



# **US ROCKIES REGION PLANNING**

COLORADO NORTHERN ZONE - 83

WELD\_BADDING 17-26 PAD

P\_Badding 24-26

P\_Badding 24-26

Plan: PLAN #1 6-23-10 RHS

## **Standard Planning Report**

23 June, 2010





Project: COLORADO NORTHERN ZONE - 83  
 Site: WELD\_BADDING 17-26 PAD  
 Well: P\_Badding 24-26  
 Wellbore: P\_Badding 24-26  
 Section: SECTION 26 T2N R66W  
 SHL: 1464 FNL 1189 FEL  
 Design: PLAN #1 6-23-10 RHS  
 Latitude: 40° 6' 44.892 N  
 Longitude: 104° 44' 21.077 W  
 GL: 5067.00  
 KB: WELL @ 5082.00ft (Original Well Elev)



**Weatherford®**



Azimuths to True North  
 Magnetic North: 8.96°  
 Magnetic Field  
 Strength: 53084.0nT  
 Dip Angle: 66.85°  
 Date: 6/23/2010  
 Model: IGRF2010

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4276.00	4369.16	PARKMAN
4694.00	4801.99	SUSSEX
7197.00	7340.56	NIO
7522.00	7665.56	CODELL
7612.00	7755.56	GREENHORN
7967.00	8110.56	JSAND

#### CASING DETAILS

TVD	MD	Name	Size
1050.00	1050.00	8 5/8"	8.62

#### SECTION DETAILS

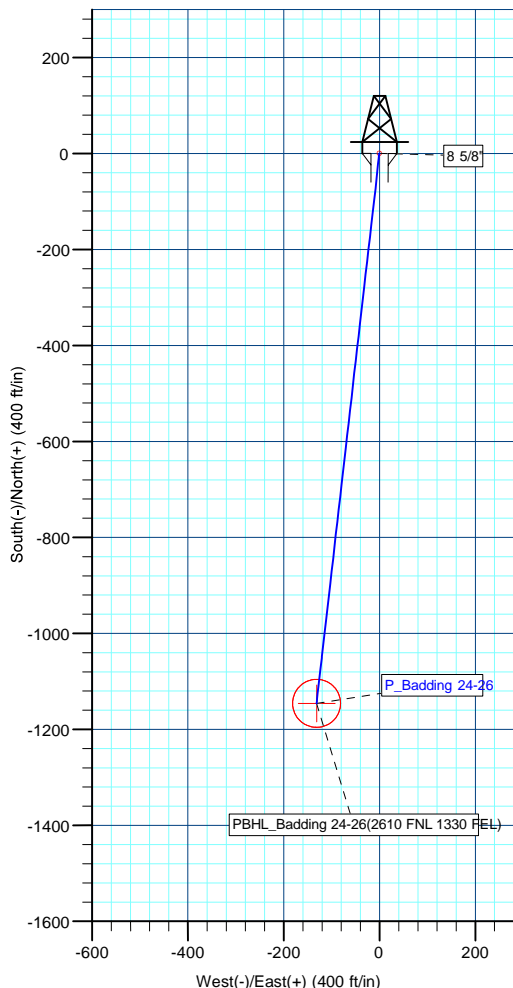
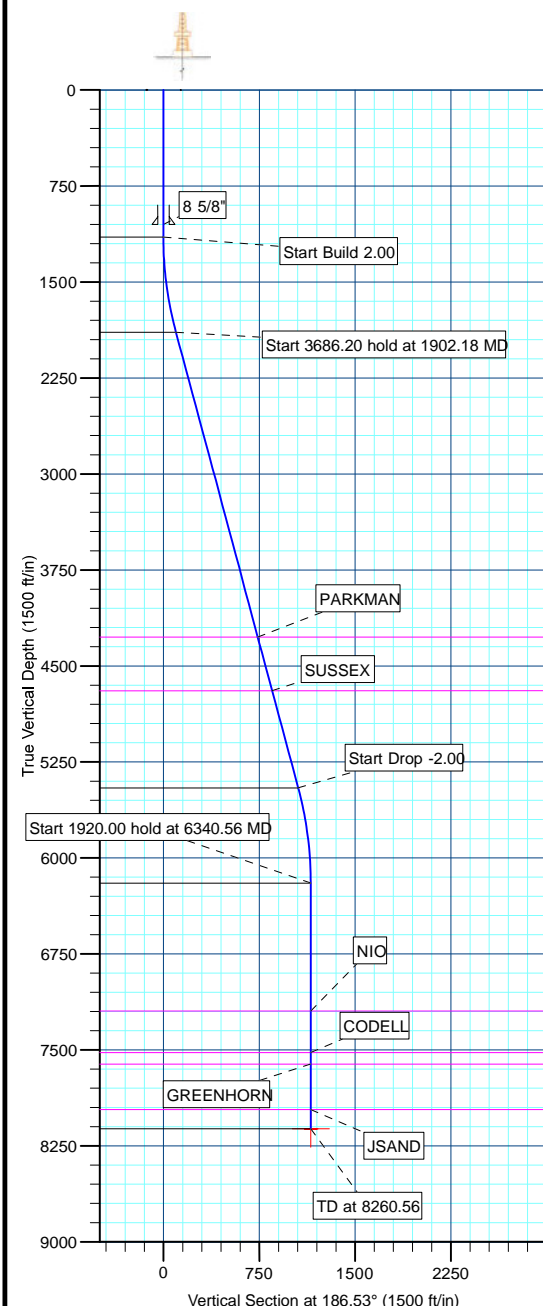
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1150.00	0.00	0.00	1150.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1902.18	15.04	186.53	1893.57	-97.54	-11.17	2.00	186.53	98.18	Start 3686.20 hold at 1902.18 MD
5588.38	15.04	186.53	5453.43	-1048.10	-120.01	0.00	0.00	1054.95	Start Drop -2.00
6340.56	0.00	0.00	6197.00	-1145.64	-131.18	2.00	180.00	1153.13	Start 1920.00 hold at 6340.56 MD
8260.56	0.00	0.00	8117.00	-1145.64	-131.18	0.00	0.00	1153.13	TD at 8260.56

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8117.00	-1145.64	-131.18	40° 6' 33.570 N	104° 44' 22.765 W	Circle (Radius: 50.00)

#### WELL DETAILS: P\_Badding 24-26

+N/-S	+E/-W	Northing	Ground Level: Easting	5067.00 Latitude	Longitude	Slot
0.00	0.00	1284729.80	3212790.09	40° 6' 44.892 N	104° 44' 21.077 W	



Plan: PLAN #1 6-23-10 RHS (P\_Badding 24-26/P\_Badding 24-26)

Created By: Robert H. Scott Date: 13:34, June 23 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 24-26
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5082.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 17-26 PAD	North Reference:	True
Well:	P_Badding 24-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 24-26		
Design:	PLAN #1 6-23-10 RHS		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_BADDING 17-26 PAD, SECTION 26 T2N R66W				
Site Position:		Northing:	1,284,730.01 ft	Latitude:	40° 6' 44.896 N
From:	Lat/Long	Easting:	3,212,770.23ft	Longitude:	104° 44' 21.332 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.49 °

Well	P_Badding 24-26					
Well Position	+N/-S	-0.38 ft	Northing:	1,284,729.80 ft	Latitude:	40° 6' 44.892 N
	+E/-W	19.86 ft	Easting:	3,212,790.09 ft	Longitude:	104° 44' 21.077 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,067.00 ft

Wellbore	P_Badding 24-26				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/23/2010	8.96	66.86	53,084

Design	PLAN #1 6-23-10 RHS			
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	186.53

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	
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,902.18	15.04	186.53	1,893.57	-97.54	-11.17	2.00	2.00	0.00	186.53	
5,588.38	15.04	186.53	5,453.43	-1,048.10	-120.01	0.00	0.00	0.00	0.00	
6,340.56	0.00	0.00	6,197.00	-1,145.64	-131.18	2.00	-2.00	0.00	180.00	
8,260.56	0.00	0.00	8,117.00	-1,145.64	-131.18	0.00	0.00	0.00	0.00	PBHL_Badding 24-

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 24-26
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5082.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 17-26 PAD	North Reference:	True
Well:	P_Badding 24-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 24-26		
Design:	PLAN #1 6-23-10 RHS		

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)
Start Build 2.00									
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	1.00	186.53	1,200.00	-0.43	-0.05	0.44	2.00	2.00	0.00
1,300.00	3.00	186.53	1,299.93	-3.90	-0.45	3.93	2.00	2.00	0.00
1,400.00	5.00	186.53	1,399.68	-10.83	-1.24	10.90	2.00	2.00	0.00
1,500.00	7.00	186.53	1,499.13	-21.22	-2.43	21.35	2.00	2.00	0.00
1,600.00	9.00	186.53	1,598.15	-35.04	-4.01	35.27	2.00	2.00	0.00
1,700.00	11.00	186.53	1,696.63	-52.29	-5.99	52.63	2.00	2.00	0.00
1,800.00	13.00	186.53	1,794.44	-72.95	-8.35	73.42	2.00	2.00	0.00
1,900.00	15.00	186.53	1,891.46	-96.98	-11.10	97.62	2.00	2.00	0.00
Start 3686.20 hold at 1902.18 MD									
1,902.18	15.04	186.53	1,893.57	-97.54	-11.17	98.18	2.00	2.00	0.00
2,000.00	15.04	186.53	1,988.04	-122.77	-14.06	123.57	0.00	0.00	0.00
2,100.00	15.04	186.53	2,084.61	-148.55	-17.01	149.53	0.00	0.00	0.00
2,200.00	15.04	186.53	2,181.18	-174.34	-19.96	175.48	0.00	0.00	0.00
2,300.00	15.04	186.53	2,277.75	-200.13	-22.92	201.44	0.00	0.00	0.00
2,400.00	15.04	186.53	2,374.33	-225.92	-25.87	227.39	0.00	0.00	0.00
2,500.00	15.04	186.53	2,470.90	-251.70	-28.82	253.35	0.00	0.00	0.00
2,600.00	15.04	186.53	2,567.47	-277.49	-31.77	279.30	0.00	0.00	0.00
2,700.00	15.04	186.53	2,664.05	-303.28	-34.73	305.26	0.00	0.00	0.00
2,800.00	15.04	186.53	2,760.62	-329.06	-37.68	331.21	0.00	0.00	0.00
2,900.00	15.04	186.53	2,857.19	-354.85	-40.63	357.17	0.00	0.00	0.00
3,000.00	15.04	186.53	2,953.76	-380.64	-43.58	383.12	0.00	0.00	0.00
3,100.00	15.04	186.53	3,050.34	-406.42	-46.54	409.08	0.00	0.00	0.00
3,200.00	15.04	186.53	3,146.91	-432.21	-49.49	435.03	0.00	0.00	0.00
3,300.00	15.04	186.53	3,243.48	-458.00	-52.44	460.99	0.00	0.00	0.00
3,400.00	15.04	186.53	3,340.06	-483.78	-55.40	486.95	0.00	0.00	0.00
3,500.00	15.04	186.53	3,436.63	-509.57	-58.35	512.90	0.00	0.00	0.00
3,600.00	15.04	186.53	3,533.20	-535.36	-61.30	538.86	0.00	0.00	0.00
3,700.00	15.04	186.53	3,629.77	-561.14	-64.25	564.81	0.00	0.00	0.00
3,800.00	15.04	186.53	3,726.35	-586.93	-67.21	590.77	0.00	0.00	0.00
3,900.00	15.04	186.53	3,822.92	-612.72	-70.16	616.72	0.00	0.00	0.00
4,000.00	15.04	186.53	3,919.49	-638.51	-73.11	642.68	0.00	0.00	0.00
4,100.00	15.04	186.53	4,016.07	-664.29	-76.06	668.63	0.00	0.00	0.00
4,200.00	15.04	186.53	4,112.64	-690.08	-79.02	694.59	0.00	0.00	0.00
4,300.00	15.04	186.53	4,209.21	-715.87	-81.97	720.54	0.00	0.00	0.00
PARKMAN									
4,369.16	15.04	186.53	4,276.00	-733.70	-84.01	738.49	0.00	0.00	0.00
4,400.00	15.04	186.53	4,305.78	-741.65	-84.92	746.50	0.00	0.00	0.00
4,500.00	15.04	186.53	4,402.36	-767.44	-87.88	772.45	0.00	0.00	0.00
4,600.00	15.04	186.53	4,498.93	-793.23	-90.83	798.41	0.00	0.00	0.00
4,700.00	15.04	186.53	4,595.50	-819.01	-93.78	824.37	0.00	0.00	0.00
4,800.00	15.04	186.53	4,692.08	-844.80	-96.73	850.32	0.00	0.00	0.00
SUSSEX									
4,801.99	15.04	186.53	4,694.00	-845.31	-96.79	850.84	0.00	0.00	0.00
4,900.00	15.04	186.53	4,788.65	-870.59	-99.69	876.28	0.00	0.00	0.00
5,000.00	15.04	186.53	4,885.22	-896.37	-102.64	902.23	0.00	0.00	0.00
5,100.00	15.04	186.53	4,981.79	-922.16	-105.59	928.19	0.00	0.00	0.00
5,200.00	15.04	186.53	5,078.37	-947.95	-108.54	954.14	0.00	0.00	0.00
5,300.00	15.04	186.53	5,174.94	-973.73	-111.50	980.10	0.00	0.00	0.00
5,400.00	15.04	186.53	5,271.51	-999.52	-114.45	1,006.05	0.00	0.00	0.00
5,500.00	15.04	186.53	5,368.09	-1,025.31	-117.40	1,032.01	0.00	0.00	0.00
Start Drop -2.00									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 24-26
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5082.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 17-26 PAD	North Reference:	True
Well:	P_Badding 24-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 24-26		
Design:	PLAN #1 6-23-10 RHS		

#### 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)
5,588.38	15.04	186.53	5,453.43	-1,048.10	-120.01	1,054.95	0.00	0.00	0.00
5,600.00	14.81	186.53	5,464.66	-1,051.07	-120.35	1,057.94	2.00	-2.00	0.00
5,700.00	12.81	186.53	5,561.77	-1,074.79	-123.07	1,081.81	2.00	-2.00	0.00
5,800.00	10.81	186.53	5,659.65	-1,095.12	-125.40	1,102.28	2.00	-2.00	0.00
5,900.00	8.81	186.53	5,758.18	-1,112.05	-127.34	1,119.32	2.00	-2.00	0.00
6,000.00	6.81	186.53	5,857.25	-1,125.55	-128.88	1,132.91	2.00	-2.00	0.00
6,100.00	4.81	186.53	5,956.73	-1,135.61	-130.03	1,143.03	2.00	-2.00	0.00
6,200.00	2.81	186.53	6,056.50	-1,142.22	-130.79	1,149.68	2.00	-2.00	0.00
6,300.00	0.81	186.53	6,156.45	-1,145.36	-131.15	1,152.84	2.00	-2.00	0.00
Start 1920.00 hold at 6340.56 MD									
6,340.56	0.00	0.00	6,197.00	-1,145.64	-131.18	1,153.13	2.00	-2.00	0.00
6,400.00	0.00	0.00	6,256.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
6,500.00	0.00	0.00	6,356.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
6,600.00	0.00	0.00	6,456.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
6,700.00	0.00	0.00	6,556.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
6,800.00	0.00	0.00	6,656.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
6,900.00	0.00	0.00	6,756.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,000.00	0.00	0.00	6,856.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,100.00	0.00	0.00	6,956.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,200.00	0.00	0.00	7,056.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,300.00	0.00	0.00	7,156.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
NIO									
7,340.56	0.00	0.00	7,197.00	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,400.00	0.00	0.00	7,256.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,500.00	0.00	0.00	7,356.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,600.00	0.00	0.00	7,456.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
CODELL									
7,665.56	0.00	0.00	7,522.00	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,700.00	0.00	0.00	7,556.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
GREENHORN									
7,755.56	0.00	0.00	7,612.00	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,800.00	0.00	0.00	7,656.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
7,900.00	0.00	0.00	7,756.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
8,000.00	0.00	0.00	7,856.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
8,100.00	0.00	0.00	7,956.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
JSAND									
8,110.56	0.00	0.00	7,967.00	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
8,200.00	0.00	0.00	8,056.44	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00
PBHL_Badding 24-26(2610 FNL 1330 FEL)									
8,260.56	0.00	0.00	8,117.00	-1,145.64	-131.18	1,153.13	0.00	0.00	0.00

#### Design 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_Badding 24-26	0.00	0.00	8,117.00	-1,145.64	-131.18	1,283,583.08	3,212,668.74	40° 6' 33.570 N	104° 44' 22.765 W
- plan hits target center									
- Circle (radius 50.00)									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 24-26
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5082.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5082.00ft (Original Well Elev)
Site:	WELD_BADDING 17-26 PAD	North Reference:	True
Well:	P_Badding 24-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 24-26		
Design:	PLAN #1 6-23-10 RHS		

#### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,050.00	1,050.00	8 5/8"	8.62	11.00

#### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,369.16	4,276.00	PARKMAN			
4,801.99	4,694.00	SUSSEX			
7,340.56	7,197.00	NIO			
7,665.56	7,522.00	CODELL			
7,755.56	7,612.00	GREENHORN			
8,110.56	7,967.00	JSAND			

#### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,150.00	1,150.00	0.00	0.00	Start Build 2.00
1,902.18	1,893.57	-97.54	-11.17	Start 3686.20 hold at 1902.18 MD
5,588.38	5,453.43	-1,048.10	-120.01	Start Drop -2.00
6,340.56	6,197.00	-1,145.64	-131.18	Start 1920.00 hold at 6340.56 MD
8,260.56	8,117.00	-1,145.64	-131.18	TD at 8260.56