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Mack Energy Corp.

Eddy County, NM (NAD 27 NME)

Santa Claus ^{State} Fed Com #1

Santa Claus ^{State} Fed Com #1

Wellbore #1

30-015-36257

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 #1
Company:	Mack Energy Corp.	TVD Reference:	WELL @ 3595 00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3595 00ft (KB Elev)
Site:	Santa Claus Fed Com #1	North Reference:	Grid
Well:	Santa Claus Fed Com #1	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 #1		
Site Position:		Northing:	699,852 50 ft
From:	Map	Easting:	549,879 40 ft
Position Uncertainty:	0 00 ft	Slot Radius:	ft
		Latitude:	32° 55' 25 915 N
		Longitude:	104° 10' 14 802 W
		Grid Convergence:	0 09 °

Well	Santa Claus Fed Com #1		
Well Position	+N/-S	0 00 ft	Northing:
	+E/-W	0 00 ft	Easting:
Position Uncertainty	0 00 ft	Wellhead Elevation:	3,595 00 ft
		Latitude:	32° 55' 25 915 N
		Longitude:	104° 10' 14 802 W
		Ground Level:	3,577 00 ft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	11/7/2007	8 33
			Dip Angle
			(°)
			60 83
			Field Strength
			(nT)
			49,351

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	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(ft)	(ft)	Rate	Rate	Rate	(°)	
(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 98	89 58	87 09	6,588 00	24 59	483 80	11 74	11.74	0.00	87 09	
10,949 86	89 58	87 09	6,618.00	232 00	4,565.30	0 00	0.00	0 00	0 00	PBHL-SCFC #1



Scientific Drilling
Planning Report



Database: EDM 2003 16 Single User Db
Company: Mack Energy Corp
Project: Eddy County, NM (NAD 27 NME)
Site: Santa Claus ^{State} Fed Com #1
Well: Santa Claus Fed Com #1
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Santa Claus Fed Com #1
TVD Reference: WELL @ 3595 00ft (KB Elev)
MD Reference: WELL @ 3595 00ft (KB Elev)
North Reference: Grd
Survey Calculation Method: Minimum Curvature

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 #1 - South HL-SCFC #1									
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 90	234 20	234 51	11 74	11 74	0 00
6,700 00	70 44	87 09	6,559 86	16 48	324 24	324 66	11 74	11 74	0 00
6,800 00	82 19	87 09	6,583 48	21 40	421 11	421 65	11 74	11 74	0 00
6,862 98	89 58	87 09	6,588 00	24 59	483 80	484 43	11 74	11 74	0 00
6,862 99	89 58	87 09	6,588 00	24 59	483 81	484 43	0 00	0 00	0 00
EOC hold 89.58°									
6,900 00	89 58	87 09	6,588 27	26 46	520 77	521 45	0 00	0 00	0 00
7,000 00	89 58	87 09	6,589 00	31 54	620 64	621 44	0 00	0 00	0 00
7,100 00	89 58	87 09	6,589 74	36 61	720 51	721 44	0 00	0 00	0 00
7,200 00	89 58	87 09	6,590 47	41 69	820 38	821 44	0 00	0 00	0 00
7,300 00	89 58	87 09	6,591 20	46 77	920 25	921 43	0 00	0 00	0 00
7,400 00	89 58	87 09	6,591 94	51 84	1,020 12	1,021 43	0 00	0 00	0 00
7,500 00	89 58	87 09	6,592 67	56 92	1,119 98	1,121 43	0 00	0 00	0 00
7,600 00	89 58	87 09	6,593 41	61 99	1,219 85	1,221 43	0 00	0 00	0 00
7,700 00	89 58	87 09	6,594 14	67 07	1,319 72	1,321 42	0 00	0 00	0 00
7,800 00	89 58	87 09	6,594 88	72 14	1,419 59	1,421 42	0 00	0 00	0 00
7,900 00	89 58	87 09	6,595 61	77 22	1,519 46	1,521 42	0 00	0 00	0 00
8,000 00	89 58	87 09	6,596 34	82 29	1,619 33	1,621 42	0 00	0 00	0 00
8,100 00	89 58	87 09	6,597 08	87 37	1,719 19	1,721 41	0 00	0 00	0 00
8,200 00	89 58	87 09	6,597 81	92 44	1,819 06	1,821 41	0 00	0 00	0 00
8,300 00	89 58	87 09	6,598 55	97 52	1,918 93	1,921 41	0 00	0 00	0 00
8,400 00	89 58	87 09	6,599 28	102 59	2,018 80	2,021 40	0 00	0 00	0 00
8,500 00	89 58	87 09	6,600 01	107 67	2,118 67	2,121 40	0 00	0 00	0 00
8,600 00	89 58	87 09	6,600 75	112 74	2,218 54	2,221 40	0 00	0 00	0 00
8,700 00	89 58	87 09	6,601 48	117 82	2,318 40	2,321 40	0 00	0 00	0 00
8,800 00	89 58	87 09	6,602 22	122 89	2,418 27	2,421 39	0 00	0 00	0 00
8,900 00	89 58	87 09	6,602 95	127 97	2,518 14	2,521 39	0 00	0 00	0 00
9,000 00	89 58	87 09	6,603 68	133 04	2,618 01	2,621 39	0 00	0 00	0 00
9,100 00	89 58	87 09	6,604 42	138 12	2,717 88	2,721 39	0 00	0 00	0 00
9,200 00	89 58	87 09	6,605 15	143 19	2,817 75	2,821 38	0 00	0 00	0 00
9,300 00	89 58	87 09	6,605 89	148 27	2,917 62	2,921 38	0 00	0 00	0 00
9,400 00	89 58	87 09	6,606 62	153 34	3,017 48	3,021 38	0 00	0 00	0 00
9,500 00	89 58	87 09	6,607 36	158 42	3,117 35	3,121 37	0 00	0 00	0 00
9,600 00	89 58	87 09	6,608 09	163 49	3,217 22	3,221 37	0 00	0 00	0 00
9,700 00	89 58	87 09	6,608 82	168 57	3,317 09	3,321 37	0 00	0 00	0 00
9,800 00	89 58	87 09	6,609 56	173 64	3,416 96	3,421 37	0 00	0 00	0 00
9,900 00	89 58	87 09	6,610 29	178 72	3,516 83	3,521 36	0 00	0 00	0 00
10,000 00	89 58	87 09	6,611 03	183 79	3,616 69	3,621 36	0 00	0 00	0 00
10,100 00	89 58	87 09	6,611 76	188 87	3,716 56	3,721 36	0 00	0 00	0 00
10,200 00	89 58	87 09	6,612 49	193 94	3,816 43	3,821 36	0 00	0 00	0 00
10,300 00	89 58	87 09	6,613 23	199 02	3,916 30	3,921 35	0 00	0 00	0 00
10,400 00	89 58	87 09	6,613 96	204 09	4,016 17	4,021 35	0 00	0 00	0 00
10,500 00	89 58	87 09	6,614 70	209 17	4,116 04	4,121 35	0 00	0 00	0 00



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Company:	Mack Energy Corp	TVD Reference:	WELL @ 3595 00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3595 00ft (KB Elev)
Site:	Santa Claus Fed Com #1	North Reference:	Grid
Well:	Santa Claus Fed Com #1	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)
10,600.00	89.58	87.09	6,615.43	214.24	4,215.91	4,221.35	0.00	0.00	0.00
10,700.00	89.58	87.09	6,616.17	219.32	4,315.77	4,321.34	0.00	0.00	0.00
10,800.00	89.58	87.09	6,616.90	224.39	4,415.64	4,421.34	0.00	0.00	0.00
10,900.00	89.58	87.09	6,617.63	229.47	4,515.51	4,521.34	0.00	0.00	0.00
10,949.86	89.58	87.09	6,618.00	232.00	4,565.30	4,571.19	0.00	0.00	0.00
PBHL-SCFC #1									

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
PBHL-SCFC #1	- plan hits target	0.00	0.01	6,618.00	232.00	4,565.30	700,084.50	554,444.70	Latitude Longitude
	- Circle (radius 10.00)								
East HL-SCFC #1	- plan misses by 4581.21ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)	0.00	0.00	0.00	222.50	4,575.80	700,075.00	554,455.20	32° 55' 28.044 N 104° 9' 21.114 W
	- Rectangle (sides W0.00 H1,000.00 D0.00)								
South HL-SCFC #1	- plan misses by 4581.21ft at 0.00ft MD (0.00 TVD, 0.00 N, 0.00 E)	0.00	0.00	0.00	222.50	4,575.80	700,075.00	554,455.20	32° 55' 28.044 N 104° 9' 21.114 W
	- 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)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,100.00	6,100.00	0.00	0.00	KOP Start 11.74°/100'
6,862.99	6,588.00	24.59	483.81	EOC hold 89.58°



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

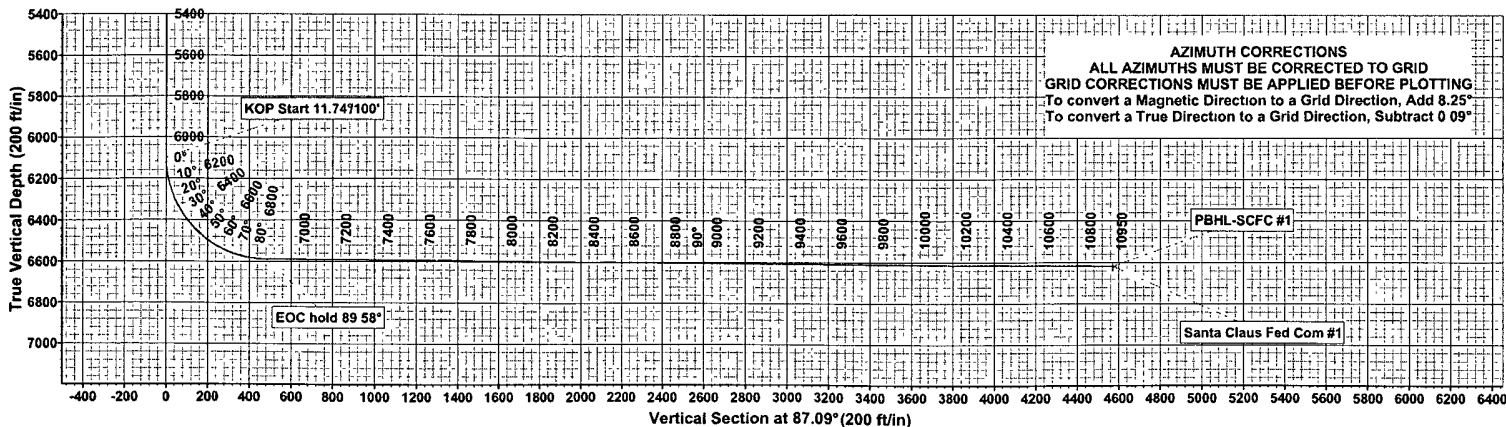
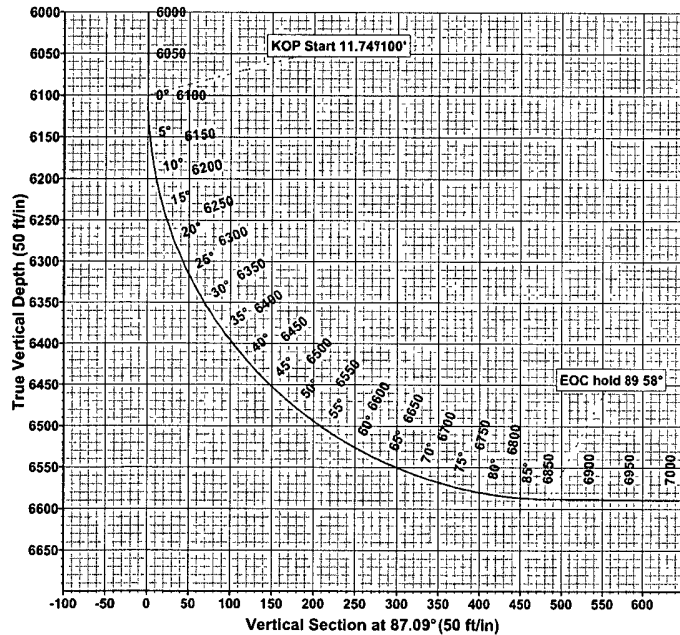


SECTION DETAILS

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	6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	0.00	0.00	
3	6862.98	89.58	87.09	6588.00	24.59	483.80	11.74	87.09	484.43	
4	10949.86	89.58	87.09	6618.00	232.00	4565.30	0.00	0.00	4571.19	PBHL-SCFC #1

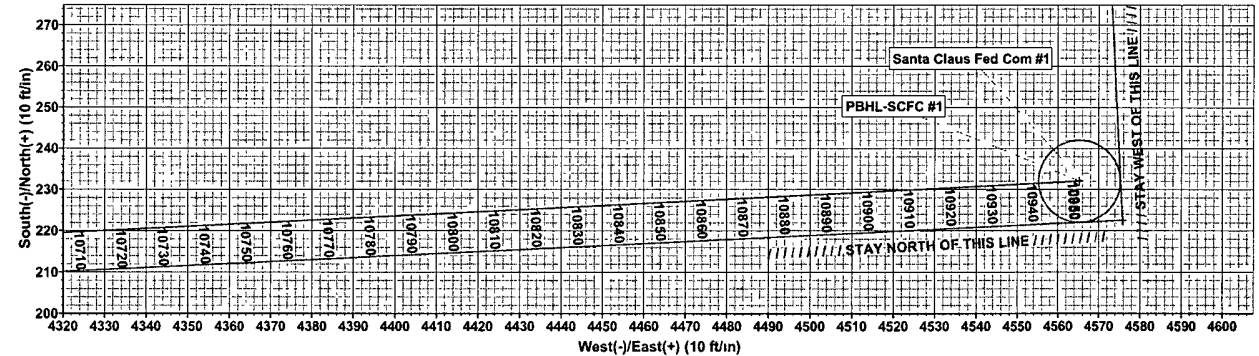
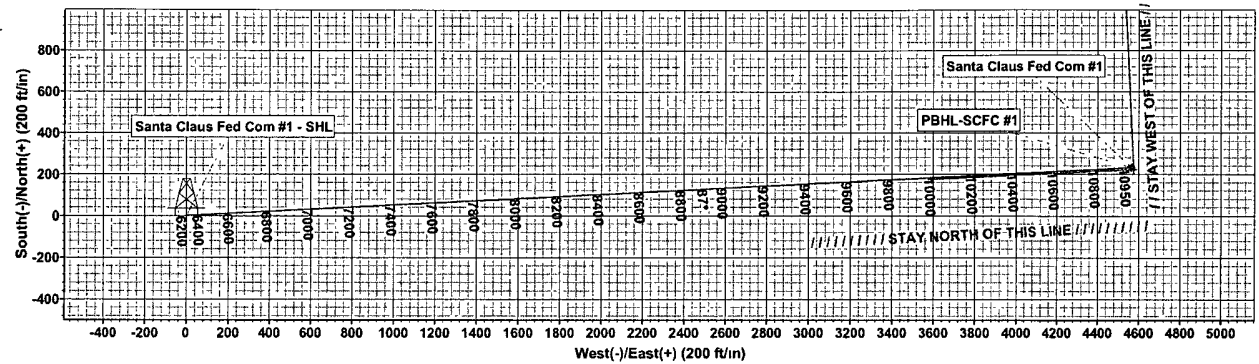
WELL DETAILS: Santa Claus Fed Com #1

+N/-S	+E/-W	Northing	Ground Level: 3577.00	Eastings	Latitude	Longitude	Slot
0.00	0.00	699852.50	549879.40	32°55' 25.915 N	104°10' 14.802 W		



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude	Shape
East HL-SCFC #1	0.00	222.50	4575.80	700075.00	554455.20	32°55' 28.044 N	104°9' 21.114 W	Rectangle (Sides: L 0.00 W1000.00)
South HL-SCFC #1	0.00	222.50	4575.80	700075.00	554455.20	32°55' 28.044 N	104°9' 21.114 W	Rectangle (Sides: L 1000.00 W0.00)
PBHL-SCFC #1	6618.00	232.00	4565.30	700084.50	554444.70	32°55' 28.138 N	104°9' 21.237 W	Circle (Radius: 10.0 0)



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: 49351.1nT
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 #1/Wellbore #1)

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