

# Scientific Drilling

30-015-37265

## MARBOB ENERGY

**Field:** WC Williams Sink (Bone Spring)  
**Site:** Eddy County, NM  
**Well:** Wildcap State #7H  
**Wellpath:** VH - Job #32K0610490  
**Survey:** 06/30/10

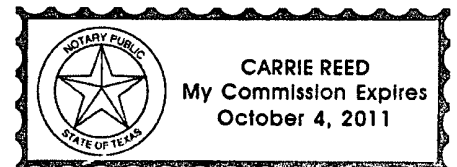
AUG 09 2010

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

*[Signature]*  
Company Representative

Notarized this date 4th of August, 2010.

*Carrie Reed*  
Notary Signature  
County of Midland  
State of Texas





# Scientific Drilling International, Inc.

## Survey Report

<b>Company:</b> MARBOB ENERGY	<b>Date:</b> 7/12/2010	<b>Time:</b> 14:13:23	<b>Page:</b> 1
<b>Field:</b> WC Williams Sink (Bone Spring)	<b>Co-ordinate(NE) Reference:</b> Site: Eddy County, NM, Grid North		
<b>Site:</b> Eddy County, NM	<b>Vertical (TVD) Reference:</b> SITE 0.0		
<b>Well:</b> Wildcap State #7H	<b>Section (VS) Reference:</b> Well (0.00N,0.00E,179.62Azi)		
<b>Wellpath:</b> VH - Job #32K0610490	<b>Survey Calculation Method:</b> Minimum Curvature	<b>Db:</b> Sybase	

<b>Survey:</b> 06/30/10 KSRG 0'-10500'	<b>Start Date:</b> 6/30/2010		
<b>Company:</b> Scientific Drilling Internatio	<b>Engineer:</b> Garza w/Renegade		
<b>Tool:</b> Keeper, Keeper Gyro	<b>Tied-to:</b> From Surface		

**Survey**

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClSD ft	ClSA deg
0.0	0.00	0.28	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.21	89.03	100.0	0.0	0.0	0.2	0.21	0.2	89.03
200.0	0.68	88.32	200.0	0.0	0.0	1.0	0.47	1.0	88.59
300.0	1.29	106.89	300.0	0.3	-0.3	2.6	0.68	2.6	96.21
400.0	1.87	109.52	399.9	1.2	-1.2	5.2	0.58	5.4	102.45
500.0	2.49	110.60	499.9	2.5	-2.5	8.8	0.62	9.2	105.64
600.0	2.64	113.58	599.8	4.2	-4.2	13.0	0.20	13.6	107.77
700.0	3.23	125.71	699.6	6.8	-6.7	17.4	0.85	18.6	111.16
800.0	3.01	118.85	799.5	9.8	-9.6	21.9	0.43	24.0	113.69
900.0	3.24	105.78	899.3	11.8	-11.7	27.0	0.75	29.4	113.39
1000.0	3.24	103.86	999.2	13.3	-13.1	32.4	0.11	35.0	112.01
1100.0	2.59	98.99	1099.1	14.4	-14.1	37.4	0.70	40.0	110.71
1200.0	2.31	100.10	1199.0	15.1	-14.8	41.6	0.28	44.2	109.63
1300.0	1.36	82.77	1298.9	15.3	-15.1	44.8	1.09	47.2	108.58
1400.0	1.23	79.07	1398.9	15.0	-14.7	47.0	0.15	49.3	107.36
1500.0	1.23	75.54	1498.9	14.6	-14.2	49.1	0.08	51.1	106.16
1600.0	1.22	70.08	1598.8	13.9	-13.6	51.1	0.12	52.9	104.89
1700.0	1.67	58.30	1698.8	12.8	-12.5	53.4	0.54	54.8	103.15
1800.0	1.72	58.59	1798.8	11.3	-10.9	55.9	0.05	57.0	101.05
1900.0	1.73	59.31	1898.7	9.8	-9.4	58.5	0.02	59.2	99.10
2000.0	1.90	58.60	1998.7	8.1	-7.7	61.2	0.17	61.7	97.20
2100.0	1.71	70.35	2098.6	6.8	-6.4	64.0	0.41	64.3	95.68
2200.0	1.74	82.71	2198.6	6.1	-5.7	66.9	0.37	67.2	94.85
2300.0	1.76	82.86	2298.5	5.8	-5.3	70.0	0.02	70.2	94.32
2400.0	0.94	86.91	2398.5	5.5	-5.1	72.3	0.83	72.5	94.00
2500.0	0.86	68.19	2498.5	5.2	-4.7	73.8	0.30	74.0	93.67
2600.0	1.04	48.09	2598.5	4.3	-3.8	75.2	0.38	75.3	92.93
2700.0	1.10	41.66	2698.5	3.0	-2.5	76.5	0.13	76.5	91.89
2800.0	1.34	39.39	2798.4	1.4	-0.9	77.9	0.24	77.9	90.66
2900.0	1.44	35.35	2898.4	-0.5	1.0	79.4	0.14	79.4	89.26
3000.0	1.77	44.85	2998.4	-2.6	3.1	81.2	0.42	81.2	87.78
3100.0	1.79	48.57	3098.3	-4.7	5.3	83.4	0.12	83.6	86.38
3200.0	3.31	46.19	3198.2	-7.7	8.3	86.7	1.52	87.1	84.53
3300.0	3.95	43.68	3298.0	-12.2	12.8	91.1	0.66	92.0	82.01
3400.0	3.06	88.09	3397.8	-14.7	15.4	96.2	2.77	97.4	80.92
3500.0	0.86	121.97	3497.8	-14.4	15.1	99.5	2.39	100.6	81.39
3600.0	0.63	99.72	3597.8	-13.9	14.6	100.7	0.37	101.7	81.76
3700.0	1.24	55.28	3697.8	-14.4	15.1	102.1	0.90	103.2	81.59
3800.0	1.04	78.72	3797.7	-15.2	15.9	103.9	0.50	105.1	81.30
3900.0	0.87	86.67	3897.7	-15.4	16.1	105.5	0.22	106.8	81.32
4000.0	0.84	95.45	3997.7	-15.4	16.1	107.0	0.13	108.2	81.45
4100.0	0.75	100.36	4097.7	-15.2	15.9	108.4	0.11	109.6	81.65
4200.0	0.68	103.24	4197.7	-14.9	15.6	109.6	0.08	110.7	81.88
4300.0	0.58	116.99	4297.7	-14.5	15.3	110.6	0.18	111.7	82.14
4400.0	0.46	117.26	4397.7	-14.1	14.9	111.5	0.12	112.4	82.40
4500.0	0.39	107.52	4497.7	-13.8	14.6	112.1	0.10	113.1	82.59
4600.0	0.40	94.18	4597.7	-13.7	14.5	112.8	0.09	113.7	82.70
4700.0	0.43	95.05	4697.7	-13.6	14.4	113.5	0.03	114.4	82.77
4800.0	0.48	102.50	4797.7	-13.5	14.3	114.3	0.08	115.2	82.88



# Scientific Drilling International, Inc.

## Survey Report

<b>Company:</b> MARBOB ENERGY	<b>Date:</b> 7/12/2010	<b>Time:</b> 14:13:23	<b>Page:</b> 2
<b>Field:</b> WC Williams Sink (Bone Spring)	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> Eddy County, NM, Grid North	
<b>Site:</b> Eddy County, NM	<b>Vertical (TVD) Reference:</b>	<b>SITE</b> 0.0	
<b>Well:</b> Wildcap State #7H	<b>Section (VS) Reference:</b>	<b>Well</b> (0.00N,0.00E,179.62Azi)	
<b>Wellpath:</b> VH - Job #32K0610490	<b>Survey Calculation Method:</b>	<b>Minimum Curvature</b>	<b>Db:</b> Sybase

### Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
4900.0	0.32	110.76	4897.7	-13.3	14.1	115.0	0.17	115.8	83.02
5000.0	0.16	105.38	4997.7	-13.2	13.9	115.4	0.16	116.2	83.11
5100.0	0.03	325.16	5097.7	-13.2	13.9	115.5	0.18	116.3	83.12
5200.0	0.01	296.53	5197.7	-13.2	14.0	115.5	0.02	116.3	83.11
5300.0	0.19	188.99	5297.7	-13.0	13.8	115.4	0.19	116.3	83.18
5400.0	0.17	207.00	5397.7	-12.7	13.5	115.3	0.06	116.1	83.32
5500.0	0.46	203.59	5497.7	-12.2	13.0	115.1	0.29	115.9	83.56
5600.0	0.77	226.42	5597.7	-11.4	12.2	114.5	0.39	115.1	83.93
5700.0	0.94	235.96	5697.7	-10.5	11.2	113.3	0.22	113.9	84.33
5800.0	0.90	227.49	5797.6	-9.5	10.3	112.0	0.14	112.5	84.77
5900.0	0.85	230.11	5897.6	-8.5	9.3	110.9	0.06	111.3	85.23
6000.0	0.99	234.10	5997.6	-7.5	8.3	109.6	0.15	109.9	85.69
6100.0	0.78	236.40	6097.6	-6.7	7.4	108.4	0.21	108.6	86.10
6200.0	0.84	243.00	6197.6	-6.0	6.7	107.1	0.11	107.4	86.43
6300.0	0.71	240.31	6297.6	-5.3	6.0	106.0	0.13	106.1	86.74
6400.0	0.76	238.52	6397.6	-4.7	5.4	104.8	0.06	105.0	87.06
6500.0	0.75	237.77	6497.6	-4.0	4.7	103.7	0.01	103.8	87.41
6600.0	0.75	238.12	6597.6	-3.3	4.0	102.6	0.00	102.7	87.77
6700.0	0.88	239.69	6697.6	-2.6	3.3	101.4	0.13	101.5	88.16
6800.0	0.90	242.33	6797.5	-1.8	2.5	100.0	0.05	100.1	88.56
6900.0	0.91	250.39	6897.5	-1.2	1.9	98.6	0.13	98.6	88.91
7000.0	0.99	246.47	6997.5	-0.6	1.3	97.1	0.10	97.1	89.25
7100.0	0.98	261.24	7097.5	-0.2	0.8	95.4	0.25	95.4	89.52
7200.0	1.07	272.32	7197.5	-0.1	0.7	93.6	0.22	93.6	89.57
7300.0	1.35	251.17	7297.5	0.3	0.4	91.6	0.52	91.6	89.78
7400.0	1.66	255.28	7397.4	1.0	-0.4	89.1	0.33	89.1	90.25
7500.0	1.49	221.48	7497.4	2.3	-1.7	86.8	0.93	86.8	91.14
7600.0	1.57	209.49	7597.4	4.5	-3.9	85.3	0.33	85.4	92.62
7700.0	1.57	203.90	7697.3	6.9	-6.3	84.1	0.15	84.3	94.32
7800.0	1.60	199.33	7797.3	9.5	-8.9	83.0	0.13	83.5	96.13
7900.0	1.52	173.82	7897.2	12.1	-11.6	82.7	0.69	83.5	97.95
8000.0	1.42	178.77	7997.2	14.7	-14.1	82.9	0.16	84.1	99.66
8100.0	1.49	179.36	8097.2	17.2	-16.6	82.9	0.07	84.6	101.35
8200.0	1.67	178.13	8197.1	20.0	-19.4	83.0	0.18	85.2	103.16
8300.0	1.52	185.43	8297.1	22.7	-22.2	82.9	0.25	85.8	104.98
8400.0	1.36	189.26	8397.1	25.2	-24.7	82.6	0.19	86.2	106.63
8500.0	1.04	192.87	8497.0	27.3	-26.7	82.2	0.33	86.4	108.01
8600.0	1.01	189.82	8597.0	29.0	-28.5	81.8	0.06	86.7	109.19
8700.0	1.22	188.94	8697.0	30.9	-30.4	81.5	0.21	87.0	110.45
8800.0	1.17	180.41	8797.0	33.0	-32.5	81.4	0.18	87.6	111.76
8900.0	0.91	176.57	8897.0	34.8	-34.3	81.4	0.27	88.3	112.84
9000.0	1.12	237.19	8997.0	36.1	-35.6	80.6	1.04	88.1	113.83
9100.0	2.12	263.76	9096.9	36.9	-36.3	78.0	1.23	86.0	114.99
9200.0	2.48	255.07	9196.8	37.6	-37.1	74.0	0.50	82.8	116.61
9300.0	2.26	247.78	9296.8	38.9	-38.4	70.1	0.37	79.9	118.71
9400.0	1.85	247.02	9396.7	40.2	-39.8	66.8	0.41	77.8	120.77
9500.0	1.26	228.67	9496.7	41.6	-41.1	64.5	0.76	76.5	122.53
9600.0	1.58	200.19	9596.6	43.6	-43.2	63.2	0.76	76.5	124.33
9700.0	2.43	198.02	9696.6	46.9	-46.5	62.1	0.85	77.5	126.82
9800.0	2.72	188.31	9796.5	51.2	-50.8	61.1	0.52	79.5	129.77
9900.0	2.98	190.65	9896.3	56.1	-55.7	60.2	0.28	82.1	132.77
10000.0	2.81	204.09	9996.2	60.9	-60.5	58.8	0.70	84.4	135.85



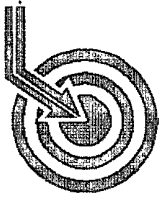
# Scientific Drilling International, Inc.

## Survey Report

<b>Company:</b> MARBOB ENERGY	<b>Date:</b> 7/12/2010	<b>Time:</b> 14:13:23	<b>Page:</b> 3
<b>Field:</b> WC Williams Sink (Bone Spring)	<b>Co-ordinate(NE) Reference:</b>	<b>Site:</b> Eddy County, NM, Grid North	
<b>Site:</b> Eddy County, NM	<b>Vertical (TVD) Reference:</b>	SITE 0.0	
<b>Well:</b> Wildcap State #7H	<b>Section (VS) Reference:</b>	Well (0.00N,0.00E,179.62Azi)	
<b>Wellpath:</b> VH - Job #32K0610490	<b>Survey Calculation Method:</b>	Minimum Curvature	<b>Db:</b> Sybase

### Survey

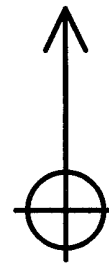
MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
10100.0	2.80	208.99	10096.1	65.3	-64.9	56.6	0.24	86.1	138.92
10200.0	2.82	217.61	10196.0	69.3	-69.0	53.9	0.42	87.5	142.00
10300.0	2.87	227.81	10295.8	72.9	-72.6	50.5	0.51	88.5	145.16
10400.0	3.15	226.62	10395.7	76.5	-76.2	46.7	0.29	89.3	148.50
10500.0	3.27	232.21	10495.6	80.1	-79.8	42.4	0.34	90.4	152.00



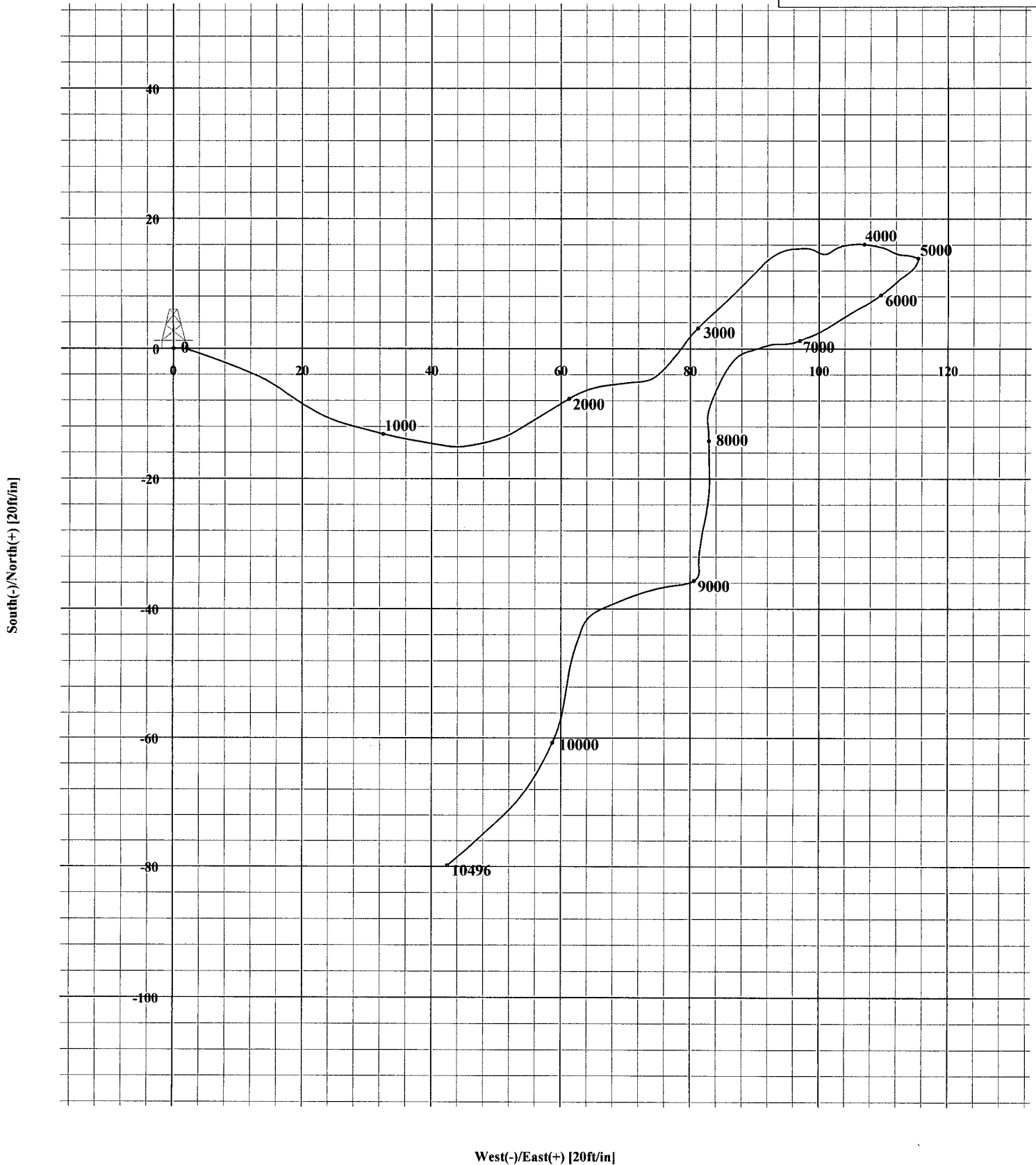
Scientific  
Drilling

Field: WC Williams Sink (Bone Spring)  
Site: Eddy County, NM  
Well: Wildcap State #7H  
Survey: 06/30/10

G/T/M



Azimuths to Grid North  
True North: 0.00°  
Magnetic North: 0.00°  
Magnetic Field  
Dip Angle: 0.00°  
Date: 7/12/2010  
Model: igrf2000





Pathfinder  
Pathfinder X & Y Survey Report



Company: Marbob  
Project: Eddy County  
Site: Wildcap State Com  
Well: #7H  
Wellbore: OH  
Design: OH

Local Co-ordinate Reference: Well #7H  
TVD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
MD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Midland Database

Project	Eddy County		
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	Wildcap State Com		
Site Position:		Northing:	590,823.400 ft
From:	Map	Easting:	659,567.100 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 37' 23.547 N
		Longitude:	103° 48' 54.212 W
		Grid Convergence:	0.28 °

Well	#7H			
Well Position	+N/-S	0.00 ft	Northing:	590,815.400 ft
	+E/-W	0.00 ft	Easting:	658,307.400 ft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
			Latitude:	32° 37' 23.529 N
			Longitude:	103° 49' 8.941 W
			Ground Level:	3,498.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	07/01/2010	(°)	(°)	(nT)
			7.83	60.56	48,956

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	
		Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	179.62



# Pathfinder

Pathfinder X & Y Survey Report



Company: Marbob  
 Project: Eddy County  
 Site: Wildcap State Com  
 Well: #7H  
 Wellbore: OH  
 Design: OH

Local Co-ordinate Reference: Well #7H  
 TVD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
 MD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: Midland Database

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	8,700.00	GYRO (OH)	CB-GYRO-MS	Camera based gyro multishot
8,710.00	10,955.00	MWD #1 (OH)	MWD	MWD - Standard

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,700.00	1.22	188.94	8,697.01	5,182.01	-30.40	81.53	30.94	0.00	590,785.00	658,388.93
8,710.00	1.76	190.74	8,707.01	5,192.01	-30.66	81.49	31.20	5.42	590,784.74	658,388.89
8,727.00	3.87	193.72	8,723.99	5,208.99	-31.47	81.30	32.01	12.44	590,783.93	658,388.70
8,759.00	9.14	194.84	8,755.77	5,240.77	-34.98	80.40	35.51	16.47	590,780.42	658,387.80
8,791.00	10.99	193.77	8,787.28	5,272.28	-40.40	79.02	40.92	5.81	590,775.00	658,386.42
8,823.00	12.13	193.05	8,818.63	5,303.63	-46.64	77.53	47.15	3.59	590,768.76	658,384.93
8,855.00	14.60	194.77	8,849.76	5,334.76	-53.81	75.75	54.31	7.82	590,761.59	658,383.15
8,886.00	17.94	195.68	8,879.51	5,364.51	-62.19	73.46	62.68	10.81	590,753.21	658,380.86
8,918.00	21.19	196.14	8,909.66	5,394.66	-72.49	70.52	72.96	10.17	590,742.91	658,377.92
8,950.00	24.53	196.66	8,939.14	5,424.14	-84.42	67.00	84.86	10.46	590,730.98	658,374.40
8,982.00	28.14	196.91	8,967.82	5,452.82	-98.00	62.90	98.42	11.29	590,717.40	658,370.30
9,014.00	32.18	197.05	8,995.48	5,480.48	-113.38	58.21	113.76	12.63	590,702.02	658,365.61
9,045.00	36.14	196.76	9,021.13	5,506.13	-130.03	53.15	130.38	12.78	590,685.37	658,360.55
9,077.00	39.75	195.63	9,046.36	5,531.36	-148.92	47.67	149.24	11.49	590,666.48	658,355.07
9,108.00	43.09	193.85	9,069.60	5,554.60	-168.76	42.46	169.03	11.42	590,646.64	658,349.86
9,140.00	46.78	192.57	9,092.25	5,577.25	-190.76	37.31	191.00	11.87	590,624.64	658,344.71
9,172.00	50.83	191.89	9,113.32	5,598.32	-214.28	32.21	214.49	12.76	590,601.12	658,339.61
9,204.00	54.87	191.00	9,132.64	5,617.64	-239.28	27.16	239.45	12.82	590,576.12	658,334.56
9,235.00	58.74	190.07	9,149.61	5,634.61	-264.78	22.42	264.92	12.73	590,550.62	658,329.82
9,267.00	62.78	189.11	9,165.24	5,650.24	-292.31	17.77	292.42	12.89	590,523.09	658,325.17
9,299.00	66.74	187.82	9,178.88	5,663.88	-320.93	13.52	321.01	12.90	590,494.47	658,320.92



# Pathfinder

Pathfinder X & Y Survey Report



Company: Marbob  
 Project: Eddy County  
 Site: Wildcap State Com  
 Well: #7H  
 Wellbore: OH  
 Design: OH

Local Co-ordinate Reference: Well #7H  
 TVD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
 MD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: Midland Database

## Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
9,331.00	70.70	186.69	9,190.49	5,675.49	-350.50	9.76	350.56	12.80	590,464.90	658,317.16
9,362.00	74.48	185.54	9,199.77	5,684.77	-379.91	6.61	379.94	12.70	590,435.49	658,314.01
9,394.00	78.17	183.85	9,207.33	5,692.33	-410.89	4.07	410.91	12.62	590,404.51	658,311.47
9,426.00	82.13	182.09	9,212.81	5,697.81	-442.37	2.44	442.38	13.51	590,373.03	658,309.84
9,458.00	86.35	180.95	9,216.02	5,701.02	-474.19	1.60	474.19	13.66	590,341.21	658,309.00
9,490.00	87.58	180.54	9,217.71	5,702.71	-506.14	1.18	506.14	4.05	590,309.26	658,308.58
9,528.00	88.90	181.81	9,218.88	5,703.88	-544.11	0.40	544.10	4.82	590,271.29	658,307.80
9,655.00	90.04	180.67	9,220.05	5,705.05	-671.07	-2.35	671.04	1.27	590,144.33	658,305.05
9,751.00	89.43	180.53	9,220.50	5,705.50	-767.07	-3.35	767.03	0.65	590,048.33	658,304.05
9,846.00	88.64	180.16	9,222.10	5,707.10	-862.05	-3.92	862.01	0.92	589,953.35	658,303.48
9,942.00	90.31	179.61	9,222.98	5,707.98	-958.04	-3.73	958.00	1.83	589,857.36	658,303.67
10,037.00	91.80	180.07	9,221.23	5,706.23	-1,053.02	-3.46	1,052.98	1.64	589,762.38	658,303.94
10,132.00	90.75	179.17	9,219.11	5,704.11	-1,148.00	-2.83	1,147.95	1.46	589,667.40	658,304.57
10,228.00	91.50	180.04	9,217.23	5,702.23	-1,243.97	-2.17	1,243.93	1.20	589,571.43	658,305.23
10,323.00	91.10	179.60	9,215.07	5,700.07	-1,338.95	-1.87	1,338.91	0.63	589,476.45	658,305.53
10,419.00	90.66	179.48	9,213.60	5,698.60	-1,434.93	-1.10	1,434.89	0.48	589,380.47	658,306.30
10,514.00	89.60	178.19	9,213.38	5,698.38	-1,529.91	0.83	1,529.88	1.76	589,285.49	658,308.23
10,641.00	89.87	179.20	9,213.97	5,698.97	-1,656.87	3.72	1,656.86	0.82	589,158.53	658,311.12
10,736.00	90.84	177.80	9,213.38	5,698.38	-1,751.84	6.21	1,751.84	1.79	589,063.56	658,313.61
10,832.00	90.84	177.56	9,211.98	5,696.98	-1,847.75	10.09	1,847.77	0.25	588,967.65	658,317.49
10,909.00	90.75	177.72	9,210.91	5,695.91	-1,924.67	13.26	1,924.72	0.24	588,890.73	658,320.66
10,955.00	90.75	177.72	9,210.31	5,695.31	-1,970.63	15.09	1,970.69	0.00	588,844.77	658,322.49

BHL-10955.00°MD,90.75°INC,177.72°AZI, 9210.31°TVD, 1970.69°VS, -1970.63°N, 15.09°E - PBHL(WC#7H)

*Surf: 330' FML, 1690' FEL*  
*EDL: 2501' FML, 1675' FEL*





Pathfinder  
Pathfinder X & Y Survey Report



Company: Marbob  
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Site: Wildcap State Com  
Well: #7H  
Wellbore: OH  
Design: OH

Local Co-ordinate Reference: Well #7H  
TVD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
MD Reference: Patrioy #6 @ 3515.00ft (17' KB Correction)  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature  
Database: Midland Database

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
PBHL(WC#7H)	0.00	0.00	9,220.00	-1,979.50	13.30	588,835.900	658,320.700	32° 37' 3.940 N	103° 49' 8.898 W
- survey misses target center by 13.26ft at 10955.00ft MD (9210.31 TVD, -1970.63 N, 15.09 E)									
- Point									

Survey Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
10,955.00	9,210.31	-1,970.63	15.09	BHL-10955.00*MD,90.75*INC,177.72*AZI, 9210.31*TVD, 1970.69*VS, -

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_