



# US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD\_BADDING 17-26 PAD

P\_Badding 2-26

P\_Badding 2-26

Plan: PLAN #1 6-23-10 RHS

## Standard Planning Report

23 June, 2010

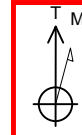




Project: COLORADO NORTHERN ZONE - 83  
 Site: WELD\_BADDING 17-26 PAD  
 Well: P\_Badding 2-26  
 Wellbore: P\_Badding 2-26  
 Section: SECTION 26 T2N R66W  
 SHL: 1464 FNL 1229 FEL  
 Design: PLAN #1 6-23-10 RHS  
 Latitude: 40° 6' 44.895 N  
 Longitude: 104° 44' 21.592 W  
 GL: 5067.00  
 KB: WELL @ 5082.00ft (Original Well Elev)



**Weatherford**



Azimuths to True North  
 Magnetic North: 8.96°

Magnetic Field  
 Strength: 53084.0snT  
 Dip Angle: 66.85°  
 Date: 6/23/2010  
 Model: IGRF2010

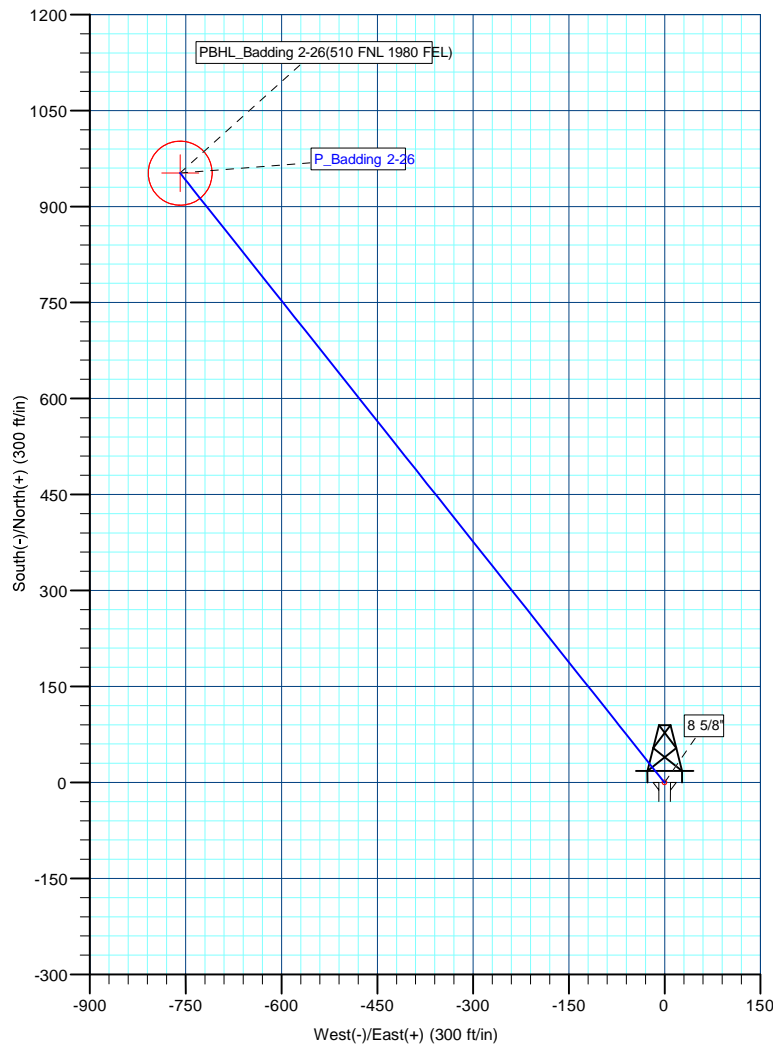
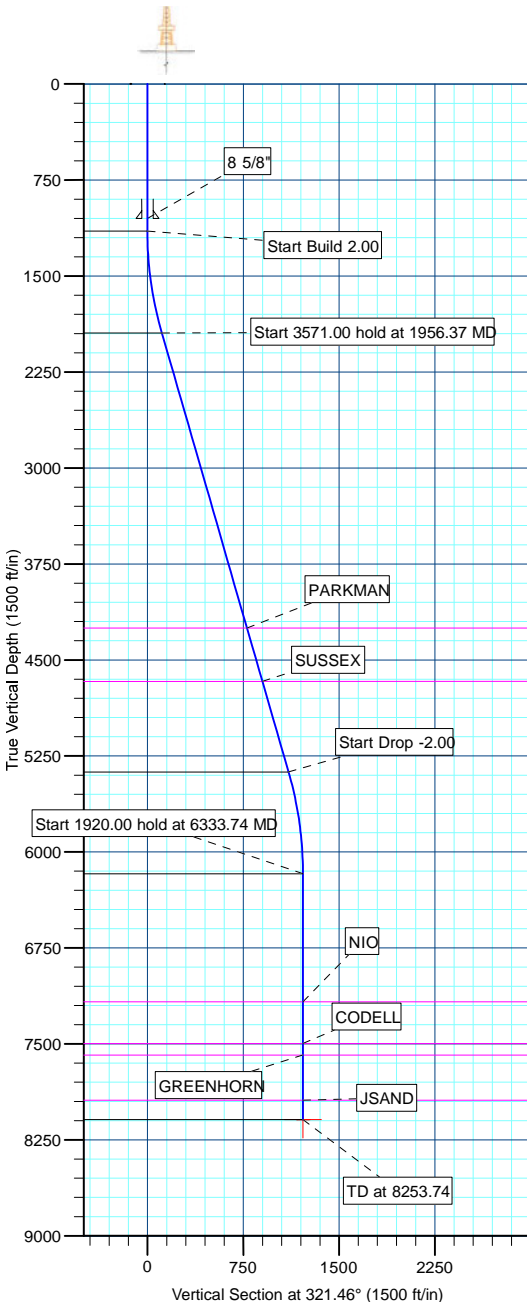
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4251.00	4356.04	PARKMAN
4669.00	4791.17	SUSSEX
7172.00	7333.74	NIO
7497.00	7658.74	CODELL
7587.00	7748.74	GREENHORN
7942.00	8103.74	JSAND

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
1956.37	16.13	321.46	1945.77	88.18	-70.24	2.00	321.46	112.74	Start 3571.00 hold at 1956.37 MD
5527.37	16.13	321.46	5376.23	864.07	-688.25	0.00	0.00	1104.67	Start Drop -2.00
6333.74	0.00	0.00	6172.00	952.25	-758.50	2.00	180.00	1217.41	Start 1920.00 hold at 6333.74 MD
8253.74	0.00	0.00	8092.00	952.25	-758.50	0.00	0.00	1217.41	TD at 8253.74

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
PBHL	8092.00	952.25	-758.50	40° 6' 54.306 N	104° 44' 31.355 W	Circle (Radius: 50.00)	

WELL DETAILS: P_Badding 2-26						
+N/-S	+E/-W	Northing	Ground Level: Easting	5067.00 Latitude	Longitude	Slot
0.00	0.00	1284729.83	3212750.09	40° 6' 44.895 N	104° 44' 21.592 W	



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 2-26
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 2-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 2-26		
Design:	PLAN #1 6-23-10 RHS		

<b>Project</b>	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		

<b>Site</b>	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:	3,212,770.23 ft	Longitude:	104° 44' 21.332 W
Position Uncertainty: 0.00 ft	Slot Radius:	in	Grid Convergence:	0.49 °

<b>Well</b>	P_Badding 2-26			
Well Position	+N/-S	-0.01 ft	Northing:	1,284,729.83 ft
	+E/-W	-20.14 ft	Easting:	3,212,750.09 ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level: 5,067.00 ft

<b>Wellbore</b>	P_Badding 2-26				
<b>Magnetics</b>	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/23/2010	8.96	66.86	53,084

<b>Design</b>	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	321.46

<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
0.00	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	
1,956.37	16.13	321.46	1,945.77	88.18	-70.24	2.00	2.00	0.00	321.46	
5,527.37	16.13	321.46	5,376.23	864.07	-688.25	0.00	0.00	0.00	0.00	
6,333.74	0.00	0.00	6,172.00	952.25	-758.50	2.00	-2.00	0.00	180.00	
8,253.74	0.00	0.00	8,092.00	952.25	-758.50	0.00	0.00	0.00	0.00	PBHL_Badding 2-2

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 2-26
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 2-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 2-26		
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)
<b>Start Build 2.00</b>									
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	321.46	1,200.00	0.34	-0.27	0.44	2.00	2.00	0.00
1,300.00	3.00	321.46	1,299.93	3.07	-2.45	3.93	2.00	2.00	0.00
1,400.00	5.00	321.46	1,399.68	8.53	-6.79	10.90	2.00	2.00	0.00
1,500.00	7.00	321.46	1,499.13	16.70	-13.30	21.35	2.00	2.00	0.00
1,600.00	9.00	321.46	1,598.15	27.59	-21.97	35.27	2.00	2.00	0.00
1,700.00	11.00	321.46	1,696.63	41.17	-32.79	52.63	2.00	2.00	0.00
1,800.00	13.00	321.46	1,794.44	57.43	-45.75	73.42	2.00	2.00	0.00
1,900.00	15.00	321.46	1,891.46	76.35	-60.82	97.62	2.00	2.00	0.00
<b>Start 3571.00 hold at 1956.37 MD</b>									
1,956.37	16.13	321.46	1,945.77	88.18	-70.24	112.74	2.00	2.00	0.00
2,000.00	16.13	321.46	1,987.68	97.66	-77.79	124.86	0.00	0.00	0.00
2,100.00	16.13	321.46	2,083.74	119.39	-95.10	152.64	0.00	0.00	0.00
2,200.00	16.13	321.46	2,179.81	141.12	-112.40	180.41	0.00	0.00	0.00
2,300.00	16.13	321.46	2,275.87	162.85	-129.71	208.19	0.00	0.00	0.00
2,400.00	16.13	321.46	2,371.94	184.57	-147.02	235.97	0.00	0.00	0.00
2,500.00	16.13	321.46	2,468.00	206.30	-164.32	263.75	0.00	0.00	0.00
2,600.00	16.13	321.46	2,564.06	228.03	-181.63	291.52	0.00	0.00	0.00
2,700.00	16.13	321.46	2,660.13	249.75	-198.94	319.30	0.00	0.00	0.00
2,800.00	16.13	321.46	2,756.19	271.48	-216.24	347.08	0.00	0.00	0.00
2,900.00	16.13	321.46	2,852.26	293.21	-233.55	374.86	0.00	0.00	0.00
3,000.00	16.13	321.46	2,948.32	314.94	-250.86	402.63	0.00	0.00	0.00
3,100.00	16.13	321.46	3,044.39	336.66	-268.16	430.41	0.00	0.00	0.00
3,200.00	16.13	321.46	3,140.45	358.39	-285.47	458.19	0.00	0.00	0.00
3,300.00	16.13	321.46	3,236.52	380.12	-302.78	485.97	0.00	0.00	0.00
3,400.00	16.13	321.46	3,332.58	401.85	-320.08	513.74	0.00	0.00	0.00
3,500.00	16.13	321.46	3,428.65	423.57	-337.39	541.52	0.00	0.00	0.00
3,600.00	16.13	321.46	3,524.71	445.30	-354.69	569.30	0.00	0.00	0.00
3,700.00	16.13	321.46	3,620.78	467.03	-372.00	597.08	0.00	0.00	0.00
3,800.00	16.13	321.46	3,716.84	488.75	-389.31	624.85	0.00	0.00	0.00
3,900.00	16.13	321.46	3,812.91	510.48	-406.61	652.63	0.00	0.00	0.00
4,000.00	16.13	321.46	3,908.97	532.21	-423.92	680.41	0.00	0.00	0.00
4,100.00	16.13	321.46	4,005.03	553.94	-441.23	708.19	0.00	0.00	0.00
4,200.00	16.13	321.46	4,101.10	575.66	-458.53	735.96	0.00	0.00	0.00
4,300.00	16.13	321.46	4,197.16	597.39	-475.84	763.74	0.00	0.00	0.00
<b>PARKMAN</b>									
4,356.04	16.13	321.46	4,251.00	609.57	-485.54	779.31	0.00	0.00	0.00
4,400.00	16.13	321.46	4,293.23	619.12	-493.15	791.52	0.00	0.00	0.00
4,500.00	16.13	321.46	4,389.29	640.85	-510.45	819.30	0.00	0.00	0.00
4,600.00	16.13	321.46	4,485.36	662.57	-527.76	847.07	0.00	0.00	0.00
4,700.00	16.13	321.46	4,581.42	684.30	-545.07	874.85	0.00	0.00	0.00
<b>SUSSEX</b>									
4,791.17	16.13	321.46	4,669.00	704.11	-560.84	900.17	0.00	0.00	0.00
4,800.00	16.13	321.46	4,677.49	706.03	-562.37	902.63	0.00	0.00	0.00
4,900.00	16.13	321.46	4,773.55	727.75	-579.68	930.41	0.00	0.00	0.00
5,000.00	16.13	321.46	4,869.62	749.48	-596.99	958.18	0.00	0.00	0.00
5,100.00	16.13	321.46	4,965.68	771.21	-614.29	985.96	0.00	0.00	0.00
5,200.00	16.13	321.46	5,061.75	792.94	-631.60	1,013.74	0.00	0.00	0.00
5,300.00	16.13	321.46	5,157.81	814.66	-648.90	1,041.52	0.00	0.00	0.00
5,400.00	16.13	321.46	5,253.87	836.39	-666.21	1,069.29	0.00	0.00	0.00
5,500.00	16.13	321.46	5,349.94	858.12	-683.52	1,097.07	0.00	0.00	0.00
<b>Start Drop -2.00</b>									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 2-26
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 2-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 2-26		
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)
5,527.37	16.13	321.46	5,376.23	864.07	-688.25	1,104.67	0.00	0.00	0.00
5,600.00	14.67	321.46	5,446.25	879.15	-700.27	1,123.96	2.00	-2.00	0.00
5,700.00	12.67	321.46	5,543.41	897.64	-715.00	1,147.60	2.00	-2.00	0.00
5,800.00	10.67	321.46	5,641.34	913.47	-727.61	1,167.84	2.00	-2.00	0.00
5,900.00	8.67	321.46	5,739.91	926.62	-738.08	1,184.64	2.00	-2.00	0.00
6,000.00	6.67	321.46	5,839.01	937.06	-746.40	1,198.00	2.00	-2.00	0.00
6,100.00	4.67	321.46	5,938.52	944.80	-752.56	1,207.88	2.00	-2.00	0.00
6,200.00	2.67	321.46	6,038.30	949.81	-756.55	1,214.29	2.00	-2.00	0.00
6,300.00	0.67	321.46	6,138.26	952.09	-758.37	1,217.22	2.00	-2.00	0.00
Start 1920.00 hold at 6333.74 MD									
6,333.74	0.00	0.00	6,172.00	952.25	-758.50	1,217.41	2.00	-2.00	114.21
6,400.00	0.00	0.00	6,238.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
6,500.00	0.00	0.00	6,338.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
6,600.00	0.00	0.00	6,438.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
6,700.00	0.00	0.00	6,538.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
6,800.00	0.00	0.00	6,638.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
6,900.00	0.00	0.00	6,738.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,000.00	0.00	0.00	6,838.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,100.00	0.00	0.00	6,938.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,200.00	0.00	0.00	7,038.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,300.00	0.00	0.00	7,138.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
NIO									
7,333.74	0.00	0.00	7,172.00	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,400.00	0.00	0.00	7,238.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,500.00	0.00	0.00	7,338.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,600.00	0.00	0.00	7,438.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
CODELL									
7,658.74	0.00	0.00	7,497.00	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,700.00	0.00	0.00	7,538.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
GREENHORN									
7,748.74	0.00	0.00	7,587.00	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,800.00	0.00	0.00	7,638.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
7,900.00	0.00	0.00	7,738.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
8,000.00	0.00	0.00	7,838.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
8,100.00	0.00	0.00	7,938.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
JSAND									
8,103.74	0.00	0.00	7,942.00	952.25	-758.50	1,217.41	0.00	0.00	0.00
8,200.00	0.00	0.00	8,038.26	952.25	-758.50	1,217.41	0.00	0.00	0.00
PBHL_Badding 2-26(510 FNL 1980 FEL)									
8,253.74	0.00	0.00	8,092.00	952.25	-758.50	1,217.41	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
PBHL_Badding 2-26(510 FNL 1980 FEL)	0.00	0.00	8,092.00	952.25	-758.50	1,285,675.53	3,211,983.46	40° 6' 54.306 N	104° 44' 31.355 W
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.00)									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_Badding 2-26
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 2-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Badding 2-26		
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 (°)
4,356.04	4,251.00	PARKMAN			
4,791.17	4,669.00	SUSSEX			
7,333.74	7,172.00	NIO			
7,658.74	7,497.00	CODELL			
7,748.74	7,587.00	GREENHORN			
8,103.74	7,942.00	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
1,956.37	1,945.77	88.18	-70.24	Start 3571.00 hold at 1956.37 MD
5,527.37	5,376.23	864.07	-688.25	Start Drop -2.00
6,333.74	6,172.00	952.25	-758.50	Start 1920.00 hold at 6333.74 MD
8,253.74	8,092.00	952.25	-758.50	TD at 8253.74