



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_NRC 20-8 PAD**

**P\_NRC 10-8**

**P\_NRC 10-8**

**Plan: PLAN #1 1-5-10 RHS**

## **Standard Planning Report**

**05 January, 2010**





P\_NRC 10-8  
 COLORADO NORTHERN ZONE - 83  
 SECTION 8 T1N R67W  
 1043 FSL 1381 FEL  
 LAT: 40° 3' 40.187 N  
 LONG: 104° 54' 36.115 W

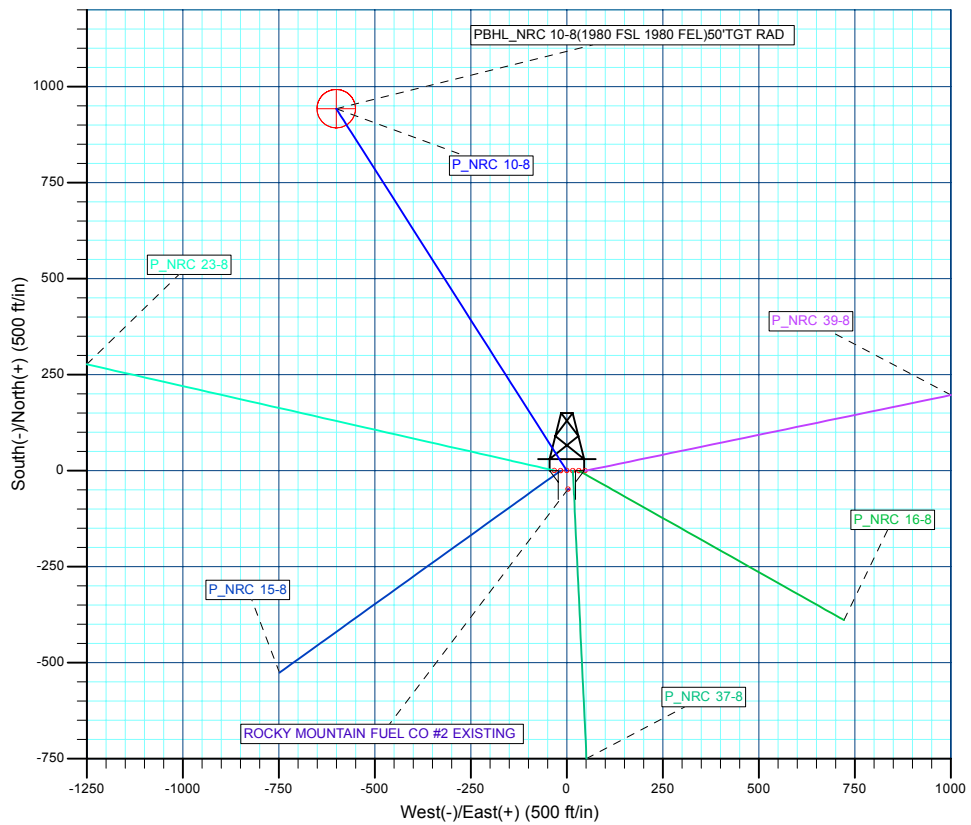
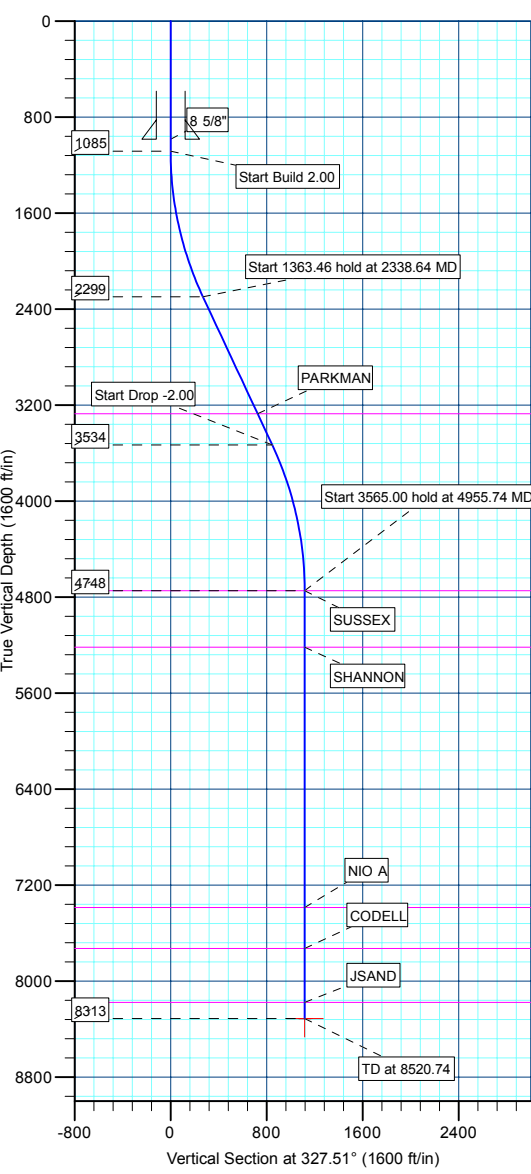


WELL DETAILS: P_NRC 10-8							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	1265676.31	3165132.20	40° 3' 40.187 N	104° 54' 36.115 W		
				Ground Level: 5056.00			

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3273.00	3413.96	PARKMAN
4748.00	4955.74	SUSSEX
5218.00	5425.74	SHANNON
7388.00	7595.74	NIO A
7728.00	7935.74	CODELL
8178.00	8385.74	JSAND

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		
2338.64	25.07	327.51	2299.01	227.70	-145.00	2.00	327.51	269.95		
3702.10	25.07	327.51	3533.99	715.06	-455.37	0.00	0.00	847.74		
4955.74	0.00	0.00	4748.00	942.76	-600.37	2.00	180.00	1117.69		
8520.74	0.00	0.00	8313.00	942.76	-600.37	0.00	0.00	1117.69	PBHL_NRC 10-8(1980 FSL 1980 FEL)50'TGT 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
PBH	8313.00	942.76	-600.37	1266615.05	3164525.58	40° 3' 49.504 N	104° 54' 43.837 W	Circle (Radius: 50.00)

Plan: PLAN #1 1-5-10 RHS (P\_NRC 10-8/P\_NRC 10-8)  
 Created By: Robert H. Scott

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-8 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 10-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 10-8		
<b>Design:</b>	PLAN #1 1-5-10 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 20-8 PAD, SECTION 8 T1N R67W				
<b>Site Position:</b>		<b>Northing:</b>	1,265,676.31 ft	<b>Latitude:</b>	40° 3' 40.187 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,165,132.20 ft	<b>Longitude:</b>	104° 54' 36.115 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	0.38 °

<b>Well</b>	P_NRC 10-8					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	1,265,676.31 ft	<b>Latitude:</b>	40° 3' 40.187 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	3,165,132.20 ft	<b>Longitude:</b>	104° 54' 36.115 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	5,056.00 ft

<b>Wellbore</b>	P_NRC 10-8				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	1/5/2010	9.07	66.81	53,107

<b>Design</b>	PLAN #1 1-5-10 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	327.51

<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	
2,338.64	25.07	327.51	2,299.01	227.70	-145.00	2.00	2.00	0.00	327.51	
3,702.10	25.07	327.51	3,533.99	715.06	-455.37	0.00	0.00	0.00	0.00	
4,955.74	0.00	0.00	4,748.00	942.76	-600.37	2.00	-2.00	0.00	180.00	
8,520.74	0.00	0.00	8,313.00	942.76	-600.37	0.00	0.00	0.00	0.00	PBHL_NRC 10-8(1'

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-8 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 10-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 10-8		
<b>Design:</b>	PLAN #1 1-5-10 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	327.51	1,100.00	0.03	-0.02	0.04	2.00	2.00	0.00
1,200.00	2.30	327.51	1,199.97	1.95	-1.24	2.31	2.00	2.00	0.00
1,300.00	4.30	327.51	1,299.80	6.80	-4.33	8.06	2.00	2.00	0.00
1,400.00	6.30	327.51	1,399.37	14.59	-9.29	17.30	2.00	2.00	0.00
1,500.00	8.30	327.51	1,498.55	25.31	-16.12	30.01	2.00	2.00	0.00
1,600.00	10.30	327.51	1,597.23	38.94	-24.80	46.17	2.00	2.00	0.00
1,700.00	12.30	327.51	1,695.59	55.47	-35.32	65.76	2.00	2.00	0.00
1,800.00	14.30	327.51	1,792.60	74.87	-47.68	88.76	2.00	2.00	0.00
1,900.00	16.30	327.51	1,889.05	97.13	-61.85	115.15	2.00	2.00	0.00
2,000.00	18.30	327.51	1,984.52	122.21	-77.83	144.89	2.00	2.00	0.00
2,100.00	20.30	327.51	2,078.90	150.09	-95.58	177.94	2.00	2.00	0.00
2,200.00	22.30	327.51	2,172.06	180.72	-115.09	214.26	2.00	2.00	0.00
2,300.00	24.30	327.51	2,263.90	214.09	-136.33	253.81	2.00	2.00	0.00
<b>Start 1363.46 hold at 2338.64 MD</b>									
2,338.64	25.07	327.51	2,299.01	227.70	-145.00	269.95	2.00	2.00	0.00
2,400.00	25.07	327.51	2,354.59	249.63	-158.97	295.95	0.00	0.00	0.00
2,500.00	25.07	327.51	2,445.17	285.38	-181.73	338.33	0.00	0.00	0.00
2,600.00	25.07	327.51	2,535.74	321.12	-204.50	380.71	0.00	0.00	0.00
2,700.00	25.07	327.51	2,626.32	356.86	-227.26	423.08	0.00	0.00	0.00
2,800.00	25.07	327.51	2,716.90	392.61	-250.02	465.46	0.00	0.00	0.00
2,900.00	25.07	327.51	2,807.47	428.35	-272.78	507.84	0.00	0.00	0.00
3,000.00	25.07	327.51	2,898.05	464.10	-295.55	550.21	0.00	0.00	0.00
3,100.00	25.07	327.51	2,988.63	499.84	-318.31	592.59	0.00	0.00	0.00
3,200.00	25.07	327.51	3,079.20	535.59	-341.07	634.97	0.00	0.00	0.00
3,300.00	25.07	327.51	3,169.78	571.33	-363.84	677.34	0.00	0.00	0.00
3,400.00	25.07	327.51	3,260.36	607.07	-386.60	719.72	0.00	0.00	0.00
<b>PARKMAN</b>									
3,413.96	25.07	327.51	3,273.00	612.06	-389.78	725.64	0.00	0.00	0.00
3,500.00	25.07	327.51	3,350.93	642.82	-409.36	762.10	0.00	0.00	0.00
3,600.00	25.07	327.51	3,441.51	678.56	-432.12	804.48	0.00	0.00	0.00
3,700.00	25.07	327.51	3,532.09	714.31	-454.89	846.85	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
3,702.10	25.07	327.51	3,533.99	715.06	-455.37	847.74	0.00	0.00	0.00
3,800.00	23.11	327.51	3,623.36	748.77	-476.83	887.71	2.00	-2.00	0.00
3,900.00	21.11	327.51	3,716.00	780.52	-497.05	925.35	2.00	-2.00	0.00
4,000.00	19.11	327.51	3,809.89	809.53	-515.53	959.74	2.00	-2.00	0.00
4,100.00	17.11	327.51	3,904.93	835.75	-532.23	990.83	2.00	-2.00	0.00
4,200.00	15.11	327.51	4,001.00	859.16	-547.13	1,018.58	2.00	-2.00	0.00
4,300.00	13.11	327.51	4,097.97	879.73	-560.23	1,042.97	2.00	-2.00	0.00
4,400.00	11.11	327.51	4,195.74	897.43	-571.51	1,063.96	2.00	-2.00	0.00
4,500.00	9.11	327.51	4,294.18	912.24	-580.94	1,081.52	2.00	-2.00	0.00
4,600.00	7.11	327.51	4,393.17	924.15	-588.52	1,095.63	2.00	-2.00	0.00
4,700.00	5.11	327.51	4,492.60	933.13	-594.24	1,106.28	2.00	-2.00	0.00
4,800.00	3.11	327.51	4,592.34	939.19	-598.10	1,113.46	2.00	-2.00	0.00
4,900.00	1.11	327.51	4,692.26	942.30	-600.08	1,117.15	2.00	-2.00	0.00
<b>Start 3565.00 hold at 4955.74 MD - SUSSEX</b>									
4,955.74	0.00	0.00	4,748.00	942.76	-600.37	1,117.69	2.00	-2.00	0.00
5,000.00	0.00	0.00	4,792.26	942.76	-600.37	1,117.69	0.00	0.00	0.00
5,100.00	0.00	0.00	4,892.26	942.76	-600.37	1,117.69	0.00	0.00	0.00
5,200.00	0.00	0.00	4,992.26	942.76	-600.37	1,117.69	0.00	0.00	0.00
5,300.00	0.00	0.00	5,092.26	942.76	-600.37	1,117.69	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-8 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 10-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 10-8		
<b>Design:</b>	PLAN #1 1-5-10 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	0.00	0.00	5,192.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
<b>SHANNON</b>										
5,425.74	0.00	0.00	5,218.00	942.76	-600.37	1,117.69	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,292.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,392.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,492.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,592.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,692.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,792.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,100.00	0.00	0.00	5,892.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,200.00	0.00	0.00	5,992.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,092.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,192.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,292.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,392.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,492.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,592.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,692.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,792.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,892.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,200.00	0.00	0.00	6,992.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,092.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,192.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,292.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
<b>NIO A</b>										
7,595.74	0.00	0.00	7,388.00	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,392.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,492.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,592.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,692.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
<b>CODELL</b>										
7,935.74	0.00	0.00	7,728.00	942.76	-600.37	1,117.69	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,792.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,892.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,992.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,092.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
<b>JSAND</b>										
8,385.74	0.00	0.00	8,178.00	942.76	-600.37	1,117.69	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,192.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,292.26	942.76	-600.37	1,117.69	0.00	0.00	0.00	
<b>TD at 8520.74 - PBHL_NRC 10-8(1980 FSL 1980 FEL)50'TGT RAD</b>										
8,520.74	0.00	0.00	8,313.00	942.76	-600.37	1,117.69	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
PBHL_NRC 10-8(198 - hit/miss target - Shape - plan hits target center - Circle (radius 50.00)	0.00	0.00	8,313.00	942.76	-600.37	1,266,615.05	3,164,525.58	40° 3' 49.504 N	104° 54' 43.837 W	

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 20-8 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 10-8	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 10-8		
<b>Design:</b>	PLAN #1 1-5-10 RHS		

**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 (°)
3,413.96	3,273.00	PARKMAN			
4,955.74	4,748.00	SUSSEX			
5,425.74	5,218.00	SHANNON			
7,595.74	7,388.00	NIO A			
7,935.74	7,728.00	CODELL			
8,385.74	8,178.00	JSAND			

**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
2,338.64	2,299.01	227.70	-145.00	Start 1363.46 hold at 2338.64 MD
3,702.10	3,533.99	715.06	-455.37	Start Drop -2.00
4,955.74	4,748.00	942.76	-600.37	Start 3565.00 hold at 4955.74 MD
8,520.74	8,313.00	942.76	-600.37	TD at 8520.74



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_NRC 20-8 PAD  
P\_NRC 10-8**

**P\_NRC 10-8  
PLAN #1 1-5-10 RHS**

## **Anticollision Report**

**05 January, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 1-5-10 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>	<b>Date</b>	1/5/2010		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,520.74	PLAN #1 1-5-10 RHS (P_NRC 10-8)	MWD	MWD - Standard

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation Factor	Warning
	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
WELD_NRC 20-8 PAD						
P_NRC 15-8 - P_NRC 15-8 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	15.95	11.34	3.454	CC
P_NRC 15-8 - P_NRC 15-8 - PLAN #1 1-5-10 RHS	1,100.00	1,099.93	15.97	11.28	3.410	ES
P_NRC 15-8 - P_NRC 15-8 - PLAN #1 1-5-10 RHS	1,200.00	1,199.39	16.90	11.82	3.326	SF
P_NRC 16-8 - P_NRC 16-8 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	31.91	27.29	6.909	CC
P_NRC 16-8 - P_NRC 16-8 - PLAN #1 1-5-10 RHS	1,100.00	1,099.85	31.97	27.28	6.827	ES, SF
P_NRC 23-8 - P_NRC 23-8 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	32.19	27.57	6.969	CC
P_NRC 23-8 - P_NRC 23-8 - PLAN #1 1-5-10 RHS	1,100.00	1,099.84	32.21	27.52	6.876	ES
P_NRC 23-8 - P_NRC 23-8 - PLAN #1 1-5-10 RHS	1,300.00	1,297.50	35.94	30.41	6.499	SF
P_NRC 37-8 - P_NRC 37-8 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	15.95	11.34	3.454	CC
P_NRC 37-8 - P_NRC 37-8 - PLAN #1 1-5-10 RHS	1,100.00	1,100.00	15.98	11.30	3.413	ES, SF
P_NRC 39-8 - P_NRC 39-8 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	47.86	43.25	10.363	CC
P_NRC 39-8 - P_NRC 39-8 - PLAN #1 1-5-10 RHS	1,100.00	1,099.76	47.92	43.24	10.232	ES
P_NRC 39-8 - P_NRC 39-8 - PLAN #1 1-5-10 RHS	1,200.00	1,198.03	51.36	46.26	10.066	SF
ROCKY MOUNTAIN FUEL CO #2 EXISTING - ROCKY M	1,085.00	1,067.00	48.58	5.59	1.130	Level 2, CC
ROCKY MOUNTAIN FUEL CO #2 EXISTING - ROCKY M	1,200.00	1,181.97	50.62	2.80	1.059	Level 2, ES, SF

Offset Design WELD_NRC 20-8 PAD - P_NRC 15-8 - P_NRC 15-8 - PLAN #1 1-5-10 RHS													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Offset +N/-S (ft)		Offset +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.00	0.00	0.00	0.00	0.00	0.00	-90.05	-0.01	-15.95	15.95	15.76	0.19	83.509		
100.00	100.00	100.00	100.00	0.10	0.10	-90.05	-0.01	-15.95	15.95	15.31	0.64	24.906		
200.00	200.00	200.00	200.00	0.32	0.32	-90.05	-0.01	-15.95	15.95	14.86	1.09	14.636		
300.00	300.00	300.00	300.00	0.55	0.55	-90.05	-0.01	-15.95	15.95	14.41	1.54	10.362		
400.00	400.00	400.00	400.00	0.77	0.77	-90.05	-0.01	-15.95	15.95	13.97	1.99	8.021		
500.00	500.00	500.00	500.00	0.99	0.99	-90.05	-0.01	-15.95	15.95	13.52	2.44	6.542		
600.00	600.00	600.00	600.00	1.22	1.22	-90.05	-0.01	-15.95	15.95	13.07	2.89	5.524		
700.00	700.00	700.00	700.00	1.44	1.44	-90.05	-0.01	-15.95	15.95	12.62	3.34	4.780		
800.00	800.00	800.00	800.00	1.67	1.67	-90.05	-0.01	-15.95	15.95	12.17	3.79	4.213		
900.00	900.00	900.00	900.00	1.89	1.89	-90.05	-0.01	-15.95	15.95	11.72	4.24	3.766		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.05	-0.01	-15.95	15.95	11.34	4.62	3.454	CC	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-90.05	-0.01	-15.95	15.95	11.28	4.68	3.410	ES	
1,100.00	1,100.00	1,099.93	1,099.93	2.34	2.34	-57.75	-0.04	-15.99	15.97					

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 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-8 PAD - P_NRC 15-8 - P_NRC 15-8 - PLAN #1 1-5-10 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			
1,200.00	1,199.97	1,199.39	1,199.35	2.56	2.52	-68.68	-1.34	-17.81	16.90	11.82	5.08	3.326 SF			
1,300.00	1,299.80	1,298.40	1,298.20	2.79	2.71	-89.54	-4.65	-22.41	21.46	15.96	5.49	3.906			
1,400.00	1,399.37	1,396.61	1,396.00	3.02	2.92	-106.95	-9.89	-29.71	32.05	26.14	5.92	5.417			
1,500.00	1,498.55	1,493.65	1,492.27	3.27	3.14	-117.28	-16.99	-39.59	48.78	42.42	6.36	7.674			
1,600.00	1,597.23	1,589.20	1,586.60	3.54	3.40	-123.06	-25.83	-51.90	71.01	64.19	6.82	10.416			
1,700.00	1,695.29	1,682.93	1,678.60	3.85	3.68	-126.42	-36.28	-66.45	98.32	91.01	7.31	13.453			
1,800.00	1,792.60	1,774.57	1,767.93	4.21	4.00	-128.42	-48.20	-83.03	130.40	122.57	7.83	16.644			
1,900.00	1,889.05	1,863.87	1,854.31	4.62	4.36	-129.64	-61.40	-101.42	167.05	158.64	8.40	19.878			
2,000.00	1,984.52	1,950.62	1,937.51	5.08	4.76	-130.36	-75.73	-121.36	208.05	199.04	9.02	23.074			
2,100.00	2,078.90	2,037.34	2,020.00	5.62	5.20	-130.82	-91.33	-143.08	253.00	243.31	9.68	26.124			
2,200.00	2,172.06	2,125.23	2,103.51	6.21	5.67	-131.40	-107.32	-165.34	300.33	289.92	10.40	28.869			
2,300.00	2,263.90	2,211.80	2,185.76	6.88	6.15	-132.05	-123.07	-187.27	349.82	338.66	11.16	31.346			
2,338.64	2,299.01	2,244.87	2,217.19	7.16	6.34	-132.30	-129.09	-195.65	369.54	358.08	11.46	32.236			
2,400.00	2,354.59	2,297.23	2,266.93	7.61	6.64	-133.17	-138.62	-208.91	401.14	389.15	11.99	33.467			
2,500.00	2,445.17	2,382.55	2,347.99	8.37	7.14	-134.34	-154.14	-230.52	452.77	439.91	12.86	35.208			
2,600.00	2,535.74	2,467.87	2,429.06	9.15	7.65	-135.26	-169.66	-252.13	504.50	490.75	13.75	36.686			
2,700.00	2,626.32	2,553.19	2,510.13	9.93	8.17	-136.01	-185.19	-273.74	556.31	541.65	14.66	37.950			
2,800.00	2,716.90	2,638.51	2,591.19	10.73	8.69	-136.64	-200.71	-295.35	608.18	592.60	15.58	39.040			
2,900.00	2,807.47	2,723.83	2,672.26	11.54	9.21	-137.17	-216.24	-316.96	660.10	643.59	16.51	39.987			
3,000.00	2,898.05	2,809.16	2,753.32	12.35	9.74	-137.62	-231.76	-338.57	712.05	694.60	17.45	40.815			
3,100.00	2,988.63	2,894.48	2,834.39	13.17	10.27	-138.01	-247.28	-360.19	764.03	745.64	18.39	41.544			
3,200.00	3,079.20	2,979.80	2,915.46	13.99	10.80	-138.35	-262.81	-381.80	816.03	796.69	19.34	42.188			
3,300.00	3,169.78	3,065.12	2,996.52	14.82	11.34	-138.65	-278.33	-403.41	868.05	847.75	20.30	42.763			
3,400.00	3,260.36	3,150.44	3,077.59	15.65	11.88	-138.91	-293.86	-425.02	920.09	898.83	21.26	43.277			
3,500.00	3,350.93	3,235.76	3,158.65	16.48	12.41	-139.15	-309.38	-446.63	972.13	949.91	22.23	43.740			
3,600.00	3,441.51	3,321.08	3,239.72	17.31	12.96	-139.36	-324.91	-468.24	1,024.19	1,001.00	23.19	44.159			
3,702.10	3,533.99	3,408.20	3,322.49	18.17	13.51	-139.56	-340.75	-490.31	1,077.36	1,053.17	24.18	44.547			
3,800.00	3,623.36	3,492.41	3,402.50	18.88	14.05	-140.41	-356.08	-511.64	1,127.24	1,102.06	25.19	44.758			
3,900.00	3,716.00	3,579.77	3,485.51	19.48	14.60	-141.09	-371.97	-533.77	1,175.89	1,149.75	26.14	44.984			
4,000.00	3,809.89	3,668.39	3,569.70	20.05	15.17	-141.61	-388.10	-556.21	1,222.15	1,195.06	27.09	45.123			
4,100.00	3,904.93	3,758.15	3,654.98	20.57	15.75	-141.97	-404.43	-578.95	1,265.98	1,237.96	28.01	45.190			
4,200.00	4,001.00	3,848.94	3,741.25	21.04	16.33	-142.21	-420.95	-601.94	1,307.35	1,278.42	28.92	45.201			
4,300.00	4,097.97	3,940.65	3,828.39	21.47	16.92	-142.32	-437.63	-625.17	1,346.23	1,316.43	29.81	45.167			
4,400.00	4,195.74	4,062.72	3,944.83	21.85	17.55	-142.21	-458.98	-654.88	1,381.94	1,351.23	30.71	45.000			
4,500.00	4,294.18	4,201.64	4,079.08	22.18	18.13	-142.06	-479.80	-683.88	1,412.33	1,380.78	31.55	44.769			
4,600.00	4,393.17	4,344.90	4,219.15	22.46	18.64	-141.95	-497.28	-708.21	1,437.04	1,404.75	32.29	44.510			
4,700.00	4,492.60	4,491.69	4,364.06	22.70	19.08	-141.86	-510.93	-727.21	1,455.86	1,422.93	32.92	44.218			
4,800.00	4,592.34	4,641.14	4,512.61	22.88	19.43	-141.80	-520.35	-740.33	1,468.62	1,435.18	33.44	43.917			
4,900.00	4,692.26	4,792.24	4,663.46	23.02	19.68	-141.77	-525.28	-747.18	1,475.21	1,441.37	33.84	43.596			
4,955.74	4,748.00	4,876.80	4,748.00	23.07	19.78	-174.25	-526.01	-748.20	1,476.18	1,442.18	34.00	43.411			
5,000.00	4,792.26	4,921.06	4,792.26	23.11	19.83	-174.25	-526.01	-748.20	1,476.18	1,442.07	34.11	43.276			
5,100.00	4,892.26	5,021.06	4,892.26	23.21	19.94	-174.25	-526.01	-748.20	1,476.18	1,441.82	34.36	42.956			
5,200.00	4,992.26	5,121.06	4,992.26	23.30	20.04	-174.25	-526.01	-748.20	1,476.18	1,441.56	34.62	42.636			
5,300.00	5,092.26	5,221.06	5,092.26	23.40	20.15	-174.25	-526.01	-748.20	1,476.18	1,441.30	34.88	42.316			
5,400.00	5,192.26	5,321.06	5,192.26	23.50	20.26	-174.25	-526.01	-748.20	1,476.18	1,441.03	35.15	41.997			
5,500.00	5,292.26	5,421.06	5,292.26	23.61	20.38	-174.25	-526.01	-748.20	1,476.18	1,440.76	35.42	41.677			
5,600.00	5,392.26	5,521.06	5,392.26	23.71	20.49	-174.25	-526.01	-748.20	1,476.18	1,440.49	35.69	41.359			
5,700.00	5,492.26	5,621.06	5,492.26	23.82	20.61	-174.25	-526.01	-748.20	1,476.18	1,440.21	35.97	41.041			
5,800.00	5,592.26	5,721.06	5,592.26	23.92	20.73	-174.25	-526.01	-748.20	1,476.18	1,439.93	36.25	40.724			
5,900.00	5,692.26	5,821.06	5,692.26	24.03	20.85	-174.25	-526.01	-748.20	1,476.18	1,439.65	36.53	40.408			
6,000.00	5,792.26	5,921.06	5,792.26	24.14	20.97	-174.25	-526.01	-748.20	1,476.18	1,439.36	36.82	40.094			
6,100.00	5,892.26	6,021.06	5,892.26	24.26	21.10	-174.25	-526.01	-748.20	1,476.18	1,439.07	37.11	39.780			

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 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 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 Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor	
6,200.00	5,992.26	6,121.06	5,992.26	24.37	21.22	-174.25	-526.01	-748.20	1,476.18	1,438.78	37.40	39.469		
6,300.00	6,092.26	6,221.06	6,092.26	24.49	21.35	-174.25	-526.01	-748.20	1,476.18	1,438.48	37.70	39.159		
6,400.00	6,192.26	6,321.06	6,192.26	24.60	21.48	-174.25	-526.01	-748.20	1,476.18	1,438.19	38.00	38.850		
6,500.00	6,292.26	6,421.06	6,292.26	24.72	21.61	-174.25	-526.01	-748.20	1,476.18	1,437.88	38.30	38.544		
6,600.00	6,392.26	6,521.06	6,392.26	24.84	21.74	-174.25	-526.01	-748.20	1,476.18	1,437.58	38.60	38.240		
6,700.00	6,492.26	6,621.06	6,492.26	24.96	21.88	-174.25	-526.01	-748.20	1,476.18	1,437.27	38.91	37.937		
6,800.00	6,592.26	6,721.06	6,592.26	25.09	22.01	-174.25	-526.01	-748.20	1,476.18	1,436.96	39.22	37.637		
6,900.00	6,692.26	6,821.06	6,692.26	25.21	22.15	-174.25	-526.01	-748.20	1,476.18	1,436.65	39.53	37.339		
7,000.00	6,792.26	6,921.06	6,792.26	25.34	22.29	-174.25	-526.01	-748.20	1,476.18	1,436.33	39.85	37.043		
7,100.00	6,892.26	7,021.06	6,892.26	25.46	22.43	-174.25	-526.01	-748.20	1,476.18	1,436.01	40.17	36.749		
7,200.00	6,992.26	7,121.06	6,992.26	25.59	22.57	-174.25	-526.01	-748.20	1,476.18	1,435.69	40.49	36.458		
7,300.00	7,092.26	7,221.06	7,092.26	25.72	22.71	-174.25	-526.01	-748.20	1,476.18	1,435.37	40.81	36.169		
7,400.00	7,192.26	7,321.06	7,192.26	25.85	22.85	-174.25	-526.01	-748.20	1,476.18	1,435.04	41.14	35.883		
7,500.00	7,292.26	7,421.06	7,292.26	25.98	23.00	-174.25	-526.01	-748.20	1,476.18	1,434.72	41.47	35.599		
7,600.00	7,392.26	7,521.06	7,392.26	26.12	23.14	-174.25	-526.01	-748.20	1,476.18	1,434.39	41.80	35.318		
7,700.00	7,492.26	7,621.06	7,492.26	26.25	23.29	-174.25	-526.01	-748.20	1,476.18	1,434.05	42.13	35.040		
7,800.00	7,592.26	7,721.06	7,592.26	26.39	23.44	-174.25	-526.01	-748.20	1,476.18	1,433.72	42.46	34.764		
7,900.00	7,692.26	7,821.06	7,692.26	26.53	23.59	-174.25	-526.01	-748.20	1,476.18	1,433.38	42.80	34.490		
8,000.00	7,792.26	7,921.06	7,792.26	26.66	23.74	-174.25	-526.01	-748.20	1,476.18	1,433.04	43.14	34.219		
8,100.00	7,892.26	8,021.06	7,892.26	26.80	23.89	-174.25	-526.01	-748.20	1,476.18	1,432.70	43.48	33.951		
8,200.00	7,992.26	8,121.06	7,992.26	26.94	24.05	-174.25	-526.01	-748.20	1,476.18	1,432.36	43.82	33.686		
8,300.00	8,092.26	8,221.06	8,092.26	27.09	24.20	-174.25	-526.01	-748.20	1,476.18	1,432.01	44.17	33.423		
8,400.00	8,192.26	8,321.06	8,192.26	27.23	24.36	-174.25	-526.01	-748.20	1,476.18	1,431.67	44.51	33.163		
8,500.00	8,292.26	8,421.06	8,292.26	27.37	24.51	-174.25	-526.01	-748.20	1,476.18	1,431.32	44.86	32.905		
8,520.74	8,313.00	8,441.80	8,313.00	27.40	24.55	-174.25	-526.01	-748.20	1,476.18	1,431.25	44.93	32.852		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-8 PAD - P_NRC 16-8 - P_NRC 16-8 - PLAN #1 1-5-10 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	90.68	-0.38	31.91	31.91						
100.00	100.00	100.00	100.00	0.10	0.10	90.68	-0.38	31.91	31.91	31.72	0.19	167.029			
200.00	200.00	200.00	200.00	0.32	0.32	90.68	-0.38	31.91	31.91	31.27	0.64	49.816			
300.00	300.00	300.00	300.00	0.55	0.55	90.68	-0.38	31.91	31.91	30.82	1.09	29.273			
400.00	400.00	400.00	400.00	0.77	0.77	90.68	-0.38	31.91	31.91	30.37	1.54	20.726			
500.00	500.00	500.00	500.00	0.99	0.99	90.68	-0.38	31.91	31.91	29.92	1.99	16.042			
600.00	600.00	600.00	600.00	1.22	1.22	90.68	-0.38	31.91	31.91	29.47	2.44	13.085			
700.00	700.00	700.00	700.00	1.44	1.44	90.68	-0.38	31.91	31.91	29.02	2.89	11.049			
800.00	800.00	800.00	800.00	1.67	1.67	90.68	-0.38	31.91	31.91	28.57	3.34	9.561			
900.00	900.00	900.00	900.00	1.89	1.89	90.68	-0.38	31.91	31.91	28.12	3.79	8.426			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.68	-0.38	31.91	31.91	27.67	4.24	7.532			
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.68	-0.38	31.91	31.91	27.29	4.62	6.909 CC			
1,100.00	1,100.00	1,099.85	1,099.85	2.34	2.34	123.26	-0.40	31.94	31.97	27.28	4.68	6.827 ES, SF			
1,200.00	1,199.97	1,198.72	1,198.69	2.56	2.52	127.99	-1.49	33.87	35.31	30.22	5.08	6.946			
1,300.00	1,299.80	1,296.81	1,296.62	2.79	2.72	136.56	-4.22	38.73	44.56	39.08	5.48	8.126			
1,400.00	1,399.37	1,393.49	1,392.90	3.02	2.92	144.49	-8.53	46.37	60.62	54.73	5.88	10.307			
1,500.00	1,498.55	1,488.15	1,486.82	3.27	3.14	150.22	-14.28	56.58	83.61	77.34	6.27	13.329			
1,600.00	1,597.23	1,580.24	1,577.78	3.54	3.39	154.04	-21.34	69.11	113.27	106.62	6.66	17.011			
1,700.00	1,695.29	1,669.26	1,665.22	3.85	3.66	156.55	-29.53	83.63	149.26	142.22	7.04	21.204			
1,800.00	1,792.60	1,754.81	1,748.72	4.21	3.95	158.22	-38.65	99.82	191.22	183.81	7.41	25.789			
1,900.00	1,889.05	1,836.53	1,827.94	4.62	4.26	159.32	-48.50	117.30	238.82	231.04	7.78	30.683			
2,000.00	1,984.52	1,921.12	1,909.57	5.08	4.63	160.18	-59.38	136.60	290.81	282.64	8.16	35.617			
2,100.00	2,078.90	2,004.55	1,990.09	5.62	5.00	160.87	-70.11	155.65	345.68	337.13	8.55	40.447			
2,200.00	2,172.06	2,086.06	2,068.75	6.21	5.39	161.42	-80.60	174.27	403.35	394.42	8.93	45.165			
2,300.00	2,263.90	2,165.54	2,145.45	6.88	5.77	161.87	-90.83	192.42	463.77	454.45	9.32	49.780			
2,338.64	2,299.01	2,195.70	2,174.55	7.16	5.92	162.01	-94.71	199.30	487.84	478.37	9.46	51.543			
2,400.00	2,354.59	2,243.32	2,220.51	7.61	6.15	162.50	-100.84	210.18	526.38	516.61	9.77	53.865			
2,500.00	2,445.17	2,320.93	2,295.41	8.37	6.54	163.16	-110.83	227.90	589.24	578.96	10.28	57.313			
2,600.00	2,535.74	2,398.54	2,370.31	9.15	6.94	163.70	-120.81	245.62	652.13	641.33	10.80	60.385			
2,700.00	2,626.32	2,476.16	2,445.21	9.93	7.34	164.14	-130.80	263.34	715.06	703.73	11.33	63.124			
2,800.00	2,716.90	2,553.77	2,520.11	10.73	7.74	164.51	-140.79	281.07	778.01	766.14	11.86	65.584			
2,900.00	2,807.47	2,631.38	2,595.00	11.54	8.15	164.82	-150.77	298.79	840.97	828.57	12.40	67.802			
3,000.00	2,898.05	2,708.99	2,669.90	12.35	8.56	165.09	-160.76	316.51	903.94	891.00	12.95	69.808			
3,100.00	2,988.63	2,786.61	2,744.80	13.17	8.97	165.33	-170.75	334.23	966.93	953.43	13.50	71.626			
3,200.00	3,079.20	2,864.22	2,819.70	13.99	9.38	165.54	-180.74	351.96	1,029.93	1,015.87	14.05	73.281			
3,300.00	3,169.78	2,941.83	2,894.60	14.82	9.80	165.72	-190.72	369.68	1,092.93	1,078.32	14.61	74.793			
3,400.00	3,260.36	3,019.45	2,969.50	15.65	10.22	165.88	-200.71	387.40	1,155.94	1,140.76	15.17	76.180			
3,500.00	3,350.93	3,097.06	3,044.40	16.48	10.64	166.03	-210.70	405.13	1,218.95	1,203.21	15.74	77.454			
3,600.00	3,441.51	3,174.67	3,119.30	17.31	11.06	166.16	-220.68	422.85	1,281.97	1,265.67	16.30	78.627			
3,702.10	3,533.99	3,253.91	3,195.77	18.17	11.49	166.28	-230.66	440.57	1,346.31	1,329.43	16.89	79.734			
3,800.00	3,623.36	3,330.92	3,270.08	18.88	11.91	166.42	-240.64	458.29	1,406.74	1,389.16	17.58	80.826			
3,900.00	3,716.00	3,411.61	3,347.96	19.48	12.35	167.10	-251.17	476.95	1,465.79	1,447.53	18.25	80.297			
4,000.00	3,809.89	3,494.28	3,427.73	20.05	12.80	167.40	-261.81	495.83	1,522.05	1,503.14	18.92	80.464			
4,100.00	3,904.93	3,578.80	3,509.30	20.57	13.26	167.64	-272.69	515.13	1,575.47	1,555.91	19.56	80.546			
4,200.00	4,001.00	3,665.09	3,592.58	21.04	13.74	167.83	-283.79	534.84	1,625.98	1,605.80	20.18	80.559			
4,300.00	4,097.97	3,753.04	3,677.45	21.47	14.22	167.97	-295.11	554.92	1,673.51	1,652.73	20.78	80.517			
4,400.00	4,195.74	3,842.54	3,763.82	21.85	14.71	168.07	-306.63	575.36	1,718.02	1,696.66	21.36	80.429			
4,500.00	4,294.18	3,933.48	3,851.58	22.18	15.22	168.13	-318.33	596.12	1,759.45	1,737.54	21.91	80.304			
4,600.00	4,393.17	4,025.75	3,940.62	22.46	15.73	168.15	-330.20	617.19	1,797.76	1,775.33	22.43	80.149			
4,700.00	4,492.60	4,118.57	4,029.25	22.70	16.26	168.09	-342.22	638.56	1,832.75	1,809.76	23.00	79.695			
4,800.00	4,592.34	4,214.96	4,127.29	22.88	16.80	167.87	-354.30	659.93	1,859.12	1,835.32	23.80	78.105			
4,900.00	4,692.26	4,311.00	4,234.52	23.02	17.35	167.74	-366.43	681.30	1,873.64	1,849.15	24.50	76.482			

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 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-8 PAD - P_NRC 16-8 - P_NRC 16-8 - PLAN #1 1-5-10 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			
4,955.74	4,748.00	4,817.36	4,720.73	23.07	18.14	135.21	-388.88	721.32	1,876.39	1,851.56	24.83	75.569			
5,000.00	4,792.26	4,888.89	4,792.26	23.11	18.23	135.21	-389.04	721.60	1,876.51	1,851.49	25.02	75.003			
5,100.00	4,892.26	4,988.89	4,892.26	23.21	18.34	135.21	-389.04	721.60	1,876.51	1,851.15	25.35	74.011			
5,200.00	4,992.26	5,088.89	4,992.26	23.30	18.46	135.21	-389.04	721.60	1,876.51	1,850.81	25.69	73.034			
5,300.00	5,092.26	5,188.89	5,092.26	23.40	18.59	135.21	-389.04	721.60	1,876.51	1,850.47	26.04	72.074			
5,400.00	5,192.26	5,288.89	5,192.26	23.50	18.71	135.21	-389.04	721.60	1,876.51	1,850.13	26.38	71.130			
5,500.00	5,292.26	5,388.89	5,292.26	23.61	18.84	135.21	-389.04	721.60	1,876.51	1,849.78	26.73	70.202			
5,600.00	5,392.26	5,488.89	5,392.26	23.71	18.96	135.21	-389.04	721.60	1,876.51	1,849.43	27.08	69.290			
5,700.00	5,492.26	5,588.89	5,492.26	23.82	19.09	135.21	-389.04	721.60	1,876.51	1,849.07	27.44	68.395			
5,800.00	5,592.26	5,688.89	5,592.26	23.92	19.22	135.21	-389.04	721.60	1,876.51	1,848.71	27.79	67.516			
5,900.00	5,692.26	5,788.89	5,692.26	24.03	19.35	135.21	-389.04	721.60	1,876.51	1,848.35	28.15	66.653			
6,000.00	5,792.26	5,888.89	5,792.26	24.14	19.49	135.21	-389.04	721.60	1,876.51	1,847.99	28.52	65.806			
6,100.00	5,892.26	5,988.89	5,892.26	24.26	19.62	135.21	-389.04	721.60	1,876.51	1,847.63	28.88	64.975			
6,200.00	5,992.26	6,088.89	5,992.26	24.37	19.76	135.21	-389.04	721.60	1,876.51	1,847.26	29.25	64.159			
6,300.00	6,092.26	6,188.89	6,092.26	24.49	19.90	135.21	-389.04	721.60	1,876.51	1,846.89	29.62	63.358			
6,400.00	6,192.26	6,288.89	6,192.26	24.60	20.04	135.21	-389.04	721.60	1,876.51	1,846.52	29.99	62.573			
6,500.00	6,292.26	6,388.89	6,292.26	24.72	20.18	135.21	-389.04	721.60	1,876.51	1,846.14	30.36	61.803			
6,600.00	6,392.26	6,488.89	6,392.26	24.84	20.33	135.21	-389.04	721.60	1,876.51	1,845.77	30.74	61.048			
6,700.00	6,492.26	6,588.89	6,492.26	24.96	20.47	135.21	-389.04	721.60	1,876.51	1,845.39	31.12	60.307			
6,800.00	6,592.26	6,688.89	6,592.26	25.09	20.62	135.21	-389.04	721.60	1,876.51	1,845.01	31.50	59.580			
6,900.00	6,692.26	6,788.89	6,692.26	25.21	20.77	135.21	-389.04	721.60	1,876.51	1,844.63	31.88	58.867			
7,000.00	6,792.26	6,888.89	6,792.26	25.34	20.92	135.21	-389.04	721.60	1,876.51	1,844.25	32.26	58.168			
7,100.00	6,892.26	6,988.89	6,892.26	25.46	21.07	135.21	-389.04	721.60	1,876.51	1,843.86	32.65	57.482			
7,200.00	6,992.26	7,088.89	6,992.26	25.59	21.22	135.21	-389.04	721.60	1,876.51	1,843.48	33.03	56.809			
7,300.00	7,092.26	7,188.89	7,092.26	25.72	21.37	135.21	-389.04	721.60	1,876.51	1,843.09	33.42	56.150			
7,400.00	7,192.26	7,288.89	7,192.26	25.85	21.53	135.21	-389.04	721.60	1,876.51	1,842.70	33.81	55.503			
7,500.00	7,292.26	7,388.89	7,292.26	25.98	21.68	135.21	-389.04	721.60	1,876.51	1,842.31	34.20	54.868			
7,600.00	7,392.26	7,488.89	7,392.26	26.12	21.84	135.21	-389.04	721.60	1,876.51	1,841.91	34.59	54.246			
7,700.00	7,492.26	7,588.89	7,492.26	26.25	22.00	135.21	-389.04	721.60	1,876.51	1,841.52	34.99	53.635			
7,800.00	7,592.26	7,688.89	7,592.26	26.39	22.16	135.21	-389.04	721.60	1,876.51	1,841.13	35.38	53.036			
7,900.00	7,692.26	7,788.89	7,692.26	26.53	22.32	135.21	-389.04	721.60	1,876.51	1,840.73	35.78	52.448			
8,000.00	7,792.26	7,888.89	7,792.26	26.66	22.48	135.21	-389.04	721.60	1,876.51	1,840.33	36.18	51.872			
8,100.00	7,892.26	7,988.89	7,892.26	26.80	22.64	135.21	-389.04	721.60	1,876.51	1,839.93	36.57	51.306			
8,200.00	7,992.26	8,088.89	7,992.26	26.94	22.81	135.21	-389.04	721.60	1,876.51	1,839.53	36.97	50.751			
8,300.00	8,092.26	8,188.89	8,092.26	27.09	22.97	135.21	-389.04	721.60	1,876.51	1,839.13	37.38	50.206			
8,400.00	8,192.26	8,288.89	8,192.26	27.23	23.14	135.21	-389.04	721.60	1,876.51	1,838.73	37.78	49.672			
8,500.00	8,292.26	8,388.89	8,292.26	27.37	23.30	135.21	-389.04	721.60	1,876.51	1,838.33	38.18	49.147			
8,520.74	8,313.00	8,409.63	8,313.00	27.40	23.34	135.21	-389.04	721.60	1,876.51	1,838.24	38.27	49.040			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-8 PAD - P_NRC 23-8 - P_NRC 23-8 - PLAN #1 1-5-10 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	-89.37	0.35	-32.19	32.19						
100.00	100.00	100.00	100.00	0.10	0.10	-89.37	0.35	-32.19	32.19	32.00	0.19	168.493			
200.00	200.00	200.00	200.00	0.32	0.32	-89.37	0.35	-32.19	32.19	31.55	0.64	50.252			
300.00	300.00	300.00	300.00	0.55	0.55	-89.37	0.35	-32.19	32.19	31.10	1.09	29.530			
400.00	400.00	400.00	400.00	0.77	0.77	-89.37	0.35	-32.19	32.19	30.65	1.54	20.908			
500.00	500.00	500.00	500.00	0.99	0.99	-89.37	0.35	-32.19	32.19	30.20	1.99	16.183			
600.00	600.00	600.00	600.00	1.22	1.22	-89.37	0.35	-32.19	32.19	29.75	2.44	13.200			
700.00	700.00	700.00	700.00	1.44	1.44	-89.37	0.35	-32.19	32.19	29.30	2.89	11.145			
800.00	800.00	800.00	800.00	1.67	1.67	-89.37	0.35	-32.19	32.19	28.85	3.34	9.644			
900.00	900.00	900.00	900.00	1.89	1.89	-89.37	0.35	-32.19	32.19	28.40	3.79	8.500			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-89.37	0.35	-32.19	32.19	27.95	4.24	7.598			
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-89.37	0.35	-32.19	32.19	27.57	4.62	6.969	CC		
1,100.00	1,100.00	1,099.84	1,099.84	2.34	2.34	-56.93	0.36	-32.23	32.21	27.52	4.68	6.876	ES		
1,200.00	1,199.97	1,198.72	1,198.69	2.56	2.54	-59.35	0.85	-34.39	33.19	28.09	5.10	6.503			
1,300.00	1,299.80	1,297.50	1,297.30	2.79	2.76	-64.84	2.10	-39.87	35.94	30.41	5.53	6.499	SF		
1,400.00	1,399.37	1,396.05	1,395.44	3.02	2.98	-71.98	4.09	-48.64	40.91	34.94	5.97	6.854			
1,500.00	1,498.55	1,494.28	1,492.89	3.27	3.22	-79.21	6.82	-60.65	48.55	42.11	6.44	7.540			
1,600.00	1,597.23	1,592.11	1,589.46	3.54	3.49	-85.53	10.27	-75.84	59.06	52.10	6.96	8.489			
1,700.00	1,695.29	1,689.43	1,684.95	3.85	3.80	-90.60	14.42	-94.14	72.46	64.92	7.54	9.611			
1,800.00	1,792.60	1,786.15	1,779.17	4.21	4.15	-94.51	19.26	-115.44	88.68	80.48	8.20	10.816			
1,900.00	1,889.05	1,882.20	1,871.95	4.62	4.54	-97.45	24.77	-139.66	107.62	98.67	8.95	12.029			
2,000.00	1,984.52	1,979.52	1,965.42	5.08	4.99	-100.19	30.77	-166.08	128.51	118.72	9.80	13.119			
2,100.00	2,078.90	2,076.70	2,058.76	5.62	5.46	-103.34	36.77	-192.50	150.46	139.73	10.73	14.023			
2,200.00	2,172.06	2,173.37	2,151.59	6.21	5.95	-106.67	42.74	-218.77	173.81	162.07	11.74	14.811			
2,300.00	2,263.90	2,269.41	2,243.82	6.88	6.44	-110.03	48.67	-244.87	198.86	186.07	12.79	15.544			
2,338.64	2,299.01	2,306.32	2,279.27	7.16	6.64	-111.31	50.95	-254.90	209.07	195.85	13.21	15.823			
2,400.00	2,354.59	2,364.85	2,335.48	7.61	6.95	-113.49	54.56	-270.81	225.67	211.77	13.90	16.238			
2,500.00	2,445.17	2,460.23	2,427.08	8.37	7.46	-116.42	60.45	-296.73	253.26	238.25	15.02	16.865			
2,600.00	2,535.74	2,555.61	2,518.68	9.15	7.98	-118.78	66.34	-322.65	281.36	265.22	16.14	17.430			
2,700.00	2,626.32	2,650.99	2,610.29	9.93	8.50	-120.72	72.23	-348.57	309.83	292.56	17.27	17.939			
2,800.00	2,716.90	2,746.37	2,701.89	10.73	9.03	-122.33	78.11	-374.50	338.56	320.16	18.40	18.396			
2,900.00	2,807.47	2,841.75	2,793.49	11.54	9.57	-123.69	84.00	-400.42	367.51	347.97	19.54	18.809			
3,000.00	2,898.05	2,937.13	2,885.09	12.35	10.10	-124.85	89.89	-426.34	396.62	375.94	20.68	19.181			
3,100.00	2,988.63	3,032.52	2,976.70	13.17	10.64	-125.85	95.78	-452.26	425.85	404.03	21.82	19.518			
3,200.00	3,079.20	3,127.90	3,068.30	13.99	11.18	-126.73	101.67	-478.19	455.19	432.23	22.96	19.825			
3,300.00	3,169.78	3,223.28	3,159.90	14.82	11.73	-127.49	107.56	-504.11	484.62	460.52	24.11	20.104			
3,400.00	3,260.36	3,318.66	3,251.50	15.65	12.27	-128.18	113.45	-530.03	514.12	488.87	25.25	20.360			
3,500.00	3,350.93	3,414.04	3,343.10	16.48	12.82	-128.78	119.34	-555.95	543.68	517.28	26.40	20.594			
3,600.00	3,441.51	3,509.42	3,434.71	17.31	13.36	-129.33	125.23	-581.88	573.28	545.74	27.55	20.810			
3,702.10	3,533.99	3,606.81	3,528.23	18.17	13.93	-129.83	131.24	-608.34	603.56	574.83	28.72	21.013			
3,800.00	3,623.36	3,700.55	3,618.26	18.88	14.47	-130.59	137.03	-633.82	631.58	601.76	29.82	21.179			
3,900.00	3,716.00	3,796.97	3,710.86	19.48	15.02	-131.06	142.98	-660.03	658.06	627.18	30.88	21.310			
4,000.00	3,809.89	3,893.96	3,804.01	20.05	15.58	-131.27	148.97	-686.38	682.32	650.38	31.94	21.361			
4,100.00	3,904.93	3,991.39	3,897.58	20.57	16.15	-131.22	154.98	-712.86	704.36	671.36	33.00	21.342			
4,200.00	4,001.00	4,089.15	3,991.46	21.04	16.71	-130.96	161.02	-739.43	724.21	690.15	34.06	21.264			
4,300.00	4,097.97	4,187.11	4,085.54	21.47	17.28	-130.48	167.07	-766.06	741.89	706.79	35.10	21.137			
4,400.00	4,195.74	4,285.16	4,179.71	21.85	17.85	-129.81	173.12	-792.70	757.50	721.38	36.12	20.970			
4,500.00	4,294.18	4,383.18	4,273.84	22.18	18.42	-128.95	179.17	-819.34	771.13	734.01	37.12	20.771			
4,600.00	4,393.17	4,481.05	4,367.83	22.46	18.99	-127.91	185.21	-845.94	782.90	744.80	38.10	20.550			
4,700.00	4,492.60	4,578.64	4,461.56	22.70	19.56	-126.68	191.24	-872.47	792.96	753.92	39.03	20.314			
4,800.00	4,592.34	4,675.85	4,554.92	22.88	20.13	-125.28	197.24	-898.88	801.47	761.54	39.93	20.073			
4,900.00	4,692.26	4,772.55	4,647.78	23.02	20.69	-123.71	203.21	-925.17	808.65	767.87	40.77	19.833			

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 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-8 PAD - P_NRC 23-8 - P_NRC 23-8 - PLAN #1 1-5-10 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	
4,955.74	4,748.00	4,826.18	4,699.29	23.07	21.01	-155.25	206.52	-939.74	812.15	770.93	41.22	19.704		
5,000.00	4,792.26	4,868.69	4,740.11	23.11	21.25	-154.44	209.15	-951.29	814.89	773.32	41.57	19.601		
5,100.00	4,892.26	4,964.73	4,832.35	23.21	21.82	-152.61	215.08	-977.40	821.74	779.38	42.36	19.398		
5,200.00	4,992.26	5,060.76	4,924.58	23.30	22.38	-150.81	221.01	-1,003.50	829.47	786.35	43.12	19.238		
5,300.00	5,092.26	5,156.80	5,016.81	23.40	22.94	-149.05	226.94	-1,029.60	838.05	794.21	43.84	19.118		
5,400.00	5,192.26	5,252.84	5,109.05	23.50	23.50	-147.32	232.87	-1,055.70	847.46	802.94	44.52	19.036		
5,500.00	5,292.26	5,348.88	5,201.28	23.61	24.06	-145.63	238.80	-1,081.80	857.68	812.51	45.17	18.988		
5,600.00	5,392.26	5,444.92	5,293.51	23.71	24.62	-143.98	244.72	-1,107.90	868.67	822.88	45.79	18.972		
5,700.00	5,492.26	5,540.95	5,385.74	23.82	25.19	-142.37	250.65	-1,134.00	880.41	834.03	46.37	18.985		
5,800.00	5,592.26	5,636.99	5,477.98	23.92	25.75	-140.79	256.58	-1,160.10	892.86	845.93	46.93	19.026		
5,900.00	5,692.26	5,733.03	5,570.21	24.03	26.31	-139.26	262.51	-1,186.20	906.00	858.54	47.46	19.091		
6,000.00	5,792.26	5,843.77	5,676.94	24.14	26.84	-137.63	269.04	-1,214.95	919.18	871.26	47.93	19.178		
6,100.00	5,892.26	5,960.53	5,790.61	24.26	27.29	-136.19	274.95	-1,240.96	930.94	882.62	48.32	19.266		
6,200.00	5,992.26	6,079.36	5,907.31	24.37	27.68	-135.02	279.91	-1,262.77	940.93	892.26	48.68	19.330		
6,300.00	6,092.26	6,199.89	6,026.52	24.49	28.01	-134.11	283.83	-1,280.05	948.93	899.93	49.00	19.366		
6,400.00	6,192.26	6,321.73	6,147.68	24.60	28.27	-133.47	286.67	-1,292.53	954.74	905.44	49.29	19.369		
6,500.00	6,292.26	6,444.44	6,270.14	24.72	28.47	-133.09	288.37	-1,300.01	958.23	908.67	49.57	19.333		
6,600.00	6,392.26	6,566.60	6,392.26	24.84	28.62	-132.97	288.90	-1,302.37	959.34	909.52	49.82	19.254		
6,700.00	6,492.26	6,666.60	6,492.26	24.96	28.72	-132.97	288.90	-1,302.37	959.34	909.28	50.06	19.163		
6,800.00	6,592.26	6,766.60	6,592.26	25.09	28.83	-132.97	288.90	-1,302.37	959.34	909.03	50.31	19.070		
6,900.00	6,692.26	6,866.60	6,692.26	25.21	28.94	-132.97	288.90	-1,302.37	959.34	908.79	50.55	18.976		
7,000.00	6,792.26	6,966.60	6,792.26	25.34	29.05	-132.97	288.90	-1,302.37	959.34	908.54	50.80	18.883		
7,100.00	6,892.26	7,066.60	6,892.26	25.46	29.16	-132.97	288.90	-1,302.37	959.34	908.28	51.06	18.790		
7,200.00	6,992.26	7,166.60	6,992.26	25.59	29.28	-132.97	288.90	-1,302.37	959.34	908.03	51.31	18.696		
7,300.00	7,092.26	7,266.60	7,092.26	25.72	29.39	-132.97	288.90	-1,302.37	959.34	907.77	51.57	18.603		
7,400.00	7,192.26	7,366.60	7,192.26	25.85	29.51	-132.97	288.90	-1,302.37	959.34	907.51	51.83	18.509		
7,500.00	7,292.26	7,466.60	7,292.26	25.98	29.63	-132.97	288.90	-1,302.37	959.34	907.25	52.09	18.416		
7,600.00	7,392.26	7,566.60	7,392.26	26.12	29.75	-132.97	288.90	-1,302.37	959.34	906.98	52.36	18.322		
7,700.00	7,492.26	7,666.60	7,492.26	26.25	29.87	-132.97	288.90	-1,302.37	959.34	906.71	52.63	18.229		
7,800.00	7,592.26	7,766.60	7,592.26	26.39	29.99	-132.97	288.90	-1,302.37	959.34	906.44	52.90	18.136		
7,900.00	7,692.26	7,866.60	7,692.26	26.53	30.11	-132.97	288.90	-1,302.37	959.34	906.17	53.17	18.043		
8,000.00	7,792.26	7,966.60	7,792.26	26.66	30.23	-132.97	288.90	-1,302.37	959.34	905.89	53.45	17.950		
8,100.00	7,892.26	8,066.60	7,892.26	26.80	30.36	-132.97	288.90	-1,302.37	959.34	905.62	53.72	17.857		
8,200.00	7,992.26	8,166.60	7,992.26	26.94	30.49	-132.97	288.90	-1,302.37	959.34	905.34	54.00	17.764		
8,300.00	8,092.26	8,266.60	8,092.26	27.09	30.61	-132.97	288.90	-1,302.37	959.34	905.05	54.29	17.672		
8,400.00	8,192.26	8,366.60	8,192.26	27.23	30.74	-132.97	288.90	-1,302.37	959.34	904.77	54.57	17.580		
8,500.00	8,292.26	8,466.60	8,292.26	27.37	30.87	-132.97	288.90	-1,302.37	959.34	904.48	54.86	17.488		
8,520.74	8,313.00	8,487.34	8,313.00	27.40	30.90	-132.97	288.90	-1,302.37	959.34	904.42	54.92	17.469		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-8 PAD - P_NRC 37-8 - P_NRC 37-8 - PLAN #1 1-5-10 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	90.05	-0.01	15.95	15.95					
100.00	100.00	100.00	100.00	0.10	0.10	90.05	-0.01	15.95	15.95	15.76	0.19	83.509		
200.00	200.00	200.00	200.00	0.32	0.32	90.05	-0.01	15.95	15.95	15.31	0.64	24.906		
300.00	300.00	300.00	300.00	0.55	0.55	90.05	-0.01	15.95	15.95	14.86	1.09	14.636		
400.00	400.00	400.00	400.00	0.77	0.77	90.05	-0.01	15.95	15.95	14.41	1.54	10.362		
500.00	500.00	500.00	500.00	0.99	0.99	90.05	-0.01	15.95	15.95	13.97	1.99	8.021		
600.00	600.00	600.00	600.00	1.22	1.22	90.05	-0.01	15.95	15.95	13.52	2.44	6.542		
700.00	700.00	700.00	700.00	1.44	1.44	90.05	-0.01	15.95	15.95	13.07	2.89	5.524		
800.00	800.00	800.00	800.00	1.67	1.67	90.05	-0.01	15.95	15.95	12.62	3.34	4.780		
900.00	900.00	900.00	900.00	1.89	1.89	90.05	-0.01	15.95	15.95	12.17	3.79	4.213		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.05	-0.01	15.95	15.95	11.72	4.24	3.766		
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.05	-0.01	15.95	15.95	11.34	4.62	3.454 CC		
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	122.79	-0.05	15.96	15.98	11.30	4.68	3.413 ES, SF		
1,200.00	1,199.97	1,199.80	1,199.77	2.56	2.51	136.27	-2.31	16.06	17.82	12.75	5.07	3.515		
1,300.00	1,299.80	1,298.82	1,298.62	2.79	2.69	157.94	-7.98	16.33	25.43	19.97	5.46	4.660		
1,400.00	1,399.37	1,396.41	1,395.80	3.02	2.88	172.79	-16.90	16.75	41.02	35.18	5.84	7.020		
1,500.00	1,498.55	1,491.96	1,490.59	3.27	3.09	-179.18	-28.84	17.31	64.13	57.90	6.23	10.296		
1,600.00	1,597.23	1,584.90	1,582.36	3.54	3.32	-174.72	-43.47	18.00	94.04	87.43	6.61	14.225		
1,700.00	1,695.29	1,674.74	1,670.58	3.85	3.58	-172.03	-60.43	18.80	130.28	123.29	6.99	18.639		
1,800.00	1,792.60	1,765.67	1,759.57	4.21	3.87	-170.38	-79.13	19.68	171.30	163.93	7.37	23.228		
1,900.00	1,889.05	1,855.34	1,847.32	4.62	4.18	-169.45	-97.57	20.55	215.50	207.74	7.76	27.772		
2,000.00	1,984.52	1,943.46	1,933.54	5.08	4.50	-168.92	-115.69	21.40	262.76	254.61	8.14	32.265		
2,100.00	2,078.90	2,029.91	2,018.14	5.62	4.82	-168.60	-133.47	22.23	313.01	304.48	8.53	36.707		
2,200.00	2,172.06	2,114.58	2,101.01	6.21	5.15	-168.41	-150.89	23.05	366.19	357.28	8.91	41.099		
2,300.00	2,263.90	2,197.39	2,182.04	6.88	5.47	-168.30	-167.92	23.86	422.24	412.95	9.29	45.441		
2,338.64	2,299.01	2,228.86	2,212.84	7.16	5.60	-168.27	-174.39	24.16	444.65	435.21	9.44	47.102		
2,400.00	2,354.59	2,278.60	2,261.51	7.61	5.80	-168.39	-184.62	24.64	480.57	470.82	9.75	49.283		
2,500.00	2,445.17	2,359.67	2,340.84	8.37	6.13	-168.56	-201.29	25.43	539.11	528.84	10.27	52.508		
2,600.00	2,535.74	2,440.74	2,420.17	9.15	6.47	-168.70	-217.96	26.21	597.65	586.86	10.79	55.377		
2,700.00	2,626.32	2,521.80	2,499.50	9.93	6.80	-168.81	-234.63	27.00	656.20	644.87	11.33	57.941		
2,800.00	2,716.90	2,602.87	2,578.83	10.73	7.14	-168.90	-251.30	27.78	714.74	702.88	11.86	60.241		
2,900.00	2,807.47	2,683.93	2,658.15	11.54	7.49	-168.98	-267.97	28.56	773.29	760.88	12.41	62.310		
3,000.00	2,898.05	2,765.00	2,737.48	12.35	7.84	-169.05	-284.65	29.35	831.84	818.88	12.96	64.181		
3,100.00	2,988.63	2,846.06	2,816.81	13.17	8.18	-169.10	-301.32	30.13	890.39	876.87	13.52	65.878		
3,200.00	3,079.20	2,927.13	2,896.14	13.99	8.53	-169.16	-317.99	30.92	948.94	934.86	14.07	67.424		
3,300.00	3,169.78	3,008.19	2,975.47	14.82	8.88	-169.20	-334.66	31.70	1,007.49	992.85	14.64	68.836		
3,400.00	3,260.36	3,089.26	3,054.80	15.65	9.24	-169.24	-351.33	32.49	1,066.04	1,050.83	15.20	70.130		
3,500.00	3,350.93	3,170.32	3,134.13	16.48	9.59	-169.28	-368.00	33.27	1,124.59	1,108.82	15.77	71.319		
3,600.00	3,441.51	3,251.39	3,213.45	17.31	9.94	-169.31	-384.67	34.06	1,183.14	1,166.80	16.34	72.415		
3,702.10	3,533.99	3,334.15	3,294.45	18.17	10.31	-169.34	-401.70	34.86	1,242.91	1,225.99	16.92	73.449		
3,800.00	3,623.36	3,414.47	3,373.04	18.88	10.66	-169.60	-418.21	35.63	1,298.89	1,281.28	17.61	73.742		
3,900.00	3,716.00	3,498.40	3,455.17	19.48	11.03	-169.81	-435.47	36.45	1,353.25	1,334.97	18.28	74.031		
4,000.00	3,809.89	3,584.14	3,539.07	20.05	11.41	-169.97	-453.11	37.28	1,404.70	1,385.77	18.93	74.212		
4,100.00	3,904.93	3,671.58	3,624.65	20.57	11.80	-170.09	-471.09	38.12	1,453.16	1,433.61	19.56	74.303		
4,200.00	4,001.00	3,760.63	3,711.79	21.04	12.19	-170.16	-489.40	38.98	1,498.60	1,478.44	20.16	74.320		
4,300.00	4,097.97	3,851.17	3,800.39	21.47	12.59	-170.21	-508.02	39.86	1,540.95	1,520.20	20.75	74.275		
4,400.00	4,195.74	3,943.10	3,890.35	21.85	13.00	-170.22	-526.93	40.75	1,580.17	1,558.86	21.30	74.178		
4,500.00	4,294.18	4,036.29	3,981.54	22.18	13.42	-170.20	-546.09	41.65	1,616.20	1,594.37	21.83	74.036		
4,600.00	4,393.17	4,130.64	4,073.87	22.46	13.84	-170.16	-565.50	42.56	1,649.02	1,626.69	22.33	73.857		
4,700.00	4,492.60	4,226.04	4,167.22	22.70	14.26	-170.08	-585.12	43.49	1,678.59	1,655.79	22.79	73.645		
4,800.00	4,592.34	4,322.35	4,261.48	22.88	14.69	-169.98	-604.92	44.42	1,704.87	1,681.64	23.23	73.405		
4,900.00	4,692.26	4,419.48	4,356.52	23.02	15.13	-169.85	-624.90	45.36	1,727.84	1,704.21	23.62	73.140		

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 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-8 PAD - P_NRC 37-8 - P_NRC 37-8 - PLAN #1 1-5-10 RHS	Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Reference		Offset		Semi Major Axis			Distance				Warning	
		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		
4,955.74	4,748.00	4,473.93	4,409.80	23.07	15.37	157.74	-636.10	45.89	1,739.19	1,715.36	23.83	72.982		
5,000.00	4,792.26	4,517.24	4,452.19	23.11	15.57	157.84	-645.00	46.31	1,747.80	1,723.78	24.02	72.750		
5,100.00	4,892.26	4,615.10	4,547.95	23.21	16.01	158.06	-665.13	47.25	1,767.27	1,742.80	24.48	72.203		
5,200.00	4,992.26	4,712.95	4,643.71	23.30	16.44	158.28	-685.25	48.20	1,786.77	1,761.84	24.93	71.675		
5,300.00	5,092.26	4,810.81	4,739.47	23.40	16.88	158.49	-705.38	49.15	1,806.29	1,780.91	25.38	71.165		
5,400.00	5,192.26	4,908.67	4,835.23	23.50	17.32	158.70	-725.50	50.09	1,825.83	1,800.00	25.84	70.671		
5,500.00	5,292.26	5,006.53	4,930.99	23.61	17.76	158.90	-745.63	51.04	1,845.40	1,819.11	26.29	70.194		
5,600.00	5,392.26	5,104.38	5,026.76	23.71	18.20	159.10	-765.75	51.99	1,864.98	1,838.24	26.74	69.732		
5,700.00	5,492.26	5,202.24	5,122.52	23.82	18.64	159.30	-785.88	52.94	1,884.59	1,857.39	27.20	69.285		
5,800.00	5,592.26	5,300.10	5,218.28	23.92	19.08	159.49	-806.00	53.88	1,904.22	1,876.57	27.66	68.853		
5,900.00	5,692.26	5,397.96	5,314.04	24.03	19.52	159.68	-826.13	54.83	1,923.87	1,895.76	28.11	68.433		
6,000.00	5,792.26	5,495.82	5,409.80	24.14	19.96	159.86	-846.25	55.78	1,943.54	1,914.97	28.57	68.027		
6,100.00	5,892.26	5,593.67	5,505.56	24.26	20.40	160.04	-866.38	56.72	1,963.23	1,934.20	29.03	67.633		
6,200.00	5,992.26	5,691.53	5,601.32	24.37	20.85	160.21	-886.50	57.67	1,982.94	1,953.45	29.49	67.251		
6,300.00	6,092.26	5,789.39	5,697.08	24.49	21.29	160.39	-906.63	58.62	2,002.66	1,972.72	29.94	66.881		
6,400.00	6,192.26	5,887.25	5,792.85	24.60	21.73	160.56	-926.75	59.56	2,022.40	1,992.00	30.40	66.521		
6,500.00	6,292.26	6,140.66	6,042.45	24.72	22.54	160.91	-969.99	61.60	2,039.41	2,008.23	31.18	65.404		
6,600.00	6,392.26	6,457.09	6,357.89	24.84	23.12	161.09	-992.95	62.68	2,046.40	2,014.44	31.96	64.023		
6,700.00	6,492.26	6,591.47	6,492.26	24.96	23.29	161.10	-993.38	62.70	2,046.53	2,014.15	32.38	63.198		
6,800.00	6,592.26	6,691.47	6,592.26	25.09	23.40	161.10	-993.38	62.70	2,046.53	2,013.80	32.73	62.530		
6,900.00	6,692.26	6,791.47	6,692.26	25.21	23.51	161.10	-993.38	62.70	2,046.53	2,013.46	33.08	61.874		
7,000.00	6,792.26	6,891.47	6,792.26	25.34	23.62	161.10	-993.38	62.70	2,046.53	2,013.11	33.43	61.227		
7,100.00	6,892.26	6,991.47	6,892.26	25.46	23.73	161.10	-993.38	62.70	2,046.53	2,012.76	33.78	60.589		
7,200.00	6,992.26	7,091.47	6,992.26	25.59	23.85	161.10	-993.38	62.70	2,046.53	2,012.40	34.13	59.961		
7,300.00	7,092.26	7,191.47	7,092.26	25.72	23.96	161.10	-993.38	62.70	2,046.53	2,012.05	34.49	59.341		
7,400.00	7,192.26	7,291.47	7,192.26	25.85	24.08	161.10	-993.38	62.70	2,046.53	2,011.69	34.85	58.731		
7,500.00	7,292.26	7,391.47	7,292.26	25.98	24.20	161.10	-993.38	62.70	2,046.53	2,011.33	35.21	58.129		
7,600.00	7,392.26	7,491.47	7,392.26	26.12	24.32	161.10	-993.38	62.70	2,046.53	2,010.96	35.57	57.537		
7,700.00	7,492.26	7,591.47	7,492.26	26.25	24.44	161.10	-993.38	62.70	2,046.53	2,010.60	35.93	56.953		
7,800.00	7,592.26	7,691.47	7,592.26	26.39	24.56	161.10	-993.38	62.70	2,046.53	2,010.23	36.30	56.379		
7,900.00	7,692.26	7,791.47	7,692.26	26.53	24.68	161.10	-993.38	62.70	2,046.53	2,009.86	36.67	55.812		
8,000.00	7,792.26	7,891.47	7,792.26	26.66	24.81	161.10	-993.38	62.70	2,046.53	2,009.49	37.04	55.255		
8,100.00	7,892.26	7,991.47	7,892.26	26.80	24.93	161.10	-993.38	62.70	2,046.53	2,009.12	37.41	54.706		
8,200.00	7,992.26	8,091.47	7,992.26	26.94	25.06	161.10	-993.38	62.70	2,046.53	2,008.75	37.78	54.165		
8,300.00	8,092.26	8,191.47	8,092.26	27.09	25.19	161.10	-993.38	62.70	2,046.53	2,008.37	38.16	53.633		
8,400.00	8,192.26	8,291.47	8,192.26	27.23	25.32	161.10	-993.38	62.70	2,046.53	2,008.00	38.53	53.108		
8,500.00	8,292.26	8,391.47	8,292.26	27.37	25.45	161.10	-993.38	62.70	2,046.53	2,007.62	38.91	52.592		
8,520.74	8,313.00	8,412.20	8,313.00	27.40	25.48	161.10	-993.38	62.70	2,046.53	2,007.54	38.99	52.486		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-8 PAD - P_NRC 39-8 - P_NRC 39-8 - PLAN #1 1-5-10 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	90.45	-0.37	47.86	47.86					
100.00	100.00	100.00	100.00	0.10	0.10	90.45	-0.37	47.86	47.86	47.67	0.19	250.534		
200.00	200.00	200.00	200.00	0.32	0.32	90.45	-0.37	47.86	47.86	47.22	0.64	74.721		
300.00	300.00	300.00	300.00	0.55	0.55	90.45	-0.37	47.86	47.86	46.77	1.09	43.908		
400.00	400.00	400.00	400.00	0.77	0.77	90.45	-0.37	47.86	47.86	46.33	1.54	31.088		
500.00	500.00	500.00	500.00	0.99	0.99	90.45	-0.37	47.86	47.86	45.88	1.99	24.063		
600.00	600.00	600.00	600.00	1.22	1.22	90.45	-0.37	47.86	47.86	45.43	2.44	19.627		
700.00	700.00	700.00	700.00	1.44	1.44	90.45	-0.37	47.86	47.86	44.98	2.89	16.572		
800.00	800.00	800.00	800.00	1.67	1.67	90.45	-0.37	47.86	47.86	44.53	3.34	14.340		
900.00	900.00	900.00	900.00	1.89	1.89	90.45	-0.37	47.86	47.86	44.08	3.79	12.638		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.45	-0.37	47.86	47.86	43.63	4.24	11.297		
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.45	-0.37	47.86	47.86	43.25	4.62	10.363	CC	
1,100.00	1,100.00	1,099.76	1,099.76	2.34	2.34	122.96	-0.36	47.90	47.92	43.24	4.68	10.232	ES	
1,200.00	1,199.97	1,198.03	1,198.00	2.56	2.54	124.48	0.08	50.05	51.36	46.26	5.10	10.066	SF	
1,300.00	1,299.80	1,295.76	1,295.57	2.79	2.75	127.53	1.20	55.45	60.19	54.67	5.52	10.905		
1,400.00	1,399.37	1,392.48	1,391.89	3.02	2.97	130.85	2.97	64.01	74.59	68.65	5.94	12.561		
1,500.00	1,498.55	1,487.75	1,486.42	3.27	3.20	133.69	5.36	75.54	94.59	88.22	6.36	14.871		
1,600.00	1,597.23	1,581.16	1,578.68	3.54	3.46	135.86	8.32	89.83	120.09	113.30	6.79	17.685		
1,700.00	1,695.29	1,672.33	1,668.23	3.85	3.73	137.41	11.79	106.61	150.95	143.72	7.23	20.868		
1,800.00	1,792.60	1,760.94	1,754.69	4.21	4.04	138.48	15.72	125.59	186.97	179.28	7.69	24.299		
1,900.00	1,889.05	1,846.70	1,837.76	4.62	4.38	139.17	20.04	146.44	227.95	219.77	8.18	27.876		
2,000.00	1,984.52	1,932.06	1,919.84	5.08	4.75	139.64	24.79	169.39	273.48	264.79	8.69	31.466		
2,100.00	2,078.90	2,019.40	2,003.70	5.62	5.16	140.17	29.74	193.28	321.84	312.60	9.24	34.826		
2,200.00	2,172.06	2,105.25	2,086.13	6.21	5.58	140.73	34.60	216.77	372.65	362.83	9.82	37.960		
2,300.00	2,263.90	2,189.51	2,167.04	6.88	6.00	141.27	39.37	239.82	425.91	415.49	10.42	40.883		
2,338.64	2,299.01	2,221.63	2,197.87	7.16	6.16	141.47	41.19	248.60	447.15	436.49	10.66	41.961		
2,400.00	2,354.59	2,272.41	2,246.63	7.61	6.43	142.24	44.07	262.50	481.19	470.11	11.08	43.415		
2,500.00	2,445.17	2,355.18	2,326.11	8.37	6.86	143.27	48.76	285.14	536.78	524.99	11.79	45.511		
2,600.00	2,535.74	2,437.95	2,405.58	9.15	7.30	144.12	53.44	307.78	592.47	579.95	12.52	47.317		
2,700.00	2,626.32	2,520.71	2,485.05	9.93	7.75	144.82	58.13	330.42	648.24	634.97	13.26	48.884		
2,800.00	2,716.90	2,603.48	2,564.52	10.73	8.19	145.41	62.82	353.07	704.06	690.05	14.01	50.252		
2,900.00	2,807.47	2,686.25	2,644.00	11.54	8.65	145.92	67.51	375.71	759.92	745.15	14.77	51.453		
3,000.00	2,898.05	2,769.02	2,723.47	12.35	9.11	146.35	72.20	398.35	815.82	800.28	15.54	52.513		
3,100.00	2,988.63	2,851.79	2,802.94	13.17	9.57	146.73	76.88	421.00	871.75	855.44	16.31	53.456		
3,200.00	3,079.20	2,934.55	2,882.41	13.99	10.03	147.06	81.57	443.64	927.70	910.61	17.09	54.297		
3,300.00	3,169.78	3,017.32	2,961.89	14.82	10.49	147.36	86.26	466.28	983.67	965.80	17.87	55.052		
3,400.00	3,260.36	3,100.09	3,041.36	15.65	10.96	147.62	90.95	488.92	1,039.66	1,021.00	18.65	55.732		
3,500.00	3,350.93	3,182.86	3,120.83	16.48	11.42	147.86	95.64	511.57	1,095.66	1,076.21	19.44	56.347		
3,600.00	3,441.51	3,265.63	3,200.31	17.31	11.89	148.08	100.32	534.21	1,151.67	1,131.43	20.24	56.906		
3,702.10	3,533.99	3,350.13	3,281.44	18.17	12.37	148.27	105.11	557.32	1,208.86	1,187.81	21.05	57.426		
3,800.00	3,623.36	3,431.98	3,360.03	18.88	12.84	149.07	109.75	579.72	1,262.53	1,240.62	21.91	57.620		
3,900.00	3,716.00	3,517.20	3,441.86	19.48	13.33	149.72	114.57	603.03	1,314.84	1,292.10	22.75	57.801		
4,000.00	3,809.89	3,603.94	3,525.15	20.05	13.82	150.23	119.49	626.76	1,364.57	1,340.99	23.57	57.884		
4,100.00	3,904.93	3,692.11	3,609.81	20.57	14.33	150.62	124.48	650.88	1,411.64	1,387.26	24.39	57.888		
4,200.00	4,001.00	3,781.60	3,695.74	21.04	14.84	150.90	129.55	675.36	1,456.03	1,430.85	25.18	57.830		
4,300.00	4,097.97	3,872.30	3,782.82	21.47	15.36	151.08	134.69	700.17	1,497.67	1,471.73	25.95	57.724		
4,400.00	4,195.74	3,964.09	3,870.96	21.85	15.89	151.17	139.89	725.28	1,536.56	1,509.87	26.69	57.580		
4,500.00	4,294.18	4,056.87	3,960.05	22.18	16.42	151.17	145.14	750.67	1,572.66	1,545.26	27.40	57.407		
4,600.00	4,393.17	4,150.52	4,049.97	22.46	16.96	151.10	150.45	776.29	1,605.96	1,577.89	28.07	57.213		
4,700.00	4,492.60	4,244.94	4,140.62	22.70	17.51	150.95	155.79	802.11	1,636.44	1,607.74	28.71	57.003		
4,800.00	4,592.34	4,339.99	4,231.89	22.88	18.06	150.73	161.18	828.12	1,664.12	1,634.82	29.31	56.784		
4,900.00	4,692.26	4,435.57	4,323.67	23.02	18.61	150.44	166.59	854.26	1,688.99	1,659.13	29.86	56.560		

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 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-8 PAD - P_NRC 39-8 - P_NRC 39-8 - PLAN #1 1-5-10 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			
4,955.74	4,748.00	4,489.03	4,375.00	23.07	18.92	117.75	169.62	868.89	1,701.64	1,671.49	30.15	56.434			
5,000.00	4,792.26	4,531.53	4,415.81	23.11	19.16	117.49	172.03	880.52	1,711.36	1,680.96	30.40	56.296			
5,100.00	4,892.26	4,627.55	4,508.00	23.21	19.72	116.92	177.47	906.78	1,733.44	1,702.49	30.96	55.993			
5,200.00	4,992.26	4,723.57	4,600.20	23.30	20.28	116.36	182.91	933.05	1,755.69	1,724.18	31.51	55.715			
5,300.00	5,092.26	4,819.59	4,692.39	23.40	20.83	115.81	188.34	959.32	1,778.10	1,746.04	32.06	55.461			
5,400.00	5,192.26	4,915.61	4,784.59	23.50	21.39	115.28	193.78	985.59	1,800.67	1,768.06	32.60	55.227			
5,500.00	5,292.26	5,011.63	4,876.79	23.61	21.95	114.76	199.22	1,011.85	1,823.38	1,790.24	33.14	55.013			
5,600.00	5,392.26	5,107.64	4,968.98	23.71	22.51	114.25	204.66	1,038.12	1,846.24	1,812.56	33.68	54.817			
5,700.00	5,492.26	5,203.66	5,061.18	23.82	23.06	113.75	210.10	1,064.39	1,869.23	1,835.02	34.21	54.637			
5,800.00	5,592.26	5,299.68	5,153.37	23.92	23.62	113.27	215.54	1,090.66	1,892.36	1,857.62	34.74	54.473			
5,900.00	5,692.26	5,395.70	5,245.57	24.03	24.18	112.80	220.98	1,116.92	1,915.62	1,880.36	35.26	54.324			
6,000.00	5,792.26	5,491.72	5,337.76	24.14	24.74	112.34	226.41	1,143.19	1,939.00	1,903.21	35.78	54.188			
6,100.00	5,892.26	5,587.74	5,429.96	24.26	25.30	111.88	231.85	1,169.46	1,962.50	1,926.20	36.30	54.064			
6,200.00	5,992.26	5,683.75	5,522.15	24.37	25.85	111.44	237.29	1,195.72	1,986.11	1,949.30	36.81	53.952			
6,300.00	6,092.26	5,796.26	5,630.21	24.49	26.49	110.94	243.64	1,226.38	2,009.79	1,972.41	37.38	53.773			
6,400.00	6,192.26	6,040.38	5,867.79	24.60	27.42	110.08	254.96	1,281.07	2,029.32	1,991.11	38.21	53.114			
6,500.00	6,292.26	6,292.68	6,117.38	24.72	28.12	109.54	262.31	1,316.57	2,041.63	2,002.71	38.92	52.463			
6,600.00	6,392.26	6,549.52	6,373.74	24.84	28.52	109.34	265.19	1,330.49	2,046.37	2,006.89	39.48	51.830			
6,700.00	6,492.26	6,668.04	6,492.26	24.96	28.65	109.33	265.23	1,330.64	2,046.43	2,006.63	39.80	51.418			
6,800.00	6,592.26	6,768.04	6,592.26	25.09	28.75	109.33	265.23	1,330.64	2,046.43	2,006.33	40.10	51.038			
6,900.00	6,692.26	6,868.04	6,692.26	25.21	28.86	109.33	265.23	1,330.64	2,046.43	2,006.03	40.39	50.661			
7,000.00	6,792.26	6,968.04	6,792.26	25.34	28.97	109.33	265.23	1,330.64	2,046.43	2,005.73	40.70	50.285			
7,100.00	6,892.26	7,068.04	6,892.26	25.46	29.09	109.33	265.23	1,330.64	2,046.43	2,005.43	41.00	49.912			
7,200.00	6,992.26	7,168.04	6,992.26	25.59	29.20	109.33	265.23	1,330.64	2,046.43	2,005.12	41.31	49.541			
7,300.00	7,092.26	7,268.04	7,092.26	25.72	29.31	109.33	265.23	1,330.64	2,046.43	2,004.81	41.62	49.172			
7,400.00	7,192.26	7,368.04	7,192.26	25.85	29.43	109.33	265.23	1,330.64	2,046.43	2,004.50	41.93	48.806			
7,500.00	7,292.26	7,468.04	7,292.26	25.98	29.55	109.33	265.23	1,330.64	2,046.43	2,004.18	42.24	48.443			
7,600.00	7,392.26	7,568.04	7,392.26	26.12	29.67	109.33	265.23	1,330.64	2,046.43	2,003.86	42.56	48.082			
7,700.00	7,492.26	7,668.04	7,492.26	26.25	29.79	109.33	265.23	1,330.64	2,046.43	2,003.55	42.88	47.724			
7,800.00	7,592.26	7,768.04	7,592.26	26.39	29.91	109.33	265.23	1,330.64	2,046.43	2,003.22	43.20	47.369			
7,900.00	7,692.26	7,868.04	7,692.26	26.53	30.03	109.33	265.23	1,330.64	2,046.43	2,002.90	43.53	47.016			
8,000.00	7,792.26	7,968.04	7,792.26	26.66	30.15	109.33	265.23	1,330.64	2,046.43	2,002.57	43.85	46.666			
8,100.00	7,892.26	8,068.04	7,892.26	26.80	30.28	109.33	265.23	1,330.64	2,046.43	2,002.25	44.18	46.320			
8,200.00	7,992.26	8,168.04	7,992.26	26.94	30.40	109.33	265.23	1,330.64	2,046.43	2,001.92	44.51	45.976			
8,300.00	8,092.26	8,268.04	8,092.26	27.09	30.53	109.33	265.23	1,330.64	2,046.43	2,001.58	44.84	45.635			
8,400.00	8,192.26	8,368.04	8,192.26	27.23	30.66	109.33	265.23	1,330.64	2,046.43	2,001.25	45.18	45.297			
8,500.00	8,292.26	8,468.04	8,292.26	27.37	30.79	109.33	265.23	1,330.64	2,046.43	2,000.91	45.51	44.962			
8,520.74	8,313.00	8,488.78	8,313.00	27.40	30.81	109.33	265.23	1,330.64	2,046.43	2,000.84	45.58	44.893			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												WELD_NRC 20-8 PAD - ROCKY MOUNTAIN FUEL CO #2 EXISTING - ROCKY MOUNTAIN FUEL CO	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	176.04	-48.47	3.36	51.81					
100.00	100.00	82.00	82.00	0.10	1.64	176.04	-48.47	3.36	48.58	46.85	1.74	27.992		
200.00	200.00	182.00	182.00	0.32	5.28	176.04	-48.47	3.36	48.58	42.98	5.60	8.675		
300.00	300.00	282.00	282.00	0.55	9.28	176.04	-48.47	3.36	48.58	38.76	9.83	4.945		
400.00	400.00	382.00	382.00	0.77	13.28	176.04	-48.47	3.36	48.58	34.53	14.05	3.458		
500.00	500.00	482.00	482.00	0.99	17.28	176.04	-48.47	3.36	48.58	30.31	18.27	2.658		
600.00	600.00	582.00	582.00	1.22	21.28	176.04	-48.47	3.36	48.58	26.08	22.50	2.159		
700.00	700.00	682.00	682.00	1.44	25.28	176.04	-48.47	3.36	48.58	21.86	26.72	1.818		
800.00	800.00	782.00	782.00	1.67	29.28	176.04	-48.47	3.36	48.58	17.63	30.95	1.570		
900.00	900.00	882.00	882.00	1.89	33.28	176.04	-48.47	3.36	48.58	13.41	35.17	1.381	Level 3	
1,000.00	1,000.00	982.00	982.00	2.12	37.28	176.04	-48.47	3.36	48.58	9.18	39.40	1.233	Level 2	
1,085.00	1,085.00	1,067.00	1,067.00	2.31	40.68	176.04	-48.47	3.36	48.58	5.59	42.99	1.130	Level 2, CC	
1,100.00	1,100.00	1,082.00	1,082.00	2.34	41.28	-151.50	-48.47	3.36	48.62	4.99	43.62	1.114	Level 2	
1,200.00	1,199.97	1,181.97	1,181.97	2.56	45.28	-152.70	-48.47	3.36	50.62	2.80	47.82	1.059	Level 2, ES, SF	
1,300.00	1,299.80	1,281.80	1,281.80	2.79	49.27	-155.37	-48.47	3.36	55.80	3.85	51.95	1.074	Level 2	
1,400.00	1,399.37	1,381.37	1,381.37	3.02	53.25	-158.74	-48.47	3.36	64.32	8.32	56.00	1.149	Level 2	
1,500.00	1,498.55	1,480.55	1,480.55	3.27	57.22	-162.12	-48.47	3.36	76.30	16.37	59.93	1.273	Level 3	
1,600.00	1,597.23	1,579.23	1,579.23	3.54	61.17	-165.14	-48.47	3.36	91.83	28.10	63.73	1.441	Level 3	
1,700.00	1,695.29	1,677.29	1,677.29	3.85	65.09	-167.65	-48.47	3.36	110.90	43.51	67.38	1.646		
1,800.00	1,792.60	1,774.60	1,774.60	4.21	68.98	-169.68	-48.47	3.36	133.48	62.61	70.87	1.883		
1,900.00	1,889.05	1,871.05	1,871.05	4.62	72.84	-171.29	-48.47	3.36	159.53	85.35	74.18	2.151		
2,000.00	1,984.52	1,966.52	1,966.52	5.08	76.66	-172.58	-48.47	3.36	189.00	111.71	77.29	2.445		
2,100.00	2,078.90	2,060.90	2,060.90	5.62	80.44	-173.60	-48.47	3.36	221.84	141.63	80.20	2.766		
2,200.00	2,172.06	2,154.06	2,154.06	6.21	84.16	-174.43	-48.47	3.36	257.99	175.10	82.89	3.112		
2,300.00	2,263.90	2,245.90	2,245.90	6.88	87.84	-175.09	-48.47	3.36	297.40	212.05	85.35	3.484		
2,338.64	2,299.01	2,281.01	2,281.01	7.16	89.24	-175.32	-48.47	3.36	313.49	227.26	86.24	3.635		
2,400.00	2,354.59	2,336.59	2,336.59	7.61	91.46	-175.67	-48.47	3.36	339.43	250.99	88.43	3.838		
2,500.00	2,445.17	2,427.17	2,427.17	8.37	95.09	-176.15	-48.47	3.36	381.72	289.69	92.03	4.148		
2,600.00	2,535.74	2,517.74	2,517.74	9.15	98.71	-176.54	-48.47	3.36	424.02	328.40	95.63	4.434		
2,700.00	2,626.32	2,608.32	2,608.32	9.93	102.33	-176.85	-48.47	3.36	466.34	367.11	99.23	4.699		
2,800.00	2,716.90	2,698.90	2,698.90	10.73	105.96	-177.11	-48.47	3.36	508.67	405.83	102.85	4.946		
2,900.00	2,807.47	2,789.47	2,789.47	11.54	109.58	-177.34	-48.47	3.36	551.01	444.54	106.46	5.176		
3,000.00	2,898.05	2,880.05	2,880.05	12.35	113.20	-177.53	-48.47	3.36	593.35	483.27	110.09	5.390		
3,100.00	2,988.63	2,970.63	2,970.63	13.17	116.83	-177.69	-48.47	3.36	635.70	521.99	113.71	5.590		
3,200.00	3,079.20	3,061.20	3,061.20	13.99	120.45	-177.84	-48.47	3.36	678.05	560.71	117.34	5.779		
3,300.00	3,169.78	3,151.78	3,151.78	14.82	124.07	-177.96	-48.47	3.36	720.40	599.43	120.97	5.955		
3,400.00	3,260.36	3,242.36	3,242.36	15.65	127.69	-178.08	-48.47	3.36	762.76	638.15	124.60	6.121		
3,500.00	3,350.93	3,332.93	3,332.93	16.48	131.32	-178.18	-48.47	3.36	805.12	676.88	128.24	6.278		
3,600.00	3,441.51	3,423.51	3,423.51	17.31	134.94	-178.27	-48.47	3.36	847.48	715.60	131.88	6.426		
3,702.10	3,533.99	3,515.99	3,515.99	18.17	138.64	-178.35	-48.47	3.36	890.73	755.14	135.59	6.569		
3,800.00	3,623.36	3,605.36	3,605.36	18.88	142.21	-178.45	-48.47	3.36	930.68	789.57	141.11	6.595		
3,900.00	3,716.00	3,698.00	3,698.00	19.48	145.92	-178.53	-48.47	3.36	968.31	821.61	146.70	6.601		
4,000.00	3,809.89	3,791.89	3,791.89	20.05	149.68	-178.60	-48.47	3.36	1,002.69	850.46	152.23	6.587		
4,100.00	3,904.93	3,886.93	3,886.93	20.57	153.48	-178.65	-48.47	3.36	1,033.77	876.02	157.76	6.553		
4,200.00	4,001.00	3,983.00	3,983.00	21.04	157.32	-178.70	-48.47	3.36	1,061.52	898.32	163.20	6.504		
4,300.00	4,097.97	4,079.97	4,079.97	21.47	161.20	-178.74	-48.47	3.36	1,085.90	917.35	168.55	6.443		
4,400.00	4,195.74	4,177.74	4,177.74	21.85	165.11	-178.78	-48.47	3.36	1,106.88	933.12	173.76	6.370		
4,500.00	4,294.18	4,276.18	4,276.18	22.18	169.05	-178.80	-48.47	3.36	1,124.44	945.61	178.83	6.288		
4,600.00	4,393.17	4,375.17	4,375.17	22.46	173.01	-178.82	-48.47	3.36	1,138.55	954.82	183.74	6.197		
4,700.00	4,492.60	4,474.60	4,474.60	22.70	176.98	-178.84	-48.47	3.36	1,149.20	960.75	188.45	6.098		
4,800.00	4,592.34	4,574.34	4,574.34	22.88	180.97	-178.85	-48.47	3.36	1,156.38	963.41	192.97	5.993		
4,900.00	4,692.26	4,674.26	4,674.26	23.02	184.97	-178.85	-48.47	3.36	1,160.06	962.81	197.25	5.881		

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 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													WELD_NRC 20-8 PAD - ROCKY MOUNTAIN FUEL CO #2 EXISTING - ROCKY MOUNTAIN FUEL CO	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			
4,955.74	4,748.00	4,730.00	4,730.00	23.07	187.20	148.66	-48.47	3.36	1,160.61	961.07	199.54	5.817			
5,000.00	4,792.26	4,774.26	4,774.26	23.11	188.97	148.66	-48.47	3.36	1,160.61	959.23	201.38	5.763			
5,100.00	4,892.26	4,874.26	4,874.26	23.21	192.97	148.66	-48.47	3.36	1,160.61	955.06	205.55	5.646			
5,200.00	4,992.26	4,974.26	4,974.26	23.30	196.97	148.66	-48.47	3.36	1,160.61	950.88	209.72	5.534			
5,300.00	5,092.26	5,074.26	5,074.26	23.40	200.97	148.66	-48.47	3.36	1,160.61	946.71	213.90	5.426			
5,400.00	5,192.26	5,174.26	5,174.26	23.50	204.97	148.66	-48.47	3.36	1,160.61	942.53	218.08	5.322			
5,500.00	5,292.26	5,274.26	5,274.26	23.61	208.97	148.66	-48.47	3.36	1,160.61	938.35	222.26	5.222			
5,600.00	5,392.26	5,374.26	5,374.26	23.71	212.97	148.66	-48.47	3.36	1,160.61	934.17	226.44	5.126			
5,700.00	5,492.26	5,474.26	5,474.26	23.82	216.97	148.66	-48.47	3.36	1,160.61	929.99	230.62	5.033			
5,800.00	5,592.26	5,574.26	5,574.26	23.92	220.97	148.66	-48.47	3.36	1,160.61	925.81	234.80	4.943			
5,900.00	5,692.26	5,674.26	5,674.26	24.03	224.97	148.66	-48.47	3.36	1,160.61	921.62	238.98	4.856			
6,000.00	5,792.26	5,774.26	5,774.26	24.14	228.97	148.66	-48.47	3.36	1,160.61	917.44	243.17	4.773			
6,100.00	5,892.26	5,874.26	5,874.26	24.26	232.97	148.66	-48.47	3.36	1,160.61	913.25	247.35	4.692			
6,200.00	5,992.26	5,974.26	5,974.26	24.37	236.97	148.66	-48.47	3.36	1,160.61	909.07	251.54	4.614			
6,300.00	6,092.26	6,074.26	6,074.26	24.49	240.97	148.66	-48.47	3.36	1,160.61	904.88	255.73	4.538			
6,400.00	6,192.26	6,174.26	6,174.26	24.60	244.97	148.66	-48.47	3.36	1,160.61	900.69	259.92	4.465			
6,500.00	6,292.26	6,274.26	6,274.26	24.72	248.97	148.66	-48.47	3.36	1,160.61	896.50	264.11	4.394			
6,600.00	6,392.26	6,374.26	6,374.26	24.84	252.97	148.66	-48.47	3.36	1,160.61	892.31	268.30	4.326			
6,700.00	6,492.26	6,474.26	6,474.26	24.96	256.97	148.66	-48.47	3.36	1,160.61	888.11	272.49	4.259			
6,800.00	6,592.26	6,574.26	6,574.26	25.09	260.97	148.66	-48.47	3.36	1,160.61	883.92	276.69	4.195			
6,900.00	6,692.26	6,674.26	6,674.26	25.21	264.97	148.66	-48.47	3.36	1,160.61	879.73	280.88	4.132			
7,000.00	6,792.26	6,774.26	6,774.26	25.34	268.97	148.66	-48.47	3.36	1,160.61	875.53	285.07	4.071			
7,100.00	6,892.26	6,874.26	6,874.26	25.46	272.97	148.66	-48.47	3.36	1,160.61	871.34	289.27	4.012			
7,200.00	6,992.26	6,974.26	6,974.26	25.59	276.97	148.66	-48.47	3.36	1,160.61	867.14	293.47	3.955			
7,300.00	7,092.26	7,074.26	7,074.26	25.72	280.97	148.66	-48.47	3.36	1,160.61	862.94	297.66	3.899			
7,400.00	7,192.26	7,174.26	7,174.26	25.85	284.97	148.66	-48.47	3.36	1,160.61	858.75	301.86	3.845			
7,500.00	7,292.26	7,274.26	7,274.26	25.98	288.97	148.66	-48.47	3.36	1,160.61	854.55	306.06	3.792			
7,600.00	7,392.26	7,374.26	7,374.26	26.12	292.97	148.66	-48.47	3.36	1,160.61	850.35	310.26	3.741			
7,700.00	7,492.26	7,474.26	7,474.26	26.25	296.97	148.66	-48.47	3.36	1,160.61	846.15	314.46	3.691			
7,800.00	7,592.26	7,574.26	7,574.26	26.39	300.97	148.66	-48.47	3.36	1,160.61	841.95	318.66	3.642			
7,900.00	7,692.26	7,674.26	7,674.26	26.53	304.97	148.66	-48.47	3.36	1,160.61	837.75	322.86	3.595			
8,000.00	7,792.26	7,774.26	7,774.26	26.66	308.97	148.66	-48.47	3.36	1,160.61	833.55	327.06	3.549			
8,100.00	7,892.26	7,874.26	7,874.26	26.80	312.97	148.66	-48.47	3.36	1,160.61	829.35	331.26	3.504			
8,200.00	7,992.26	7,974.26	7,974.26	26.94	316.97	148.66	-48.47	3.36	1,160.61	825.14	335.46	3.460			
8,300.00	8,092.26	8,074.26	8,074.26	27.09	320.97	148.66	-48.47	3.36	1,160.61	820.94	339.67	3.417			
8,400.00	8,192.26	8,174.26	8,174.26	27.23	324.97	148.66	-48.47	3.36	1,160.61	816.74	343.87	3.375			
8,500.00	8,292.26	8,274.26	8,274.26	27.37	328.97	148.66	-48.47	3.36	1,160.61	812.53	348.07	3.334			
8,520.74	8,313.00	8,295.00	8,295.00	27.40	329.80	148.66	-48.47	3.36	1,160.61	811.66	348.94	3.326			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5071.00ft (Original Well Elev) Coordinates are relative to: P\_NRC 10-8  
 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: 0.38°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 10-8
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 20-8 PAD	<b>MD Reference:</b>	WELL @ 5071.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 10-8	<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 10-8	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-5-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5071.00ft (Original Well Elev.Coordinates are relative to: P\_NRC 10-8  
 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: 0.38°

