



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_NRC 20-9 PAD**

**P\_NRC 9-9**

**P\_NRC 9-9**

**Plan: PLAN #1 1-6-10 RHS**

## **Standard Planning Report**

**04 February, 2010**





P\_NRC 9-9  
 COLORADO NORTHERN ZONE - 83  
 SECTION 9 T1N R67W  
 1118 FSL 1502 FEL  
 LAT: 40° 3' 40.820 N  
 LONG: 104° 53' 30.059 W

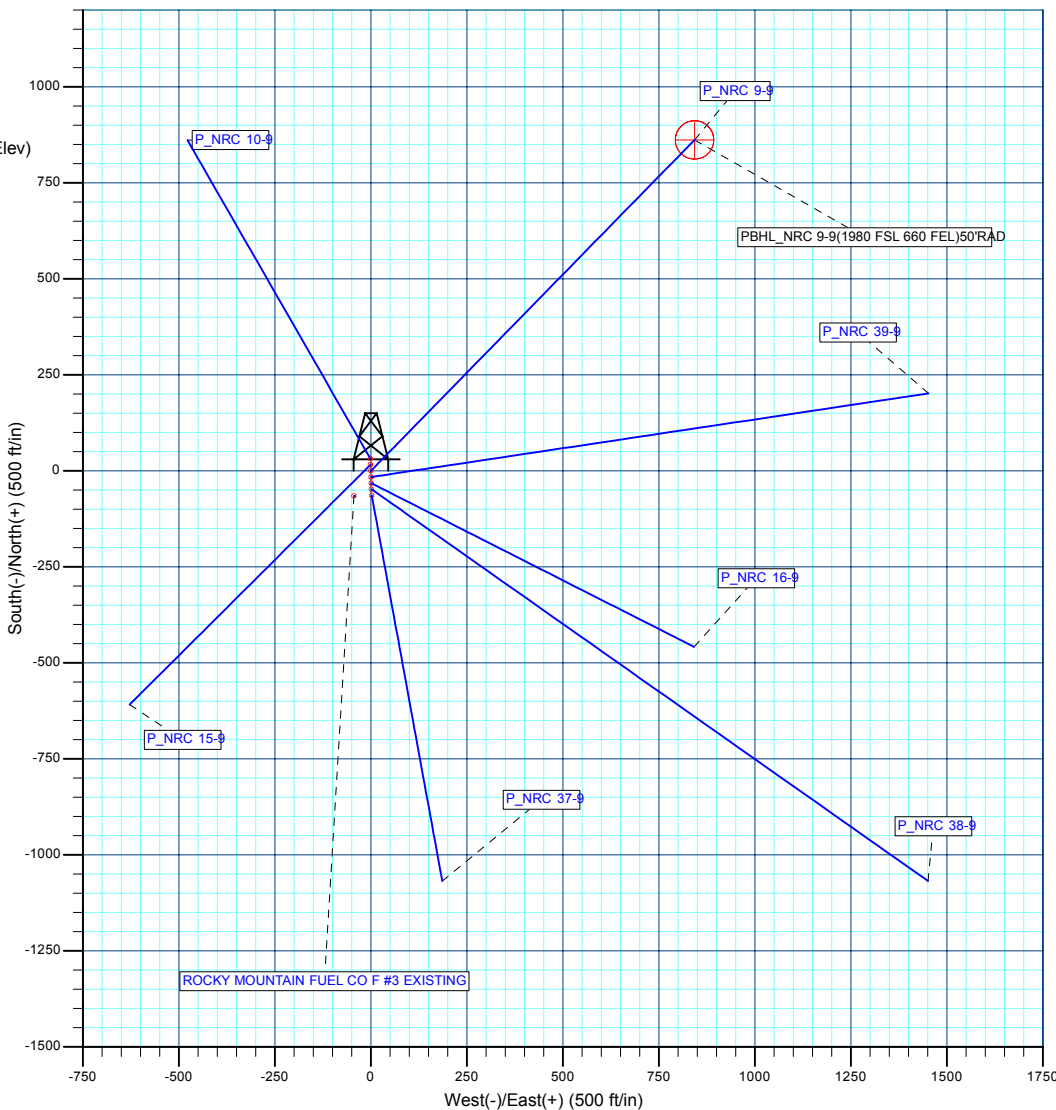
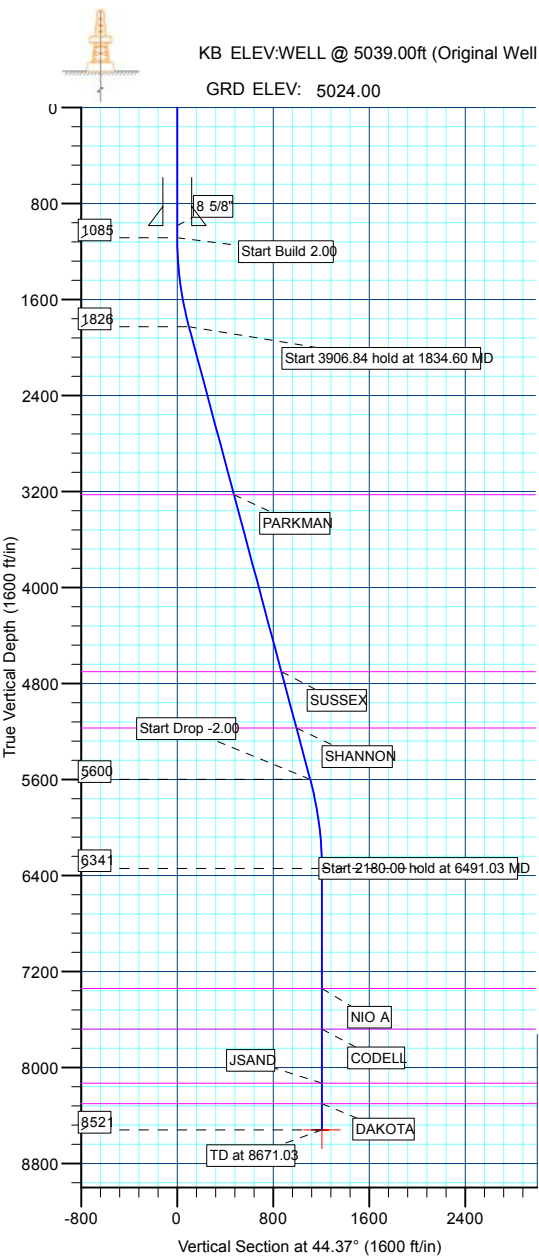


WELL DETAILS: P_NRC 9-9						
+N/-S	+E/-W	Northing	Ground Level: Easting	5024.00	Latitude	Slot
0.00	0.00	1265775.11	3170267.57	40° 3' 40.820 N	104° 53' 30.059 W	

FORMATION TOP DETAILS		
TVDP	MD	Formation
3226.00	3283.85	PARKMAN
4701.00	4810.83	SUSSEX
5171.00	5297.39	SHANNON
7341.00	7491.03	NIO A
7681.00	7831.03	CODELL
8131.00	8281.03	JSAND
8304.00	8451.03	DAKOTA

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1085.00	0.00	0.00	1085.00	0.00	0.00	0.00	0.00	0.00		
1834.60	14.99	44.37	1826.07	69.71	68.18	2.00	44.37	97.51		
5741.43	14.99	44.37	5599.93	792.20	774.85	0.00	0.00	1108.14		
6491.03	0.00	0.00	6341.00	861.91	843.04	2.00	180.00	1205.65		
8671.03	0.00	0.00	8521.00	861.91	843.04	0.00	0.00	1205.65	PBHL_NRC 9-9(1980 FSL 660 FEL)50°RAD	

CASING DETAILS			
TVD	MD	Name	Size
985.00	985.00	8 5/8"	8.62



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL	8521.00	861.91	843.04	1266642.78	3171104.68	40° 3' 49.338 N	104° 53' 19.216 W	Circle (Radius: 50.00)	

Plan: PLAN #1 1-6-10 RHS (P\_NRC 9-9/P\_NRC 9-9)  
 Created By: Robert H. Scott



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 9-9		
<b>Design:</b>	PLAN #1 1-6-10 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_NRC 20-9 PAD, SECTION 9 T1N R67W				
<b>Site Position:</b>		<b>Northing:</b>	1,265,759.10 ft	<b>Latitude:</b>	40° 3' 40.662 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,170,268.24 ft	<b>Longitude:</b>	104° 53' 30.052 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.39 °

<b>Well</b>	P_NRC 9-9					
<b>Well Position</b>	<b>+N/-S</b>	16.01 ft	<b>Northing:</b>	1,265,775.11 ft	<b>Latitude:</b>	40° 3' 40.820 N
	<b>+E/-W</b>	-0.56 ft	<b>Easting:</b>	3,170,267.57 ft	<b>Longitude:</b>	104° 53' 30.059 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,024.00 ft

<b>Wellbore</b>	P_NRC 9-9				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	1/6/2010	9.09	66.80	53,089

<b>Design</b>	PLAN #1 1-6-10 RHS			
<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	44.37

<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	
1,085.00	0.00	0.00	1,085.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,834.60	14.99	44.37	1,826.07	69.71	68.18	2.00	2.00	0.00	44.37	
5,741.43	14.99	44.37	5,599.93	792.20	774.85	0.00	0.00	0.00	0.00	
6,491.03	0.00	0.00	6,341.00	861.91	843.04	2.00	-2.00	0.00	180.00	
8,671.03	0.00	0.00	8,521.00	861.91	843.04	0.00	0.00	0.00	0.00	PBHL_NRC 9-9(19)

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 9-9		
<b>Design:</b>	PLAN #1 1-6-10 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>									
1,085.00	0.00	0.00	1,085.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.30	44.37	1,100.00	0.03	0.03	0.04	2.00	2.00	0.00
1,200.00	2.30	44.37	1,199.97	1.65	1.61	2.31	2.00	2.00	0.00
1,300.00	4.30	44.37	1,299.80	5.76	5.64	8.06	2.00	2.00	0.00
1,400.00	6.30	44.37	1,399.37	12.37	12.10	17.30	2.00	2.00	0.00
1,500.00	8.30	44.37	1,498.55	21.45	20.98	30.01	2.00	2.00	0.00
1,600.00	10.30	44.37	1,597.23	33.00	32.28	46.17	2.00	2.00	0.00
1,700.00	12.30	44.37	1,695.29	47.01	45.98	65.76	2.00	2.00	0.00
1,800.00	14.30	44.37	1,792.60	63.46	62.07	88.76	2.00	2.00	0.00
<b>Start 3906.84 hold at 1834.60 MD</b>									
1,834.60	14.99	44.37	1,826.07	69.71	68.18	97.51	2.00	2.00	0.00
1,900.00	14.99	44.37	1,889.25	81.80	80.01	114.43	0.00	0.00	0.00
2,000.00	14.99	44.37	1,985.85	100.30	98.10	140.30	0.00	0.00	0.00
2,100.00	14.99	44.37	2,082.44	118.79	116.19	166.17	0.00	0.00	0.00
2,200.00	14.99	44.37	2,179.04	137.28	134.28	192.03	0.00	0.00	0.00
2,300.00	14.99	44.37	2,275.63	155.78	152.37	217.90	0.00	0.00	0.00
2,400.00	14.99	44.37	2,372.23	174.27	170.45	243.77	0.00	0.00	0.00
2,500.00	14.99	44.37	2,468.83	192.76	188.54	269.64	0.00	0.00	0.00
2,600.00	14.99	44.37	2,565.42	211.26	206.63	295.51	0.00	0.00	0.00
2,700.00	14.99	44.37	2,662.02	229.75	224.72	321.38	0.00	0.00	0.00
2,800.00	14.99	44.37	2,758.62	248.24	242.81	347.24	0.00	0.00	0.00
2,900.00	14.99	44.37	2,855.21	266.73	260.89	373.11	0.00	0.00	0.00
3,000.00	14.99	44.37	2,951.81	285.23	278.98	398.98	0.00	0.00	0.00
3,100.00	14.99	44.37	3,048.40	303.72	297.07	424.85	0.00	0.00	0.00
3,200.00	14.99	44.37	3,145.00	322.21	315.16	450.72	0.00	0.00	0.00
<b>PARKMAN</b>									
3,283.85	14.99	44.37	3,226.00	337.72	330.33	472.41	0.00	0.00	0.00
3,300.00	14.99	44.37	3,241.60	340.71	333.25	476.59	0.00	0.00	0.00
3,400.00	14.99	44.37	3,338.19	359.20	351.33	502.45	0.00	0.00	0.00
3,500.00	14.99	44.37	3,434.79	377.69	369.42	528.32	0.00	0.00	0.00
3,600.00	14.99	44.37	3,531.39	396.19	387.51	554.19	0.00	0.00	0.00
3,700.00	14.99	44.37	3,627.98	414.68	405.60	580.06	0.00	0.00	0.00
3,800.00	14.99	44.37	3,724.58	433.17	423.69	605.93	0.00	0.00	0.00
3,900.00	14.99	44.37	3,821.17	451.66	441.77	631.80	0.00	0.00	0.00
4,000.00	14.99	44.37	3,917.77	470.16	459.86	657.66	0.00	0.00	0.00
4,100.00	14.99	44.37	4,014.37	488.65	477.95	683.53	0.00	0.00	0.00
4,200.00	14.99	44.37	4,110.96	507.14	496.04	709.40	0.00	0.00	0.00
4,300.00	14.99	44.37	4,207.56	525.64	514.13	735.27	0.00	0.00	0.00
4,400.00	14.99	44.37	4,304.16	544.13	532.21	761.14	0.00	0.00	0.00
4,500.00	14.99	44.37	4,400.75	562.62	550.30	787.01	0.00	0.00	0.00
4,600.00	14.99	44.37	4,497.35	581.12	568.39	812.87	0.00	0.00	0.00
4,700.00	14.99	44.37	4,593.94	599.61	586.48	838.74	0.00	0.00	0.00
4,800.00	14.99	44.37	4,690.54	618.10	604.57	864.61	0.00	0.00	0.00
<b>SUSSEX</b>									
4,810.83	14.99	44.37	4,701.00	620.10	606.53	867.41	0.00	0.00	0.00
4,900.00	14.99	44.37	4,787.14	636.59	622.65	890.48	0.00	0.00	0.00
5,000.00	14.99	44.37	4,883.73	655.09	640.74	916.35	0.00	0.00	0.00
5,100.00	14.99	44.37	4,980.33	673.58	658.83	942.21	0.00	0.00	0.00
5,200.00	14.99	44.37	5,076.93	692.07	676.92	968.08	0.00	0.00	0.00
<b>SHANNON</b>									
5,297.39	14.99	44.37	5,171.00	710.08	694.53	993.28	0.00	0.00	0.00
5,300.00	14.99	44.37	5,173.52	710.57	695.01	993.95	0.00	0.00	0.00

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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 9-9		
<b>Design:</b>	PLAN #1 1-6-10 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)	
5,400.00	14.99	44.37	5,270.12	729.06	713.09	1,019.82	0.00	0.00	0.00	
5,500.00	14.99	44.37	5,366.71	747.55	731.18	1,045.69	0.00	0.00	0.00	
5,600.00	14.99	44.37	5,463.31	766.05	749.27	1,071.56	0.00	0.00	0.00	
5,700.00	14.99	44.37	5,559.91	784.54	767.36	1,097.42	0.00	0.00	0.00	
<b>Start Drop -2.00</b>										
5,741.43	14.99	44.37	5,599.93	792.20	774.85	1,108.14	0.00	0.00	0.00	
5,800.00	13.82	44.37	5,656.65	802.62	785.04	1,122.71	2.00	-2.00	0.00	
5,900.00	11.82	44.37	5,754.16	818.48	800.56	1,144.90	2.00	-2.00	0.00	
6,000.00	9.82	44.37	5,852.37	831.90	813.68	1,163.67	2.00	-2.00	0.00	
6,100.00	7.82	44.37	5,951.18	842.86	824.40	1,179.01	2.00	-2.00	0.00	
6,200.00	5.82	44.37	6,050.47	851.35	832.71	1,190.88	2.00	-2.00	0.00	
6,300.00	3.82	44.37	6,150.11	857.36	838.58	1,199.29	2.00	-2.00	0.00	
6,400.00	1.82	44.37	6,249.99	860.88	842.02	1,204.21	2.00	-2.00	0.00	
<b>Start 2180.00 hold at 6491.03 MD</b>										
6,491.03	0.00	0.00	6,341.00	861.91	843.04	1,205.65	2.00	-2.00	0.00	
6,500.00	0.00	0.00	6,349.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,449.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,549.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,649.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,749.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,849.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,949.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,049.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,149.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,249.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
<b>NIO A</b>										
7,491.03	0.00	0.00	7,341.00	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,349.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,449.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,549.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,649.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
<b>CODELL</b>										
7,831.03	0.00	0.00	7,681.00	861.91	843.04	1,205.65	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,749.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,849.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,949.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,049.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
<b>JSAND</b>										
8,281.03	0.00	0.00	8,131.00	861.91	843.04	1,205.65	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,149.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,249.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
<b>DAKOTA</b>										
8,451.03	0.00	0.00	8,301.00	861.91	843.04	1,205.65	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,349.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,449.97	861.91	843.04	1,205.65	0.00	0.00	0.00	
<b>TD at 8671.03 - PBHL_NRC 9-9(1980 FSL 660 FEL)50°RAD</b>										
8,671.03	0.00	0.00	8,521.00	861.91	843.04	1,205.65	0.00	0.00	0.00	

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 9-9		
<b>Design:</b>	PLAN #1 1-6-10 RHS		

**Design Targets**

**Target Name**

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL_NRC 9-9(1980)	0.00	0.00	8,521.00	861.91	843.04	1,266,642.78	3,171,104.68	40° 3' 49.338 N	104° 53' 19.216 W
- plan hits target center									
- Circle (radius 50.00)									

**Casing Points**

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
985.00	985.00	8 5/8"	8.62	11.00

**Formations**

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,283.85	3,226.00	PARKMAN			
4,810.83	4,701.00	SUSSEX			
5,297.39	5,171.00	SHANNON			
7,491.03	7,341.00	NIO A			
7,831.03	7,681.00	CODELL			
8,281.03	8,131.00	JSAND			
8,451.03	8,301.00	DAKOTA		0.00	

**Plan Annotations**

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,085.00	1,085.00	0.00	0.00	Start Build 2.00
1,834.60	1,826.07	69.71	68.18	Start 3906.84 hold at 1834.60 MD
5,741.43	5,599.93	792.20	774.85	Start Drop -2.00
6,491.03	6,341.00	861.91	843.04	Start 2180.00 hold at 6491.03 MD
8,671.03	8,521.00	861.91	843.04	TD at 8671.03



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_NRC 20-9 PAD  
P\_NRC 9-9**

**P\_NRC 9-9  
PLAN #1 1-6-10 RHS**

## **Anticollision Report**

**04 February, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 1-6-10 RHS		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	0.00 to 20,000.00ft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.00ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	Date	2/4/2010		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,671.03	PLAN #1 1-6-10 RHS (P_NRC 9-9)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WELD_NRC 20-9 PAD						
P_NRC 10-9 - P_NRC 10-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	32.09	27.47	6.948	CC
P_NRC 10-9 - P_NRC 10-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.85	32.10	27.41	6.851	ES
P_NRC 10-9 - P_NRC 10-9 - PLAN #1 1-6-10 RHS	1,300.00	1,297.45	34.98	29.42	6.291	SF
P_NRC 15-9 - P_NRC 15-9 - PLAN #1 1-6-10 RHS	1,260.87	1,260.86	11.88	6.55	2.230	CC, ES, SF
P_NRC 16-9 - P_NRC 16-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	32.08	27.46	6.945	CC
P_NRC 16-9 - P_NRC 16-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.92	32.12	27.44	6.861	ES
P_NRC 16-9 - P_NRC 16-9 - PLAN #1 1-6-10 RHS	1,200.00	1,199.31	34.78	29.70	6.841	SF
P_NRC 37-9 - P_NRC 37-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	63.80	59.18	13.813	CC, ES
P_NRC 37-9 - P_NRC 37-9 - PLAN #1 1-6-10 RHS	1,200.00	1,197.38	67.63	62.57	13.356	SF
P_NRC 38-9 - P_NRC 38-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	47.76	43.14	10.340	CC
P_NRC 38-9 - P_NRC 38-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.85	47.81	43.13	10.212	ES
P_NRC 38-9 - P_NRC 38-9 - PLAN #1 1-6-10 RHS	1,200.00	1,198.77	50.73	45.65	9.987	SF
P_NRC 39-9 - P_NRC 39-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	16.02	-27.39	0.369	Level 1, CC
P_NRC 39-9 - P_NRC 39-9 - PLAN #1 1-6-10 RHS	1,100.00	1,100.01	16.04	-27.74	0.366	Level 1, ES, SF
ROCKY MOUNTAIN FUEL CO F #3 EXISTING - ROCKY	1,085.00	1,066.00	78.63	74.03	17.119	CC
ROCKY MOUNTAIN FUEL CO F #3 EXISTING - ROCKY	1,100.00	1,081.00	78.67	74.01	16.882	ES
ROCKY MOUNTAIN FUEL CO F #3 EXISTING - ROCKY	1,300.00	1,280.80	86.57	81.04	15.650	SF

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
0.00	0.00	0.00	0.00	0.00	0.00	-2.50	32.06	-1.40	32.09				
100.00	100.00	100.00	100.00	0.10	0.10	-2.50	32.06	-1.40	32.09	31.90	0.19	167.971	
200.00	200.00	200.00	200.00	0.32	0.32	-2.50	32.06	-1.40	32.09	31.45	0.64	50.097	
300.00	300.00	300.00	300.00	0.55	0.55	-2.50	32.06	-1.40	32.09	31.00	1.09	29.438	
400.00	400.00	400.00	400.00	0.77	0.77	-2.50	32.06	-1.40	32.09	30.55	1.54	20.843	
500.00	500.00	500.00	500.00	0.99	0.99	-2.50	32.06	-1.40	32.09	30.10	1.99	16.133	
600.00	600.00	600.00	600.00	1.22	1.22	-2.50	32.06	-1.40	32.09	29.65	2.44	13.159	
700.00	700.00	700.00	700.00	1.44	1.44	-2.50	32.06	-1.40	32.09	29.20	2.89	11.111	
800.00	800.00	800.00	800.00	1.67	1.67	-2.50	32.06	-1.40	32.09	28.75	3.34	9.615	
900.00	900.00	900.00	900.00	1.89	1.89	-2.50	32.06	-1.40	32.09	28.30	3.79	8.473	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-2.50	32.06	-1.40	32.09	27.85	4.24	7.574	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-9 PAD - P_NRC 10-9 - P_NRC 10-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-2.50	32.06	-1.40	32.09	27.47	4.62	6.948	CC		
1,100.00	1,100.00	1,099.85	1,099.85	2.34	2.34	-46.95	32.09	-1.42	32.10	27.41	4.69	6.851	ES		
1,200.00	1,199.97	1,198.80	1,198.77	2.56	2.56	-51.61	34.02	-2.52	32.66	27.54	5.12	6.377			
1,300.00	1,299.80	1,297.45	1,297.26	2.78	2.78	-62.46	38.89	-5.32	34.98	29.42	5.56	6.291	SF		
1,400.00	1,399.37	1,395.55	1,394.95	3.01	3.01	-76.31	46.65	-9.77	40.90	34.89	6.01	6.806			
1,500.00	1,498.55	1,492.86	1,491.48	3.26	3.25	-89.06	57.20	-15.83	51.79	45.32	6.47	8.004			
1,600.00	1,597.23	1,589.13	1,586.53	3.53	3.51	-98.69	70.43	-23.42	67.96	61.00	6.96	9.767			
1,700.00	1,695.29	1,684.75	1,680.40	3.84	3.80	-105.43	86.23	-32.49	88.97	81.49	7.48	11.895			
1,800.00	1,792.60	1,781.36	1,775.06	4.19	4.12	-110.85	102.95	-42.08	112.76	104.71	8.05	14.008			
1,834.60	1,826.07	1,814.63	1,807.66	4.33	4.24	-112.54	108.71	-45.39	121.49	113.23	8.26	14.716			
1,900.00	1,889.25	1,877.45	1,869.22	4.59	4.46	-115.56	119.59	-51.63	138.42	129.75	8.66	15.975			
2,000.00	1,985.85	1,973.51	1,963.35	5.02	4.80	-118.97	136.22	-61.18	164.82	155.51	9.31	17.698			
2,100.00	2,082.44	2,069.57	2,057.47	5.47	5.16	-121.44	152.85	-70.72	191.62	181.64	9.98	19.191			
2,200.00	2,179.04	2,165.62	2,151.59	5.93	5.53	-123.31	169.48	-80.27	218.68	208.00	10.67	20.485			
2,300.00	2,275.63	2,261.68	2,245.72	6.40	5.90	-124.76	186.12	-89.81	245.90	234.52	11.38	21.609			
2,400.00	2,372.23	2,357.74	2,339.84	6.88	6.28	-125.93	202.75	-99.35	273.23	261.14	12.10	22.590			
2,500.00	2,468.83	2,453.79	2,433.96	7.37	6.66	-126.88	219.38	-108.90	300.66	287.84	12.82	23.449			
2,600.00	2,565.42	2,549.85	2,528.09	7.87	7.05	-127.67	236.01	-118.44	328.15	314.59	13.56	24.207			
2,700.00	2,662.02	2,645.91	2,622.21	8.37	7.44	-128.35	252.64	-127.99	355.68	341.39	14.30	24.879			
2,800.00	2,758.62	2,741.96	2,716.33	8.87	7.83	-128.92	269.27	-137.53	383.26	368.22	15.04	25.477			
2,900.00	2,855.21	2,838.02	2,810.46	9.38	8.23	-129.42	285.90	-147.08	410.87	395.07	15.79	26.013			
3,000.00	2,951.81	2,934.08	2,904.58	9.89	8.62	-129.85	302.53	-156.62	438.50	421.95	16.55	26.494			
3,100.00	3,048.40	3,030.13	2,998.70	10.40	9.02	-130.24	319.17	-166.17	466.15	448.84	17.31	26.929			
3,200.00	3,145.00	3,126.19	3,092.82	10.92	9.43	-130.58	335.80	-175.71	493.82	475.75	18.07	27.324			
3,300.00	3,241.60	3,222.25	3,186.95	11.43	9.83	-130.88	352.43	-185.25	521.50	502.67	18.84	27.683			
3,400.00	3,338.19	3,318.30	3,281.07	11.95	10.23	-131.16	369.06	-194.80	549.20	529.59	19.61	28.011			
3,500.00	3,434.79	3,414.36	3,375.19	12.47	10.64	-131.40	385.69	-204.34	576.91	556.53	20.38	28.312			
3,600.00	3,531.39	3,510.41	3,469.32	12.99	11.04	-131.63	402.32	-213.89	604.62	583.47	21.15	28.589			
3,700.00	3,627.98	3,606.47	3,563.44	13.52	11.45	-131.83	418.95	-223.43	632.35	610.42	21.92	28.845			
3,800.00	3,724.58	3,702.53	3,657.56	14.04	11.86	-132.02	435.58	-232.98	660.08	637.38	22.70	29.081			
3,900.00	3,821.17	3,798.58	3,751.69	14.56	12.27	-132.19	452.22	-242.52	687.81	664.34	23.47	29.300			
4,000.00	3,917.77	3,894.64	3,845.81	15.09	12.67	-132.35	468.85	-252.07	715.56	691.30	24.25	29.504			
4,100.00	4,014.37	3,990.70	3,939.93	15.61	13.08	-132.50	485.48	-261.61	743.30	718.27	25.03	29.694			
4,200.00	4,110.96	4,086.75	4,034.06	16.14	13.49	-132.64	502.11	-271.15	771.05	745.24	25.81	29.872			
4,300.00	4,207.56	4,182.81	4,128.18	16.67	13.90	-132.77	518.74	-280.70	798.81	772.22	26.59	30.038			
4,400.00	4,304.16	4,278.87	4,222.30	17.20	14.32	-132.88	535.37	-290.24	826.57	799.19	27.38	30.194			
4,500.00	4,400.75	4,374.92	4,316.43	17.72	14.73	-133.00	552.00	-299.79	854.33	826.17	28.16	30.340			
4,600.00	4,497.35	4,470.98	4,410.55	18.25	15.14	-133.10	568.63	-309.33	882.09	853.15	28.94	30.478			
4,700.00	4,593.94	4,567.04	4,504.67	18.78	15.55	-133.20	585.26	-318.88	909.86	880.13	29.73	30.608			
4,800.00	4,690.54	4,663.09	4,598.80	19.31	15.96	-133.29	601.90	-328.42	937.63	907.12	30.51	30.731			
4,900.00	4,787.14	4,759.15	4,692.92	19.84	16.38	-133.38	618.53	-337.97	965.40	934.10	31.30	30.847			
5,000.00	4,883.73	4,855.21	4,787.04	20.37	16.79	-133.46	635.16	-347.51	993.17	961.09	32.08	30.957			
5,100.00	4,980.33	4,951.26	4,881.16	20.90	17.20	-133.54	651.79	-357.05	1,020.95	988.08	32.87	31.062			
5,200.00	5,076.93	5,047.32	4,975.29	21.43	17.62	-133.61	668.42	-366.60	1,048.72	1,015.07	33.66	31.161			
5,300.00	5,173.52	5,143.38	5,069.41	21.96	18.03	-133.68	685.05	-376.14	1,076.50	1,042.06	34.44	31.255			
5,400.00	5,270.12	5,239.43	5,163.53	22.49	18.44	-133.74	701.68	-385.69	1,104.28	1,069.05	35.23	31.345			
5,500.00	5,366.71	5,335.49	5,257.66	23.02	18.86	-133.81	718.31	-395.23	1,132.06	1,096.04	36.02	31.430			
5,600.00	5,463.31	5,431.55	5,351.78	23.55	19.27	-133.87	734.95	-404.78	1,159.84	1,123.03	36.81	31.512			
5,700.00	5,559.91	5,527.60	5,445.90	24.08	19.69	-133.92	751.58	-414.32	1,187.62	1,150.03	37.60	31.590			
5,741.43	5,599.93	5,567.40	5,484.90	24.30	19.86	-133.95	758.47	-418.28	1,199.14	1,161.21	37.92	31.621			
5,800.00	5,656.65	5,623.78	5,540.14	24.57	20.10	-134.19	768.23	-423.88	1,215.01	1,176.60	38.41	31.631			
5,900.00	5,754.16	5,720.52	5,634.94	24.95	20.52	-134.49	784.98	-433.49	1,240.24	1,201.06	39.19	31.649			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-9 PAD - P_NRC 10-9 - P_NRC 10-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
6,000.00	5,852.37	5,817.78	5,730.24	25.28	20.94	-134.63	801.82	-443.15	1,263.12	1,223.18	39.93	31.632			
6,100.00	5,951.18	5,927.68	5,838.04	25.56	21.36	-134.61	820.38	-453.81	1,283.41	1,242.76	40.65	31.573			
6,200.00	6,050.47	6,054.20	5,962.94	25.81	21.73	-134.54	837.79	-463.80	1,299.53	1,258.25	41.28	31.481			
6,300.00	6,150.11	6,182.25	6,090.13	26.01	22.05	-134.48	850.53	-471.11	1,311.08	1,269.27	41.81	31.358			
6,400.00	6,249.99	6,311.34	6,218.90	26.17	22.29	-134.43	858.37	-475.61	1,318.00	1,275.77	42.23	31.208			
6,491.03	6,341.00	6,429.33	6,336.84	26.28	22.46	-90.03	861.12	-477.19	1,320.23	1,277.71	42.52	31.049			
6,500.00	6,349.97	6,440.97	6,348.48	26.29	22.48	-90.03	861.17	-477.21	1,320.25	1,277.70	42.55	31.030			
6,600.00	6,449.97	6,542.47	6,449.97	26.40	22.61	-90.03	861.17	-477.22	1,320.25	1,277.43	42.82	30.832			
6,700.00	6,549.97	6,642.47	6,549.97	26.52	22.74	-90.03	861.17	-477.22	1,320.25	1,277.15	43.10	30.632			
6,800.00	6,649.97	6,742.47	6,649.97	26.63	22.88	-90.03	861.17	-477.22	1,320.25	1,276.87	43.38	30.433			
6,900.00	6,749.97	6,842.47	6,749.97	26.75	23.02	-90.03	861.17	-477.22	1,320.25	1,276.59	43.67	30.234			
7,000.00	6,849.97	6,942.47	6,849.97	26.87	23.16	-90.03	861.17	-477.22	1,320.25	1,276.30	43.96	30.036			
7,100.00	6,949.97	7,042.47	6,949.97	26.99	23.30	-90.03	861.17	-477.22	1,320.25	1,276.01	44.25	29.839			
7,200.00	7,049.97	7,142.47	7,049.97	27.11	23.45	-90.03	861.17	-477.22	1,320.25	1,275.71	44.54	29.642			
7,300.00	7,149.97	7,242.47	7,149.97	27.24	23.59	-90.03	861.17	-477.22	1,320.25	1,275.42	44.84	29.446			
7,400.00	7,249.97	7,342.47	7,249.97	27.36	23.74	-90.03	861.17	-477.22	1,320.25	1,275.12	45.13	29.252			
7,500.00	7,349.97	7,442.47	7,349.97	27.49	23.88	-90.03	861.17	-477.22	1,320.25	1,274.82	45.44	29.058			
7,600.00	7,449.97	7,542.47	7,449.97	27.62	24.03	-90.03	861.17	-477.22	1,320.25	1,274.51	45.74	28.865			
7,700.00	7,549.97	7,642.47	7,549.97	27.75	24.18	-90.03	861.17	-477.22	1,320.25	1,274.21	46.04	28.673			
7,800.00	7,649.97	7,742.47	7,649.97	27.87	24.33	-90.03	861.17	-477.22	1,320.25	1,273.90	46.35	28.483			
7,900.00	7,749.97	7,842.47	7,749.97	28.01	24.48	-90.03	861.17	-477.22	1,320.25	1,273.59	46.66	28.293			
8,000.00	7,849.97	7,942.47	7,849.97	28.14	24.64	-90.03	861.17	-477.22	1,320.25	1,273.28	46.98	28.105			
8,100.00	7,949.97	8,042.47	7,949.97	28.27	24.79	-90.03	861.17	-477.22	1,320.25	1,272.96	47.29	27.918			
8,200.00	8,049.97	8,142.47	8,049.97	28.41	24.95	-90.03	861.17	-477.22	1,320.25	1,272.65	47.61	27.732			
8,300.00	8,149.97	8,242.47	8,149.97	28.54	25.10	-90.03	861.17	-477.22	1,320.25	1,272.33	47.93	27.547			
8,400.00	8,249.97	8,342.47	8,249.97	28.68	25.26	-90.03	861.17	-477.22	1,320.25	1,272.00	48.25	27.364			
8,500.00	8,349.97	8,442.47	8,349.97	28.82	25.42	-90.03	861.17	-477.22	1,320.25	1,271.68	48.57	27.182			
8,600.00	8,449.97	8,542.47	8,449.97	28.96	25.58	-90.03	861.17	-477.22	1,320.25	1,271.36	48.90	27.001			
8,671.03	8,521.00	8,613.49	8,521.00	29.06	25.69	-90.03	861.17	-477.22	1,320.25	1,271.12	49.13	26.873			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft	
Survey Program: 0-MWD												Offset Well Error:		0.00 ft
Reference				Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-3.00	16.03	-0.84	16.05					
100.00	100.00	100.00	100.00	0.10	0.10	-3.00	16.03	-0.84	16.05	15.86	0.19	84.010		
200.00	200.00	200.00	200.00	0.32	0.32	-3.00	16.03	-0.84	16.05	15.41	0.64	25.056		
300.00	300.00	300.00	300.00	0.55	0.55	-3.00	16.03	-0.84	16.05	14.96	1.09	14.723		
400.00	400.00	400.00	400.00	0.77	0.77	-3.00	16.03	-0.84	16.05	14.51	1.54	10.425		
500.00	500.00	500.00	500.00	0.99	0.99	-3.00	16.03	-0.84	16.05	14.06	1.99	8.069		
600.00	600.00	600.00	600.00	1.22	1.22	-3.00	16.03	-0.84	16.05	13.61	2.44	6.581		
700.00	700.00	700.00	700.00	1.44	1.44	-3.00	16.03	-0.84	16.05	13.16	2.89	5.557		
800.00	800.00	800.00	800.00	1.67	1.67	-3.00	16.03	-0.84	16.05	12.71	3.34	4.809		
900.00	900.00	900.00	900.00	1.89	1.89	-3.00	16.03	-0.84	16.05	12.26	3.79	4.238		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-3.00	16.03	-0.84	16.05	11.81	4.24	3.788		
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-3.00	16.03	-0.84	16.05	11.43	4.62	3.475		
1,100.00	1,100.00	1,100.06	1,100.06	2.34	2.34	-47.57	16.00	-0.87	16.00	11.32	4.68	3.417		
1,200.00	1,199.97	1,200.25	1,200.21	2.56	2.52	-62.24	14.39	-2.48	13.39	8.31	5.08	2.636		
1,260.87	1,260.76	1,260.86	1,260.75	2.70	2.63	-89.62	12.22	-4.66	11.88	6.55	5.33	2.230	CC, ES, SF	
1,300.00	1,299.80	1,299.59	1,299.39	2.78	2.71	-113.50	10.36	-6.53	13.02	7.54	5.48	2.375		
1,400.00	1,399.37	1,397.40	1,396.78	3.01	2.91	-152.40	4.02	-12.90	26.48	20.62	5.86	4.518		
1,500.00	1,498.55	1,493.00	1,491.62	3.26	3.13	-165.35	-4.43	-21.40	50.14	43.90	6.24	8.037		
1,600.00	1,597.23	1,585.81	1,583.26	3.53	3.37	-170.64	-14.78	-31.78	81.13	74.52	6.61	12.270		
1,700.00	1,695.29	1,677.75	1,673.66	3.84	3.64	-173.34	-26.61	-43.67	118.01	111.03	6.98	16.903		
1,800.00	1,792.60	1,769.17	1,763.51	4.19	3.93	-174.88	-38.48	-55.60	158.38	151.03	7.35	21.552		
1,834.60	1,826.07	1,800.46	1,794.27	4.33	4.03	-175.26	-42.55	-59.68	173.10	165.62	7.47	23.163		
1,900.00	1,889.25	1,859.44	1,852.24	4.59	4.23	-175.88	-50.21	-67.38	201.30	193.54	7.76	25.957		
2,000.00	1,985.85	1,949.62	1,940.89	5.02	4.54	-176.55	-61.92	-79.14	244.44	236.25	8.19	29.841		
2,100.00	2,082.44	2,039.81	2,029.53	5.47	4.86	-177.02	-73.63	-90.91	287.60	278.97	8.64	33.306		
2,200.00	2,179.04	2,129.99	2,118.17	5.93	5.19	-177.36	-85.34	-102.67	330.78	321.69	9.09	36.408		
2,300.00	2,275.63	2,220.18	2,206.82	6.40	5.52	-177.63	-97.05	-114.44	373.96	364.42	9.54	39.196		
2,400.00	2,372.23	2,310.36	2,295.46	6.88	5.87	-177.84	-108.77	-126.20	417.14	407.14	10.00	41.712		
2,500.00	2,468.83	2,400.54	2,384.10	7.37	6.21	-178.01	-120.48	-137.97	460.33	449.87	10.46	43.991		
2,600.00	2,565.42	2,490.73	2,472.74	7.87	6.56	-178.16	-132.19	-149.73	503.53	492.60	10.93	46.060		
2,700.00	2,662.02	2,580.91	2,561.39	8.37	6.92	-178.28	-143.90	-161.50	546.72	535.32	11.40	47.947		
2,800.00	2,758.62	2,671.10	2,650.03	8.87	7.27	-178.38	-155.62	-173.27	589.92	578.04	11.88	49.673		
2,900.00	2,855.21	2,761.28	2,738.67	9.38	7.63	-178.47	-167.33	-185.03	633.12	620.77	12.35	51.258		
3,000.00	2,951.81	2,851.46	2,827.32	9.89	7.99	-178.54	-179.04	-196.80	676.32	663.49	12.83	52.717		
3,100.00	3,048.40	2,941.65	2,915.96	10.40	8.35	-178.61	-190.75	-208.56	719.52	706.21	13.31	54.064		
3,200.00	3,145.00	3,031.83	3,004.60	10.92	8.72	-178.67	-202.46	-220.33	762.72	748.93	13.79	55.311		
3,300.00	3,241.60	3,122.02	3,093.24	11.43	9.08	-178.73	-214.18	-232.09	805.92	791.65	14.27	56.468		
3,400.00	3,338.19	3,212.20	3,181.89	11.95	9.45	-178.77	-225.89	-243.86	849.12	834.37	14.76	57.544		
3,500.00	3,434.79	3,302.38	3,270.53	12.47	9.82	-178.82	-237.60	-255.62	892.33	877.09	15.24	58.546		
3,600.00	3,531.39	3,392.57	3,359.17	12.99	10.18	-178.86	-249.31	-267.39	935.53	919.80	15.73	59.483		
3,700.00	3,627.98	3,482.75	3,447.82	13.52	10.55	-178.89	-261.02	-279.15	978.73	962.52	16.22	60.360		
3,800.00	3,724.58	3,572.94	3,536.46	14.04	10.92	-178.93	-272.74	-290.92	1,021.94	1,005.23	16.70	61.182		
3,900.00	3,821.17	3,663.12	3,625.10	14.56	11.29	-178.96	-284.45	-302.69	1,065.14	1,047.95	17.19	61.954		
4,000.00	3,917.77	3,753.30	3,713.75	15.09	11.67	-178.98	-296.16	-314.45	1,108.35	1,090.66	17.68	62.681		
4,100.00	4,014.37	3,843.49	3,802.39	15.61	12.04	-179.01	-307.87	-326.22	1,151.55	1,133.38	18.17	63.367		
4,200.00	4,110.96	3,933.67	3,891.03	16.14	12.41	-179.03	-319.59	-337.98	1,194.76	1,176.09	18.66	64.014		
4,300.00	4,207.56	4,023.86	3,979.67	16.67	12.78	-179.06	-331.30	-349.75	1,237.96	1,218.80	19.16	64.626		
4,400.00	4,304.16	4,114.04	4,068.32	17.20	13.16	-179.08	-343.01	-361.51	1,281.17	1,261.52	19.65	65.206		
4,500.00	4,400.75	4,204.22	4,156.96	17.72	13.53	-179.10	-354.72	-373.28	1,324.37	1,304.23	20.14	65.755		
4,600.00	4,497.35	4,294.41	4,245.60	18.25	13.90	-179.12	-366.43	-385.04	1,367.58	1,346.94	20.63	66.277		
4,700.00	4,593.94	4,384.59	4,334.25	18.78	14.28	-179.13	-378.15	-396.81	1,410.78	1,389.65	21.13	66.773		
4,800.00	4,690.54	4,474.78	4,422.89	19.31	14.65	-179.15	-389.86	-408.58	1,453.99	1,432.36	21.62	67.244		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-9 PAD - P_NRC 15-9 - P_NRC 15-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
4,900.00	4,787.14	4,564.96	4,511.53	19.84	15.03	-179.16	-401.57	-420.34	1,497.19	1,475.07	22.12	67.694		
5,000.00	4,883.73	4,655.15	4,600.17	20.37	15.41	-179.18	-413.28	-432.11	1,540.40	1,517.79	22.61	68.123		
5,100.00	4,980.33	4,745.33	4,688.82	20.90	15.78	-179.19	-424.99	-443.87	1,583.60	1,560.50	23.11	68.533		
5,200.00	5,076.93	4,835.51	4,777.46	21.43	16.16	-179.20	-436.71	-455.64	1,626.81	1,603.21	23.60	68.924		
5,300.00	5,173.52	4,925.70	4,866.10	21.96	16.53	-179.22	-448.42	-467.40	1,670.01	1,645.92	24.10	69.299		
5,400.00	5,270.12	5,015.88	4,954.75	22.49	16.91	-179.23	-460.13	-479.17	1,713.22	1,688.63	24.60	69.657		
5,500.00	5,366.71	5,106.07	5,043.39	23.02	17.29	-179.24	-471.84	-490.93	1,756.43	1,731.33	25.09	70.001		
5,600.00	5,463.31	5,196.25	5,132.03	23.55	17.66	-179.25	-483.56	-502.70	1,799.63	1,774.04	25.59	70.331		
5,700.00	5,559.91	5,286.43	5,220.67	24.08	18.04	-179.26	-495.27	-514.46	1,842.84	1,816.75	26.09	70.647		
5,741.43	5,599.93	5,323.80	5,257.40	24.30	18.20	-179.26	-500.12	-519.34	1,860.74	1,834.45	26.29	70.775		
5,800.00	5,656.65	5,376.87	5,309.57	24.57	18.42	-179.28	-507.01	-526.26	1,885.50	1,858.83	26.67	70.685		
5,900.00	5,754.16	5,468.62	5,399.75	24.95	18.80	-179.29	-518.93	-538.23	1,925.26	1,897.98	27.28	70.571		
6,000.00	5,852.37	5,561.71	5,491.24	25.28	19.19	-179.31	-531.02	-550.38	1,961.79	1,933.94	27.85	70.433		
6,100.00	5,951.18	5,656.01	5,583.93	25.56	19.59	-179.32	-543.26	-562.68	1,995.05	1,966.66	28.39	70.274		
6,200.00	6,050.47	5,751.41	5,677.71	25.81	19.98	-179.33	-555.65	-575.13	2,025.00	1,996.11	28.89	70.098		
6,300.00	6,150.11	5,847.81	5,772.45	26.01	20.39	-179.34	-568.17	-587.70	2,051.60	2,022.25	29.35	69.906		
6,400.00	6,249.99	6,079.50	6,001.17	26.17	21.08	-179.35	-594.07	-613.72	2,073.16	2,043.13	30.03	69.047		
6,491.03	6,341.00	6,409.56	6,330.39	26.28	21.67	-134.98	-608.66	-628.37	2,080.32	2,049.55	30.76	67.624		
6,500.00	6,349.97	6,429.13	6,349.97	26.29	21.70	-134.98	-608.68	-628.40	2,080.33	2,049.51	30.81	67.512		
6,600.00	6,449.97	6,529.13	6,449.97	26.40	21.82	-134.98	-608.68	-628.40	2,080.33	2,049.15	31.18	66.719		
6,700.00	6,549.97	6,629.13	6,549.97	26.52	21.95	-134.98	-608.68	-628.40	2,080.33	2,048.78	31.54	65.953		
6,800.00	6,649.97	6,729.13	6,649.97	26.63	22.07	-134.98	-608.68	-628.40	2,080.33	2,048.42	31.91	65.200		
6,900.00	6,749.97	6,829.13	6,749.97	26.75	22.20	-134.98	-608.68	-628.40	2,080.33	2,048.05	32.27	64.459		
7,000.00	6,849.97	6,929.13	6,849.97	26.87	22.32	-134.98	-608.68	-628.40	2,080.33	2,047.68	32.64	63.731		
7,100.00	6,949.97	7,029.13	6,949.97	26.99	22.45	-134.98	-608.68	-628.40	2,080.33	2,047.31	33.01	63.015		
7,200.00	7,049.97	7,129.13	7,049.97	27.11	22.58	-134.98	-608.68	-628.40	2,080.33	2,046.94	33.39	62.312		
7,300.00	7,149.97	7,229.13	7,149.97	27.24	22.71	-134.98	-608.68	-628.40	2,080.33	2,046.57	33.76	61.621		
7,400.00	7,249.97	7,329.13	7,249.97	27.36	22.85	-134.98	-608.68	-628.40	2,080.33	2,046.19	34.14	60.941		
7,500.00	7,349.97	7,429.13	7,349.97	27.49	22.98	-134.98	-608.68	-628.40	2,080.33	2,045.81	34.51	60.274		
7,600.00	7,449.97	7,529.13	7,449.97	27.62	23.12	-134.98	-608.68	-628.40	2,080.33	2,045.43	34.89	59.618		
7,700.00	7,549.97	7,629.13	7,549.97	27.75	23.25	-134.98	-608.68	-628.40	2,080.33	2,045.05	35.28	58.973		
7,800.00	7,649.97	7,729.13	7,649.97	27.87	23.39	-134.98	-608.68	-628.40	2,080.33	2,044.67	35.66	58.340		
7,900.00	7,749.97	7,829.13	7,749.97	28.01	23.53	-134.98	-608.68	-628.40	2,080.33	2,044.28	36.04	57.717		
8,000.00	7,849.97	7,929.13	7,849.97	28.14	23.67	-134.98	-608.68	-628.40	2,080.33	2,043.90	36.43	57.106		
8,100.00	7,949.97	8,029.13	7,949.97	28.27	23.82	-134.98	-608.68	-628.40	2,080.33	2,043.51	36.82	56.505		
8,200.00	8,049.97	8,129.13	8,049.97	28.41	23.96	-134.98	-608.68	-628.40	2,080.33	2,043.12	37.21	55.914		
8,300.00	8,149.97	8,229.13	8,149.97	28.54	24.11	-134.98	-608.68	-628.40	2,080.33	2,042.73	37.60	55.333		
8,400.00	8,249.97	8,329.13	8,249.97	28.68	24.25	-134.98	-608.68	-628.40	2,080.33	2,042.34	37.99	54.763		
8,500.00	8,349.97	8,429.13	8,349.97	28.82	24.40	-134.98	-608.68	-628.40	2,080.33	2,041.94	38.38	54.203		
8,600.00	8,449.97	8,529.13	8,449.97	28.96	24.55	-134.98	-608.68	-628.40	2,080.33	2,041.55	38.77	53.652		
8,671.03	8,521.00	8,600.16	8,521.00	29.06	24.66	-134.98	-608.68	-628.40	2,080.33	2,041.27	39.06	53.266		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference				Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	177.50	-32.05	1.40	32.08						
100.00	100.00	100.00	100.00	0.10	0.10	177.50	-32.05	1.40	32.08	31.89	0.19	167.905			
200.00	200.00	200.00	200.00	0.32	0.32	177.50	-32.05	1.40	32.08	31.44	0.64	50.077			
300.00	300.00	300.00	300.00	0.55	0.55	177.50	-32.05	1.40	32.08	30.99	1.09	29.427			
400.00	400.00	400.00	400.00	0.77	0.77	177.50	-32.05	1.40	32.08	30.54	1.54	20.835			
500.00	500.00	500.00	500.00	0.99	0.99	177.50	-32.05	1.40	32.08	30.09	1.99	16.127			
600.00	600.00	600.00	600.00	1.22	1.22	177.50	-32.05	1.40	32.08	29.64	2.44	13.154			
700.00	700.00	700.00	700.00	1.44	1.44	177.50	-32.05	1.40	32.08	29.19	2.89	11.107			
800.00	800.00	800.00	800.00	1.67	1.67	177.50	-32.05	1.40	32.08	28.74	3.34	9.611			
900.00	900.00	900.00	900.00	1.89	1.89	177.50	-32.05	1.40	32.08	28.29	3.79	8.470			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	177.50	-32.05	1.40	32.08	27.84	4.24	7.571			
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	177.50	-32.05	1.40	32.08	27.46	4.62	6.945	CC		
1,100.00	1,100.00	1,099.92	1,099.92	2.34	2.34	133.12	-32.07	1.43	32.12	27.44	4.68	6.861	ES		
1,200.00	1,199.97	1,199.31	1,199.28	2.56	2.53	132.58	-33.08	3.43	34.78	29.70	5.08	6.841	SF		
1,300.00	1,299.80	1,298.41	1,298.21	2.78	2.72	131.50	-35.64	8.49	41.53	36.04	5.50	7.557			
1,400.00	1,399.37	1,396.97	1,396.36	3.01	2.93	130.32	-39.72	16.53	52.37	46.44	5.92	8.841			
1,500.00	1,498.55	1,494.76	1,493.37	3.26	3.16	129.27	-45.28	27.49	67.25	60.87	6.37	10.549			
1,600.00	1,597.23	1,591.55	1,588.91	3.53	3.42	128.40	-52.25	41.24	86.13	79.27	6.86	12.554			
1,700.00	1,695.29	1,687.84	1,683.44	3.84	3.72	127.77	-60.54	57.57	108.82	101.43	7.39	14.724			
1,800.00	1,792.60	1,784.61	1,778.32	4.19	4.04	128.16	-69.15	74.56	133.96	125.99	7.97	16.815			
1,834.60	1,826.07	1,817.94	1,811.00	4.33	4.15	128.48	-72.12	80.41	143.15	134.98	8.17	17.511			
1,900.00	1,889.25	1,880.88	1,872.71	4.59	4.38	129.34	-77.73	91.46	160.79	152.20	8.60	18.706			
2,000.00	1,985.85	1,977.12	1,967.06	5.02	4.73	130.35	-86.30	108.36	187.82	178.55	9.26	20.278			
2,100.00	2,082.44	2,073.35	2,061.41	5.47	5.09	131.10	-94.87	125.25	214.88	204.93	9.95	21.594			
2,200.00	2,179.04	2,169.59	2,155.77	5.93	5.47	131.68	-103.43	142.15	241.97	231.31	10.66	22.705			
2,300.00	2,275.63	2,265.82	2,250.12	6.40	5.85	132.15	-112.00	159.04	269.08	257.70	11.38	23.649			
2,400.00	2,372.23	2,362.06	2,344.47	6.88	6.23	132.53	-120.57	175.94	296.20	284.09	12.11	24.458			
2,500.00	2,468.83	2,458.29	2,438.82	7.37	6.63	132.85	-129.14	192.84	323.33	310.48	12.85	25.157			
2,600.00	2,565.42	2,554.53	2,533.17	7.87	7.02	133.12	-137.71	209.73	350.47	336.87	13.60	25.764			
2,700.00	2,662.02	2,650.76	2,627.53	8.37	7.42	133.35	-146.28	226.63	377.61	363.25	14.36	26.297			
2,800.00	2,758.62	2,747.00	2,721.88	8.87	7.82	133.54	-154.85	243.52	404.76	389.64	15.12	26.766			
2,900.00	2,855.21	2,843.23	2,816.23	9.38	8.22	133.72	-163.42	260.42	431.92	416.03	15.89	27.181			
3,000.00	2,951.81	2,939.47	2,910.58	9.89	8.63	133.87	-171.99	277.31	459.07	442.41	16.66	27.552			
3,100.00	3,048.40	3,035.70	3,004.93	10.40	9.04	134.01	-180.56	294.21	486.23	468.80	17.44	27.884			
3,200.00	3,145.00	3,131.94	3,099.29	10.92	9.45	134.13	-189.13	311.11	513.40	495.18	18.22	28.183			
3,300.00	3,241.60	3,228.17	3,193.64	11.43	9.86	134.24	-197.70	328.00	540.56	521.56	19.00	28.453			
3,400.00	3,338.19	3,324.41	3,287.99	11.95	10.27	134.34	-206.27	344.90	567.73	547.94	19.78	28.699			
3,500.00	3,434.79	3,420.64	3,382.34	12.47	10.68	134.43	-214.83	361.79	594.89	574.32	20.57	28.923			
3,600.00	3,531.39	3,516.88	3,476.69	12.99	11.10	134.51	-223.40	378.69	622.06	600.71	21.36	29.127			
3,700.00	3,627.98	3,613.11	3,571.04	13.52	11.51	134.58	-231.97	395.58	649.23	627.08	22.15	29.315			
3,800.00	3,724.58	3,709.35	3,665.40	14.04	11.93	134.65	-240.54	412.48	676.40	653.46	22.94	29.488			
3,900.00	3,821.17	3,805.58	3,759.75	14.56	12.35	134.72	-249.11	429.37	703.57	679.84	23.73	29.648			
4,000.00	3,917.77	3,901.82	3,854.10	15.09	12.76	134.78	-257.68	446.27	730.75	706.22	24.53	29.796			
4,100.00	4,014.37	3,998.05	3,948.45	15.61	13.18	134.83	-266.25	463.17	757.92	732.60	25.32	29.933			
4,200.00	4,110.96	4,094.29	4,042.80	16.14	13.60	134.88	-274.82	480.06	785.09	758.97	26.12	30.061			
4,300.00	4,207.56	4,190.52	4,137.16	16.67	14.02	134.93	-283.39	496.96	812.26	785.35	26.91	30.180			
4,400.00	4,304.16	4,286.76	4,231.51	17.20	14.44	134.97	-291.96	513.85	839.44	811.73	27.71	30.291			
4,500.00	4,400.75	4,382.99	4,325.86	17.72	14.86	135.02	-300.53	530.75	866.61	838.10	28.51	30.396			
4,600.00	4,497.35	4,479.23	4,420.21	18.25	15.28	135.05	-309.10	547.64	893.79	864.48	29.31	30.494			
4,700.00	4,593.94	4,575.46	4,514.56	18.78	15.70	135.09	-317.67	564.54	920.96	890.85	30.11	30.586			
4,800.00	4,690.54	4,671.70	4,608.92	19.31	16.12	135.13	-326.24	581.43	948.14	917.23	30.91	30.672			
4,900.00	4,787.14	4,767.93	4,703.27	19.84	16.54	135.16	-334.80	598.33	975.32	943.60	31.71	30.754			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-9 PAD - P_NRC 16-9 - P_NRC 16-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.00	4,883.73	4,864.17	4,797.62	20.37	16.96	135.19	-343.37	615.23	1,002.49	969.98	32.52	30.831			
5,100.00	4,980.33	4,960.40	4,891.97	20.90	17.38	135.22	-351.94	632.12	1,029.67	996.35	33.32	30.904			
5,200.00	5,076.93	5,056.64	4,986.32	21.43	17.80	135.25	-360.51	649.02	1,056.85	1,022.73	34.12	30.974			
5,300.00	5,173.52	5,152.87	5,080.67	21.96	18.22	135.27	-369.08	665.91	1,084.02	1,049.10	34.92	31.039			
5,400.00	5,270.12	5,249.11	5,175.03	22.49	18.64	135.30	-377.65	682.81	1,111.20	1,075.47	35.73	31.102			
5,500.00	5,366.71	5,345.34	5,269.38	23.02	19.07	135.32	-386.22	699.70	1,138.38	1,101.85	36.53	31.161			
5,600.00	5,463.31	5,441.58	5,363.73	23.55	19.49	135.35	-394.79	716.60	1,165.56	1,128.22	37.34	31.218			
5,700.00	5,559.91	5,537.81	5,458.08	24.08	19.91	135.37	-403.36	733.50	1,192.73	1,154.59	38.14	31.271			
5,741.43	5,599.93	5,577.69	5,497.17	24.30	20.09	135.38	-406.91	740.50	1,203.99	1,165.52	38.47	31.293			
5,800.00	5,656.65	5,634.16	5,552.55	24.57	20.33	135.59	-411.94	750.41	1,219.50	1,180.53	38.97	31.292			
5,900.00	5,754.16	5,731.07	5,647.56	24.95	20.76	135.84	-420.57	767.42	1,244.07	1,204.32	39.75	31.299			
6,000.00	5,852.37	5,828.47	5,743.05	25.28	21.19	135.94	-429.24	784.53	1,266.21	1,225.71	40.49	31.271			
6,100.00	5,951.18	5,940.41	5,852.97	25.56	21.60	135.89	-438.82	803.40	1,285.61	1,244.41	41.20	31.207			
6,200.00	6,050.47	6,063.90	5,975.03	25.81	21.94	135.81	-447.26	820.05	1,300.86	1,259.07	41.79	31.125			
6,300.00	6,150.11	6,188.74	6,099.12	26.01	22.23	135.75	-453.37	832.10	1,311.74	1,269.44	42.29	31.016			
6,400.00	6,249.99	6,314.48	6,224.59	26.17	22.46	135.71	-457.05	839.35	1,318.17	1,275.49	42.68	30.883			
6,491.03	6,341.00	6,429.35	6,339.42	26.28	22.61	-179.94	-458.22	841.67	1,320.14	1,277.19	42.95	30.738			
6,500.00	6,349.97	6,439.90	6,349.97	26.29	22.63	-179.94	-458.23	841.68	1,320.14	1,277.17	42.97	30.720			
6,600.00	6,449.97	6,539.90	6,449.97	26.40	22.75	-179.94	-458.23	841.68	1,320.14	1,276.90	43.24	30.527			
6,700.00	6,549.97	6,639.90	6,549.97	26.52	22.87	-179.94	-458.23	841.68	1,320.14	1,276.62	43.52	30.334			
6,800.00	6,649.97	6,739.90	6,649.97	26.63	23.00	-179.94	-458.23	841.68	1,320.14	1,276.34	43.80	30.141			
6,900.00	6,749.97	6,839.90	6,749.97	26.75	23.13	-179.94	-458.23	841.68	1,320.14	1,276.06	44.08	29.948			
7,000.00	6,849.97	6,939.90	6,849.97	26.87	23.26	-179.94	-458.23	841.68	1,320.14	1,275.78	44.36	29.756			
7,100.00	6,949.97	7,039.90	6,949.97	26.99	23.39	-179.94	-458.23	841.68	1,320.14	1,275.49	44.65	29.565			
7,200.00	7,049.97	7,139.90	7,049.97	27.11	23.52	-179.94	-458.23	841.68	1,320.14	1,275.20	44.94	29.375			
7,300.00	7,149.97	7,239.90	7,149.97	27.24	23.66	-179.94	-458.23	841.68	1,320.14	1,274.91	45.23	29.185			
7,400.00	7,249.97	7,339.90	7,249.97	27.36	23.79	-179.94	-458.23	841.68	1,320.14	1,274.61	45.53	28.996			
7,500.00	7,349.97	7,439.90	7,349.97	27.49	23.93	-179.94	-458.23	841.68	1,320.14	1,274.31	45.83	28.808			
7,600.00	7,449.97	7,539.90	7,449.97	27.62	24.07	-179.94	-458.23	841.68	1,320.14	1,274.01	46.13	28.620			
7,700.00	7,549.97	7,639.90	7,549.97	27.75	24.21	-179.94	-458.23	841.68	1,320.14	1,273.71	46.43	28.434			
7,800.00	7,649.97	7,739.90	7,649.97	27.87	24.35	-179.94	-458.23	841.68	1,320.14	1,273.41	46.73	28.249			
7,900.00	7,749.97	7,839.90	7,749.97	28.01	24.49	-179.94	-458.23	841.68	1,320.14	1,273.10	47.04	28.064			
8,000.00	7,849.97	7,939.90	7,849.97	28.14	24.63	-179.94	-458.23	841.68	1,320.14	1,272.79	47.35	27.881			
8,100.00	7,949.97	8,039.90	7,949.97	28.27	24.78	-179.94	-458.23	841.68	1,320.14	1,272.48	47.66	27.699			
8,200.00	8,049.97	8,139.90	8,049.97	28.41	24.92	-179.94	-458.23	841.68	1,320.14	1,272.17	47.97	27.518			
8,300.00	8,149.97	8,239.90	8,149.97	28.54	25.07	-179.94	-458.23	841.68	1,320.14	1,271.85	48.29	27.338			
8,400.00	8,249.97	8,339.90	8,249.97	28.68	25.22	-179.94	-458.23	841.68	1,320.14	1,271.53	48.61	27.159			
8,500.00	8,349.97	8,439.90	8,349.97	28.82	25.37	-179.94	-458.23	841.68	1,320.14	1,271.21	48.93	26.981			
8,600.00	8,449.97	8,539.90	8,449.97	28.96	25.52	-179.94	-458.23	841.68	1,320.14	1,270.89	49.25	26.805			
8,641.54	8,491.51	8,581.44	8,491.51	29.01	25.58	-179.94	-458.23	841.68	1,320.14	1,270.76	49.38	26.732			
8,671.03	8,521.00	8,596.92	8,507.00	29.06	25.61	-179.94	-458.23	841.68	1,320.21	1,270.76	49.46	26.694			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-9 PAD - P_NRC 37-9 - P_NRC 37-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	177.74	-63.75	2.52	63.80						
100.00	100.00	100.00	100.00	0.10	0.10	177.74	-63.75	2.52	63.80	63.61	0.19	333.954			
200.00	200.00	200.00	200.00	0.32	0.32	177.74	-63.75	2.52	63.80	63.16	0.64	99.600			
300.00	300.00	300.00	300.00	0.55	0.55	177.74	-63.75	2.52	63.80	62.71	1.09	58.528			
400.00	400.00	400.00	400.00	0.77	0.77	177.74	-63.75	2.52	63.80	62.26	1.54	41.440			
500.00	500.00	500.00	500.00	0.99	0.99	177.74	-63.75	2.52	63.80	61.81	1.99	32.075			
600.00	600.00	600.00	600.00	1.22	1.22	177.74	-63.75	2.52	63.80	61.36	2.44	26.162			
700.00	700.00	700.00	700.00	1.44	1.44	177.74	-63.75	2.52	63.80	60.91	2.89	22.090			
800.00	800.00	800.00	800.00	1.67	1.67	177.74	-63.75	2.52	63.80	60.46	3.34	19.115			
900.00	900.00	900.00	900.00	1.89	1.89	177.74	-63.75	2.52	63.80	60.02	3.79	16.846			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	177.74	-63.75	2.52	63.80	59.57	4.24	15.059			
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	177.74	-63.75	2.52	63.80	59.18	4.62	13.813	CC, ES		
1,100.00	1,100.00	1,099.68	1,099.68	2.34	2.34	133.39	-63.79	2.53	63.87	59.19	4.68	13.645			
1,200.00	1,199.97	1,197.38	1,197.35	2.56	2.51	134.44	-65.92	2.92	67.63	62.57	5.06	13.356	SF		
1,300.00	1,299.80	1,294.46	1,294.27	2.78	2.68	136.64	-71.28	3.90	77.26	71.81	5.45	14.168			
1,400.00	1,399.37	1,390.38	1,389.80	3.01	2.87	139.17	-79.75	5.44	92.85	87.00	5.85	15.878			
1,500.00	1,498.55	1,484.63	1,483.34	3.26	3.07	141.46	-91.13	7.52	114.40	108.15	6.25	18.311			
1,600.00	1,597.23	1,576.77	1,574.36	3.53	3.30	143.31	-105.17	10.09	141.80	135.15	6.65	21.311			
1,700.00	1,695.29	1,666.36	1,662.38	3.84	3.56	144.69	-121.58	13.09	174.89	167.83	7.07	24.739			
1,800.00	1,792.60	1,756.91	1,750.90	4.19	3.85	145.80	-140.30	16.51	212.91	205.41	7.50	28.373			
1,834.60	1,826.07	1,788.55	1,781.82	4.33	3.96	146.18	-146.90	17.72	226.77	219.11	7.66	29.611			
1,900.00	1,889.25	1,848.22	1,840.14	4.59	4.17	147.11	-159.34	19.99	253.31	245.33	7.98	31.724			
2,000.00	1,985.85	1,939.45	1,929.30	5.02	4.50	148.20	-178.37	23.47	293.98	285.48	8.50	34.594			
2,100.00	2,082.44	2,030.69	2,018.46	5.47	4.85	149.03	-197.39	26.94	334.71	325.68	9.03	37.085			
2,200.00	2,179.04	2,121.92	2,107.62	5.93	5.21	149.68	-216.41	30.42	375.48	365.92	9.57	39.255			
2,300.00	2,275.63	2,213.16	2,196.79	6.40	5.58	150.20	-235.44	33.90	416.29	406.18	10.12	41.155			
2,400.00	2,372.23	2,304.39	2,285.95	6.88	5.96	150.63	-254.46	37.38	457.13	446.45	10.67	42.828			
2,500.00	2,468.83	2,395.63	2,375.11	7.37	6.34	150.99	-273.48	40.85	497.98	486.74	11.24	44.306			
2,600.00	2,565.42	2,486.86	2,464.27	7.87	6.73	151.29	-292.51	44.33	538.84	527.03	11.81	45.620			
2,700.00	2,662.02	2,578.10	2,553.43	8.37	7.13	151.55	-311.53	47.81	579.72	567.33	12.39	46.792			
2,800.00	2,758.62	2,669.33	2,642.59	8.87	7.52	151.78	-330.55	51.28	620.60	607.63	12.97	47.845			
2,900.00	2,855.21	2,760.57	2,731.76	9.38	7.92	151.98	-349.58	54.76	661.49	647.94	13.56	48.793			
3,000.00	2,951.81	2,851.80	2,820.92	9.89	8.32	152.16	-368.60	58.24	702.39	688.24	14.15	49.650			
3,100.00	3,048.40	2,943.04	2,910.08	10.40	8.73	152.31	-387.62	61.71	743.29	728.55	14.74	50.429			
3,200.00	3,145.00	3,034.27	2,999.24	10.92	9.13	152.45	-406.65	65.19	784.20	768.86	15.33	51.138			
3,300.00	3,241.60	3,125.51	3,088.40	11.43	9.54	152.58	-425.67	68.67	825.11	809.18	15.93	51.787			
3,400.00	3,338.19	3,216.74	3,177.56	11.95	9.95	152.69	-444.69	72.14	866.02	849.49	16.53	52.382			
3,500.00	3,434.79	3,307.98	3,266.73	12.47	10.36	152.80	-463.72	75.62	906.94	889.80	17.13	52.930			
3,600.00	3,531.39	3,399.21	3,355.89	12.99	10.77	152.89	-482.74	79.10	947.85	930.12	17.74	53.435			
3,700.00	3,627.98	3,490.44	3,445.05	13.52	11.18	152.98	-501.76	82.58	988.77	970.43	18.34	53.902			
3,800.00	3,724.58	3,581.68	3,534.21	14.04	11.59	153.06	-520.79	86.05	1,029.70	1,010.74	18.95	54.336			
3,900.00	3,821.17	3,672.91	3,623.37	14.56	12.01	153.13	-539.81	89.53	1,070.62	1,051.06	19.56	54.739			
4,000.00	3,917.77	3,764.15	3,712.53	15.09	12.42	153.20	-558.83	93.01	1,111.54	1,091.37	20.17	55.114			
4,100.00	4,014.37	3,855.38	3,801.70	15.61	12.84	153.27	-577.86	96.48	1,152.47	1,131.69	20.78	55.465			
4,200.00	4,110.96	3,946.62	3,890.86	16.14	13.25	153.33	-596.88	99.96	1,193.39	1,172.01	21.39	55.793			
4,300.00	4,207.56	4,037.85	3,980.02	16.67	13.67	153.38	-615.90	103.44	1,234.32	1,212.32	22.00	56.101			
4,400.00	4,304.16	4,129.09	4,069.18	17.20	14.09	153.43	-634.93	106.91	1,275.25	1,252.64	22.61	56.390			
4,500.00	4,400.75	4,220.32	4,158.34	17.72	14.50	153.48	-653.95	110.39	1,316.18	1,292.95	23.23	56.662			
4,600.00	4,497.35	4,311.56	4,247.50	18.25	14.92	153.53	-672.97	113.87	1,357.11	1,333.27	23.84	56.919			
4,700.00	4,593.94	4,402.79	4,336.67	18.78	15.34	153.57	-692.00	117.35	1,398.04	1,373.58	24.46	57.161			
4,800.00	4,690.54	4,494.03	4,425.83	19.31	15.76	153.61	-711.02	120.82	1,438.97	1,413.90	25.07	57.390			
4,900.00	4,787.14	4,585.26	4,514.99	19.84	16.18	153.65	-730.04	124.30	1,479.91	1,454.22	25.69	57.606			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-9 PAD - P_NRC 37-9 - P_NRC 37-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
5,000.00	4,883.73	4,676.50	4,604.15	20.37	16.60	153.69	-749.07	127.78	1,520.84	1,494.53	26.31	57.812		
5,100.00	4,980.33	4,767.73	4,693.31	20.90	17.02	153.72	-768.09	131.25	1,561.77	1,534.85	26.92	58.006		
5,200.00	5,076.93	4,858.97	4,782.47	21.43	17.44	153.75	-787.11	134.73	1,602.70	1,575.16	27.54	58.192		
5,300.00	5,173.52	4,950.20	4,871.64	21.96	17.86	153.78	-806.14	138.21	1,643.64	1,615.48	28.16	58.368		
5,400.00	5,270.12	5,041.43	4,960.80	22.49	18.28	153.81	-825.16	141.68	1,684.57	1,655.79	28.78	58.536		
5,500.00	5,366.71	5,132.67	5,049.96	23.02	18.70	153.84	-844.18	145.16	1,725.51	1,696.11	29.40	58.696		
5,600.00	5,463.31	5,223.90	5,139.12	23.55	19.12	153.87	-863.21	148.64	1,766.44	1,736.43	30.02	58.849		
5,700.00	5,559.91	5,315.14	5,228.28	24.08	19.54	153.89	-882.23	152.11	1,807.38	1,776.74	30.64	58.995		
5,741.43	5,599.93	5,352.94	5,265.22	24.30	19.71	153.90	-890.11	153.56	1,824.34	1,793.44	30.89	59.053		
5,800.00	5,656.65	5,406.59	5,317.66	24.57	19.96	154.13	-901.30	155.60	1,847.82	1,816.49	31.33	58.977		
5,900.00	5,754.16	5,499.16	5,408.12	24.95	20.39	154.46	-920.60	159.13	1,885.62	1,853.60	32.02	58.892		
6,000.00	5,852.37	5,592.85	5,499.68	25.28	20.82	154.70	-940.13	162.70	1,920.49	1,887.82	32.67	58.782		
6,100.00	5,951.18	5,687.54	5,592.22	25.56	21.26	154.86	-959.88	166.31	1,952.39	1,919.10	33.29	58.652		
6,200.00	6,050.47	5,783.12	5,685.63	25.81	21.70	154.96	-979.81	169.95	1,981.29	1,947.42	33.86	58.506		
6,300.00	6,150.11	5,879.47	5,779.79	26.01	22.14	154.98	-999.90	173.62	2,007.17	1,972.77	34.40	58.350		
6,400.00	6,249.99	6,098.46	5,995.10	26.17	22.89	154.72	-1,038.98	180.76	2,027.73	1,992.57	35.16	57.675		
6,491.03	6,341.00	6,335.97	6,231.28	26.28	23.40	-161.13	-1,063.04	185.16	2,037.22	2,001.46	35.76	56.970		
6,500.00	6,349.97	6,359.60	6,254.87	26.29	23.44	-161.15	-1,064.38	185.41	2,037.67	2,001.86	35.81	56.895		
6,600.00	6,449.97	6,554.78	6,449.97	26.40	23.69	-161.21	-1,068.41	186.14	2,039.03	2,002.73	36.29	56.183		
6,700.00	6,549.97	6,654.78	6,549.97	26.52	23.81	-161.21	-1,068.41	186.14	2,039.03	2,002.42	36.61	55.698		
6,800.00	6,649.97	6,754.78	6,649.97	26.63	23.91	-161.21	-1,068.41	186.14	2,039.03	2,002.11	36.92	55.225		
6,900.00	6,749.97	6,854.78	6,749.97	26.75	24.02	-161.21	-1,068.41	186.14	2,039.03	2,001.79	37.24	54.756		
7,000.00	6,849.97	6,954.78	6,849.97	26.87	24.13	-161.21	-1,068.41	186.14	2,039.03	2,001.47	37.56	54.291		
7,100.00	6,949.97	7,054.78	6,949.97	26.99	24.24	-161.21	-1,068.41	186.14	2,039.03	2,001.15	37.88	53.830		
7,200.00	7,049.97	7,154.78	7,049.97	27.11	24.36	-161.21	-1,068.41	186.14	2,039.03	2,000.82	38.20	53.373		
7,300.00	7,149.97	7,254.78	7,149.97	27.24	24.47	-161.21	-1,068.41	186.14	2,039.03	2,000.50	38.53	52.920		
7,400.00	7,249.97	7,354.78	7,249.97	27.36	24.59	-161.21	-1,068.41	186.14	2,039.03	2,000.17	38.86	52.472		
7,500.00	7,349.97	7,454.78	7,349.97	27.49	24.70	-161.21	-1,068.41	186.14	2,039.03	1,999.84	39.19	52.028		
7,600.00	7,449.97	7,554.78	7,449.97	27.62	24.82	-161.21	-1,068.41	186.14	2,039.03	1,999.50	39.53	51.588		
7,700.00	7,549.97	7,654.78	7,549.97	27.75	24.94	-161.21	-1,068.41	186.14	2,039.03	1,999.17	39.86	51.153		
7,800.00	7,649.97	7,754.78	7,649.97	27.87	25.07	-161.21	-1,068.41	186.14	2,039.03	1,998.83	40.20	50.722		
7,900.00	7,749.97	7,854.78	7,749.97	28.01	25.19	-161.21	-1,068.41	186.14	2,039.03	1,998.49	40.54	50.296		
8,000.00	7,849.97	7,954.78	7,849.97	28.14	25.31	-161.21	-1,068.41	186.14	2,039.03	1,998.14	40.88	49.875		
8,100.00	7,949.97	8,054.78	7,949.97	28.27	25.44	-161.21	-1,068.41	186.14	2,039.03	1,997.80	41.23	49.457		
8,200.00	8,049.97	8,154.78	8,049.97	28.41	25.57	-161.21	-1,068.41	186.14	2,039.03	1,997.45	41.57	49.045		
8,300.00	8,149.97	8,254.78	8,149.97	28.54	25.70	-161.21	-1,068.41	186.14	2,039.03	1,997.10	41.92	48.637		
8,400.00	8,249.97	8,354.78	8,249.97	28.68	25.83	-161.21	-1,068.41	186.14	2,039.03	1,996.75	42.27	48.233		
8,459.85	8,309.82	8,414.63	8,309.82	28.76	25.91	-161.21	-1,068.41	186.14	2,039.03	1,996.54	42.48	47.994		
8,500.00	8,349.97	8,437.81	8,333.00	28.82	25.94	-161.21	-1,068.41	186.14	2,039.10	1,996.50	42.60	47.869		
8,600.00	8,449.97	8,437.81	8,333.00	28.96	25.94	-161.21	-1,068.41	186.14	2,042.38	1,999.60	42.78	47.740		
8,671.03	8,521.00	8,437.81	8,333.00	29.06	25.94	-161.21	-1,068.41	186.14	2,047.68	2,004.76	42.91	47.718		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-9 PAD - P_NRC 38-9 - P_NRC 38-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	177.65	-47.72	1.96	47.76					
100.00	100.00	100.00	100.00	0.10	0.10	177.65	-47.72	1.96	47.76	47.57	0.19	249.988		
200.00	200.00	200.00	200.00	0.32	0.32	177.65	-47.72	1.96	47.76	47.12	0.64	74.558		
300.00	300.00	300.00	300.00	0.55	0.55	177.65	-47.72	1.96	47.76	46.67	1.09	43.812		
400.00	400.00	400.00	400.00	0.77	0.77	177.65	-47.72	1.96	47.76	46.22	1.54	31.020		
500.00	500.00	500.00	500.00	0.99	0.99	177.65	-47.72	1.96	47.76	45.77	1.99	24.010		
600.00	600.00	600.00	600.00	1.22	1.22	177.65	-47.72	1.96	47.76	45.32	2.44	19.584		
700.00	700.00	700.00	700.00	1.44	1.44	177.65	-47.72	1.96	47.76	44.87	2.89	16.536		
800.00	800.00	800.00	800.00	1.67	1.67	177.65	-47.72	1.96	47.76	44.42	3.34	14.309		
900.00	900.00	900.00	900.00	1.89	1.89	177.65	-47.72	1.96	47.76	43.97	3.79	12.611		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	177.65	-47.72	1.96	47.76	43.52	4.24	11.273		
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	177.65	-47.72	1.96	47.76	43.14	4.62	10.340	CC	
1,100.00	1,100.00	1,099.85	1,099.85	2.34	2.34	133.28	-47.74	1.99	47.81	43.13	4.68	10.212	ES	
1,200.00	1,199.97	1,198.77	1,198.74	2.56	2.52	133.09	-49.02	3.81	50.73	45.65	5.08	9.987	SF	
1,300.00	1,299.80	1,297.35	1,297.15	2.78	2.71	132.69	-52.25	8.39	58.14	52.65	5.49	10.597		
1,400.00	1,399.37	1,395.29	1,394.68	3.01	2.92	132.20	-57.38	15.69	70.00	64.09	5.91	11.850		
1,500.00	1,498.55	1,492.31	1,490.94	3.26	3.14	131.71	-64.36	25.60	86.27	79.92	6.35	13.589		
1,600.00	1,597.23	1,588.15	1,585.56	3.53	3.40	131.24	-73.09	37.99	106.89	100.07	6.82	15.671		
1,700.00	1,695.29	1,682.54	1,678.22	3.84	3.69	130.79	-83.47	52.73	131.76	124.43	7.33	17.973		
1,800.00	1,792.60	1,775.27	1,768.61	4.19	4.01	130.36	-95.36	69.63	160.80	152.91	7.89	20.383		
1,834.60	1,826.07	1,806.93	1,799.31	4.33	4.13	130.21	-99.81	75.94	171.79	163.70	8.09	21.232		
1,900.00	1,889.25	1,866.28	1,856.63	4.59	4.38	130.12	-108.67	88.53	193.44	184.92	8.52	22.713		
2,000.00	1,985.85	1,955.91	1,942.56	5.02	4.80	129.52	-123.35	109.37	228.07	218.87	9.20	24.786		
2,100.00	2,082.44	2,044.07	2,026.26	5.47	5.26	128.58	-139.28	132.01	264.59	254.66	9.93	26.649		
2,200.00	2,179.04	2,130.63	2,107.57	5.93	5.77	127.47	-156.36	156.27	303.02	292.33	10.69	28.340		
2,300.00	2,275.63	2,215.48	2,186.37	6.40	6.32	126.27	-174.47	181.99	343.38	331.89	11.49	29.898		
2,400.00	2,372.23	2,300.93	2,264.81	6.88	6.92	125.01	-193.99	209.70	385.61	373.29	12.32	31.309		
2,500.00	2,468.83	2,391.01	2,347.26	7.37	7.60	123.87	-214.87	239.37	428.41	415.21	13.19	32.474		
2,600.00	2,565.42	2,481.09	2,429.71	7.87	8.28	122.94	-235.76	269.04	471.32	457.24	14.08	33.473		
2,700.00	2,662.02	2,571.18	2,512.16	8.37	8.99	122.16	-256.65	298.71	514.32	499.34	14.98	34.336		
2,800.00	2,758.62	2,661.26	2,594.61	8.87	9.70	121.51	-277.54	328.38	557.38	541.49	15.89	35.086		
2,900.00	2,855.21	2,751.34	2,677.06	9.38	10.42	120.94	-298.43	358.05	600.49	583.69	16.80	35.744		
3,000.00	2,951.81	2,841.42	2,759.51	9.89	11.14	120.46	-319.32	387.72	643.65	625.93	17.72	36.324		
3,100.00	3,048.40	2,931.50	2,841.96	10.40	11.87	120.03	-340.21	417.39	686.84	668.19	18.65	36.837		
3,200.00	3,145.00	3,021.59	2,924.41	10.92	12.60	119.65	-361.10	447.06	730.05	710.48	19.57	37.296		
3,300.00	3,241.60	3,111.67	3,006.86	11.43	13.34	119.32	-381.99	476.73	773.29	752.79	20.51	37.706		
3,400.00	3,338.19	3,201.75	3,089.31	11.95	14.08	119.02	-402.88	506.40	816.55	795.11	21.45	38.076		
3,500.00	3,434.79	3,291.83	3,171.76	12.47	14.83	118.75	-423.77	536.07	859.83	837.44	22.39	38.410		
3,600.00	3,531.39	3,381.91	3,254.21	12.99	15.57	118.51	-444.66	565.74	903.11	879.79	23.33	38.713		
3,700.00	3,627.98	3,472.00	3,336.66	13.52	16.32	118.29	-465.55	595.41	946.41	922.14	24.27	38.990		
3,800.00	3,724.58	3,562.08	3,419.11	14.04	17.07	118.09	-486.44	625.08	989.73	964.51	25.22	39.243		
3,900.00	3,821.17	3,652.16	3,501.56	14.56	17.82	117.90	-507.33	654.75	1,033.05	1,006.88	26.17	39.475		
4,000.00	3,917.77	3,742.24	3,584.01	15.09	18.57	117.73	-528.22	684.42	1,076.37	1,049.25	27.12	39.690		
4,100.00	4,014.37	3,832.32	3,666.46	15.61	19.33	117.58	-549.11	714.09	1,119.71	1,091.64	28.07	39.887		
4,200.00	4,110.96	3,922.41	3,748.91	16.14	20.08	117.43	-570.00	743.76	1,163.05	1,134.02	29.02	40.071		
4,300.00	4,207.56	4,012.49	3,831.36	16.67	20.84	117.30	-590.89	773.43	1,206.40	1,176.42	29.98	40.241		
4,400.00	4,304.16	4,102.57	3,913.81	17.20	21.59	117.17	-611.78	803.10	1,249.75	1,218.81	30.93	40.399		
4,500.00	4,400.75	4,192.65	3,996.27	17.72	22.35	117.05	-632.67	832.77	1,293.10	1,261.21	31.89	40.547		
4,600.00	4,497.35	4,282.73	4,078.72	18.25	23.11	116.95	-653.56	862.44	1,336.47	1,303.62	32.85	40.685		
4,700.00	4,593.94	4,372.82	4,161.17	18.78	23.87	116.84	-674.45	892.11	1,379.83	1,346.02	33.81	40.815		
4,800.00	4,690.54	4,462.90	4,243.62	19.31	24.62	116.75	-695.34	921.78	1,423.20	1,388.43	34.77	40.936		
4,900.00	4,787.14	4,552.98	4,326.07	19.84	25.38	116.66	-716.23	951.45	1,466.57	1,430.84	35.73	41.050		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-9 PAD - P_NRC 38-9 - P_NRC 38-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
5,000.00	4,883.73	4,643.06	4,408.52	20.37	26.14	116.57	-737.12	981.12	1,509.94	1,473.25	36.69	41.158		
5,100.00	4,980.33	4,733.14	4,490.97	20.90	26.90	116.49	-758.01	1,010.79	1,553.32	1,515.67	37.65	41.260		
5,200.00	5,076.93	4,823.22	4,573.42	21.43	27.66	116.41	-778.90	1,040.46	1,596.70	1,558.09	38.61	41.356		
5,300.00	5,173.52	4,913.31	4,655.87	21.96	28.42	116.34	-799.79	1,070.13	1,640.08	1,600.51	39.57	41.446		
5,400.00	5,270.12	5,003.39	4,738.32	22.49	29.18	116.27	-820.68	1,099.80	1,683.46	1,642.93	40.53	41.533		
5,500.00	5,366.71	5,093.47	4,820.77	23.02	29.94	116.21	-841.57	1,129.47	1,726.84	1,685.35	41.50	41.614		
5,600.00	5,463.31	5,183.55	4,903.22	23.55	30.71	116.15	-862.46	1,159.14	1,770.23	1,727.77	42.46	41.692		
5,700.00	5,559.91	5,273.63	4,985.67	24.08	31.47	116.09	-883.35	1,188.81	1,813.62	1,770.19	43.42	41.766		
5,741.43	5,599.93	5,310.96	5,019.83	24.30	31.78	116.06	-892.00	1,201.10	1,831.59	1,787.77	43.82	41.795		
5,800.00	5,656.65	5,363.82	5,068.21	24.57	32.23	116.51	-904.26	1,218.51	1,856.77	1,812.25	44.52	41.710		
5,900.00	5,754.16	5,454.49	5,151.21	24.95	33.00	117.17	-925.29	1,248.38	1,898.63	1,853.03	45.60	41.635		
6,000.00	5,852.37	5,635.49	5,318.77	25.28	34.17	117.50	-964.64	1,304.27	1,937.26	1,890.35	46.90	41.303		
6,100.00	5,951.18	5,840.93	5,513.73	25.56	35.25	117.72	-1,001.84	1,357.11	1,969.28	1,921.17	48.11	40.933		
6,200.00	6,050.47	6,055.25	5,721.51	25.81	36.14	117.89	-1,031.98	1,399.91	1,994.21	1,945.05	49.15	40.572		
6,300.00	6,150.11	6,276.55	5,939.54	26.01	36.82	118.01	-1,053.62	1,430.65	2,011.65	1,961.65	50.00	40.231		
6,400.00	6,249.99	6,502.45	6,164.41	26.17	37.26	118.10	-1,065.66	1,447.75	2,021.33	1,970.69	50.64	39.914		
6,491.03	6,341.00	6,679.11	6,341.00	26.28	37.43	162.51	-1,068.00	1,451.08	2,023.43	1,972.43	51.00	39.673		
6,500.00	6,349.97	6,688.09	6,349.97	26.29	37.44	162.51	-1,068.00	1,451.08	2,023.43	1,972.41	51.02	39.658		
6,600.00	6,449.97	6,788.09	6,449.97	26.40	37.51	162.51	-1,068.00	1,451.08	2,023.43	1,972.18	51.25	39.481		
6,700.00	6,549.97	6,888.09	6,549.97	26.52	37.59	162.51	-1,068.00	1,451.08	2,023.43	1,971.95	51.48	39.303		
6,800.00	6,649.97	6,988.09	6,649.97	26.63	37.67	162.51	-1,068.00	1,451.08	2,023.43	1,971.71	51.72	39.125		
6,900.00	6,749.97	7,088.09	6,749.97	26.75	37.75	162.51	-1,068.00	1,451.08	2,023.43	1,971.48	51.96	38.946		
7,000.00	6,849.97	7,188.09	6,849.97	26.87	37.83	162.51	-1,068.00	1,451.08	2,023.43	1,971.23	52.20	38.766		
7,100.00	6,949.97	7,288.09	6,949.97	26.99	37.91	162.51	-1,068.00	1,451.08	2,023.43	1,970.99	52.44	38.587		
7,200.00	7,049.97	7,388.09	7,049.97	27.11	37.99	162.51	-1,068.00	1,451.08	2,023.43	1,970.75	52.68	38.407		
7,300.00	7,149.97	7,488.09	7,149.97	27.24	38.07	162.51	-1,068.00	1,451.08	2,023.43	1,970.50	52.93	38.226		
7,400.00	7,249.97	7,588.09	7,249.97	27.36	38.16	162.51	-1,068.00	1,451.08	2,023.43	1,970.25	53.18	38.046		
7,500.00	7,349.97	7,688.09	7,349.97	27.49	38.24	162.51	-1,068.00	1,451.08	2,023.43	1,969.99	53.44	37.865		
7,600.00	7,449.97	7,788.09	7,449.97	27.62	38.33	162.51	-1,068.00	1,451.08	2,023.43	1,969.74	53.69	37.685		
7,700.00	7,549.97	7,888.09	7,549.97	27.75	38.42	162.51	-1,068.00	1,451.08	2,023.43	1,969.48	53.95	37.504		
7,800.00	7,649.97	7,988.09	7,649.97	27.87	38.51	162.51	-1,068.00	1,451.08	2,023.43	1,969.22	54.21	37.323		
7,900.00	7,749.97	8,088.09	7,749.97	28.01	38.60	162.51	-1,068.00	1,451.08	2,023.43	1,968.95	54.48	37.143		
8,000.00	7,849.97	8,188.09	7,849.97	28.14	38.69	162.51	-1,068.00	1,451.08	2,023.43	1,968.69	54.74	36.962		
8,100.00	7,949.97	8,288.09	7,949.97	28.27	38.78	162.51	-1,068.00	1,451.08	2,023.43	1,968.42	55.01	36.782		
8,200.00	8,049.97	8,388.09	8,049.97	28.41	38.87	162.51	-1,068.00	1,451.08	2,023.43	1,968.15	55.28	36.602		
8,300.00	8,149.97	8,488.09	8,149.97	28.54	38.97	162.51	-1,068.00	1,451.08	2,023.43	1,967.87	55.56	36.422		
8,363.78	8,213.75	8,551.86	8,213.75	28.63	39.03	162.51	-1,068.00	1,451.08	2,023.43	1,967.70	55.73	36.307		
8,400.00	8,249.97	8,580.11	8,242.00	28.68	39.06	162.51	-1,068.00	1,451.08	2,023.45	1,967.63	55.82	36.249		
8,500.00	8,349.97	8,580.11	8,242.00	28.82	39.06	162.51	-1,068.00	1,451.08	2,026.31	1,970.34	55.97	36.204		
8,600.00	8,449.97	8,580.11	8,242.00	28.96	39.06	162.51	-1,068.00	1,451.08	2,034.09	1,977.97	56.12	36.247		
8,671.03	8,521.00	8,580.11	8,242.00	29.06	39.06	162.51	-1,068.00	1,451.08	2,042.57	1,986.35	56.22	36.329		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-9 PAD - P_NRC 39-9 - P_NRC 39-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	178.00	-16.01	0.56	16.02					
100.00	100.00	100.00	100.00	0.10	1.70	178.00	-16.01	0.56	16.02	14.23	1.80	8.923		
200.00	200.00	200.00	200.00	0.32	5.70	178.00	-16.01	0.56	16.02	10.00	6.02	2.661		
300.00	300.00	300.00	300.00	0.55	9.70	178.00	-16.01	0.56	16.02	5.78	10.25	1.564		
400.00	400.00	400.00	400.00	0.77	13.70	178.00	-16.01	0.56	16.02	1.55	14.47	1.107	Level 2	
500.00	500.00	500.00	500.00	0.99	17.70	178.00	-16.01	0.56	16.02	-2.67	18.69	0.857	Level 1	
600.00	600.00	600.00	600.00	1.22	21.70	178.00	-16.01	0.56	16.02	-6.90	22.92	0.699	Level 1	
700.00	700.00	700.00	700.00	1.44	25.70	178.00	-16.01	0.56	16.02	-11.12	27.14	0.590	Level 1	
800.00	800.00	800.00	800.00	1.67	29.70	178.00	-16.01	0.56	16.02	-15.35	31.37	0.511	Level 1	
900.00	900.00	900.00	900.00	1.89	33.70	178.00	-16.01	0.56	16.02	-19.57	35.59	0.450	Level 1	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	37.70	178.00	-16.01	0.56	16.02	-23.80	39.82	0.402	Level 1	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	41.10	178.00	-16.01	0.56	16.02	-27.39	43.41	0.369	Level 1, CC	
1,100.00	1,100.00	1,100.01	1,100.01	2.34	41.45	133.59	-16.01	0.60	16.04	-27.74	43.79	0.366	Level 1, ES, SF	
1,200.00	1,199.97	1,200.05	1,200.02	2.56	42.25	131.55	-15.67	2.84	17.36	-27.44	44.81	0.387	Level 1	
1,300.00	1,299.80	1,300.01	1,299.81	2.78	43.42	127.55	-14.81	8.54	20.78	-25.40	46.18	0.450	Level 1	
1,400.00	1,399.37	1,399.82	1,399.18	3.01	44.94	123.30	-13.45	17.65	26.41	-21.51	47.92	0.551	Level 1	
1,500.00	1,498.55	1,499.39	1,497.94	3.26	46.79	119.73	-11.57	30.15	34.28	-15.74	50.01	0.685	Level 1	
1,600.00	1,597.23	1,598.66	1,595.91	3.53	48.96	117.00	-9.20	45.98	44.39	-8.07	52.46	0.846	Level 1	
1,700.00	1,695.29	1,697.56	1,692.91	3.84	51.43	114.95	-6.33	65.08	56.71	1.47	55.24	1.027	Level 2	
1,800.00	1,792.60	1,796.03	1,788.76	4.19	54.21	113.40	-2.98	87.37	71.20	12.85	58.35	1.220	Level 2	
1,834.60	1,826.07	1,829.99	1,821.62	4.33	55.26	112.95	-1.72	95.82	76.71	17.18	59.53	1.289	Level 3	
1,900.00	1,889.25	1,894.04	1,883.33	4.59	57.27	111.94	0.83	112.79	87.56	25.74	61.82	1.416	Level 3	
2,000.00	1,985.85	1,991.56	1,976.51	5.02	60.62	109.34	5.10	141.23	104.93	39.36	65.57	1.600		
2,100.00	2,082.44	2,089.17	2,068.91	5.47	64.25	106.23	9.77	172.33	123.38	53.84	69.54	1.774		
2,200.00	2,179.04	2,187.23	2,161.63	5.93	68.10	103.79	14.50	203.87	142.21	68.53	73.68	1.930		
2,300.00	2,275.63	2,285.28	2,254.36	6.40	72.11	101.92	19.23	235.41	161.23	83.30	77.93	2.069		
2,400.00	2,372.23	2,383.33	2,347.08	6.88	76.26	100.45	23.97	266.95	180.38	98.10	82.28	2.192		
2,500.00	2,468.83	2,481.39	2,439.80	7.37	80.52	99.26	28.70	298.49	199.62	112.90	86.72	2.302		
2,600.00	2,565.42	2,579.44	2,532.52	7.87	84.88	98.28	33.43	330.04	218.93	127.69	91.24	2.399		
2,700.00	2,662.02	2,677.50	2,625.25	8.37	89.33	97.46	38.17	361.58	238.30	142.47	95.83	2.487		
2,800.00	2,758.62	2,775.55	2,717.97	8.87	93.84	96.76	42.90	393.12	257.70	157.23	100.48	2.565		
2,900.00	2,855.21	2,873.61	2,810.69	9.38	98.42	96.16	47.63	424.66	277.14	171.97	105.17	2.635		
3,000.00	2,951.81	2,971.66	2,903.41	9.89	103.06	95.64	52.37	456.20	296.60	186.69	109.91	2.699		
3,100.00	3,048.40	3,069.72	2,996.14	10.40	107.74	95.18	57.10	487.74	316.08	201.39	114.69	2.756		
3,200.00	3,145.00	3,167.77	3,088.86	10.92	112.46	94.78	61.83	519.28	335.58	216.08	119.51	2.808		
3,300.00	3,241.60	3,265.83	3,181.58	11.43	117.22	94.42	66.57	550.82	355.09	230.74	124.35	2.856		
3,400.00	3,338.19	3,363.88	3,274.31	11.95	122.01	94.10	71.30	582.36	374.62	245.40	129.22	2.899		
3,500.00	3,434.79	3,461.94	3,367.03	12.47	126.83	93.81	76.03	613.90	394.16	260.04	134.12	2.939		
3,600.00	3,531.39	3,559.99	3,459.75	12.99	131.67	93.54	80.77	645.44	413.70	274.66	139.04	2.975		
3,700.00	3,627.98	3,658.04	3,552.47	13.52	136.54	93.30	85.50	676.98	433.25	289.28	143.97	3.009		
3,800.00	3,724.58	3,756.10	3,645.20	14.04	141.42	93.08	90.23	708.52	452.81	303.88	148.93	3.040		
3,900.00	3,821.17	3,854.15	3,737.92	14.56	146.33	92.88	94.97	740.06	472.38	318.47	153.90	3.069		
4,000.00	3,917.77	3,952.21	3,830.64	15.09	151.25	92.70	99.70	771.60	491.95	333.06	158.89	3.096		
4,100.00	4,014.37	4,050.26	3,923.36	15.61	156.18	92.53	104.43	803.14	511.52	347.63	163.89	3.121		
4,200.00	4,110.96	4,148.32	4,016.09	16.14	161.13	92.37	109.17	834.68	531.10	362.20	168.90	3.144		
4,300.00	4,207.56	4,246.37	4,108.81	16.67	166.09	92.23	113.90	866.22	550.68	376.76	173.92	3.166		
4,400.00	4,304.16	4,344.43	4,201.53	17.20	171.07	92.09	118.63	897.76	570.27	391.31	178.95	3.187		
4,500.00	4,400.75	4,442.48	4,294.26	17.72	176.05	91.96	123.37	929.30	589.85	405.86	184.00	3.206		
4,600.00	4,497.35	4,540.54	4,386.98	18.25	181.04	91.84	128.10	960.84	609.44	420.40	189.05	3.224		
4,700.00	4,593.94	4,638.59	4,479.70	18.78	186.04	91.73	132.83	992.38	629.04	434.93	194.11	3.241		
4,800.00	4,690.54	4,736.65	4,572.42	19.31	191.05	91.62	137.57	1,023.92	648.63	449.46	199.17	3.257		
4,900.00	4,787.14	4,834.70	4,665.15	19.84	196.07	91.53	142.30	1,055.46	668.23	463.99	204.24	3.272		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-9 PAD - P_NRC 39-9 - P_NRC 39-9 - PLAN #1 1-6-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
5,000.00	4,883.73	4,932.75	4,757.87	20.37	201.09	91.43	147.03	1,087.00	687.83	478.51	209.32	3.286		
5,100.00	4,980.33	5,030.81	4,850.59	20.90	206.12	91.34	151.77	1,118.54	707.43	493.02	214.41	3.299		
5,200.00	5,076.93	5,128.86	4,943.31	21.43	211.16	91.26	156.50	1,150.08	727.03	507.53	219.50	3.312		
5,300.00	5,173.52	5,226.92	5,036.04	21.96	216.20	91.18	161.23	1,181.62	746.64	522.04	224.59	3.324		
5,400.00	5,270.12	5,324.97	5,128.76	22.49	221.25	91.11	165.97	1,213.16	766.24	536.55	229.69	3.336		
5,500.00	5,366.71	5,423.03	5,221.48	23.02	226.30	91.04	170.70	1,244.70	785.85	551.05	234.80	3.347		
5,600.00	5,463.31	5,521.08	5,314.21	23.55	231.35	90.97	175.43	1,276.24	805.45	565.55	239.91	3.357		
5,700.00	5,559.91	5,624.90	5,412.44	24.08	236.68	90.91	180.41	1,309.44	824.96	579.69	245.27	3.363		
5,741.43	5,599.93	5,673.65	5,458.87	24.30	239.13	90.94	182.62	1,324.17	832.60	584.83	247.78	3.360		
5,800.00	5,656.65	5,742.85	5,525.18	24.57	242.54	91.21	185.56	1,343.73	842.72	591.31	251.41	3.352		
5,900.00	5,754.16	5,861.70	5,640.11	24.95	248.16	91.63	190.05	1,373.62	858.10	600.70	257.40	3.334		
6,000.00	5,852.37	5,981.32	5,756.96	25.28	253.54	91.99	193.84	1,398.91	871.04	607.89	263.15	3.310		
6,100.00	5,951.18	6,101.58	5,875.40	25.56	258.65	92.28	196.93	1,419.46	881.51	612.86	268.65	3.281		
6,200.00	6,050.47	6,222.35	5,995.12	25.81	263.46	92.52	199.28	1,435.13	889.48	615.61	273.87	3.248		
6,300.00	6,150.11	6,343.47	6,115.75	26.01	268.00	92.71	200.88	1,445.81	894.91	616.11	278.81	3.210		
6,400.00	6,249.99	6,464.80	6,236.93	26.17	272.27	92.85	201.73	1,451.45	897.80	614.33	283.47	3.167		
6,491.03	6,341.00	6,568.88	6,341.00	26.28	274.66	137.29	201.87	1,452.40	898.32	612.14	286.18	3.139		
6,500.00	6,349.97	6,577.85	6,349.97	26.29	274.76	137.29	201.87	1,452.40	898.32	612.02	286.30	3.138		
6,600.00	6,449.97	6,677.85	6,449.97	26.40	275.90	137.29	201.87	1,452.40	898.32	610.64	287.68	3.123		
6,700.00	6,549.97	6,777.85	6,549.97	26.52	277.09	137.29	201.87	1,452.40	898.32	609.21	289.11	3.107		
6,800.00	6,649.97	6,877.85	6,649.97	26.63	278.33	137.29	201.87	1,452.40	898.32	607.73	290.59	3.091		
6,900.00	6,749.97	6,977.85	6,749.97	26.75	279.62	137.29	201.87	1,452.40	898.32	606.19	292.13	3.075		
7,000.00	6,849.97	7,077.85	6,849.97	26.87	280.96	137.29	201.87	1,452.40	898.32	604.60	293.72	3.058		
7,100.00	6,949.97	7,177.85	6,949.97	26.99	282.36	137.29	201.87	1,452.40	898.32	602.95	295.37	3.041		
7,200.00	7,049.97	7,277.85	7,049.97	27.11	283.80	137.29	201.87	1,452.40	898.32	601.25	297.07	3.024		
7,300.00	7,149.97	7,377.85	7,149.97	27.24	285.29	137.29	201.87	1,452.40	898.32	599.50	298.82	3.006		
7,400.00	7,249.97	7,477.85	7,249.97	27.36	286.83	137.29	201.87	1,452.40	898.32	597.70	300.62	2.988		
7,500.00	7,349.97	7,577.85	7,349.97	27.49	288.42	137.29	201.87	1,452.40	898.32	595.85	302.47	2.970		
7,600.00	7,449.97	7,677.85	7,449.97	27.62	290.06	137.29	201.87	1,452.40	898.32	593.95	304.37	2.951		
7,700.00	7,549.97	7,777.85	7,549.97	27.75	291.74	137.29	201.87	1,452.40	898.32	592.01	306.32	2.933		
7,800.00	7,649.97	7,877.85	7,649.97	27.87	293.46	137.29	201.87	1,452.40	898.32	590.01	308.31	2.914		
7,900.00	7,749.97	7,977.85	7,749.97	28.01	295.23	137.29	201.87	1,452.40	898.32	587.97	310.35	2.895		
8,000.00	7,849.97	8,077.85	7,849.97	28.14	297.05	137.29	201.87	1,452.40	898.32	585.89	312.43	2.875		
8,100.00	7,949.97	8,177.85	7,949.97	28.27	298.90	137.29	201.87	1,452.40	898.32	583.76	314.56	2.856		
8,200.00	8,049.97	8,277.85	8,049.97	28.41	300.80	137.29	201.87	1,452.40	898.32	581.59	316.73	2.836		
8,300.00	8,149.97	8,377.85	8,149.97	28.54	302.74	137.29	201.87	1,452.40	898.32	579.38	318.94	2.817		
8,361.25	8,211.22	8,439.10	8,211.22	28.63	303.94	137.29	201.87	1,452.40	898.32	578.01	320.31	2.805		
8,400.00	8,249.97	8,463.88	8,236.00	28.68	304.44	137.29	201.87	1,452.40	898.43	577.54	320.89	2.800		
8,500.00	8,349.97	8,463.88	8,236.00	28.82	304.44	137.29	201.87	1,452.40	905.52	584.49	321.03	2.821		
8,600.00	8,449.97	8,463.88	8,236.00	28.96	304.44	137.29	201.87	1,452.40	923.45	602.28	321.17	2.875		
8,671.03	8,521.00	8,463.88	8,236.00	29.06	304.44	137.29	201.87	1,452.40	942.45	621.18	321.27	2.934		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference				Offset			Semi Major Axis			Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	-146.02	-65.20	-43.94	80.89						
100.00	100.00	81.00	81.00	0.10	0.09	-146.02	-65.20	-43.94	78.63	78.44	0.19	421.385			
200.00	200.00	181.00	181.00	0.32	0.29	-146.02	-65.20	-43.94	78.63	78.01	0.61	127.905			
300.00	300.00	281.00	281.00	0.55	0.52	-146.02	-65.20	-43.94	78.63	77.56	1.06	73.880			
400.00	400.00	381.00	381.00	0.77	0.74	-146.02	-65.20	-43.94	78.63	77.11	1.51	51.941			
500.00	500.00	481.00	481.00	0.99	0.97	-146.02	-65.20	-43.94	78.63	76.66	1.96	40.048			
600.00	600.00	581.00	581.00	1.22	1.19	-146.02	-65.20	-43.94	78.63	76.22	2.41	32.587			
700.00	700.00	681.00	681.00	1.44	1.42	-146.02	-65.20	-43.94	78.63	75.77	2.86	27.469			
800.00	800.00	781.00	781.00	1.67	1.64	-146.02	-65.20	-43.94	78.63	75.32	3.31	23.741			
900.00	900.00	881.00	881.00	1.89	1.87	-146.02	-65.20	-43.94	78.63	74.87	3.76	20.904			
1,000.00	1,000.00	981.00	981.00	2.12	2.09	-146.02	-65.20	-43.94	78.63	74.42	4.21	18.672			
1,085.00	1,085.00	1,066.00	1,066.00	2.31	2.28	-146.02	-65.20	-43.94	78.63	74.03	4.59	17.119	CC		
1,100.00	1,100.00	1,081.00	1,081.00	2.34	2.32	169.62	-65.20	-43.94	78.67	74.01	4.66	16.882	ES		
1,200.00	1,199.97	1,180.97	1,180.97	2.56	2.54	169.90	-65.20	-43.94	80.90	75.80	5.10	15.868			
1,300.00	1,299.80	1,280.80	1,280.80	2.78	2.77	170.55	-65.20	-43.94	86.57	81.04	5.53	15.650	SF		
1,400.00	1,399.37	1,380.37	1,380.37	3.01	2.99	171.43	-65.20	-43.94	95.70	89.74	5.96	16.057			
1,500.00	1,498.55	1,479.55	1,479.55	3.26	3.21	172.40	-65.20	-43.94	108.28	101.90	6.38	16.969			
1,600.00	1,597.23	1,578.23	1,578.23	3.53	3.43	173.35	-65.20	-43.94	124.32	117.52	6.80	18.293			
1,700.00	1,695.29	1,676.29	1,676.29	3.84	3.66	174.21	-65.20	-43.94	143.80	136.60	7.20	19.961			
1,800.00	1,792.60	1,773.60	1,773.60	4.19	3.87	174.97	-65.20	-43.94	166.71	159.10	7.61	21.918			
1,834.60	1,826.07	1,807.07	1,807.07	4.33	3.95	175.20	-65.20	-43.94	175.42	167.68	7.74	22.654			
1,900.00	1,889.25	1,870.25	1,870.25	4.59	4.09	175.62	-65.20	-43.94	192.29	184.25	8.04	23.907			
2,000.00	1,985.85	1,966.85	1,966.85	5.02	4.31	176.14	-65.20	-43.94	218.10	209.59	8.51	25.640			
2,100.00	2,082.44	2,063.44	2,063.44	5.47	4.53	176.55	-65.20	-43.94	243.92	234.94	8.97	27.182			
2,200.00	2,179.04	2,160.04	2,160.04	5.93	4.74	176.88	-65.20	-43.94	269.75	260.30	9.44	28.862			
2,300.00	2,275.63	2,256.63	2,256.63	6.40	4.96	177.15	-65.20	-43.94	295.58	285.66	9.92	29.501			
2,400.00	2,372.23	2,353.23	2,353.23	6.88	5.18	177.38	-65.20	-43.94	321.42	311.03	10.40	30.920			
2,500.00	2,468.83	2,449.83	2,449.83	7.37	5.39	177.58	-65.20	-43.94	347.27	336.39	10.87	31.935			
2,600.00	2,565.42	2,546.42	2,546.42	7.87	5.61	177.75	-65.20	-43.94	373.12	361.76	11.36	32.858			
2,700.00	2,662.02	2,643.02	2,643.02	8.37	5.83	177.89	-65.20	-43.94	398.97	387.13	11.84	33.702			
2,800.00	2,758.62	2,739.62	2,739.62	8.87	6.05	178.02	-65.20	-43.94	424.82	412.50	12.32	34.475			
2,900.00	2,855.21	2,836.21	2,836.21	9.38	6.26	178.13	-65.20	-43.94	450.68	437.87	12.81	35.186			
3,000.00	2,951.81	2,932.81	2,932.81	9.89	6.48	178.24	-65.20	-43.94	476.53	463.24	13.30	35.843			
3,100.00	3,048.40	3,029.40	3,029.40	10.40	6.70	178.33	-65.20	-43.94	502.39	488.61	13.78	36.450			
3,200.00	3,145.00	3,126.00	3,126.00	10.92	6.91	178.41	-65.20	-43.94	528.25	513.98	14.27	37.013			
3,300.00	3,241.60	3,222.60	3,222.60	11.43	7.13	178.48	-65.20	-43.94	554.11	539.34	14.76	37.537			
3,400.00	3,338.19	3,319.19	3,319.19	11.95	7.35	178.55	-65.20	-43.94	579.97	564.71	15.25	38.025			
3,500.00	3,434.79	3,415.79	3,415.79	12.47	7.57	178.61	-65.20	-43.94	605.83	590.08	15.74	38.482			
3,600.00	3,531.39	3,512.39	3,512.39	12.99	7.78	178.67	-65.20	-43.94	631.69	615.45	16.24	38.909			
3,700.00	3,627.98	3,608.98	3,608.98	13.52	8.00	178.72	-65.20	-43.94	657.55	640.82	16.73	39.310			
3,800.00	3,724.58	3,705.58	3,705.58	14.04	8.22	178.77	-65.20	-43.94	683.41	666.19	17.22	39.687			
3,900.00	3,821.17	3,802.17	3,802.17	14.56	8.43	178.81	-65.20	-43.94	709.28	691.56	17.71	40.041			
4,000.00	3,917.77	3,898.77	3,898.77	15.09	8.65	178.86	-65.20	-43.94	735.14	716.93	18.21	40.376			
4,100.00	4,014.37	3,995.37	3,995.37	15.61	8.87	178.90	-65.20	-43.94	761.00	742.30	18.70	40.692			
4,200.00	4,110.96	4,091.96	4,091.96	16.14	9.08	178.93	-65.20	-43.94	786.87	767.67	19.20	40.992			
4,300.00	4,207.56	4,188.56	4,188.56	16.67	9.30	178.97	-65.20	-43.94	812.73	793.04	19.69	41.275			
4,400.00	4,304.16	4,285.16	4,285.16	17.20	9.52	179.00	-65.20	-43.94	838.60	818.41	20.19	41.544			
4,500.00	4,400.75	4,381.75	4,381.75	17.72	9.74	179.03	-65.20	-43.94	864.46	843.78	20.68	41.800			
4,600.00	4,497.35	4,478.35	4,478.35	18.25	9.95	179.06	-65.20	-43.94	890.33	869.15	21.18	42.043			
4,700.00	4,593.94	4,574.94	4,574.94	18.78	10.17	179.08	-65.20	-43.94	916.19	894.52	21.67	42.274			
4,800.00	4,690.54	4,671.54	4,671.54	19.31	10.39	179.11	-65.20	-43.94	942.06	919.89	22.17	42.495			
4,900.00	4,787.14	4,768.14	4,768.14	19.84	10.60	179.13	-65.20	-43.94	967.92	945.26	22.66	42.706			

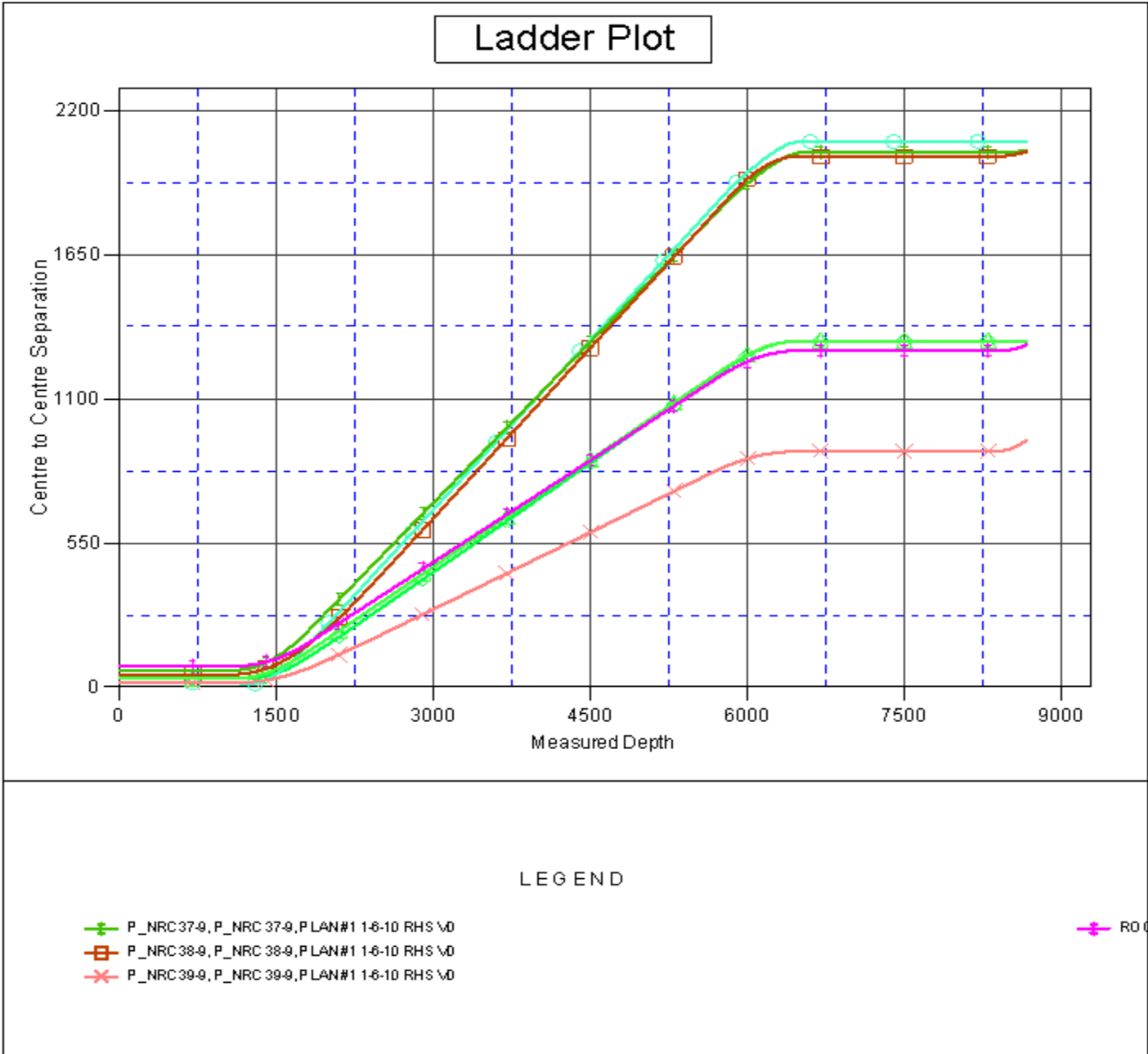
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-9 PAD - ROCKY MOUNTAIN FUEL CO F #3 EXISTING - ROCKY MOUNTAIN FUEL C	Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.00	4,883.73	4,864.73	4,864.73	20.37	10.82	179.15	-65.20	-43.94	993.79	970.63	23.16	42.907			
5,100.00	4,980.33	4,961.33	4,961.33	20.90	11.04	179.18	-65.20	-43.94	1,019.65	995.99	23.66	43.100			
5,200.00	5,076.93	5,057.93	5,057.93	21.43	11.26	179.20	-65.20	-43.94	1,045.52	1,021.36	24.15	43.284			
5,300.00	5,173.52	5,154.52	5,154.52	21.96	11.47	179.22	-65.20	-43.94	1,071.38	1,046.73	24.65	43.461			
5,400.00	5,270.12	5,251.12	5,251.12	22.49	11.69	179.23	-65.20	-43.94	1,097.25	1,072.10	25.15	43.630			
5,500.00	5,366.71	5,347.71	5,347.71	23.02	11.91	179.25	-65.20	-43.94	1,123.12	1,097.47	25.65	43.793			
5,600.00	5,463.31	5,444.31	5,444.31	23.55	12.12	179.27	-65.20	-43.94	1,148.98	1,122.84	26.14	43.949			
5,700.00	5,559.91	5,540.91	5,540.91	24.08	12.34	179.28	-65.20	-43.94	1,174.85	1,148.21	26.64	44.099			
5,741.43	5,599.93	5,580.93	5,580.93	24.30	12.43	179.29	-65.20	-43.94	1,185.57	1,158.72	26.85	44.159			
5,800.00	5,656.65	5,637.65	5,637.65	24.57	12.56	179.30	-65.20	-43.94	1,200.14	1,172.94	27.20	44.131			
5,900.00	5,754.16	5,735.16	5,735.16	24.95	12.78	179.32	-65.20	-43.94	1,222.32	1,194.59	27.74	44.071			
6,000.00	5,852.37	5,833.37	5,833.37	25.28	13.00	179.34	-65.20	-43.94	1,241.10	1,212.86	28.24	43.954			
6,100.00	5,951.18	5,932.18	5,932.18	25.56	13.22	179.35	-65.20	-43.94	1,256.43	1,227.73	28.70	43.784			
6,200.00	6,050.47	6,031.47	6,031.47	25.81	13.44	179.36	-65.20	-43.94	1,268.30	1,239.19	29.11	43.565			
6,300.00	6,150.11	6,131.11	6,131.11	26.01	13.67	179.36	-65.20	-43.94	1,276.70	1,247.22	29.49	43.299			
6,400.00	6,249.99	6,230.99	6,230.99	26.17	13.89	179.37	-65.20	-43.94	1,281.63	1,251.81	29.81	42.989			
6,491.03	6,341.00	6,322.00	6,322.00	26.28	14.10	-136.27	-65.20	-43.94	1,283.07	1,253.00	30.07	42.667			
6,500.00	6,349.97	6,330.97	6,330.97	26.29	14.12	-136.27	-65.20	-43.94	1,283.07	1,252.96	30.11	42.617			
6,600.00	6,449.97	6,430.97	6,430.97	26.40	14.34	-136.27	-65.20	-43.94	1,283.07	1,252.55	30.52	42.046			
6,700.00	6,549.97	6,530.97	6,530.97	26.52	14.57	-136.27	-65.20	-43.94	1,283.07	1,252.14	30.93	41.488			
6,800.00	6,649.97	6,630.97	6,630.97	26.63	14.79	-136.27	-65.20	-43.94	1,283.07	1,251.73	31.34	40.943			
6,900.00	6,749.97	6,730.97	6,730.97	26.75	15.02	-136.27	-65.20	-43.94	1,283.07	1,251.32	31.75	40.412			
7,000.00	6,849.97	6,830.97	6,830.97	26.87	15.24	-136.27	-65.20	-43.94	1,283.07	1,250.91	32.16	39.893			
7,100.00	6,949.97	6,930.97	6,930.97	26.99	15.47	-136.27	-65.20	-43.94	1,283.07	1,250.49	32.58	39.386			
7,200.00	7,049.97	7,030.97	7,030.97	27.11	15.69	-136.27	-65.20	-43.94	1,283.07	1,250.08	32.99	38.891			
7,300.00	7,149.97	7,130.97	7,130.97	27.24	15.92	-136.27	-65.20	-43.94	1,283.07	1,249.66	33.41	38.407			
7,400.00	7,249.97	7,230.97	7,230.97	27.36	16.14	-136.27	-65.20	-43.94	1,283.07	1,249.25	33.82	37.934			
7,500.00	7,349.97	7,330.97	7,330.97	27.49	16.37	-136.27	-65.20	-43.94	1,283.07	1,248.83	34.24	37.472			
7,600.00	7,449.97	7,430.97	7,430.97	27.62	16.59	-136.27	-65.20	-43.94	1,283.07	1,248.41	34.66	37.020			
7,700.00	7,549.97	7,530.97	7,530.97	27.75	16.81	-136.27	-65.20	-43.94	1,283.07	1,247.99	35.08	36.578			
7,800.00	7,649.97	7,630.97	7,630.97	27.87	17.04	-136.27	-65.20	-43.94	1,283.07	1,247.57	35.50	36.146			
7,900.00	7,749.97	7,730.97	7,730.97	28.01	17.26	-136.27	-65.20	-43.94	1,283.07	1,247.15	35.92	35.723			
8,000.00	7,849.97	7,830.97	7,830.97	28.14	17.49	-136.27	-65.20	-43.94	1,283.07	1,246.73	36.34	35.309			
8,100.00	7,949.97	7,930.97	7,930.97	28.27	17.71	-136.27	-65.20	-43.94	1,283.07	1,246.31	36.76	34.905			
8,200.00	8,049.97	8,030.97	8,030.97	28.41	17.94	-136.27	-65.20	-43.94	1,283.07	1,245.89	37.18	34.509			
8,300.00	8,149.97	8,130.97	8,130.97	28.54	18.16	-136.27	-65.20	-43.94	1,283.07	1,245.47	37.60	34.121			
8,400.00	8,249.97	8,230.97	8,230.97	28.68	18.39	-136.27	-65.20	-43.94	1,283.07	1,245.04	38.03	33.741			
8,500.00	8,349.97	8,260.00	8,260.00	28.82	18.45	-136.27	-65.20	-43.94	1,285.03	1,246.74	38.29	33.560			
8,600.00	8,449.97	8,260.00	8,260.00	28.96	18.45	-136.27	-65.20	-43.94	1,294.41	1,255.92	38.49	33.629			
8,671.03	8,521.00	8,260.00	8,260.00	29.06	18.45	-136.27	-65.20	-43.94	1,305.69	1,267.06	38.63	33.798			

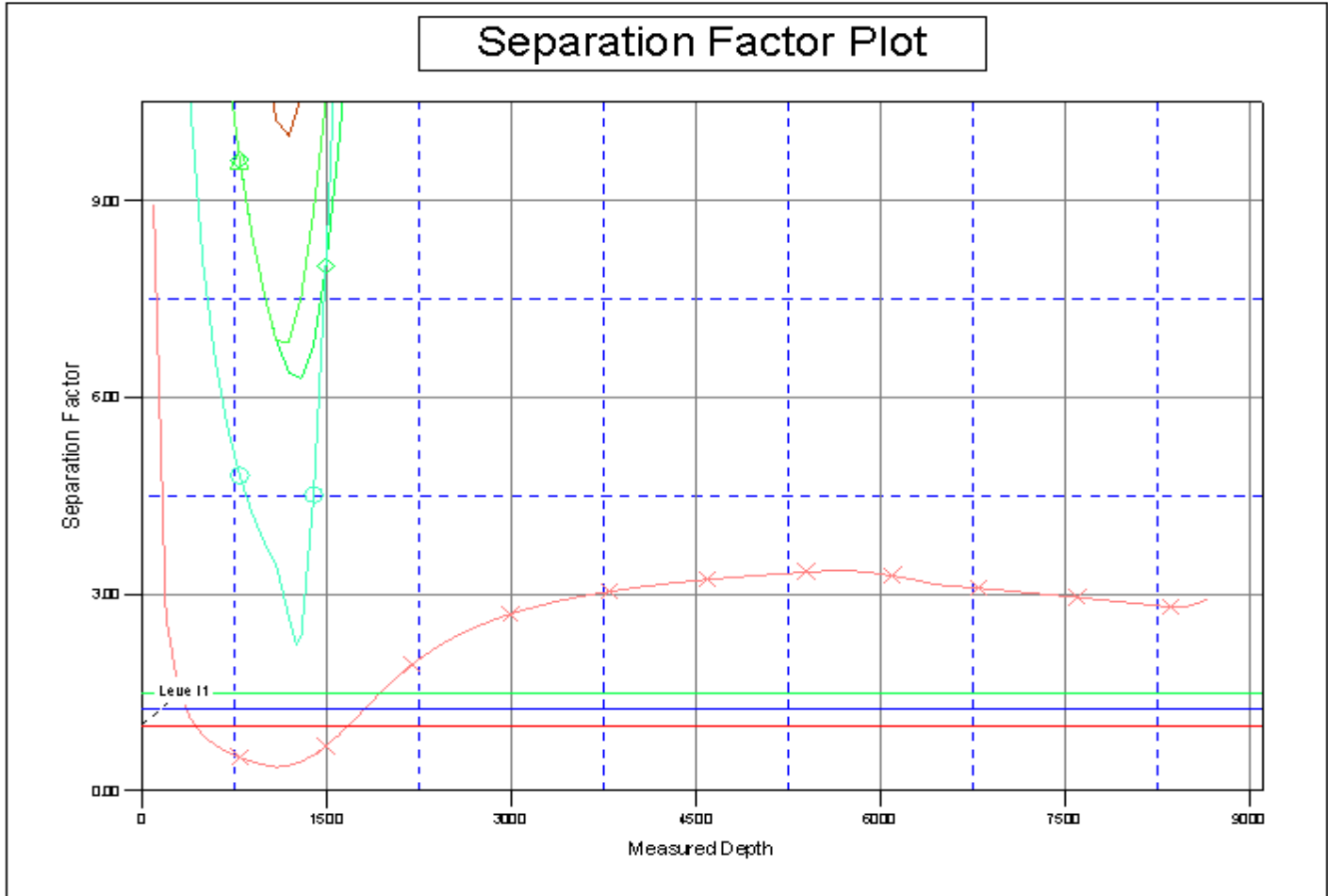
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5039.00ft (Original Well Elev) Coordinates are relative to: P\_NRC 9-9  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 9-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-9 PAD	<b>MD Reference:</b>	WELL @ 5039.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 9-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_NRC 9-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5039.00ft (Original Well Elev) Coordinates are relative to: P\_NRC 9-9  
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°



### LEGEND

P_NRC 37-9, P_NRC 37-9, P LAN#1 1-6-10 RHS \0	ROCK
P_NRC 38-9, P_NRC 38-9, P LAN#1 1-6-10 RHS \0	
P_NRC 39-9, P_NRC 39-9, P LAN#1 1-6-10 RHS \0	