

30-015-34932

Mack Energy Corp.

Eddy County, NM (NAD 27 NME)

Snake State #2

Snake State #2

OH

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OCD-ANTHOLIA

GO

Plan: Plan #1

Standard Planning Report

08 June, 2006



Scientific Drilling Planning Report



Database:	EDM 2003.14 Single User Db	Local Co-ordinate Reference:	Well Snake State #2
Company:	Mack Energy Corp.	TVD Reference:	WELL @ 4086.0ft (Original Well Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 4086.0ft (Original Well Elev)
Site:	Snake State #2	North Reference:	Grid
Well:	Snake State #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Eddy County, NM (NAD 27 NME)		
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	Snake State #2				
Site Position:		Northing:	621,498.61 ft	Latitude:	32° 42' 28.620 N
From:	Lat/Long	Easting:	376,082.10 ft	Longitude:	104° 44' 10.320 W
Position Uncertainty:	0.0 ft	Slot Radius:	ft	Grid Convergence:	-0.22 °

Well	Snake State #2					
Well Position	+N/-S	0.0 ft	Northing:	621,498.61 ft	Latitude:	32° 42' 28.620 N
	+E/-W	0.0 ft	Easting:	376,082.10 ft	Longitude:	104° 44' 10.320 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	4,086.0 ft	Ground Level:	4,070.0 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2006-06-08	8.73	60.55	49,283

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,907.0	0.00	0.00	3,907.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,659.7	90.32	0.00	4,384.5	480.1	0.0	12.00	12.00	0.00	0.00	
8,139.6	90.32	0.00	4,365.0	3,960.0	0.0	0.00	0.00	0.00	0.00	PBHL Sanke #2

Scientific Drilling

Planning Report



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Site:	Snake State #2	North Reference:	Grid
Well:	Snake State #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00	
3,907.0	0.00	0.00	3,907.0	0.0	0.0	0.0	0.00	0.00	0.00	
KOP - Build 12°/100'										
4,000.0	11.16	0.00	3,999.4	9.0	0.0	9.0	12.00	12.00	0.00	
4,100.0	23.16	0.00	4,094.8	38.5	0.0	38.5	12.00	12.00	0.00	
4,200.0	35.16	0.00	4,182.0	87.1	0.0	87.1	12.00	12.00	0.00	
4,300.0	47.16	0.00	4,257.1	152.8	0.0	152.8	12.00	12.00	0.00	
4,400.0	59.16	0.00	4,317.0	232.7	0.0	232.7	12.00	12.00	0.00	
4,500.0	71.16	0.00	4,358.9	323.3	0.0	323.3	12.00	12.00	0.00	
4,600.0	83.16	0.00	4,381.1	420.6	0.0	420.6	12.00	12.00	0.00	
4,659.7	90.32	0.00	4,384.5	480.1	0.0	480.1	12.00	12.00	0.00	
EOC - Hold 90.32°										
4,700.0	90.32	0.00	4,384.2	520.5	0.0	520.5	0.00	0.00	0.00	
4,800.0	90.32	0.00	4,383.7	620.5	0.0	620.5	0.00	0.00	0.00	

Scientific Drilling
Planning Report



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Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 4086.0ft (Original Well Elev)
Site:	Snake State #2	North Reference:	Grid
Well:	Snake State #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,900.0	90.32	0.00	4,383.1	720.5	0.0	720.5	0.00	0.00	0.00
5,000.0	90.32	0.00	4,382.6	820.5	0.0	820.5	0.00	0.00	0.00
5,100.0	90.32	0.00	4,382.0	920.5	0.0	920.5	0.00	0.00	0.00
5,200.0	90.32	0.00	4,381.4	1,020.5	0.0	1,020.5	0.00	0.00	0.00
5,300.0	90.32	0.00	4,380.9	1,120.5	0.0	1,120.5	0.00	0.00	0.00
5,400.0	90.32	0.00	4,380.3	1,220.5	0.0	1,220.5	0.00	0.00	0.00
5,500.0	90.32	0.00	4,379.8	1,320.5	0.0	1,320.5	0.00	0.00	0.00
5,600.0	90.32	0.00	4,379.2	1,420.5	0.0	1,420.5	0.00	0.00	0.00
5,700.0	90.32	0.00	4,378.6	1,520.4	0.0	1,520.4	0.00	0.00	0.00
5,800.0	90.32	0.00	4,378.1	1,620.4	0.0	1,620.4	0.00	0.00	0.00
5,900.0	90.32	0.00	4,377.5	1,720.4	0.0	1,720.4	0.00	0.00	0.00
6,000.0	90.32	0.00	4,377.0	1,820.4	0.0	1,820.4	0.00	0.00	0.00
6,100.0	90.32	0.00	4,376.4	1,920.4	0.0	1,920.4	0.00	0.00	0.00
6,200.0	90.32	0.00	4,375.8	2,020.4	0.0	2,020.4	0.00	0.00	0.00
6,300.0	90.32	0.00	4,375.3	2,120.4	0.0	2,120.4	0.00	0.00	0.00
6,400.0	90.32	0.00	4,374.7	2,220.4	0.0	2,220.4	0.00	0.00	0.00
6,500.0	90.32	0.00	4,374.2	2,320.4	0.0	2,320.4	0.00	0.00	0.00
6,600.0	90.32	0.00	4,373.6	2,420.4	0.0	2,420.4	0.00	0.00	0.00
6,700.0	90.32	0.00	4,373.0	2,520.4	0.0	2,520.4	0.00	0.00	0.00
6,800.0	90.32	0.00	4,372.5	2,620.4	0.0	2,620.4	0.00	0.00	0.00
6,900.0	90.32	0.00	4,371.9	2,720.4	0.0	2,720.4	0.00	0.00	0.00
7,000.0	90.32	0.00	4,371.4	2,820.4	0.0	2,820.4	0.00	0.00	0.00
7,100.0	90.32	0.00	4,370.8	2,920.4	0.0	2,920.4	0.00	0.00	0.00
7,200.0	90.32	0.00	4,370.3	3,020.4	0.0	3,020.4	0.00	0.00	0.00
7,300.0	90.32	0.00	4,369.7	3,120.4	0.0	3,120.4	0.00	0.00	0.00
7,400.0	90.32	0.00	4,369.1	3,220.4	0.0	3,220.4	0.00	0.00	0.00
7,500.0	90.32	0.00	4,368.6	3,320.4	0.0	3,320.4	0.00	0.00	0.00
7,600.0	90.32	0.00	4,368.0	3,420.4	0.0	3,420.4	0.00	0.00	0.00
7,700.0	90.32	0.00	4,367.5	3,520.4	0.0	3,520.4	0.00	0.00	0.00
7,800.0	90.32	0.00	4,366.9	3,620.4	0.0	3,620.4	0.00	0.00	0.00
7,900.0	90.32	0.00	4,366.3	3,720.4	0.0	3,720.4	0.00	0.00	0.00
8,000.0	90.32	0.00	4,365.8	3,820.4	0.0	3,820.4	0.00	0.00	0.00
8,100.0	90.32	0.00	4,365.2	3,920.4	0.0	3,920.4	0.00	0.00	0.00
8,139.6	90.32	0.00	4,365.0	3,960.0	0.0	3,960.0	0.00	0.00	0.00

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
hit/miss target									
Shape									
PBHL Sanke #2	0.00	0.00	4,365.0	3,960.0	0.0	625,458.61	376,082.10	32° 43' 7.806 N	104° 44' 10.496 W
- plan hits target									
- Point									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,498.4	4,360.0	Top Pay		-0.29	
	4,425.0	Base Pay		-0.29	

Scientific Drilling
Planning Report



Database:	EDM 2003.14 Single User Db	Local Co-ordinate Reference:	Well Snake State #2
Company:	Mack Energy Corp.	TVD Reference:	WELL @ 4086.0ft (Original Well Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 4086.0ft (Original Well Elev)
Site:	Snake State #2	North Reference:	Grid
Well:	Snake State #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,907.0	3,907.0	0.0	0.0	KOP - Build 12°/100°
4,659.7	4,384.5	480.1	0.0	EOC - Hold 90.32°



SECTION DETAILS

MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	0.0
3907.0	0.00	0.00	3907.0	0.0	0.0	0.00	0.00	0.0	0.0
4659.7	90.32	0.00	4384.5	480.1	0.0	12.00	0.00	480.1	0.0
8139.6	90.32	0.00	4365.0	0.0	0.00	0.00	0.00	3960.0	PBHL Snake #2

WELL DETAILS: Snake State #2

+N-S	+E-W	North	East	Ground Level:	Latitude	Longitude	Slot
0.0	0.0	621498.61	376082.10	4070.0	32° 42' 28.520 N	104° 44' 10.320 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	North	East	Shape	Point
PBHL Snake #2	4365.0	3960.0	0.0	625458.61	376082.10		

PROJECT DETAILS: Eddy County, NM (NAD 27 NME)
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

Plan: Plan #1 (Snake State #2/OH)

Created By: Julio Pina Date: 2006-06-01
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____

