



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_NRC 18-9 PAD**

**P\_NRC 22-9**

**P\_NRC 22-9**

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

## **Standard Planning Report**

**06 January, 2010**





Azimuths to True North  
Magnetic North: 9.10°  
  
Magnetic Field  
Strength: 53092.0nT  
Dip Angle: 66.81°  
Date: 1/6/2010  
Model: IGRF2010

#### WELL DETAILS: P\_NRC 22-9

+N/-S	+E/-W	Northing	Ground Level: Easting	5021.00 Latitude	Longitude	Slot
-0.03	-15.95	1268599.03	3167699.37	40° 4' 8.900 N	104° 54' 2.844 W	

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3268.00	3333.08	PARKMAN
4743.00	4866.02	SUSSEX
5213.00	5354.49	SHANNON
7383.00	7549.78	NIO A
7723.00	7889.78	CODELL
8173.00	8339.78	JSAND

#### SECTION DETAILS

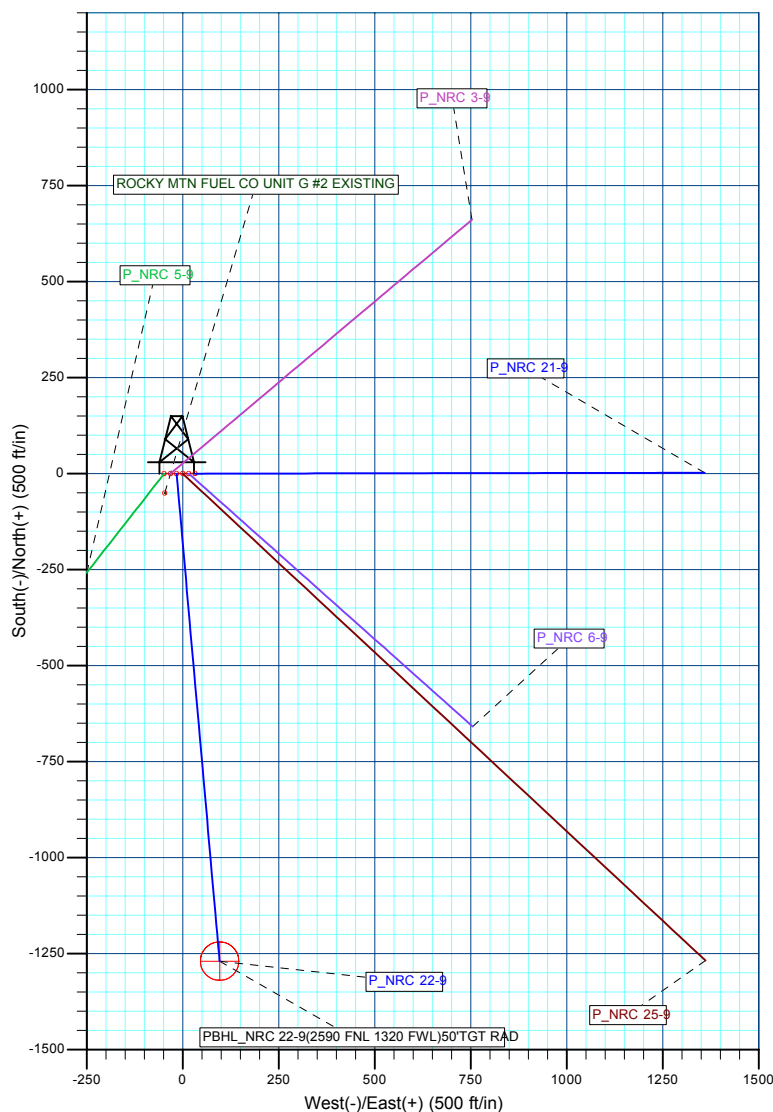
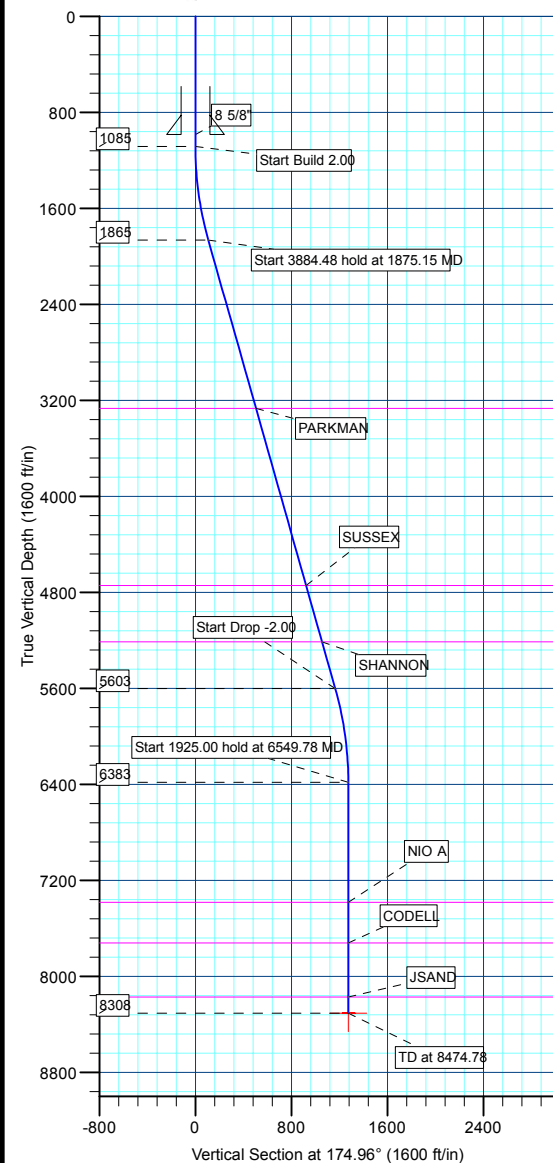
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	-0.03	-15.95	0.00	0.00	0.00	
1085.00	0.00	0.00	1085.00	-0.03	-15.95	0.00	0.00	0.00	
1875.15	15.80	174.96	1865.17	-107.89	-6.44	2.00	174.96	108.28	
5759.63	15.80	174.96	5602.83	-1161.66	86.49	0.00	0.00	1166.14	
6549.78	0.00	0.00	6383.00	-1269.52	96.00	2.00	180.00	1274.42	
8474.78	0.00	0.00	8308.00	-1269.52	96.00	0.00	0.00	1274.42	PBHL_NRC 22-9(2590 FNL 1320 FWL)50'TGT RAD

#### CASING DETAILS

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



B ELEV:WELL @ 5036.00ft (Original Well Elev)  
GRD ELEV: 5021.00



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8308.00	-1269.51	96.00	1267330.34	3167819.90	40° 3' 56.354 N	104° 54' 1.404 W	Circle (Radius: 50.00)

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 18-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 22-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 22-9		
<b>Design:</b>	PLAN #1 1-6-10 RHS		

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site						WELD_NRC 18-9 PAD, SECTION 9 T1N R67W											
Site Position:						Northing:			1,268,599.17 ft			Latitude:			40° 4' 8.900 N		
From:			Lat/Long			Easting:			3,167,715.32 ft			Longitude:			104° 54' 2.639 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.39 °		

Well	P_NRC 22-9					
Well Position	+N/-S	-0.03 ft	Northing:	1,268,599.03 ft	Latitude:	40° 4' 8.900 N
	+E/-W	-15.95 ft	Easting:	3,167,699.37 ft	Longitude:	104° 54' 2.844 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,021.00 ft

<b>Wellbore</b>	P_NRC 22-9				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	1/6/2010	9.10	66.81	53,092

<b>Design</b>	PLAN #1 1-6-10 RHS			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	-0.03	-15.95	174.96

<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	-0.03	-15.95	0.00	0.00	0.00	0.00	
1,085.00	0.00	0.00	1,085.00	-0.03	-15.95	0.00	0.00	0.00	0.00	
1,875.15	15.80	174.96	1,865.17	-107.89	-6.44	2.00	2.00	0.00	174.96	
5,759.63	15.80	174.96	5,602.83	-1,161.66	86.49	0.00	0.00	0.00	0.00	
6,549.78	0.00	0.00	6,383.00	-1,269.52	96.00	2.00	-2.00	0.00	180.00	
8,474.78	0.00	0.00	8,308.00	-1,269.52	96.00	0.00	0.00	0.00	0.00	PBHL_NRC 22-9(2)

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 18-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 22-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 22-9		
<b>Design:</b>	PLAN #1 1-6-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
<b>Start Build 2.00</b>									
1,085.00	0.00	0.00	1,085.00	-0.03	-15.95	0.00	0.00	0.00	0.00
1,100.00	0.30	174.96	1,100.00	-0.06	-15.95	0.04	2.00	2.00	0.00
1,200.00	2.30	174.96	1,199.97	-2.32	-15.75	2.31	2.00	2.00	0.00
1,300.00	4.30	174.96	1,299.80	-8.06	-15.24	8.06	2.00	2.00	0.00
1,400.00	6.30	174.96	1,399.37	-17.26	-14.43	17.30	2.00	2.00	0.00
1,500.00	8.30	174.96	1,498.55	-29.92	-13.32	30.01	2.00	2.00	0.00
1,600.00	10.30	174.96	1,597.23	-46.01	-11.90	46.17	2.00	2.00	0.00
1,700.00	12.30	174.96	1,695.29	-65.53	-10.18	65.76	2.00	2.00	0.00
1,800.00	14.30	174.96	1,792.60	-88.45	-8.16	88.76	2.00	2.00	0.00
<b>Start 3884.48 hold at 1875.15 MD</b>									
1,875.15	15.80	174.96	1,865.17	-107.89	-6.44	108.28	2.00	2.00	0.00
1,900.00	15.80	174.96	1,889.08	-114.63	-5.85	115.05	0.00	0.00	0.00
2,000.00	15.80	174.96	1,985.30	-141.75	-3.45	142.28	0.00	0.00	0.00
2,100.00	15.80	174.96	2,081.52	-168.88	-1.06	169.51	0.00	0.00	0.00
2,200.00	15.80	174.96	2,177.74	-196.01	1.33	196.74	0.00	0.00	0.00
2,300.00	15.80	174.96	2,273.96	-223.14	3.72	223.98	0.00	0.00	0.00
2,400.00	15.80	174.96	2,370.18	-250.27	6.12	251.21	0.00	0.00	0.00
2,500.00	15.80	174.96	2,466.40	-277.39	8.51	278.44	0.00	0.00	0.00
2,600.00	15.80	174.96	2,562.62	-304.52	10.90	305.68	0.00	0.00	0.00
2,700.00	15.80	174.96	2,658.84	-331.65	13.29	332.91	0.00	0.00	0.00
2,800.00	15.80	174.96	2,755.06	-358.78	15.68	360.14	0.00	0.00	0.00
2,900.00	15.80	174.96	2,851.28	-385.90	18.08	387.38	0.00	0.00	0.00
3,000.00	15.80	174.96	2,947.50	-413.03	20.47	414.61	0.00	0.00	0.00
3,100.00	15.80	174.96	3,043.72	-440.16	22.86	441.84	0.00	0.00	0.00
3,200.00	15.80	174.96	3,139.95	-467.29	25.25	469.08	0.00	0.00	0.00
3,300.00	15.80	174.96	3,236.17	-494.42	27.65	496.31	0.00	0.00	0.00
<b>PARKMAN</b>									
3,333.08	15.80	174.96	3,268.00	-503.39	28.44	505.32	0.00	0.00	0.00
3,400.00	15.80	174.96	3,332.39	-521.54	30.04	523.54	0.00	0.00	0.00
3,500.00	15.80	174.96	3,428.61	-548.67	32.43	550.78	0.00	0.00	0.00
3,600.00	15.80	174.96	3,524.83	-575.80	34.82	578.01	0.00	0.00	0.00
3,700.00	15.80	174.96	3,621.05	-602.93	37.22	605.24	0.00	0.00	0.00
3,800.00	15.80	174.96	3,717.27	-630.05	39.61	632.47	0.00	0.00	0.00
3,900.00	15.80	174.96	3,813.49	-657.18	42.00	659.71	0.00	0.00	0.00
4,000.00	15.80	174.96	3,909.71	-684.31	44.39	686.94	0.00	0.00	0.00
4,100.00	15.80	174.96	4,005.93	-711.44	46.79	714.17	0.00	0.00	0.00
4,200.00	15.80	174.96	4,102.15	-738.57	49.18	741.41	0.00	0.00	0.00
4,300.00	15.80	174.96	4,198.37	-765.69	51.57	768.64	0.00	0.00	0.00
4,400.00	15.80	174.96	4,294.59	-792.82	53.96	795.87	0.00	0.00	0.00
4,500.00	15.80	174.96	4,390.81	-819.95	56.35	823.11	0.00	0.00	0.00
4,600.00	15.80	174.96	4,487.03	-847.08	58.75	850.34	0.00	0.00	0.00
4,700.00	15.80	174.96	4,583.25	-874.20	61.14	877.57	0.00	0.00	0.00
4,800.00	15.80	174.96	4,679.47	-901.33	63.53	904.81	0.00	0.00	0.00
<b>SUSSEX</b>									
4,866.02	15.80	174.96	4,743.00	-919.24	65.11	922.79	0.00	0.00	0.00
4,900.00	15.80	174.96	4,775.69	-928.46	65.92	932.04	0.00	0.00	0.00
5,000.00	15.80	174.96	4,871.91	-955.59	68.32	959.27	0.00	0.00	0.00
5,100.00	15.80	174.96	4,968.13	-982.72	70.71	986.50	0.00	0.00	0.00
5,200.00	15.80	174.96	5,064.35	-1,009.84	73.10	1,013.74	0.00	0.00	0.00
5,300.00	15.80	174.96	5,160.57	-1,036.97	75.49	1,040.97	0.00	0.00	0.00
<b>SHANNON</b>									
5,354.49	15.80	174.96	5,213.00	-1,051.75	76.80	1,055.81	0.00	0.00	0.00

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 18-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 22-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 22-9		
<b>Design:</b>	PLAN #1 1-6-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	15.80	174.96	5,256.79	-1,064.10	77.89	1,068.20	0.00	0.00	0.00
5,500.00	15.80	174.96	5,353.01	-1,091.23	80.28	1,095.44	0.00	0.00	0.00
5,600.00	15.80	174.96	5,449.23	-1,118.35	82.67	1,122.67	0.00	0.00	0.00
5,700.00	15.80	174.96	5,545.45	-1,145.48	85.06	1,149.90	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,759.63	15.80	174.96	5,602.83	-1,161.66	86.49	1,166.14	0.00	0.00	0.00
5,800.00	15.00	174.96	5,641.75	-1,172.34	87.43	1,176.86	2.00	-2.00	0.00
5,900.00	13.00	174.96	5,738.78	-1,196.43	89.56	1,201.05	2.00	-2.00	0.00
6,000.00	11.00	174.96	5,836.59	-1,217.13	91.38	1,221.83	2.00	-2.00	0.00
6,100.00	9.00	174.96	5,935.07	-1,234.42	92.91	1,239.18	2.00	-2.00	0.00
6,200.00	7.00	174.96	6,034.09	-1,248.27	94.13	1,253.09	2.00	-2.00	0.00
6,300.00	5.00	174.96	6,133.54	-1,258.68	95.05	1,263.54	2.00	-2.00	0.00
6,400.00	3.00	174.96	6,233.29	-1,265.62	95.66	1,270.51	2.00	-2.00	0.00
6,500.00	1.00	174.96	6,333.22	-1,269.09	95.96	1,273.99	2.00	-2.00	0.00
<b>Start 1925.00 hold at 6549.78 MD</b>									
6,549.78	0.00	0.00	6,383.00	-1,269.52	96.00	1,274.42	2.00	-2.00	0.00
6,600.00	0.00	0.00	6,433.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
6,700.00	0.00	0.00	6,533.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
6,800.00	0.00	0.00	6,633.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
6,900.00	0.00	0.00	6,733.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,000.00	0.00	0.00	6,833.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,100.00	0.00	0.00	6,933.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,200.00	0.00	0.00	7,033.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,300.00	0.00	0.00	7,133.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,400.00	0.00	0.00	7,233.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,500.00	0.00	0.00	7,333.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
<b>NIO A</b>									
7,549.78	0.00	0.00	7,383.00	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,600.00	0.00	0.00	7,433.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,700.00	0.00	0.00	7,533.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,800.00	0.00	0.00	7,633.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
<b>CODELL</b>									
7,889.78	0.00	0.00	7,723.00	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
7,900.00	0.00	0.00	7,733.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
8,000.00	0.00	0.00	7,833.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
8,100.00	0.00	0.00	7,933.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
8,200.00	0.00	0.00	8,033.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
8,300.00	0.00	0.00	8,133.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
<b>JSAND</b>									
8,339.78	0.00	0.00	8,173.00	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
8,400.00	0.00	0.00	8,233.22	-1,269.52	96.00	1,274.42	0.00	0.00	0.00
<b>PBHL_NRC 22-9(2590 FNL 1320 FWL)50'TGT RAD</b>									
8,474.78	0.00	0.00	8,308.00	-1,269.52	96.00	1,274.42	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site:</b>	WELD_NRC 18-9 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_NRC 22-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 22-9		
<b>Design:</b>	PLAN #1 1-6-10 RHS		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
PBHL_NRC 22-9(259	0.00	0.00	8,308.00	-1,269.51	96.00	1,267,330.34	3,167,819.90	40° 3' 56.354 N	104° 54' 1.404 W
- plan misses target center by 0.01ft at 8474.78ft MD (8308.00 TVD, -1269.52 N, 96.00 E)									
- Circle (radius 50.00)									

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

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(ft)	(ft)		Name	Lithology	(°)	(°)
3,333.08	3,268.00		PARKMAN			
4,866.02	4,743.00		SUSSEX			
5,354.49	5,213.00		SHANNON			
7,549.78	7,383.00		NIO A			
7,889.78	7,723.00		CODELL			
8,339.78	8,173.00		JSAND			

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
1,085.00	1,085.00	-0.03	-15.95	Start Build 2.00	
1,875.15	1,865.17	-107.89	-6.44	Start 3884.48 hold at 1875.15 MD	
5,759.63	5,602.83	-1,161.66	86.49	Start Drop -2.00	
6,549.78	6,383.00	-1,269.52	96.00	Start 1925.00 hold at 6549.78 MD	
8,474.78	8,308.00	-1,269.52	96.00	TD at 8474.78	



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_NRC 18-9 PAD  
P\_NRC 22-9**

**P\_NRC 22-9  
PLAN #1 1-6-10 RHS**

## **Anticollision Report**

**06 January, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

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

<b>Survey Tool Program</b>	<b>Date</b>	1/6/2010		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,474.78	PLAN #1 1-6-10 RHS (P_NRC 22-9)	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 18-9 PAD						
P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	48.14	43.52	10.422	CC
P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.75	48.17	43.49	10.295	ES
P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS	1,200.00	1,198.02	50.26	45.21	9.964	SF
P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS	300.00	300.00	15.95	14.86	14.634	CC, ES
P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS	500.00	498.87	21.55	19.62	11.122	SF
P_NRC 3-9 - P_NRC 3-9 - PLAN #1 1-6-10 RHS	1,224.99	1,225.32	14.75	9.58	2.855	CC, ES, SF
P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	32.19	27.57	6.968	CC
P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.90	32.21	27.53	6.886	ES
P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS	1,200.00	1,199.19	33.80	28.78	6.730	SF
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	31.91	27.29	6.907	CC
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.88	31.93	27.25	6.826	ES
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,200.00	1,199.03	33.42	28.39	6.649	SF
ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY	1,608.68	1,585.76	35.11	-29.71	0.542	Level 1, CC, ES, SF

<b>Offset Design</b>	WELD_NRC 18-9 PAD - P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS											<b>Offset Site Error:</b>	0.00 ft
<b>Survey Program:</b>	0-MWD											<b>Offset Well Error:</b>	0.00 ft
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	Warning
0.00	0.00	0.00	0.00	0.00	0.00	90.00	-0.03	32.19	48.14				
100.00	100.00	100.00	100.00	0.10	0.10	90.00	-0.03	32.19	48.14	47.95	0.19	251.962	
200.00	200.00	200.00	200.00	0.32	0.32	90.00	-0.03	32.19	48.14	47.50	0.64	75.147	
300.00	300.00	300.00	300.00	0.55	0.55	90.00	-0.03	32.19	48.14	47.05	1.09	44.158	
400.00	400.00	400.00	400.00	0.77	0.77	90.00	-0.03	32.19	48.14	46.60	1.54	31.265	
500.00	500.00	500.00	500.00	0.99	0.99	90.00	-0.03	32.19	48.14	46.15	1.99	24.200	
600.00	600.00	600.00	600.00	1.22	1.22	90.00	-0.03	32.19	48.14	45.70	2.44	19.739	
700.00	700.00	700.00	700.00	1.44	1.44	90.00	-0.03	32.19	48.14	45.25	2.89	16.667	
800.00	800.00	800.00	800.00	1.67	1.67	90.00	-0.03	32.19	48.14	44.80	3.34	14.422	
900.00	900.00	900.00	900.00	1.89	1.89	90.00	-0.03	32.19	48.14	44.35	3.79	12.710	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.00	-0.03	32.19	48.14	43.90	4.24	11.362	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.00	-0.03	32.19	48.14	43.52	4.62	10.422	CC
1,100.00	1,100.00	1,099.75	1,099.75	2.34	2.34	-85.00	-0.03	32.22	48.17	43.49	4.68	10.295	ES
1,200.00	1,199.97	1,198.02	1,197.99	2.51	2.54	-87.50	-0.03	34.41	50.26	45.21	5.04	9.964	SF
1,300.00	1,299.80	1,295.92	1,295.73	2.69	2.74	-92.93	-0.02	39.95	55.92	50.50	5.42	10.314	

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



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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 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
1,400.00	1,399.37	1,393.14	1,392.54	2.89	2.96	-99.53	0.00	48.74	65.84	60.02	5.82	11.316	
1,500.00	1,498.55	1,489.37	1,488.03	3.11	3.19	-105.77	0.02	60.68	80.51	74.27	6.24	12.901	
1,600.00	1,597.23	1,584.34	1,581.81	3.36	3.45	-110.90	0.04	75.59	100.07	93.37	6.70	14.945	
1,700.00	1,695.29	1,677.76	1,673.54	3.66	3.74	-114.82	0.07	93.29	124.43	117.24	7.19	17.304	
1,800.00	1,792.60	1,769.41	1,762.92	4.00	4.06	-117.72	0.11	113.55	153.41	145.68	7.73	19.839	
1,875.15	1,865.17	1,836.98	1,828.38	4.30	4.33	-119.36	0.14	130.31	178.11	169.94	8.18	21.787	
1,900.00	1,889.08	1,859.09	1,849.70	4.41	4.42	-119.95	0.15	136.13	186.77	178.43	8.33	22.414	
2,000.00	1,985.30	1,949.22	1,936.24	4.85	4.82	-121.62	0.19	161.33	222.96	213.96	9.00	24.782	
2,100.00	2,081.52	2,042.12	2,025.29	5.32	5.27	-122.80	0.23	187.81	259.68	249.97	9.71	26.747	
2,200.00	2,177.74	2,135.02	2,114.34	5.80	5.74	-123.68	0.28	214.28	296.47	286.02	10.45	28.372	
2,300.00	2,273.96	2,227.92	2,203.39	6.30	6.22	-124.37	0.32	240.75	333.31	322.10	11.21	29.725	
2,400.00	2,370.18	2,320.82	2,292.44	6.81	6.72	-124.92	0.37	267.22	370.18	358.19	12.00	30.859	
2,500.00	2,466.40	2,413.72	2,381.49	7.33	7.22	-125.38	0.41	293.69	407.08	394.29	12.79	31.819	
2,600.00	2,562.62	2,506.62	2,470.53	7.85	7.73	-125.75	0.46	320.16	444.00	430.40	13.60	32.637	
2,700.00	2,658.84	2,599.52	2,559.58	8.38	8.25	-126.07	0.50	346.64	480.93	466.50	14.42	33.340	
2,800.00	2,755.06	2,692.42	2,648.63	8.92	8.77	-126.35	0.55	373.11	517.87	502.62	15.25	33.948	
2,900.00	2,851.28	2,785.32	2,737.68	9.46	9.30	-126.58	0.59	399.58	554.82	538.73	16.09	34.479	
3,000.00	2,947.50	2,878.22	2,826.73	10.00	9.83	-126.79	0.63	426.05	591.78	574.84	16.94	34.944	
3,100.00	3,043.72	2,971.12	2,915.78	10.54	10.36	-126.97	0.68	452.52	628.74	610.96	17.78	35.355	
3,200.00	3,139.95	3,064.02	3,004.83	11.09	10.89	-127.14	0.72	478.99	665.71	647.07	18.64	35.720	
3,300.00	3,236.17	3,156.92	3,093.88	11.64	11.43	-127.28	0.77	505.47	702.68	683.19	19.49	36.045	
3,400.00	3,332.39	3,249.82	3,182.92	12.19	11.97	-127.41	0.81	531.94	739.66	719.30	20.36	36.337	
3,500.00	3,428.61	3,342.72	3,271.97	12.74	12.51	-127.53	0.86	558.41	776.64	755.42	21.22	36.601	
3,600.00	3,524.83	3,435.62	3,361.02	13.29	13.05	-127.64	0.90	584.88	813.62	791.54	22.09	36.839	
3,700.00	3,621.05	3,528.52	3,450.07	13.85	13.60	-127.74	0.95	611.35	850.61	827.65	22.96	37.055	
3,800.00	3,717.27	3,621.42	3,539.12	14.40	14.14	-127.83	0.99	637.82	887.59	863.77	23.83	37.253	
3,900.00	3,813.49	3,714.32	3,628.17	14.96	14.69	-127.91	1.04	664.30	924.58	899.88	24.70	37.433	
4,000.00	3,909.71	3,807.22	3,717.22	15.52	15.23	-127.99	1.08	690.77	961.57	935.99	25.57	37.599	
4,100.00	4,005.93	3,900.12	3,806.26	16.08	15.78	-128.06	1.13	717.24	998.56	972.11	26.45	37.752	
4,200.00	4,102.15	3,993.02	3,895.31	16.63	16.33	-128.13	1.17	743.71	1,035.55	1,008.22	27.33	37.893	
4,300.00	4,198.37	4,085.92	3,984.36	17.19	16.88	-128.19	1.22	770.18	1,072.54	1,044.34	28.21	38.023	
4,400.00	4,294.59	4,178.82	4,073.41	17.75	17.43	-128.24	1.26	796.65	1,109.54	1,080.45	29.09	38.144	
4,500.00	4,390.81	4,271.72	4,162.46	18.31	17.98	-128.30	1.30	823.13	1,146.53	1,116.56	29.97	38.257	
4,600.00	4,487.03	4,364.62	4,251.51	18.87	18.53	-128.35	1.35	849.60	1,183.53	1,152.68	30.85	38.362	
4,700.00	4,583.25	4,457.52	4,340.56	19.43	19.08	-128.40	1.39	876.07	1,220.53	1,188.79	31.73	38.460	
4,800.00	4,679.47	4,550.42	4,429.60	19.99	19.63	-128.44	1.44	902.54	1,257.52	1,224.90	32.62	38.552	
4,900.00	4,775.69	4,643.32	4,518.65	20.56	20.18	-128.48	1.48	929.01	1,294.52	1,261.02	33.50	38.638	
5,000.00	4,871.91	4,736.22	4,607.70	21.12	20.73	-128.52	1.53	955.48	1,331.52	1,297.13	34.39	38.719	
5,100.00	4,968.13	4,829.12	4,696.75	21.68	21.28	-128.56	1.57	981.96	1,368.52	1,333.24	35.28	38.795	
5,200.00	5,064.35	4,922.02	4,785.80	22.24	21.84	-128.59	1.62	1,008.43	1,405.52	1,369.36	36.16	38.867	
5,300.00	5,160.57	5,014.92	4,874.85	22.80	22.39	-128.63	1.66	1,034.90	1,442.52	1,405.47	37.05	38.935	
5,400.00	5,256.79	5,107.82	4,963.90	23.37	22.94	-128.66	1.71	1,061.37	1,479.52	1,441.58	37.94	39.000	
5,500.00	5,353.01	5,200.72	5,052.94	23.93	23.50	-128.69	1.75	1,087.84	1,516.52	1,477.69	38.82	39.060	
5,600.00	5,449.23	5,293.62	5,141.99	24.49	24.05	-128.72	1.80	1,114.31	1,553.52	1,513.81	39.71	39.118	
5,700.00	5,545.45	5,386.52	5,231.04	25.06	24.60	-128.75	1.84	1,140.79	1,590.52	1,549.92	40.60	39.173	
5,759.63	5,602.83	5,441.92	5,284.14	25.39	24.93	-128.76	1.87	1,156.57	1,612.58	1,571.45	41.13	39.204	
5,800.00	5,641.75	5,479.49	5,320.15	25.58	25.16	-129.01	1.88	1,167.28	1,627.36	1,585.82	41.53	39.182	
5,900.00	5,738.78	5,573.09	5,409.87	25.95	25.72	-129.53	1.93	1,193.95	1,662.50	1,620.06	42.44	39.173	
6,000.00	5,836.59	5,667.36	5,500.23	26.29	26.28	-129.91	1.97	1,220.81	1,695.57	1,652.26	43.31	39.149	
6,100.00	5,935.07	5,780.74	5,609.01	26.58	26.92	-130.11	2.03	1,252.79	1,726.40	1,682.20	44.20	39.063	
6,200.00	6,034.09	5,948.44	5,771.70	26.83	27.60	-130.13	2.10	1,293.35	1,752.26	1,707.19	45.07	38.879	
6,300.00	6,133.54	6,120.93	5,941.23	27.05	28.16	-130.14	2.15	1,325.06	1,771.90	1,726.08	45.81	38.678	

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

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<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_NRC 18-9 PAD - P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 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
6,400.00	6,233.29	6,297.02	6,115.94	27.22	28.59	-130.15	2.19	1,346.85	1,785.10	1,738.69	46.41	38.461	
6,500.00	6,333.22	6,475.33	6,293.88	27.35	28.88	-130.15	2.21	1,357.94	1,791.74	1,744.88	46.86	38.235	
6,549.78	6,383.00	6,564.47	6,383.00	27.40	28.98	44.81	2.21	1,359.33	1,792.56	1,745.53	47.04	38.108	
6,600.00	6,433.22	6,614.69	6,433.22	27.46	29.03	44.81	2.21	1,359.33	1,792.56	1,745.41	47.16	38.013	
6,700.00	6,533.22	6,714.69	6,533.22	27.55	29.14	44.81	2.21	1,359.33	1,792.56	1,745.18	47.39	37.826	
6,800.00	6,633.22	6,814.69	6,633.22	27.64	29.24	44.81	2.21	1,359.33	1,792.56	1,744.94	47.62	37.640	
6,900.00	6,733.22	6,914.69	6,733.22	27.73	29.35	44.81	2.21	1,359.33	1,792.56	1,744.70	47.86	37.452	
7,000.00	6,833.22	7,014.69	6,833.22	27.83	29.46	44.81	2.21	1,359.33	1,792.56	1,744.46	48.10	37.264	
7,100.00	6,933.22	7,114.69	6,933.22	27.92	29.57	44.81	2.21	1,359.33	1,792.56	1,744.22	48.35	37.076	
7,200.00	7,033.22	7,214.69	7,033.22	28.02	29.68	44.81	2.21	1,359.33	1,792.56	1,743.97	48.60	36.888	
7,300.00	7,133.22	7,314.69	7,133.22	28.12	29.79	44.81	2.21	1,359.33	1,792.56	1,743.72	48.85	36.699	
7,400.00	7,233.22	7,414.69	7,233.22	28.22	29.91	44.81	2.21	1,359.33	1,792.56	1,743.47	49.10	36.510	
7,500.00	7,333.22	7,514.69	7,333.22	28.32	30.02	44.81	2.21	1,359.33	1,792.56	1,743.21	49.35	36.320	
7,600.00	7,433.22	7,614.69	7,433.22	28.42	30.14	44.81	2.21	1,359.33	1,792.56	1,742.95	49.61	36.131	
7,700.00	7,533.22	7,714.69	7,533.22	28.53	30.26	44.81	2.21	1,359.33	1,792.56	1,742.69	49.87	35.942	
7,800.00	7,633.22	7,814.69	7,633.22	28.64	30.38	44.81	2.21	1,359.33	1,792.56	1,742.43	50.14	35.753	
7,900.00	7,733.22	7,914.69	7,733.22	28.74	30.50	44.81	2.21	1,359.33	1,792.56	1,742.16	50.40	35.564	
8,000.00	7,833.22	8,014.69	7,833.22	28.85	30.62	44.81	2.21	1,359.33	1,792.56	1,741.89	50.67	35.375	
8,100.00	7,933.22	8,114.69	7,933.22	28.96	30.74	44.81	2.21	1,359.33	1,792.56	1,741.62	50.94	35.186	
8,200.00	8,033.22	8,214.69	8,033.22	29.07	30.86	44.81	2.21	1,359.33	1,792.56	1,741.35	51.22	34.998	
8,300.00	8,133.22	8,314.69	8,133.22	29.19	30.99	44.81	2.21	1,359.33	1,792.56	1,741.07	51.50	34.810	
8,400.00	8,233.22	8,414.69	8,233.22	29.30	31.11	44.81	2.21	1,359.33	1,792.56	1,740.79	51.77	34.623	
8,474.78	8,308.00	8,489.47	8,308.00	29.39	31.21	44.81	2.21	1,359.33	1,792.56	1,740.58	51.98	34.483	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
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	89.91	0.00	0.00	15.95				
100.00	100.00	100.00	100.00	0.10	0.10	89.91	0.00	0.00	15.95	15.76	0.19	83.499	
200.00	200.00	200.00	200.00	0.32	0.32	89.91	0.00	0.00	15.95	15.31	0.64	24.903	
300.00	300.00	300.00	300.00	0.55	0.55	89.91	0.00	0.00	15.95	14.86	1.09	14.634 CC, ES	
400.00	400.00	399.55	399.53	0.77	0.75	93.83	-1.18	1.27	17.26	15.75	1.52	11.379	
500.00	500.00	498.87	498.71	0.99	0.95	102.56	-4.70	5.05	21.55	19.62	1.94	11.122 SF	
600.00	600.00	597.71	597.17	1.22	1.19	111.08	-10.53	11.31	29.35	26.98	2.37	12.378	
700.00	700.00	695.84	694.58	1.44	1.46	117.35	-18.61	19.98	40.82	38.00	2.81	14.511	
800.00	800.00	793.05	790.62	1.67	1.77	121.56	-28.85	30.97	55.86	52.60	3.26	17.132	
900.00	900.00	889.12	884.98	1.89	2.13	124.37	-41.14	44.17	74.37	70.65	3.72	20.018	
1,000.00	1,000.00	983.87	977.39	2.12	2.54	126.28	-55.37	59.45	96.22	92.05	4.18	23.039	
1,085.00	1,085.00	1,063.23	1,054.24	2.31	2.92	127.45	-68.88	73.96	117.36	112.78	4.58	25.651	
1,100.00	1,100.00	1,077.13	1,067.63	2.34	2.99	-47.29	-71.40	76.66	121.30	116.67	4.63	26.208	
1,200.00	1,199.97	1,169.17	1,155.89	2.51	3.50	-46.55	-89.18	95.75	148.05	143.00	5.05	29.329	
1,300.00	1,299.80	1,260.18	1,242.30	2.69	4.06	-46.63	-108.64	116.65	175.56	170.07	5.49	31.999	
1,400.00	1,399.37	1,350.12	1,326.76	2.89	4.66	-47.18	-129.71	139.27	203.82	197.87	5.95	34.267	
1,500.00	1,498.55	1,438.96	1,409.19	3.11	5.31	-48.01	-152.29	163.51	232.87	226.43	6.44	36.159	
1,600.00	1,597.23	1,526.66	1,489.52	3.36	6.01	-48.99	-176.27	189.26	262.74	255.77	6.97	37.683	
1,700.00	1,695.29	1,613.22	1,567.71	3.66	6.75	-50.05	-201.57	216.43	293.48	285.93	7.56	38.844	
1,800.00	1,792.60	1,700.00	1,644.94	4.00	7.54	-51.18	-228.54	245.39	325.14	316.93	8.21	39.619	
1,875.15	1,865.17	1,761.99	1,699.35	4.30	8.15	-51.99	-248.78	267.12	349.54	340.81	8.74	40.009	
1,900.00	1,889.08	1,782.79	1,717.47	4.41	8.35	-52.38	-255.75	274.60	357.79	348.87	8.92	40.090	
2,000.00	1,985.30	1,865.52	1,788.76	4.85	9.21	-53.75	-284.35	305.31	392.81	383.09	9.72	40.428	
2,100.00	2,081.52	1,946.59	1,857.41	5.32	10.10	-54.81	-313.73	336.85	430.57	420.02	10.55	40.806	
2,200.00	2,177.74	2,025.93	1,923.40	5.80	11.01	-55.60	-343.75	369.09	470.91	459.51	11.41	41.282	
2,300.00	2,273.96	2,112.62	1,994.48	6.30	12.04	-56.27	-377.58	405.41	513.14	500.81	12.33	41.608	
2,400.00	2,370.18	2,203.05	2,068.56	6.81	13.12	-56.86	-412.93	443.36	555.54	542.24	13.30	41.762	
2,500.00	2,466.40	2,293.48	2,142.64	7.33	14.21	-57.37	-448.28	481.32	597.97	583.68	14.29	41.843	
2,600.00	2,562.62	2,383.92	2,216.72	7.85	15.31	-57.81	-483.62	519.27	640.44	625.15	15.29	41.875	
2,700.00	2,658.84	2,474.35	2,290.80	8.38	16.41	-58.20	-518.97	557.22	682.94	666.63	16.31	41.874	
2,800.00	2,755.06	2,564.78	2,364.88	8.92	17.51	-58.54	-554.32	595.15	725.46	708.12	17.33	41.850	
2,900.00	2,851.28	2,655.21	2,438.96	9.46	18.61	-58.84	-589.67	633.13	768.00	749.63	18.37	41.812	
3,000.00	2,947.50	2,745.64	2,513.04	10.00	19.71	-59.12	-625.01	671.08	810.55	791.14	19.41	41.763	
3,100.00	3,043.72	2,836.07	2,587.11	10.54	20.82	-59.36	-660.36	709.03	853.12	832.66	20.45	41.708	
3,200.00	3,139.95	2,926.50	2,661.19	11.09	21.92	-59.58	-695.71	746.98	895.70	874.19	21.51	41.650	
3,300.00	3,236.17	3,016.93	2,735.27	11.64	23.03	-59.78	-731.06	784.94	938.29	915.72	22.56	41.589	
3,400.00	3,332.39	3,107.36	2,809.35	12.19	24.14	-59.97	-766.40	822.89	980.88	957.26	23.62	41.529	
3,500.00	3,428.61	3,197.79	2,883.43	12.74	25.25	-60.14	-801.75	860.84	1,023.49	998.81	24.68	41.469	
3,600.00	3,524.83	3,288.22	2,957.51	13.29	26.36	-60.29	-837.10	898.80	1,066.10	1,040.35	25.74	41.410	
3,700.00	3,621.05	3,378.65	3,031.59	13.85	27.47	-60.43	-872.45	936.75	1,108.72	1,081.91	26.81	41.353	
3,800.00	3,717.27	3,469.08	3,105.67	14.40	28.58	-60.57	-907.79	974.70	1,151.34	1,123.46	27.88	41.298	
3,900.00	3,813.49	3,605.26	3,218.61	14.96	29.66	-60.80	-959.64	1,030.36	1,192.57	1,163.41	29.16	40.899	
4,000.00	3,909.71	3,757.69	3,349.12	15.52	31.34	-61.17	-1,013.29	1,087.97	1,229.45	1,198.92	30.53	40.270	
4,100.00	4,005.93	3,915.48	3,488.43	16.08	32.65	-61.68	-1,063.76	1,142.16	1,261.66	1,229.71	31.95	39.490	
4,200.00	4,102.15	4,077.90	3,635.86	16.63	33.85	-62.33	-1,110.17	1,192.00	1,289.02	1,255.61	33.41	38.587	
4,300.00	4,198.37	4,244.08	3,790.44	17.19	34.93	-63.12	-1,151.69	1,236.58	1,311.35	1,276.46	34.89	37.583	
4,400.00	4,294.59	4,413.00	3,950.93	17.75	35.87	-64.05	-1,187.56	1,275.09	1,328.56	1,292.15	36.41	36.493	
4,500.00	4,390.81	4,583.53	4,115.81	18.31	36.64	-65.13	-1,217.17	1,306.88	1,340.61	1,302.67	37.94	35.339	
4,600.00	4,487.03	4,754.47	4,283.39	18.87	37.24	-66.36	-1,240.09	1,331.49	1,347.52	1,308.04	39.48	34.132	
4,700.00	4,583.25	4,924.63	4,451.89	19.43	37.69	-67.76	-1,256.10	1,348.68	1,349.39	1,308.35	41.04	32.881	
4,800.00	4,679.47	5,092.81	4,619.51	19.99	37.97	-69.33	-1,265.20	1,358.45	1,346.40	1,303.79	42.61	31.599	
4,900.00	4,775.69	5,249.05	4,775.69	20.56	38.10	-70.98	-1,267.65	1,361.08	1,338.83	1,294.70	44.13	30.336	

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>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,000.00	4,871.91	5,345.27	4,871.91	21.12	38.16	-72.05	-1,267.65	1,361.08	1,329.89	1,284.60	45.29	29.364	
5,100.00	4,968.13	5,441.49	4,968.13	21.68	38.21	-73.13	-1,267.65	1,361.08	1,321.45	1,275.00	46.45	28.449	
5,200.00	5,064.35	5,537.71	5,064.35	22.24	38.26	-74.23	-1,267.65	1,361.08	1,313.52	1,265.91	47.61	27.587	
5,300.00	5,160.57	5,633.93	5,160.57	22.80	38.32	-75.34	-1,267.65	1,361.08	1,306.12	1,257.33	48.78	26.775	
5,400.00	5,256.79	5,730.15	5,256.79	23.37	38.38	-76.46	-1,267.65	1,361.08	1,299.24	1,249.29	49.95	26.010	
5,500.00	5,353.01	5,826.37	5,353.01	23.93	38.44	-77.59	-1,267.65	1,361.08	1,292.89	1,241.77	51.12	25.292	
5,600.00	5,449.23	5,922.59	5,449.23	24.49	38.49	-78.73	-1,267.65	1,361.08	1,287.10	1,234.81	52.29	24.616	
5,700.00	5,545.45	6,018.81	5,545.45	25.06	38.55	-79.88	-1,267.65	1,361.08	1,281.85	1,228.40	53.45	23.983	
5,759.63	5,602.83	6,076.19	5,602.83	25.39	38.59	-80.57	-1,267.65	1,361.08	1,278.99	1,224.85	54.14	23.624	
5,800.00	5,641.75	6,115.11	5,641.75	25.58	38.62	-80.99	-1,267.65	1,361.08	1,277.21	1,222.68	54.53	23.421	
5,900.00	5,738.78	6,212.13	5,738.78	25.95	38.68	-81.96	-1,267.65	1,361.08	1,273.52	1,218.15	55.37	23.001	
6,000.00	5,836.59	6,309.94	5,836.59	26.29	38.74	-82.81	-1,267.65	1,361.08	1,270.70	1,214.58	56.12	22.642	
6,100.00	5,935.07	6,408.42	5,935.07	26.58	38.81	-83.54	-1,267.65	1,361.08	1,268.61	1,211.82	56.79	22.339	
6,200.00	6,034.09	6,507.44	6,034.09	26.83	38.88	-84.13	-1,267.65	1,361.08	1,267.10	1,209.74	57.36	22.090	
6,300.00	6,133.54	6,606.89	6,133.54	27.05	38.95	-84.57	-1,267.65	1,361.08	1,266.06	1,208.23	57.84	21.890	
6,400.00	6,233.29	6,706.64	6,233.29	27.22	39.02	-84.88	-1,267.65	1,361.08	1,265.42	1,207.21	58.21	21.738	
6,500.00	6,333.22	6,806.58	6,333.22	27.35	39.09	-85.03	-1,267.65	1,361.08	1,265.12	1,206.63	58.49	21.631	
6,549.78	6,383.00	6,856.36	6,383.00	27.40	39.13	-89.92	-1,267.65	1,361.08	1,265.08	1,206.49	58.59	21.592	
6,600.00	6,433.22	6,906.58	6,433.22	27.46	39.16	-89.92	-1,267.65	1,361.08	1,265.08	1,206.39	58.69	21.556	
6,700.00	6,533.22	7,006.58	6,533.22	27.55	39.24	-89.92	-1,267.65	1,361.08	1,265.08	1,206.21	58.87	21.489	
6,800.00	6,633.22	7,106.58	6,633.22	27.64	39.31	-89.92	-1,267.65	1,361.08	1,265.08	1,206.02	59.06	21.422	
6,900.00	6,733.22	7,206.58	6,733.22	27.73	39.39	-89.92	-1,267.65	1,361.08	1,265.08	1,205.83	59.24	21.354	
7,000.00	6,833.22	7,306.58	6,833.22	27.83	39.47	-89.92	-1,267.65	1,361.08	1,265.08	1,205.64	59.44	21.285	
7,100.00	6,933.22	7,406.58	6,933.22	27.92	39.54	-89.92	-1,267.65	1,361.08	1,265.08	1,205.45	59.63	21.215	
7,200.00	7,033.22	7,506.58	7,033.22	28.02	39.62	-89.92	-1,267.65	1,361.08	1,265.08	1,205.25	59.83	21.145	
7,300.00	7,133.22	7,606.58	7,133.22	28.12	39.71	-89.92	-1,267.65	1,361.08	1,265.08	1,205.05	60.03	21.075	
7,400.00	7,233.22	7,706.58	7,233.22	28.22	39.79	-89.92	-1,267.65	1,361.08	1,265.08	1,204.85	60.23	21.004	
7,500.00	7,333.22	7,806.58	7,333.22	28.32	39.87	-89.92	-1,267.65	1,361.08	1,265.08	1,204.64	60.44	20.933	
7,600.00	7,433.22	7,906.58	7,433.22	28.42	39.96	-89.92	-1,267.65	1,361.08	1,265.08	1,204.43	60.64	20.861	
7,700.00	7,533.22	8,006.58	7,533.22	28.53	40.04	-89.92	-1,267.65	1,361.08	1,265.08	1,204.22	60.85	20.788	
7,800.00	7,633.22	8,106.58	7,633.22	28.64	40.13	-89.92	-1,267.65	1,361.08	1,265.08	1,204.01	61.07	20.716	
7,900.00	7,733.22	8,206.58	7,733.22	28.74	40.21	-89.92	-1,267.65	1,361.08	1,265.08	1,203.79	61.28	20.643	
8,000.00	7,833.22	8,306.58	7,833.22	28.85	40.30	-89.92	-1,267.65	1,361.08	1,265.08	1,203.57	61.50	20.569	
8,100.00	7,933.22	8,406.58	7,933.22	28.96	40.39	-89.92	-1,267.65	1,361.08	1,265.08	1,203.35	61.72	20.495	
8,200.00	8,033.22	8,506.58	8,033.22	29.07	40.48	-89.92	-1,267.65	1,361.08	1,265.08	1,203.13	61.95	20.421	
8,300.00	8,133.22	8,606.58	8,133.22	29.19	40.58	-89.92	-1,267.65	1,361.08	1,265.08	1,202.90	62.18	20.347	
8,400.00	8,233.22	8,706.58	8,233.22	29.30	40.67	-89.92	-1,267.65	1,361.08	1,265.08	1,202.67	62.40	20.272	
8,474.78	8,308.00	8,781.36	8,308.00	29.39	40.74	-89.92	-1,267.65	1,361.08	1,265.08	1,202.50	62.58	20.216	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 3-9 - P_NRC 3-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
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	-89.95	-0.01	-31.91	15.95				
100.00	100.00	100.00	100.00	0.10	0.10	-89.95	-0.01	-31.91	15.95	15.76	0.19	83.499	
200.00	200.00	200.00	200.00	0.32	0.32	-89.95	-0.01	-31.91	15.95	15.31	0.64	24.903	
300.00	300.00	300.00	300.00	0.55	0.55	-89.95	-0.01	-31.91	15.95	14.86	1.09	14.634	
400.00	400.00	400.00	400.00	0.77	0.77	-89.95	-0.01	-31.91	15.95	14.41	1.54	10.361	
500.00	500.00	500.00	500.00	0.99	0.99	-89.95	-0.01	-31.91	15.95	13.96	1.99	8.020	
600.00	600.00	600.00	600.00	1.22	1.22	-89.95	-0.01	-31.91	15.95	13.51	2.44	6.541	
700.00	700.00	700.00	700.00	1.44	1.44	-89.95	-0.01	-31.91	15.95	13.06	2.89	5.523	
800.00	800.00	800.00	800.00	1.67	1.67	-89.95	-0.01	-31.91	15.95	12.61	3.34	4.779	
900.00	900.00	900.00	900.00	1.89	1.89	-89.95	-0.01	-31.91	15.95	12.17	3.79	4.212	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-89.95	-0.01	-31.91	15.95	11.72	4.24	3.765	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-89.95	-0.01	-31.91	15.95	11.33	4.62	3.454	
1,100.00	1,100.00	1,100.06	1,100.06	2.34	2.34	95.32	0.01	-31.87	15.93	11.24	4.68	3.402	
1,200.00	1,199.97	1,200.34	1,200.31	2.51	2.56	109.91	1.48	-30.13	14.88	9.81	5.07	2.937	
1,224.99	1,224.93	1,225.32	1,225.27	2.55	2.61	117.53	2.20	-29.28	14.75	9.58	5.17	2.855 CC, ES, SF	
1,300.00	1,299.80	1,299.96	1,299.76	2.69	2.78	146.55	5.18	-25.74	16.89	11.44	5.46	3.097	
1,400.00	1,399.37	1,398.36	1,397.73	2.89	3.01	176.19	11.02	-18.81	28.66	22.81	5.85	4.903	
1,500.00	1,498.55	1,495.00	1,493.60	3.11	3.24	-170.25	18.86	-9.51	49.17	42.93	6.24	7.880	
1,600.00	1,597.23	1,589.40	1,586.80	3.36	3.50	-163.78	28.52	1.97	76.53	69.89	6.64	11.524	
1,700.00	1,695.29	1,681.13	1,676.83	3.66	3.78	-160.21	39.80	15.36	109.94	102.89	7.05	15.594	
1,800.00	1,792.60	1,772.37	1,765.94	4.00	4.09	-158.09	52.44	30.36	148.46	140.99	7.48	19.861	
1,875.15	1,865.17	1,840.79	1,832.74	4.30	4.33	-157.25	61.98	41.68	179.51	171.70	7.80	23.002	
1,900.00	1,889.08	1,863.29	1,854.71	4.41	4.42	-157.14	65.12	45.41	190.05	182.12	7.93	23.969	
2,000.00	1,985.30	1,953.84	1,943.11	4.85	4.76	-156.81	77.75	60.40	232.46	224.02	8.44	27.531	
2,100.00	2,081.52	2,044.39	2,031.51	5.32	5.11	-156.58	90.38	75.40	274.89	265.91	8.97	30.630	
2,200.00	2,177.74	2,134.94	2,119.92	5.80	5.47	-156.41	103.01	90.39	317.31	307.80	9.52	33.337	
2,300.00	2,273.96	2,225.49	2,208.32	6.30	5.84	-156.28	115.64	105.38	359.74	349.67	10.07	35.713	
2,400.00	2,370.18	2,316.04	2,296.72	6.81	6.22	-156.18	128.27	120.38	402.17	391.53	10.64	37.807	
2,500.00	2,466.40	2,406.59	2,385.12	7.33	6.60	-156.10	140.90	135.37	444.60	433.39	11.21	39.662	
2,600.00	2,562.62	2,497.14	2,473.53	7.85	6.99	-156.03	153.53	150.36	487.03	475.24	11.79	41.313	
2,700.00	2,658.84	2,587.69	2,561.93	8.38	7.38	-155.97	166.16	165.35	529.46	517.09	12.37	42.790	
2,800.00	2,755.06	2,678.24	2,650.33	8.92	7.77	-155.93	178.79	180.35	571.89	558.93	12.96	44.116	
2,900.00	2,851.28	2,768.79	2,738.74	9.46	8.17	-155.88	191.42	195.34	614.33	600.77	13.56	45.313	
3,000.00	2,947.50	2,859.34	2,827.14	10.00	8.56	-155.85	204.05	210.33	656.76	642.60	14.16	46.397	
3,100.00	3,043.72	2,949.90	2,915.54	10.54	8.97	-155.81	216.68	225.33	699.19	684.43	14.76	47.382	
3,200.00	3,139.95	3,040.45	3,003.95	11.09	9.37	-155.79	229.31	240.32	741.62	726.26	15.36	48.282	
3,300.00	3,236.17	3,131.00	3,092.35	11.64	9.77	-155.76	241.94	255.31	784.05	768.09	15.97	49.106	
3,400.00	3,332.39	3,221.55	3,180.75	12.19	10.17	-155.74	254.57	270.30	826.49	809.91	16.58	49.862	
3,500.00	3,428.61	3,312.10	3,269.15	12.74	10.58	-155.72	267.21	285.30	868.92	851.73	17.19	50.559	
3,600.00	3,524.83	3,402.65	3,357.56	13.29	10.99	-155.70	279.84	300.29	911.35	893.55	17.80	51.203	
3,700.00	3,621.05	3,493.20	3,445.96	13.85	11.40	-155.68	292.47	315.28	953.78	935.37	18.41	51.799	
3,800.00	3,717.27	3,583.75	3,534.36	14.40	11.80	-155.67	305.10	330.28	996.22	977.19	19.03	52.353	
3,900.00	3,813.49	3,674.30	3,622.77	14.96	12.21	-155.65	317.73	345.27	1,038.65	1,019.00	19.65	52.868	
4,000.00	3,909.71	3,764.85	3,711.17	15.52	12.62	-155.64	330.36	360.26	1,081.08	1,060.82	20.26	53.349	
4,100.00	4,005.93	3,855.40	3,799.57	16.08	13.03	-155.63	342.99	375.26	1,123.52	1,102.63	20.88	53.799	
4,200.00	4,102.15	3,945.95	3,887.98	16.63	13.45	-155.62	355.62	390.25	1,165.95	1,144.44	21.50	54.220	
4,300.00	4,198.37	4,036.50	3,976.38	17.19	13.86	-155.61	368.25	405.24	1,208.38	1,186.26	22.13	54.615	
4,400.00	4,294.59	4,127.05	4,064.78	17.75	14.27	-155.60	380.88	420.23	1,250.81	1,228.07	22.75	54.987	
4,500.00	4,390.81	4,217.60	4,153.18	18.31	14.68	-155.59	393.51	435.23	1,293.25	1,269.88	23.37	55.337	
4,600.00	4,487.03	4,308.15	4,241.59	18.87	15.10	-155.58	406.14	450.22	1,335.68	1,311.69	23.99	55.667	
4,700.00	4,583.25	4,398.70	4,329.99	19.43	15.51	-155.57	418.77	465.21	1,378.11	1,353.50	24.62	55.979	
4,800.00	4,679.47	4,489.25	4,418.39	19.99	15.92	-155.56	431.40	480.21	1,420.55	1,395.30	25.24	56.274	

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>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 3-9 - P_NRC 3-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
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	4,775.69	4,579.81	4,506.80	20.56	16.34	-155.56	444.03	495.20	1,462.98	1,437.11	25.87	56.553	
5,000.00	4,871.91	4,670.36	4,595.20	21.12	16.75	-155.55	456.66	510.19	1,505.41	1,478.92	26.50	56.818	
5,100.00	4,968.13	4,760.91	4,683.60	21.68	17.17	-155.54	469.29	525.19	1,547.85	1,520.72	27.12	57.070	
5,200.00	5,064.35	4,851.46	4,772.01	22.24	17.58	-155.54	481.92	540.18	1,590.28	1,562.53	27.75	57.310	
5,300.00	5,160.57	4,942.01	4,860.41	22.80	18.00	-155.53	494.55	555.17	1,632.71	1,604.34	28.38	57.538	
5,400.00	5,256.79	5,032.56	4,948.81	23.37	18.41	-155.53	507.18	570.16	1,675.15	1,646.14	29.00	57.756	
5,500.00	5,353.01	5,123.11	5,037.21	23.93	18.83	-155.52	519.81	585.16	1,717.58	1,687.95	29.63	57.963	
5,600.00	5,449.23	5,213.66	5,125.62	24.49	19.24	-155.52	532.44	600.15	1,760.01	1,729.75	30.26	58.161	
5,700.00	5,545.45	5,304.21	5,214.02	25.06	19.66	-155.51	545.07	615.14	1,802.45	1,771.56	30.89	58.351	
5,759.63	5,602.83	5,358.20	5,266.73	25.39	19.91	-155.51	552.60	624.08	1,827.75	1,796.48	31.26	58.460	
5,800.00	5,641.75	5,394.87	5,302.53	25.58	20.08	-155.66	557.72	630.15	1,844.64	1,813.06	31.58	58.413	
5,900.00	5,738.78	5,486.59	5,392.07	25.95	20.50	-155.96	570.51	645.34	1,884.46	1,852.15	32.31	58.328	
6,000.00	5,836.59	5,579.49	5,482.77	26.29	20.93	-156.20	583.47	660.72	1,921.33	1,888.32	33.00	58.214	
6,100.00	5,935.07	5,673.47	5,574.53	26.58	21.36	-156.35	596.58	676.28	1,955.22	1,921.55	33.66	58.079	
6,200.00	6,034.09	5,768.42	5,667.22	26.83	21.80	-156.44	609.82	692.00	1,986.09	1,951.81	34.29	57.927	
6,300.00	6,133.54	5,922.75	5,818.23	27.05	22.42	-156.36	630.30	716.32	2,013.37	1,978.36	35.01	57.515	
6,400.00	6,233.29	6,170.80	6,063.75	27.22	23.10	-156.18	652.75	742.96	2,031.71	1,995.96	35.76	56.822	
6,500.00	6,333.22	6,425.45	6,317.95	27.35	23.53	-156.15	661.46	753.31	2,039.45	2,003.11	36.34	56.122	
6,549.78	6,383.00	6,490.50	6,383.00	27.40	23.61	18.80	661.53	753.39	2,039.88	2,003.38	36.50	55.885	
6,600.00	6,433.22	6,540.72	6,433.22	27.46	23.67	18.80	661.53	753.39	2,039.88	2,003.23	36.66	55.645	
6,700.00	6,533.22	6,640.72	6,533.22	27.55	23.80	18.80	661.53	753.39	2,039.88	2,002.92	36.97	55.181	
6,800.00	6,633.22	6,740.72	6,633.22	27.64	23.93	18.80	661.53	753.39	2,039.88	2,002.61	37.28	54.721	
6,900.00	6,733.22	6,840.72	6,733.22	27.73	24.06	18.80	661.53	753.39	2,039.88	2,002.29	37.59	54.264	
7,000.00	6,833.22	6,940.72	6,833.22	27.83	24.20	18.80	661.53	753.39	2,039.88	2,001.98	37.91	53.811	
7,100.00	6,933.22	7,040.72	6,933.22	27.92	24.33	18.80	661.53	753.39	2,039.88	2,001.66	38.23	53.361	
7,200.00	7,033.22	7,140.72	7,033.22	28.02	24.47	18.80	661.53	753.39	2,039.88	2,001.33	38.55	52.916	
7,300.00	7,133.22	7,240.72	7,133.22	28.12	24.61	18.80	661.53	753.39	2,039.88	2,001.01	38.87	52.475	
7,400.00	7,233.22	7,340.72	7,233.22	28.22	24.75	18.80	661.53	753.39	2,039.88	2,000.68	39.20	52.037	
7,500.00	7,333.22	7,440.72	7,333.22	28.32	24.89	18.80	661.53	753.39	2,039.88	2,000.35	39.53	51.604	
7,600.00	7,433.22	7,540.72	7,433.22	28.42	25.03	18.80	661.53	753.39	2,039.88	2,000.02	39.86	51.175	
7,700.00	7,533.22	7,640.72	7,533.22	28.53	25.17	18.80	661.53	753.39	2,039.88	1,999.69	40.19	50.750	
7,800.00	7,633.22	7,740.72	7,633.22	28.64	25.31	18.80	661.53	753.39	2,039.88	1,999.35	40.53	50.329	
7,900.00	7,733.22	7,840.72	7,733.22	28.74	25.46	18.80	661.53	753.39	2,039.88	1,999.02	40.87	49.913	
8,000.00	7,833.22	7,940.72	7,833.22	28.85	25.60	18.80	661.53	753.39	2,039.88	1,998.67	41.21	49.501	
8,100.00	7,933.22	8,040.72	7,933.22	28.96	25.75	18.80	661.53	753.39	2,039.88	1,998.33	41.55	49.093	
8,200.00	8,033.22	8,140.72	8,033.22	29.07	25.90	18.80	661.53	753.39	2,039.88	1,997.99	41.90	48.689	
8,300.00	8,133.22	8,240.72	8,133.22	29.19	26.05	18.80	661.53	753.39	2,039.88	1,997.64	42.24	48.290	
8,400.00	8,233.22	8,340.72	8,233.22	29.30	26.20	18.80	661.53	753.39	2,039.88	1,997.29	42.59	47.895	
8,421.18	8,254.40	8,361.90	8,254.40	29.33	26.23	18.80	661.53	753.39	2,039.88	1,997.22	42.66	47.812	
8,474.78	8,308.00	8,375.50	8,268.00	29.39	26.25	18.80	661.53	753.39	2,040.28	1,997.50	42.78	47.695	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 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	-89.99	-0.02	-48.14	32.19				
100.00	100.00	100.00	100.00	0.10	0.10	-89.99	-0.02	-48.14	32.19	31.99	0.19	168.463	
200.00	200.00	200.00	200.00	0.32	0.32	-89.99	-0.02	-48.14	32.19	31.54	0.64	50.243	
300.00	300.00	300.00	300.00	0.55	0.55	-89.99	-0.02	-48.14	32.19	31.09	1.09	29.524	
400.00	400.00	400.00	400.00	0.77	0.77	-89.99	-0.02	-48.14	32.19	30.65	1.54	20.904	
500.00	500.00	500.00	500.00	0.99	0.99	-89.99	-0.02	-48.14	32.19	30.20	1.99	16.180	
600.00	600.00	600.00	600.00	1.22	1.22	-89.99	-0.02	-48.14	32.19	29.75	2.44	13.198	
700.00	700.00	700.00	700.00	1.44	1.44	-89.99	-0.02	-48.14	32.19	29.30	2.89	11.143	
800.00	800.00	800.00	800.00	1.67	1.67	-89.99	-0.02	-48.14	32.19	28.85	3.34	9.643	
900.00	900.00	900.00	900.00	1.89	1.89	-89.99	-0.02	-48.14	32.19	28.40	3.79	8.498	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-89.99	-0.02	-48.14	32.19	27.95	4.24	7.596	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-89.99	-0.02	-48.14	32.19	27.57	4.62	6.968 CC	
1,100.00	1,100.00	1,099.90	1,099.90	2.34	2.34	95.06	-0.05	-48.16	32.21	27.53	4.68	6.886 ES	
1,200.00	1,199.97	1,199.19	1,199.16	2.51	2.51	95.85	-1.81	-49.54	33.80	28.78	5.02	6.730 SF	
1,300.00	1,299.80	1,298.36	1,298.17	2.69	2.70	97.53	-6.28	-53.03	37.86	32.48	5.39	7.031	
1,400.00	1,399.37	1,397.34	1,396.72	2.89	2.90	99.58	-13.42	-58.61	44.43	38.65	5.78	7.692	
1,500.00	1,498.55	1,496.01	1,494.60	3.11	3.12	101.54	-23.21	-66.27	53.52	47.31	6.21	8.620	
1,600.00	1,597.23	1,594.44	1,591.76	3.36	3.38	103.22	-35.59	-75.95	65.12	58.42	6.70	9.718	
1,700.00	1,695.29	1,693.49	1,689.33	3.66	3.66	105.96	-49.05	-86.47	78.28	71.02	7.26	10.781	
1,800.00	1,792.60	1,792.25	1,786.61	4.00	3.97	109.88	-62.47	-96.96	92.72	84.84	7.88	11.766	
1,875.15	1,865.17	1,866.19	1,859.44	4.30	4.20	113.19	-72.51	-104.82	104.70	96.32	8.38	12.494	
1,900.00	1,889.08	1,890.59	1,883.48	4.41	4.28	114.35	-75.83	-107.41	108.87	100.32	8.55	12.731	
2,000.00	1,985.30	1,988.80	1,980.22	4.85	4.61	118.22	-89.17	-117.84	126.00	116.74	9.26	13.611	
2,100.00	2,081.52	2,087.01	2,076.95	5.32	4.95	121.17	-102.52	-128.28	143.56	133.58	9.98	14.383	
2,200.00	2,177.74	2,185.22	2,173.69	5.80	5.30	123.46	-115.86	-138.71	161.41	150.69	10.72	15.058	
2,300.00	2,273.96	2,283.43	2,270.43	6.30	5.65	125.30	-129.21	-149.15	179.46	167.99	11.47	15.650	
2,400.00	2,370.18	2,381.64	2,367.17	6.81	6.01	126.81	-142.55	-159.58	197.65	185.43	12.22	16.171	
2,500.00	2,466.40	2,479.85	2,463.91	7.33	6.37	128.06	-155.90	-170.01	215.96	202.97	12.99	16.631	
2,600.00	2,562.62	2,578.06	2,560.65	7.85	6.74	129.11	-169.24	-180.45	234.35	220.59	13.75	17.040	
2,700.00	2,658.84	2,676.27	2,657.38	8.38	7.11	130.01	-182.59	-190.88	252.80	238.28	14.53	17.405	
2,800.00	2,755.06	2,774.48	2,754.12	8.92	7.48	130.79	-195.93	-201.32	271.31	256.01	15.30	17.732	
2,900.00	2,851.28	2,872.69	2,850.86	9.46	7.86	131.47	-209.28	-211.75	289.86	273.78	16.08	18.027	
3,000.00	2,947.50	2,970.90	2,947.60	10.00	8.23	132.06	-222.62	-222.18	308.44	291.58	16.86	18.293	
3,100.00	3,043.72	3,069.11	3,044.34	10.54	8.61	132.59	-235.96	-232.62	327.06	309.41	17.64	18.536	
3,200.00	3,139.95	3,167.32	3,141.08	11.09	8.99	133.07	-249.31	-243.05	345.69	327.26	18.43	18.758	
3,300.00	3,236.17	3,265.53	3,237.81	11.64	9.37	133.49	-262.65	-253.49	364.35	345.13	19.22	18.961	
3,400.00	3,332.39	3,363.75	3,334.55	12.19	9.75	133.87	-276.00	-263.92	383.03	363.02	20.00	19.147	
3,500.00	3,428.61	3,461.96	3,431.29	12.74	10.14	134.22	-289.34	-274.35	401.72	380.92	20.79	19.320	
3,600.00	3,524.83	3,560.17	3,528.03	13.29	10.52	134.54	-302.69	-284.79	420.42	398.84	21.58	19.479	
3,700.00	3,621.05	3,658.38	3,624.77	13.85	10.91	134.83	-316.03	-295.22	439.13	416.76	22.37	19.627	
3,800.00	3,717.27	3,756.59	3,721.51	14.40	11.29	135.09	-329.38	-305.66	457.86	434.69	23.17	19.765	
3,900.00	3,813.49	3,854.80	3,818.24	14.96	11.68	135.34	-342.72	-316.09	476.59	452.63	23.96	19.894	
4,000.00	3,909.71	3,953.01	3,914.98	15.52	12.06	135.56	-356.07	-326.52	495.33	470.58	24.75	20.014	
4,100.00	4,005.93	4,051.22	4,011.72	16.08	12.45	135.77	-369.41	-336.96	514.08	488.53	25.54	20.127	
4,200.00	4,102.15	4,149.43	4,108.46	16.63	12.84	135.97	-382.76	-347.39	532.83	506.50	26.33	20.233	
4,300.00	4,198.37	4,247.64	4,205.20	17.19	13.23	136.15	-396.10	-357.83	551.59	524.46	27.13	20.333	
4,400.00	4,294.59	4,345.85	4,301.93	17.75	13.62	136.32	-409.45	-368.26	570.35	542.43	27.92	20.428	
4,500.00	4,390.81	4,444.06	4,398.67	18.31	14.01	136.48	-422.77	-378.69	589.12	560.41	28.71	20.517	
4,600.00	4,487.03	4,542.27	4,495.41	18.87	14.40	136.63	-436.13	-389.13	607.89	578.39	29.51	20.601	
4,700.00	4,583.25	4,640.48	4,592.15	19.43	14.79	136.77	-449.48	-399.56	626.67	596.37	30.30	20.682	
4,800.00	4,679.47	4,738.69	4,688.89	19.99	15.18	136.90	-462.82	-410.00	645.45	614.35	31.10	20.755	
4,900.00	4,775.69	4,836.90	4,785.63	20.56	15.57	137.02	-476.17	-420.43	664.23	632.33	31.90	20.822	

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>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,000.00	4,871.91	4,935.11	4,882.36	21.12	15.96	137.14	-489.51	-430.86	683.02	650.32	32.70	20.885	
5,100.00	4,968.13	5,033.32	4,979.10	21.68	16.35	137.25	-502.86	-441.30	701.81	668.30	33.51	20.945	
5,200.00	5,064.35	5,131.53	5,075.84	22.24	16.74	137.36	-516.20	-451.73	720.60	686.29	34.31	21.003	
5,300.00	5,160.57	5,229.74	5,172.58	22.80	17.13	137.46	-529.55	-462.17	739.39	704.28	35.11	21.057	
5,400.00	5,256.79	5,327.95	5,269.32	23.37	17.52	137.55	-542.89	-472.60	758.19	722.27	35.92	21.109	
5,500.00	5,353.01	5,426.16	5,366.06	23.93	17.91	137.65	-556.24	-483.03	776.98	740.26	36.72	21.159	
5,600.00	5,449.23	5,524.37	5,462.79	24.49	18.30	137.73	-569.58	-493.47	795.78	758.26	37.53	21.207	
5,700.00	5,545.45	5,622.58	5,559.53	25.06	18.70	137.81	-582.93	-503.90	814.58	776.25	38.33	21.252	
5,759.63	5,602.83	5,681.14	5,617.22	25.39	18.93	137.86	-590.88	-510.12	825.80	786.99	38.81	21.278	
5,800.00	5,641.75	5,720.83	5,656.31	25.58	19.09	137.98	-596.28	-514.34	833.18	794.05	39.13	21.291	
5,900.00	5,738.78	5,819.45	5,753.45	25.95	19.48	138.13	-609.68	-524.82	849.67	809.80	39.88	21.307	
6,000.00	5,836.59	5,918.41	5,850.93	26.29	19.88	138.10	-623.12	-535.33	863.61	822.98	40.62	21.259	
6,100.00	5,935.07	6,015.70	5,946.89	26.58	20.21	137.95	-635.70	-545.16	875.07	833.78	41.28	21.196	
6,200.00	6,034.09	6,112.56	6,042.91	26.83	20.45	137.83	-645.77	-553.04	884.26	842.45	41.80	21.152	
6,300.00	6,133.54	6,209.72	6,139.59	27.05	20.66	137.74	-653.30	-558.93	891.18	848.94	42.24	21.099	
6,400.00	6,233.29	6,307.10	6,236.76	27.22	20.83	137.70	-658.25	-562.80	895.81	853.22	42.58	21.036	
6,500.00	6,333.22	6,404.59	6,334.20	27.35	20.98	137.69	-660.59	-564.63	898.14	855.29	42.84	20.964	
6,549.78	6,383.00	6,453.39	6,383.00	27.40	21.04	-47.35	-660.80	-564.79	898.43	855.48	42.95	20.918	
6,600.00	6,433.22	6,503.61	6,433.22	27.46	21.11	-47.35	-660.80	-564.79	898.43	855.35	43.08	20.855	
6,700.00	6,533.22	6,603.61	6,533.22	27.55	21.23	-47.35	-660.80	-564.79	898.43	855.12	43.32	20.741	
6,800.00	6,633.22	6,703.61	6,633.22	27.64	21.36	-47.35	-660.80	-564.79	898.43	854.88	43.56	20.626	
6,900.00	6,733.22	6,803.61	6,733.22	27.73	21.48	-47.35	-660.80	-564.79	898.43	854.63	43.80	20.511	
7,000.00	6,833.22	6,903.61	6,833.22	27.83	21.61	-47.35	-660.80	-564.79	898.43	854.38	44.05	20.396	
7,100.00	6,933.22	7,003.61	6,933.22	27.92	21.74	-47.35	-660.80	-564.79	898.43	854.13	44.30	20.280	
7,200.00	7,033.22	7,103.61	7,033.22	28.02	21.87	-47.35	-660.80	-564.79	898.43	853.88	44.55	20.165	
7,300.00	7,133.22	7,203.61	7,133.22	28.12	22.01	-47.35	-660.80	-564.79	898.43	853.62	44.81	20.049	
7,400.00	7,233.22	7,303.61	7,233.22	28.22	22.14	-47.35	-660.80	-564.79	898.43	853.36	45.07	19.934	
7,500.00	7,333.22	7,403.61	7,333.22	28.32	22.28	-47.35	-660.80	-564.79	898.43	853.10	45.33	19.818	
7,600.00	7,433.22	7,503.61	7,433.22	28.42	22.41	-47.35	-660.80	-564.79	898.43	852.83	45.60	19.703	
7,700.00	7,533.22	7,603.61	7,533.22	28.53	22.55	-47.35	-660.80	-564.79	898.43	852.57	45.87	19.587	
7,800.00	7,633.22	7,703.61	7,633.22	28.64	22.69	-47.35	-660.80	-564.79	898.43	852.29	46.14	19.472	
7,900.00	7,733.22	7,803.61	7,733.22	28.74	22.83	-47.35	-660.80	-564.79	898.43	852.02	46.41	19.357	
8,000.00	7,833.22	7,903.61	7,833.22	28.85	22.98	-47.35	-660.80	-564.79	898.43	851.74	46.69	19.242	
8,100.00	7,933.22	8,003.61	7,933.22	28.96	23.12	-47.35	-660.80	-564.79	898.43	851.46	46.97	19.128	
8,200.00	8,033.22	8,103.61	8,033.22	29.07	23.27	-47.35	-660.80	-564.79	898.43	851.18	47.25	19.013	
8,300.00	8,133.22	8,203.61	8,133.22	29.19	23.41	-47.35	-660.80	-564.79	898.43	850.90	47.54	18.899	
8,400.00	8,233.22	8,303.61	8,233.22	29.30	23.56	-47.35	-660.80	-564.79	898.43	850.61	47.83	18.786	
8,446.01	8,279.23	8,349.61	8,279.23	29.35	23.63	-47.35	-660.80	-564.79	898.43	850.48	47.96	18.734	
8,474.78	8,308.00	8,368.39	8,298.00	29.39	23.66	-47.35	-660.80	-564.79	898.49	850.46	48.03	18.708	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 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	90.01	-0.03	15.95	31.91				
100.00	100.00	100.00	100.00	0.10	0.10	90.01	-0.03	15.95	31.91	31.71	0.19	166.998	
200.00	200.00	200.00	200.00	0.32	0.32	90.01	-0.03	15.95	31.91	31.26	0.64	49.806	
300.00	300.00	300.00	300.00	0.55	0.55	90.01	-0.03	15.95	31.91	30.82	1.09	29.268	
400.00	400.00	400.00	400.00	0.77	0.77	90.01	-0.03	15.95	31.91	30.37	1.54	20.722	
500.00	500.00	500.00	500.00	0.99	0.99	90.01	-0.03	15.95	31.91	29.92	1.99	16.039	
600.00	600.00	600.00	600.00	1.22	1.22	90.01	-0.03	15.95	31.91	29.47	2.44	13.083	
700.00	700.00	700.00	700.00	1.44	1.44	90.01	-0.03	15.95	31.91	29.02	2.89	11.047	
800.00	800.00	800.00	800.00	1.67	1.67	90.01	-0.03	15.95	31.91	28.57	3.34	9.559	
900.00	900.00	900.00	900.00	1.89	1.89	90.01	-0.03	15.95	31.91	28.12	3.79	8.424	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.01	-0.03	15.95	31.91	27.67	4.24	7.530	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.01	-0.03	15.95	31.91	27.29	4.62	6.907 CC	
1,100.00	1,100.00	1,099.88	1,099.88	2.34	2.34	-84.98	-0.06	15.98	31.93	27.25	4.68	6.826 ES	
1,200.00	1,199.97	1,199.03	1,199.00	2.51	2.52	-86.24	-1.54	17.65	33.42	28.39	5.03	6.649 SF	
1,300.00	1,299.80	1,298.07	1,297.87	2.69	2.71	-88.99	-5.30	21.87	37.26	31.87	5.39	6.910	
1,400.00	1,399.37	1,396.90	1,396.28	2.89	2.91	-92.36	-11.31	28.62	43.57	37.78	5.79	7.530	
1,500.00	1,498.55	1,495.43	1,494.03	3.11	3.14	-95.62	-19.55	37.87	52.42	46.20	6.22	8.426	
1,600.00	1,597.23	1,593.58	1,590.91	3.36	3.40	-98.42	-29.98	49.57	63.84	57.12	6.71	9.508	
1,700.00	1,695.29	1,691.42	1,686.91	3.66	3.70	-100.67	-42.55	63.67	77.80	70.51	7.28	10.684	
1,800.00	1,792.60	1,790.10	1,783.47	4.00	4.03	-103.57	-56.06	78.84	93.27	85.34	7.93	11.761	
1,875.15	1,865.17	1,864.04	1,855.83	4.30	4.30	-106.32	-66.18	90.20	105.67	97.20	8.46	12.484	
1,900.00	1,889.08	1,888.45	1,879.72	4.41	4.39	-107.32	-69.53	93.95	109.92	101.27	8.65	12.710	
2,000.00	1,985.30	1,986.69	1,975.86	4.85	4.76	-110.68	-82.98	109.05	127.28	117.87	9.41	13.523	
2,100.00	2,081.52	2,084.93	2,072.00	5.32	5.14	-113.23	-96.43	124.15	144.97	134.77	10.20	14.207	
2,200.00	2,177.74	2,183.18	2,168.14	5.80	5.54	-115.22	-109.88	139.24	162.88	151.86	11.02	14.784	
2,300.00	2,273.96	2,281.42	2,264.27	6.30	5.94	-116.82	-123.33	154.34	180.94	169.10	11.85	15.276	
2,400.00	2,370.18	2,379.66	2,360.41	6.81	6.35	-118.13	-136.78	169.44	199.12	186.43	12.69	15.697	
2,500.00	2,466.40	2,477.90	2,456.55	7.33	6.76	-119.22	-150.24	184.54	217.37	203.84	13.53	16.060	
2,600.00	2,562.62	2,576.15	2,552.69	7.85	7.18	-120.14	-163.69	199.63	235.70	221.30	14.39	16.376	
2,700.00	2,658.84	2,674.39	2,648.83	8.38	7.60	-120.92	-177.14	214.73	254.07	238.81	15.26	16.654	
2,800.00	2,755.06	2,772.63	2,744.97	8.92	8.03	-121.61	-190.59	229.83	272.48	256.36	16.12	16.898	
2,900.00	2,851.28	2,870.87	2,841.11	9.46	8.46	-122.20	-204.04	244.92	290.92	273.93	17.00	17.116	
3,000.00	2,947.50	2,969.11	2,937.25	10.00	8.89	-122.72	-217.49	260.02	309.40	291.52	17.87	17.310	
3,100.00	3,043.72	3,067.36	3,033.38	10.54	9.32	-123.19	-230.94	275.12	327.89	309.14	18.75	17.485	
3,200.00	3,139.95	3,165.60	3,129.52	11.09	9.76	-123.60	-244.40	290.22	346.40	326.77	19.63	17.642	
3,300.00	3,236.17	3,263.84	3,225.66	11.64	10.19	-123.98	-257.85	305.31	364.93	344.41	20.52	17.785	
3,400.00	3,332.39	3,362.08	3,321.80	12.19	10.63	-124.32	-271.30	320.41	383.47	362.07	21.40	17.915	
3,500.00	3,428.61	3,460.33	3,417.94	12.74	11.07	-124.62	-284.75	335.51	402.02	379.73	22.30	18.031	
3,600.00	3,524.83	3,558.57	3,514.08	13.29	11.51	-124.90	-298.20	350.60	420.59	397.40	23.19	18.137	
3,700.00	3,621.05	3,656.81	3,610.22	13.85	11.95	-125.16	-311.65	365.70	439.16	415.07	24.08	18.234	
3,800.00	3,717.27	3,755.05	3,706.36	14.40	12.39	-125.39	-325.10	380.80	457.74	432.76	24.98	18.324	
3,900.00	3,813.49	3,853.30	3,802.50	14.96	12.83	-125.61	-338.56	395.89	476.32	450.45	25.88	18.407	
4,000.00	3,909.71	3,951.54	3,898.63	15.52	13.27	-125.81	-352.01	410.99	494.92	468.14	26.78	18.484	
4,100.00	4,005.93	4,049.78	3,994.77	16.08	13.72	-125.99	-365.46	426.09	513.51	485.84	27.68	18.555	
4,200.00	4,102.15	4,148.02	4,090.91	16.63	14.16	-126.17	-378.91	441.19	532.12	503.54	28.58	18.621	
4,300.00	4,198.37	4,246.26	4,187.05	17.19	14.61	-126.33	-392.36	456.28	550.72	521.25	29.48	18.683	
4,400.00	4,294.59	4,344.51	4,283.19	17.75	15.05	-126.48	-405.81	471.38	569.34	538.96	30.38	18.741	
4,500.00	4,390.81	4,442.75	4,379.33	18.31	15.49	-126.62	-419.26	486.48	587.95	556.67	31.28	18.796	
4,600.00	4,487.03	4,540.99	4,475.47	18.87	15.94	-126.75	-432.72	501.57	606.57	574.38	32.18	18.847	
4,700.00	4,583.25	4,639.23	4,571.61	19.43	16.39	-126.87	-446.17	516.67	625.19	592.10	33.09	18.895	
4,800.00	4,679.47	4,737.48	4,667.75	19.99	16.83	-126.99	-459.62	531.77	643.81	609.82	33.99	18.940	
4,900.00	4,775.69	4,835.72	4,763.88	20.56	17.28	-127.10	-473.07	546.87	662.44	627.54	34.90	18.983	

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>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 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
5,000.00	4,871.91	4,933.96	4,860.02	21.12	17.73	-127.21	-486.52	561.96	681.07	645.27	35.80	19.024	
5,100.00	4,968.13	5,032.20	4,956.16	21.68	18.17	-127.31	-499.97	577.06	699.70	662.99	36.71	19.062	
5,200.00	5,064.35	5,130.44	5,052.30	22.24	18.62	-127.40	-513.42	592.16	718.33	680.72	37.61	19.098	
5,300.00	5,160.57	5,228.69	5,148.44	22.80	19.07	-127.49	-526.88	607.25	736.96	698.44	38.52	19.133	
5,400.00	5,256.79	5,326.93	5,244.58	23.37	19.51	-127.57	-540.33	622.35	755.60	716.17	39.43	19.165	
5,500.00	5,353.01	5,425.17	5,340.72	23.93	19.96	-127.65	-553.78	637.45	774.24	733.90	40.33	19.197	
5,600.00	5,449.23	5,523.41	5,436.86	24.49	20.41	-127.73	-567.23	652.54	792.87	751.64	41.24	19.226	
5,700.00	5,545.45	5,621.66	5,532.99	25.06	20.86	-127.80	-580.68	667.64	811.51	769.37	42.15	19.255	
5,759.63	5,602.83	5,680.24	5,590.32	25.39	21.13	-127.85	-588.70	676.64	822.63	779.94	42.69	19.271	
5,800.00	5,641.75	5,719.93	5,629.17	25.58	21.31	-127.98	-594.14	682.74	829.98	786.94	43.05	19.281	
5,900.00	5,738.78	5,818.51	5,725.63	25.95	21.76	-128.14	-607.63	697.89	846.71	802.84	43.87	19.300	
6,000.00	5,836.59	5,917.94	5,822.96	26.29	22.18	-128.09	-621.18	713.09	861.32	816.66	44.66	19.285	
6,100.00	5,935.07	6,019.64	5,923.00	26.58	22.49	-128.00	-633.34	726.74	873.61	828.30	45.31	19.282	
6,200.00	6,034.09	6,121.82	6,024.10	26.83	22.77	-127.92	-643.18	737.78	883.48	837.62	45.86	19.263	
6,300.00	6,133.54	6,224.39	6,126.04	27.05	23.00	-127.86	-650.63	746.15	890.91	844.58	46.33	19.230	
6,400.00	6,233.29	6,327.23	6,228.60	27.22	23.19	-127.82	-655.66	751.80	895.87	849.17	46.71	19.181	
6,500.00	6,333.22	6,430.25	6,331.54	27.35	23.35	-127.79	-658.24	754.69	898.36	851.37	46.99	19.117	
6,549.78	6,383.00	6,481.56	6,382.85	27.40	23.41	47.17	-658.61	755.11	898.68	851.57	47.11	19.076	
6,600.00	6,433.22	6,531.93	6,433.22	27.46	23.47	47.17	-658.61	755.11	898.68	851.45	47.23	19.028	
6,700.00	6,533.22	6,631.93	6,533.22	27.55	23.59	47.17	-658.61	755.11	898.68	851.23	47.45	18.939	
6,800.00	6,633.22	6,731.93	6,633.22	27.64	23.71	47.17	-658.61	755.11	898.68	851.00	47.68	18.849	
6,900.00	6,733.22	6,831.93	6,733.22	27.73	23.83	47.17	-658.61	755.11	898.68	850.77	47.91	18.759	
7,000.00	6,833.22	6,931.93	6,833.22	27.83	23.95	47.17	-658.61	755.11	898.68	850.54	48.14	18.668	
7,100.00	6,933.22	7,031.93	6,933.22	27.92	24.07	47.17	-658.61	755.11	898.68	850.31	48.37	18.578	
7,200.00	7,033.22	7,131.93	7,033.22	28.02	24.20	47.17	-658.61	755.11	898.68	850.07	48.61	18.487	
7,300.00	7,133.22	7,231.93	7,133.22	28.12	24.32	47.17	-658.61	755.11	898.68	849.83	48.85	18.395	
7,400.00	7,233.22	7,331.93	7,233.22	28.22	24.45	47.17	-658.61	755.11	898.68	849.58	49.10	18.304	
7,500.00	7,333.22	7,431.93	7,333.22	28.32	24.58	47.17	-658.61	755.11	898.68	849.34	49.34	18.212	
7,600.00	7,433.22	7,531.93	7,433.22	28.42	24.71	47.17	-658.61	755.11	898.68	849.09	49.59	18.121	
7,700.00	7,533.22	7,631.93	7,533.22	28.53	24.84	47.17	-658.61	755.11	898.68	848.83	49.85	18.029	
7,800.00	7,633.22	7,731.93	7,633.22	28.64	24.97	47.17	-658.61	755.11	898.68	848.58	50.10	17.937	
7,900.00	7,733.22	7,831.93	7,733.22	28.74	25.10	47.17	-658.61	755.11	898.68	848.32	50.36	17.845	
8,000.00	7,833.22	7,931.93	7,833.22	28.85	25.24	47.17	-658.61	755.11	898.68	848.06	50.62	17.753	
8,100.00	7,933.22	8,031.93	7,933.22	28.96	25.37	47.17	-658.61	755.11	898.68	847.80	50.89	17.661	
8,200.00	8,033.22	8,131.93	8,033.22	29.07	25.51	47.17	-658.61	755.11	898.68	847.53	51.15	17.569	
8,300.00	8,133.22	8,231.93	8,133.22	29.19	25.65	47.17	-658.61	755.11	898.68	847.26	51.42	17.477	
8,400.00	8,233.22	8,331.93	8,233.22	29.30	25.79	47.17	-658.61	755.11	898.68	846.99	51.69	17.386	
8,474.78	8,308.00	8,406.71	8,308.00	29.39	25.89	47.17	-658.61	755.11	898.68	846.79	51.90	17.317	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY MTN FUEL CO UNIT													Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN													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	-148.70	-50.65	-46.74	62.54					
100.00	100.00	80.00	80.00	0.10	1.60	-148.70	-50.65	-46.74	59.25	57.56	1.70	34.945		
200.00	200.00	180.00	180.00	0.32	5.20	-148.70	-50.65	-46.74	59.25	53.73	5.52	10.733		
300.00	300.00	280.00	280.00	0.55	9.20	-148.70	-50.65	-46.74	59.25	49.51	9.75	6.080		
400.00	400.00	380.00	380.00	0.77	13.20	-148.70	-50.65	-46.74	59.25	45.28	13.97	4.241		
500.00	500.00	480.00	480.00	0.99	17.20	-148.70	-50.65	-46.74	59.25	41.06	18.19	3.257		
600.00	600.00	580.00	580.00	1.22	21.20	-148.70	-50.65	-46.74	59.25	36.83	22.42	2.643		
700.00	700.00	680.00	680.00	1.44	25.20	-148.70	-50.65	-46.74	59.25	32.61	26.64	2.224		
800.00	800.00	780.00	780.00	1.67	29.20	-148.70	-50.65	-46.74	59.25	28.38	30.87	1.919		
900.00	900.00	880.00	880.00	1.89	33.20	-148.70	-50.65	-46.74	59.25	24.16	35.09	1.688		
1,000.00	1,000.00	980.00	980.00	2.12	37.20	-148.70	-50.65	-46.74	59.25	19.93	39.32	1.507		
1,085.00	1,085.00	1,065.00	1,065.00	2.31	40.60	-148.70	-50.65	-46.74	59.25	16.34	42.91	1.381 Level 3		
1,100.00	1,100.00	1,080.00	1,080.00	2.34	41.20	36.37	-50.65	-46.74	59.22	15.68	43.54	1.360 Level 3		
1,200.00	1,199.97	1,179.97	1,179.97	2.51	45.20	37.73	-50.65	-46.74	57.41	9.72	47.68	1.204 Level 2		
1,300.00	1,299.80	1,279.80	1,279.80	2.69	49.19	41.60	-50.65	-46.74	52.97	1.17	51.80	1.023 Level 2		
1,400.00	1,399.37	1,379.37	1,379.37	2.89	53.17	49.26	-50.65	-46.74	46.46	-9.45	55.91	0.831 Level 1		
1,500.00	1,498.55	1,478.55	1,478.55	3.11	57.14	63.47	-50.65	-46.74	39.33	-20.79	60.12	0.654 Level 1		
1,600.00	1,597.23	1,577.23	1,577.23	3.36	61.09	87.50	-50.65	-46.74	35.15	-29.30	64.45	0.545 Level 1		
1,608.68	1,605.76	1,585.76	1,585.76	3.38	61.43	90.01	-50.65	-46.74	35.11	-29.71	64.83	0.542 Level 1, CC, ES, SF		
1,700.00	1,695.29	1,675.29	1,675.29	3.66	65.01	116.65	-50.65	-46.74	39.47	-28.89	68.36	0.577 Level 1		
1,800.00	1,792.60	1,772.60	1,772.60	4.00	68.90	138.55	-50.65	-46.74	54.01	-17.56	71.57	0.755 Level 1		
1,875.15	1,865.17	1,845.17	1,845.17	4.30	71.81	148.92	-50.65	-46.74	70.00	-3.84	73.84	0.948 Level 1		
1,900.00	1,889.08	1,869.08	1,869.08	4.41	72.76	151.54	-50.65	-46.74	75.93	1.22	74.71	1.016 Level 2		
2,000.00	1,985.30	1,965.30	1,965.30	4.85	76.61	158.90	-50.65	-46.74	100.86	22.49	78.38	1.287 Level 3		
2,100.00	2,081.52	2,061.52	2,061.52	5.32	80.46	163.32	-50.65	-46.74	126.75	44.56	82.19	1.542		
2,200.00	2,177.74	2,157.74	2,157.74	5.80	84.31	166.24	-50.65	-46.74	153.10	67.04	86.06	1.779		
2,300.00	2,273.96	2,253.96	2,253.96	6.30	88.16	168.30	-50.65	-46.74	179.72	89.74	89.97	1.997		
2,400.00	2,370.18	2,350.18	2,350.18	6.81	92.01	169.83	-50.65	-46.74	206.49	112.59	93.90	2.199		
2,500.00	2,466.40	2,446.40	2,446.40	7.33	95.86	171.01	-50.65	-46.74	233.38	135.53	97.85	2.385		
2,600.00	2,562.62	2,542.62	2,542.62	7.85	99.70	171.95	-50.65	-46.74	260.33	158.53	101.80	2.557		
2,700.00	2,658.84	2,638.84	2,638.84	8.38	103.55	172.71	-50.65	-46.74	287.34	181.57	105.76	2.717		
2,800.00	2,755.06	2,735.06	2,735.06	8.92	107.40	173.34	-50.65	-46.74	314.38	204.66	109.73	2.865		
2,900.00	2,851.28	2,831.28	2,831.28	9.46	111.25	173.87	-50.65	-46.74	341.46	227.76	113.70	3.003		
3,000.00	2,947.50	2,927.50	2,927.50	10.00	115.10	174.32	-50.65	-46.74	368.56	250.89	117.67	3.132		
3,100.00	3,043.72	3,023.72	3,023.72	10.54	118.95	174.71	-50.65	-46.74	395.68	274.03	121.65	3.253		
3,200.00	3,139.95	3,119.95	3,119.95	11.09	122.80	175.05	-50.65	-46.74	422.81	297.18	125.63	3.366		
3,300.00	3,236.17	3,216.17	3,216.17	11.64	126.65	175.35	-50.65	-46.74	449.96	320.34	129.61	3.472		
3,400.00	3,332.39	3,312.39	3,312.39	12.19	130.50	175.61	-50.65	-46.74	477.11	343.52	133.59	3.571		
3,500.00	3,428.61	3,408.61	3,408.61	12.74	134.34	175.85	-50.65	-46.74	504.27	366.70	137.58	3.665		
3,600.00	3,524.83	3,504.83	3,504.83	13.29	138.19	176.06	-50.65	-46.74	531.44	389.88	141.56	3.754		
3,700.00	3,621.05	3,601.05	3,601.05	13.85	142.04	176.25	-50.65	-46.74	558.62	413.07	145.55	3.838		
3,800.00	3,717.27	3,697.27	3,697.27	14.40	145.89	176.43	-50.65	-46.74	585.80	436.27	149.54	3.917		
3,900.00	3,813.49	3,793.49	3,793.49	14.96	149.74	176.59	-50.65	-46.74	612.99	459.46	153.52	3.993		
4,000.00	3,909.71	3,889.71	3,889.71	15.52	153.59	176.73	-50.65	-46.74	640.18	482.66	157.51	4.064		
4,100.00	4,005.93	3,985.93	3,985.93	16.08	157.44	176.87	-50.65	-46.74	667.37	505.87	161.50	4.132		
4,200.00	4,102.15	4,082.15	4,082.15	16.63	161.29	176.99	-50.65	-46.74	694.57	529.08	165.49	4.197		
4,300.00	4,198.37	4,178.37	4,178.37	17.19	165.13	177.10	-50.65	-46.74	721.77	552.28	169.48	4.259		
4,400.00	4,294.59	4,274.59	4,274.59	17.75	168.98	177.21	-50.65	-46.74	748.97	575.49	173.48	4.317		
4,500.00	4,390.81	4,370.81	4,370.81	18.31	172.83	177.31	-50.65	-46.74	776.17	598.71	177.47	4.374		
4,600.00	4,487.03	4,467.03	4,467.03	18.87	176.68	177.40	-50.65	-46.74	803.38	621.92	181.46	4.427		
4,700.00	4,583.25	4,563.25	4,563.25	19.43	180.53	177.48	-50.65	-46.74	830.59	645.14	185.45	4.479		
4,800.00	4,679.47	4,659.47	4,659.47	19.99	184.38	177.56	-50.65	-46.74	857.80	668.35	189.45	4.528		

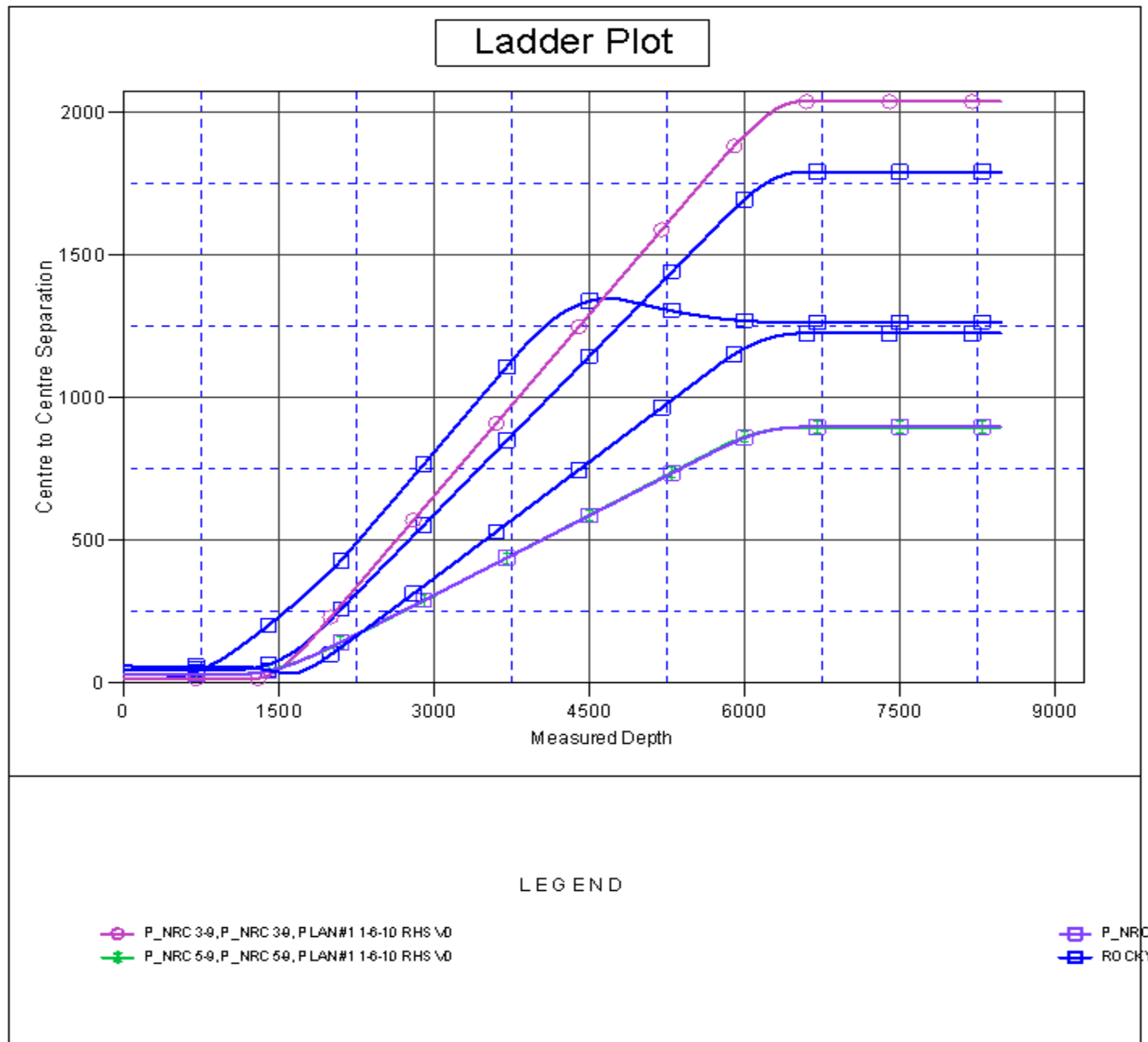
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_NRC 18-9 PAD - ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY MTN FUEL CO UNIT													Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,900.00	4,775.69	4,755.69	4,755.69	20.56	188.23	177.64	-50.65	-46.74	885.01	691.57	193.44	4.575		
5,000.00	4,871.91	4,851.91	4,851.91	21.12	192.08	177.71	-50.65	-46.74	912.22	714.79	197.43	4.620		
5,100.00	4,968.13	4,948.13	4,948.13	21.68	195.93	177.77	-50.65	-46.74	939.43	738.01	201.43	4.664		
5,200.00	5,064.35	5,044.35	5,044.35	22.24	199.77	177.84	-50.65	-46.74	966.65	761.23	205.42	4.706		
5,300.00	5,160.57	5,140.57	5,140.57	22.80	203.62	177.90	-50.65	-46.74	993.87	784.45	209.42	4.746		
5,400.00	5,256.79	5,236.79	5,236.79	23.37	207.47	177.95	-50.65	-46.74	1,021.08	807.67	213.41	4.785		
5,500.00	5,353.01	5,333.01	5,333.01	23.93	211.32	178.01	-50.65	-46.74	1,048.30	830.89	217.41	4.822		
5,600.00	5,449.23	5,429.23	5,429.23	24.49	215.17	178.06	-50.65	-46.74	1,075.52	854.11	221.40	4.858		
5,700.00	5,545.45	5,525.45	5,525.45	25.06	219.02	178.10	-50.65	-46.74	1,102.74	877.34	225.40	4.892		
5,759.63	5,602.83	5,582.83	5,582.83	25.39	221.31	178.13	-50.65	-46.74	1,118.97	891.19	227.78	4.912		
5,800.00	5,641.75	5,621.75	5,621.75	25.58	222.87	178.16	-50.65	-46.74	1,129.68	899.51	230.17	4.908		
5,900.00	5,738.78	5,718.78	5,718.78	25.95	226.75	178.21	-50.65	-46.74	1,153.85	917.80	236.05	4.888		
6,000.00	5,836.59	5,816.59	5,816.59	26.29	230.66	178.25	-50.65	-46.74	1,174.63	932.87	241.76	4.859		
6,100.00	5,935.07	5,915.07	5,915.07	26.58	234.60	178.29	-50.65	-46.74	1,191.98	944.73	247.24	4.821		
6,200.00	6,034.09	6,014.09	6,014.09	26.83	238.56	178.32	-50.65	-46.74	1,205.88	953.40	252.47	4.776		
6,300.00	6,133.54	6,113.54	6,113.54	27.05	242.54	178.34	-50.65	-46.74	1,216.32	958.88	257.44	4.725		
6,400.00	6,233.29	6,213.29	6,213.29	27.22	246.53	178.35	-50.65	-46.74	1,223.28	961.17	262.11	4.667		
6,500.00	6,333.22	6,313.22	6,313.22	27.35	250.53	178.36	-50.65	-46.74	1,226.76	960.29	266.48	4.604		
6,549.78	6,383.00	6,363.00	6,363.00	27.40	252.52	-6.68	-50.65	-46.74	1,227.20	958.66	268.53	4.570		
6,600.00	6,433.22	6,413.22	6,413.22	27.46	254.53	-6.68	-50.65	-46.74	1,227.20	956.57	270.63	4.535		
6,700.00	6,533.22	6,513.22	6,513.22	27.55	258.53	-6.68	-50.65	-46.74	1,227.20	952.41	274.79	4.466		
6,800.00	6,633.22	6,613.22	6,613.22	27.64	262.53	-6.68	-50.65	-46.74	1,227.20	948.25	278.95	4.399		
6,900.00	6,733.22	6,713.22	6,713.22	27.73	266.53	-6.68	-50.65	-46.74	1,227.20	944.09	283.11	4.335		
7,000.00	6,833.22	6,813.22	6,813.22	27.83	270.53	-6.68	-50.65	-46.74	1,227.20	939.92	287.27	4.272		
7,100.00	6,933.22	6,913.22	6,913.22	27.92	274.53	-6.68	-50.65	-46.74	1,227.20	935.76	291.44	4.211		
7,200.00	7,033.22	7,013.22	7,013.22	28.02	278.53	-6.68	-50.65	-46.74	1,227.20	931.59	295.60	4.151		
7,300.00	7,133.22	7,113.22	7,113.22	28.12	282.53	-6.68	-50.65	-46.74	1,227.20	927.42	299.77	4.094		
7,400.00	7,233.22	7,213.22	7,213.22	28.22	286.53	-6.68	-50.65	-46.74	1,227.20	923.26	303.94	4.038		
7,500.00	7,333.22	7,313.22	7,313.22	28.32	290.53	-6.68	-50.65	-46.74	1,227.20	919.08	308.11	3.983		
7,600.00	7,433.22	7,413.22	7,413.22	28.42	294.53	-6.68	-50.65	-46.74	1,227.20	914.91	312.28	3.930		
7,700.00	7,533.22	7,513.22	7,513.22	28.53	298.53	-6.68	-50.65	-46.74	1,227.20	910.74	316.46	3.878		
7,800.00	7,633.22	7,613.22	7,613.22	28.64	302.53	-6.68	-50.65	-46.74	1,227.20	906.57	320.63	3.827		
7,900.00	7,733.22	7,713.22	7,713.22	28.74	306.53	-6.68	-50.65	-46.74	1,227.20	902.39	324.80	3.778		
8,000.00	7,833.22	7,813.22	7,813.22	28.85	310.53	-6.68	-50.65	-46.74	1,227.20	898.22	328.98	3.730		
8,100.00	7,933.22	7,913.22	7,913.22	28.96	314.53	-6.68	-50.65	-46.74	1,227.20	894.04	333.16	3.684		
8,200.00	8,033.22	8,013.22	8,013.22	29.07	318.53	-6.68	-50.65	-46.74	1,227.20	889.86	337.34	3.638		
8,300.00	8,133.22	8,113.22	8,113.22	29.19	322.53	-6.68	-50.65	-46.74	1,227.20	885.68	341.51	3.593		
8,400.00	8,233.22	8,213.22	8,213.22	29.30	326.53	-6.68	-50.65	-46.74	1,227.20	881.50	345.69	3.550		
8,446.87	8,280.09	8,260.09	8,260.09	29.36	328.40	-6.68	-50.65	-46.74	1,227.20	879.54	347.65	3.530		
8,474.78	8,308.00	8,280.00	8,280.00	29.39	329.20	-6.68	-50.65	-46.74	1,227.22	878.72	348.50	3.521		

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

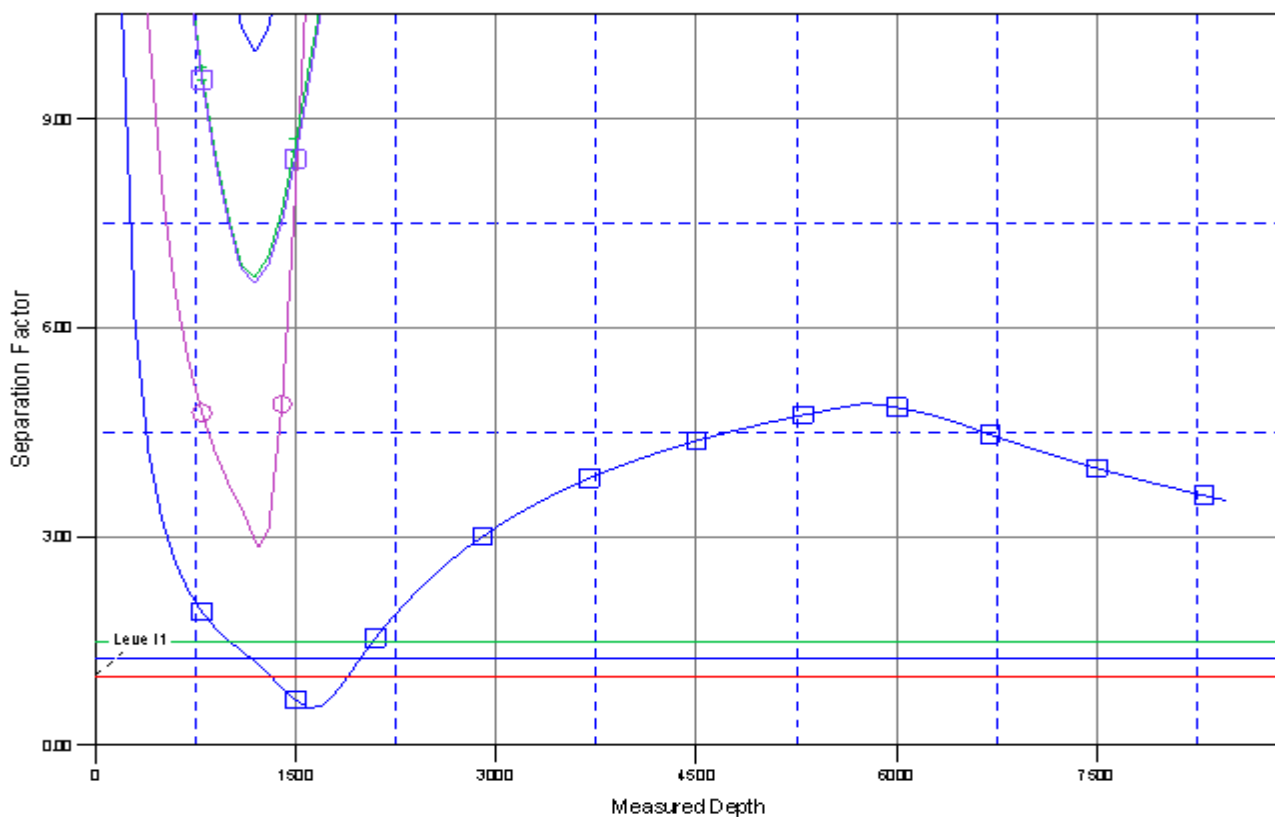
Reference Depths are relative to WELL @ 5036.00ft (Original Well Elev) Coordinates are relative to: WELD\_NRC 18-9 PAD  
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone  
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°





<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_NRC 18-9 PAD	<b>MD Reference:</b>	WELL @ 5036.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_NRC 22-9	<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 22-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum



Reference Depths are relative to WELL @ 5036.00ft (Original Well Elev) Coordinates are relative to: WELD\_NRC 18-9 PAD  
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 3-9, P\_NRC 3-9, PLAN#1 1-6-10 RHS \0  
 P\_NRC 5-9, P\_NRC 5-9, PLAN#1 1-6-10 RHS \0

 P\_NRC 18-9  
 ROCKY