

30.015.37424

Marbob Energy Corporation

Eddy, NM

Sec 16, T26-S, R 28-E

SRO State Unit COM #4-H

Wellbore #1

Survey: MWD Survey

DDC Survey Report

10 February, 2010



DDC

Survey Report



Company: Marbob Energy Corporation
 Project: Eddy, NM
 Site: Sec 16, T26-S, R 28-E
 Well: SRO State Unit COM #4-H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well SRO State Unit COM #4-H
 TVD Reference: WELL @ 3036 0usft (Original Well Elev)
 MD Reference: WELL @ 3036 0usft (Original Well Elev)
 North Reference: Gnd
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

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

Site: Sec 16, T26-S, R 28-E

Site Position: Northing: 381,211.80 usft Latitude: 32° 2' 52.155 N
 From: Map Easting: 577,259.80 usft Longitude: 104° 5' 2.309 W
 Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.13 "

Well: SRO State Unit COM #4-H

Well Position: +N/-S: 0.0 usft Northing: 381,211.80 usft Latitude: 32° 2' 52.155 N
 +E/-W: 0.0 usft Easting: 577,259.80 usft Longitude: 104° 5' 2.309 W
 Position Uncertainty: 0.0 usft Wellhead Elevation: usft Ground Level: 3,036.0 usft

Wellbore: Wellbore #1

Magnetics: Model Name: Sample Date: Declination (°): Dip Angle (°): Field Strength (nT)
 IGRF200510 1/26/2010 7.96 59.98 48,625

Design: Wellbore #1

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 0.0 359.87

Survey Program: Date: 2/10/2010

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
6,156.0	11,379.0	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)	Buid Rate (°/100usft)	Turn Rate (°/100usft)
Tie-In									
6,084.0	1.70	215.28	6,081.8	12.8	63.2	12.6	0.00	0.00	0.00
6,156.0	1.90	215.00	6,153.7	11.0	31.8	10.8	0.33	0.28	-0.05
6,197.0	1.90	216.30	6,184.7	10.2	31.3	10.0	0.54	-0.32	13.55
6,219.0	4.00	254.40	6,216.7	9.4	79.8	9.2	11.01	6.75	126.25
6,251.0	9.60	206.00	6,248.4	8.9	76.0	8.7	14.34	13.75	36.25
6,283.0	13.20	250.00	6,279.8	8.5	69.0	8.3	12.13	13.13	1.48
6,315.0	16.40	267.60	6,310.3	8.1	61.7	8.0	11.03	11.60	6.13
6,347.0	19.00	268.60	6,341.2	7.8	52.0	7.5	6.0	6.1	2.1
6,379.0	21.00	269.00	6,371.0	7.5	40.0	7.3	1.53	1.58	1.8
6,411.0	22.00	269.10	6,401.4	7.2	27.1	7.0	1.17	1.17	1.1

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 Design: Wellbore #1

Local Co-ordinate Reference: Well SRO State Unit COM #4-H
 TVD Reference: WELL @ 3036 Gusft (Original Well Elev)
 MD Reference: WELL @ 3036 Gusft (Original Well Elev)
 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)
6,442.0	29.30	271.20	6,427.7	7.7	13.0	7.7	9.76	9.69	2.50
6,474.0	32.20	272.60	6,455.2	8.3	-3.4	8.3	9.33	9.06	4.38
6,506.0	35.00	272.40	6,481.8	9.0	21.1	9.1	8.76	8.75	-0.63
6,538.0	38.10	272.20	6,507.5	9.8	-40.1	9.9	9.69	9.69	-0.63
6,570.0	40.80	270.90	6,532.2	10.3	-60.4	10.5	8.82	8.44	-4.06
6,601.0	43.50	270.20	6,555.2	10.5	-81.2	10.7	8.84	8.71	-2.26
6,632.0	46.20	269.70	6,577.2	10.5	-103.1	10.7	8.78	8.71	-1.61
6,664.0	49.80	269.60	6,598.6	10.4	-126.9	10.7	11.25	11.25	-0.31
6,696.0	54.60	270.50	6,618.2	10.4	-152.2	10.7	15.16	15.00	2.81
6,728.0	58.40	270.30	6,635.6	10.6	-179.0	11.0	15.01	15.00	-0.63
6,760.0	64.80	270.30	6,650.7	10.7	-207.2	11.2	16.25	16.25	0.00
6,791.0	70.20	271.40	6,662.6	11.2	-235.8	11.7	18.36	18.06	3.55
6,822.0	73.60	271.90	6,672.2	12.0	-265.3	12.6	11.07	10.97	1.61
6,854.0	74.60	272.60	6,681.0	13.2	-296.0	13.9	3.77	3.13	2.19
6,886.0	76.60	272.80	6,688.9	14.7	-327.0	15.4	6.28	6.25	0.63
6,918.0	78.90	273.30	6,695.7	16.3	-358.2	17.2	7.35	7.19	1.58
6,950.0	81.40	273.80	6,701.2	18.3	-389.7	19.2	7.96	7.81	1.56
6,982.0	83.90	273.50	6,705.3	20.3	-421.4	21.3	7.67	7.81	-0.94
7,013.0	86.40	273.40	6,707.9	22.2	-452.2	23.2	8.07	8.06	-0.32
7,045.0	88.00	274.00	6,709.2	24.2	-484.1	25.3	8.03	7.81	1.88
7,077.0	89.50	274.20	6,709.7	26.5	-516.0	27.7	1.98	1.88	0.63
7,140.0	90.60	271.90	6,709.6	29.9	-578.9	31.2	4.05	1.75	-3.65
7,204.0	90.70	271.70	6,708.9	31.9	-642.9	33.4	0.35	0.16	-0.31
7,290.0	91.20	271.70	6,707.3	34.7	-737.8	36.4	0.53	0.53	0.00
7,395.0	91.80	271.10	6,704.8	37.0	-833.8	39.0	0.68	0.63	-0.63
7,489.0	90.90	269.00	6,702.6	37.1	-927.7	39.3	2.43	-0.96	-2.23
7,585.0	89.70	268.60	6,702.1	35.1	-1,023.7	37.5	1.32	1.25	-0.42
7,681.0	91.10	268.00	6,701.4	32.3	-1,119.6	34.9	1.53	1.46	0.63
7,775.0	89.20	268.30	6,701.2	29.2	-1,213.6	32.0	2.05	-2.02	0.32
7,869.0	89.30	267.50	6,702.6	25.8	-1,307.5	28.8	0.88	-0.21	0.65
7,965.0	89.70	267.90	6,703.7	21.9	-1,403.4	25.2	0.84	0.13	0.42
8,060.0	90.00	269.00	6,703.2	19.4	-1,498.4	22.8	1.71	1.26	1.16
8,155.0	92.00	266.40	6,700.8	17.2	-1,593.3	20.9	1.32	1.16	-0.63
8,248.0	93.10	267.80	6,696.7	14.1	-1,686.2	18.0	1.35	1.18	-0.65
8,343.0	90.10	265.40	6,694.0	8.5	-1,781.0	12.6	4.04	-3.16	-2.53
8,439.0	90.20	266.70	6,693.8	1.0	-1,876.7	6.2	1.36	0.10	1.35
8,534.0	91.10	266.70	6,692.7	3.6	-1,971.6	1.0	0.95	0.95	0.00
8,636.0	91.20	266.50	6,692.1	5.5	-2,063.5	0.9	0.70	0.31	0.63
8,698.0	91.70	267.00	6,691.2	-7.3	-2,035.5	2.6	2.21	1.56	1.96
8,729.0	90.30	267.20	6,690.7	3.0	-2,066.4	4.1	4.56	4.52	0.65
8,811.0	90.50	265.50	6,690.5	11.5	-2,136.4	1.1	1.13	1.13	0.41
8,893.0	90.50	265.50	6,690.4	12.1	-2,136.3	1.2	1.17	1.15	1.15
8,975.0	90.50	265.50	6,690.3	12.1	-2,136.3	1.2	1.17	1.15	1.15

DDC

Survey Report



Company: Marbob Energy Corporation
 Project: Eddy, NM
 Site: Sec 16, T26-S, R 28-E
 Well: SRO State Unit COM #4-H
 Wellbore: Wellbore #1
 Design: Wellbore #1

Local Co-ordinate Reference: Well SRO State Unit COM #4-H
 TVD Reference: WELL @ 3036.0usft (Original Well Elev)
 MD Reference: WELL @ 3036.0usft (Original Well Elev)
 North Reference: Gnd
 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)
8,756.0	93.30	271.10	6,667.2	-11.2	-2,193.2	-6.1	3.67	-2.26	-2.90
8,768.0	94.60	272.90	6,665.0	-10.0	-2,225.1	-4.9	6.93	4.06	5.63
8,816.0	95.70	273.30	6,682.2	-8.4	-2,255.9	-3.2	3.77	3.55	1.29
8,851.0	95.10	272.40	6,679.2	-6.8	-2,287.8	-1.5	3.37	-1.88	-2.81
8,883.0	94.40	271.60	6,676.5	-5.7	-2,319.6	-0.3	3.32	-2.19	-2.50
8,915.0	93.10	271.10	6,674.5	-4.9	-2,351.6	0.5	4.35	-4.06	-1.56
8,946.0	91.70	271.30	6,673.2	-4.3	-2,382.5	1.2	4.56	-4.52	0.65
8,978.0	90.00	271.80	6,672.7	-3.4	-2,414.5	2.2	5.54	-5.31	1.56
9,010.0	89.50	271.60	6,672.8	-2.5	-2,446.5	3.2	1.68	-1.56	-0.63
9,042.0	89.60	271.50	6,673.1	-1.6	-2,478.5	4.1	0.44	0.31	-0.31
9,073.0	90.40	271.80	6,673.1	-0.7	-2,509.5	5.1	2.76	2.58	0.97
9,105.0	90.80	271.90	6,672.7	0.3	-2,541.4	6.2	1.29	1.25	0.31
9,137.0	91.20	272.20	6,672.2	1.5	-2,573.4	7.4	1.56	1.25	0.94
9,201.0	91.20	271.80	6,670.8	3.7	-2,637.4	9.6	0.62	0.00	-0.63
9,264.0	89.40	271.00	6,670.5	5.3	-2,700.3	11.5	3.13	-2.86	-1.27
9,296.0	88.70	270.20	6,671.0	5.6	-2,732.3	11.9	3.32	-2.19	-2.50
9,327.0	88.80	269.80	6,671.7	5.6	-2,763.3	12.0	1.33	0.32	-1.29
9,359.0	89.90	270.70	6,672.1	5.7	-2,795.3	12.2	4.44	3.44	2.81
9,391.0	89.80	270.70	6,672.2	6.1	-2,827.3	12.6	0.31	-0.31	0.00
9,423.0	89.80	270.50	6,672.3	6.5	-2,859.3	13.1	0.62	0.00	-0.63
9,455.0	90.20	270.30	6,672.3	6.7	-2,891.3	13.4	1.40	1.25	-0.63
9,486.0	89.80	269.90	6,672.3	6.7	-2,922.3	13.5	1.82	-1.29	-1.29
9,518.0	90.30	270.50	6,672.2	6.8	-2,954.3	13.7	2.44	1.56	1.88
9,550.0	93.00	271.80	6,671.3	7.5	-2,986.3	14.4	9.36	8.44	4.06
9,582.0	92.30	271.20	6,669.8	8.3	-3,018.3	15.3	2.88	-2.19	-1.88
9,614.0	93.10	271.90	6,668.3	9.2	-3,050.2	16.2	3.32	2.50	2.19
9,645.0	93.60	272.10	6,666.5	10.3	-3,081.1	17.4	1.74	1.61	0.65
9,709.0	92.40	270.90	6,663.2	11.9	-3,145.0	19.2	2.65	-1.88	-1.88
9,773.0	93.00	270.40	6,660.2	12.7	-3,208.9	20.1	1.22	0.94	-0.78
9,836.0	93.50	270.30	6,656.6	13.0	-3,271.8	20.6	0.81	0.79	-0.16
9,900.0	93.20	270.00	6,652.9	13.2	-3,335.7	20.9	0.66	-0.47	-0.47
9,963.0	93.40	270.00	6,649.2	13.2	-3,398.6	21.1	0.32	0.32	0.00
10,027.0	93.00	269.60	6,645.7	13.2	-3,462.5	21.2	0.64	-0.63	-0.16
10,122.0	91.20	271.20	6,642.2	14.1	-3,557.5	22.3	2.34	1.89	1.37
10,166.0	90.40	271.10	6,641.3	15.4	-3,621.4	23.7	1.26	1.25	-0.16
10,240.0	90.50	271.10	6,640.5	16.6	-3,684.4	25.1	0.16	0.16	0.00
10,313.0	90.90	271.10	6,640.1	17.2	-3,748.4	26.4	0.47	0.47	0.00
10,408.0	89.50	271.50	6,639.6	18.9	-3,843.4	36.8	1.13	1.05	0.42
10,493.0	89.90	271.10	6,639.9	22.5	-3,938.3	31.4	0.21	0.00	0.21
10,599.0	90.20	271.90	6,639.9	24.9	-4,034.3	34.2	0.67	0.42	0.12
10,684.0	90.70	271.30	6,639.1	27.4	-4,129.3	37.0	0.14	0.63	0.53
10,789.0	91.50	271.20	6,637.3	29.5	-4,242.2	39.3	0.19	0.34	0.11

DDC

Survey Report



Company: Maibob Energy Corporation
Project: Eddy,NM
Site: Sec 16, T26-S. R 28-E
Well: SRO State Unit COM #4 H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well SRO State Unit COM #4-H
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MD Reference: WELL @ 3035.0usft (Original Well Elev)
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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)
10,979.0	93.40	271.10	6,630.4	32.6	-4,414.1	42.8	1.84	1.79	0.42
11,043.0	92.30	270.50	6,627.3	33.5	-4,478.0	43.8	1.96	-1.72	-0.94
11,075.0	91.00	270.00	6,626.3	33.6	-4,510.0	44.0	4.35	-4.06	-1.56
11,169.0	92.10	269.90	6,623.8	33.5	-4,603.9	44.2	1.18	1.17	-0.11
11,265.0	91.50	269.80	6,620.6	33.3	-4,699.9	44.1	0.63	-0.63	-0.10
11,328.0	92.10	270.00	6,618.8	33.2	-4,762.9	44.2	1.00	0.95	0.32
11,379.0	92.10	270.00	6,616.9	33.2	-4,813.8	44.3	0.00	0.00	0.00

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,084.0	6,081.8	12.8	83.2	Tie-In
11,379.0	6,615.9	33.4	-4,673.9	TD

Checked By: _____ Approved By: _____ Date: _____

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