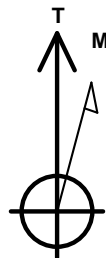


#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0
3	1725.0	14.50	229.28	1717.3	-59.5	-69.2	2.00	229.28	91.3
4	4612.9	14.50	229.28	4513.2	-531.2	-617.2	0.00	0.00	814.3
5	5579.6	0.00	0.00	5469.6	-610.6	-709.4	1.50	180.00	936.0
6	8040.0	0.00	0.00	7930.0	-610.6	-709.4	0.00	0.00	936.0



Azimuths to True North  
 Magnetic North: 9.04°

Magnetic Field  
 Strength: 53288.0snT  
 Dip Angle: 67.02°  
 Date: 7/9/2009  
 Model: IGRF200510

# **ROCKIES - PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_RURAL 15-31 PAD**

**P\_RURAL 36-31**

**P\_RURAL 36-31**

**Plan: Plan #1 07-09-09 ZJRA6**

## **Standard Planning Report - Geographic**

**09 July, 2009**

# APC

## Planning Report - Geographic

<b>Database:</b>	apc_edmp	<b>Local Co-ordinate Reference:</b>	Well P_RURAL 36-31
<b>Company:</b>	ROCKIES - PLANNING	<b>TVD Reference:</b>	WELL @ 4918.0ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4918.0ft (Original Well Elev)
<b>Site:</b>	WELD_RURAL 15-31 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_RURAL 36-31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_RURAL 36-31		
<b>Design:</b>	Plan #1 07-09-09 ZJRA6		

<b>Project</b>	COLORADO NORTHERN ZONE - 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site						WELD_RURAL 15-31 PAD											
Site Position:						Northing:			1,339,888.14ft			Latitude:			40.263650		
From:			Lat/Long			Easting:			3,222,349.22ft			Longitude:			-104.703240		
Position Uncertainty:			0.0 ft			Slot Radius:			"			Grid Convergence:			0.51 °		

Well	P_RURAL 36-31					
Well Position	+N/-S	0.0 ft	Northing:	1,339,873.57 ft	Latitude:	40.263610
	+E/-W	0.0 ft	Easting:	3,222,349.36 ft	Longitude:	-104.703240
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,918.0 ft

<b>Wellbore</b>	P_RURAL 36-31				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	7/9/2009	9.04	67.02	53,288

<b>Design</b>	Plan #1 07-09-09 ZJRA6			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	7,930.0	0.0	0.0	229.28

<b>Plan Sections</b>										
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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,725.0	14.50	229.28	1,717.3	-59.5	-69.2	2.00	2.00	0.00	229.28	
4,612.9	14.50	229.28	4,513.2	-531.2	-617.2	0.00	0.00	0.00	0.00	
5,579.6	0.00	0.00	5,469.6	-610.6	-709.4	1.50	-1.50	0.00	180.00	
8,040.0	0.00	0.00	7,930.0	-610.6	-709.4	0.00	0.00	0.00	0.00	PBHL_RURAL 36-31

# APC

## Planning Report - Geographic

<b>Database:</b>	apc_edmp	<b>Local Co-ordinate Reference:</b>	Well P_RURAL 36-31
<b>Company:</b>	ROCKIES - PLANNING	<b>TVD Reference:</b>	WELL @ 4918.0ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4918.0ft (Original Well Elev)
<b>Site:</b>	WELD_RURAL 15-31 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_RURAL 36-31	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_RURAL 36-31		
<b>Design:</b>	Plan #1 07-09-09 ZJRA6		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,339,873.57	3,222,349.36	40.263610	-104.703240
600.0	0.00	0.00	600.0	0.0	0.0	1,339,873.57	3,222,349.36	40.263610	-104.703240
<b>Surface Casing</b>									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	1,339,873.57	3,222,349.36	40.263610	-104.703240
1,725.0	14.50	229.28	1,717.3	-59.5	-69.2	1,339,813.42	3,222,280.73	40.263447	-104.703488
3,979.5	14.50	229.28	3,900.0	-427.8	-497.0	1,339,441.34	3,221,856.23	40.262436	-104.705021
<b>Parkman</b>									
4,444.3	14.50	229.28	4,350.0	-503.7	-585.2	1,339,364.63	3,221,768.71	40.262227	-104.705337
<b>Sussex</b>									
4,612.9	14.50	229.28	4,513.2	-531.2	-617.2	1,339,336.80	3,221,736.97	40.262152	-104.705452
5,579.6	0.00	0.00	5,469.6	-610.6	-709.4	1,339,256.60	3,221,645.47	40.261934	-104.705782
7,154.0	0.00	0.00	7,044.0	-610.6	-709.4	1,339,256.60	3,221,645.47	40.261934	-104.705782
<b>Niobrara "A"</b>									
7,445.0	0.00	0.00	7,335.0	-610.6	-709.4	1,339,256.60	3,221,645.47	40.261934	-104.705782
<b>Codell</b>									
7,890.0	0.00	0.00	7,780.0	-610.6	-709.4	1,339,256.60	3,221,645.47	40.261934	-104.705782
<b>JSand</b>									
8,040.0	0.00	0.00	7,930.0	-610.6	-709.4	1,339,256.60	3,221,645.47	40.261934	-104.705782

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	Latitude	Longitude
PBHL_RURAL 36-31	0.00	0.00	7,930.0	-610.6	-709.4	1,339,256.60	3,221,645.47	40.261934	-104.705782
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
600.0	600.0	Surface Casing	8-5/8	12-1/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,445.0	7,335.0	Codell		0.00	
7,890.0	7,780.0	JSand		0.00	
7,154.0	7,044.0	Niobrara "A"		0.00	
4,444.3	4,350.0	Sussex		0.00	
3,979.5	3,900.0	Parkman		0.00	