



NOV 13 2007
OCD-ARTESIA

Mack Energy Corp.

Eddy County, NM (NAD 27 NME)

Santa Claus ^{State} Fed Com #2

Santa Claus ^{State} Fed Com #2

Wellbore #1

30-015-36258

Plan: Plan #1

Standard Planning Report

07 November, 2007



Scientific Drilling
Directional Drilling Operations



Scientific Drilling Planning Report



Database:	EDM 2003 16 Single User Db	Local Co-ordinate Reference:	Well Santa Claus Fed Com #2
Company:	Mack Energy Corp	TVD Reference:	WELL @ 3604.00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3604.00ft (KB Elev)
Site:	Santa Claus Fed Com #2	North Reference:	Grid
Well:	Santa Claus Fed Com #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	Santa Claus Fed Com #2		
Site Position:		Northing:	701,173 30 ft
From:	Map	Easting:	549,876 20 ft
Position Uncertainty:	0 00 ft	Slot Radius:	ft
		Latitude:	32° 55' 38 985 N
		Longitude:	104° 10' 14 816 W
		Grid Convergence:	0 09 °

Well	Santa Claus Fed Com #2		
Well Position	+N/-S	0 00 ft	Northing:
	+E/-W	0 00 ft	Easting:
Position Uncertainty	0 00 ft	Wellhead Elevation:	3,604 00 ft
		Ground Level:	3,586 00 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	11/7/2007	8 33
			Dip Angle
			(°)
			60 83
			Field Strength
			(nT)
			49,353

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0 00	0 00	0 00
			Direction
			(°)
			87 09

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
6,100 00	0 00	0 00	6,100 00	0 00	0 00	0 00	0 00	0 00	0 00	
6,862 99	89 58	87 09	6,588 00	24 57	483 81	11 74	11 74	0 00	87 09	
10,951 45	89 58	87 09	6,618 00	231 90	4,566 90	0 00	0 00	0 00	0 00	PBHL-SCFC #2



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Planning Report



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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
East HL-SCFC #2 - South HL-SCFC #2									
1,450 00	0 00	0 00	1,450 00	0 00	0 00	0 00	0 00	0 00	0 00
8 5/8" Casing									
6,100 00	0 00	0 00	6,100 00	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start 11.74°/100'									
6,200 00	11 74	87 09	6,199 30	0 52	10 20	10 21	11 74	11 74	0 00
6,300 00	23.48	87 09	6,294 45	2 05	40 36	40.41	11 74	11 74	0 00
6,400 00	35 22	87 09	6,381 46	4 53	89 23	89 34	11 74	11 74	0 00
6,500 00	46.96	87 09	6,456 69	7 86	154 76	154 96	11 74	11 74	0 00
6,600 00	58 70	87.09	6,517 00	11 89	234 20	234 50	11 74	11 74	0 00
6,700 00	70 44	87 09	6,559 86	16 46	324 24	324 66	11 74	11 74	0 00
6,800 00	82 18	87 09	6,583 48	21 38	421 11	421 65	11 74	11 74	0 00
6,862 99	89 58	87 09	6,588 00	24 57	483 81	484 43	11 74	11 74	0 00
EOC hold 89.58°									
6,900 00	89.58	87 09	6,588 27	26 44	520 77	521 44	0 00	0 00	0 00
7,000 00	89 58	87 09	6,589 00	31.52	620 64	621 44	0 00	0 00	0 00
7,100 00	89 58	87 09	6,589 74	36 59	720 51	721 44	0 00	0 00	0 00
7,200 00	89 58	87 09	6,590 47	41 66	820 38	821 43	0 00	0 00	0 00
7,300 00	89 58	87 09	6,591 21	46 73	920 25	921 43	0 00	0 00	0 00
7,400 00	89 58	87 09	6,591 94	51 80	1,020 12	1,021 43	0 00	0 00	0 00
7,500 00	89 58	87.09	6,592 67	56 87	1,119 98	1,121 43	0 00	0 00	0 00
7,600 00	89 58	87 09	6,593 41	61.94	1,219 85	1,221.42	0 00	0 00	0 00
7,700 00	89 58	87 09	6,594.14	67 01	1,319 72	1,321 42	0 00	0 00	0 00
7,800 00	89 58	87 09	6,594 88	72 08	1,419 59	1,421 42	0 00	0 00	0 00
7,900 00	89 58	87 09	6,595 61	77 16	1,519 46	1,521.42	0 00	0 00	0 00
8,000 00	89 58	87 09	6,596 34	82 23	1,619 33	1,621 41	0 00	0 00	0 00
8,100 00	89 58	87 09	6,597 08	87 30	1,719 20	1,721 41	0 00	0 00	0 00
8,200.00	89 58	87 09	6,597 81	92 37	1,819 06	1,821 41	0 00	0 00	0 00
8,300 00	89 58	87 09	6,598 54	97 44	1,918 93	1,921 41	0 00	0 00	0 00
8,400 00	89 58	87.09	6,599 28	102 51	2,018 80	2,021 40	0 00	0 00	0 00
8,500 00	89 58	87 09	6,600 01	107 58	2,118 67	2,121 40	0 00	0 00	0 00
8,600 00	89 58	87.09	6,600 75	112 65	2,218 54	2,221 40	0 00	0 00	0 00
8,700 00	89 58	87 09	6,601 48	117.73	2,318 41	2,321 39	0 00	0 00	0 00
8,800 00	89 58	87.09	6,602 21	122 80	2,418 28	2,421 39	0 00	0 00	0 00
8,900 00	89 58	87 09	6,602 95	127 87	2,518 14	2,521 39	0 00	0 00	0 00
9,000 00	89 58	87 09	6,603 68	132 94	2,618 01	2,621 39	0 00	0 00	0 00
9,100 00	89 58	87 09	6,604 41	138 01	2,717 88	2,721 38	0 00	0 00	0 00
9,200 00	89 58	87 09	6,605 15	143 08	2,817 75	2,821 38	0 00	0 00	0 00
9,300 00	89 58	87.09	6,605.88	148 15	2,917 62	2,921 38	0 00	0 00	0 00
9,400 00	89 58	87 09	6,606.62	153 22	3,017 49	3,021 38	0 00	0 00	0 00
9,500 00	89 58	87 09	6,607 35	158 29	3,117 36	3,121 37	0 00	0 00	0 00
9,600 00	89 58	87 09	6,608 08	163.37	3,217 23	3,221 37	0 00	0 00	0 00
9,700 00	89 58	87 09	6,608 82	168 44	3,317 09	3,321 37	0 00	0 00	0 00
9,800 00	89 58	87 09	6,609 55	173 51	3,416 96	3,421 36	0 00	0 00	0 00
9,900 00	89 58	87 09	6,610 28	178 58	3,516 83	3,521 36	0 00	0 00	0 00
10,000 00	89 58	87 09	6,611 02	183 65	3,616 70	3,621 36	0 00	0 00	0 00
10,100 00	89 58	87 09	6,611 75	188 72	3,716 57	3,721 36	0 00	0 00	0 00
10,200 00	89 58	87 09	6,612 49	193.79	3,816 44	3,821 35	0 00	0 00	0 00
10,300 00	89 58	87 09	6,613 22	198.86	3,916 31	3,921 35	0 00	0 00	0 00
10,400 00	89 58	87 09	6,613 95	203 94	4,016 17	4,021 35	0 00	0 00	0 00
10,500 00	89 58	87 09	6,614 69	209 01	4,116 04	4,121 35	0 00	0 00	0 00
10,600.00	89.58	87 09	6,615 42	214 08	4,215.91	4,221 34	0 00	0 00	0 00



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Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3604 00ft (KB Elev)
Site:	Santa Claus Fed Com #2	North Reference:	Grid
Well:	Santa Claus Fed Com #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)
10,700 00	89 58	87 09	6,616 15	219 15	4,315 78	4,321.34	0 00	0 00	0 00
10,800 00	89 58	87 09	6,616 89	224 22	4,415 65	4,421 34	0 00	0 00	0 00
10,900 00	89 58	87 09	6,617 62	229 29	4,515 52	4,521 34	0 00	0 00	0 00
10,951 45	89 58	87 09	6,618 00	231 90	4,566 90	4,572 78	0 00	0 00	0 00
PBHL-SCFC #2									

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-SCFC #2	0.00	0 00	6,618 00	231 90	4,566 90	701,405 20	554,443 10	32° 55' 41 207 N	104° 9' 21 229 W
- plan hits target									
- Circle (radius 10 00)									
East HL-SCFC #2	0 00	0 00	0 00	222 40	4,577.40	701,395 70	554,453 60	32° 55' 41.113 N	104° 9' 21 106 W
- plan misses by 4582 80ft at 0 00ft MD (0 00 TVD, 0 00 N, 0 00 E)									
- Rectangle (sides W0 00 H1,000 00 D0 00)									
South HL-SCFC #2	0 00	0 00	0 00	222 40	4,577 40	701,395 70	554,453 60	32° 55' 41.113 N	104° 9' 21 106 W
- plan misses by 4582 80ft at 0 00ft MD (0 00 TVD, 0 00 N, 0 00 E)									
- Rectangle (sides W1,000 00 H0 00 D0 00)									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)
1,450 00	1,450 00	8 5/8" Casing	8 62500	12 25000

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
6,100 00	6,100 00	0 00	0 00	KOP Start 11 74°/100'
6,862 99	6,588 00	24 57	483 81	EOC hold 89 58°



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



SECTION DETAILS

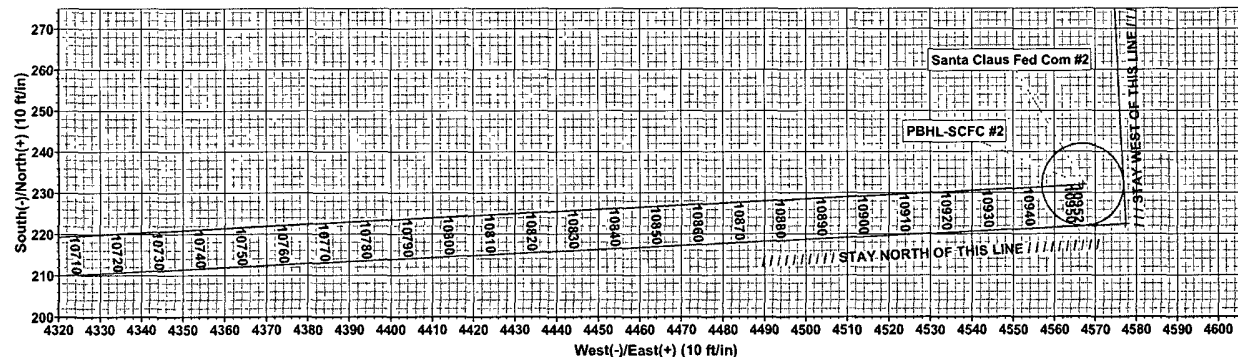
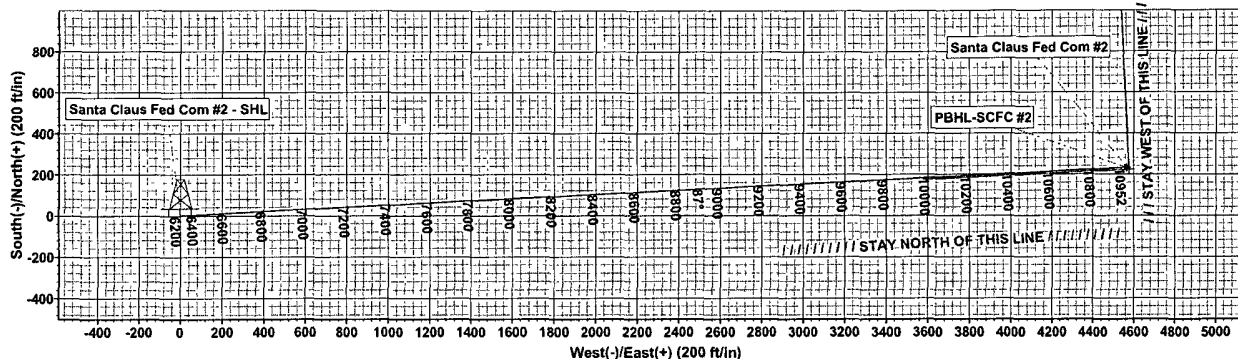
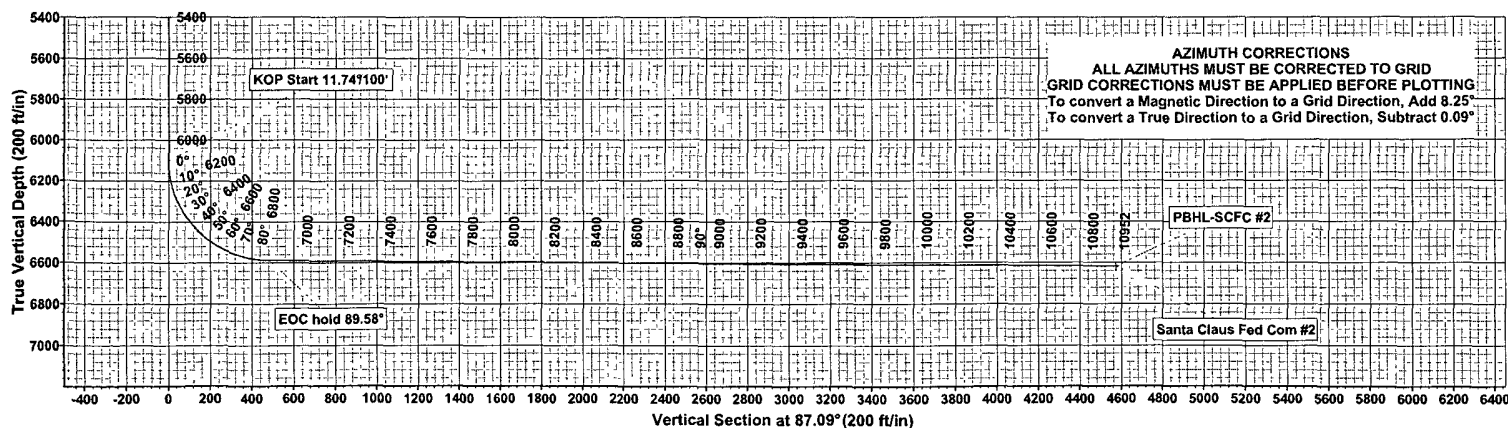
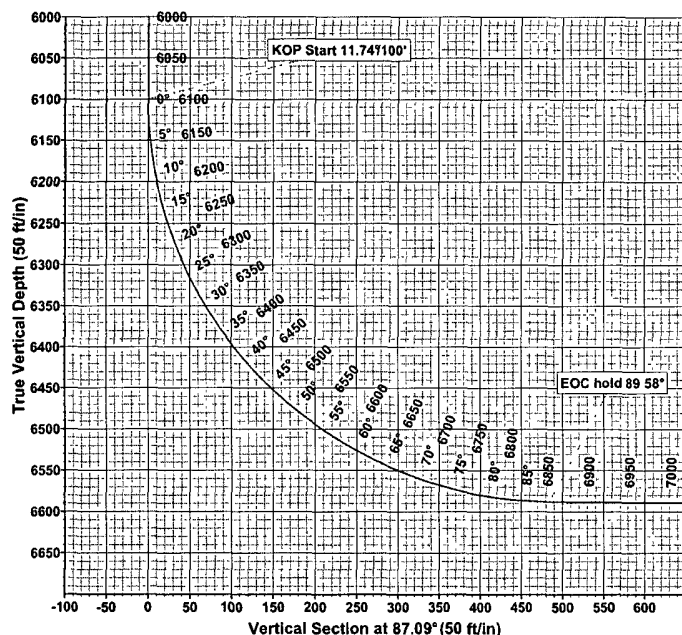
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

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	6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	0.00	0.00	
3	6862.99	89.58	87.09	6588.00	24.57	483.81	11.74	87.09	484.43	
4	10951.45	89.58	87.09	6618.00	231.90	4566.90	0.00	0.00	4572.78	PBHL-SCFC #2

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
East HL-SCFC #2	0.00	222.40	4577.40	701395.70	554453.60	32°55' 41.113 N	104°9' 21.106 W	Rectangle (Sides: L0 .00 W1000.00)
South HL-SCFC #2	0.00	222.40	4577.40	701395.70	554453.60	32°55' 41.113 N	104°9' 21.106 W	Rectangle (Sides: L 1000.00 W0.00)
PBHL-SCFC #2	6618.00	231.90	4566.90	701405.20	554443.10	32°55' 41.207 N	104°9' 21.229 W	Circle (Radius: 10.0 0)

WELL DETAILS: Santa Claus Fed Com #2

+N/-S	+E/-W	Ground Level:	3586.00			
Northing	Easting	Latitude	Longitude	Slot		
701173.30	549876.20	32°55' 38.985 N	104°10' 14.816 W			



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 8.25°
To convert a True Direction to a Grid Direction, Subtract 0.09°



Azimuths to Grid North
True North: -0.09°
Magnetic North: 8.25°
Magnetic Field
Strength: 49353.2nT
Dip Angle: 60.83°
Date: 11/7/2007
Model: IGRF200510

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 (Santa Claus Fed Com #2/Wellbore #1)

Created By: Julio Pina Date: 07-Nov-07
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____