	0.68	0.55	0.39
8,782.0	89.60	268.60	6,611.6	-22.2	-2,410.5	2,410.5	0.30	-0.21	-0.21
8,878.0	91.50	268.40	6,610.6	-24.7	-2,506.4	2,506.5	1.99	1.98	-0.21
8,973.0	90.60	269.80	6,608.9	-26.2	-2,601.4	2,601.4	1.75	-0.95	1.47
9,068.0	91.20	270.00	6,607.4	-26.4	-2,696.4	2,696.4	0.67	0.63	0.21
9,132.0	90.20	270.30	6,606.6	-26.2	-2,760.4	2,760.4	1.63	-1.56	0.47
9,227.0	90.40	270.70	6,606.1	-25.4	-2,855.4	2,855.4	0.47	0.21	0.42
9,323.0	91.30	270.80	6,604.7	-24.1	-2,951.4	2,951.4	0.94	0.94	0.10
9,386.0	90.30	270.80	6,603.8	-23.3	-3,014.4	3,014.4	1.59	-1.59	0.00
9,450.0	89.30	270.40	6,604.0	-22.6	-3,078.3	3,078.4	1.68	-1.56	-0.63
9,545.0	89.60	270.20	6,605.0	-22.1	-3,173.3	3,173.4	0.38	0.32	-0.21
9,641.0	89.60	270.00	6,605.6	-21.9	-3,269.3	3,269.4	0.21	0.00	-0.21
9,736.0	89.50	270.10	6,606.4	-21.8	-3,364.3	3,364.4	0.15	-0.11	0.11
9,831.0	89.80	270.10	6,607.0	-21.7	-3,459.3	3,459.4	0.32	0.32	0.00
9,927.0	90.00	270.10	6,607.1	-21.5	-3,555.3	3,555.4	0.21	0.21	0.00
10,022.0	89.60	269.60	6,607.4	-21.8	-3,650.3	3,650.4	0.67	-0.42	-0.53
10,117.0	89.80	269.60	6,607.9	-22.4	-3,745.3	3,745.4	0.21	0.21	0.00
10,213.0	89.30	268.90	6,608.7	-23.7	-3,841.3	3,841.3	0.90	-0.52	-0.73
10,308.0	89.10	270.70	6,610.0	-24.0	-3,936.3	3,936.3	1.91	-0.21	1.89
10,403.0	89.10	270.80	6,611.5	-22.8	-4,031.3	4,031.3	0.11	0.00	0.11
10,499.0	90.00	271.20	6,612.3	-21.1	-4,127.3	4,127.3	1.03	0.94	0.42
10,594.0	89.60	271.40	6,612.6	-18.9	-4,222.2	4,222.3	0.47	-0.42	0.21
10,690.0	89.60	271.90	6,613.3	-16.2	-4,318.2	4,318.2	0.52	0.00	0.52
10,785.0	90.80	272.00	6,612.9	-12.9	-4,413.1	4,413.2	1.27	1.26	0.11
10,880.0	89.30	271.80	6,612.9	-9.8	-4,508.1	4,508.1	1.59	-1.58	-0.21
11,008.0	89.10	271.50	6,614.6	-6.1	-4,636.0	4,636.0	0.28	-0.16	-0.23
TD @ 11052' MD / 6615' TVD									
11,052.0	89.10	271.50	6,615.3	-4.9	-4,680.0	4,680.0	0.00	0.00	0.00

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,959.0	5,958.2	-2.0	35.3	Tie-In to Gyro
6,190.6	6,185.2	-2.7	0.0	Cross Hard-Line @ 6191' MD
11,052.0	6,615.3	-4.9	-4,680.0	TD @ 11052' MD / 6615' TVD

Checked By: _____ Approved By: _____ Date: _____

SURF: 660' FGL, 330' FEL
EOL: 655' FGL, 270' FWL