

MARBOB ENERGY

Wildcat

Eddy County, NM

Coffin State #1

Coffin State #1

30-015-37935

Survey: Actual

SDI Standard Survey Report

26 August, 2010



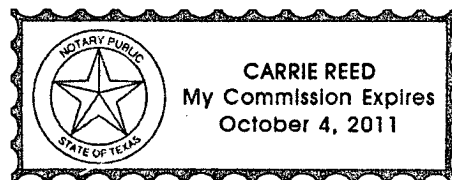
This survey is correct to the best of my knowledge and is supported by actual field data.

Richard

Notorized this date 24th of September, 2010.

Carrie Reed

Notary Signature
County of Midland
State of Texas



Scientific Drilling International, Inc.

SDI Standard Survey Report

Company:	MARBOB ENERGY	Local Co-ordinate Reference:	Well Coffin State #1
Project:	Wildcat	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Eddy County, NM	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Well:	Coffin State #1	North Reference:	Grid
Wellbore:	Coffin State #1	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0810616	Database:	EDM-Regulatory

Project	Wildcat		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico Central 3002		

Well	Coffin State #1, Directional (Pathfinder)					
Well Position	+N/-S	0.0 usft	Northing:	600,621.16 usft	Latitude:	32° 38' 16.800 N
	+E/-W	0.0 usft	Easting:	1,060,899.28 usft	Longitude:	104° 25' 40.800 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	0.0 usft

Wellbore	Coffin State #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2000	12/31/2004	8.99	60.66	49,594

Design	VH - Job #32K0810616				
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	14.01	

Survey Program		Date	8/26/2010		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.0	2,378.0	Actual (Coffin State #1)	Keeper	Keeper Gyro	

Survey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.0	
100.0	0.28	87.62	100.0	0.0	0.2	87.62	0.2	
200.0	0.21	16.43	200.0	0.2	0.5	70.05	0.6	
300.0	0.40	30.06	300.0	0.7	0.8	48.69	1.0	
400.0	0.61	12.42	400.0	1.5	1.1	35.22	1.8	
500.0	1.10	9.73	500.0	3.0	1.3	24.23	3.2	
600.0	1.21	11.70	600.0	4.9	1.7	19.08	5.2	
700.0	1.07	16.27	699.9	6.9	2.2	17.64	7.2	
800.0	0.89	19.70	799.9	8.5	2.7	17.67	8.9	
900.0	0.84	24.39	899.9	9.9	3.3	18.30	10.4	
1,000.0	0.63	30.22	999.9	11.0	3.9	19.23	11.7	
1,100.0	0.58	27.28	1,099.9	12.0	4.4	20.02	12.7	
1,200.0	0.53	22.81	1,199.9	12.8	4.8	20.39	13.7	
1,300.0	0.49	27.03	1,299.9	13.6	5.1	20.66	14.6	
1,400.0	0.32	58.00	1,399.9	14.2	5.6	21.47	15.2	
1,500.0	0.19	41.75	1,499.9	14.4	5.9	22.29	15.6	
1,600.0	0.23	40.86	1,599.9	14.7	6.2	22.72	16.0	

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Well:	Coffin State #1	North Reference:	Grid
Wellbore:	Coffin State #1	Survey Calculation Method:	Minimum Curvature
Design:	VH - Job #32K0810616	Database:	EDM-Regulatory

Survey							
Measured Depth (usft)	Inclination (°)	Azimuth (°)	True Vertical Depth	North/South (usft)	East/West (usft)	Closure Azimuth (°)	Closure Distance (usft)
1,700.0	0.34	22.40	1,699.9	15.2	6.4	22.93	16.5
1,800.0	0.30	358.68	1,799.9	15.7	6.5	22.56	17.0
1,900.0	0.24	348.49	1,899.9	16.2	6.5	21.82	17.4
2,000.0	0.50	328.14	1,999.9	16.7	6.2	20.33	17.8
2,100.0	0.52	340.12	2,099.9	17.5	5.8	18.35	18.5
2,200.0	0.50	337.43	2,199.9	18.4	5.5	16.65	19.2
2,300.0	0.43	349.03	2,299.9	19.1	5.3	15.35	19.8
2,378.0	0.54	305.10	2,377.9	19.6	4.9	14.01	20.2

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H      HEADER  INFORMAT -----
H      COMPANY :      Cog      Operating LLC-      Eastern  NM
H      FIELD   :      Eddy     County
H      SITE    :      Coffin   State
H      WELL    :      #1
H      WELLPATH OH
H      DEPTHUNT usft
H      SURVDATE #####

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H-----
H      WELL    INFORMATION
H      WELL    EW      MAP    :      470827
H      WELL    NS      MAP    :      595696.1
H      DATUM    ELEVN   :      3424
H      VSECT    ANGLE   :      178.55
H      VSECT    NORTH   :      0
H      VSECT    EAST    :      0

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H      SURVEY   TYPE     INFORMATION
H      100 -      2378 GYRO   :      CB-GYRO-MS
H      2437 -      4691 MWD   #1      :      MWD

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H      SURVEY   LIST
H      MD      INC      AZI      TVD      NS      EW

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0	0	0	0	0	0	0
100	0.28	87.62	100	0.01	0.24	
200	0.21	16.43	200	0.2	0.54	
300	0.4	30.06	300	0.67	0.77	
400	0.61	12.42	399.99	1.5	1.06	
500	1.1	9.73	499.98	2.96	1.33	
600	1.21	11.7	599.96	4.94	1.71	
700	1.07	16.27	699.94	6.87	2.18	
800	0.89	19.7	799.93	8.5	2.71	
900	0.84	24.39	899.92	9.9	3.27	
1000	0.63	30.22	999.91	11.04	3.85	
1100	0.58	27.28	1099.9	11.97	4.36	
1200	0.53	22.81	1199.9	12.84	4.77	
1300	0.49	27.03	1299.89	13.65	5.15	
1400	0.32	58	1399.89	14.18	5.58	
1500	0.19	41.75	1499.89	14.45	5.92	
1600	0.23	40.86	1599.89	14.73	6.17	
1700	0.34	22.4	1699.89	15.15	6.41	
1800	0.3	358.68	1799.89	15.69	6.52	
1900	0.24	348.49	1899.89	16.15	6.47	
2000	0.5	328.14	1999.88	16.73	6.2	
2100	0.52	340.12	2099.88	17.53	5.81	
2200	0.5	337.43	2199.88	18.36	5.49	
2300	0.43	349.03	2299.87	19.13	5.25	

2378	0.54	305.1	2377.87	19.63	4.9
2437	5.28	183.66	2436.79	17.08	4.49
2480	12.75	176.64	2479.23	10.35	4.65
2512	17.32	179.66	2510.13	2.06	4.88
2544	21.19	181.31	2540.33	-8.49	4.78
2573	23.83	182.56	2567.12	-19.58	4.4
2605	25.5	181.53	2596.2	-32.93	3.92
2637	27.52	181.21	2624.83	-47.2	3.58
2669	29.37	179.99	2652.97	-62.44	3.43
2700	31.74	181.68	2679.66	-78.2	3.19
2731	34.65	177.81	2705.6	-95.16	3.29
2763	37.9	178.71	2731.4	-114.08	3.86
2794	40.71	178.69	2755.38	-133.71	4.3
2826	44.05	179.34	2779.02	-155.28	4.67
2858	48.01	178.12	2801.23	-178.3	5.19
2889	52.14	177.91	2821.12	-202.05	6.01
2921	56.01	177.29	2839.89	-227.93	7.1
2952	59.62	177.66	2856.4	-254.14	8.26
2984	62.61	177.58	2871.86	-282.13	9.42
3016	66.21	178.15	2885.68	-310.97	10.49
3048	70.26	179.16	2897.54	-340.67	11.19
3079	73.51	179.63	2907.18	-370.13	11.5
3111	78	179.81	2915.05	-401.14	11.65
3143	80.99	179.78	2920.89	-432.6	11.76
3175	84.42	180.23	2924.95	-464.33	11.76
3206	88.11	180.16	2926.97	-495.26	11.65
3238	89.25	180.72	2927.7	-527.25	11.41
3270	90.92	179.53	2927.66	-559.25	11.34
3302	91.1	179.61	2927.09	-591.25	11.58
3365	89.69	178.69	2926.66	-654.23	12.51
3460	89.6	179.62	2927.25	-749.22	13.91
3554	89.52	179.4	2927.97	-843.22	14.72
3649	89.6	179.9	2928.7	-938.21	15.3
3743	90.48	179.48	2928.63	-1032.21	15.8
3838	90.48	180.74	2927.84	-1127.2	15.62
3933	90.48	180.09	2927.04	-1222.2	14.93
4028	89.6	176.78	2926.98	-1317.15	17.53
4123	89.6	176.81	2927.64	-1412	22.84
4218	89.78	178.14	2928.15	-1506.9	27.02
4313	89.43	178.45	2928.81	-1601.86	29.85
4408	90.04	177.82	2929.25	-1696.8	32.94
4503	89.6	178.21	2929.55	-1791.75	36.23
4597	89.69	176.75	2930.13	-1885.65	40.37
4647	89.78	177.13	2930.36	-1935.58	43.03
4691	89.78	177.13	2930.53	-1979.52	45.24