

SEP 12 2007
OCD-ARTESIA



30-015-35814

Mack Energy Corp.

Eddy County, NM (NAD 27 NME)

State H #2

State H #2

Wellbore #1

Plan: Plan #1

Standard Planning Report

11 September, 2007





Scientific Drilling
Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well State H #2
Company:	Mack Energy Corp	TVD Reference:	WELL @ 3606.00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3606.00ft (KB Elev)
Site:	State H #2	North Reference:	Grid
Well:	State H #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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:		State H #2			
Site Position:		Northing:	646,629.20ft	Latitude:	32° 46' 39.510 N
From:	Map	Easting:	528,184.50ft	Longitude:	104° 14' 29.874 W
Position Uncertainty:	0.00 ft	Slot Radius:	ft	Grid Convergence:	0.05 °

Well	State H #2					
Well Position	+N/-S	0.00 ft	Northing:	646,629.20 ft	Latitude:	32° 46' 39.510 N
	+E/-W	0.00 ft	Easting:	528,184.50 ft	Longitude:	104° 14' 29.874 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	3,606.00 ft	Ground Level:	0.00 ft

Wellbore:	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/11/2007	8.37	60.68	49,269

Design:	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	156.92

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
460.00	0.00	0.00	460.00	0.00	0.00	0.00	0.00	0.00	0.00	
768.78	6.18	156.92	768.18	-15.29	6.52	2.00	2.00	0.00	156.92	
2,854.52	6.18	156.92	2,841.82	-221.71	94.48	0.00	0.00	0.00	0.00	
3,163.30	0.00	0.00	3,150.00	-237.00	101.00	2.00	-2.00	0.00	180.00	
7,313.30	0.00	0.00	7,300.00	-237.00	101.00	0.00	0.00	0.00	0.00	PBHL-State H #1



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Planning Report



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Company:	Mack Energy Corp.	TVD Reference:	WELL @ 3606.00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3606.00ft (KB Elev)
Site:	State H #2	North Reference:	Grid
Well:	State H #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
460.00	0.00	0.00	460.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP 460' Start 2.0°/100'									
500.00	0.80	156.92	500.00	-0.26	0.11	0.28	2.00	2.00	0.00
600.00	2.80	156.92	599.94	-3.15	1.34	3.42	2.00	2.00	0.00
700.00	4.80	156.92	699.72	-9.24	3.94	10.05	2.00	2.00	0.00
768.78	6.18	156.92	768.18	-15.29	6.52	16.62	2.00	2.00	0.00
EOC hold 6.18°									
800.00	6.18	156.92	799.22	-18.38	7.83	19.98	0.00	0.00	0.00
900.00	6.18	156.92	898.64	-28.28	12.05	30.74	0.00	0.00	0.00
1,000.00	6.18	156.92	998.06	-38.18	16.27	41.50	0.00	0.00	0.00
1,100.00	6.18	156.92	1,097.48	-48.07	20.49	52.26	0.00	0.00	0.00
1,200.00	6.18	156.92	1,196.90	-57.97	24.70	63.01	0.00	0.00	0.00
1,300.00	6.18	156.92	1,296.32	-67.87	28.92	73.77	0.00	0.00	0.00
1,400.00	6.18	156.92	1,395.74	-77.76	33.14	84.53	0.00	0.00	0.00
1,500.00	6.18	156.92	1,495.16	-87.66	37.36	95.29	0.00	0.00	0.00
1,600.00	6.18	156.92	1,594.58	-97.55	41.57	106.04	0.00	0.00	0.00
1,700.00	6.18	156.92	1,694.00	-107.45	45.79	116.80	0.00	0.00	0.00
1,800.00	6.18	156.92	1,793.42	-117.35	50.01	127.56	0.00	0.00	0.00
1,900.00	6.18	156.92	1,892.84	-127.24	54.23	138.32	0.00	0.00	0.00
2,000.00	6.18	156.92	1,992.26	-137.14	58.44	149.07	0.00	0.00	0.00
2,100.00	6.18	156.92	2,091.68	-147.04	62.66	159.83	0.00	0.00	0.00
2,200.00	6.18	156.92	2,191.10	-156.93	66.88	170.59	0.00	0.00	0.00
2,300.00	6.18	156.92	2,290.52	-166.83	71.10	181.35	0.00	0.00	0.00
2,400.00	6.18	156.92	2,389.94	-176.73	75.31	192.10	0.00	0.00	0.00
2,500.00	6.18	156.92	2,489.36	-186.62	79.53	202.86	0.00	0.00	0.00
2,600.00	6.18	156.92	2,588.78	-196.52	83.75	213.62	0.00	0.00	0.00
2,700.00	6.18	156.92	2,688.20	-206.41	87.97	224.38	0.00	0.00	0.00
2,800.00	6.18	156.92	2,787.62	-216.31	92.18	235.13	0.00	0.00	0.00
2,854.52	6.18	156.92	2,841.82	-221.71	94.48	241.00	0.00	0.00	0.00
Start Drop 2.0°/100'									
2,900.00	5.27	156.92	2,887.07	-225.88	96.26	245.53	2.00	-2.00	0.00
3,000.00	3.27	156.92	2,986.79	-232.72	99.18	252.97	2.00	-2.00	0.00
3,100.00	1.27	156.92	3,086.71	-236.36	100.73	256.92	2.00	-2.00	0.00
3,163.30	0.00	0.00	3,150.00	-237.00	101.00	257.62	2.00	-2.00	0.00
EOC hold 0.0°									
3,200.00	0.00	0.00	3,186.70	-237.00	101.00	257.62	0.00	0.00	0.00
3,300.00	0.00	0.00	3,286.70	-237.00	101.00	257.62	0.00	0.00	0.00
3,400.00	0.00	0.00	3,386.70	-237.00	101.00	257.62	0.00	0.00	0.00
3,500.00	0.00	0.00	3,486.70	-237.00	101.00	257.62	0.00	0.00	0.00
3,600.00	0.00	0.00	3,586.70	-237.00	101.00	257.62	0.00	0.00	0.00
3,700.00	0.00	0.00	3,686.70	-237.00	101.00	257.62	0.00	0.00	0.00
3,800.00	0.00	0.00	3,786.70	-237.00	101.00	257.62	0.00	0.00	0.00
3,900.00	0.00	0.00	3,886.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,000.00	0.00	0.00	3,986.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,100.00	0.00	0.00	4,086.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,200.00	0.00	0.00	4,186.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,300.00	0.00	0.00	4,286.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,400.00	0.00	0.00	4,386.70	-237.00	101.00	257.62	0.00	0.00	0.00



Scientific Drilling
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Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3606.00ft (KB Elev)
Site:	State H #2	North Reference:	Grid
Well:	State H #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
4,500.00	0.00	0.00	4,486.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,600.00	0.00	0.00	4,586.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,700.00	0.00	0.00	4,686.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,800.00	0.00	0.00	4,786.70	-237.00	101.00	257.62	0.00	0.00	0.00
4,900.00	0.00	0.00	4,886.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,000.00	0.00	0.00	4,986.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,100.00	0.00	0.00	5,086.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,200.00	0.00	0.00	5,186.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,300.00	0.00	0.00	5,286.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,400.00	0.00	0.00	5,386.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,500.00	0.00	0.00	5,486.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,600.00	0.00	0.00	5,586.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,700.00	0.00	0.00	5,686.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,800.00	0.00	0.00	5,786.70	-237.00	101.00	257.62	0.00	0.00	0.00
5,900.00	0.00	0.00	5,886.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,000.00	0.00	0.00	5,986.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,100.00	0.00	0.00	6,086.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,200.00	0.00	0.00	6,186.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,300.00	0.00	0.00	6,286.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,400.00	0.00	0.00	6,386.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,500.00	0.00	0.00	6,486.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,600.00	0.00	0.00	6,586.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,700.00	0.00	0.00	6,686.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,800.00	0.00	0.00	6,786.70	-237.00	101.00	257.62	0.00	0.00	0.00
6,900.00	0.00	0.00	6,886.70	-237.00	101.00	257.62	0.00	0.00	0.00
7,000.00	0.00	0.00	6,986.70	-237.00	101.00	257.62	0.00	0.00	0.00
7,100.00	0.00	0.00	7,086.70	-237.00	101.00	257.62	0.00	0.00	0.00
7,200.00	0.00	0.00	7,186.70	-237.00	101.00	257.62	0.00	0.00	0.00
7,300.00	0.00	0.00	7,286.70	-237.00	101.00	257.62	0.00	0.00	0.00
7,313.30	0.00	0.00	7,300.00	-237.00	101.00	257.62	0.00	0.00	0.00
East HL-State H #1 - PBHL-State H #1 - South HL-State H #1									

Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
PBHL-State H #1		0.00	0.00	7,300.00	-237.00	101.00	646,392.20	528,285.50	32° 46' 37.164 N 104° 14' 28.693 W
- plan hits target									
- Circle (radius 10.00)									
South HL-State H #1		0.00	0.00	7,300.00	-247.00	111.00	646,382.20	528,295.50	32° 46' 37.065 N 104° 14' 28.576 W
- plan misses by 14.14ft at 7313.30ft MD (7300.00 TVD, -237.00 N, 101.00 E)									
- Rectangle (sides W0.00 H200.00 D0.00)									
East HL-State H #1		0.00	0.00	7,300.00	-247.00	111.00	646,382.20	528,295.50	32° 46' 37.065 N 104° 14' 28.576 W
- plan misses by 14.14ft at 7313.30ft MD (7300.00 TVD, -237.00 N, 101.00 E)									
- Rectangle (sides W800.00 H0.00 D0.00)									



Scientific Drilling
Planning Report

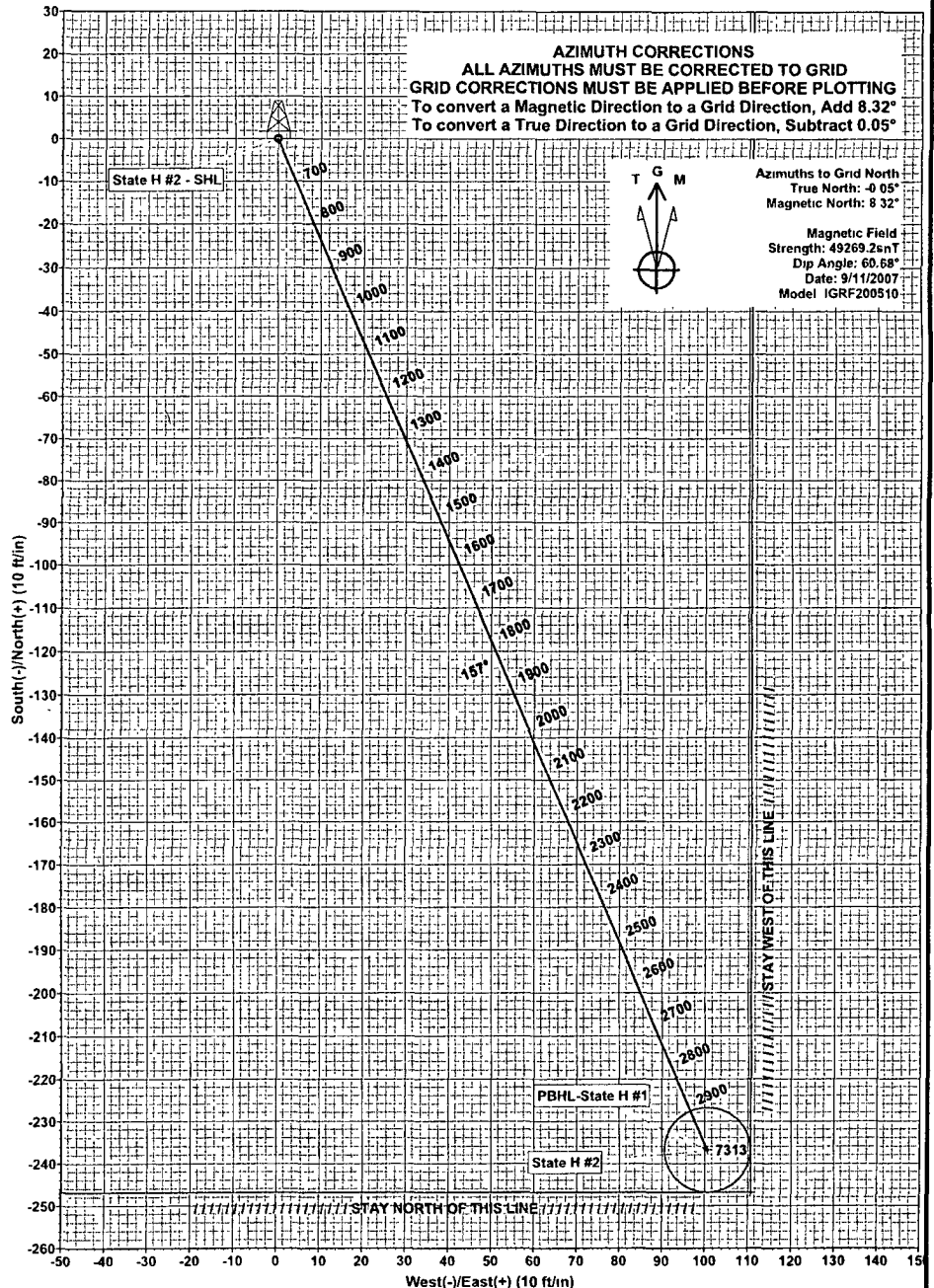
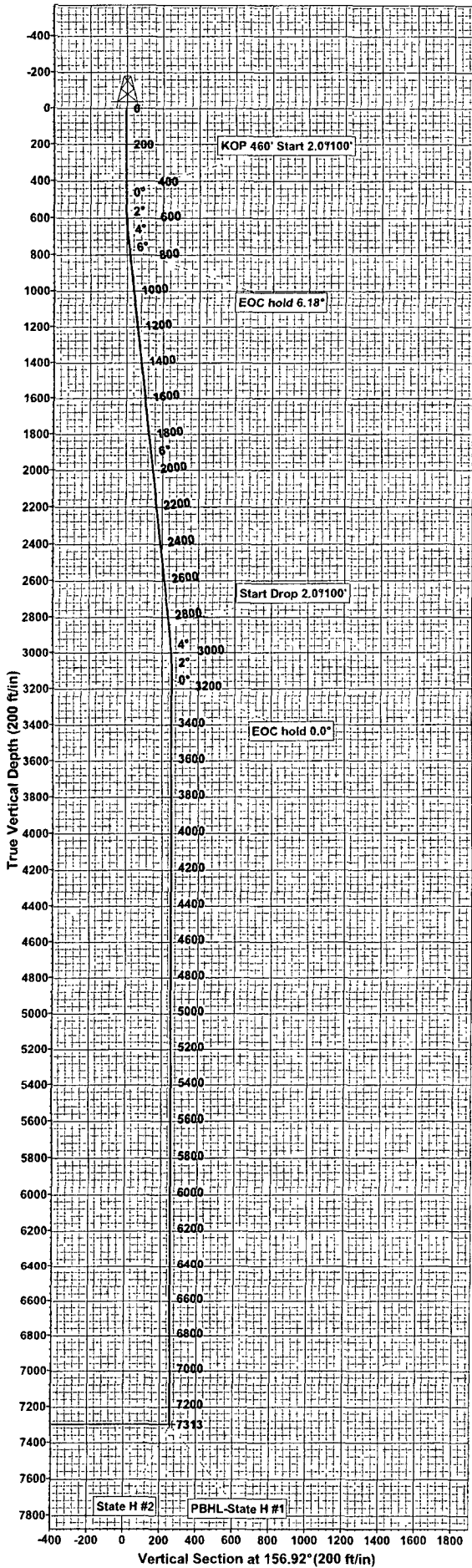


Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well State H #2
Company:	Mack Energy Corp	TVD Reference:	WELL @ 3606.00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3606.00ft (KB Elev)
Site:	State H #2	North Reference:	Grid
Well:	State H #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
460.00	460.00	0.00	0.00	KOP 460' Start 2.0°/100'
768.78	768.18	-15.29	6.52	EOC hold 6.18°
2,854.52	2,841.82	-221.71	94.48	Start Drop 2.0°/100'
3,163.30	3,150.00	-237.00	101.00	EOC hold 0.0°



Scientific Drilling for Mack Energy Corp.
Site: Eddy County, NM (NAD 27 NME)
Well: State H #2
Wellbore: Wellbore #1
Design: Plan #1



AZIMUTH CORRECTIONS
ALL AZIMUTHS MUST BE CORRECTED TO GRID
GRID CORRECTIONS MUST BE APPLIED BEFORE PLOTTING
To convert a Magnetic Direction to a Grid Direction, Add 8.32°
To convert a True Direction to a Grid Direction, Subtract 0.05°



Azimuths to Grid North
True North: -0.05°
Magnetic North: 8.32°
Magnetic Field
Strength: 49269.2nT
Dip Angle: 60.68°
Date: 9/11/2007
Model: IGRF200510

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	460.00	0.00	0.00	460.00	0.00	0.00	0.00	0.00	0.00	
3	768.78	6.18	156.92	768.18	-15.29	6.52	2.00	156.92	16.62	
4	2854.52	6.18	156.92	2841.82	-221.71	94.48	0.00	0.00	241.00	
5	3163.30	0.00	0.00	3150.00	-237.00	101.00	2.00	180.00	257.62	
6	7313.30	0.00	0.00	7300.00	-237.00	101.00	0.00	0.00	257.62	PBHL-State H #1

WELL DETAILS: State H #2

+N/-S	+E/-W	North	Ground Level:	Latitude	Longitude
0.00	0.00	646629.20	0.00	32°46' 39.510 N	104°14' 29.874 W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	North	East	Latitude	Longitude	Shape
East HL-State H #1	7300.00	-247.00	111.00	646382.20	528295.50	32°46' 37.065 N	104°14' 28.576 W	Rectangle (S: des. L800.00 W0.00)
PBHL-State H #1	7300.00	-237.00	101.00	646392.20	528285.50	32°46' 37.164 N	104°14' 28.693 W	Circle (Radius: 10.00)
South HL-State H #1	7300.00	-247.00	111.00	646382.20	528295.50	32°46' 37.065 N	104°14' 28.576 W	Rectangle (S: des. L0.00 W200.00)

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 (State H #2/Wellbore #1)

Created By: Julio Pina Date: 11-Sep-07
Checked: Date:
Reviewed: Date:
Approved: Date: