

ROCKIES - PLANNING

COLORADO NORTHERN ZONE - 83

WELD_HOMESTEAD 4-4 PAD

P_HOMESTEAD 31-4

P_HOMESTEAD 31-4

Plan: Plan #1 06-30-09 ZJRA6

Standard Planning Report - Geographic

30 June, 2009

APC

Planning Report - Geographic

Database:	apc_edmp	Local Co-ordinate Reference:	Well P_HOMESTEAD 31-4
Company:	ROCKIES - PLANNING	TVD Reference:	WELL @ 4854.0ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4854.0ft (Original Well Elev)
Site:	WELD_HOMESTEAD 4-4 PAD	North Reference:	True
Well:	P_HOMESTEAD 31-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_HOMESTEAD 31-4		
Design:	Plan #1 06-30-09 ZJRA6		

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

Site						WELD_HOMESTEAD 4-4 PAD							
Site Position: From: Position Uncertainty:			Lat/Long 0.0 ft			Northing:		1,306,640.54 ft		Latitude:		40.173580	
						Easting:		3,166,950.48 ft		Longitude:		-104.902550	
						Slot Radius:		"		Grid Convergence:		0.39 °	

Well	P_HOMESTEAD 31-4					
Well Position	+N-S	0.0 ft	Northing:	1,306,640.53 ft	Latitude:	40.173580
	+E-W	0.0 ft	Easting:	3,166,950.48 ft	Longitude:	-104.902550
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,854.0 ft

Wellbore	P_HOMESTEAD 31-4				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	6/30/2009	9.15	66.92	53,222

Design	Plan #1 06-30-09 ZJRA6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	7,951.0	0.0	0.0	207.83

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	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,250.0	15.00	207.83	2,241.5	-86.3	-45.6	2.00	2.00	0.00	207.83	
5,164.1	15.00	207.83	5,056.3	-753.3	-397.7	0.00	0.00	0.00	0.00	
6,164.1	0.00	0.00	6,044.9	-868.4	-458.4	1.50	-1.50	0.00	180.00	
8,070.2	0.00	0.00	7,951.0	-868.4	-458.4	0.00	0.00	0.00	0.00	PBHL_HOMESTEAD

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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	1,306,640.53	3,166,950.48	40.173580	-104.902550
780.0	0.00	0.00	780.0	0.0	0.0	1,306,640.53	3,166,950.48	40.173580	-104.902550
Surface Casing									
1,500.0	0.00	0.00	1,500.0	0.0	0.0	1,306,640.53	3,166,950.48	40.173580	-104.902550
2,250.0	15.00	207.83	2,241.5	-86.3	-45.6	1,306,553.90	3,166,905.49	40.173343	-104.902713
3,860.4	15.00	207.83	3,797.0	-454.9	-240.2	1,306,184.01	3,166,713.39	40.172331	-104.903409
Parkman									
4,376.0	15.00	207.83	4,295.0	-572.9	-302.5	1,306,065.58	3,166,651.89	40.172007	-104.903632
Sussex									
4,866.7	15.00	207.83	4,769.0	-685.2	-361.7	1,305,952.87	3,166,593.36	40.171699	-104.903845
Formation 6									
5,164.1	15.00	207.83	5,056.3	-753.3	-397.7	1,305,884.55	3,166,557.88	40.171512	-104.903973
6,164.1	0.00	0.00	6,044.9	-868.4	-458.4	1,305,769.05	3,166,497.89	40.171196	-104.904191
7,230.2	0.00	0.00	7,111.0	-868.4	-458.4	1,305,769.05	3,166,497.89	40.171196	-104.904191
Niobrara "A"									
7,480.2	0.00	0.00	7,361.0	-868.4	-458.4	1,305,769.05	3,166,497.89	40.171196	-104.904191
Codell									
7,920.2	0.00	0.00	7,801.0	-868.4	-458.4	1,305,769.05	3,166,497.89	40.171196	-104.904191
JSand									
8,070.2	0.00	0.00	7,951.0	-868.4	-458.4	1,305,769.05	3,166,497.89	40.171196	-104.904191

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude
- Shape									Longitude
PBHL_HOMESTEAD		0.00	0.00	7,951.0	-868.4	-458.4	1,305,769.05	3,166,497.89	40.171196
- plan hits target center									-104.904191
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
780.0	780.0	Surface Casing	8-5/8	12-1/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
7,920.2	7,801.0	JSand		0.00		
3,860.4	3,797.0	Parkman		0.00		
7,480.2	7,361.0	Codell		0.00		
7,230.2	7,111.0	Niobrara "A"		0.00		
4,376.0	4,295.0	Sussex		0.00		
4,866.7	4,769.0	Formation 6		0.00		

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