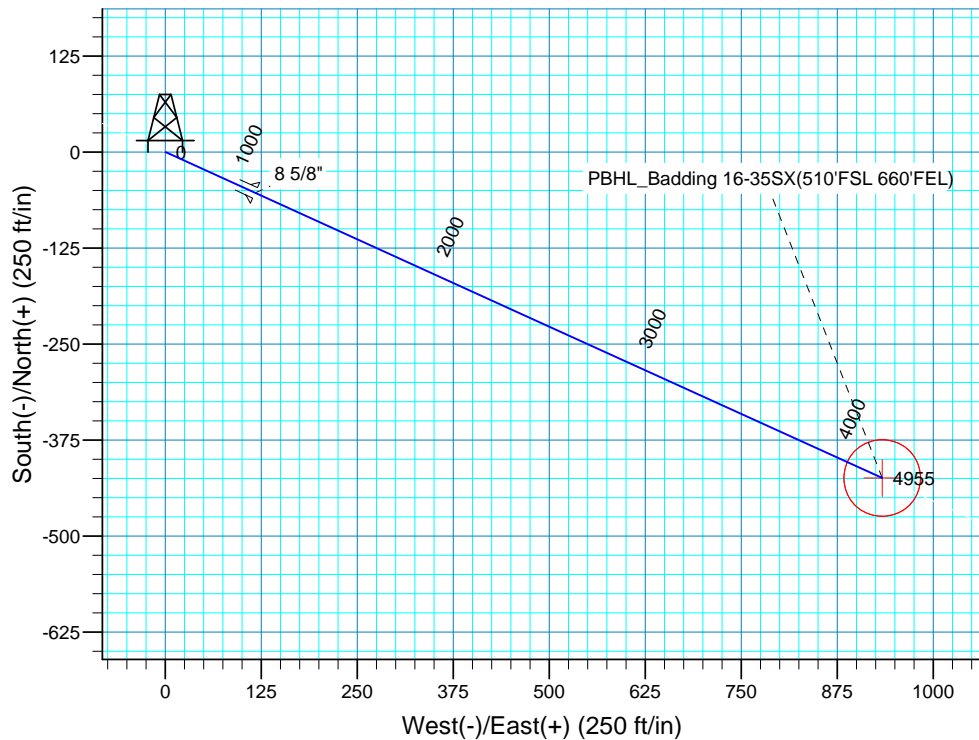
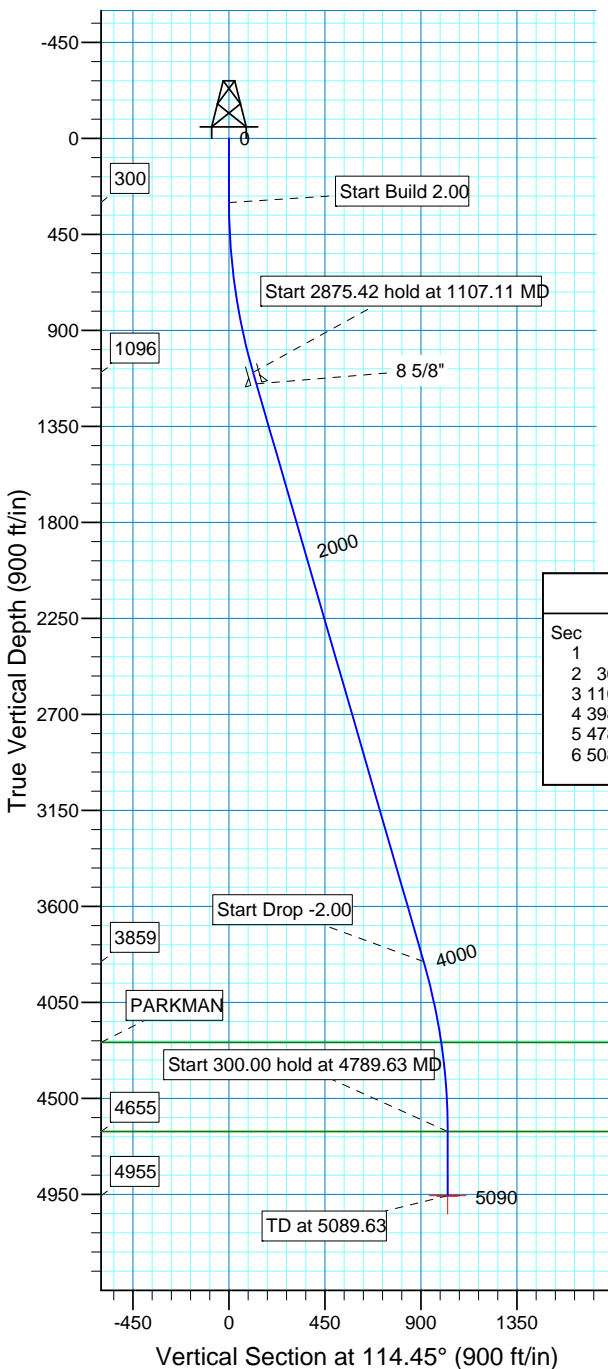


WELL DETAILS: P_Badding 16-35SX					
GL 5086' & RKB 15' @ 5101.00ft (ASSUMED) 5086.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1276521.52	3212483.91	40° 5' 23.802 N	104° 44' 25.922 W

**T M** Azimuths to True North  
 Magnetic North: 8.91°

Magnetic Field  
 Strength: 53085.7snT  
 Dip Angle: 66.84°  
 Date: 07/16/2010  
 Model: IGRF200510

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	4955.00	-424.36	933.38	1276105.17	3213420.89	40° 5' 19.608 N	104° 44' 13.913 W	Circle (Radius: 50.00)



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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	1107.11	16.14	114.45	1096.47	-46.75	102.82	2.00	114.45	112.94	
4	3982.53	16.14	114.45	3858.53	-377.62	830.56	0.00	0.00	912.37	
5	4789.63	0.00	0.00	4655.00	-424.36	933.38	2.00	180.00	1025.32	
6	5089.63	0.00	0.00	4955.00	-424.36	933.38	0.00	0.00	1025.32	PBHL_Badding 16-35SX(510'FSL 660'FEL)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4237.00	4370.14	PARKMAN
4655.00	4789.63	SUSSEX

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	Colorado Northern Zone
Location:	SEC 35 T2N R66
System Datum:	Mean Sea Level
Local North:	No north reference data is available



**Scientific Drilling**  
Rocky Mountain Operations

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_Badding 20-35 Pad**

**P\_Badding 16-35SX**

**P\_Badding 16-35SX**

**Plan: Plan #1 7-16-10 RHS**

## **Standard Planning Report**

**18 July, 2010**



<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_Badding 16-35SX
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Site:</b>	WELD_Badding 20-35 Pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Badding 16-35SX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Badding 16-35SX		
<b>Design:</b>	Plan #1 7-16-10 RHS		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<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		

<b>Site</b>	WELD_Badding 20-35 Pad, SEC 35 T2N R66				
<b>Site Position:</b>		<b>Northing:</b>	1,276,531.97 ft	<b>Latitude:</b>	40° 5' 23.903 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,212,512.08 ft	<b>Longitude:</b>	104° 44' 25.559 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.49 °

<b>Well</b>	P_Badding 16-35SX, 942 'FSL 1593' FEL					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,276,521.52 ft	<b>Latitude:</b>	40° 5' 23.802 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	3,212,483.91 ft	<b>Longitude:</b>	104° 44' 25.922 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,086.00 ft

<b>Wellbore</b>	P_Badding 16-35SX				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/16/10	8.91	66.84	53,086

<b>Design</b>	Plan #1 7-16-10 RHS				
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<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	114.45	

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,107.11	16.14	114.45	1,096.47	-46.75	102.82	2.00	2.00	0.00	114.45	
3,982.53	16.14	114.45	3,858.53	-377.62	830.56	0.00	0.00	0.00	0.00	
4,789.63	0.00	0.00	4,655.00	-424.36	933.38	2.00	-2.00	0.00	180.00	
5,089.63	0.00	0.00	4,955.00	-424.36	933.38	0.00	0.00	0.00	0.00	PBHL_Badding 16-

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_Badding 16-35SX
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Site:</b>	WELD_Badding 20-35 Pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Badding 16-35SX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Badding 16-35SX		
<b>Design:</b>	Plan #1 7-16-10 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
400.00	2.00	114.45	399.98	-0.72	1.59	1.75	2.00	2.00	0.00
500.00	4.00	114.45	499.84	-2.89	6.35	6.98	2.00	2.00	0.00
600.00	6.00	114.45	599.45	-6.50	14.29	15.69	2.00	2.00	0.00
700.00	8.00	114.45	698.70	-11.54	25.38	27.88	2.00	2.00	0.00
800.00	10.00	114.45	797.47	-18.01	39.62	43.52	2.00	2.00	0.00
900.00	12.00	114.45	895.62	-25.91	56.99	62.60	2.00	2.00	0.00
1,000.00	14.00	114.45	993.06	-35.22	77.47	85.10	2.00	2.00	0.00
1,100.00	16.00	114.45	1,089.64	-45.93	101.03	110.98	2.00	2.00	0.00
1,107.11	16.14	114.45	1,096.47	-46.75	102.82	112.94	2.00	2.00	0.00
<b>Start 2875.42 hold at 1107.11 MD</b>									
1,162.83	16.14	114.45	1,150.00	-53.16	116.92	128.44	0.00	0.00	0.00
<b>8 5/8"</b>									
1,200.00	16.14	114.45	1,185.70	-57.43	126.33	138.77	0.00	0.00	0.00
1,300.00	16.14	114.45	1,281.76	-68.94	151.64	166.57	0.00	0.00	0.00
1,400.00	16.14	114.45	1,377.82	-80.45	176.95	194.38	0.00	0.00	0.00
1,500.00	16.14	114.45	1,473.88	-91.96	202.25	222.18	0.00	0.00	0.00
1,600.00	16.14	114.45	1,569.93	-103.46	227.56	249.98	0.00	0.00	0.00
1,700.00	16.14	114.45	1,665.99	-114.97	252.87	277.78	0.00	0.00	0.00
1,800.00	16.14	114.45	1,762.05	-126.48	278.18	305.58	0.00	0.00	0.00
1,900.00	16.14	114.45	1,858.11	-137.98	303.49	333.39	0.00	0.00	0.00
2,000.00	16.14	114.45	1,954.16	-149.49	328.80	361.19	0.00	0.00	0.00
2,100.00	16.14	114.45	2,050.22	-161.00	354.11	388.99	0.00	0.00	0.00
2,200.00	16.14	114.45	2,146.28	-172.50	379.42	416.79	0.00	0.00	0.00
2,300.00	16.14	114.45	2,242.34	-184.01	404.73	444.59	0.00	0.00	0.00
2,400.00	16.14	114.45	2,338.39	-195.52	430.04	472.40	0.00	0.00	0.00
2,500.00	16.14	114.45	2,434.45	-207.02	455.35	500.20	0.00	0.00	0.00
2,600.00	16.14	114.45	2,530.51	-218.53	480.66	528.00	0.00	0.00	0.00
2,700.00	16.14	114.45	2,626.56	-230.04	505.96	555.80	0.00	0.00	0.00
2,800.00	16.14	114.45	2,722.62	-241.54	531.27	583.61	0.00	0.00	0.00
2,900.00	16.14	114.45	2,818.68	-253.05	556.58	611.41	0.00	0.00	0.00
3,000.00	16.14	114.45	2,914.74	-264.56	581.89	639.21	0.00	0.00	0.00
3,100.00	16.14	114.45	3,010.79	-276.07	607.20	667.01	0.00	0.00	0.00
3,200.00	16.14	114.45	3,106.85	-287.57	632.51	694.81	0.00	0.00	0.00
3,300.00	16.14	114.45	3,202.91	-299.08	657.82	722.62	0.00	0.00	0.00
3,400.00	16.14	114.45	3,298.97	-310.59	683.13	750.42	0.00	0.00	0.00
3,500.00	16.14	114.45	3,395.02	-322.09	708.44	778.22	0.00	0.00	0.00
3,600.00	16.14	114.45	3,491.08	-333.60	733.75	806.02	0.00	0.00	0.00
3,700.00	16.14	114.45	3,587.14	-345.11	759.06	833.82	0.00	0.00	0.00
3,800.00	16.14	114.45	3,683.20	-356.61	784.36	861.63	0.00	0.00	0.00
3,900.00	16.14	114.45	3,779.25	-368.12	809.67	889.43	0.00	0.00	0.00
3,982.53	16.14	114.45	3,858.53	-377.62	830.56	912.37	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,000.00	15.79	114.45	3,875.33	-379.61	834.94	917.18	2.00	-2.00	0.00
4,100.00	13.79	114.45	3,972.01	-390.17	858.18	942.71	2.00	-2.00	0.00
4,200.00	11.79	114.45	4,069.52	-399.34	878.33	964.85	2.00	-2.00	0.00
4,300.00	9.79	114.45	4,167.75	-407.09	895.38	983.58	2.00	-2.00	0.00
4,370.14	8.39	114.45	4,237.00	-411.67	905.47	994.66	2.00	-2.00	0.00
<b>PARKMAN</b>									

<b>Database:</b>	EDM 2003.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_Badding 16-35SX
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL 5086' & RKB 15' @ 5101.00ft (ASSUMED)
<b>Site:</b>	WELD_Badding 20-35 Pad	<b>North Reference:</b>	True
<b>Well:</b>	P_Badding 16-35SX	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_Badding 16-35SX		
<b>Design:</b>	Plan #1 7-16-10 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)
4,400.00	7.79	114.45	4,266.57	-413.41	909.29	998.86	2.00	-2.00	0.00
4,500.00	5.79	114.45	4,365.86	-418.31	920.06	1,010.69	2.00	-2.00	0.00
4,600.00	3.79	114.45	4,465.50	-421.77	927.67	1,019.04	2.00	-2.00	0.00
4,700.00	1.79	114.45	4,565.38	-423.78	932.10	1,023.92	2.00	-2.00	0.00
4,789.63	0.00	0.00	4,655.00	-424.36	933.38	1,025.32	2.00	-2.00	0.00
<b>Start 300.00 hold at 4789.63 MD - SUSSEX</b>									
4,800.00	0.00	0.00	4,665.37	-424.36	933.38	1,025.32	0.00	0.00	0.00
4,900.00	0.00	0.00	4,765.37	-424.36	933.38	1,025.32	0.00	0.00	0.00
5,000.00	0.00	0.00	4,865.37	-424.36	933.38	1,025.32	0.00	0.00	0.00
5,089.63	0.00	0.00	4,955.00	-424.36	933.38	1,025.32	0.00	0.00	0.00
<b>PBHL_Badding 16-35SX(510'FSL 660'FEL)</b>									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_Badding 16-35 - hit/miss target - Shape - Circle (radius 50.00)	0.00	0.00	4,955.00	-424.36	933.38	1,276,105.17	3,213,420.89	40° 5' 19.608 N	104° 44' 13.913 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,162.83	1,150.00	8 5/8"	8.62	11.00	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,789.63	4,655.00	SUSSEX			
4,370.14	4,237.00	PARKMAN			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,107.11	1,096.47	-46.75	102.82	Start 2875.42 hold at 1107.11 MD	
3,982.53	3,858.53	-377.62	830.56	Start Drop -2.00	
4,789.63	4,655.00	-424.36	933.38	Start 300.00 hold at 4789.63 MD	
5,089.63	4,955.00	-424.36	933.38	TD at 5089.63	