



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_NRC 17-9 PAD**

**P\_NRC 41-9**

**P\_NRC 41-9**

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

## **Standard Planning Report**

**05 January, 2010**





Azimuths to True North  
Magnetic North: 9.06°  
  
Magnetic Field  
Strength: 53112.7nT  
Dip Angle: 66.82°  
Date: 1/5/2010  
Model: IGRF200510

#### WELL DETAILS: P\_NRC 41-9

+N/-S	+E/-W	Northing	Ground Level:	Easting	Latitude	Longitude	Slot
0.00	0.00	1268224.57	4997.00	3170055.69	40° 4' 5.041 N	104° 53' 32.568 W	

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3209.00	3323.70	PARKMAN
4684.00	4922.14	SUSSEX
5154.00	5431.47	SHANNON
7324.00	7636.33	NIO A
7664.00	7976.33	CODELL
8114.00	8426.33	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	
2218.26	22.67	75.01	2188.93	57.24	213.71	2.00	75.01	221.24	
5503.07	22.67	75.01	5220.07	384.70	1436.40	0.00	0.00	1487.03	
6636.33	0.00	0.00	6324.00	441.94	1650.11	2.00	180.00	1708.27	
8561.33	0.00	0.00	8249.00	441.94	1650.11	0.00	0.00	1708.27	PBHL_NRC 41-9(1275 FNL 50 FEL)50'TGT RAD

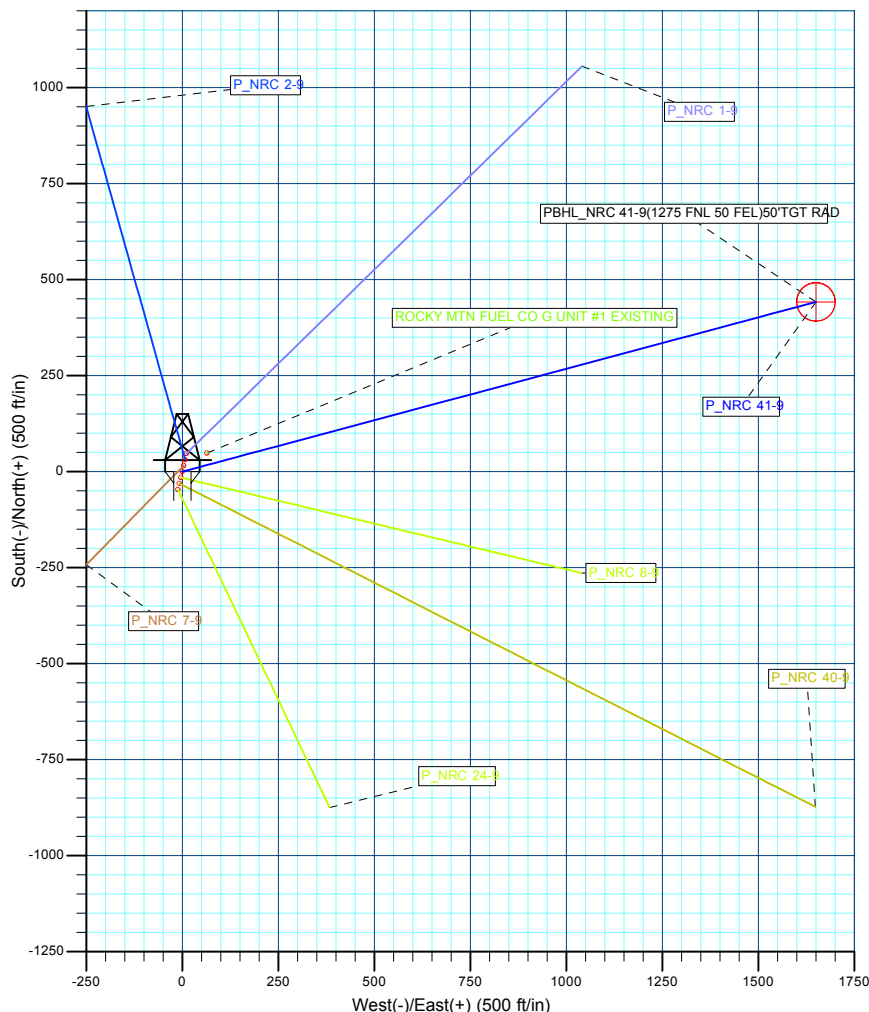
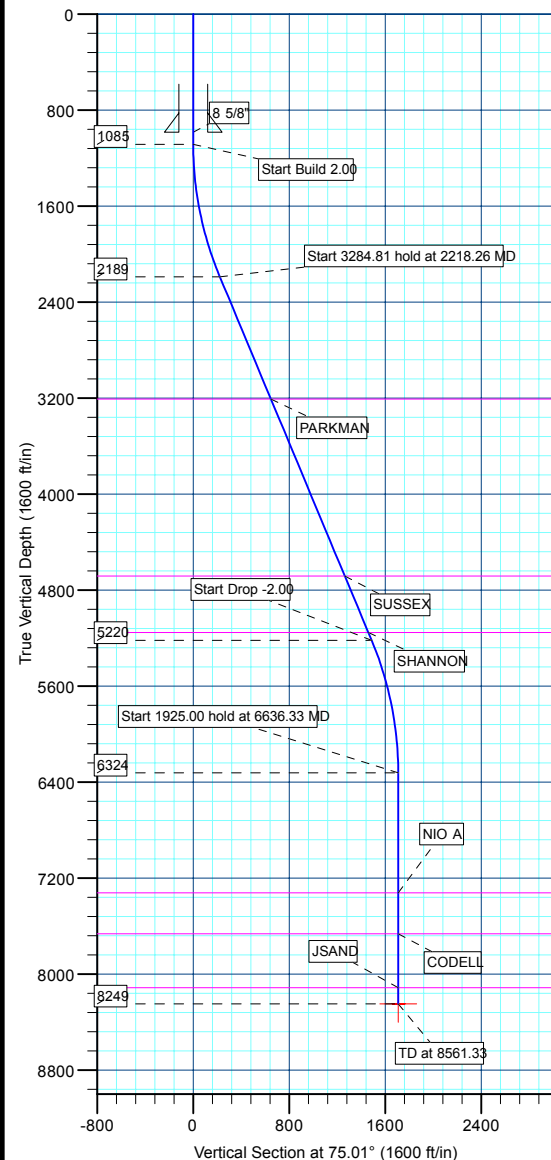
#### CASING DETAILS

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



KB ELEV: WELL @ 5012.00ft (Original Well Elev)

GRD ELEV: 4997.00



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8249.00	441.94	1650.11	1268677.80	3171702.73	40° 4' 9.408 N 104° 53' 11.342 W		Circle (Radius: 50.00)

Plan: PLAN #1 1-5-10 RHS (P\_NRC 41-9/P\_NRC 41-9)

Created By: Robert H. Scott

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 17-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 41-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 41-9		
<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		

Site						WELD_NRC 17-9 PAD, SECTION 9 T1N R67W											
Site Position:						Northing:			1,268,271.65 ft			Latitude:			40° 4' 5.506 N		
From:			Lat/Long			Easting:			3,170,066.29 ft			Longitude:			104° 53' 32.428 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.39 °		

Well	P_NRC 41-9					
Well Position	+N/-S	-47.00 ft	Northing:	1,268,224.57 ft	Latitude:	40° 4' 5.041 N
	+E/-W	-10.92 ft	Easting:	3,170,055.69 ft	Longitude:	104° 53' 32.568 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,997.00 ft

<b>Wellbore</b>	P_NRC 41-9				
<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	9.06	66.82	53,113

<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	75.01

<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	
2,218.26	22.67	75.01	2,188.93	57.24	213.71	2.00	2.00	0.00	75.01	
5,503.07	22.67	75.01	5,220.07	384.70	1,436.40	0.00	0.00	0.00	0.00	
6,636.33	0.00	0.00	6,324.00	441.94	1,650.11	2.00	-2.00	0.00	180.00	
8,561.33	0.00	0.00	8,249.00	441.94	1,650.11	0.00	0.00	0.00	0.00	PBHL_NRC 41-9(1:

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 17-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 41-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 41-9		
<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	75.01	1,100.00	0.01	0.04	0.04	2.00	2.00	0.00
1,200.00	2.30	75.01	1,199.97	0.60	2.23	2.31	2.00	2.00	0.00
1,300.00	4.30	75.01	1,299.80	2.09	7.79	8.06	2.00	2.00	0.00
1,400.00	6.30	75.01	1,399.37	4.48	16.71	17.30	2.00	2.00	0.00
1,500.00	8.30	75.01	1,498.55	7.76	28.98	30.01	2.00	2.00	0.00
1,600.00	10.30	75.01	1,597.23	11.94	44.59	46.17	2.00	2.00	0.00
1,700.00	12.30	75.01	1,695.29	17.01	63.52	65.76	2.00	2.00	0.00
1,800.00	14.30	75.01	1,792.60	22.96	85.74	88.76	2.00	2.00	0.00
1,900.00	16.30	75.01	1,889.05	29.79	111.23	115.15	2.00	2.00	0.00
2,000.00	18.30	75.01	1,984.52	37.48	139.95	144.89	2.00	2.00	0.00
2,100.00	20.30	75.01	2,078.90	46.03	171.88	177.94	2.00	2.00	0.00
2,200.00	22.30	75.01	2,172.06	55.43	206.96	214.26	2.00	2.00	0.00
<b>Start 3284.81 hold at 2218.26 MD</b>									
2,218.26	22.67	75.01	2,188.93	57.24	213.71	221.24	2.00	2.00	0.00
2,300.00	22.67	75.01	2,264.36	65.38	244.14	252.74	0.00	0.00	0.00
2,400.00	22.67	75.01	2,356.64	75.35	281.36	291.27	0.00	0.00	0.00
2,500.00	22.67	75.01	2,448.92	85.32	318.58	329.81	0.00	0.00	0.00
2,600.00	22.67	75.01	2,541.19	95.29	355.80	368.34	0.00	0.00	0.00
2,700.00	22.67	75.01	2,633.47	105.26	393.03	406.88	0.00	0.00	0.00
2,800.00	22.67	75.01	2,725.75	115.23	430.25	445.41	0.00	0.00	0.00
2,900.00	22.67	75.01	2,818.02	125.20	467.47	483.95	0.00	0.00	0.00
3,000.00	22.67	75.01	2,910.30	135.17	504.69	522.48	0.00	0.00	0.00
3,100.00	22.67	75.01	3,002.58	145.14	541.92	561.01	0.00	0.00	0.00
3,200.00	22.67	75.01	3,094.86	155.11	579.14	599.55	0.00	0.00	0.00
3,300.00	22.67	75.01	3,187.13	165.08	616.36	638.08	0.00	0.00	0.00
<b>PARKMAN</b>									
3,323.70	22.67	75.01	3,209.00	167.44	625.18	647.21	0.00	0.00	0.00
3,400.00	22.67	75.01	3,279.41	175.04	653.58	676.62	0.00	0.00	0.00
3,500.00	22.67	75.01	3,371.69	185.01	690.81	715.15	0.00	0.00	0.00
3,600.00	22.67	75.01	3,463.97	194.98	728.03	753.69	0.00	0.00	0.00
3,700.00	22.67	75.01	3,556.24	204.95	765.25	792.22	0.00	0.00	0.00
3,800.00	22.67	75.01	3,648.52	214.92	802.47	830.76	0.00	0.00	0.00
3,900.00	22.67	75.01	3,740.80	224.89	839.70	869.29	0.00	0.00	0.00
4,000.00	22.67	75.01	3,833.07	234.86	876.92	907.83	0.00	0.00	0.00
4,100.00	22.67	75.01	3,925.35	244.83	914.14	946.36	0.00	0.00	0.00
4,200.00	22.67	75.01	4,017.63	254.80	951.37	984.89	0.00	0.00	0.00
4,300.00	22.67	75.01	4,109.91	264.77	988.59	1,023.43	0.00	0.00	0.00
4,400.00	22.67	75.01	4,202.18	274.73	1,025.81	1,061.96	0.00	0.00	0.00
4,500.00	22.67	75.01	4,294.46	284.70	1,063.03	1,100.50	0.00	0.00	0.00
4,600.00	22.67	75.01	4,386.74	294.67	1,100.26	1,139.03	0.00	0.00	0.00
4,700.00	22.67	75.01	4,479.02	304.64	1,137.48	1,177.57	0.00	0.00	0.00
4,800.00	22.67	75.01	4,571.29	314.61	1,174.70	1,216.10	0.00	0.00	0.00
4,900.00	22.67	75.01	4,663.57	324.58	1,211.92	1,254.64	0.00	0.00	0.00
<b>SUSSEX</b>									
4,922.14	22.67	75.01	4,684.00	326.79	1,220.16	1,263.17	0.00	0.00	0.00
5,000.00	22.67	75.01	4,755.85	334.55	1,249.15	1,293.17	0.00	0.00	0.00
5,100.00	22.67	75.01	4,848.12	344.52	1,286.37	1,331.70	0.00	0.00	0.00
5,200.00	22.67	75.01	4,940.40	354.49	1,323.59	1,370.24	0.00	0.00	0.00
5,300.00	22.67	75.01	5,032.68	364.46	1,360.81	1,408.77	0.00	0.00	0.00
5,400.00	22.67	75.01	5,124.96	374.42	1,398.04	1,447.31	0.00	0.00	0.00
<b>SHANNON</b>									

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 17-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 41-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 41-9		
<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)
5,431.47	22.67	75.01	5,154.00	377.56	1,409.75	1,459.44	0.00	0.00	0.00
5,500.00	22.67	75.01	5,217.23	384.39	1,435.26	1,485.84	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,503.07	22.67	75.01	5,220.07	384.70	1,436.40	1,487.03	0.00	0.00	0.00
5,600.00	20.73	75.01	5,310.13	393.97	1,471.01	1,522.86	2.00	-2.00	0.00
5,700.00	18.73	75.01	5,404.25	402.70	1,503.62	1,556.61	2.00	-2.00	0.00
5,800.00	16.73	75.01	5,499.50	410.58	1,533.03	1,587.05	2.00	-2.00	0.00
5,900.00	14.73	75.01	5,595.75	417.59	1,559.21	1,614.16	2.00	-2.00	0.00
6,000.00	12.73	75.01	5,692.89	423.73	1,582.13	1,637.89	2.00	-2.00	0.00
6,100.00	10.73	75.01	5,790.80	428.99	1,601.76	1,658.21	2.00	-2.00	0.00
6,200.00	8.73	75.01	5,889.36	433.36	1,618.08	1,675.10	2.00	-2.00	0.00
6,300.00	6.73	75.01	5,988.44	436.83	1,631.06	1,688.55	2.00	-2.00	0.00
6,400.00	4.73	75.01	6,087.94	439.42	1,640.70	1,698.52	2.00	-2.00	0.00
6,500.00	2.73	75.01	6,187.72	441.10	1,646.98	1,705.02	2.00	-2.00	0.00
6,600.00	0.73	75.01	6,287.67	441.88	1,649.89	1,708.04	2.00	-2.00	0.00
<b>Start 1925.00 hold at 6636.33 MD</b>									
6,636.33	0.00	0.00	6,324.00	441.94	1,650.11	1,708.27	2.00	-2.00	0.00
6,700.00	0.00	0.00	6,387.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
6,800.00	0.00	0.00	6,487.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
6,900.00	0.00	0.00	6,587.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,000.00	0.00	0.00	6,687.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,100.00	0.00	0.00	6,787.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,200.00	0.00	0.00	6,887.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,300.00	0.00	0.00	6,987.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,400.00	0.00	0.00	7,087.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,500.00	0.00	0.00	7,187.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,600.00	0.00	0.00	7,287.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
<b>NIO A</b>									
7,636.33	0.00	0.00	7,324.00	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,700.00	0.00	0.00	7,387.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,800.00	0.00	0.00	7,487.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
7,900.00	0.00	0.00	7,587.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
<b>CODELL</b>									
7,976.33	0.00	0.00	7,664.00	441.94	1,650.11	1,708.27	0.00	0.00	0.00
8,000.00	0.00	0.00	7,687.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
8,100.00	0.00	0.00	7,787.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
8,200.00	0.00	0.00	7,887.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
8,300.00	0.00	0.00	7,987.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
8,400.00	0.00	0.00	8,087.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
<b>JSAND</b>									
8,426.33	0.00	0.00	8,114.00	441.94	1,650.11	1,708.27	0.00	0.00	0.00
8,500.00	0.00	0.00	8,187.67	441.94	1,650.11	1,708.27	0.00	0.00	0.00
<b>PBHL_NRC 41-9(1275 FNL 50 FEL)50'TGT RAD</b>									
8,561.33	0.00	0.00	8,249.00	441.94	1,650.11	1,708.27	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 17-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 41-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 41-9		
<b>Design:</b>	PLAN #1 1-5-10 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 41-9(127 - plan hits target center - Circle (radius 50.00)	0.00	0.00	8,249.00	441.94	1,650.11	1,268,677.80	3,171,702.73	40° 4' 9.408 N	104° 53' 11.342 W

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 (°)	
3,323.70	3,209.00	PARKMAN				
4,922.14	4,684.00	SUSSEX				
5,431.47	5,154.00	SHANNON				
7,636.33	7,324.00	NIO A				
7,976.33	7,664.00	CODELL				
8,426.33	8,114.00	JSAND				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,085.00	1,085.00	0.00	0.00	Start Build 2.00	
2,218.26	2,188.93	57.24	213.71	Start 3284.81 hold at 2218.26 MD	
5,503.07	5,220.07	384.70	1,436.40	Start Drop -2.00	
6,636.33	6,324.00	441.94	1,650.11	Start 1925.00 hold at 6636.33 MD	
8,561.33	8,249.00	441.94	1,650.11	TD at 8561.33	



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_NRC 17-9 PAD  
P\_NRC 41-9**

**P\_NRC 41-9  
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 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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	8,561.33	PLAN #1 1-5-10 RHS (P_NRC 41-9)	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 17-9 PAD						
P_NRC 1-9 - P_NRC 1-9 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	48.26	43.64	10.447	CC
P_NRC 1-9 - P_NRC 1-9 - PLAN #1 1-5-10 RHS	1,100.00	1,099.79	48.27	43.59	10.306	ES
P_NRC 1-9 - P_NRC 1-9 - PLAN #1 1-5-10 RHS	1,400.00	1,395.36	54.83	48.85	9.167	SF
P_NRC 24-9 - P_NRC 24-9 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	47.96	43.34	10.383	CC
P_NRC 24-9 - P_NRC 24-9 - PLAN #1 1-5-10 RHS	1,100.00	1,099.81	48.01	43.33	10.258	ES
P_NRC 24-9 - P_NRC 24-9 - PLAN #1 1-5-10 RHS	1,200.00	1,198.45	50.83	45.78	10.052	SF
P_NRC 2-9 - P_NRC 2-9 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	32.16	27.54	6.963	CC
P_NRC 2-9 - P_NRC 2-9 - PLAN #1 1-5-10 RHS	1,100.00	1,099.85	32.18	27.49	6.869	ES
P_NRC 2-9 - P_NRC 2-9 - PLAN #1 1-5-10 RHS	1,200.00	1,198.79	33.23	28.11	6.500	SF
P_NRC 40-9 - P_NRC 40-9 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	31.88	27.26	6.901	CC
P_NRC 40-9 - P_NRC 40-9 - PLAN #1 1-5-10 RHS	1,100.00	1,099.96	31.90	27.22	6.815	ES
P_NRC 40-9 - P_NRC 40-9 - PLAN #1 1-5-10 RHS	1,200.00	1,199.68	33.51	28.44	6.605	SF
P_NRC 7-9 - P_NRC 7-9 - Design #1	1,265.93	1,266.13	11.69	6.36	2.194	CC, ES, SF
P_NRC 8-9 - P_NRC 8-9 - PLAN #1 1-5-10 RHS	1,085.00	1,085.00	15.73	11.11	3.408	CC
P_NRC 8-9 - P_NRC 8-9 - PLAN #1 1-5-10 RHS	1,100.00	1,100.00	15.74	11.07	3.366	ES
P_NRC 8-9 - P_NRC 8-9 - PLAN #1 1-5-10 RHS	1,200.00	1,199.99	16.83	11.75	3.315	SF
ROCKY MTN FUEL CO G UNIT #1 EXISTING - ROCKY	1,740.71	1,716.00	30.15	-40.46	0.427	Level 1, CC, ES, SF

<b>Offset Design</b>	WELD_NRC 17-9 PAD - P_NRC 1-9 - P_NRC 1-9 - PLAN #1 1-5-10 RHS												<b>Offset Site Error:</b>	0.00 ft
<b>Survey Program:</b>	0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		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	13.07	47.00	10.92	48.26					
100.00	100.00	100.00	100.00	0.10	0.10	13.07	47.00	10.92	48.26	48.06	0.19	252.576		
200.00	200.00	200.00	200.00	0.32	0.32	13.07	47.00	10.92	48.26	47.61	0.64	75.330		
300.00	300.00	300.00	300.00	0.55	0.55	13.07	47.00	10.92	48.26	47.16	1.09	44.266		
400.00	400.00	400.00	400.00	0.77	0.77	13.07	47.00	10.92	48.26	46.72	1.54	31.342		
500.00	500.00	500.00	500.00	0.99	0.99	13.07	47.00	10.92	48.26	46.27	1.99	24.259		
600.00	600.00	600.00	600.00	1.22	1.22	13.07	47.00	10.92	48.26	45.82	2.44	19.787		
700.00	700.00	700.00	700.00	1.44	1.44	13.07	47.00	10.92	48.26	45.37	2.89	16.707		
800.00	800.00	800.00	800.00	1.67	1.67	13.07	47.00	10.92	48.26	44.92	3.34	14.457		
900.00	900.00	900.00	900.00	1.89	1.89	13.07	47.00	10.92	48.26	44.47	3.79	12.741		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	13.07	47.00	10.92	48.26	44.02	4.24	11.389		

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



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<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 1-9 - P_NRC 1-9 - 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						
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	Warning
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	13.07	47.00	10.92	48.26	43.64	4.62	10.447	CC
1,100.00	1,100.00	1,099.79	1,099.79	2.34	2.34	-61.95	47.03	10.94	48.27	43.59	4.68	10.306	ES
1,200.00	1,199.97	1,198.38	1,198.35	2.55	2.56	-62.85	48.57	12.52	49.09	43.99	5.10	9.620	
1,300.00	1,299.80	1,296.92	1,296.72	2.76	2.77	-65.02	52.49	16.51	51.24	45.71	5.53	9.261	
1,400.00	1,399.37	1,395.36	1,394.75	2.99	3.00	-68.11	58.76	22.91	54.83	48.85	5.98	9.167	SF
1,500.00	1,498.55	1,493.67	1,492.28	3.24	3.24	-71.74	67.37	31.70	59.99	53.53	6.46	9.288	
1,600.00	1,597.23	1,591.79	1,589.15	3.51	3.51	-75.51	78.29	42.86	66.86	59.87	6.99	9.569	
1,700.00	1,695.29	1,689.70	1,685.22	3.83	3.81	-79.11	91.49	56.34	75.50	67.92	7.58	9.959	
1,800.00	1,792.60	1,787.35	1,780.33	4.19	4.15	-82.38	106.95	72.12	85.96	77.70	8.26	10.406	
1,900.00	1,889.05	1,884.70	1,874.35	4.60	4.54	-85.22	124.60	90.14	98.23	89.19	9.04	10.867	
2,000.00	1,984.52	1,981.72	1,967.15	5.08	4.98	-87.64	144.41	110.36	112.29	102.36	9.93	11.309	
2,100.00	2,078.90	2,079.94	2,060.39	5.63	5.48	-90.10	166.00	132.41	127.64	116.70	10.94	11.668	
2,200.00	2,172.06	2,178.33	2,153.77	6.25	6.00	-93.34	187.69	154.56	143.44	131.38	12.06	11.896	
2,218.26	2,188.93	2,196.25	2,170.78	6.37	6.10	-93.99	191.64	158.59	146.40	134.13	12.27	11.931	
2,300.00	2,264.36	2,276.49	2,246.93	6.93	6.54	-96.95	209.33	176.65	159.93	146.68	13.25	12.073	
2,400.00	2,356.64	2,374.64	2,340.09	7.63	7.09	-99.95	230.97	198.74	176.96	162.50	14.46	12.236	
2,500.00	2,448.92	2,472.79	2,433.24	8.35	7.66	-102.42	252.60	220.83	194.38	178.69	15.69	12.386	
2,600.00	2,541.19	2,570.95	2,526.40	9.09	8.23	-104.48	274.24	242.93	212.09	195.16	16.93	12.524	
2,700.00	2,633.47	2,669.10	2,619.55	9.83	8.81	-106.23	295.88	265.02	230.03	211.85	18.18	12.650	
2,800.00	2,725.75	2,767.26	2,712.71	10.58	9.40	-107.72	317.51	287.11	248.15	228.71	19.44	12.765	
2,900.00	2,818.02	2,865.41	2,805.86	11.34	9.99	-109.01	339.15	309.20	266.41	245.71	20.70	12.871	
3,000.00	2,910.30	2,963.56	2,899.02	12.11	10.59	-110.14	360.79	331.29	284.78	262.82	21.96	12.968	
3,100.00	3,002.58	3,061.72	2,992.18	12.87	11.19	-111.12	382.42	353.38	303.25	280.02	23.23	13.056	
3,200.00	3,094.86	3,159.87	3,085.33	13.65	11.79	-112.00	404.06	375.47	321.79	297.30	24.49	13.138	
3,300.00	3,187.13	3,258.02	3,178.49	14.42	12.40	-112.78	425.70	397.56	340.40	314.64	25.76	13.213	
3,400.00	3,279.41	3,356.18	3,271.64	15.20	13.00	-113.48	447.34	419.66	359.06	332.03	27.03	13.282	
3,500.00	3,371.69	3,454.33	3,364.80	15.98	13.61	-114.11	468.97	441.75	377.77	349.46	28.31	13.346	
3,600.00	3,463.97	3,552.48	3,457.95	16.76	14.22	-114.68	490.61	463.84	396.52	366.94	29.58	13.405	
3,700.00	3,556.24	3,650.64	3,551.11	17.55	14.83	-115.19	512.25	485.93	415.30	384.45	30.85	13.460	
3,800.00	3,648.52	3,748.79	3,644.26	18.33	15.44	-115.67	533.88	508.02	434.12	401.99	32.13	13.512	
3,900.00	3,740.80	3,846.95	3,737.42	19.12	16.06	-116.10	555.52	530.11	452.96	419.55	33.40	13.560	
4,000.00	3,833.07	3,945.10	3,830.58	19.91	16.67	-116.50	577.16	552.20	471.82	437.14	34.68	13.605	
4,100.00	3,925.35	4,043.25	3,923.73	20.69	17.29	-116.87	598.79	574.29	490.70	454.75	35.96	13.647	
4,200.00	4,017.63	4,141.41	4,016.89	21.48	17.91	-117.21	620.43	596.39	509.61	472.37	37.23	13.686	
4,300.00	4,109.91	4,239.56	4,110.04	22.27	18.52	-117.53	642.07	618.48	528.52	490.01	38.51	13.723	
4,400.00	4,202.18	4,337.71	4,203.20	23.07	19.14	-117.83	663.70	640.57	547.46	507.67	39.79	13.758	
4,500.00	4,294.46	4,435.87	4,296.35	23.86	19.76	-118.10	685.34	662.66	566.40	525.33	41.07	13.791	
4,600.00	4,386.74	4,534.02	4,389.51	24.65	20.38	-118.36	706.98	684.75	585.36	543.01	42.35	13.822	
4,700.00	4,479.02	4,632.17	4,482.66	25.44	21.00	-118.60	728.61	706.84	604.33	560.70	43.63	13.852	
4,800.00	4,571.29	4,730.33	4,575.82	26.24	21.62	-118.83	750.25	728.93	623.31	578.40	44.91	13.880	
4,900.00	4,663.57	4,828.48	4,668.98	27.03	22.24	-119.04	771.89	751.02	642.29	596.11	46.19	13.906	
5,000.00	4,755.85	4,926.64	4,762.13	27.82	22.86	-119.24	793.52	773.12	661.29	613.82	47.47	13.932	
5,100.00	4,848.12	5,024.79	4,855.29	28.62	23.48	-119.43	815.16	795.21	680.29	631.54	48.75	13.955	
5,200.00	4,940.40	5,122.94	4,948.44	29.41	24.10	-119.61	836.80	817.30	699.30	649.27	50.03	13.978	
5,300.00	5,032.68	5,221.10	5,041.60	30.21	24.72	-119.78	858.43	839.39	718.32	667.01	51.31	14.000	
5,400.00	5,124.96	5,319.25	5,134.75	31.00	25.34	-119.94	880.07	861.48	737.34	684.75	52.59	14.021	
5,503.07	5,220.07	5,420.42	5,230.77	31.82	25.98	-120.10	902.37	884.25	756.95	703.04	53.91	14.041	
5,600.00	5,310.13	5,515.72	5,321.22	32.49	26.58	-120.45	923.38	905.70	774.58	719.48	55.11	14.056	
5,700.00	5,404.25	5,614.32	5,414.80	33.05	27.21	-120.55	945.12	927.89	791.06	734.78	56.29	14.054	
5,800.00	5,499.50	5,712.47	5,508.14	33.56	27.77	-120.46	966.34	949.56	805.84	748.44	57.40	14.039	
5,900.00	5,595.75	5,810.56	5,602.34	34.01	28.21	-120.37	985.48	969.10	819.00	760.66	58.35	14.037	
6,000.00	5,692.89	5,909.01	5,697.76	34.42	28.62	-120.28	1,002.41	986.39	830.54	771.35	59.19	14.031	

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

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<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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>Offset Design</b> WELD_NRC 17-9 PAD - P_NRC 1-9 - P_NRC 1-9 - PLAN #1 1-5-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
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	Warning
6,100.00	5,790.80	6,007.78	5,794.27	34.78	28.98	-120.20	1,017.08	1,001.36	840.44	780.49	59.95	14.020	
6,200.00	5,889.36	6,106.82	5,891.72	35.08	29.29	-120.12	1,029.44	1,013.99	848.67	788.07	60.60	14.005	
6,300.00	5,988.44	6,206.10	5,989.96	35.34	29.57	-120.05	1,039.46	1,024.22	855.23	794.08	61.15	13.985	
6,400.00	6,087.94	6,305.58	6,088.83	35.54	29.80	-119.97	1,047.10	1,032.02	860.10	798.49	61.61	13.961	
6,500.00	6,187.72	6,405.21	6,188.17	35.70	29.98	-119.90	1,052.35	1,037.38	863.27	801.31	61.97	13.931	
6,600.00	6,287.67	6,504.94	6,287.82	35.81	30.12	-119.83	1,055.17	1,040.26	864.74	802.52	62.23	13.897	
6,636.33	6,324.00	6,541.19	6,324.06	35.84	30.16	-44.80	1,055.60	1,040.70	864.85	802.56	62.29	13.884	
6,676.00	6,363.67	6,580.80	6,363.67	35.87	30.19	-44.79	1,055.71	1,040.81	864.85	802.48	62.37	13.867	
6,700.00	6,387.67	6,604.80	6,387.67	35.89	30.22	-44.79	1,055.71	1,040.81	864.85	802.44	62.41	13.857	
6,800.00	6,487.67	6,704.80	6,487.67	35.97	30.32	-44.79	1,055.71	1,040.81	864.85	802.25	62.60	13.815	
6,900.00	6,587.67	6,804.80	6,587.67	36.06	30.42	-44.79	1,055.71	1,040.81	864.85	802.05	62.80	13.772	
7,000.00	6,687.67	6,904.80	6,687.67	36.15	30.52	-44.79	1,055.71	1,040.81	864.85	801.86	62.99	13.730	
7,100.00	6,787.67	7,004.80	6,787.67	36.24	30.62	-44.79	1,055.71	1,040.81	864.85	801.66	63.19	13.686	
7,200.00	6,887.67	7,104.80	6,887.67	36.33	30.73	-44.79	1,055.71	1,040.81	864.85	801.46	63.39	13.643	
7,300.00	6,987.67	7,204.80	6,987.67	36.42	30.83	-44.79	1,055.71	1,040.81	864.85	801.26	63.60	13.599	
7,400.00	7,087.67	7,304.80	7,087.67	36.51	30.94	-44.79	1,055.71	1,040.81	864.85	801.05	63.80	13.555	
7,500.00	7,187.67	7,404.80	7,187.67	36.61	31.05	-44.79	1,055.71	1,040.81	864.85	800.84	64.01	13.511	
7,600.00	7,287.67	7,504.80	7,287.67	36.70	31.16	-44.79	1,055.71	1,040.81	864.85	800.63	64.22	13.467	
7,700.00	7,387.67	7,604.80	7,387.67	36.80	31.27	-44.79	1,055.71	1,040.81	864.85	800.42	64.44	13.422	
7,800.00	7,487.67	7,704.80	7,487.67	36.89	31.38	-44.79	1,055.71	1,040.81	864.85	800.20	64.65	13.377	
7,900.00	7,587.67	7,804.80	7,587.67	36.99	31.49	-44.79	1,055.71	1,040.81	864.85	799.98	64.87	13.332	
8,000.00	7,687.67	7,904.80	7,687.67	37.09	31.61	-44.79	1,055.71	1,040.81	864.85	799.76	65.09	13.287	
8,100.00	7,787.67	8,004.80	7,787.67	37.19	31.72	-44.79	1,055.71	1,040.81	864.85	799.54	65.31	13.241	
8,200.00	7,887.67	8,104.80	7,887.67	37.29	31.84	-44.79	1,055.71	1,040.81	864.85	799.31	65.54	13.196	
8,300.00	7,987.67	8,204.80	7,987.67	37.39	31.96	-44.79	1,055.71	1,040.81	864.85	799.08	65.77	13.150	
8,400.00	8,087.67	8,304.80	8,087.67	37.50	32.08	-44.79	1,055.71	1,040.81	864.85	798.85	66.00	13.104	
8,500.00	8,187.67	8,404.80	8,187.67	37.60	32.20	-44.79	1,055.71	1,040.81	864.85	798.62	66.23	13.058	
8,561.33	8,249.00	8,466.13	8,249.00	37.67	32.27	-44.79	1,055.71	1,040.81	864.85	798.48	66.37	13.030	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 24-9 - P_NRC 24-9 - 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						
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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-166.50	-46.64	-11.20	47.96				
100.00	100.00	100.00	100.00	0.10	0.10	-166.50	-46.64	-11.20	47.96	47.77	0.19	251.036	
200.00	200.00	200.00	200.00	0.32	0.32	-166.50	-46.64	-11.20	47.96	47.32	0.64	74.870	
300.00	300.00	300.00	300.00	0.55	0.55	-166.50	-46.64	-11.20	47.96	46.87	1.09	43.996	
400.00	400.00	400.00	400.00	0.77	0.77	-166.50	-46.64	-11.20	47.96	46.42	1.54	31.150	
500.00	500.00	500.00	500.00	0.99	0.99	-166.50	-46.64	-11.20	47.96	45.97	1.99	24.111	
600.00	600.00	600.00	600.00	1.22	1.22	-166.50	-46.64	-11.20	47.96	45.52	2.44	19.666	
700.00	700.00	700.00	700.00	1.44	1.44	-166.50	-46.64	-11.20	47.96	45.07	2.89	16.606	
800.00	800.00	800.00	800.00	1.67	1.67	-166.50	-46.64	-11.20	47.96	44.62	3.34	14.369	
900.00	900.00	900.00	900.00	1.89	1.89	-166.50	-46.64	-11.20	47.96	44.17	3.79	12.664	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-166.50	-46.64	-11.20	47.96	43.72	4.24	11.320	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-166.50	-46.64	-11.20	47.96	43.34	4.62	10.383 CC	
1,100.00	1,100.00	1,099.81	1,099.81	2.34	2.34	118.50	-46.67	-11.18	48.01	43.33	4.68	10.258 ES	
1,200.00	1,199.97	1,198.45	1,198.42	2.55	2.51	119.10	-48.66	-10.23	50.83	45.78	5.06	10.052 SF	
1,300.00	1,299.80	1,296.76	1,296.57	2.76	2.69	120.36	-53.70	-7.83	58.02	52.57	5.45	10.650	
1,400.00	1,399.37	1,394.46	1,393.85	2.99	2.89	121.80	-61.71	-4.01	69.57	63.71	5.86	11.880	
1,500.00	1,498.55	1,491.26	1,489.90	3.24	3.10	123.09	-72.59	1.18	85.47	79.18	6.29	13.589	
1,600.00	1,597.23	1,586.92	1,584.36	3.51	3.34	124.12	-86.22	7.68	105.67	98.91	6.76	15.639	
1,700.00	1,695.29	1,682.48	1,678.23	3.83	3.62	124.98	-102.39	15.38	129.86	122.60	7.27	17.870	
1,800.00	1,792.60	1,778.79	1,772.73	4.19	3.93	126.35	-119.10	23.35	156.43	148.60	7.82	19.992	
1,900.00	1,889.05	1,874.36	1,866.52	4.60	4.26	128.05	-135.69	31.26	185.17	176.75	8.42	21.989	
2,000.00	1,984.52	1,969.09	1,959.49	5.08	4.59	129.87	-152.14	39.10	216.22	207.16	9.06	23.862	
2,100.00	2,078.90	2,062.86	2,051.51	5.63	4.94	131.71	-168.41	46.86	249.73	239.99	9.74	25.636	
2,200.00	2,172.06	2,155.56	2,142.48	6.25	5.29	133.49	-184.51	54.54	285.80	275.34	10.45	27.339	
2,218.26	2,188.93	2,172.36	2,158.96	6.37	5.35	133.80	-187.42	55.93	292.66	282.07	10.59	27.643	
2,300.00	2,264.36	2,247.49	2,232.68	6.93	5.64	135.51	-200.46	62.14	323.73	312.50	11.22	28.843	
2,400.00	2,356.64	2,339.39	2,322.87	7.63	6.00	137.20	-216.42	69.75	362.01	349.99	12.01	30.134	
2,500.00	2,448.92	2,431.30	2,413.06	8.35	6.36	138.57	-232.37	77.35	400.50	387.69	12.81	31.261	
2,600.00	2,541.19	2,523.20	2,503.25	9.09	6.73	139.71	-248.32	84.96	439.17	425.55	13.62	32.250	
2,700.00	2,633.47	2,615.11	2,593.44	9.83	7.10	140.66	-264.28	92.57	477.95	463.52	14.43	33.124	
2,800.00	2,725.75	2,707.01	2,683.63	10.58	7.48	141.46	-280.23	100.17	516.83	501.58	15.25	33.901	
2,900.00	2,818.02	2,798.92	2,773.82	11.34	7.85	142.16	-296.18	107.78	555.78	539.72	16.07	34.595	
3,000.00	2,910.30	2,890.82	2,864.01	12.11	8.23	142.76	-312.14	115.38	594.80	577.91	16.89	35.219	
3,100.00	3,002.58	2,982.73	2,954.20	12.87	8.62	143.29	-328.09	122.99	633.86	616.15	17.71	35.783	
3,200.00	3,094.86	3,074.63	3,044.39	13.65	9.00	143.76	-344.04	130.60	672.97	654.43	18.54	36.295	
3,300.00	3,187.13	3,166.54	3,134.58	14.42	9.38	144.18	-360.00	138.20	712.11	692.74	19.37	36.761	
3,400.00	3,279.41	3,258.44	3,224.77	15.20	9.77	144.55	-375.95	145.81	751.28	731.07	20.20	37.188	
3,500.00	3,371.69	3,350.35	3,314.96	15.98	10.15	144.89	-391.90	153.41	790.47	769.44	21.03	37.581	
3,600.00	3,463.97	3,442.25	3,405.15	16.76	10.54	145.19	-407.86	161.02	829.68	807.82	21.87	37.943	
3,700.00	3,556.24	3,534.16	3,495.34	17.55	10.93	145.47	-423.81	168.62	868.91	846.21	22.70	38.278	
3,800.00	3,648.52	3,626.06	3,585.53	18.33	11.32	145.73	-439.76	176.23	908.16	884.63	23.53	38.589	
3,900.00	3,740.80	3,717.97	3,675.72	19.12	11.71	145.96	-455.72	183.84	947.42	923.06	24.37	38.879	
4,000.00	3,833.07	3,809.87	3,765.91	19.91	12.10	146.17	-471.67	191.44	986.70	961.49	25.20	39.150	
4,100.00	3,925.35	3,901.78	3,856.10	20.69	12.49	146.37	-487.62	199.05	1,025.98	999.94	26.04	39.404	
4,200.00	4,017.63	3,993.68	3,946.29	21.48	12.89	146.55	-503.58	206.65	1,065.28	1,038.40	26.87	39.642	
4,300.00	4,109.91	4,085.59	4,036.48	22.27	13.28	146.72	-519.53	214.26	1,104.58	1,076.87	27.71	39.866	
4,400.00	4,202.18	4,177.49	4,126.67	23.07	13.67	146.88	-535.48	221.87	1,143.89	1,115.35	28.54	40.078	
4,500.00	4,294.46	4,269.40	4,216.86	23.86	14.06	147.03	-551.44	229.47	1,183.21	1,153.83	29.38	40.278	
4,600.00	4,386.74	4,361.30	4,307.04	24.65	14.46	147.17	-567.39	237.08	1,222.53	1,192.32	30.21	40.467	
4,700.00	4,479.02	4,453.21	4,397.23	25.44	14.85	147.30	-583.34	244.68	1,261.86	1,230.81	31.04	40.647	
4,800.00	4,571.29	4,545.11	4,487.42	26.24	15.25	147.42	-599.30	252.29	1,301.19	1,269.31	31.89	40.807	
4,900.00	4,663.57	4,637.02	4,577.61	27.03	15.64	147.54	-615.25	259.89	1,340.53	1,307.80	32.74	40.950	

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 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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>Offset Design</b> WELD_NRC 17-9 PAD - P_NRC 24-9 - P_NRC 24-9 - PLAN #1 1-5-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
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	Warning
5,000.00	4,755.85	4,728.92	4,667.80	27.82	16.04	147.64	-631.20	267.50	1,379.88	1,346.29	33.58	41.086	
5,100.00	4,848.12	4,820.83	4,757.99	28.62	16.43	147.75	-647.16	275.11	1,419.22	1,384.79	34.43	41.215	
5,200.00	4,940.40	4,912.73	4,848.18	29.41	16.83	147.84	-663.11	282.71	1,458.57	1,423.29	35.29	41.337	
5,300.00	5,032.68	5,004.64	4,938.37	30.21	17.22	147.93	-679.06	290.32	1,497.93	1,461.79	36.14	41.453	
5,400.00	5,124.96	5,096.54	5,028.56	31.00	17.62	148.02	-695.02	297.92	1,537.28	1,500.30	36.99	41.563	
5,503.07	5,220.07	5,191.27	5,121.52	31.82	18.03	148.11	-711.46	305.76	1,577.85	1,539.99	37.86	41.671	
5,600.00	5,310.13	5,280.90	5,209.48	32.49	18.41	148.57	-727.02	313.18	1,614.72	1,575.98	38.74	41.678	
5,700.00	5,404.25	5,374.45	5,301.29	33.05	18.82	148.94	-743.26	320.92	1,650.03	1,610.44	39.58	41.687	
5,800.00	5,499.50	5,468.99	5,394.06	33.56	19.22	149.20	-759.67	328.75	1,682.52	1,642.12	40.40	41.646	
5,900.00	5,595.75	5,564.39	5,487.68	34.01	19.64	149.37	-776.23	336.64	1,712.17	1,670.98	41.20	41.561	
6,000.00	5,692.89	5,660.55	5,582.04	34.42	20.05	149.45	-792.92	344.60	1,738.96	1,697.00	41.96	41.438	
6,100.00	5,790.80	5,757.34	5,677.03	34.78	20.47	149.44	-809.72	352.61	1,762.87	1,720.16	42.70	41.281	
6,200.00	5,889.36	5,854.65	5,772.52	35.08	20.89	149.35	-826.61	360.66	1,783.89	1,740.48	43.41	41.093	
6,300.00	5,988.44	5,979.34	5,895.37	35.34	21.28	149.16	-845.87	369.84	1,801.29	1,757.23	44.06	40.880	
6,400.00	6,087.94	6,106.01	6,020.99	35.54	21.59	149.01	-860.47	376.81	1,814.28	1,769.70	44.58	40.697	
6,500.00	6,187.72	6,233.99	6,148.51	35.70	21.84	148.92	-870.12	381.41	1,822.77	1,777.80	44.97	40.532	
6,600.00	6,287.67	6,362.74	6,277.15	35.81	22.04	148.88	-874.63	383.56	1,826.72	1,781.47	45.25	40.373	
6,636.33	6,324.00	6,409.59	6,324.00	35.84	22.11	-136.12	-874.98	383.72	1,827.02	1,781.70	45.32	40.311	
6,700.00	6,387.67	6,473.26	6,387.67	35.89	22.19	-136.12	-874.98	383.72	1,827.02	1,781.54	45.48	40.175	
6,800.00	6,487.67	6,573.26	6,487.67	35.97	22.31	-136.12	-874.98	383.72	1,827.02	1,781.30	45.72	39.961	
6,900.00	6,587.67	6,673.26	6,587.67	36.06	22.42	-136.12	-874.98	383.72	1,827.02	1,781.06	45.96	39.749	
7,000.00	6,687.67	6,773.26	6,687.67	36.15	22.54	-136.12	-874.98	383.72	1,827.02	1,780.81	46.21	39.536	
7,100.00	6,787.67	6,873.26	6,787.67	36.24	22.66	-136.12	-874.98	383.72	1,827.02	1,780.56	46.46	39.323	
7,200.00	6,887.67	6,973.26	6,887.67	36.33	22.78	-136.12	-874.98	383.72	1,827.02	1,780.30	46.72	39.109	
7,300.00	6,987.67	7,073.26	6,987.67	36.42	22.90	-136.12	-874.98	383.72	1,827.02	1,780.05	46.97	38.896	
7,400.00	7,087.67	7,173.26	7,087.67	36.51	23.03	-136.12	-874.98	383.72	1,827.02	1,779.79	47.23	38.682	
7,500.00	7,187.67	7,273.26	7,187.67	36.61	23.15	-136.12	-874.98	383.72	1,827.02	1,779.53	47.49	38.468	
7,600.00	7,287.67	7,373.26	7,287.67	36.70	23.28	-136.12	-874.98	383.72	1,827.02	1,779.26	47.76	38.255	
7,700.00	7,387.67	7,473.26	7,387.67	36.80	23.41	-136.12	-874.98	383.72	1,827.02	1,778.99	48.03	38.042	
7,800.00	7,487.67	7,573.26	7,487.67	36.89	23.54	-136.12	-874.98	383.72	1,827.02	1,778.72	48.30	37.829	
7,900.00	7,587.67	7,673.26	7,587.67	36.99	23.67	-136.12	-874.98	383.72	1,827.02	1,778.45	48.57	37.616	
8,000.00	7,687.67	7,773.26	7,687.67	37.09	23.80	-136.12	-874.98	383.72	1,827.02	1,778.17	48.85	37.403	
8,100.00	7,787.67	7,873.26	7,787.67	37.19	23.94	-136.12	-874.98	383.72	1,827.02	1,777.90	49.12	37.191	
8,200.00	7,887.67	7,973.26	7,887.67	37.29	24.07	-136.12	-874.98	383.72	1,827.02	1,777.61	49.41	36.980	
8,300.00	7,987.67	8,073.26	7,987.67	37.39	24.21	-136.12	-874.98	383.72	1,827.02	1,777.33	49.69	36.769	
8,400.00	8,087.67	8,173.26	8,087.67	37.50	24.35	-136.12	-874.98	383.72	1,827.02	1,777.05	49.97	36.559	
8,500.00	8,187.67	8,273.26	8,187.67	37.60	24.49	-136.12	-874.98	383.72	1,827.02	1,776.76	50.26	36.349	
8,561.33	8,249.00	8,334.59	8,249.00	37.67	24.57	-136.12	-874.98	383.72	1,827.02	1,776.58	50.44	36.221	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 2-9 - P_NRC 2-9 - 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)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	13.08	31.33	7.28	32.16				
100.00	100.00	100.00	100.00	0.10	0.10	13.08	31.33	7.28	32.16	31.97	0.19	168.341	
200.00	200.00	200.00	200.00	0.32	0.32	13.08	31.33	7.28	32.16	31.52	0.64	50.207	
300.00	300.00	300.00	300.00	0.55	0.55	13.08	31.33	7.28	32.16	31.07	1.09	29.503	
400.00	400.00	400.00	400.00	0.77	0.77	13.08	31.33	7.28	32.16	30.62	1.54	20.889	
500.00	500.00	500.00	500.00	0.99	0.99	13.08	31.33	7.28	32.16	30.17	1.99	16.168	
600.00	600.00	600.00	600.00	1.22	1.22	13.08	31.33	7.28	32.16	29.72	2.44	13.188	
700.00	700.00	700.00	700.00	1.44	1.44	13.08	31.33	7.28	32.16	29.27	2.89	11.135	
800.00	800.00	800.00	800.00	1.67	1.67	13.08	31.33	7.28	32.16	28.82	3.34	9.636	
900.00	900.00	900.00	900.00	1.89	1.89	13.08	31.33	7.28	32.16	28.37	3.79	8.492	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	13.08	31.33	7.28	32.16	27.93	4.24	7.591	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	13.08	31.33	7.28	32.16	27.54	4.62	6.963 CC	
1,100.00	1,100.00	1,099.85	1,099.85	2.34	2.34	-62.02	31.36	7.27	32.18	27.49	4.68	6.869 ES	
1,200.00	1,199.97	1,198.79	1,198.76	2.55	2.56	-67.26	33.50	6.67	33.23	28.11	5.11	6.500 SF	
1,300.00	1,299.80	1,297.31	1,297.11	2.76	2.79	-78.82	38.90	5.16	37.01	31.46	5.55	6.671	
1,400.00	1,399.37	1,395.06	1,394.46	2.99	3.01	-92.29	47.47	2.76	45.47	39.48	5.99	7.590	
1,500.00	1,498.55	1,491.72	1,490.35	3.24	3.25	-103.62	59.08	-0.49	59.75	53.31	6.44	9.274	
1,600.00	1,597.23	1,586.94	1,584.38	3.51	3.51	-111.68	73.56	-4.55	79.86	72.95	6.91	11.557	
1,700.00	1,695.29	1,680.46	1,676.18	3.83	3.79	-117.10	90.71	-9.35	105.38	97.98	7.40	14.239	
1,800.00	1,792.60	1,773.59	1,767.05	4.19	4.10	-120.84	110.35	-14.85	135.67	127.74	7.93	17.114	
1,900.00	1,889.05	1,867.53	1,858.61	4.60	4.44	-123.97	130.59	-20.52	168.66	160.16	8.50	19.852	
2,000.00	1,984.52	1,960.51	1,949.22	5.08	4.79	-126.69	150.63	-26.13	204.03	194.94	9.10	22.428	
2,100.00	2,078.90	2,052.40	2,038.79	5.63	5.16	-129.07	170.43	-31.67	241.90	232.17	9.73	24.859	
2,200.00	2,172.06	2,143.11	2,127.20	6.25	5.52	-131.18	189.98	-37.14	282.32	271.93	10.39	27.162	
2,218.26	2,188.93	2,159.54	2,143.21	6.37	5.59	-131.54	193.52	-38.13	289.98	279.46	10.52	27.570	
2,300.00	2,264.36	2,232.97	2,214.78	6.93	5.90	-133.46	209.34	-42.57	324.62	313.51	11.12	29.205	
2,400.00	2,356.64	2,322.81	2,302.34	7.63	6.27	-135.33	228.70	-47.99	367.33	355.47	11.86	30.965	
2,500.00	2,448.92	2,412.65	2,389.90	8.35	6.66	-136.81	248.06	-53.41	410.29	397.67	12.63	32.498	
2,600.00	2,541.19	2,502.49	2,477.47	9.09	7.05	-138.01	267.42	-58.83	453.44	440.04	13.40	33.841	
2,700.00	2,633.47	2,592.33	2,565.03	9.83	7.44	-139.01	286.78	-64.25	496.72	482.54	14.18	35.022	
2,800.00	2,725.75	2,682.17	2,652.59	10.58	7.84	-139.84	306.14	-69.67	540.11	525.13	14.97	36.068	
2,900.00	2,818.02	2,772.01	2,740.15	11.34	8.24	-140.56	325.51	-75.09	583.57	567.80	15.77	36.997	
3,000.00	2,910.30	2,861.85	2,827.71	12.11	8.64	-141.17	344.87	-80.51	627.10	610.53	16.58	37.829	
3,100.00	3,002.58	2,951.69	2,915.27	12.87	9.04	-141.70	364.23	-85.93	670.68	653.30	17.39	38.576	
3,200.00	3,094.86	3,041.53	3,002.83	13.65	9.45	-142.17	383.59	-91.35	714.30	696.10	18.20	39.250	
3,300.00	3,187.13	3,131.37	3,090.39	14.42	9.85	-142.59	402.95	-96.77	757.96	738.94	19.02	39.860	
3,400.00	3,279.41	3,221.21	3,177.95	15.20	10.26	-142.96	422.31	-102.19	801.64	781.81	19.83	40.416	
3,500.00	3,371.69	3,311.05	3,265.51	15.98	10.67	-143.29	441.67	-107.61	845.35	824.69	20.66	40.923	
3,600.00	3,463.97	3,400.89	3,353.07	16.76	11.08	-143.59	461.03	-113.03	889.08	867.60	21.48	41.388	
3,700.00	3,556.24	3,490.73	3,440.64	17.55	11.49	-143.86	480.39	-118.45	932.83	910.52	22.31	41.814	
3,800.00	3,648.52	3,580.56	3,528.20	18.33	11.90	-144.11	499.75	-123.88	976.59	953.45	23.14	42.208	
3,900.00	3,740.80	3,670.40	3,615.76	19.12	12.32	-144.33	519.11	-129.30	1,020.37	996.40	23.97	42.572	
4,000.00	3,833.07	3,760.24	3,703.32	19.91	12.73	-144.54	538.47	-134.72	1,064.15	1,039.35	24.80	42.910	
4,100.00	3,925.35	3,850.08	3,790.88	20.69	13.15	-144.73	557.83	-140.14	1,107.95	1,082.32	25.63	43.223	
4,200.00	4,017.63	3,939.92	3,878.44	21.48	13.56	-144.91	577.19	-145.56	1,151.76	1,125.29	26.47	43.515	
4,300.00	4,109.91	4,029.76	3,966.00	22.27	13.98	-145.07	596.55	-150.98	1,195.57	1,168.27	27.30	43.788	
4,400.00	4,202.18	4,119.60	4,053.56	23.07	14.39	-145.22	615.91	-156.40	1,239.40	1,211.26	28.14	44.044	
4,500.00	4,294.46	4,209.44	4,141.12	23.86	14.81	-145.37	635.27	-161.82	1,283.23	1,254.25	28.98	44.283	
4,600.00	4,386.74	4,299.28	4,228.68	24.65	15.23	-145.50	654.63	-167.24	1,327.06	1,297.25	29.82	44.508	
4,700.00	4,479.02	4,389.12	4,316.24	25.44	15.64	-145.62	673.99	-172.66	1,370.90	1,340.25	30.66	44.719	
4,800.00	4,571.29	4,478.96	4,403.81	26.24	16.06	-145.74	693.35	-178.08	1,414.75	1,383.25	31.50	44.918	
4,900.00	4,663.57	4,568.80	4,491.37	27.03	16.48	-145.85	712.71	-183.50	1,458.60	1,426.26	32.34	45.107	

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 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 2-9 - P_NRC 2-9 - 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	
5,000.00	4,755.85	4,658.64	4,578.93	27.82	16.90	-145.95	732.07	-188.92	1,502.45	1,469.28	33.18	45.285	
5,100.00	4,848.12	4,748.48	4,666.49	28.62	17.32	-146.05	751.43	-194.34	1,546.31	1,512.29	34.02	45.453	
5,200.00	4,940.40	4,838.32	4,754.05	29.41	17.74	-146.14	770.79	-199.76	1,590.17	1,555.31	34.86	45.613	
5,300.00	5,032.68	4,928.16	4,841.61	30.21	18.16	-146.23	790.15	-205.18	1,634.04	1,598.33	35.71	45.765	
5,400.00	5,124.96	5,017.99	4,929.17	31.00	18.57	-146.31	809.51	-210.61	1,677.90	1,641.36	36.55	45.909	
5,503.07	5,220.07	5,110.59	5,019.42	31.82	19.01	-146.39	829.47	-216.19	1,723.12	1,685.70	37.42	46.050	
5,600.00	5,310.13	5,198.28	5,104.88	32.49	19.42	-146.93	848.36	-221.48	1,764.41	1,726.09	38.32	46.049	
5,700.00	5,404.25	5,289.93	5,194.21	33.05	19.85	-147.38	868.11	-227.01	1,804.38	1,765.20	39.19	46.045	
5,800.00	5,499.50	5,382.68	5,284.61	33.56	20.28	-147.72	888.10	-232.61	1,841.65	1,801.61	40.04	46.000	
5,900.00	5,595.75	5,476.43	5,375.98	34.01	20.72	-147.96	908.30	-238.27	1,876.17	1,835.31	40.86	45.920	
6,000.00	5,692.89	5,571.04	5,468.19	34.42	21.16	-148.12	928.69	-243.97	1,907.91	1,866.26	41.65	45.810	
6,100.00	5,790.80	5,666.42	5,561.15	34.78	21.61	-148.19	949.24	-249.73	1,936.86	1,894.45	42.41	45.674	
6,200.00	5,889.36	5,762.43	5,654.73	35.08	22.06	-148.17	969.94	-255.52	1,962.99	1,919.86	43.13	45.515	
6,300.00	5,988.44	5,877.90	5,767.36	35.34	22.57	-148.02	994.40	-262.37	1,986.16	1,942.29	43.88	45.268	
6,400.00	6,087.94	6,034.95	5,921.84	35.54	23.07	-147.76	1,021.56	-269.98	2,004.29	1,959.69	44.60	44.940	
6,500.00	6,187.72	6,195.19	6,080.80	35.70	23.49	-147.57	1,040.83	-275.37	2,016.57	1,971.39	45.17	44.640	
6,600.00	6,287.67	6,357.48	6,242.69	35.81	23.79	-147.45	1,051.59	-278.39	2,022.87	1,977.29	45.59	44.375	
6,636.33	6,324.00	6,416.71	6,301.89	35.84	23.87	-72.41	1,053.32	-278.87	2,023.67	1,977.97	45.70	44.282	
6,700.00	6,387.67	6,502.49	6,387.67	35.89	23.98	-72.40	1,053.87	-279.02	2,023.86	1,977.98	45.88	44.108	
6,800.00	6,487.67	6,602.49	6,487.67	35.97	24.10	-72.40	1,053.87	-279.02	2,023.86	1,977.72	46.14	43.866	
6,900.00	6,587.67	6,702.49	6,587.67	36.06	24.23	-72.40	1,053.87	-279.02	2,023.86	1,977.47	46.39	43.623	
7,000.00	6,687.67	6,802.49	6,687.67	36.15	24.36	-72.40	1,053.87	-279.02	2,023.86	1,977.21	46.65	43.380	
7,100.00	6,787.67	6,902.49	6,787.67	36.24	24.49	-72.40	1,053.87	-279.02	2,023.86	1,976.94	46.92	43.137	
7,200.00	6,887.67	7,002.49	6,887.67	36.33	24.62	-72.40	1,053.87	-279.02	2,023.86	1,976.68	47.18	42.894	
7,300.00	6,987.67	7,102.49	6,987.67	36.42	24.75	-72.40	1,053.87	-279.02	2,023.86	1,976.41	47.45	42.652	
7,400.00	7,087.67	7,202.49	7,087.67	36.51	24.89	-72.40	1,053.87	-279.02	2,023.86	1,976.14	47.72	42.410	
7,500.00	7,187.67	7,302.49	7,187.67	36.61	25.02	-72.40	1,053.87	-279.02	2,023.86	1,975.87	48.00	42.168	
7,600.00	7,287.67	7,402.49	7,287.67	36.70	25.16	-72.40	1,053.87	-279.02	2,023.86	1,975.59	48.27	41.926	
7,700.00	7,387.67	7,502.49	7,387.67	36.80	25.30	-72.40	1,053.87	-279.02	2,023.86	1,975.31	48.55	41.686	
7,800.00	7,487.67	7,602.49	7,487.67	36.89	25.43	-72.40	1,053.87	-279.02	2,023.86	1,975.03	48.83	41.446	
7,900.00	7,587.67	7,702.49	7,587.67	36.99	25.57	-72.40	1,053.87	-279.02	2,023.86	1,974.75	49.12	41.206	
8,000.00	7,687.67	7,802.49	7,687.67	37.09	25.72	-72.40	1,053.87	-279.02	2,023.86	1,974.46	49.40	40.967	
8,100.00	7,787.67	7,902.49	7,787.67	37.19	25.86	-72.40	1,053.87	-279.02	2,023.86	1,974.17	49.69	40.729	
8,200.00	7,887.67	8,002.49	7,887.67	37.29	26.00	-72.40	1,053.87	-279.02	2,023.86	1,973.88	49.98	40.492	
8,300.00	7,987.67	8,102.49	7,987.67	37.39	26.15	-72.40	1,053.87	-279.02	2,023.86	1,973.59	50.28	40.256	
8,400.00	8,087.67	8,202.49	8,087.67	37.50	26.29	-72.40	1,053.87	-279.02	2,023.86	1,973.29	50.57	40.020	
8,500.00	8,187.67	8,302.49	8,187.67	37.60	26.44	-72.40	1,053.87	-279.02	2,023.86	1,972.99	50.87	39.786	
8,561.33	8,249.00	8,363.82	8,249.00	37.67	26.53	-72.40	1,053.87	-279.02	2,023.86	1,972.81	51.05	39.643	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 40-9 - P_NRC 40-9 - 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)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-166.29	-30.97	-7.56	31.88				
100.00	100.00	100.00	100.00	0.10	0.10	-166.29	-30.97	-7.56	31.88	31.69	0.19	166.847	
200.00	200.00	200.00	200.00	0.32	0.32	-166.29	-30.97	-7.56	31.88	31.24	0.64	49.762	
300.00	300.00	300.00	300.00	0.55	0.55	-166.29	-30.97	-7.56	31.88	30.79	1.09	29.241	
400.00	400.00	400.00	400.00	0.77	0.77	-166.29	-30.97	-7.56	31.88	30.34	1.54	20.704	
500.00	500.00	500.00	500.00	0.99	0.99	-166.29	-30.97	-7.56	31.88	29.89	1.99	16.025	
600.00	600.00	600.00	600.00	1.22	1.22	-166.29	-30.97	-7.56	31.88	29.44	2.44	13.071	
700.00	700.00	700.00	700.00	1.44	1.44	-166.29	-30.97	-7.56	31.88	28.99	2.89	11.037	
800.00	800.00	800.00	800.00	1.67	1.67	-166.29	-30.97	-7.56	31.88	28.54	3.34	9.550	
900.00	900.00	900.00	900.00	1.89	1.89	-166.29	-30.97	-7.56	31.88	28.09	3.79	8.417	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-166.29	-30.97	-7.56	31.88	27.64	4.24	7.524	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-166.29	-30.97	-7.56	31.88	27.26	4.62	6.901 CC	
1,100.00	1,100.00	1,099.96	1,099.96	2.34	2.34	118.70	-30.99	-7.52	31.90	27.22	4.68	6.815 ES	
1,200.00	1,199.97	1,199.68	1,199.65	2.55	2.53	118.31	-32.01	-5.51	33.51	28.44	5.07	6.605 SF	
1,300.00	1,299.80	1,299.30	1,299.10	2.76	2.72	117.46	-34.60	-0.42	37.60	32.12	5.48	6.858	
1,400.00	1,399.37	1,398.72	1,398.09	2.99	2.94	116.42	-38.74	7.74	44.16	38.24	5.92	7.465	
1,500.00	1,498.55	1,497.85	1,496.42	3.24	3.17	115.38	-44.43	18.91	53.19	46.81	6.39	8.329	
1,600.00	1,597.23	1,596.60	1,593.89	3.51	3.44	114.44	-51.62	33.06	64.68	57.77	6.91	9.361	
1,700.00	1,695.29	1,694.90	1,690.30	3.83	3.74	113.63	-60.28	50.10	78.61	71.11	7.50	10.477	
1,800.00	1,792.60	1,792.65	1,785.48	4.19	4.09	112.93	-70.38	69.96	94.93	86.76	8.18	11.608	
1,900.00	1,889.05	1,889.80	1,879.25	4.60	4.50	112.32	-81.87	92.55	113.63	104.68	8.95	12.697	
2,000.00	1,984.52	1,986.26	1,971.46	5.08	4.97	111.77	-94.69	117.78	134.65	124.83	9.83	13.702	
2,100.00	2,078.90	2,081.96	2,061.96	5.63	5.49	111.27	-108.80	145.53	157.97	147.15	10.82	14.602	
2,200.00	2,172.06	2,176.87	2,150.62	6.25	6.08	110.80	-124.13	175.69	183.52	171.60	11.93	15.386	
2,218.26	2,188.93	2,194.10	2,166.60	6.37	6.19	110.71	-127.06	181.44	188.43	176.29	12.14	15.523	
2,300.00	2,264.36	2,271.01	2,237.42	6.93	6.73	110.48	-140.65	208.17	210.88	197.72	13.16	16.024	
2,400.00	2,356.64	2,365.03	2,322.90	7.63	7.45	109.61	-158.40	243.08	239.26	224.78	14.47	16.531	
2,500.00	2,448.92	2,460.74	2,409.52	8.35	8.21	108.72	-176.84	279.35	267.99	252.14	15.85	16.904	
2,600.00	2,541.19	2,556.45	2,496.15	9.09	9.00	108.00	-195.28	315.63	296.78	279.52	17.26	17.195	
2,700.00	2,633.47	2,652.15	2,582.77	9.83	9.80	107.41	-213.73	351.91	325.60	306.91	18.69	17.425	
2,800.00	2,725.75	2,747.86	2,669.39	10.58	10.61	106.91	-232.17	388.18	354.45	334.32	20.13	17.608	
2,900.00	2,818.02	2,843.57	2,756.02	11.34	11.42	106.49	-250.62	424.46	383.32	361.73	21.59	17.758	
3,000.00	2,910.30	2,939.28	2,842.64	12.11	12.25	106.13	-269.06	460.74	412.20	389.15	23.05	17.880	
3,100.00	3,002.58	3,034.98	2,929.27	12.87	13.08	105.81	-287.50	497.01	441.10	416.57	24.53	17.982	
3,200.00	3,094.86	3,130.69	3,015.89	13.65	13.91	105.53	-305.95	533.29	470.01	444.00	26.01	18.068	
3,300.00	3,187.13	3,226.40	3,102.51	14.42	14.75	105.29	-324.39	569.57	498.93	471.43	27.50	18.141	
3,400.00	3,279.41	3,322.10	3,189.14	15.20	15.59	105.07	-342.84	605.84	527.85	498.86	29.00	18.203	
3,500.00	3,371.69	3,417.81	3,275.76	15.98	16.43	104.88	-361.28	642.12	556.79	526.29	30.50	18.257	
3,600.00	3,463.97	3,513.52	3,362.38	16.76	17.28	104.70	-379.72	678.40	585.72	553.72	32.00	18.304	
3,700.00	3,556.24	3,609.22	3,449.01	17.55	18.13	104.54	-398.17	714.67	614.66	581.16	33.51	18.345	
3,800.00	3,648.52	3,704.93	3,535.63	18.33	18.98	104.40	-416.61	750.95	643.61	608.59	35.02	18.381	
3,900.00	3,740.80	3,800.64	3,622.26	19.12	19.83	104.27	-435.06	787.23	672.56	636.03	36.53	18.413	
4,000.00	3,833.07	3,896.35	3,708.88	19.91	20.68	104.14	-453.50	823.50	701.51	663.47	38.04	18.441	
4,100.00	3,925.35	3,992.05	3,795.50	20.69	21.53	104.03	-471.94	859.78	730.46	690.91	39.56	18.466	
4,200.00	4,017.63	4,087.76	3,882.13	21.48	22.39	103.93	-490.39	896.06	759.42	718.35	41.07	18.489	
4,300.00	4,109.91	4,183.47	3,968.75	22.27	23.24	103.83	-508.83	932.33	788.38	745.79	42.59	18.509	
4,400.00	4,202.18	4,279.17	4,055.37	23.07	24.10	103.74	-527.28	968.61	817.34	773.23	44.11	18.528	
4,500.00	4,294.46	4,374.88	4,142.00	23.86	24.95	103.66	-545.72	1,004.88	846.30	800.67	45.64	18.545	
4,600.00	4,386.74	4,470.59	4,228.62	24.65	25.81	103.58	-564.16	1,041.16	875.27	828.11	47.16	18.560	
4,700.00	4,479.02	4,566.30	4,315.25	25.44	26.67	103.51	-582.61	1,077.44	904.23	855.55	48.68	18.574	
4,800.00	4,571.29	4,662.00	4,401.87	26.24	27.53	103.44	-601.05	1,113.71	933.20	882.99	50.21	18.587	
4,900.00	4,663.57	4,757.71	4,488.49	27.03	28.38	103.38	-619.50	1,149.99	962.17	910.44	51.73	18.599	

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 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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>Offset Design</b> WELD_NRC 17-9 PAD - P_NRC 40-9 - P_NRC 40-9 - PLAN #1 1-5-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
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	Warning
5,000.00	4,755.85	4,853.42	4,575.12	27.82	29.24	103.32	-637.94	1,186.27	991.14	937.88	53.26	18.610	
5,100.00	4,848.12	4,949.12	4,661.74	28.62	30.10	103.26	-656.38	1,222.54	1,020.11	965.32	54.79	18.620	
5,200.00	4,940.40	5,044.83	4,748.36	29.41	30.96	103.21	-674.83	1,258.82	1,049.08	992.76	56.31	18.629	
5,300.00	5,032.68	5,140.54	4,834.99	30.21	31.82	103.16	-693.27	1,295.10	1,078.05	1,020.21	57.84	18.638	
5,400.00	5,124.96	5,236.24	4,921.61	31.00	32.68	103.11	-711.72	1,331.37	1,107.02	1,047.65	59.37	18.646	
5,503.07	5,220.07	5,334.89	5,010.90	31.82	33.57	103.06	-730.73	1,368.76	1,136.88	1,075.94	60.95	18.654	
5,600.00	5,310.13	5,427.73	5,094.93	32.49	34.41	103.50	-748.62	1,403.96	1,164.61	1,102.16	62.45	18.650	
5,700.00	5,404.25	5,543.52	5,200.58	33.05	35.27	103.80	-770.07	1,446.15	1,191.71	1,127.86	63.86	18.662	
5,800.00	5,499.50	5,662.30	5,310.87	33.56	36.01	104.05	-790.06	1,485.46	1,216.29	1,151.17	65.12	18.678	
5,900.00	5,595.75	5,782.56	5,424.30	34.01	36.69	104.27	-808.16	1,521.06	1,238.27	1,172.00	66.27	18.686	
6,000.00	5,692.89	5,904.18	5,540.60	34.42	37.30	104.47	-824.26	1,552.73	1,257.59	1,190.29	67.30	18.687	
6,100.00	5,790.80	6,027.00	5,659.48	34.78	37.82	104.63	-838.23	1,580.21	1,274.18	1,205.99	68.20	18.684	
6,200.00	5,889.36	6,150.85	5,780.58	35.08	38.27	104.77	-849.97	1,603.29	1,288.01	1,219.04	68.97	18.674	
6,300.00	5,988.44	6,275.57	5,903.55	35.34	38.65	104.88	-859.38	1,621.80	1,299.02	1,229.40	69.62	18.658	
6,400.00	6,087.94	6,400.96	6,027.97	35.54	38.94	104.96	-866.39	1,635.59	1,307.19	1,237.04	70.15	18.635	
6,500.00	6,187.72	6,526.82	6,153.42	35.70	39.16	105.01	-870.93	1,644.53	1,312.48	1,241.94	70.54	18.607	
6,600.00	6,287.67	6,652.95	6,279.46	35.81	39.30	105.05	-872.98	1,648.56	1,314.88	1,244.08	70.81	18.570	
6,636.33	6,324.00	6,697.49	6,324.00	35.84	39.33	-179.94	-873.10	1,648.80	1,315.04	1,244.16	70.88	18.554	
6,700.00	6,387.67	6,761.16	6,387.67	35.89	39.38	-179.94	-873.10	1,648.80	1,315.04	1,244.06	70.98	18.527	
6,800.00	6,487.67	6,861.16	6,487.67	35.97	39.45	-179.94	-873.10	1,648.80	1,315.04	1,243.89	71.15	18.483	
6,900.00	6,587.67	6,961.16	6,587.67	36.06	39.53	-179.94	-873.10	1,648.80	1,315.04	1,243.72	71.32	18.439	
7,000.00	6,687.67	7,061.16	6,687.67	36.15	39.61	-179.94	-873.10	1,648.80	1,315.04	1,243.55	71.49	18.394	
7,100.00	6,787.67	7,161.16	6,787.67	36.24	39.68	-179.94	-873.10	1,648.80	1,315.04	1,243.37	71.67	18.349	
7,200.00	6,887.67	7,261.16	6,887.67	36.33	39.76	-179.94	-873.10	1,648.80	1,315.04	1,243.19	71.85	18.303	
7,300.00	6,987.67	7,361.16	6,987.67	36.42	39.84	-179.94	-873.10	1,648.80	1,315.04	1,243.01	72.03	18.257	
7,400.00	7,087.67	7,461.16	7,087.67	36.51	39.92	-179.94	-873.10	1,648.80	1,315.04	1,242.83	72.21	18.211	
7,500.00	7,187.67	7,561.16	7,187.67	36.61	40.00	-179.94	-873.10	1,648.80	1,315.04	1,242.64	72.40	18.164	
7,600.00	7,287.67	7,661.16	7,287.67	36.70	40.09	-179.94	-873.10	1,648.80	1,315.04	1,242.46	72.58	18.117	
7,700.00	7,387.67	7,761.16	7,387.67	36.80	40.17	-179.94	-873.10	1,648.80	1,315.04	1,242.27	72.78	18.070	
7,800.00	7,487.67	7,861.16	7,487.67	36.89	40.26	-179.94	-873.10	1,648.80	1,315.04	1,242.07	72.97	18.022	
7,900.00	7,587.67	7,961.16	7,587.67	36.99	40.34	-179.94	-873.10	1,648.80	1,315.04	1,241.88	73.16	17.974	
8,000.00	7,687.67	8,061.16	7,687.67	37.09	40.43	-179.94	-873.10	1,648.80	1,315.04	1,241.68	73.36	17.926	
8,100.00	7,787.67	8,161.16	7,787.67	37.19	40.52	-179.94	-873.10	1,648.80	1,315.04	1,241.48	73.56	17.878	
8,200.00	7,887.67	8,261.16	7,887.67	37.29	40.61	-179.94	-873.10	1,648.80	1,315.04	1,241.28	73.76	17.829	
8,300.00	7,987.67	8,361.16	7,987.67	37.39	40.70	-179.94	-873.10	1,648.80	1,315.04	1,241.08	73.96	17.780	
8,400.00	8,087.67	8,461.16	8,087.67	37.50	40.79	-179.94	-873.10	1,648.80	1,315.04	1,240.87	74.17	17.730	
8,500.00	8,187.67	8,561.16	8,187.67	37.60	40.88	-179.94	-873.10	1,648.80	1,315.04	1,240.66	74.38	17.681	
8,539.07	8,226.74	8,600.23	8,226.74	37.64	40.92	-179.94	-873.10	1,648.80	1,315.04	1,240.58	74.46	17.661	
8,561.33	8,249.00	8,617.49	8,244.00	37.67	40.93	-179.94	-873.10	1,648.80	1,315.05	1,240.55	74.50	17.652	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 7-9 - P_NRC 7-9 - Design #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	13.08	15.66	3.64	16.08				
100.00	100.00	100.00	100.00	0.10	0.10	13.08	15.66	3.64	16.08	15.89	0.19	84.149	
200.00	200.00	200.00	200.00	0.32	0.32	13.08	15.66	3.64	16.08	15.44	0.64	25.097	
300.00	300.00	300.00	300.00	0.55	0.55	13.08	15.66	3.64	16.08	14.99	1.09	14.748	
400.00	400.00	400.00	400.00	0.77	0.77	13.08	15.66	3.64	16.08	14.54	1.54	10.442	
500.00	500.00	500.00	500.00	0.99	0.99	13.08	15.66	3.64	16.08	14.09	1.99	8.082	
600.00	600.00	600.00	600.00	1.22	1.22	13.08	15.66	3.64	16.08	13.64	2.44	6.592	
700.00	700.00	700.00	700.00	1.44	1.44	13.08	15.66	3.64	16.08	13.19	2.89	5.566	
800.00	800.00	800.00	800.00	1.67	1.67	13.08	15.66	3.64	16.08	12.74	3.34	4.817	
900.00	900.00	900.00	900.00	1.89	1.89	13.08	15.66	3.64	16.08	12.29	3.79	4.245	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	13.08	15.66	3.64	16.08	11.84	4.24	3.795	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	13.08	15.66	3.64	16.08	11.46	4.62	3.481	
1,100.00	1,100.00	1,100.07	1,100.07	2.34	2.34	-62.13	15.63	3.61	16.02	11.34	4.68	3.423	
1,200.00	1,199.97	1,200.38	1,200.35	2.55	2.52	-76.02	14.00	2.01	13.41	8.35	5.07	2.647	
1,265.93	1,265.81	1,266.13	1,266.01	2.69	2.64	-105.29	11.58	-0.37	11.69	6.36	5.33	2.194 CC, ES, SF	
1,300.00	1,299.80	1,299.90	1,299.70	2.76	2.71	-126.28	9.91	-2.01	12.54	7.08	5.46	2.297	
1,400.00	1,399.37	1,397.98	1,397.36	2.99	2.91	-167.10	3.48	-8.33	25.15	19.32	5.83	4.314	
1,500.00	1,498.55	1,494.80	1,493.48	3.24	3.13	179.51	-4.82	-16.49	47.46	41.25	6.21	7.645	
1,600.00	1,597.23	1,591.02	1,588.96	3.51	3.36	174.83	-13.28	-24.80	74.30	67.70	6.59	11.273	
1,700.00	1,695.29	1,686.25	1,683.46	3.83	3.61	172.84	-21.64	-33.02	104.66	97.69	6.97	15.008	
1,800.00	1,792.60	1,780.38	1,776.88	4.19	3.86	171.90	-29.91	-41.15	138.36	131.01	7.36	18.808	
1,900.00	1,889.05	1,873.29	1,869.09	4.60	4.11	171.45	-38.08	-49.17	175.31	167.57	7.74	22.656	
2,000.00	1,984.52	1,964.88	1,959.98	5.08	4.37	171.25	-46.12	-57.08	215.44	207.32	8.12	26.538	
2,100.00	2,078.90	2,055.03	2,049.44	5.63	4.63	171.19	-54.04	-64.86	258.71	250.21	8.50	30.447	
2,200.00	2,172.06	2,143.63	2,137.36	6.25	4.89	171.20	-61.83	-72.51	305.06	296.18	8.87	34.374	
2,218.26	2,188.93	2,159.63	2,153.24	6.37	4.94	171.21	-63.23	-73.90	313.85	304.91	8.94	35.093	
2,300.00	2,264.36	2,231.14	2,224.21	6.93	5.15	171.36	-69.52	-80.07	353.44	344.10	9.34	37.838	
2,400.00	2,356.64	2,318.63	2,311.03	7.63	5.41	171.51	-77.20	-87.62	401.87	392.04	9.84	40.858	
2,500.00	2,448.92	2,406.11	2,397.85	8.35	5.68	171.63	-84.89	-95.18	450.31	439.97	10.34	43.554	
2,600.00	2,541.19	2,493.60	2,484.66	9.09	5.94	171.72	-92.57	-102.73	498.74	487.89	10.85	45.970	
2,700.00	2,633.47	2,581.08	2,571.48	9.83	6.21	171.80	-100.26	-110.29	547.18	535.81	11.37	48.143	
2,800.00	2,725.75	2,668.57	2,658.30	10.58	6.48	171.86	-107.95	-117.84	595.62	583.73	11.89	50.107	
2,900.00	2,818.02	2,756.05	2,745.12	11.34	6.75	171.91	-115.63	-125.39	644.05	631.64	12.41	51.888	
3,000.00	2,910.30	2,843.54	2,831.94	12.11	7.03	171.96	-123.32	-132.95	692.49	679.55	12.94	53.508	
3,100.00	3,002.58	2,931.02	2,918.76	12.87	7.30	172.00	-131.00	-140.50	740.93	727.45	13.47	54.988	
3,200.00	3,094.86	3,018.50	3,005.57	13.65	7.58	172.04	-138.69	-148.06	789.37	775.36	14.01	56.343	
3,300.00	3,187.13	3,105.99	3,092.39	14.42	7.85	172.07	-146.38	-155.61	837.80	823.26	14.55	57.588	
3,400.00	3,279.41	3,193.47	3,179.21	15.20	8.13	172.10	-154.06	-163.16	886.24	871.15	15.09	58.735	
3,500.00	3,371.69	3,280.96	3,266.03	15.98	8.41	172.12	-161.75	-170.72	934.68	919.05	15.63	59.796	
3,600.00	3,463.97	3,368.44	3,352.85	16.76	8.68	172.14	-169.44	-178.27	983.12	966.95	16.18	60.778	
3,700.00	3,556.24	3,455.93	3,439.67	17.55	8.96	172.17	-177.12	-185.82	1,031.56	1,014.84	16.72	61.690	
3,800.00	3,648.52	3,543.41	3,526.48	18.33	9.24	172.18	-184.81	-193.38	1,080.00	1,062.73	17.27	62.539	
3,900.00	3,740.80	3,630.90	3,613.30	19.12	9.52	172.20	-192.49	-200.93	1,128.44	1,110.62	17.82	63.332	
4,000.00	3,833.07	3,718.38	3,700.12	19.91	9.80	172.22	-200.18	-208.49	1,176.88	1,158.51	18.37	64.072	
4,100.00	3,925.35	3,805.87	3,786.94	20.69	10.08	172.23	-207.87	-216.04	1,225.32	1,206.40	18.92	64.766	
4,200.00	4,017.63	3,893.35	3,873.76	21.48	10.37	172.24	-215.55	-223.59	1,273.76	1,254.29	19.47	65.418	
4,300.00	4,109.91	3,980.84	3,960.58	22.27	10.65	172.26	-223.24	-231.15	1,322.20	1,302.17	20.02	66.030	
4,400.00	4,202.18	4,068.32	4,047.39	23.07	10.93	172.27	-230.92	-238.70	1,370.64	1,350.06	20.58	66.607	
4,500.00	4,294.46	4,155.80	4,134.21	23.86	11.21	172.28	-238.61	-246.26	1,419.08	1,397.94	21.13	67.151	
4,600.00	4,386.74	4,243.29	4,221.03	24.65	11.49	172.29	-246.30	-253.81	1,467.51	1,445.83	21.69	67.665	
4,700.00	4,479.02	4,330.77	4,307.85	25.44	11.78	172.30	-253.98	-261.36	1,515.95	1,493.71	22.24	68.151	
4,800.00	4,571.29	4,418.26	4,394.67	26.24	12.06	172.31	-261.67	-268.92	1,564.39	1,541.59	22.80	68.612	

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 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 7-9 - P_NRC 7-9 - Design #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,663.57	4,505.74	4,481.49	27.03	12.34	172.32	-269.36	-276.47	1,612.83	1,589.48	23.36	69.049	
5,000.00	4,755.85	4,593.23	4,568.30	27.82	12.63	172.32	-277.04	-284.03	1,661.27	1,637.36	23.92	69.464	
5,100.00	4,848.12	4,680.71	4,655.12	28.62	12.91	172.33	-284.73	-291.58	1,709.71	1,685.24	24.47	69.859	
5,200.00	4,940.40	4,768.20	4,741.94	29.41	13.19	172.34	-292.41	-299.13	1,758.15	1,733.12	25.03	70.235	
5,300.00	5,032.68	4,855.68	4,828.76	30.21	13.48	172.34	-300.10	-306.69	1,806.59	1,781.00	25.59	70.593	
5,400.00	5,124.96	4,943.17	4,915.58	31.00	13.76	172.35	-307.79	-314.24	1,855.03	1,828.88	26.15	70.935	
5,503.07	5,220.07	5,033.34	5,005.06	31.82	14.05	172.36	-315.71	-322.03	1,904.96	1,878.23	26.73	71.272	
5,600.00	5,310.13	5,118.91	5,089.98	32.49	14.33	172.49	-323.23	-329.42	1,950.48	1,923.05	27.43	71.105	
5,700.00	5,404.25	5,208.73	5,179.12	33.05	14.62	172.60	-331.12	-337.17	1,994.41	1,966.31	28.10	70.972	
5,800.00	5,499.50	5,300.03	5,269.72	33.56	14.92	172.69	-339.14	-345.05	2,035.20	2,006.47	28.74	70.821	
5,900.00	5,595.75	5,392.67	5,361.66	34.01	15.22	172.75	-347.28	-353.05	2,072.81	2,043.48	29.34	70.658	
6,000.00	5,692.89	5,486.55	5,454.82	34.42	15.53	172.79	-355.53	-361.16	2,107.20	2,077.30	29.90	70.485	
6,100.00	5,790.80	5,581.55	5,549.10	34.78	15.84	172.80	-363.87	-369.36	2,138.31	2,107.89	30.41	70.305	
6,200.00	5,889.36	5,677.57	5,644.39	35.08	16.15	172.80	-372.31	-377.65	2,166.11	2,135.22	30.89	70.120	
6,300.00	5,988.44	5,774.47	5,740.55	35.34	16.47	172.78	-380.82	-386.02	2,190.58	2,159.25	31.32	69.932	
6,400.00	6,087.94	5,872.15	5,837.49	35.54	16.79	172.74	-389.40	-394.45	2,211.68	2,179.97	31.71	69.743	
6,500.00	6,187.72	5,970.49	5,935.07	35.70	17.11	172.68	-398.04	-402.94	2,229.39	2,197.34	32.05	69.553	
6,600.00	6,287.67	6,069.58	6,034.06	35.81	17.44	172.50	-406.79	-411.40	2,241.06	2,208.40	32.67	68.607	
6,636.33	6,324.00	6,360.55	6,324.00	35.84	17.93	-112.51	-416.35	-420.94	2,241.85	2,208.97	32.88	68.185	
6,700.00	6,387.67	6,424.22	6,387.67	35.89	18.02	-112.51	-416.35	-420.94	2,241.85	2,208.77	33.09	67.757	
6,800.00	6,487.67	6,524.22	6,487.67	35.97	18.17	-112.51	-416.35	-420.94	2,241.85	2,208.44	33.41	67.093	
6,900.00	6,587.67	6,624.22	6,587.67	36.06	18.31	-112.51	-416.35	-420.94	2,241.85	2,208.11	33.74	66.437	
7,000.00	6,687.67	6,724.22	6,687.67	36.15	18.46	-112.51	-416.35	-420.94	2,241.85	2,207.78	34.08	65.788	
7,100.00	6,787.67	6,824.22	6,787.67	36.24	18.61	-112.51	-416.35	-420.94	2,241.85	2,207.44	34.41	65.146	
7,200.00	6,887.67	6,924.22	6,887.67	36.33	18.76	-112.51	-416.35	-420.94	2,241.85	2,207.10	34.75	64.512	
7,300.00	6,987.67	7,024.22	6,987.67	36.42	18.92	-112.51	-416.35	-420.94	2,241.85	2,206.76	35.09	63.886	
7,400.00	7,087.67	7,124.22	7,087.67	36.51	19.07	-112.51	-416.35	-420.94	2,241.85	2,206.42	35.43	63.268	
7,500.00	7,187.67	7,224.22	7,187.67	36.61	19.23	-112.51	-416.35	-420.94	2,241.85	2,206.07	35.78	62.657	
7,600.00	7,287.67	7,324.22	7,287.67	36.70	19.39	-112.51	-416.35	-420.94	2,241.85	2,205.73	36.13	62.054	
7,700.00	7,387.67	7,424.22	7,387.67	36.80	19.54	-112.51	-416.35	-420.94	2,241.85	2,205.38	36.48	61.459	
7,800.00	7,487.67	7,524.22	7,487.67	36.89	19.70	-112.51	-416.35	-420.94	2,241.85	2,205.02	36.83	60.872	
7,900.00	7,587.67	7,624.22	7,587.67	36.99	19.87	-112.51	-416.35	-420.94	2,241.85	2,204.67	37.18	60.292	
8,000.00	7,687.67	7,724.22	7,687.67	37.09	20.03	-112.51	-416.35	-420.94	2,241.85	2,204.31	37.54	59.720	
8,100.00	7,787.67	7,824.22	7,787.67	37.19	20.19	-112.51	-416.35	-420.94	2,241.85	2,203.96	37.90	59.156	
8,200.00	7,887.67	7,924.22	7,887.67	37.29	20.36	-112.51	-416.35	-420.94	2,241.85	2,203.60	38.26	58.599	
8,300.00	7,987.67	8,024.22	7,987.67	37.39	20.52	-112.51	-416.35	-420.94	2,241.85	2,203.23	38.62	58.050	
8,400.00	8,087.67	8,124.22	8,087.67	37.50	20.69	-112.51	-416.35	-420.94	2,241.85	2,202.87	38.98	57.509	
8,500.00	8,187.67	8,224.22	8,187.67	37.60	20.86	-112.51	-416.35	-420.94	2,241.85	2,202.50	39.35	56.975	
8,561.33	8,249.00	8,285.55	8,249.00	37.67	20.96	-112.51	-416.35	-420.94	2,241.85	2,202.28	39.57	56.651	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - P_NRC 8-9 - P_NRC 8-9 - 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)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-166.62	-15.30	-3.64	15.73				
100.00	100.00	100.00	100.00	0.10	0.09	-166.62	-15.30	-3.64	15.73	15.54	0.19	84.298	
200.00	200.00	200.00	200.00	0.32	0.32	-166.62	-15.30	-3.64	15.73	15.09	0.64	24.723	
300.00	300.00	300.00	300.00	0.55	0.54	-166.62	-15.30	-3.64	15.73	14.64	1.09	14.486	
400.00	400.00	400.00	400.00	0.77	0.77	-166.62	-15.30	-3.64	15.73	14.19	1.54	10.244	
500.00	500.00	500.00	500.00	0.99	0.99	-166.62	-15.30	-3.64	15.73	13.74	1.98	7.924	
600.00	600.00	600.00	600.00	1.22	1.21	-166.62	-15.30	-3.64	15.73	13.29	2.43	6.461	
700.00	700.00	700.00	700.00	1.44	1.44	-166.62	-15.30	-3.64	15.73	12.84	2.88	5.453	
800.00	800.00	800.00	800.00	1.67	1.66	-166.62	-15.30	-3.64	15.73	12.39	3.33	4.718	
900.00	900.00	900.00	900.00	1.89	1.89	-166.62	-15.30	-3.64	15.73	11.94	3.78	4.157	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.11	-166.62	-15.30	-3.64	15.73	11.49	4.23	3.716	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.30	-166.62	-15.30	-3.64	15.73	11.11	4.61	3.408 CC	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	118.35	-15.31	-3.60	15.74	11.07	4.68	3.366 ES	
1,200.00	1,199.97	1,199.99	1,199.96	2.55	2.53	117.41	-15.83	-1.39	16.83	11.75	5.08	3.315 SF	
1,300.00	1,299.80	1,299.93	1,299.72	2.76	2.73	115.47	-17.17	4.20	19.59	14.10	5.49	3.566	
1,400.00	1,399.37	1,399.77	1,399.14	2.99	2.95	113.29	-19.31	13.17	24.05	18.11	5.93	4.053	
1,500.00	1,498.55	1,499.48	1,498.03	3.24	3.19	111.32	-22.24	25.48	30.21	23.80	6.42	4.710	
1,600.00	1,597.23	1,599.01	1,596.25	3.51	3.46	109.72	-25.97	41.10	38.09	31.13	6.95	5.477	
1,700.00	1,695.29	1,698.32	1,693.64	3.83	3.77	108.45	-30.47	59.98	47.64	40.08	7.57	6.296	
1,800.00	1,792.60	1,797.55	1,790.34	4.19	4.13	107.91	-35.64	81.66	58.79	50.53	8.27	7.112	
1,900.00	1,889.05	1,896.76	1,886.92	4.60	4.52	109.84	-40.90	103.70	71.12	62.09	9.03	7.872	
2,000.00	1,984.52	1,995.68	1,983.23	5.08	4.92	113.32	-46.14	125.68	84.84	74.99	9.86	8.609	
2,100.00	2,078.90	2,094.20	2,079.14	5.63	5.33	117.52	-51.36	147.57	100.38	89.68	10.70	9.379	
2,200.00	2,172.06	2,192.20	2,174.55	6.25	5.76	121.94	-56.55	169.34	118.16	106.60	11.56	10.226	
2,218.26	2,188.93	2,210.02	2,191.91	6.37	5.84	122.75	-57.50	173.30	121.68	109.97	11.71	10.389	
2,300.00	2,264.36	2,289.79	2,269.56	6.93	6.19	126.16	-61.72	191.02	137.86	125.43	12.43	11.091	
2,400.00	2,356.64	2,387.37	2,364.56	7.63	6.63	129.38	-66.89	212.70	158.15	144.84	13.31	11.884	
2,500.00	2,448.92	2,484.95	2,459.56	8.35	7.08	131.87	-72.06	234.38	178.81	164.62	14.19	12.602	
2,600.00	2,541.19	2,582.53	2,554.56	9.09	7.53	133.84	-77.24	256.06	199.73	184.66	15.07	13.251	
2,700.00	2,633.47	2,680.11	2,649.57	9.83	7.98	135.43	-82.41	277.74	220.83	204.87	15.96	13.836	
2,800.00	2,725.75	2,777.69	2,744.57	10.58	8.44	136.75	-87.58	299.42	242.07	225.22	16.85	14.365	
2,900.00	2,818.02	2,875.27	2,839.57	11.34	8.90	137.86	-92.75	321.10	263.42	245.67	17.75	14.844	
3,000.00	2,910.30	2,972.85	2,934.57	12.11	9.36	138.80	-97.92	342.78	284.84	266.20	18.64	15.279	
3,100.00	3,002.58	3,070.42	3,029.57	12.87	9.82	139.61	-103.09	364.46	306.32	286.78	19.54	15.675	
3,200.00	3,094.86	3,168.00	3,124.57	13.65	10.29	140.31	-108.26	386.14	327.86	307.41	20.44	16.037	
3,300.00	3,187.13	3,265.58	3,219.57	14.42	10.76	140.92	-113.43	407.82	349.44	328.09	21.35	16.369	
3,400.00	3,279.41	3,363.16	3,314.57	15.20	11.23	141.47	-118.60	429.50	371.05	348.79	22.25	16.674	
3,500.00	3,371.69	3,460.74	3,409.57	15.98	11.70	141.95	-123.77	451.18	392.69	369.53	23.16	16.956	
3,600.00	3,463.97	3,558.32	3,504.57	16.76	12.17	142.39	-128.94	472.86	414.35	390.28	24.07	17.216	
3,700.00	3,556.24	3,655.90	3,599.57	17.55	12.64	142.78	-134.11	494.54	436.03	411.06	24.98	17.458	
3,800.00	3,648.52	3,753.48	3,694.57	18.33	13.12	143.13	-139.28	516.22	457.73	431.85	25.89	17.683	
3,900.00	3,740.80	3,851.06	3,789.57	19.12	13.59	143.45	-144.45	537.90	479.45	452.65	26.80	17.892	
4,000.00	3,833.07	3,948.64	3,884.57	19.91	14.07	143.75	-149.62	559.58	501.18	473.47	27.71	18.088	
4,100.00	3,925.35	4,046.22	3,979.57	20.69	14.54	144.02	-154.79	581.26	522.92	494.30	28.62	18.272	
4,200.00	4,017.63	4,143.80	4,074.57	21.48	15.02	144.26	-159.96	602.94	544.67	515.14	29.53	18.443	
4,300.00	4,109.91	4,241.38	4,169.57	22.27	15.49	144.49	-165.13	624.62	566.43	535.98	30.45	18.600	
4,400.00	4,202.18	4,338.96	4,264.57	23.07	15.97	144.70	-170.30	646.29	588.20	556.83	31.37	18.747	
4,500.00	4,294.46	4,436.54	4,359.57	23.86	16.45	144.90	-175.47	667.97	609.98	577.68	32.30	18.887	
4,600.00	4,386.74	4,534.12	4,454.57	24.65	16.93	145.09	-180.64	689.65	631.76	598.54	33.22	19.018	
4,700.00	4,479.02	4,631.70	4,549.57	25.44	17.41	145.26	-185.81	711.33	653.55	619.40	34.14	19.141	
4,800.00	4,571.29	4,729.28	4,644.57	26.24	17.88	145.42	-190.98	733.01	675.34	640.27	35.07	19.259	
4,900.00	4,663.57	4,826.86	4,739.57	27.03	18.36	145.57	-196.15	754.69	697.14	661.14	35.99	19.370	

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 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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>Offset Design</b> WELD_NRC 17-9 PAD - P_NRC 8-9 - P_NRC 8-9 - PLAN #1 1-5-10 RHS												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
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	Warning
5,000.00	4,755.85	4,924.44	4,834.57	27.82	18.84	145.71	-201.32	776.37	718.94	682.02	36.92	19.475	
5,100.00	4,848.12	5,022.02	4,929.57	28.62	19.32	145.84	-206.49	798.05	740.74	702.90	37.84	19.575	
5,200.00	4,940.40	5,119.60	5,024.57	29.41	19.80	145.96	-211.66	819.73	762.55	723.78	38.77	19.670	
5,300.00	5,032.68	5,217.18	5,119.57	30.21	20.28	146.08	-216.83	841.41	784.36	744.67	39.69	19.760	
5,400.00	5,124.96	5,314.76	5,214.57	31.00	20.76	146.19	-222.00	863.09	806.18	765.56	40.62	19.847	
5,503.07	5,220.07	5,415.34	5,312.49	31.82	21.26	146.30	-227.33	885.44	828.67	787.09	41.58	19.931	
5,600.00	5,310.13	5,510.21	5,404.86	32.49	21.72	146.56	-232.36	906.51	848.48	806.00	42.48	19.975	
5,700.00	5,404.25	5,608.63	5,500.68	33.05	22.21	146.67	-237.57	928.38	866.11	822.74	43.37	19.968	
5,800.00	5,499.50	5,707.48	5,596.91	33.56	22.70	146.61	-242.81	950.34	880.87	836.58	44.29	19.890	
5,900.00	5,595.75	5,800.00	5,687.01	34.01	23.14	146.44	-247.69	970.81	892.83	847.67	45.15	19.773	
6,000.00	5,692.89	5,899.23	5,774.33	34.42	23.44	146.27	-251.94	988.64	902.99	857.15	45.84	19.697	
6,100.00	5,790.80	5,975.81	5,859.57	34.78	23.71	146.14	-255.46	1,003.40	911.72	865.29	46.43	19.635	
6,200.00	5,889.36	6,062.50	5,945.34	35.08	23.94	146.03	-258.39	1,015.66	918.99	872.06	46.93	19.582	
6,300.00	5,988.44	6,149.29	6,031.54	35.34	24.15	145.95	-260.71	1,025.40	924.80	877.46	47.34	19.535	
6,400.00	6,087.94	6,236.15	6,118.08	35.54	24.32	145.90	-262.43	1,032.60	929.13	881.47	47.66	19.496	
6,500.00	6,187.72	6,323.06	6,204.85	35.70	24.46	145.86	-263.54	1,037.25	931.97	884.09	47.89	19.462	
6,600.00	6,287.67	6,409.99	6,291.76	35.81	24.58	145.85	-264.04	1,039.34	933.33	885.30	48.03	19.433	
6,636.33	6,324.00	6,442.23	6,324.00	35.84	24.61	-139.14	-264.07	1,039.47	933.45	885.39	48.06	19.423	
6,700.00	6,387.67	6,505.90	6,387.67	35.89	24.69	-139.14	-264.07	1,039.47	933.45	885.25	48.20	19.365	
6,800.00	6,487.67	6,605.90	6,487.67	35.97	24.80	-139.14	-264.07	1,039.47	933.45	885.01	48.44	19.269	
6,900.00	6,587.67	6,705.90	6,587.67	36.06	24.92	-139.14	-264.07	1,039.47	933.45	884.76	48.69	19.172	
7,000.00	6,687.67	6,805.90	6,687.67	36.15	25.05	-139.14	-264.07	1,039.47	933.45	884.52	48.93	19.076	
7,100.00	6,787.67	6,905.90	6,787.67	36.24	25.17	-139.14	-264.07	1,039.47	933.45	884.27	49.18	18.979	
7,200.00	6,887.67	7,005.90	6,887.67	36.33	25.29	-139.14	-264.07	1,039.47	933.45	884.01	49.44	18.882	
7,300.00	6,987.67	7,105.90	6,987.67	36.42	25.42	-139.14	-264.07	1,039.47	933.45	883.76	49.69	18.785	
7,400.00	7,087.67	7,205.90	7,087.67	36.51	25.55	-139.14	-264.07	1,039.47	933.45	883.50	49.95	18.688	
7,500.00	7,187.67	7,305.90	7,187.67	36.61	25.68	-139.14	-264.07	1,039.47	933.45	883.24	50.21	18.591	
7,600.00	7,287.67	7,405.90	7,287.67	36.70	25.81	-139.14	-264.07	1,039.47	933.45	882.98	50.47	18.494	
7,700.00	7,387.67	7,505.90	7,387.67	36.80	25.94	-139.14	-264.07	1,039.47	933.45	882.71	50.74	18.397	
7,800.00	7,487.67	7,605.90	7,487.67	36.89	26.07	-139.14	-264.07	1,039.47	933.45	882.44	51.01	18.300	
7,900.00	7,587.67	7,705.90	7,587.67	36.99	26.20	-139.14	-264.07	1,039.47	933.45	882.17	51.28	18.204	
8,000.00	7,687.67	7,805.90	7,687.67	37.09	26.34	-139.14	-264.07	1,039.47	933.45	881.90	51.55	18.107	
8,100.00	7,787.67	7,905.90	7,787.67	37.19	26.47	-139.14	-264.07	1,039.47	933.45	881.62	51.83	18.011	
8,200.00	7,887.67	8,005.90	7,887.67	37.29	26.61	-139.14	-264.07	1,039.47	933.45	881.34	52.11	17.914	
8,300.00	7,987.67	8,105.90	7,987.67	37.39	26.75	-139.14	-264.07	1,039.47	933.45	881.06	52.39	17.818	
8,400.00	8,087.67	8,205.90	8,087.67	37.50	26.89	-139.14	-264.07	1,039.47	933.45	880.78	52.67	17.723	
8,500.00	8,187.67	8,305.90	8,187.67	37.60	27.03	-139.14	-264.07	1,039.47	933.45	880.49	52.96	17.627	
8,539.07	8,226.74	8,344.97	8,226.74	37.64	27.09	-139.14	-264.07	1,039.47	933.45	880.38	53.07	17.590	
8,561.33	8,249.00	8,362.23	8,244.00	37.67	27.11	-139.14	-264.07	1,039.47	933.46	880.34	53.12	17.571	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 17-9 PAD - ROCKY MTN FUEL CO G UNIT #1 EXISTING - ROCKY MTN FUEL CO G UN												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Tooface (")	Offset Wellbore Centre +N/-S (ft) +E/-W (ft)		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	53.03	48.45	64.37	82.78				
100.00	100.00	81.00	81.00	0.10	1.62	53.03	48.45	64.37	80.57	78.85	1.72	46.962	
200.00	200.00	181.00	181.00	0.32	5.24	53.03	48.45	64.37	80.57	75.01	5.56	14.490	
300.00	300.00	281.00	281.00	0.55	9.24	53.03	48.45	64.37	80.57	70.78	9.79	8.234	
400.00	400.00	381.00	381.00	0.77	13.24	53.03	48.45	64.37	80.57	66.56	14.01	5.751	
500.00	500.00	481.00	481.00	0.99	17.24	53.03	48.45	64.37	80.57	62.33	18.23	4.418	
600.00	600.00	581.00	581.00	1.22	21.24	53.03	48.45	64.37	80.57	58.11	22.46	3.587	
700.00	700.00	681.00	681.00	1.44	25.24	53.03	48.45	64.37	80.57	53.88	26.68	3.019	
800.00	800.00	781.00	781.00	1.67	29.24	53.03	48.45	64.37	80.57	49.66	30.91	2.607	
900.00	900.00	881.00	881.00	1.89	33.24	53.03	48.45	64.37	80.57	45.43	35.13	2.293	
1,000.00	1,000.00	981.00	981.00	2.12	37.24	53.03	48.45	64.37	80.57	41.21	39.36	2.047	
1,085.00	1,085.00	1,066.00	1,066.00	2.31	40.64	53.03	48.45	64.37	80.57	37.62	42.95	1.876	
1,100.00	1,100.00	1,081.00	1,081.00	2.34	41.24	-21.98	48.45	64.37	80.53	36.95	43.58	1.848	
1,200.00	1,199.97	1,180.97	1,180.97	2.55	45.24	-22.62	48.45	64.37	78.43	30.68	47.75	1.642	
1,300.00	1,299.80	1,280.80	1,280.80	2.76	49.23	-24.40	48.45	64.37	73.15	21.28	51.87	1.410	Level 3
1,400.00	1,399.37	1,380.37	1,380.37	2.99	53.21	-27.85	48.45	64.37	64.85	8.92	55.93	1.159	Level 2
1,500.00	1,498.55	1,479.55	1,479.55	3.24	57.18	-34.27	48.45	64.37	53.92	-6.04	59.96	0.899	Level 1
1,600.00	1,597.23	1,578.23	1,578.23	3.51	61.13	-47.02	48.45	64.37	41.52	-22.61	64.13	0.647	Level 1
1,700.00	1,695.29	1,676.29	1,676.29	3.83	65.05	-73.82	48.45	64.37	31.45	-37.30	68.75	0.457	Level 1
1,740.71	1,735.00	1,716.00	1,716.00	3.97	66.64	-90.00	48.45	64.37	30.15	-40.46	70.61	0.427	Level 1, CC, ES, SF
1,800.00	1,792.60	1,773.60	1,773.60	4.19	68.94	-114.30	48.45	64.37	33.26	-39.43	72.69	0.458	Level 1
1,900.00	1,889.05	1,870.05	1,870.05	4.60	72.80	-142.16	48.45	64.37	50.44	-24.76	75.20	0.671	Level 1
2,000.00	1,984.52	1,965.52	1,965.52	5.08	76.62	-155.65	48.45	64.37	76.37	-1.42	77.80	0.982	Level 1
2,100.00	2,078.90	2,059.90	2,059.90	5.63	80.40	-162.70	48.45	64.37	107.53	27.09	80.45	1.337	Level 3
2,200.00	2,172.06	2,153.06	2,153.06	6.25	84.12	-166.86	48.45	64.37	142.76	59.77	83.00	1.720	
2,218.26	2,188.93	2,169.93	2,169.93	6.37	84.80	-167.43	48.45	64.37	149.60	66.15	83.45	1.793	
2,300.00	2,264.36	2,245.36	2,245.36	6.93	87.81	-169.60	48.45	64.37	180.56	94.20	86.36	2.091	
2,400.00	2,356.64	2,337.64	2,337.64	7.63	91.51	-171.42	48.45	64.37	218.65	128.66	89.99	2.430	
2,500.00	2,448.92	2,429.92	2,429.92	8.35	95.20	-172.70	48.45	64.37	256.87	163.21	93.66	2.743	
2,600.00	2,541.19	2,522.19	2,522.19	9.09	98.89	-173.65	48.45	64.37	295.17	197.83	97.34	3.032	
2,700.00	2,633.47	2,614.47	2,614.47	9.83	102.58	-174.38	48.45	64.37	333.53	232.49	101.04	3.301	
2,800.00	2,725.75	2,706.75	2,706.75	10.58	106.27	-174.96	48.45	64.37	371.92	267.17	104.75	3.551	
2,900.00	2,818.02	2,799.02	2,799.02	11.34	109.96	-175.44	48.45	64.37	410.34	301.87	108.47	3.783	
3,000.00	2,910.30	2,891.30	2,891.30	12.11	113.65	-175.83	48.45	64.37	448.78	336.59	112.19	4.000	
3,100.00	3,002.58	2,983.58	2,983.58	12.87	117.34	-176.16	48.45	64.37	487.23	371.32	115.92	4.203	
3,200.00	3,094.86	3,075.86	3,075.86	13.65	121.03	-176.44	48.45	64.37	525.70	406.06	119.65	4.394	
3,300.00	3,187.13	3,168.13	3,168.13	14.42	124.73	-176.68	48.45	64.37	564.18	440.80	123.38	4.573	
3,400.00	3,279.41	3,260.41	3,260.41	15.20	128.42	-176.89	48.45	64.37	602.66	475.54	127.11	4.741	
3,500.00	3,371.69	3,352.69	3,352.69	15.98	132.11	-177.08	48.45	64.37	641.15	510.30	130.85	4.900	
3,600.00	3,463.97	3,444.97	3,444.97	16.76	135.80	-177.25	48.45	64.37	679.64	545.05	134.59	5.050	
3,700.00	3,556.24	3,537.24	3,537.24	17.55	139.49	-177.39	48.45	64.37	718.14	579.81	138.33	5.191	
3,800.00	3,648.52	3,629.52	3,629.52	18.33	143.18	-177.53	48.45	64.37	756.64	614.57	142.08	5.326	
3,900.00	3,740.80	3,721.80	3,721.80	19.12	146.87	-177.65	48.45	64.37	795.15	649.33	145.82	5.453	
4,000.00	3,833.07	3,814.07	3,814.07	19.91	150.56	-177.75	48.45	64.37	833.66	684.09	149.57	5.574	
4,100.00	3,925.35	3,906.35	3,906.35	20.69	154.25	-177.85	48.45	64.37	872.17	718.85	153.31	5.689	
4,200.00	4,017.63	3,998.63	3,998.63	21.48	157.95	-177.94	48.45	64.37	910.68	753.62	157.06	5.798	
4,300.00	4,109.91	4,090.91	4,090.91	22.27	161.64	-178.03	48.45	64.37	949.19	788.38	160.81	5.903	
4,400.00	4,202.18	4,183.18	4,183.18	23.07	165.33	-178.10	48.45	64.37	987.71	823.15	164.56	6.002	
4,500.00	4,294.46	4,275.46	4,275.46	23.86	169.02	-178.18	48.45	64.37	1,026.23	857.92	168.31	6.097	
4,600.00	4,386.74	4,367.74	4,367.74	24.65	172.71	-178.24	48.45	64.37	1,064.75	892.69	172.06	6.188	
4,700.00	4,479.02	4,460.02	4,460.02	25.44	176.40	-178.30	48.45	64.37	1,103.26	927.46	175.81	6.275	
4,800.00	4,571.29	4,552.29	4,552.29	26.24	180.09	-178.36	48.45	64.37	1,141.79	962.23	179.56	6.359	

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

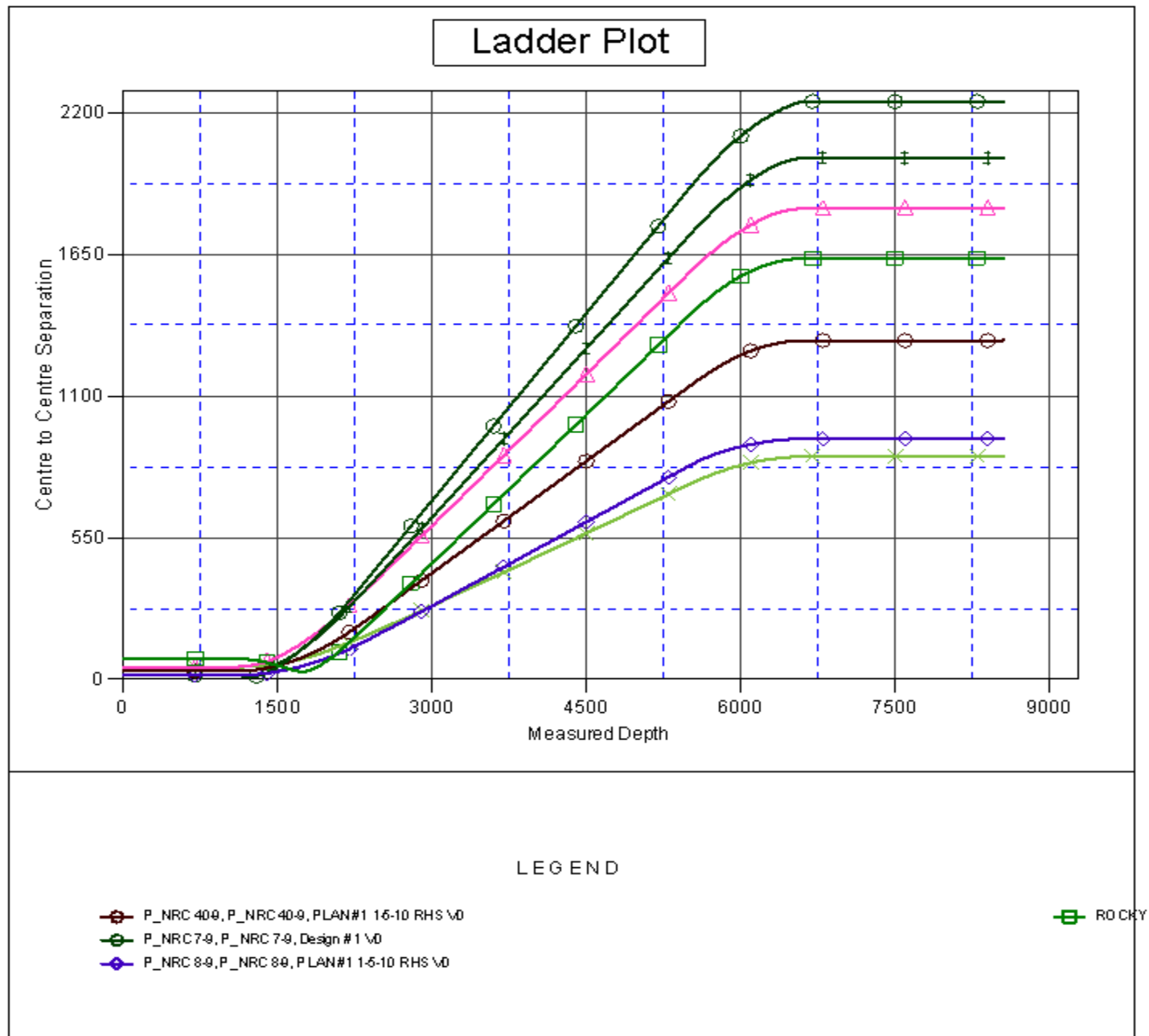
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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>Offset Design</b> WELD_NRC 17-9 PAD - ROCKY MTN FUEL CO G UNIT #1 EXISTING - ROCKY MTN FUEL CO G UN												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-UNKNOWN												<b>Offset Well Error:</b>	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
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	Warning
4,900.00	4,663.57	4,644.57	4,644.57	27.03	183.78	-178.41	48.45	64.37	1,180.31	996.99	183.31	6.439	
5,000.00	4,755.85	4,736.85	4,736.85	27.82	187.47	-178.46	48.45	64.37	1,218.83	1,031.76	187.06	6.516	
5,100.00	4,848.12	4,829.12	4,829.12	28.62	191.16	-178.51	48.45	64.37	1,257.35	1,066.54	190.82	6.589	
5,200.00	4,940.40	4,921.40	4,921.40	29.41	194.86	-178.56	48.45	64.37	1,295.88	1,101.31	194.57	6.660	
5,300.00	5,032.68	5,013.68	5,013.68	30.21	198.55	-178.60	48.45	64.37	1,334.40	1,136.08	198.32	6.728	
5,400.00	5,124.96	5,105.96	5,105.96	31.00	202.24	-178.64	48.45	64.37	1,372.93	1,170.85	202.08	6.794	
5,503.07	5,220.07	5,201.07	5,201.07	31.82	206.04	-178.67	48.45	64.37	1,412.63	1,206.69	205.95	6.859	
5,600.00	5,310.13	5,291.13	5,291.13	32.49	209.65	-178.72	48.45	64.37	1,448.46	1,236.31	212.15	6.827	
5,700.00	5,404.25	5,385.25	5,385.25	33.05	213.41	-178.77	48.45	64.37	1,482.20	1,263.71	218.49	6.784	
5,800.00	5,499.50	5,480.50	5,480.50	33.56	217.22	-178.81	48.45	64.37	1,512.64	1,287.97	224.67	6.733	
5,900.00	5,595.75	5,576.75	5,576.75	34.01	221.07	-178.84	48.45	64.37	1,539.74	1,309.06	230.68	6.675	
6,000.00	5,692.89	5,673.89	5,673.89	34.42	224.96	-178.87	48.45	64.37	1,563.46	1,326.96	236.50	6.611	
6,100.00	5,790.80	5,771.80	5,771.80	34.78	228.87	-178.89	48.45	64.37	1,583.78	1,341.68	242.11	6.542	
6,200.00	5,889.36	5,870.36	5,870.36	35.08	232.81	-178.91	48.45	64.37	1,600.67	1,353.20	247.48	6.468	
6,300.00	5,988.44	5,969.44	5,969.44	35.34	236.78	-178.92	48.45	64.37	1,614.11	1,361.52	252.59	6.390	
6,400.00	6,087.94	6,068.94	6,068.94	35.54	240.76	-178.93	48.45	64.37	1,624.09	1,366.65	257.44	6.309	
6,500.00	6,187.72	6,168.72	6,168.72	35.70	244.75	-178.94	48.45	64.37	1,630.59	1,368.60	261.99	6.224	
6,600.00	6,287.67	6,268.67	6,268.67	35.81	248.75	-178.94	48.45	64.37	1,633.60	1,367.38	266.22	6.136	
6,636.33	6,324.00	6,305.00	6,305.00	35.84	250.20	-103.94	48.45	64.37	1,633.83	1,366.15	267.68	6.104	
6,700.00	6,387.67	6,368.67	6,368.67	35.89	252.75	-103.94	48.45	64.37	1,633.83	1,363.51	270.32	6.044	
6,800.00	6,487.67	6,468.67	6,468.67	35.97	256.75	-103.94	48.45	64.37	1,633.83	1,359.35	274.48	5.952	
6,900.00	6,587.67	6,568.67	6,568.67	36.06	260.75	-103.94	48.45	64.37	1,633.83	1,355.19	278.64	5.864	
7,000.00	6,687.67	6,668.67	6,668.67	36.15	264.75	-103.94	48.45	64.37	1,633.83	1,351.03	282.80	5.777	
7,100.00	6,787.67	6,768.67	6,768.67	36.24	268.75	-103.94	48.45	64.37	1,633.83	1,346.87	286.96	5.694	
7,200.00	6,887.67	6,868.67	6,868.67	36.33	272.75	-103.94	48.45	64.37	1,633.83	1,342.71	291.12	5.612	
7,300.00	6,987.67	6,968.67	6,968.67	36.42	276.75	-103.94	48.45	64.37	1,633.83	1,338.54	295.29	5.533	
7,400.00	7,087.67	7,068.67	7,068.67	36.51	280.75	-103.94	48.45	64.37	1,633.83	1,334.37	299.46	5.456	
7,500.00	7,187.67	7,168.67	7,168.67	36.61	284.75	-103.94	48.45	64.37	1,633.83	1,330.21	303.62	5.381	
7,600.00	7,287.67	7,268.67	7,268.67	36.70	288.75	-103.94	48.45	64.37	1,633.83	1,326.04	307.79	5.308	
7,700.00	7,387.67	7,368.67	7,368.67	36.80	292.75	-103.94	48.45	64.37	1,633.83	1,321.87	311.96	5.237	
7,800.00	7,487.67	7,468.67	7,468.67	36.89	296.75	-103.94	48.45	64.37	1,633.83	1,317.70	316.13	5.168	
7,900.00	7,587.67	7,568.67	7,568.67	36.99	300.75	-103.94	48.45	64.37	1,633.83	1,313.53	320.30	5.101	
8,000.00	7,687.67	7,668.67	7,668.67	37.09	304.75	-103.94	48.45	64.37	1,633.83	1,309.35	324.48	5.035	
8,100.00	7,787.67	7,768.67	7,768.67	37.19	308.75	-103.94	48.45	64.37	1,633.83	1,305.18	328.65	4.971	
8,200.00	7,887.67	7,868.67	7,868.67	37.29	312.75	-103.94	48.45	64.37	1,633.83	1,301.01	332.83	4.909	
8,300.00	7,987.67	7,968.67	7,968.67	37.39	316.75	-103.94	48.45	64.37	1,633.83	1,296.83	337.00	4.848	
8,400.00	8,087.67	8,068.67	8,068.67	37.50	320.75	-103.94	48.45	64.37	1,633.83	1,292.65	341.18	4.789	
8,500.00	8,187.67	8,168.67	8,168.67	37.60	324.75	-103.94	48.45	64.37	1,633.83	1,288.47	345.36	4.731	
8,561.33	8,249.00	8,230.00	8,230.00	37.67	327.20	-103.94	48.45	64.37	1,633.83	1,285.91	347.92	4.696	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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

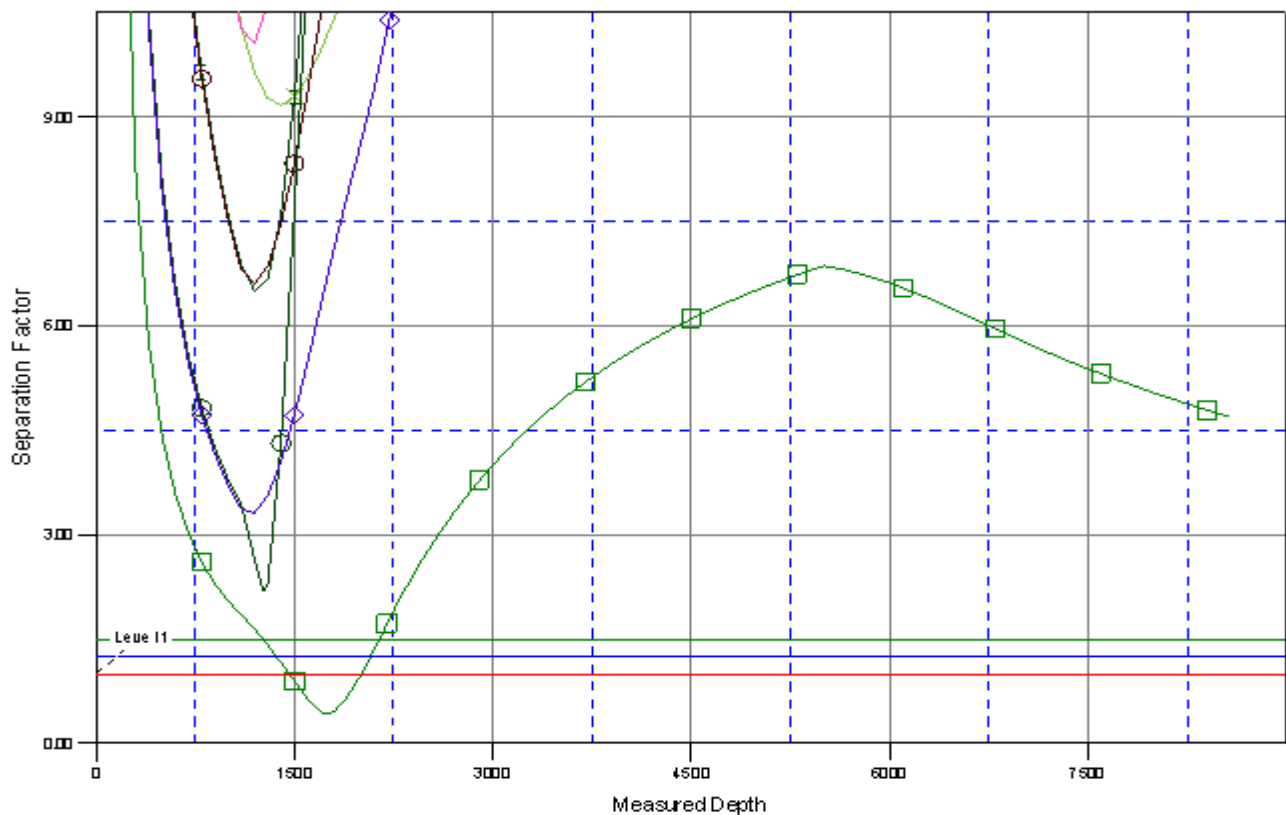
Reference Depths are relative to WELL @ 5012.00ft (Original Well Elev) Coordinates are relative to: P\_NRC 41-9  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_NRC 41-9
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 17-9 PAD	<b>MD Reference:</b>	WELL @ 5012.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 41-9	<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 41-9	<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 @ 5012.00ft (Original Well Elev) Coordinates are relative to: P\_NRC 41-9  
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°

## Separation Factor Plot



### LEGEND

- P\_NRC 40-9, P\_NRC 40-9, PLAN #1 1-5-10 RHS \0
- P\_NRC 7-9, P\_NRC 7-9, Design #1 \0
- P\_NRC 8-9, P\_NRC 8-9, PLAN #1 1-5-10 RHS \0

ROCKY