



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_NRC 18-9 PAD**

**P\_NRC 21-9**

**P\_NRC 21-9**

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

## **Standard Planning Report**

**06 January, 2010**



**P\_NRC 21-9**  
**COLORADO NORTHERN ZONE - 83**  
**SECTION 9 T1N R67W**  
**1320 FNL 1258 FWL**  
**LAT: 40° 4' 8.900 N**  
**LONG: 104° 54' 2.225 W**



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 21-9**

+N/-S	+E/-W	Northing	Ground Level: Easting	5021.00 Latitude	Longitude	Slot
-0.03	32.19	1268599.36	3167747.51	40° 4' 8.900 N	104° 54' 2.225 W	

**FORMATION TOP DETAILS**

TVDPath	MDPath	Formation
3268.00	3338.58	PARKMAN
4743.00	4877.37	SUSSEX
5213.00	5367.70	SHANNON
7383.00	7564.47	NIO A
7723.00	7904.47	CODELL
8173.00	8354.47	JSAND

**SECTION DETAILS**

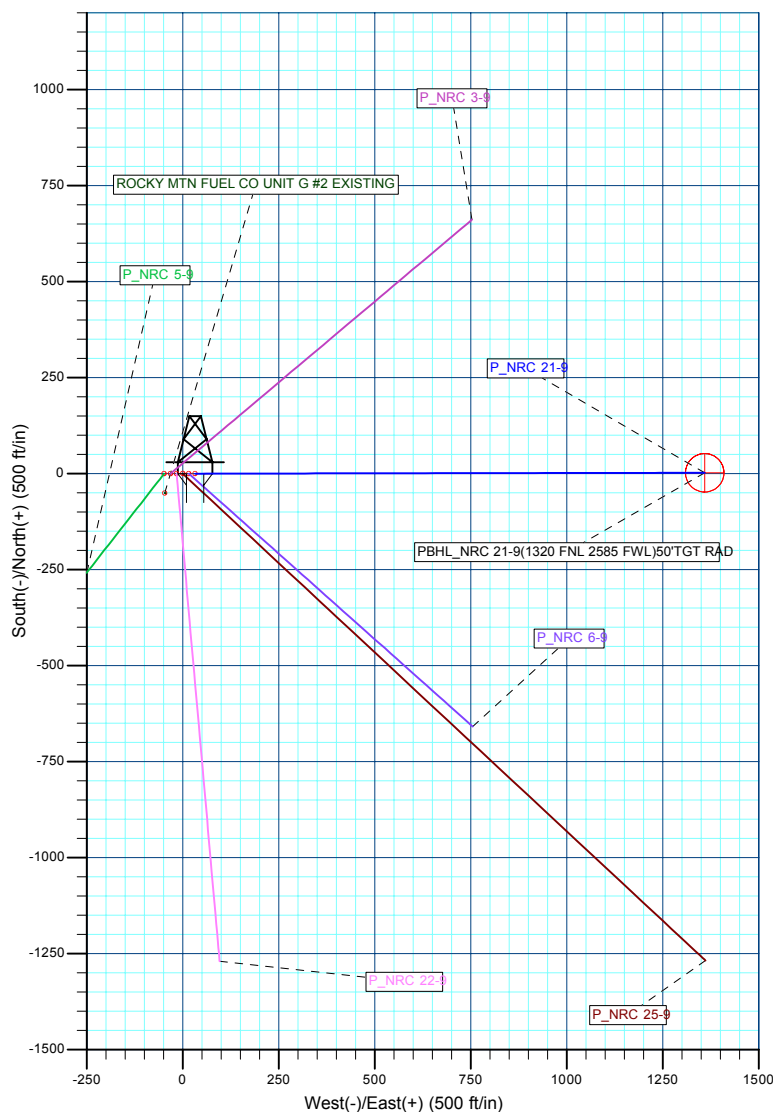
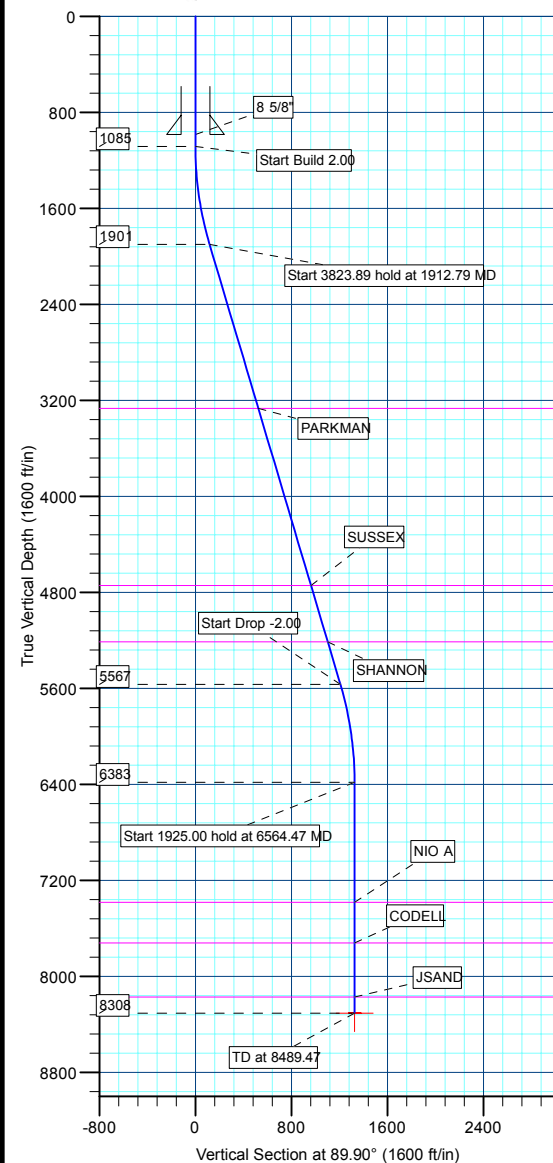
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	-0.03	32.19	0.00	0.00	0.00	
1085.00	0.00	0.00	1085.00	-0.03	32.19	0.00	0.00	0.00	
1912.79	16.56	89.90	1901.32	0.17	150.95	2.00	89.90	118.77	
5736.68	16.56	89.90	5566.68	2.01	1240.56	0.00	0.00	1208.38	
6564.47	0.00	0.00	6383.00	2.21	1359.33	2.00	180.00	1327.15	
8489.47	0.00	0.00	8308.00	2.21	1359.33	0.00	0.00	1327.15	PBHL_NRC 21-9(1320 FNL 2585 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	2.22	1359.33	1268610.58	3169074.60	40° 4' 8.922 N	104° 53' 45.154 W	Circle (Radius: 50.00)

Plan: PLAN #1 1-6-10 RHS (P\_NRC 21-9/P\_NRC 21-9)

Created By: Robert H. Scott

<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 21-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 21-9		
<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 21-9					
Well Position	+N/-S	-0.03 ft	Northing:	1,268,599.36 ft	Latitude:	40° 4' 8.900 N
	+E/-W	32.19 ft	Easting:	3,167,747.51 ft	Longitude:	104° 54' 2.225 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,021.00 ft

<b>Wellbore</b>	P_NRC 21-9				
<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	32.19	89.90

<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	32.19	0.00	0.00	0.00	0.00	
1,085.00	0.00	0.00	1,085.00	-0.03	32.19	0.00	0.00	0.00	0.00	
1,912.79	16.56	89.90	1,901.32	0.17	150.95	2.00	2.00	0.00	89.90	
5,736.68	16.56	89.90	5,566.68	2.01	1,240.56	0.00	0.00	0.00	0.00	
6,564.47	0.00	0.00	6,383.00	2.21	1,359.33	2.00	-2.00	0.00	180.00	
8,489.47	0.00	0.00	8,308.00	2.21	1,359.33	0.00	0.00	0.00	0.00	PBHL_NRC 21-9(1:

<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 21-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 21-9		
<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	32.19	0.00	0.00	0.00	0.00	
1,100.00	0.30	89.90	1,100.00	-0.03	32.22	0.04	2.00	2.00	0.00	
1,200.00	2.30	89.90	1,199.97	-0.03	34.49	2.31	2.00	2.00	0.00	
1,300.00	4.30	89.90	1,299.80	-0.02	40.25	8.06	2.00	2.00	0.00	
1,400.00	6.30	89.90	1,399.37	0.00	49.49	17.30	2.00	2.00	0.00	
1,500.00	8.30	89.90	1,498.55	0.02	62.19	30.01	2.00	2.00	0.00	
1,600.00	10.30	89.90	1,597.23	0.05	78.35	46.17	2.00	2.00	0.00	
1,700.00	12.30	89.90	1,695.29	0.08	97.94	65.76	2.00	2.00	0.00	
1,800.00	14.30	89.90	1,792.60	0.12	120.95	88.76	2.00	2.00	0.00	
1,900.00	16.30	89.90	1,889.05	0.16	147.33	115.15	2.00	2.00	0.00	
<b>Start 3823.89 hold at 1912.79 MD</b>										
1,912.79	16.56	89.90	1,901.32	0.17	150.95	118.77	2.00	2.00	0.00	
2,000.00	16.56	89.90	1,984.91	0.21	175.80	143.62	0.00	0.00	0.00	
2,100.00	16.56	89.90	2,080.77	0.26	204.30	172.11	0.00	0.00	0.00	
2,200.00	16.56	89.90	2,176.62	0.31	232.79	200.61	0.00	0.00	0.00	
2,300.00	16.56	89.90	2,272.48	0.36	261.29	229.10	0.00	0.00	0.00	
2,400.00	16.56	89.90	2,368.33	0.41	289.78	257.60	0.00	0.00	0.00	
2,500.00	16.56	89.90	2,464.18	0.45	318.28	286.09	0.00	0.00	0.00	
2,600.00	16.56	89.90	2,560.04	0.50	346.77	314.59	0.00	0.00	0.00	
2,700.00	16.56	89.90	2,655.89	0.55	375.27	343.08	0.00	0.00	0.00	
2,800.00	16.56	89.90	2,751.75	0.60	403.76	371.58	0.00	0.00	0.00	
2,900.00	16.56	89.90	2,847.60	0.65	432.26	400.07	0.00	0.00	0.00	
3,000.00	16.56	89.90	2,943.46	0.69	460.75	428.57	0.00	0.00	0.00	
3,100.00	16.56	89.90	3,039.31	0.74	489.24	457.06	0.00	0.00	0.00	
3,200.00	16.56	89.90	3,135.16	0.79	517.74	485.56	0.00	0.00	0.00	
3,300.00	16.56	89.90	3,231.02	0.84	546.23	514.05	0.00	0.00	0.00	
<b>PARKMAN</b>										
3,338.58	16.56	89.90	3,268.00	0.86	557.23	525.04	0.00	0.00	0.00	
3,400.00	16.56	89.90	3,326.87	0.89	574.73	542.55	0.00	0.00	0.00	
3,500.00	16.56	89.90	3,422.73	0.93	603.22	571.04	0.00	0.00	0.00	
3,600.00	16.56	89.90	3,518.58	0.98	631.72	599.53	0.00	0.00	0.00	
3,700.00	16.56	89.90	3,614.44	1.03	660.21	628.03	0.00	0.00	0.00	
3,800.00	16.56	89.90	3,710.29	1.08	688.71	656.52	0.00	0.00	0.00	
3,900.00	16.56	89.90	3,806.14	1.13	717.20	685.02	0.00	0.00	0.00	
4,000.00	16.56	89.90	3,902.00	1.17	745.70	713.51	0.00	0.00	0.00	
4,100.00	16.56	89.90	3,997.85	1.22	774.19	742.01	0.00	0.00	0.00	
4,200.00	16.56	89.90	4,093.71	1.27	802.69	770.50	0.00	0.00	0.00	
4,300.00	16.56	89.90	4,189.56	1.32	831.18	799.00	0.00	0.00	0.00	
4,400.00	16.56	89.90	4,285.42	1.37	859.68	827.49	0.00	0.00	0.00	
4,500.00	16.56	89.90	4,381.27	1.41	888.17	855.99	0.00	0.00	0.00	
4,600.00	16.56	89.90	4,477.12	1.46	916.67	884.48	0.00	0.00	0.00	
4,700.00	16.56	89.90	4,572.98	1.51	945.16	912.98	0.00	0.00	0.00	
4,800.00	16.56	89.90	4,668.83	1.56	973.66	941.47	0.00	0.00	0.00	
<b>SUSSEX</b>										
4,877.37	16.56	89.90	4,743.00	1.60	995.71	963.52	0.00	0.00	0.00	
4,900.00	16.56	89.90	4,764.69	1.61	1,002.15	969.97	0.00	0.00	0.00	
5,000.00	16.56	89.90	4,860.54	1.65	1,030.65	998.46	0.00	0.00	0.00	
5,100.00	16.56	89.90	4,956.40	1.70	1,059.14	1,026.96	0.00	0.00	0.00	
5,200.00	16.56	89.90	5,052.25	1.75	1,087.64	1,055.45	0.00	0.00	0.00	
5,300.00	16.56	89.90	5,148.10	1.80	1,116.13	1,083.95	0.00	0.00	0.00	
<b>SHANNON</b>										
5,367.70	16.56	89.90	5,213.00	1.83	1,135.42	1,103.24	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 21-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 21-9		
<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	16.56	89.90	5,243.96	1.85	1,144.63	1,112.44	0.00	0.00	0.00
5,500.00	16.56	89.90	5,339.81	1.89	1,173.12	1,140.94	0.00	0.00	0.00
5,600.00	16.56	89.90	5,435.67	1.94	1,201.62	1,169.43	0.00	0.00	0.00
5,700.00	16.56	89.90	5,531.52	1.99	1,230.11	1,197.93	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,736.68	16.56	89.90	5,566.68	2.01	1,240.56	1,208.38	0.00	0.00	0.00
5,800.00	15.29	89.90	5,627.57	2.04	1,257.93	1,225.75	2.00	-2.00	0.00
5,900.00	13.29	89.90	5,724.47	2.08	1,282.61	1,250.43	2.00	-2.00	0.00
6,000.00	11.29	89.90	5,822.17	2.12	1,303.90	1,271.71	2.00	-2.00	0.00
6,100.00	9.29	89.90	5,920.56	2.15	1,321.76	1,289.58	2.00	-2.00	0.00
6,200.00	7.29	89.90	6,019.51	2.17	1,336.18	1,303.99	2.00	-2.00	0.00
6,300.00	5.29	89.90	6,118.90	2.19	1,347.13	1,314.95	2.00	-2.00	0.00
6,400.00	3.29	89.90	6,218.62	2.20	1,354.61	1,322.43	2.00	-2.00	0.00
6,500.00	1.29	89.90	6,318.53	2.21	1,358.60	1,326.42	2.00	-2.00	0.00
<b>Start 1925.00 hold at 6564.47 MD</b>									
6,564.47	0.00	0.00	6,383.00	2.21	1,359.33	1,327.15	2.00	-2.00	-139.45
6,600.00	0.00	0.00	6,418.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
6,700.00	0.00	0.00	6,518.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
6,800.00	0.00	0.00	6,618.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
6,900.00	0.00	0.00	6,718.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,000.00	0.00	0.00	6,818.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,100.00	0.00	0.00	6,918.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,200.00	0.00	0.00	7,018.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,300.00	0.00	0.00	7,118.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,400.00	0.00	0.00	7,218.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,500.00	0.00	0.00	7,318.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
<b>NIO A</b>									
7,564.47	0.00	0.00	7,383.00	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,600.00	0.00	0.00	7,418.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,700.00	0.00	0.00	7,518.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,800.00	0.00	0.00	7,618.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
7,900.00	0.00	0.00	7,718.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
<b>CODELL</b>									
7,904.47	0.00	0.00	7,723.00	2.21	1,359.33	1,327.15	0.00	0.00	0.00
8,000.00	0.00	0.00	7,818.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
8,100.00	0.00	0.00	7,918.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
8,200.00	0.00	0.00	8,018.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
8,300.00	0.00	0.00	8,118.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
<b>JSAND</b>									
8,354.47	0.00	0.00	8,173.00	2.21	1,359.33	1,327.15	0.00	0.00	0.00
8,400.00	0.00	0.00	8,218.53	2.21	1,359.33	1,327.15	0.00	0.00	0.00
<b>PBHL_NRC 21-9(1320 FNL 2585 FWL)50'TGT RAD</b>									
8,489.47	0.00	0.00	8,308.00	2.21	1,359.33	1,327.15	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 21-9	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_NRC 21-9		
<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 21-9(132	0.00	0.00	8,308.00	2.22	1,359.33	1,268,610.58	3,169,074.60	40° 4' 8.922 N	104° 53' 45.154 W
- plan misses target center by 0.01ft at 8489.47ft MD (8308.00 TVD, 2.21 N, 1359.33 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	(°)	(°)
3,338.58	3,268.00		PARKMAN			
4,877.37	4,743.00		SUSSEX			
5,367.70	5,213.00		SHANNON			
7,564.47	7,383.00		NIO A			
7,904.47	7,723.00		CODELL			
8,354.47	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	32.19		Start Build 2.00
1,912.79	1,901.32	0.17	150.95		Start 3823.89 hold at 1912.79 MD
5,736.68	5,566.68	2.01	1,240.56		Start Drop -2.00
6,564.47	6,383.00	2.21	1,359.33		Start 1925.00 hold at 6564.47 MD
8,489.47	8,308.00	2.21	1,359.33		TD at 8489.47



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_NRC 18-9 PAD  
P\_NRC 21-9**

**P\_NRC 21-9  
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 21-9	<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 21-9	<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	8,489.47	PLAN #1 1-6-10 RHS (P_NRC 21-9)	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 22-9 - P_NRC 22-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	48.14	43.49	10.346	CC
P_NRC 22-9 - P_NRC 22-9 - PLAN #1 1-6-10 RHS	1,100.00	1,100.02	48.17	43.46	10.220	ES
P_NRC 22-9 - P_NRC 22-9 - PLAN #1 1-6-10 RHS	1,200.00	1,200.09	50.30	45.22	9.905	SF
P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS	666.73	667.74	21.92	19.21	8.103	CC, ES
P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS	700.00	700.68	22.36	19.51	7.835	SF
P_NRC 3-9 - P_NRC 3-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	64.09	59.45	13.825	CC
P_NRC 3-9 - P_NRC 3-9 - PLAN #1 1-6-10 RHS	1,100.00	1,100.26	64.10	59.40	13.636	ES
P_NRC 3-9 - P_NRC 3-9 - PLAN #1 1-6-10 RHS	1,500.00	1,506.15	73.46	67.09	11.520	SF
P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	80.32	75.69	17.327	CC, ES
P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS	1,200.00	1,197.90	84.05	78.98	16.599	SF
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	16.23	11.60	3.502	CC
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,100.00	1,100.06	16.24	11.54	3.458	ES
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,200.00	1,200.46	16.88	11.81	3.328	SF
ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY	1,085.00	1,065.00	93.77	50.84	2.184	CC
ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY	1,200.00	1,179.97	95.72	47.98	2.005	ES
ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY	1,300.00	1,279.80	100.65	48.80	1.941	SF

Offset Design WELD_NRC 18-9 PAD - P_NRC 22-9 - P_NRC 22-9 - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	-0.02	-15.95	48.14				
100.00	100.00	100.00	100.00	0.11	0.11	-90.00	-0.02	-15.95	48.14	47.91	0.22	214.168	
200.00	200.00	200.00	200.00	0.34	0.34	-90.00	-0.02	-15.95	48.14	47.46	0.67	71.389	
300.00	300.00	300.00	300.00	0.56	0.56	-90.00	-0.02	-15.95	48.14	47.01	1.12	42.834	
400.00	400.00	400.00	400.00	0.79	0.79	-90.00	-0.02	-15.95	48.14	46.56	1.57	30.595	
500.00	500.00	500.00	500.00	1.01	1.01	-90.00	-0.02	-15.95	48.14	46.11	2.02	23.796	
600.00	600.00	600.00	600.00	1.24	1.24	-90.00	-0.02	-15.95	48.14	45.67	2.47	19.470	
700.00	700.00	700.00	700.00	1.46	1.46	-90.00	-0.02	-15.95	48.14	45.22	2.92	16.474	
800.00	800.00	800.00	800.00	1.69	1.69	-90.00	-0.02	-15.95	48.14	44.77	3.37	14.278	
900.00	900.00	900.00	900.00	1.91	1.91	-90.00	-0.02	-15.95	48.14	44.32	3.82	12.598	
1,000.00	1,000.00	1,000.00	1,000.00	2.14	2.14	-90.00	-0.02	-15.95	48.14	43.87	4.27	11.272	
1,085.00	1,085.00	1,085.00	1,085.00	2.33	2.33	-90.00	-0.02	-15.95	48.14	43.49	4.65	10.346	CC

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 21-9	<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 21-9	<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 22-9 - P_NRC 22-9 - 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
1,100.00	1,100.00	1,100.02	1,100.02	2.36	2.36	-179.95	-0.06	-15.95	48.17	43.46	4.71	10.220	ES
1,200.00	1,199.97	1,200.09	1,200.05	2.56	2.53	177.47	-2.32	-15.75	50.30	45.22	5.08	9.905	SF
1,300.00	1,299.80	1,299.77	1,299.56	2.77	2.71	171.84	-8.04	-15.25	56.07	50.62	5.45	10.288	
1,400.00	1,399.37	1,398.73	1,398.11	2.99	2.90	164.99	-17.12	-14.44	66.20	60.36	5.84	11.341	
1,500.00	1,498.55	1,496.68	1,495.26	3.23	3.11	158.46	-29.44	-13.36	81.16	74.91	6.25	12.990	
1,600.00	1,597.23	1,593.30	1,590.64	3.51	3.36	153.00	-44.82	-12.00	101.10	94.41	6.69	15.107	
1,700.00	1,695.29	1,688.32	1,683.87	3.82	3.64	148.69	-63.07	-10.39	125.92	118.74	7.18	17.542	
1,800.00	1,792.60	1,781.49	1,774.65	4.19	3.95	145.32	-83.95	-8.55	155.44	147.72	7.71	20.154	
1,900.00	1,889.05	1,872.58	1,862.70	4.61	4.31	142.67	-107.19	-6.50	189.43	181.14	8.30	22.832	
1,912.79	1,901.32	1,884.38	1,874.06	4.66	4.36	142.37	-110.39	-6.22	194.09	185.71	8.38	23.170	
2,000.00	1,984.91	1,965.40	1,952.01	5.08	4.71	141.02	-132.36	-4.28	226.03	217.05	8.98	25.161	
2,100.00	2,080.77	2,058.30	2,041.40	5.57	5.14	139.87	-157.57	-2.06	262.76	253.05	9.71	27.048	
2,200.00	2,176.62	2,151.20	2,130.79	6.09	5.58	139.01	-182.77	0.16	299.56	289.09	10.47	28.605	
2,300.00	2,272.48	2,244.10	2,220.18	6.61	6.04	138.33	-207.97	2.39	336.40	325.15	11.25	29.900	
2,400.00	2,368.33	2,337.00	2,309.57	7.16	6.50	137.79	-233.17	4.61	373.28	361.23	12.05	30.986	
2,500.00	2,464.18	2,429.90	2,398.96	7.70	6.98	137.35	-258.37	6.83	410.18	397.32	12.86	31.905	
2,600.00	2,560.04	2,522.80	2,488.34	8.26	7.46	136.97	-283.57	9.05	447.10	433.42	13.68	32.690	
2,700.00	2,655.89	2,615.70	2,577.73	8.82	7.95	136.66	-308.78	11.28	484.03	469.52	14.51	33.365	
2,800.00	2,751.75	2,708.60	2,667.12	9.39	8.44	136.39	-333.98	13.50	520.97	505.63	15.34	33.952	
2,900.00	2,847.60	2,801.50	2,756.51	9.96	8.94	136.15	-359.18	15.72	557.92	541.73	16.19	34.465	
3,000.00	2,943.46	2,894.40	2,845.90	10.53	9.44	135.95	-384.38	17.94	594.88	577.84	17.04	34.917	
3,100.00	3,039.31	2,987.30	2,935.29	11.11	9.94	135.77	-409.58	20.17	631.84	613.95	17.89	35.317	
3,200.00	3,135.16	3,080.20	3,024.68	11.69	10.44	135.61	-434.79	22.39	668.81	650.06	18.75	35.675	
3,300.00	3,231.02	3,173.10	3,114.06	12.27	10.95	135.46	-459.99	24.61	705.79	686.18	19.61	35.996	
3,400.00	3,326.87	3,266.00	3,203.45	12.85	11.46	135.33	-485.19	26.83	742.76	722.29	20.47	36.285	
3,500.00	3,422.73	3,358.90	3,292.84	13.44	11.97	135.21	-510.39	29.06	779.74	758.41	21.33	36.548	
3,600.00	3,518.58	3,451.80	3,382.23	14.03	12.48	135.11	-535.59	31.28	816.72	794.52	22.20	36.787	
3,700.00	3,614.44	3,544.70	3,471.62	14.61	13.00	135.01	-560.79	33.50	853.71	830.64	23.07	37.006	
3,800.00	3,710.29	3,637.60	3,561.01	15.20	13.51	134.92	-586.00	35.72	890.69	866.76	23.94	37.208	
3,900.00	3,806.14	3,730.50	3,650.40	15.79	14.03	134.84	-611.20	37.95	927.68	902.87	24.81	37.393	
4,000.00	3,902.00	3,823.40	3,739.79	16.38	14.54	134.76	-636.40	40.17	964.67	938.99	25.68	37.565	
4,100.00	3,997.85	3,916.30	3,829.17	16.97	15.06	134.69	-661.60	42.39	1,001.66	975.11	26.55	37.725	
4,200.00	4,093.71	4,009.20	3,918.56	17.56	15.58	134.62	-686.80	44.61	1,038.65	1,011.22	27.43	37.865	
4,300.00	4,189.56	4,102.10	4,007.95	18.15	16.09	134.56	-712.00	46.84	1,075.65	1,047.33	28.31	37.992	
4,400.00	4,285.42	4,195.00	4,097.34	18.75	16.61	134.51	-737.21	49.06	1,112.64	1,083.45	29.20	38.109	
4,500.00	4,381.27	4,287.90	4,186.73	19.34	17.13	134.45	-762.41	51.28	1,149.64	1,119.56	30.08	38.219	
4,600.00	4,477.12	4,380.80	4,276.12	19.93	17.65	134.40	-787.61	53.50	1,186.63	1,155.67	30.97	38.321	
4,700.00	4,572.98	4,473.70	4,365.51	20.53	18.17	134.36	-812.81	55.73	1,223.63	1,191.78	31.85	38.416	
4,800.00	4,668.83	4,566.60	4,454.90	21.12	18.69	134.31	-838.01	57.95	1,260.63	1,227.89	32.74	38.506	
4,900.00	4,764.69	4,659.50	4,544.28	21.71	19.21	134.27	-863.21	60.17	1,297.62	1,264.00	33.63	38.590	
5,000.00	4,860.54	4,752.40	4,633.67	22.31	19.73	134.23	-888.42	62.39	1,334.62	1,300.11	34.51	38.669	
5,100.00	4,956.40	4,845.30	4,723.06	22.90	20.26	134.19	-913.62	64.62	1,371.62	1,336.22	35.40	38.743	
5,200.00	5,052.25	4,938.20	4,812.45	23.50	20.78	134.16	-938.82	66.84	1,408.62	1,372.33	36.29	38.813	
5,300.00	5,148.10	5,031.10	4,901.84	24.10	21.30	134.12	-964.02	69.06	1,445.62	1,408.44	37.18	38.879	
5,400.00	5,243.96	5,124.00	4,991.23	24.69	21.82	134.09	-989.22	71.28	1,482.62	1,444.55	38.07	38.942	
5,500.00	5,339.81	5,216.90	5,080.62	25.29	22.34	134.06	-1,014.42	73.51	1,519.62	1,480.66	38.96	39.001	
5,600.00	5,435.67	5,309.80	5,170.01	25.88	22.87	134.03	-1,039.63	75.73	1,556.62	1,516.77	39.86	39.057	
5,700.00	5,531.52	5,402.70	5,259.39	26.48	23.39	134.01	-1,064.83	77.95	1,593.62	1,552.88	40.75	39.110	
5,736.68	5,566.68	5,436.78	5,292.18	26.70	23.58	134.00	-1,074.07	78.77	1,607.20	1,566.12	41.07	39.129	
5,800.00	5,627.57	5,495.77	5,348.95	27.02	23.91	134.32	-1,090.08	80.18	1,630.17	1,588.48	41.69	39.098	
5,900.00	5,724.47	5,589.59	5,439.22	27.43	24.44	134.71	-1,115.53	82.42	1,664.60	1,622.01	42.59	39.087	
6,000.00	5,822.17	5,684.10	5,530.16	27.79	24.97	134.98	-1,141.17	84.68	1,696.72	1,653.28	43.44	39.059	

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 21-9	<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 21-9	<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 22-9 - P_NRC 22-9 - 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
6,100.00	5,920.56	5,791.34	5,633.39	28.11	25.55	135.09	-1,170.09	87.23	1,726.46	1,682.17	44.29	38.983	
6,200.00	6,019.51	5,948.72	5,786.34	28.38	26.12	135.03	-1,206.93	90.48	1,751.59	1,706.48	45.11	38.828	
6,300.00	6,118.90	6,110.28	5,945.22	28.61	26.61	134.97	-1,236.00	93.05	1,770.88	1,725.06	45.82	38.647	
6,400.00	6,218.62	6,275.00	6,108.64	28.79	27.00	134.93	-1,256.40	94.84	1,784.15	1,737.75	46.40	38.452	
6,500.00	6,318.53	6,441.76	6,275.01	28.92	27.28	134.91	-1,267.49	95.82	1,791.27	1,744.43	46.84	38.244	
6,564.47	6,383.00	6,549.78	6,383.00	28.99	27.41	-135.19	-1,269.51	96.00	1,792.56	1,745.51	47.06	38.094	
6,600.00	6,418.53	6,585.31	6,418.53	29.02	27.45	-135.19	-1,269.51	96.00	1,792.56	1,745.43	47.14	38.027	
6,700.00	6,518.53	6,685.31	6,518.53	29.13	27.54	-135.19	-1,269.51	96.00	1,792.56	1,745.19	47.37	37.840	
6,800.00	6,618.53	6,785.31	6,618.53	29.23	27.63	-135.19	-1,269.51	96.00	1,792.56	1,744.96	47.61	37.653	
6,900.00	6,718.53	6,885.31	6,718.53	29.34	27.72	-135.19	-1,269.51	96.00	1,792.56	1,744.72	47.85	37.466	
7,000.00	6,818.53	6,985.31	6,818.53	29.45	27.82	-135.19	-1,269.51	96.00	1,792.56	1,744.48	48.09	37.278	
7,100.00	6,918.53	7,085.31	6,918.53	29.56	27.91	-135.19	-1,269.51	96.00	1,792.56	1,744.23	48.33	37.090	
7,200.00	7,018.53	7,185.31	7,018.53	29.67	28.01	-135.19	-1,269.51	96.00	1,792.56	1,743.99	48.58	36.901	
7,300.00	7,118.53	7,285.31	7,118.53	29.78	28.11	-135.19	-1,269.51	96.00	1,792.56	1,743.74	48.83	36.712	
7,400.00	7,218.53	7,385.31	7,218.53	29.90	28.21	-135.19	-1,269.51	96.00	1,792.56	1,743.48	49.08	36.523	
7,500.00	7,318.53	7,485.31	7,318.53	30.01	28.31	-135.19	-1,269.51	96.00	1,792.56	1,743.23	49.34	36.334	
7,600.00	7,418.53	7,585.31	7,418.53	30.13	28.42	-135.19	-1,269.51	96.00	1,792.56	1,742.97	49.59	36.145	
7,700.00	7,518.53	7,685.31	7,518.53	30.25	28.52	-135.19	-1,269.51	96.00	1,792.56	1,742.71	49.85	35.956	
7,800.00	7,618.53	7,785.31	7,618.53	30.37	28.63	-135.19	-1,269.51	96.00	1,792.56	1,742.45	50.12	35.766	
7,900.00	7,718.53	7,885.31	7,718.53	30.49	28.74	-135.19	-1,269.51	96.00	1,792.56	1,742.18	50.38	35.577	
8,000.00	7,818.53	7,985.31	7,818.53	30.61	28.84	-135.19	-1,269.51	96.00	1,792.56	1,741.91	50.65	35.389	
8,100.00	7,918.53	8,085.31	7,918.53	30.73	28.95	-135.19	-1,269.51	96.00	1,792.56	1,741.64	50.93	35.200	
8,200.00	8,018.53	8,185.31	8,018.53	30.85	29.07	-135.19	-1,269.51	96.00	1,792.56	1,741.37	51.20	35.012	
8,300.00	8,118.53	8,285.31	8,118.53	30.98	29.18	-135.19	-1,269.51	96.00	1,792.56	1,741.09	51.48	34.824	
8,400.00	8,218.53	8,385.31	8,218.53	31.11	29.29	-135.19	-1,269.51	96.00	1,792.56	1,740.81	51.75	34.636	
8,489.47	8,308.00	8,474.78	8,308.00	31.22	29.40	-135.19	-1,269.51	96.00	1,792.56	1,740.56	52.01	34.469	

<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 21-9	<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 21-9	<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 25-9 - P_NRC 25-9 - 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
0.00	0.00	0.00	0.00	0.00	0.00	-89.96	0.00	0.00	32.19				
100.00	100.00	100.00	100.00	0.11	0.11	-89.96	0.00	0.00	32.19	31.96	0.22	143.194	
200.00	200.00	200.00	200.00	0.34	0.34	-89.96	0.00	0.00	32.19	31.51	0.67	47.731	
300.00	300.00	300.00	300.00	0.56	0.56	-89.96	0.00	0.00	32.19	31.06	1.12	28.639	
400.00	400.00	400.79	400.77	0.79	0.77	-92.19	-1.21	1.30	30.92	29.37	1.55	19.894	
500.00	500.00	501.33	501.16	1.01	0.97	-100.07	-4.82	5.17	27.46	25.48	1.98	13.868	
600.00	600.00	601.37	600.82	1.24	1.21	-117.60	-10.79	11.59	23.26	20.84	2.41	9.634	
666.73	666.73	667.74	666.73	1.39	1.39	-137.04	-16.06	17.25	21.92	19.21	2.70	8.103 CC, ES	
700.00	700.00	700.68	699.38	1.46	1.48	-148.40	-19.07	20.47	22.36	19.51	2.85	7.835 SF	
800.00	800.00	799.04	796.52	1.69	1.80	-179.11	-29.55	31.73	29.73	26.33	3.40	8.748	
900.00	900.00	896.22	891.92	1.91	2.17	162.78	-42.13	45.24	44.82	40.78	4.04	11.104	
1,000.00	1,000.00	992.02	985.31	2.14	2.58	153.15	-56.69	60.87	65.19	60.46	4.72	13.802	
1,085.00	1,085.00	1,072.25	1,062.93	2.33	2.98	148.31	-70.51	75.71	85.73	80.38	5.35	16.032	
1,100.00	1,100.00	1,086.29	1,076.45	2.36	3.05	57.69	-73.08	78.47	89.61	84.89	4.72	18.975	
1,200.00	1,199.97	1,179.28	1,165.54	2.56	3.57	54.70	-91.25	97.97	116.35	111.18	5.17	22.521	
1,300.00	1,299.80	1,271.19	1,252.69	2.77	4.14	53.54	-111.13	119.32	144.28	138.65	5.63	25.610	
1,400.00	1,399.37	1,361.96	1,337.81	2.99	4.75	53.33	-132.62	142.40	173.24	167.11	6.13	28.276	
1,500.00	1,498.55	1,451.58	1,420.81	3.23	5.42	53.63	-155.63	167.10	203.17	196.52	6.65	30.547	
1,600.00	1,597.23	1,539.99	1,501.63	3.51	6.13	54.23	-180.06	193.33	234.09	226.88	7.22	32.440	
1,700.00	1,695.29	1,627.19	1,580.22	3.82	6.88	54.99	-205.80	220.97	266.02	258.19	7.83	33.964	
1,800.00	1,792.60	1,713.14	1,656.53	4.19	7.68	55.84	-232.77	249.92	298.98	290.47	8.51	35.128	
1,900.00	1,889.05	1,800.00	1,732.39	4.61	8.53	56.76	-261.58	280.86	332.99	323.72	9.27	35.905	
1,912.79	1,901.32	1,808.60	1,739.83	4.66	8.62	56.83	-264.52	284.02	337.41	328.05	9.37	36.023	
2,000.00	1,984.91	1,881.17	1,802.10	5.08	9.38	57.99	-289.92	311.29	368.72	358.61	10.10	36.492	
2,100.00	2,080.77	1,962.82	1,871.01	5.57	10.29	58.99	-319.77	343.33	407.12	396.14	10.98	37.080	
2,200.00	2,176.62	2,042.72	1,937.20	6.09	11.21	59.70	-350.26	376.08	448.05	436.18	11.87	37.738	
2,300.00	2,272.48	2,132.14	2,010.47	6.61	12.28	60.30	-385.21	413.60	490.42	477.58	12.85	38.175	
2,400.00	2,368.33	2,222.60	2,084.57	7.16	13.36	60.82	-420.57	451.57	532.84	518.99	13.85	38.479	
2,500.00	2,464.18	2,313.07	2,158.68	7.70	14.46	61.26	-455.93	489.53	575.29	560.42	14.87	38.698	
2,600.00	2,560.04	2,403.53	2,232.78	8.26	15.55	61.63	-491.29	527.50	617.76	601.86	15.90	38.856	
2,700.00	2,655.89	2,493.99	2,306.89	8.82	16.65	61.96	-526.65	565.47	660.24	643.30	16.94	38.968	
2,800.00	2,751.75	2,584.46	2,381.00	9.39	17.75	62.25	-562.01	603.43	702.75	684.75	18.00	39.046	
2,900.00	2,847.60	2,674.92	2,455.10	9.96	18.85	62.51	-597.37	641.40	745.27	726.21	19.06	39.100	
3,000.00	2,943.46	2,765.38	2,529.21	10.53	19.96	62.74	-632.73	679.37	787.80	767.67	20.13	39.136	
3,100.00	3,039.31	2,855.85	2,603.32	11.11	21.06	62.95	-668.09	717.33	830.34	809.13	21.21	39.157	
3,200.00	3,135.16	2,946.31	2,677.42	11.69	22.17	63.13	-703.45	755.30	872.88	850.60	22.29	39.168	
3,300.00	3,231.02	3,036.77	2,751.53	12.27	23.28	63.30	-738.81	793.27	915.43	892.06	23.37	39.171	
3,400.00	3,326.87	3,127.24	2,825.64	12.85	24.39	63.45	-774.17	831.23	957.99	933.54	24.46	39.168	
3,500.00	3,422.73	3,217.70	2,899.74	13.44	25.49	63.59	-809.53	869.20	1,000.56	975.01	25.55	39.160	
3,600.00	3,518.58	3,308.16	2,973.85	14.03	26.60	63.72	-844.89	907.16	1,043.13	1,016.48	26.65	39.149	
3,700.00	3,614.44	3,398.63	3,047.96	14.61	27.72	63.84	-880.25	945.13	1,085.70	1,057.96	27.74	39.135	
3,800.00	3,710.29	3,490.50	3,123.23	15.20	28.84	63.95	-916.17	983.69	1,128.27	1,099.42	28.85	39.109	
3,900.00	3,806.14	3,634.34	3,243.18	15.79	30.23	64.20	-970.23	1,041.74	1,168.68	1,138.47	30.20	38.695	
4,000.00	3,902.00	3,783.55	3,371.67	16.38	31.57	64.58	-1,021.92	1,097.24	1,204.80	1,173.20	31.61	38.119	
4,100.00	3,997.85	3,937.61	3,508.29	16.97	32.82	65.12	-1,070.42	1,149.31	1,236.45	1,203.40	33.05	37.409	
4,200.00	4,093.71	4,095.82	3,652.35	17.56	33.98	65.80	-1,114.94	1,197.12	1,263.45	1,228.92	34.54	36.582	
4,300.00	4,189.56	4,257.35	3,802.93	18.15	35.01	66.62	-1,154.74	1,239.85	1,285.68	1,249.63	36.05	35.668	
4,400.00	4,285.42	4,421.25	3,958.85	18.75	35.91	67.60	-1,189.15	1,276.79	1,303.06	1,265.48	37.58	34.676	
4,500.00	4,381.27	4,586.49	4,118.69	19.34	36.65	68.74	-1,217.63	1,307.37	1,315.58	1,276.45	39.12	33.627	
4,600.00	4,477.12	4,751.98	4,280.92	19.93	37.24	70.03	-1,239.80	1,331.18	1,323.28	1,282.61	40.67	32.536	
4,700.00	4,572.98	4,916.61	4,443.92	20.53	37.67	71.50	-1,255.50	1,348.03	1,326.29	1,284.06	42.22	31.410	
4,800.00	4,668.83	5,079.33	4,606.05	21.12	37.95	73.13	-1,264.72	1,357.93	1,324.79	1,281.02	43.77	30.265	

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 21-9	<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 21-9	<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	
4,900.00	4,764.69	5,238.04	4,764.69	21.71	38.10	74.93	-1,267.65	1,361.08	1,319.03	1,273.72	45.31	29.111	
5,000.00	4,860.54	5,333.90	4,860.54	22.31	38.15	76.08	-1,267.65	1,361.08	1,311.61	1,265.14	46.47	28.223	
5,100.00	4,956.40	5,429.75	4,956.40	22.90	38.21	77.25	-1,267.65	1,361.08	1,304.77	1,257.13	47.64	27.389	
5,200.00	5,052.25	5,525.61	5,052.25	23.50	38.26	78.43	-1,267.65	1,361.08	1,298.52	1,249.71	48.81	26.605	
5,300.00	5,148.10	5,621.46	5,148.10	24.10	38.32	79.61	-1,267.65	1,361.08	1,292.87	1,242.89	49.98	25.870	
5,400.00	5,243.96	5,717.31	5,243.96	24.69	38.37	80.81	-1,267.65	1,361.08	1,287.82	1,236.68	51.14	25.181	
5,500.00	5,339.81	5,813.17	5,339.81	25.29	38.43	82.02	-1,267.65	1,361.08	1,283.38	1,231.08	52.30	24.537	
5,600.00	5,435.67	5,909.02	5,435.67	25.88	38.49	83.23	-1,267.65	1,361.08	1,279.57	1,226.11	53.46	23.934	
5,700.00	5,531.52	6,004.88	5,531.52	26.48	38.55	84.45	-1,267.65	1,361.08	1,276.38	1,221.77	54.61	23.372	
5,736.68	5,566.68	6,040.04	5,566.68	26.70	38.57	84.89	-1,267.65	1,361.08	1,275.37	1,220.33	55.03	23.175	
5,800.00	5,627.57	6,100.93	5,627.57	27.02	38.61	85.61	-1,267.65	1,361.08	1,273.87	1,218.21	55.67	22.884	
5,900.00	5,724.47	6,197.83	5,724.47	27.43	38.67	86.65	-1,267.65	1,361.08	1,272.15	1,215.62	56.53	22.503	
6,000.00	5,822.17	6,295.53	5,822.17	27.79	38.74	87.57	-1,267.65	1,361.08	1,271.05	1,213.75	57.31	22.180	
6,100.00	5,920.56	6,393.92	5,920.56	28.11	38.81	88.35	-1,267.65	1,361.08	1,270.41	1,212.42	57.98	21.909	
6,200.00	6,019.51	6,492.87	6,019.51	28.38	38.87	88.98	-1,267.65	1,361.08	1,270.07	1,211.50	58.57	21.686	
6,300.00	6,118.90	6,592.26	6,118.90	28.61	38.94	89.47	-1,267.65	1,361.08	1,269.92	1,210.86	59.05	21.505	
6,400.00	6,218.62	6,691.98	6,218.62	28.79	39.01	89.81	-1,267.65	1,361.08	1,269.87	1,210.43	59.44	21.364	
6,500.00	6,318.53	6,791.89	6,318.53	28.92	39.08	89.98	-1,267.65	1,361.08	1,269.86	1,210.13	59.73	21.260	
6,517.05	6,335.58	6,808.93	6,335.58	28.94	39.10	90.00	-1,267.65	1,361.08	1,269.86	1,210.09	59.77	21.246	
6,564.47	6,383.00	6,856.36	6,383.00	28.99	39.13	179.92	-1,267.65	1,361.08	1,269.86	1,210.00	59.87	21.212	
6,600.00	6,418.53	6,891.89	6,418.53	29.02	39.16	179.92	-1,267.65	1,361.08	1,269.86	1,209.93	59.93	21.188	
6,700.00	6,518.53	6,991.89	6,518.53	29.13	39.23	179.92	-1,267.65	1,361.08	1,269.86	1,209.73	60.13	21.118	
6,800.00	6,618.53	7,091.89	6,618.53	29.23	39.31	179.92	-1,267.65	1,361.08	1,269.86	1,209.53	60.33	21.048	
6,900.00	6,718.53	7,191.89	6,718.53	29.34	39.38	179.92	-1,267.65	1,361.08	1,269.86	1,209.33	60.54	20.977	
7,000.00	6,818.53	7,291.89	6,818.53	29.45	39.46	179.92	-1,267.65	1,361.08	1,269.86	1,209.12	60.74	20.906	
7,100.00	6,918.53	7,391.89	6,918.53	29.56	39.54	179.92	-1,267.65	1,361.08	1,269.86	1,208.91	60.95	20.835	
7,200.00	7,018.53	7,491.89	7,018.53	29.67	39.62	179.92	-1,267.65	1,361.08	1,269.86	1,208.70	61.16	20.763	
7,300.00	7,118.53	7,591.89	7,118.53	29.78	39.70	179.92	-1,267.65	1,361.08	1,269.86	1,208.49	61.37	20.690	
7,400.00	7,218.53	7,691.89	7,218.53	29.90	39.78	179.92	-1,267.65	1,361.08	1,269.86	1,208.27	61.59	20.618	
7,500.00	7,318.53	7,791.89	7,318.53	30.01	39.86	179.92	-1,267.65	1,361.08	1,269.86	1,208.05	61.81	20.545	
7,600.00	7,418.53	7,891.89	7,418.53	30.13	39.95	179.92	-1,267.65	1,361.08	1,269.86	1,207.83	62.03	20.471	
7,700.00	7,518.53	7,991.89	7,518.53	30.25	40.03	179.92	-1,267.65	1,361.08	1,269.86	1,207.61	62.25	20.398	
7,800.00	7,618.53	8,091.89	7,618.53	30.37	40.12	179.92	-1,267.65	1,361.08	1,269.86	1,207.38	62.48	20.324	
7,900.00	7,718.53	8,191.89	7,718.53	30.49	40.21	179.92	-1,267.65	1,361.08	1,269.86	1,207.15	62.71	20.250	
8,000.00	7,818.53	8,291.89	7,818.53	30.61	40.30	179.92	-1,267.65	1,361.08	1,269.86	1,206.92	62.94	20.176	
8,100.00	7,918.53	8,391.89	7,918.53	30.73	40.39	179.92	-1,267.65	1,361.08	1,269.86	1,206.69	63.17	20.101	
8,200.00	8,018.53	8,491.89	8,018.53	30.85	40.48	179.92	-1,267.65	1,361.08	1,269.86	1,206.45	63.41	20.026	
8,300.00	8,118.53	8,591.89	8,118.53	30.98	40.57	179.92	-1,267.65	1,361.08	1,269.86	1,206.21	63.65	19.951	
8,400.00	8,218.53	8,691.89	8,218.53	31.11	40.66	179.92	-1,267.65	1,361.08	1,269.86	1,205.97	63.89	19.876	
8,489.47	8,308.00	8,781.36	8,308.00	31.22	40.75	179.92	-1,267.65	1,361.08	1,269.86	1,205.76	64.10	19.809	

<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 21-9	<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 21-9	<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
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	-0.01	-31.91	64.09	64.09	0.00	N/A	
100.00	100.00	100.00	100.00	0.11	0.10	-89.99	-0.01	-31.91	64.09	63.88	0.21	308.262	
200.00	200.00	200.00	200.00	0.34	0.32	-89.99	-0.01	-31.91	64.09	63.43	0.66	97.484	
300.00	300.00	300.00	300.00	0.56	0.55	-89.99	-0.01	-31.91	64.09	62.98	1.11	57.897	
400.00	400.00	400.00	400.00	0.79	0.77	-89.99	-0.01	-31.91	64.09	62.53	1.56	41.176	
500.00	500.00	500.00	500.00	1.01	0.99	-89.99	-0.01	-31.91	64.09	62.08	2.01	31.949	
600.00	600.00	600.00	600.00	1.24	1.22	-89.99	-0.01	-31.91	64.09	61.63	2.46	26.100	
700.00	700.00	700.00	700.00	1.46	1.44	-89.99	-0.01	-31.91	64.09	61.19	2.91	22.061	
800.00	800.00	800.00	800.00	1.69	1.67	-89.99	-0.01	-31.91	64.09	60.74	3.35	19.105	
900.00	900.00	900.00	900.00	1.91	1.89	-89.99	-0.01	-31.91	64.09	60.29	3.80	16.847	
1,000.00	1,000.00	1,000.00	1,000.00	2.14	2.12	-89.99	-0.01	-31.91	64.09	59.84	4.25	15.067	
1,085.00	1,085.00	1,085.00	1,085.00	2.33	2.31	-89.99	-0.01	-31.91	64.09	59.45	4.64	13.825 CC	
1,100.00	1,100.00	1,100.26	1,100.26	2.36	2.34	-179.87	0.01	-31.87	64.10	59.40	4.70	13.636 ES	
1,200.00	1,199.97	1,201.98	1,201.95	2.56	2.56	-178.53	1.53	-30.08	64.62	59.51	5.11	12.638	
1,300.00	1,299.80	1,303.59	1,303.38	2.77	2.79	-175.24	5.36	-25.53	66.10	60.57	5.53	11.960	
1,400.00	1,399.37	1,405.01	1,404.35	2.99	3.02	-170.30	11.49	-18.25	68.88	62.94	5.94	11.589	
1,500.00	1,498.55	1,506.15	1,504.63	3.23	3.27	-164.19	19.90	-8.27	73.46	67.09	6.38	11.520 SF	
1,600.00	1,597.23	1,606.92	1,604.04	3.51	3.55	-157.52	30.53	4.35	80.32	73.47	6.85	11.729	
1,700.00	1,695.29	1,707.24	1,702.36	3.82	3.86	-150.91	43.35	19.57	89.80	82.42	7.38	12.163	
1,800.00	1,792.60	1,806.10	1,798.87	4.19	4.21	-145.71	57.14	35.94	102.55	94.56	7.99	12.840	
1,900.00	1,889.05	1,904.63	1,895.07	4.61	4.57	-142.64	70.89	52.26	118.65	110.01	8.64	13.736	
1,912.79	1,901.32	1,917.21	1,907.35	4.66	4.62	-142.37	72.64	54.34	120.92	112.20	8.72	13.861	
2,000.00	1,984.91	2,002.94	1,991.05	5.08	4.95	-141.00	84.60	68.53	136.62	127.26	9.36	14.593	
2,100.00	2,080.77	2,101.25	2,087.02	5.57	5.34	-139.77	98.31	84.81	154.69	144.57	10.12	15.279	
2,200.00	2,176.62	2,199.55	2,183.00	6.09	5.74	-138.80	112.02	101.09	172.82	161.90	10.91	15.834	
2,300.00	2,272.48	2,297.86	2,278.97	6.61	6.14	-138.02	125.74	117.36	190.98	179.26	11.73	16.287	
2,400.00	2,368.33	2,396.17	2,374.95	7.16	6.56	-137.37	139.45	133.64	209.18	196.62	12.56	16.660	
2,500.00	2,464.18	2,494.47	2,470.92	7.70	6.98	-136.82	153.16	149.92	227.39	213.99	13.40	16.970	
2,600.00	2,560.04	2,592.78	2,566.89	8.26	7.40	-136.36	166.87	166.20	245.63	231.37	14.26	17.231	
2,700.00	2,655.89	2,691.08	2,662.87	8.82	7.83	-135.96	180.58	182.47	263.87	248.75	15.12	17.451	
2,800.00	2,751.75	2,789.39	2,758.84	9.39	8.26	-135.61	194.30	198.75	282.13	266.13	15.99	17.639	
2,900.00	2,847.60	2,887.69	2,854.82	9.96	8.69	-135.30	208.01	215.03	300.40	283.52	16.88	17.800	
3,000.00	2,943.46	2,986.00	2,950.79	10.53	9.12	-135.03	221.72	231.30	318.67	300.91	17.76	17.940	
3,100.00	3,039.31	3,084.31	3,046.77	11.11	9.56	-134.79	235.43	247.58	336.95	318.29	18.65	18.062	
3,200.00	3,135.16	3,182.61	3,142.74	11.69	10.00	-134.57	249.14	263.86	355.23	335.68	19.55	18.169	
3,300.00	3,231.02	3,280.92	3,238.71	12.27	10.44	-134.38	262.86	280.14	373.52	353.07	20.45	18.264	
3,400.00	3,326.87	3,379.22	3,334.69	12.85	10.88	-134.20	276.57	296.41	391.82	370.46	21.36	18.347	
3,500.00	3,422.73	3,477.53	3,430.66	13.44	11.32	-134.04	290.28	312.69	410.11	387.85	22.26	18.422	
3,600.00	3,518.58	3,575.83	3,526.64	14.03	11.77	-133.89	303.99	328.97	428.41	405.24	23.17	18.489	
3,700.00	3,614.44	3,674.14	3,622.61	14.61	12.21	-133.76	317.70	345.24	446.71	422.63	24.08	18.549	
3,800.00	3,710.29	3,772.45	3,718.59	15.20	12.66	-133.63	331.42	361.52	465.02	440.02	25.00	18.603	
3,900.00	3,806.14	3,870.75	3,814.56	15.79	13.10	-133.52	345.13	377.80	483.32	457.41	25.91	18.652	
4,000.00	3,902.00	3,969.06	3,910.53	16.38	13.55	-133.41	358.84	394.07	501.63	474.80	26.83	18.697	
4,100.00	3,997.85	4,067.36	4,006.51	16.97	14.00	-133.31	372.55	410.35	519.94	492.19	27.75	18.738	
4,200.00	4,093.71	4,165.67	4,102.48	17.56	14.45	-133.22	386.26	426.63	538.25	509.58	28.67	18.775	
4,300.00	4,189.56	4,263.97	4,198.46	18.15	14.89	-133.13	399.98	442.91	556.56	526.98	29.59	18.810	
4,400.00	4,285.42	4,362.28	4,294.43	18.75	15.34	-133.05	413.69	459.18	574.88	544.37	30.51	18.841	
4,500.00	4,381.27	4,460.59	4,390.40	19.34	15.79	-132.97	427.40	475.46	593.19	561.76	31.43	18.871	
4,600.00	4,477.12	4,558.89	4,486.38	19.93	16.24	-132.90	441.11	491.74	611.51	579.15	32.36	18.898	
4,700.00	4,572.98	4,657.20	4,582.35	20.53	16.69	-132.83	454.82	508.01	629.82	596.54	33.28	18.923	
4,800.00	4,668.83	4,755.50	4,678.33	21.12	17.14	-132.77	468.54	524.29	648.14	613.93	34.21	18.946	
4,900.00	4,764.69	4,853.81	4,774.30	21.71	17.59	-132.71	482.25	540.57	666.46	631.32	35.14	18.968	

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 21-9	<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 21-9	<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
5,000.00	4,860.54	4,952.11	4,870.28	22.31	18.04	-132.65	495.96	556.84	684.78	648.71	36.06	18.988	
5,100.00	4,956.40	5,050.42	4,966.25	22.90	18.50	-132.60	509.67	573.12	703.10	666.10	36.99	19.007	
5,200.00	5,052.25	5,148.73	5,062.22	23.50	18.95	-132.55	523.39	589.40	721.41	683.49	37.92	19.025	
5,300.00	5,148.10	5,247.03	5,158.20	24.10	19.40	-132.50	537.10	605.68	739.73	700.89	38.85	19.041	
5,400.00	5,243.96	5,345.34	5,254.17	24.69	19.85	-132.45	550.81	621.95	758.06	718.28	39.78	19.057	
5,500.00	5,339.81	5,443.64	5,350.15	25.29	20.30	-132.41	564.52	638.23	776.38	735.67	40.71	19.072	
5,600.00	5,435.67	5,541.95	5,446.12	25.88	20.75	-132.37	578.23	654.51	794.70	753.06	41.64	19.086	
5,700.00	5,531.52	5,640.25	5,542.09	26.48	21.21	-132.33	591.95	670.78	813.02	770.45	42.57	19.099	
5,736.68	5,566.68	5,676.31	5,577.30	26.70	21.37	-132.31	596.98	676.75	819.74	776.83	42.91	19.104	
5,800.00	5,627.57	5,738.64	5,638.15	27.02	21.66	-132.42	605.67	687.07	830.88	787.38	43.50	19.101	
5,900.00	5,724.47	5,837.14	5,734.32	27.43	22.10	-132.42	619.39	703.37	846.58	802.21	44.37	19.078	
6,000.00	5,822.17	5,934.63	5,829.91	27.79	22.46	-132.36	631.69	717.96	860.08	814.96	45.12	19.060	
6,100.00	5,920.56	6,032.50	5,926.48	28.11	22.75	-132.34	641.92	730.11	871.43	825.68	45.76	19.045	
6,200.00	6,019.51	6,130.69	6,023.85	28.38	23.01	-132.33	650.05	739.75	880.61	834.32	46.29	19.023	
6,300.00	6,118.90	6,229.11	6,121.83	28.61	23.22	-132.35	656.03	746.85	887.60	840.87	46.74	18.992	
6,400.00	6,218.62	6,327.70	6,220.23	28.79	23.40	-132.39	659.84	751.38	892.40	845.32	47.08	18.954	
6,500.00	6,318.53	6,426.36	6,318.86	28.92	23.53	-132.45	661.47	753.31	894.99	847.65	47.33	18.908	
6,564.47	6,383.00	6,490.50	6,383.00	28.99	23.61	-42.58	661.53	753.39	895.47	848.01	47.46	18.869	
6,600.00	6,418.53	6,526.03	6,418.53	29.02	23.65	-42.58	661.53	753.39	895.47	847.93	47.54	18.835	
6,700.00	6,518.53	6,626.03	6,518.53	29.13	23.78	-42.58	661.53	753.39	895.47	847.68	47.79	18.736	
6,800.00	6,618.53	6,726.03	6,618.53	29.23	23.91	-42.58	661.53	753.39	895.47	847.42	48.05	18.637	
6,900.00	6,718.53	6,826.03	6,718.53	29.34	24.05	-42.58	661.53	753.39	895.47	847.16	48.31	18.538	
7,000.00	6,818.53	6,926.03	6,818.53	29.45	24.18	-42.58	661.53	753.39	895.47	846.91	48.57	18.438	
7,100.00	6,918.53	7,026.03	6,918.53	29.56	24.31	-42.58	661.53	753.39	895.47	846.64	48.83	18.339	
7,200.00	7,018.53	7,126.03	7,018.53	29.67	24.45	-42.58	661.53	753.39	895.47	846.38	49.09	18.240	
7,300.00	7,118.53	7,226.03	7,118.53	29.78	24.59	-42.58	661.53	753.39	895.47	846.11	49.36	18.141	
7,400.00	7,218.53	7,326.03	7,218.53	29.90	24.73	-42.58	661.53	753.39	895.47	845.84	49.63	18.042	
7,500.00	7,318.53	7,426.03	7,318.53	30.01	24.87	-42.58	661.53	753.39	895.47	845.57	49.90	17.944	
7,600.00	7,418.53	7,526.03	7,418.53	30.13	25.01	-42.58	661.53	753.39	895.47	845.29	50.18	17.845	
7,700.00	7,518.53	7,626.03	7,518.53	30.25	25.15	-42.58	661.53	753.39	895.47	845.01	50.46	17.747	
7,800.00	7,618.53	7,726.03	7,618.53	30.37	25.29	-42.58	661.53	753.39	895.47	844.73	50.74	17.649	
7,900.00	7,718.53	7,826.03	7,718.53	30.49	25.44	-42.58	661.53	753.39	895.47	844.45	51.02	17.551	
8,000.00	7,818.53	7,926.03	7,818.53	30.61	25.58	-42.58	661.53	753.39	895.47	844.16	51.31	17.453	
8,100.00	7,918.53	8,026.03	7,918.53	30.73	25.73	-42.58	661.53	753.39	895.47	843.88	51.59	17.356	
8,200.00	8,018.53	8,126.03	8,018.53	30.85	25.88	-42.58	661.53	753.39	895.47	843.59	51.88	17.259	
8,300.00	8,118.53	8,226.03	8,118.53	30.98	26.03	-42.58	661.53	753.39	895.47	843.29	52.18	17.162	
8,400.00	8,218.53	8,326.03	8,218.53	31.11	26.18	-42.58	661.53	753.39	895.47	843.00	52.47	17.066	
8,435.53	8,254.06	8,361.55	8,254.06	31.15	26.23	-42.58	661.53	753.39	895.47	842.89	52.58	17.032	
8,489.47	8,308.00	8,375.50	8,268.00	31.22	26.25	-42.58	661.53	753.39	896.36	843.69	52.68	17.016	



<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 21-9	<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 21-9	<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	
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	-0.02	-48.14	80.32	80.32	0.00	N/A	
100.00	100.00	100.00	100.00	0.11	0.10	-90.00	-0.02	-48.14	80.32	80.11	0.21	386.337	
200.00	200.00	200.00	200.00	0.34	0.32	-90.00	-0.02	-48.14	80.32	79.67	0.66	122.175	
300.00	300.00	300.00	300.00	0.56	0.55	-90.00	-0.02	-48.14	80.32	79.22	1.11	72.561	
400.00	400.00	400.00	400.00	0.79	0.77	-90.00	-0.02	-48.14	80.32	78.77	1.56	51.605	
500.00	500.00	500.00	500.00	1.01	0.99	-90.00	-0.02	-48.14	80.32	78.32	2.01	40.041	
600.00	600.00	600.00	600.00	1.24	1.22	-90.00	-0.02	-48.14	80.32	77.87	2.46	32.710	
700.00	700.00	700.00	700.00	1.46	1.44	-90.00	-0.02	-48.14	80.32	77.42	2.91	27.649	
800.00	800.00	800.00	800.00	1.69	1.67	-90.00	-0.02	-48.14	80.32	76.97	3.35	23.944	
900.00	900.00	900.00	900.00	1.91	1.89	-90.00	-0.02	-48.14	80.32	76.52	3.80	21.114	
1,000.00	1,000.00	1,000.00	1,000.00	2.14	2.12	-90.00	-0.02	-48.14	80.32	76.07	4.25	18.883	
1,085.00	1,085.00	1,085.00	1,085.00	2.33	2.31	-90.00	-0.02	-48.14	80.32	75.69	4.64	17.327 CC, ES	
1,100.00	1,100.00	1,099.75	1,099.74	2.36	2.34	-179.92	-0.05	-48.16	80.39	75.69	4.70	17.116	
1,200.00	1,199.97	1,197.90	1,197.87	2.56	2.51	178.90	-1.77	-49.51	84.05	78.98	5.06	16.599 SF	
1,300.00	1,299.80	1,295.41	1,295.22	2.77	2.69	176.33	-6.11	-52.90	93.46	88.02	5.43	17.196	
1,400.00	1,399.37	1,391.72	1,391.14	2.99	2.89	173.15	-12.94	-58.24	108.81	103.00	5.81	18.728	
1,500.00	1,498.55	1,486.32	1,485.01	3.23	3.10	170.00	-22.13	-65.42	130.23	124.04	6.19	21.034	
1,600.00	1,597.23	1,578.71	1,576.27	3.51	3.34	167.21	-33.45	-74.28	157.66	151.08	6.58	23.969	
1,700.00	1,695.29	1,673.09	1,669.23	3.82	3.60	165.06	-46.28	-84.30	189.85	182.87	6.98	27.188	
1,800.00	1,792.60	1,766.49	1,761.24	4.19	3.89	163.70	-58.97	-94.23	225.33	217.94	7.39	30.473	
1,900.00	1,889.05	1,858.69	1,852.05	4.61	4.18	162.86	-71.49	-104.02	263.98	256.16	7.81	33.782	
1,912.79	1,901.32	1,870.39	1,863.58	4.66	4.22	162.78	-73.08	-105.26	269.14	261.27	7.87	34.206	
2,000.00	1,984.91	1,950.09	1,942.08	5.08	4.48	162.51	-83.91	-113.73	304.54	296.23	8.30	36.682	
2,100.00	2,080.77	2,041.47	2,032.09	5.57	4.79	162.27	-96.33	-123.44	345.12	336.31	8.81	39.161	
2,200.00	2,176.62	2,132.85	2,122.11	6.09	5.11	162.08	-108.75	-133.15	385.72	376.38	9.34	41.313	
2,300.00	2,272.48	2,224.24	2,212.12	6.61	5.44	161.93	-121.16	-142.86	426.31	416.44	9.87	43.192	
2,400.00	2,368.33	2,315.62	2,302.14	7.16	5.77	161.80	-133.58	-152.57	466.91	456.50	10.41	44.840	
2,500.00	2,464.18	2,407.00	2,392.15	7.70	6.10	161.70	-146.00	-162.28	507.51	496.55	10.96	46.293	
2,600.00	2,560.04	2,498.39	2,482.16	8.26	6.44	161.61	-158.42	-171.98	548.11	536.59	11.52	47.581	
2,700.00	2,655.89	2,589.77	2,572.18	8.82	6.78	161.53	-170.83	-181.69	588.71	576.63	12.08	48.727	
2,800.00	2,751.75	2,681.16	2,662.19	9.39	7.13	161.46	-183.25	-191.40	629.32	616.67	12.65	49.753	
2,900.00	2,847.60	2,772.54	2,752.21	9.96	7.47	161.40	-195.67	-201.11	669.92	656.70	13.22	50.675	
3,000.00	2,943.46	2,863.92	2,842.22	10.53	7.82	161.35	-208.08	-210.82	710.52	696.73	13.79	51.507	
3,100.00	3,039.31	2,955.31	2,932.24	11.11	8.17	161.30	-220.50	-220.53	751.13	736.75	14.37	52.261	
3,200.00	3,135.16	3,046.69	3,022.25	11.69	8.52	161.26	-232.92	-230.24	791.73	776.78	14.95	52.947	
3,300.00	3,231.02	3,138.07	3,112.26	12.27	8.88	161.22	-245.34	-239.94	832.34	816.80	15.54	53.573	
3,400.00	3,326.87	3,229.46	3,202.28	12.85	9.23	161.19	-257.75	-249.65	872.94	856.82	16.12	54.146	
3,500.00	3,422.73	3,320.84	3,292.29	13.44	9.59	161.16	-270.17	-259.36	913.55	896.84	16.71	54.673	
3,600.00	3,518.58	3,412.23	3,382.31	14.03	9.94	161.13	-282.59	-269.07	954.15	936.85	17.30	55.158	
3,700.00	3,614.44	3,503.61	3,472.32	14.61	10.30	161.10	-295.00	-278.78	994.76	976.87	17.89	55.606	
3,800.00	3,710.29	3,594.99	3,562.34	15.20	10.66	161.08	-307.42	-288.49	1,035.36	1,016.88	18.48	56.021	
3,900.00	3,806.14	3,686.38	3,652.35	15.79	11.02	161.05	-319.84	-298.20	1,075.97	1,056.89	19.08	56.406	
4,000.00	3,902.00	3,777.76	3,742.36	16.38	11.37	161.03	-332.25	-307.91	1,116.58	1,096.91	19.67	56.764	
4,100.00	3,997.85	3,869.15	3,832.38	16.97	11.73	161.01	-344.67	-317.61	1,157.18	1,136.92	20.27	57.098	
4,200.00	4,093.71	3,960.53	3,922.39	17.56	12.09	160.99	-357.09	-327.32	1,197.79	1,176.93	20.86	57.411	
4,300.00	4,189.56	4,051.91	4,012.41	18.15	12.46	160.98	-369.51	-337.03	1,238.40	1,216.93	21.46	57.704	
4,400.00	4,285.42	4,143.30	4,102.42	18.75	12.82	160.96	-381.92	-346.74	1,279.00	1,256.94	22.06	57.978	
4,500.00	4,381.27	4,234.68	4,192.43	19.34	13.18	160.95	-394.34	-356.45	1,319.61	1,296.95	22.66	58.236	
4,600.00	4,477.12	4,326.06	4,282.45	19.93	13.54	160.93	-406.76	-366.16	1,360.22	1,336.96	23.26	58.479	
4,700.00	4,572.98	4,417.45	4,372.46	20.53	13.90	160.92	-419.17	-375.87	1,400.82	1,376.96	23.86	58.708	
4,800.00	4,668.83	4,508.83	4,462.48	21.12	14.26	160.91	-431.59	-385.58	1,441.43	1,416.97	24.46	58.925	
4,900.00	4,764.69	4,600.22	4,552.49	21.71	14.63	160.90	-444.01	-395.28	1,482.04	1,456.97	25.06	59.129	

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 21-9	<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 21-9	<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									
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	4,860.54	4,691.60	4,642.51	22.31	14.99	160.88	-456.43	-404.99	1,522.64	1,496.98	25.67	59.323	
5,100.00	4,956.40	4,782.98	4,732.52	22.90	15.35	160.87	-468.84	-414.70	1,563.25	1,536.98	26.27	59.507	
5,200.00	5,052.25	4,874.37	4,822.53	23.50	15.72	160.86	-481.26	-424.41	1,603.86	1,576.98	26.87	59.682	
5,300.00	5,148.10	4,965.75	4,912.55	24.10	16.08	160.85	-493.68	-434.12	1,644.46	1,616.99	27.48	59.847	
5,400.00	5,243.96	5,057.14	5,002.56	24.69	16.44	160.85	-506.09	-443.83	1,685.07	1,656.99	28.08	60.005	
5,500.00	5,339.81	5,148.52	5,092.58	25.29	16.81	160.84	-518.51	-453.54	1,725.68	1,696.99	28.69	60.156	
5,600.00	5,435.67	5,239.90	5,182.59	25.88	17.17	160.83	-530.93	-463.25	1,766.29	1,736.99	29.29	60.299	
5,700.00	5,531.52	5,331.29	5,272.61	26.48	17.53	160.82	-543.35	-472.95	1,806.89	1,777.00	29.90	60.437	
5,736.68	5,566.68	5,364.81	5,305.62	26.70	17.67	160.82	-547.90	-476.52	1,821.79	1,791.67	30.12	60.485	
5,800.00	5,627.57	5,422.93	5,362.88	27.02	17.90	160.98	-555.80	-482.69	1,846.89	1,816.31	30.59	60.385	
5,900.00	5,724.47	5,515.75	5,454.31	27.43	18.27	161.19	-568.41	-492.55	1,884.06	1,852.79	31.26	60.266	
6,000.00	5,822.17	5,609.73	5,546.87	27.79	18.65	161.34	-581.18	-502.54	1,918.13	1,886.23	31.91	60.119	
6,100.00	5,920.56	5,704.74	5,640.46	28.11	19.02	161.44	-594.09	-512.63	1,949.09	1,916.57	32.51	59.949	
6,200.00	6,019.51	5,800.67	5,734.95	28.38	19.41	161.47	-607.12	-522.82	1,976.89	1,943.81	33.08	59.760	
6,300.00	6,118.90	5,897.41	5,830.24	28.61	19.79	161.46	-620.27	-533.10	2,001.51	1,967.90	33.61	59.555	
6,400.00	6,218.62	6,064.42	5,995.14	28.79	20.33	161.28	-641.08	-549.37	2,022.11	1,987.88	34.23	59.070	
6,500.00	6,318.53	6,308.72	6,238.38	28.92	20.84	161.10	-658.31	-562.84	2,033.39	1,998.54	34.85	58.346	
6,564.47	6,383.00	6,453.39	6,383.00	28.99	21.04	-109.01	-660.80	-564.79	2,035.15	2,000.00	35.15	57.896	
6,600.00	6,418.53	6,488.92	6,418.53	29.02	21.09	-109.01	-660.80	-564.79	2,035.15	1,999.89	35.26	57.714	
6,700.00	6,518.53	6,588.92	6,518.53	29.13	21.21	-109.01	-660.80	-564.79	2,035.15	1,999.58	35.57	57.216	
6,800.00	6,618.53	6,688.92	6,618.53	29.23	21.34	-109.01	-660.80	-564.79	2,035.15	1,999.27	35.88	56.724	
6,900.00	6,718.53	6,788.92	6,718.53	29.34	21.47	-109.01	-660.80	-564.79	2,035.15	1,998.96	36.19	56.236	
7,000.00	6,818.53	6,888.92	6,818.53	29.45	21.59	-109.01	-660.80	-564.79	2,035.15	1,998.64	36.50	55.752	
7,100.00	6,918.53	6,988.92	6,918.53	29.56	21.72	-109.01	-660.80	-564.79	2,035.15	1,998.33	36.82	55.272	
7,200.00	7,018.53	7,088.92	7,018.53	29.67	21.85	-109.01	-660.80	-564.79	2,035.15	1,998.01	37.14	54.796	
7,300.00	7,118.53	7,188.92	7,118.53	29.78	21.99	-109.01	-660.80	-564.79	2,035.15	1,997.69	37.46	54.324	
7,400.00	7,218.53	7,288.92	7,218.53	29.90	22.12	-109.01	-660.80	-564.79	2,035.15	1,997.36	37.79	53.857	
7,500.00	7,318.53	7,388.92	7,318.53	30.01	22.26	-109.01	-660.80	-564.79	2,035.15	1,997.03	38.12	53.394	
7,600.00	7,418.53	7,488.92	7,418.53	30.13	22.39	-109.01	-660.80	-564.79	2,035.15	1,996.70	38.45	52.936	
7,700.00	7,518.53	7,588.92	7,518.53	30.25	22.53	-109.01	-660.80	-564.79	2,035.15	1,996.37	38.78	52.482	
7,800.00	7,618.53	7,688.92	7,618.53	30.37	22.67	-109.01	-660.80	-564.79	2,035.15	1,996.04	39.11	52.032	
7,900.00	7,718.53	7,788.92	7,718.53	30.49	22.81	-109.01	-660.80	-564.79	2,035.15	1,995.70	39.45	51.588	
8,000.00	7,818.53	7,888.92	7,818.53	30.61	22.96	-109.01	-660.80	-564.79	2,035.15	1,995.36	39.79	51.148	
8,100.00	7,918.53	7,988.92	7,918.53	30.73	23.10	-109.01	-660.80	-564.79	2,035.15	1,995.02	40.13	50.713	
8,200.00	8,018.53	8,088.92	8,018.53	30.85	23.25	-109.01	-660.80	-564.79	2,035.15	1,994.67	40.47	50.282	
8,300.00	8,118.53	8,188.92	8,118.53	30.98	23.39	-109.01	-660.80	-564.79	2,035.15	1,994.33	40.82	49.856	
8,400.00	8,218.53	8,288.92	8,218.53	31.11	23.54	-109.01	-660.80	-564.79	2,035.15	1,993.98	41.17	49.435	
8,455.89	8,274.42	8,344.81	8,274.42	31.18	23.62	-109.01	-660.80	-564.79	2,035.15	1,993.79	41.36	49.202	
8,489.47	8,308.00	8,368.39	8,298.00	31.22	23.66	-109.01	-660.80	-564.79	2,035.17	1,993.71	41.46	49.084	



<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 21-9	<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 21-9	<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-MWMD												Offset Well Error:	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)	+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	15.95	16.23	16.23	0.00	N/A	
100.00	100.00	100.00	100.00	0.11	0.10	-90.00	-0.03	15.95	16.23	16.02	0.21	78.075	
200.00	200.00	200.00	200.00	0.34	0.32	-90.00	-0.03	15.95	16.23	15.58	0.66	24.690	
300.00	300.00	300.00	300.00	0.56	0.55	-90.00	-0.03	15.95	16.23	15.13	1.11	14.664	
400.00	400.00	400.00	400.00	0.79	0.77	-90.00	-0.03	15.95	16.23	14.68	1.56	10.429	
500.00	500.00	500.00	500.00	1.01	0.99	-90.00	-0.03	15.95	16.23	14.23	2.01	8.092	
600.00	600.00	600.00	600.00	1.24	1.22	-90.00	-0.03	15.95	16.23	13.78	2.46	6.610	
700.00	700.00	700.00	700.00	1.46	1.44	-90.00	-0.03	15.95	16.23	13.33	2.91	5.588	
800.00	800.00	800.00	800.00	1.69	1.67	-90.00	-0.03	15.95	16.23	12.88	3.35	4.839	
900.00	900.00	900.00	900.00	1.91	1.89	-90.00	-0.03	15.95	16.23	12.43	3.80	4.267	
1,000.00	1,000.00	1,000.00	1,000.00	2.14	2.12	-90.00	-0.03	15.95	16.23	11.98	4.25	3.816	
1,085.00	1,085.00	1,085.00	1,085.00	2.33	2.31	-90.00	-0.03	15.95	16.23	11.60	4.64	3.502 CC	
1,100.00	1,100.00	1,100.06	1,100.06	2.36	2.34	-180.00	-0.05	15.98	16.24	11.54	4.70	3.458 ES	
1,200.00	1,199.97	1,200.46	1,200.43	2.56	2.52	174.82	-1.57	17.69	16.88	11.81	5.07	3.328 SF	
1,300.00	1,299.80	1,300.76	1,300.55	2.77	2.71	163.56	-5.43	22.02	19.04	13.58	5.46	3.488	
1,400.00	1,399.37	1,400.85	1,400.21	2.99	2.92	150.61	-11.60	28.94	23.61	17.74	5.87	4.024	
1,500.00	1,498.55	1,500.65	1,499.19	3.23	3.15	139.72	-20.05	38.43	31.12	24.79	6.32	4.920	
1,600.00	1,597.23	1,600.07	1,597.30	3.51	3.42	131.84	-30.74	50.43	41.57	34.73	6.84	6.075	
1,700.00	1,695.29	1,699.05	1,694.37	3.82	3.72	126.45	-43.59	64.85	54.81	47.37	7.43	7.372	
1,800.00	1,792.60	1,797.81	1,791.02	4.19	4.06	124.55	-57.11	80.02	70.38	62.29	8.09	8.704	
1,900.00	1,889.05	1,896.24	1,887.35	4.61	4.42	125.13	-70.59	95.15	87.94	79.16	8.78	10.014	
1,912.79	1,901.32	1,908.80	1,899.64	4.66	4.46	125.31	-72.31	97.08	90.33	81.45	8.87	10.179	
2,000.00	1,984.91	1,994.42	1,983.42	5.08	4.79	126.63	-84.03	110.24	106.77	97.23	9.53	11.201	
2,100.00	2,080.77	2,092.60	2,079.49	5.57	5.17	127.72	-97.48	125.32	125.66	115.35	10.31	12.183	
2,200.00	2,176.62	2,190.77	2,175.57	6.09	5.57	128.52	-110.92	140.41	144.59	133.47	11.12	13.003	
2,300.00	2,272.48	2,288.94	2,271.64	6.61	5.97	129.14	-124.36	155.50	163.55	151.60	11.95	13.690	
2,400.00	2,368.33	2,387.12	2,367.71	7.16	6.38	129.63	-137.80	170.58	182.51	169.72	12.79	14.273	
2,500.00	2,464.18	2,485.29	2,463.78	7.70	6.79	130.03	-151.24	185.67	201.49	187.85	13.64	14.771	
2,600.00	2,560.04	2,583.47	2,559.85	8.26	7.21	130.36	-164.69	200.76	220.47	205.97	14.50	15.202	
2,700.00	2,655.89	2,681.64	2,655.93	8.82	7.64	130.64	-178.13	215.84	239.46	224.09	15.37	15.578	
2,800.00	2,751.75	2,779.82	2,752.00	9.39	8.06	130.87	-191.57	230.93	258.46	242.21	16.25	15.907	
2,900.00	2,847.60	2,877.99	2,848.07	9.96	8.49	131.08	-205.01	246.02	277.46	260.33	17.13	16.198	
3,000.00	2,943.46	2,976.16	2,944.14	10.53	8.92	131.25	-218.45	261.10	296.46	278.44	18.01	16.456	
3,100.00	3,039.31	3,074.34	3,040.22	11.11	9.35	131.41	-231.90	276.19	315.46	296.56	18.90	16.688	
3,200.00	3,135.16	3,172.51	3,136.29	11.69	9.79	131.55	-245.34	291.28	334.47	314.67	19.80	16.896	
3,300.00	3,231.02	3,270.69	3,232.36	12.27	10.22	131.67	-258.78	306.36	353.47	332.78	20.69	17.083	
3,400.00	3,326.87	3,368.86	3,328.43	12.85	10.66	131.78	-272.22	321.45	372.48	350.89	21.59	17.254	
3,500.00	3,422.73	3,467.04	3,424.51	13.44	11.10	131.88	-285.66	336.54	391.49	369.00	22.49	17.407	
3,600.00	3,518.58	3,565.21	3,520.58	14.03	11.54	131.97	-299.11	351.62	410.50	387.11	23.40	17.546	
3,700.00	3,614.44	3,663.38	3,616.65	14.61	11.98	132.06	-312.55	366.71	429.52	405.21	24.30	17.674	
3,800.00	3,710.29	3,761.56	3,712.72	15.20	12.42	132.13	-325.99	381.80	448.53	423.32	25.21	17.792	
3,900.00	3,806.14	3,859.73	3,808.80	15.79	12.86	132.20	-339.43	396.88	467.54	441.42	26.12	17.900	
4,000.00	3,902.00	3,957.91	3,904.87	16.38	13.30	132.27	-352.88	411.97	486.56	459.52	27.03	18.000	
4,100.00	3,997.85	4,056.08	4,000.94	16.97	13.75	132.33	-366.32	427.06	505.57	477.63	27.94	18.093	
4,200.00	4,093.71	4,154.26	4,097.01	17.56	14.19	132.38	-379.76	442.14	524.59	495.73	28.86	18.179	
4,300.00	4,189.56	4,252.43	4,193.08	18.15	14.63	132.43	-393.20	457.23	543.60	513.83	29.77	18.260	
4,400.00	4,285.42	4,350.60	4,289.16	18.75	15.08	132.48	-406.64	472.32	562.62	531.93	30.69	18.335	
4,500.00	4,381.27	4,448.78	4,385.23	19.34	15.52	132.53	-420.09	487.40	581.63	550.03	31.60	18.405	
4,600.00	4,477.12	4,546.95	4,481.30	19.93	15.97	132.57	-433.53	502.49	600.65	568.13	32.52	18.471	
4,700.00	4,572.98	4,645.13	4,577.37	20.53	16.41	132.61	-446.97	517.58	619.67	586.23	33.44	18.533	
4,800.00	4,668.83	4,743.30	4,673.45	21.12	16.86	132.64	-460.41	532.66	638.68	604.33	34.35	18.591	
4,900.00	4,764.69	4,841.48	4,769.52	21.71	17.30	132.68	-473.85	547.75	657.70	622.43	35.27	18.646	

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 21-9	<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 21-9	<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
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	4,860.54	4,939.65	4,865.59	22.31	17.75	132.71	-487.30	562.84	676.72	640.53	36.19	18.698	
5,100.00	4,956.40	5,037.82	4,961.66	22.90	18.20	132.74	-500.74	577.92	695.74	658.62	37.11	18.747	
5,200.00	5,052.25	5,136.00	5,057.74	23.50	18.64	132.77	-514.18	593.01	714.75	676.72	38.03	18.793	
5,300.00	5,148.10	5,234.17	5,153.81	24.10	19.09	132.80	-527.62	608.10	733.77	694.82	38.95	18.837	
5,400.00	5,243.96	5,332.35	5,249.88	24.69	19.54	132.83	-541.06	623.18	752.79	712.92	39.88	18.879	
5,500.00	5,339.81	5,430.52	5,345.95	25.29	19.99	132.85	-554.51	638.27	771.81	731.01	40.80	18.918	
5,600.00	5,435.67	5,528.70	5,442.02	25.88	20.43	132.88	-567.95	653.36	790.83	749.11	41.72	18.956	
5,700.00	5,531.52	5,626.87	5,538.10	26.48	20.88	132.90	-581.39	668.44	809.85	767.21	42.64	18.992	
5,736.68	5,566.68	5,662.88	5,573.34	26.70	21.05	132.91	-586.32	673.98	816.82	773.84	42.98	19.005	
5,800.00	5,627.57	5,725.13	5,634.25	27.02	21.33	133.06	-594.84	683.54	828.40	784.84	43.55	19.020	
5,900.00	5,724.47	5,823.74	5,730.76	27.43	21.78	133.12	-608.35	698.70	844.76	800.36	44.40	19.025	
6,000.00	5,822.17	5,922.35	5,827.29	27.79	22.19	133.00	-621.75	713.74	858.79	813.59	45.20	18.998	
6,100.00	5,920.56	6,020.72	5,924.06	28.11	22.50	132.85	-633.45	726.88	870.57	824.72	45.85	18.987	
6,200.00	6,019.51	6,119.51	6,021.80	28.38	22.76	132.74	-642.98	737.56	880.09	833.69	46.40	18.966	
6,300.00	6,118.90	6,218.63	6,120.31	28.61	22.99	132.65	-650.27	745.75	887.34	840.47	46.86	18.935	
6,400.00	6,218.62	6,318.00	6,219.38	28.79	23.18	132.59	-655.31	751.40	892.29	845.06	47.23	18.893	
6,500.00	6,318.53	6,417.52	6,318.82	28.92	23.33	132.55	-658.05	754.49	894.94	847.43	47.50	18.840	
6,564.47	6,383.00	6,481.73	6,383.02	28.99	23.41	-137.56	-658.61	755.11	895.42	847.78	47.64	18.796	
6,578.25	6,396.78	6,495.49	6,396.78	29.00	23.43	-137.56	-658.61	755.11	895.42	847.74	47.67	18.783	
6,600.00	6,418.53	6,517.24	6,418.53	29.02	23.46	-137.56	-658.61	755.11	895.42	847.69	47.72	18.764	
6,700.00	6,518.53	6,617.24	6,518.53	29.13	23.57	-137.56	-658.61	755.11	895.42	847.46	47.96	18.671	
6,800.00	6,618.53	6,717.24	6,618.53	29.23	23.69	-137.56	-658.61	755.11	895.42	847.22	48.20	18.578	
6,900.00	6,718.53	6,817.24	6,718.53	29.34	23.81	-137.56	-658.61	755.11	895.42	846.97	48.44	18.484	
7,000.00	6,818.53	6,917.24	6,818.53	29.45	23.93	-137.56	-658.61	755.11	895.42	846.73	48.69	18.391	
7,100.00	6,918.53	7,017.24	6,918.53	29.56	24.05	-137.56	-658.61	755.11	895.42	846.48	48.94	18.297	
7,200.00	7,018.53	7,117.24	7,018.53	29.67	24.18	-137.56	-658.61	755.11	895.42	846.23	49.19	18.204	
7,300.00	7,118.53	7,217.24	7,118.53	29.78	24.30	-137.56	-658.61	755.11	895.42	845.97	49.44	18.110	
7,400.00	7,218.53	7,317.24	7,218.53	29.90	24.43	-137.56	-658.61	755.11	895.42	845.71	49.70	18.016	
7,500.00	7,318.53	7,417.24	7,318.53	30.01	24.56	-137.56	-658.61	755.11	895.42	845.45	49.96	17.922	
7,600.00	7,418.53	7,517.24	7,418.53	30.13	24.69	-137.56	-658.61	755.11	895.42	845.19	50.22	17.828	
7,700.00	7,518.53	7,617.24	7,518.53	30.25	24.82	-137.56	-658.61	755.11	895.42	844.92	50.49	17.734	
7,800.00	7,618.53	7,717.24	7,618.53	30.37	24.95	-137.56	-658.61	755.11	895.42	844.66	50.76	17.641	
7,900.00	7,718.53	7,817.24	7,718.53	30.49	25.08	-137.56	-658.61	755.11	895.42	844.39	51.03	17.547	
8,000.00	7,818.53	7,917.24	7,818.53	30.61	25.22	-137.56	-658.61	755.11	895.42	844.11	51.30	17.454	
8,100.00	7,918.53	8,017.24	7,918.53	30.73	25.35	-137.56	-658.61	755.11	895.42	843.84	51.58	17.360	
8,200.00	8,018.53	8,117.24	8,018.53	30.85	25.49	-137.56	-658.61	755.11	895.42	843.56	51.86	17.267	
8,300.00	8,118.53	8,217.24	8,118.53	30.98	25.63	-137.56	-658.61	755.11	895.42	843.28	52.14	17.174	
8,400.00	8,218.53	8,317.24	8,218.53	31.11	25.77	-137.56	-658.61	755.11	895.42	842.99	52.42	17.081	
8,489.47	8,308.00	8,406.71	8,308.00	31.22	25.89	-137.56	-658.61	755.11	895.42	842.74	52.68	16.999	

<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 21-9	<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 21-9	<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	-122.68	-50.65	-46.74	95.87				
100.00	100.00	80.00	80.00	0.11	1.60	-122.68	-50.65	-46.74	93.77	92.05	1.71	54.756	
200.00	200.00	180.00	180.00	0.34	5.20	-122.68	-50.65	-46.74	93.77	88.23	5.54	16.934	
300.00	300.00	280.00	280.00	0.56	9.20	-122.68	-50.65	-46.74	93.77	84.00	9.76	9.605	
400.00	400.00	380.00	380.00	0.79	13.20	-122.68	-50.65	-46.74	93.77	79.78	13.99	6.704	
500.00	500.00	480.00	480.00	1.01	17.20	-122.68	-50.65	-46.74	93.77	75.55	18.21	5.149	
600.00	600.00	580.00	580.00	1.24	21.20	-122.68	-50.65	-46.74	93.77	71.33	22.44	4.179	
700.00	700.00	680.00	680.00	1.46	25.20	-122.68	-50.65	-46.74	93.77	67.10	26.66	3.517	
800.00	800.00	780.00	780.00	1.69	29.20	-122.68	-50.65	-46.74	93.77	62.88	30.89	3.036	
900.00	900.00	880.00	880.00	1.91	33.20	-122.68	-50.65	-46.74	93.77	58.65	35.11	2.671	
1,000.00	1,000.00	980.00	980.00	2.14	37.20	-122.68	-50.65	-46.74	93.77	54.43	39.34	2.384	
1,085.00	1,085.00	1,065.00	1,065.00	2.33	40.60	-122.68	-50.65	-46.74	93.77	50.84	42.93	2.184 CC	
1,100.00	1,100.00	1,080.00	1,080.00	2.36	41.20	147.43	-50.65	-46.74	93.80	50.24	43.56	2.153	
1,200.00	1,199.97	1,179.97	1,179.97	2.56	45.20	148.14	-50.65	-46.74	95.72	47.98	47.73	2.005 ES	
1,300.00	1,299.80	1,279.80	1,279.80	2.77	49.19	149.82	-50.65	-46.74	100.65	48.80	51.86	1.941 SF	
1,400.00	1,399.37	1,379.37	1,379.37	2.99	53.17	152.19	-50.65	-46.74	108.74	52.84	55.91	1.945	
1,500.00	1,498.55	1,478.55	1,478.55	3.23	57.14	154.92	-50.65	-46.74	120.14	60.28	59.86	2.007	
1,600.00	1,597.23	1,577.23	1,577.23	3.51	61.09	157.71	-50.65	-46.74	134.97	71.29	63.68	2.120	
1,700.00	1,695.29	1,675.29	1,675.29	3.82	65.01	160.35	-50.65	-46.74	153.32	85.96	67.36	2.276	
1,800.00	1,792.60	1,772.60	1,772.60	4.19	68.90	162.75	-50.65	-46.74	175.21	104.34	70.87	2.472	
1,900.00	1,889.05	1,869.05	1,869.05	4.61	72.76	164.84	-50.65	-46.74	200.62	126.42	74.20	2.704	
1,912.79	1,901.32	1,881.32	1,881.32	4.66	73.25	165.09	-50.65	-46.74	204.12	129.51	74.61	2.736	
2,000.00	1,984.91	1,964.91	1,964.91	5.08	76.60	166.69	-50.65	-46.74	228.28	150.27	78.01	2.926	
2,100.00	2,080.77	2,060.77	2,060.77	5.57	80.43	168.15	-50.65	-46.74	256.15	174.23	81.92	3.127	
2,200.00	2,176.62	2,156.62	2,156.62	6.09	84.26	169.33	-50.65	-46.74	284.14	198.29	85.84	3.310	
2,300.00	2,272.48	2,252.48	2,252.48	6.61	88.10	170.30	-50.65	-46.74	312.22	222.44	89.78	3.478	
2,400.00	2,368.33	2,348.33	2,348.33	7.16	91.93	171.11	-50.65	-46.74	340.37	246.66	93.71	3.632	
2,500.00	2,464.18	2,444.18	2,444.18	7.70	95.77	171.79	-50.65	-46.74	368.58	270.92	97.65	3.774	
2,600.00	2,560.04	2,540.04	2,540.04	8.26	99.60	172.38	-50.65	-46.74	396.82	295.22	101.60	3.906	
2,700.00	2,655.89	2,635.89	2,635.89	8.82	103.44	172.89	-50.65	-46.74	425.10	319.55	105.55	4.027	
2,800.00	2,751.75	2,731.75	2,731.75	9.39	107.27	173.33	-50.65	-46.74	453.40	343.90	109.50	4.141	
2,900.00	2,847.60	2,827.60	2,827.60	9.96	111.10	173.73	-50.65	-46.74	481.73	368.28	113.46	4.246	
3,000.00	2,943.46	2,923.46	2,923.46	10.53	114.94	174.07	-50.65	-46.74	510.08	392.67	117.41	4.344	
3,100.00	3,039.31	3,019.31	3,019.31	11.11	118.77	174.39	-50.65	-46.74	538.44	417.07	121.37	4.436	
3,200.00	3,135.16	3,115.16	3,115.16	11.69	122.61	174.67	-50.65	-46.74	566.82	441.49	125.33	4.523	
3,300.00	3,231.02	3,211.02	3,211.02	12.27	126.44	174.92	-50.65	-46.74	595.20	465.91	129.29	4.604	
3,400.00	3,326.87	3,306.87	3,306.87	12.85	130.27	175.16	-50.65	-46.74	623.60	490.35	133.26	4.680	
3,500.00	3,422.73	3,402.73	3,402.73	13.44	134.11	175.37	-50.65	-46.74	652.01	514.79	137.22	4.752	
3,600.00	3,518.58	3,498.58	3,498.58	14.03	137.94	175.56	-50.65	-46.74	680.42	539.24	141.18	4.819	
3,700.00	3,614.44	3,594.44	3,594.44	14.61	141.78	175.74	-50.65	-46.74	708.84	563.69	145.15	4.884	
3,800.00	3,710.29	3,690.29	3,690.29	15.20	145.61	175.90	-50.65	-46.74	737.26	588.15	149.12	4.944	
3,900.00	3,806.14	3,786.14	3,786.14	15.79	149.45	176.06	-50.65	-46.74	765.69	612.61	153.08	5.002	
4,000.00	3,902.00	3,882.00	3,882.00	16.38	153.28	176.20	-50.65	-46.74	794.13	637.08	157.05	5.057	
4,100.00	3,997.85	3,977.85	3,977.85	16.97	157.11	176.33	-50.65	-46.74	822.57	661.55	161.02	5.109	
4,200.00	4,093.71	4,073.71	4,073.71	17.56	160.95	176.45	-50.65	-46.74	851.01	686.02	164.99	5.158	
4,300.00	4,189.56	4,169.56	4,169.56	18.15	164.78	176.57	-50.65	-46.74	879.46	710.50	168.96	5.205	
4,400.00	4,285.42	4,265.42	4,265.42	18.75	168.62	176.67	-50.65	-46.74	907.91	734.98	172.93	5.250	
4,500.00	4,381.27	4,361.27	4,361.27	19.34	172.45	176.78	-50.65	-46.74	936.36	759.46	176.90	5.293	
4,600.00	4,477.12	4,457.12	4,457.12	19.93	176.28	176.87	-50.65	-46.74	964.81	783.95	180.87	5.334	
4,700.00	4,572.98	4,552.98	4,552.98	20.53	180.12	176.96	-50.65	-46.74	993.27	808.43	184.84	5.374	
4,800.00	4,668.83	4,648.83	4,648.83	21.12	183.95	177.05	-50.65	-46.74	1,021.73	832.92	188.81	5.411	
4,900.00	4,764.69	4,744.69	4,744.69	21.71	187.79	177.13	-50.65	-46.74	1,050.19	857.41	192.78	5.448	

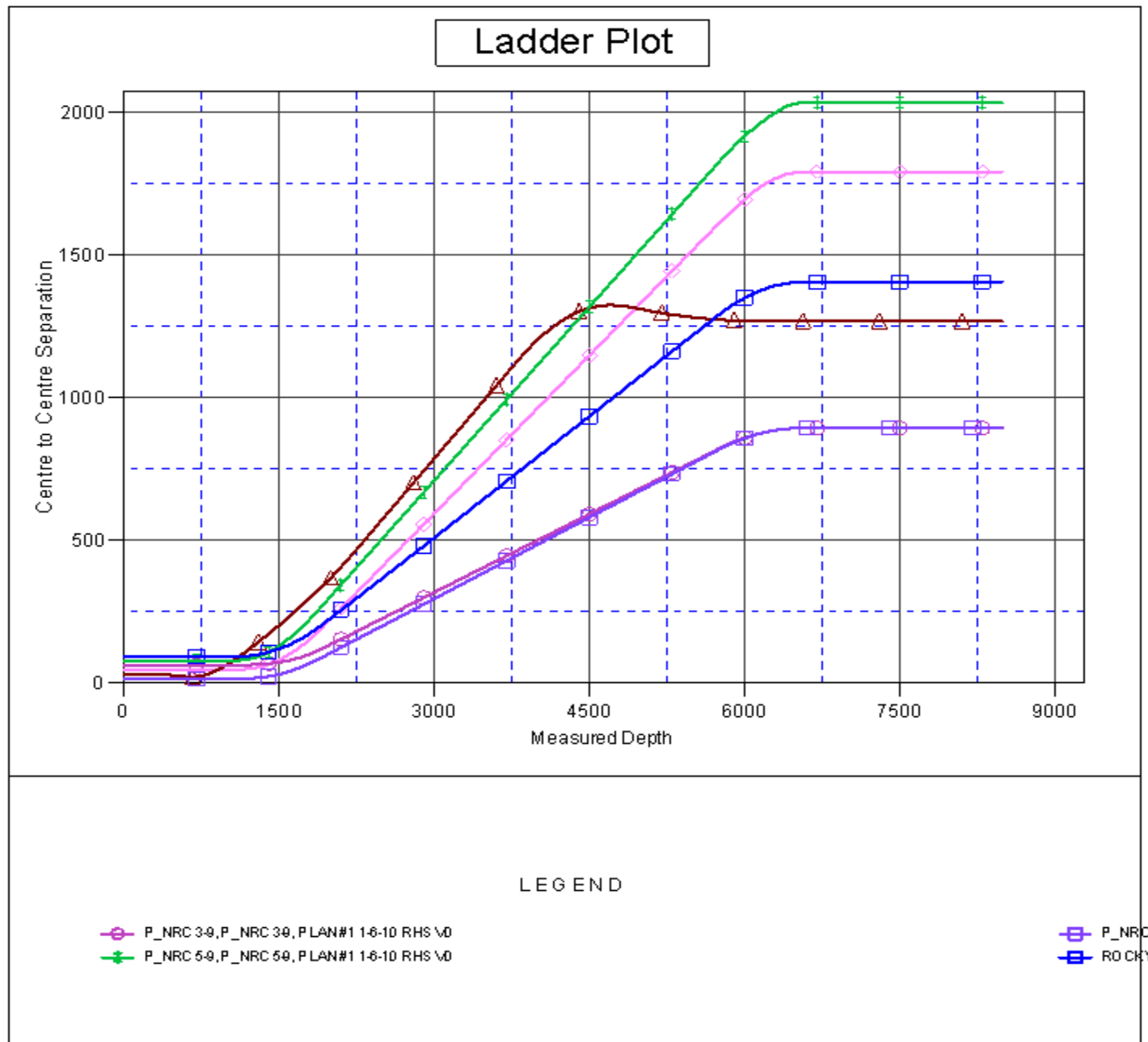
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<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 21-9	<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 21-9	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-6-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-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
5,000.00	4,860.54	4,840.54	4,840.54	22.31	191.62	177.20	-50.65	-46.74	1,078.65	881.90	196.75	5.482	
5,100.00	4,956.40	4,936.40	4,936.40	22.90	195.46	177.27	-50.65	-46.74	1,107.12	906.39	200.73	5.516	
5,200.00	5,052.25	5,032.25	5,032.25	23.50	199.29	177.34	-50.65	-46.74	1,135.58	930.89	204.70	5.548	
5,300.00	5,148.10	5,128.10	5,128.10	24.10	203.12	177.41	-50.65	-46.74	1,164.05	955.38	208.67	5.578	
5,400.00	5,243.96	5,223.96	5,223.96	24.69	206.96	177.47	-50.65	-46.74	1,192.52	979.88	212.64	5.608	
5,500.00	5,339.81	5,319.81	5,319.81	25.29	210.79	177.53	-50.65	-46.74	1,220.99	1,004.37	216.62	5.637	
5,600.00	5,435.67	5,415.67	5,415.67	25.88	214.63	177.58	-50.65	-46.74	1,249.46	1,028.87	220.59	5.664	
5,700.00	5,531.52	5,511.52	5,511.52	26.48	218.46	177.64	-50.65	-46.74	1,277.93	1,053.37	224.56	5.691	
5,736.68	5,566.68	5,546.68	5,546.68	26.70	219.87	177.66	-50.65	-46.74	1,288.38	1,062.36	226.02	5.700	
5,800.00	5,627.57	5,607.57	5,607.57	27.02	222.30	177.70	-50.65	-46.74	1,305.74	1,075.94	229.79	5.682	
5,900.00	5,724.47	5,704.47	5,704.47	27.43	226.18	177.77	-50.65	-46.74	1,330.40	1,094.74	235.65	5.646	
6,000.00	5,822.17	5,802.17	5,802.17	27.79	230.09	177.82	-50.65	-46.74	1,351.67	1,110.29	241.38	5.600	
6,100.00	5,920.56	5,900.56	5,900.56	28.11	234.02	177.86	-50.65	-46.74	1,369.52	1,122.63	246.88	5.547	
6,200.00	6,019.51	5,999.51	5,999.51	28.38	237.98	177.89	-50.65	-46.74	1,383.92	1,131.78	252.14	5.489	
6,300.00	6,118.90	6,098.90	6,098.90	28.61	241.96	177.92	-50.65	-46.74	1,394.87	1,137.74	257.13	5.425	
6,400.00	6,218.62	6,198.62	6,198.62	28.79	245.94	177.93	-50.65	-46.74	1,402.34	1,140.51	261.83	5.356	
6,500.00	6,318.53	6,298.53	6,298.53	28.92	249.94	177.94	-50.65	-46.74	1,406.34	1,140.11	266.23	5.282	
6,564.47	6,383.00	6,363.00	6,363.00	28.99	252.52	-92.15	-50.65	-46.74	1,407.06	1,138.17	268.90	5.233	
6,600.00	6,418.53	6,398.53	6,398.53	29.02	253.94	-92.15	-50.65	-46.74	1,407.06	1,136.69	270.38	5.204	
6,700.00	6,518.53	6,498.53	6,498.53	29.13	257.94	-92.15	-50.65	-46.74	1,407.06	1,132.52	274.55	5.125	
6,800.00	6,618.53	6,598.53	6,598.53	29.23	261.94	-92.15	-50.65	-46.74	1,407.06	1,128.34	278.72	5.048	
6,900.00	6,718.53	6,698.53	6,698.53	29.34	265.94	-92.15	-50.65	-46.74	1,407.06	1,124.17	282.89	4.974	
7,000.00	6,818.53	6,798.53	6,798.53	29.45	269.94	-92.15	-50.65	-46.74	1,407.06	1,120.00	287.06	4.902	
7,100.00	6,918.53	6,898.53	6,898.53	29.56	273.94	-92.15	-50.65	-46.74	1,407.06	1,115.82	291.24	4.831	
7,200.00	7,018.53	6,998.53	6,998.53	29.67	277.94	-92.15	-50.65	-46.74	1,407.06	1,111.65	295.41	4.763	
7,300.00	7,118.53	7,098.53	7,098.53	29.78	281.94	-92.15	-50.65	-46.74	1,407.06	1,107.47	299.59	4.697	
7,400.00	7,218.53	7,198.53	7,198.53	29.90	285.94	-92.15	-50.65	-46.74	1,407.06	1,103.29	303.77	4.632	
7,500.00	7,318.53	7,298.53	7,298.53	30.01	289.94	-92.15	-50.65	-46.74	1,407.06	1,099.11	307.95	4.569	
7,600.00	7,418.53	7,398.53	7,398.53	30.13	293.94	-92.15	-50.65	-46.74	1,407.06	1,094.93	312.13	4.508	
7,700.00	7,518.53	7,498.53	7,498.53	30.25	297.94	-92.15	-50.65	-46.74	1,407.06	1,090.75	316.31	4.448	
7,800.00	7,618.53	7,598.53	7,598.53	30.37	301.94	-92.15	-50.65	-46.74	1,407.06	1,086.57	320.49	4.390	
7,900.00	7,718.53	7,698.53	7,698.53	30.49	305.94	-92.15	-50.65	-46.74	1,407.06	1,082.38	324.68	4.334	
8,000.00	7,818.53	7,798.53	7,798.53	30.61	309.94	-92.15	-50.65	-46.74	1,407.06	1,078.20	328.86	4.279	
8,100.00	7,918.53	7,898.53	7,898.53	30.73	313.94	-92.15	-50.65	-46.74	1,407.06	1,074.01	333.05	4.225	
8,200.00	8,018.53	7,998.53	7,998.53	30.85	317.94	-92.15	-50.65	-46.74	1,407.06	1,069.83	337.23	4.172	
8,300.00	8,118.53	8,098.53	8,098.53	30.98	321.94	-92.15	-50.65	-46.74	1,407.06	1,065.64	341.42	4.121	
8,400.00	8,218.53	8,198.53	8,198.53	31.11	325.94	-92.15	-50.65	-46.74	1,407.06	1,061.45	345.61	4.071	
8,456.72	8,275.25	8,255.25	8,255.25	31.18	328.21	-92.15	-50.65	-46.74	1,407.06	1,059.08	347.98	4.043	
8,489.47	8,308.00	8,280.00	8,280.00	31.22	329.20	-92.15	-50.65	-46.74	1,407.08	1,058.05	349.03	4.031	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Site WELD_NRC 18-9 PAD
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<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 21-9	<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 21-9	<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 21-9	<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 21-9	<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  
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