



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_NRC 19-9 PAD

P_NRC 36-9

P_NRC 36-9

Plan: PLAN #1 1-10-10 RHS

Standard Planning Report

11 January, 2010





Azimuths to True North
Magnetic North: 9.10°

Magnetic Field
Strength: 53085.9nT
Dip Angle: 66.80°
Date: 1/11/2010
Model: IGRF2010

WELL DETAILS: P_NRC 36-9

+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	1265667.77	3167448.22	5052.00	40° 3' 39.949 N	104° 54' 6.329 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3259.00	3394.23	PARKMAN
4734.00	5016.20	SUSSEX
5204.00	5532.98	SHANNON
7374.00	7738.22	NIO A
7714.00	8078.22	CODELL
8164.00	8528.22	JSAND

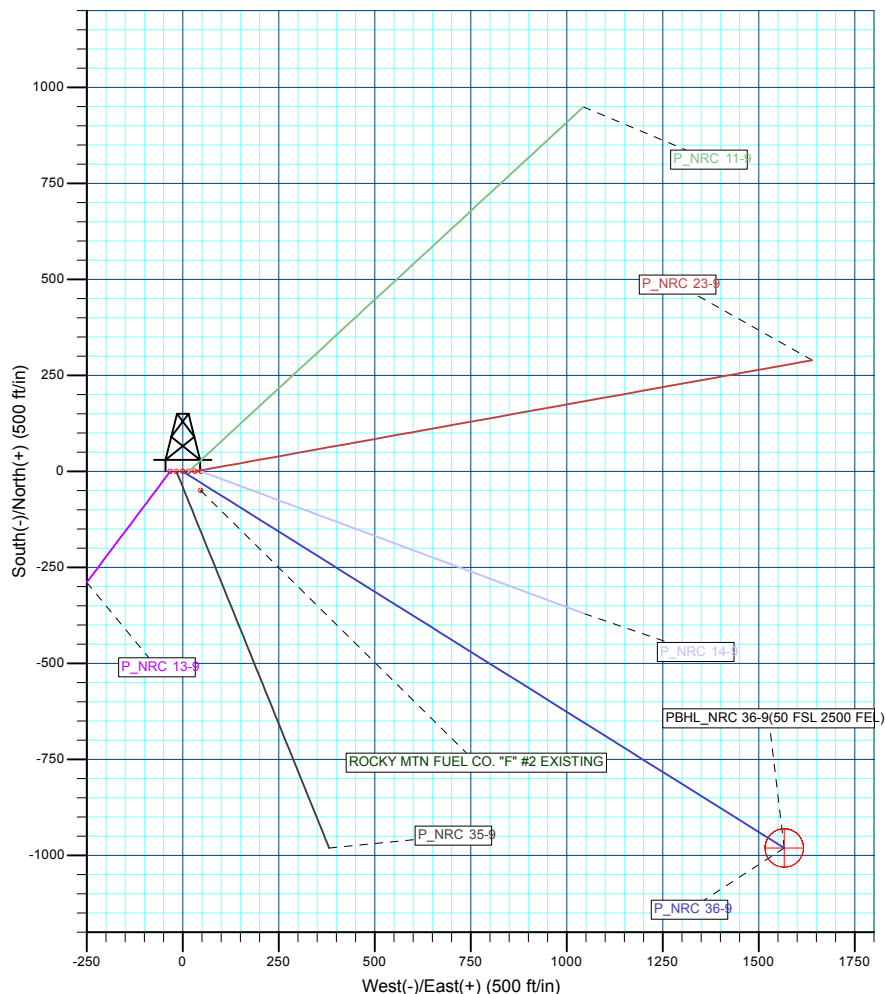
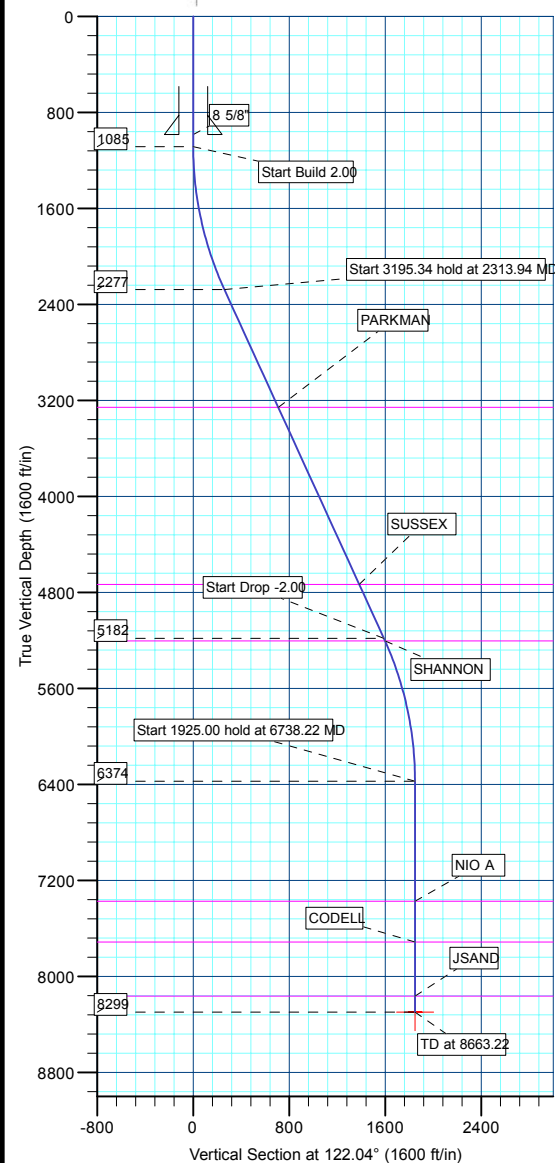
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1085.00	0.00	0.00	1085.00	0.00	0.00	0.00	0.00	0.00	
2313.94	24.58	122.04	2276.59	-137.72	220.03	2.00	122.04	259.58	
5509.28	24.58	122.04	5182.41	-842.85	1346.65	0.00	0.00	1588.66	
6738.22	0.00	0.00	6374.00	-980.57	1566.68	2.00	180.00	1848.24	
8663.22	0.00	0.00	8299.00	-980.57	1566.68	0.00	0.00	1848.24	PBHL_NRC 36-9(50 FSL 2500 FEL)



KB ELEV:WELL @ 5067.00ft (Original Well Elev)

GRD ELEV: 5052.00



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8299.00	-980.57	1566.68	1264697.80	3169021.48	40° 3' 30.258 N	104° 53' 46.180 W	Circle (Radius: 50.00)

Plan: PLAN #1 1-10-10 RHS (P_NRC 36-9/P_NRC 36-9)

Created By: Robert H. Scott

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 36-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site:	WELD_NRC 19-9 PAD	North Reference:	True
Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 36-9		
Design:	PLAN #1 1-10-10 RHS		

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

Site						WELD_NRC 19-9 PAD, SECTION 9 T1N R67W											
Site Position:						Northing:			1,265,667.89 ft			Latitude:			40° 3' 39.949 N		
From:			Lat/Long			Easting:			3,167,464.18 ft			Longitude:			104° 54' 6.124 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.39 °		

Well	P_NRC 36-9					
Well Position	+N/-S	-0.02 ft	Northing:	1,265,667.77 ft	Latitude:	40° 3' 39.949 N
	+E/-W	-15.95 ft	Easting:	3,167,448.22 ft	Longitude:	104° 54' 6.329 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,052.00 ft

Wellbore	P_NRC 36-9				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/11/2010	9.10	66.80	53,086

Design	PLAN #1 1-10-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	122.04

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,085.00	0.00	0.00	1,085.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,313.94	24.58	122.04	2,276.59	-137.72	220.03	2.00	2.00	0.00	122.04	
5,509.28	24.58	122.04	5,182.41	-842.85	1,346.65	0.00	0.00	0.00	0.00	
6,738.22	0.00	0.00	6,374.00	-980.57	1,566.68	2.00	-2.00	0.00	180.00	
8,663.22	0.00	0.00	8,299.00	-980.57	1,566.68	0.00	0.00	0.00	0.00	PBHL_NRC 36-9(5)

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 36-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site:	WELD_NRC 19-9 PAD	North Reference:	True
Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 36-9		
Design:	PLAN #1 1-10-10 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)
Start Build 2.00									
1,085.00	0.00	0.00	1,085.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.30	122.04	1,100.00	-0.02	0.03	0.04	2.00	2.00	0.00
1,200.00	2.30	122.04	1,199.97	-1.22	1.96	2.31	2.00	2.00	0.00
1,300.00	4.30	122.04	1,299.80	-4.28	6.84	8.06	2.00	2.00	0.00
1,400.00	6.30	122.04	1,399.37	-9.18	14.67	17.30	2.00	2.00	0.00
1,500.00	8.30	122.04	1,498.55	-15.92	25.44	30.01	2.00	2.00	0.00
1,600.00	10.30	122.04	1,597.23	-24.49	39.13	46.17	2.00	2.00	0.00
1,700.00	12.30	122.04	1,695.29	-34.89	55.74	65.76	2.00	2.00	0.00
1,800.00	14.30	122.04	1,792.60	-47.09	75.24	88.76	2.00	2.00	0.00
1,900.00	16.30	122.04	1,889.05	-61.09	97.61	115.15	2.00	2.00	0.00
2,000.00	18.30	122.04	1,984.52	-76.87	122.81	144.89	2.00	2.00	0.00
2,100.00	20.30	122.04	2,078.90	-94.40	150.83	177.94	2.00	2.00	0.00
2,200.00	22.30	122.04	2,172.06	-113.67	181.62	214.26	2.00	2.00	0.00
2,300.00	24.30	122.04	2,263.90	-134.66	215.15	253.81	2.00	2.00	0.00
Start 3195.34 hold at 2313.94 MD									
2,313.94	24.58	122.04	2,276.59	-137.72	220.03	259.58	2.00	2.00	0.00
2,400.00	24.58	122.04	2,354.85	-156.71	250.38	295.37	0.00	0.00	0.00
2,500.00	24.58	122.04	2,445.79	-178.78	285.63	336.97	0.00	0.00	0.00
2,600.00	24.58	122.04	2,536.73	-200.84	320.89	378.56	0.00	0.00	0.00
2,700.00	24.58	122.04	2,627.67	-222.91	356.15	420.16	0.00	0.00	0.00
2,800.00	24.58	122.04	2,718.61	-244.98	391.41	461.75	0.00	0.00	0.00
2,900.00	24.58	122.04	2,809.55	-267.05	426.67	503.35	0.00	0.00	0.00
3,000.00	24.58	122.04	2,900.49	-289.11	461.92	544.94	0.00	0.00	0.00
3,100.00	24.58	122.04	2,991.43	-311.18	497.18	586.54	0.00	0.00	0.00
3,200.00	24.58	122.04	3,082.37	-333.25	532.44	628.13	0.00	0.00	0.00
3,300.00	24.58	122.04	3,173.31	-355.32	567.70	669.72	0.00	0.00	0.00
PARKMAN									
3,394.23	24.58	122.04	3,259.00	-376.11	600.92	708.92	0.00	0.00	0.00
3,400.00	24.58	122.04	3,264.24	-377.38	602.96	711.32	0.00	0.00	0.00
3,500.00	24.58	122.04	3,355.18	-399.45	638.21	752.91	0.00	0.00	0.00
3,600.00	24.58	122.04	3,446.12	-421.52	673.47	794.51	0.00	0.00	0.00
3,700.00	24.58	122.04	3,537.06	-443.59	708.73	836.10	0.00	0.00	0.00
3,800.00	24.58	122.04	3,628.00	-465.65	743.99	877.70	0.00	0.00	0.00
3,900.00	24.58	122.04	3,718.94	-487.72	779.25	919.29	0.00	0.00	0.00
4,000.00	24.58	122.04	3,809.88	-509.79	814.50	960.89	0.00	0.00	0.00
4,100.00	24.58	122.04	3,900.82	-531.86	849.76	1,002.48	0.00	0.00	0.00
4,200.00	24.58	122.04	3,991.76	-553.92	885.02	1,044.07	0.00	0.00	0.00
4,300.00	24.58	122.04	4,082.70	-575.99	920.28	1,085.67	0.00	0.00	0.00
4,400.00	24.58	122.04	4,173.64	-598.06	955.54	1,127.26	0.00	0.00	0.00
4,500.00	24.58	122.04	4,264.57	-620.13	990.79	1,168.86	0.00	0.00	0.00
4,600.00	24.58	122.04	4,355.51	-642.19	1,026.05	1,210.45	0.00	0.00	0.00
4,700.00	24.58	122.04	4,446.45	-664.26	1,061.31	1,252.05	0.00	0.00	0.00
4,800.00	24.58	122.04	4,537.39	-686.33	1,096.57	1,293.64	0.00	0.00	0.00
4,900.00	24.58	122.04	4,628.33	-708.40	1,131.82	1,335.24	0.00	0.00	0.00
5,000.00	24.58	122.04	4,719.27	-730.46	1,167.08	1,376.83	0.00	0.00	0.00
SUSSEX									
5,016.20	24.58	122.04	4,734.00	-734.04	1,172.79	1,383.57	0.00	0.00	0.00
5,100.00	24.58	122.04	4,810.21	-752.53	1,202.34	1,418.42	0.00	0.00	0.00
5,200.00	24.58	122.04	4,901.15	-774.60	1,237.60	1,460.02	0.00	0.00	0.00
5,300.00	24.58	122.04	4,992.09	-796.67	1,272.86	1,501.61	0.00	0.00	0.00
5,400.00	24.58	122.04	5,083.03	-818.73	1,308.11	1,543.21	0.00	0.00	0.00
5,500.00	24.58	122.04	5,173.96	-840.80	1,343.37	1,584.80	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 36-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site:	WELD_NRC 19-9 PAD	North Reference:	True
Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 36-9		
Design:	PLAN #1 1-10-10 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)
Start Drop -2.00									
5,509.28	24.58	122.04	5,182.41	-842.85	1,346.65	1,588.66	0.00	0.00	0.00
SHANNON									
5,532.98	24.10	122.04	5,204.00	-848.03	1,354.93	1,598.43	2.00	-2.00	0.00
5,600.00	22.76	122.04	5,265.49	-862.17	1,377.52	1,625.08	2.00	-2.00	0.00
5,700.00	20.76	122.04	5,358.35	-881.84	1,408.95	1,662.16	2.00	-2.00	0.00
5,800.00	18.76	122.04	5,452.46	-899.78	1,437.61	1,695.97	2.00	-2.00	0.00
5,900.00	16.76	122.04	5,547.68	-915.97	1,463.47	1,726.48	2.00	-2.00	0.00
6,000.00	14.76	122.04	5,643.92	-930.38	1,486.50	1,753.65	2.00	-2.00	0.00
6,100.00	12.76	122.04	5,741.04	-943.01	1,506.67	1,777.44	2.00	-2.00	0.00
6,200.00	10.76	122.04	5,838.94	-953.82	1,523.95	1,797.83	2.00	-2.00	0.00
6,300.00	8.76	122.04	5,937.48	-962.82	1,538.32	1,814.79	2.00	-2.00	0.00
6,400.00	6.76	122.04	6,036.56	-969.99	1,549.78	1,828.30	2.00	-2.00	0.00
6,500.00	4.76	122.04	6,136.05	-975.32	1,558.29	1,838.34	2.00	-2.00	0.00
6,600.00	2.76	122.04	6,235.83	-978.80	1,563.85	1,844.91	2.00	-2.00	0.00
6,700.00	0.76	122.04	6,335.78	-980.43	1,566.46	1,847.99	2.00	-2.00	0.00
Start 1925.00 hold at 6738.22 MD									
6,738.22	0.00	0.00	6,374.00	-980.57	1,566.68	1,848.24	2.00	-2.00	0.00
6,800.00	0.00	0.00	6,435.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
6,900.00	0.00	0.00	6,535.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,000.00	0.00	0.00	6,635.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,100.00	0.00	0.00	6,735.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,200.00	0.00	0.00	6,835.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,300.00	0.00	0.00	6,935.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,400.00	0.00	0.00	7,035.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,500.00	0.00	0.00	7,135.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,600.00	0.00	0.00	7,235.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,700.00	0.00	0.00	7,335.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
NIO A									
7,738.22	0.00	0.00	7,374.00	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,800.00	0.00	0.00	7,435.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
7,900.00	0.00	0.00	7,535.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
8,000.00	0.00	0.00	7,635.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
CODELL									
8,078.22	0.00	0.00	7,714.00	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
8,100.00	0.00	0.00	7,735.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
8,200.00	0.00	0.00	7,835.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
8,300.00	0.00	0.00	7,935.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
8,400.00	0.00	0.00	8,035.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
8,500.00	0.00	0.00	8,135.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
JSAND									
8,528.22	0.00	0.00	8,164.00	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
8,600.00	0.00	0.00	8,235.78	-980.57	1,566.68	1,848.24	0.00	0.00	0.00
PBHL_NRC 36-9(50 FSL 2500 FEL)									
8,663.22	0.00	0.00	8,299.00	-980.57	1,566.68	1,848.24	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 36-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site:	WELD_NRC 19-9 PAD	North Reference:	True
Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 36-9		
Design:	PLAN #1 1-10-10 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 36-9(50 F	0.00	0.00	8,299.00	-980.57	1,566.68	1,264,697.80	3,169,021.48	40° 3' 30.258 N	104° 53' 46.180 W
- plan hits target center									
- 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	(°)	(°)
	3,394.23	3,259.00	PARKMAN			
	5,016.20	4,734.00	SUSSEX			
	5,532.98	5,204.00	SHANNON			
	7,738.22	7,374.00	NIO A			
	8,078.22	7,714.00	CODELL			
	8,528.22	8,164.00	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	0.00	0.00	Start Build 2.00
	2,313.94	2,276.59	-137.72	220.03	Start 3195.34 hold at 2313.94 MD
	5,509.28	5,182.41	-842.85	1,346.65	Start Drop -2.00
	6,738.22	6,374.00	-980.57	1,566.68	Start 1925.00 hold at 6738.22 MD
	8,663.22	8,299.00	-980.57	1,566.68	TD at 8663.22



US ROCKIES REGION PLANNING

**COLORADO NORTHERN ZONE - 83
WELD_NRC 19-9 PAD
P_NRC 36-9**

**P_NRC 36-9
PLAN #1 1-10-10 RHS**

Anticollision Report

11 January, 2010



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

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

Survey Tool Program	Date	1/11/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,663.22	PLAN #1 1-10-10 RHS (P_NRC 36-9)	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 19-9 PAD						
P_NRC 11-9 - P_NRC 11-9 - PLAN #1 1-10-10 RHS	1,169.70	1,169.33	15.88	10.92	3.203	CC
P_NRC 11-9 - P_NRC 11-9 - PLAN #1 1-10-10 RHS	1,200.00	1,199.46	15.93	10.86	3.138	ES, SF
P_NRC 13-9 - P_NRC 13-9 - PLAN #1 1-10-10 RHS	1,085.00	1,085.00	32.19	27.57	6.969	CC
P_NRC 13-9 - P_NRC 13-9 - PLAN #1 1-10-10 RHS	1,100.00	1,099.90	32.25	27.57	6.892	ES, SF
P_NRC 14-9 - P_NRC 14-9 - PLAN #1 1-10-10 RHS	1,085.00	1,085.00	47.86	43.24	10.362	CC
P_NRC 14-9 - P_NRC 14-9 - PLAN #1 1-10-10 RHS	1,200.00	1,198.23	48.04	42.99	9.520	ES
P_NRC 14-9 - P_NRC 14-9 - PLAN #1 1-10-10 RHS	3,800.00	3,774.77	195.48	157.50	5.148	SF
P_NRC 23-9 - P_NRC 23-9 - PLAN #1 1-10-10 RHS	1,085.00	1,085.00	31.91	29.04	11.119	CC
P_NRC 23-9 - P_NRC 23-9 - PLAN #1 1-10-10 RHS	1,100.00	1,099.84	31.91	29.01	10.975	ES
P_NRC 23-9 - P_NRC 23-9 - PLAN #1 1-10-10 RHS	1,300.00	1,297.52	33.41	30.02	9.874	SF
P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 RHS	1,085.00	1,085.00	16.23	11.62	3.515	CC
P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 RHS	1,100.00	1,100.03	16.25	11.57	3.474	ES
P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 RHS	1,200.00	1,200.23	17.35	12.31	3.447	SF
ROCKY MTN FUEL CO. "F" #2 EXISTING - ROCKY MT	1,702.69	1,678.92	17.35	-51.64	0.252	Level 1, CC, ES, SF

Offset Design WELD_NRC 19-9 PAD - P_NRC 11-9 - P_NRC 11-9 - PLAN #1 1-10-10 RHS												
Survey Program: 0-MWD												
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
0.00	0.00	0.00	0.00	0.00	0.00	89.94	0.02	15.95	15.95			
100.00	100.00	100.00	100.00	0.10	0.10	89.94	0.02	15.95	15.95	15.76	0.19	83.509
200.00	200.00	200.00	200.00	0.32	0.32	89.94	0.02	15.95	15.95	15.31	0.64	24.906
300.00	300.00	300.00	300.00	0.55	0.55	89.94	0.02	15.95	15.95	14.86	1.09	14.636
400.00	400.00	400.00	400.00	0.77	0.77	89.94	0.02	15.95	15.95	14.41	1.54	10.362
500.00	500.00	500.00	500.00	0.99	0.99	89.94	0.02	15.95	15.95	13.97	1.99	8.021
600.00	600.00	600.00	600.00	1.22	1.22	89.94	0.02	15.95	15.95	13.52	2.44	6.542
700.00	700.00	700.00	700.00	1.44	1.44	89.94	0.02	15.95	15.95	13.07	2.89	5.524
800.00	800.00	800.00	800.00	1.67	1.67	89.94	0.02	15.95	15.95	12.62	3.34	4.780
900.00	900.00	900.00	900.00	1.89	1.89	89.94	0.02	15.95	15.95	12.17	3.79	4.213
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.94	0.02	15.95	15.95	11.72	4.24	3.766
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	89.94	0.02	15.95	15.95	11.34	4.62	3.454
1,100.00	1,100.00	1,099.94	1,099.94	2.34	2.34	-32.27	0.04	15.98	15.95	11.27	4.68	3.407
1,169.70	1,169.69	1,169.33	1,169.32	2.47	2.49	-37.53	0.86	16.87	15.88	10.92	4.96	3.203 CC

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 11-9 - P_NRC 11-9 - PLAN #1 1-10-10 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
1,200.00	1,199.97	1,199.46	1,199.43	2.52	2.56	-42.11	1.57	17.63	15.93	10.86	5.08	3.138	ES, SF
1,300.00	1,299.80	1,298.68	1,298.48	2.72	2.78	-64.75	5.42	21.81	17.89	12.40	5.49	3.259	
1,400.00	1,399.37	1,397.34	1,396.72	2.93	3.00	-87.76	11.56	28.45	25.04	19.12	5.92	4.227	
1,500.00	1,498.55	1,495.17	1,493.77	3.17	3.25	-102.28	19.90	37.49	38.10	31.72	6.38	5.969	
1,600.00	1,597.23	1,591.94	1,589.30	3.44	3.51	-110.33	30.37	48.82	56.27	49.40	6.87	8.190	
1,700.00	1,695.29	1,687.43	1,683.00	3.75	3.80	-114.92	42.83	62.32	78.96	71.56	7.40	10.667	
1,800.00	1,792.60	1,781.42	1,774.59	4.11	4.13	-117.65	57.16	77.84	105.83	97.85	7.99	13.252	
1,900.00	1,889.05	1,873.73	1,863.81	4.53	4.49	-119.33	73.21	95.22	136.68	128.05	8.63	15.834	
2,000.00	1,984.52	1,964.19	1,950.45	5.02	4.90	-120.36	90.83	114.29	171.33	161.99	9.34	18.339	
2,100.00	2,078.90	2,056.53	2,038.43	5.58	5.35	-121.33	109.86	134.90	208.84	198.70	10.14	20.605	
2,200.00	2,172.06	2,148.19	2,125.76	6.22	5.82	-122.49	128.75	155.37	248.20	237.22	10.98	22.600	
2,300.00	2,263.90	2,238.85	2,212.13	6.93	6.30	-123.73	147.44	175.60	289.52	277.64	11.88	24.372	
2,313.94	2,276.59	2,251.40	2,224.09	7.03	6.37	-123.90	150.03	178.41	295.45	283.44	12.01	24.604	
2,400.00	2,354.85	2,328.82	2,297.85	7.70	6.79	-125.46	165.99	195.69	332.23	319.38	12.85	25.863	
2,500.00	2,445.79	2,418.78	2,383.55	8.49	7.29	-126.88	184.53	215.77	375.16	361.32	13.84	27.106	
2,600.00	2,536.73	2,508.74	2,469.26	9.30	7.79	-128.01	203.08	235.85	418.25	403.40	14.85	28.157	
2,700.00	2,627.67	2,598.70	2,554.97	10.12	8.31	-128.94	221.62	255.94	461.45	445.57	15.88	29.054	
2,800.00	2,718.61	2,688.66	2,640.68	10.95	8.82	-129.70	240.17	276.02	504.73	487.81	16.92	29.825	
2,900.00	2,809.55	2,778.63	2,728.38	11.78	9.35	-130.35	258.71	296.10	548.08	530.10	17.97	30.494	
3,000.00	2,900.49	2,868.59	2,812.09	12.63	9.87	-130.90	277.26	316.18	591.47	572.43	19.03	31.078	
3,100.00	2,991.43	2,958.55	2,897.80	13.47	10.40	-131.37	295.80	336.27	634.89	614.80	20.10	31.593	
3,200.00	3,082.37	3,048.51	2,983.50	14.33	10.93	-131.78	314.35	356.35	678.35	657.19	21.17	32.048	
3,300.00	3,173.31	3,138.47	3,069.21	15.18	11.47	-132.15	332.89	376.43	721.84	699.60	22.24	32.454	
3,400.00	3,264.24	3,228.43	3,154.92	16.04	12.01	-132.47	351.44	396.52	765.34	742.02	23.32	32.818	
3,500.00	3,355.18	3,318.39	3,240.63	16.90	12.54	-132.76	369.98	416.60	808.87	784.46	24.40	33.145	
3,600.00	3,446.12	3,408.35	3,326.33	17.76	13.08	-133.02	388.53	436.68	852.41	826.91	25.49	33.441	
3,700.00	3,537.06	3,498.31	3,412.04	18.63	13.62	-133.25	407.07	456.76	895.96	869.38	26.58	33.709	
3,800.00	3,628.00	3,588.27	3,497.75	19.49	14.17	-133.47	425.62	476.85	939.52	911.85	27.67	33.954	
3,900.00	3,718.94	3,678.24	3,583.46	20.36	14.71	-133.66	444.16	496.93	983.09	954.33	28.76	34.178	
4,000.00	3,809.88	3,768.20	3,669.16	21.23	15.25	-133.84	462.71	517.01	1,026.67	996.81	29.86	34.384	
4,100.00	3,900.82	3,858.16	3,754.87	22.10	15.80	-134.00	481.25	537.09	1,070.26	1,039.30	30.96	34.573	
4,200.00	3,991.76	3,948.12	3,840.58	22.97	16.34	-134.15	499.80	557.18	1,113.85	1,081.80	32.05	34.748	
4,300.00	4,082.70	4,038.08	3,926.29	23.84	16.89	-134.29	518.34	577.26	1,157.45	1,124.30	33.15	34.911	
4,400.00	4,173.64	4,128.04	4,011.99	24.71	17.44	-134.42	536.89	597.34	1,201.05	1,166.80	34.26	35.061	
4,500.00	4,264.57	4,218.00	4,097.70	25.59	17.99	-134.54	555.43	617.42	1,244.66	1,209.31	35.36	35.202	
4,600.00	4,355.51	4,307.96	4,183.41	26.46	18.53	-134.65	573.98	637.51	1,288.28	1,251.82	36.46	35.333	
4,700.00	4,446.45	4,397.92	4,269.11	27.33	19.08	-134.75	592.52	657.59	1,331.89	1,294.33	37.57	35.455	
4,800.00	4,537.39	4,487.88	4,354.82	28.21	19.63	-134.85	611.07	677.67	1,375.51	1,336.84	38.67	35.570	
4,900.00	4,628.33	4,577.84	4,440.53	29.08	20.18	-134.94	629.61	697.75	1,419.14	1,379.36	39.78	35.678	
5,000.00	4,719.27	4,667.81	4,526.24	29.96	20.73	-135.03	648.16	717.84	1,462.76	1,421.88	40.88	35.779	
5,100.00	4,810.21	4,757.77	4,611.94	30.83	21.28	-135.11	666.70	737.92	1,506.39	1,464.40	41.99	35.875	
5,200.00	4,901.15	4,847.73	4,697.65	31.71	21.83	-135.19	685.25	758.00	1,550.02	1,506.92	43.10	35.965	
5,300.00	4,992.09	4,937.69	4,783.36	32.58	22.38	-135.26	703.79	778.08	1,593.66	1,549.45	44.21	36.051	
5,400.00	5,083.03	5,027.65	4,869.07	33.46	22.93	-135.33	722.34	798.17	1,637.29	1,591.98	45.31	36.131	
5,509.28	5,182.41	5,125.96	4,962.73	34.42	23.54	-135.40	742.60	820.11	1,684.98	1,638.45	46.53	36.215	
5,600.00	5,265.49	5,208.02	5,040.91	35.11	24.04	-136.01	759.52	838.43	1,723.64	1,676.06	47.57	36.230	
5,700.00	5,358.35	5,299.46	5,128.02	35.72	24.60	-136.56	778.37	858.84	1,764.08	1,715.42	48.66	36.254	
5,800.00	5,452.46	5,391.81	5,216.01	36.29	25.17	-136.98	797.41	879.46	1,802.19	1,752.47	49.72	36.245	
5,900.00	5,547.68	5,484.98	5,304.77	36.80	25.74	-137.29	816.61	900.26	1,837.95	1,787.18	50.76	36.206	
6,000.00	5,643.92	5,578.83	5,394.18	37.26	26.32	-137.48	835.96	921.21	1,871.33	1,819.55	51.78	36.142	
6,100.00	5,741.04	5,673.26	5,484.15	37.67	26.90	-137.57	855.42	942.29	1,902.33	1,849.57	52.76	36.057	
6,200.00	5,838.94	5,805.19	5,610.59	38.02	27.52	-137.47	880.93	969.91	1,930.13	1,876.37	53.76	35.901	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 11-9 - P_NRC 11-9 - PLAN #1 1-10-10 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
6,300.00	5,937.48	5,944.69	5,746.03	38.33	28.07	-137.37	903.59	994.45	1,953.44	1,898.80	54.64	35.750	
6,400.00	6,036.56	6,087.15	5,885.84	38.58	28.56	-137.29	922.08	1,014.48	1,972.10	1,916.70	55.40	35.600	
6,500.00	6,136.05	6,231.95	6,029.16	38.78	28.95	-137.23	936.02	1,029.57	1,986.00	1,929.99	56.01	35.461	
6,600.00	6,235.83	6,378.43	6,175.01	38.93	29.26	-137.20	945.11	1,039.41	1,995.03	1,938.56	56.47	35.330	
6,700.00	6,335.78	6,525.87	6,322.32	39.04	29.46	-137.19	949.14	1,043.78	1,999.16	1,942.37	56.78	35.208	
6,738.22	6,374.00	6,577.56	6,374.00	39.06	29.52	-15.15	949.34	1,044.00	1,999.44	1,942.58	56.86	35.165	
6,800.00	6,435.78	6,639.33	6,435.78	39.11	29.58	-15.15	949.34	1,044.00	1,999.44	1,942.46	56.98	35.089	
6,900.00	6,535.78	6,739.33	6,535.78	39.18	29.68	-15.15	949.34	1,044.00	1,999.44	1,942.25	57.19	34.961	
7,000.00	6,635.78	6,839.33	6,635.78	39.26	29.78	-15.15	949.34	1,044.00	1,999.44	1,942.04	57.40	34.832	
7,100.00	6,735.78	6,939.33	6,735.78	39.33	29.89	-15.15	949.34	1,044.00	1,999.44	1,941.82	57.62	34.703	
7,200.00	6,835.78	7,039.33	6,835.78	39.41	29.99	-15.15	949.34	1,044.00	1,999.44	1,941.61	57.83	34.573	
7,300.00	6,935.78	7,139.33	6,935.78	39.49	30.10	-15.15	949.34	1,044.00	1,999.44	1,941.39	58.05	34.442	
7,400.00	7,035.78	7,239.33	7,035.78	39.57	30.21	-15.15	949.34	1,044.00	1,999.44	1,941.16	58.27	34.311	
7,500.00	7,135.78	7,339.33	7,135.78	39.65	30.32	-15.15	949.34	1,044.00	1,999.44	1,940.94	58.50	34.179	
7,600.00	7,235.78	7,439.33	7,235.78	39.73	30.43	-15.15	949.34	1,044.00	1,999.44	1,940.71	58.73	34.047	
7,700.00	7,335.78	7,539.33	7,335.78	39.81	30.55	-15.15	949.34	1,044.00	1,999.44	1,940.48	58.96	33.914	
7,800.00	7,435.78	7,639.33	7,435.78	39.90	30.66	-15.15	949.34	1,044.00	1,999.44	1,940.25	59.19	33.781	
7,900.00	7,535.78	7,739.33	7,535.78	39.98	30.78	-15.15	949.34	1,044.00	1,999.44	1,940.02	59.42	33.648	
8,000.00	7,635.78	7,839.33	7,635.78	40.07	30.89	-15.15	949.34	1,044.00	1,999.44	1,939.78	59.66	33.514	
8,100.00	7,735.78	7,939.33	7,735.78	40.16	31.01	-15.15	949.34	1,044.00	1,999.44	1,939.54	59.90	33.380	
8,200.00	7,835.78	8,039.33	7,835.78	40.24	31.13	-15.15	949.34	1,044.00	1,999.44	1,939.30	60.14	33.245	
8,300.00	7,935.78	8,139.33	7,935.78	40.33	31.25	-15.15	949.34	1,044.00	1,999.44	1,939.05	60.39	33.111	
8,400.00	8,035.78	8,239.33	8,035.78	40.42	31.37	-15.15	949.34	1,044.00	1,999.44	1,938.80	60.63	32.976	
8,500.00	8,135.78	8,339.33	8,135.78	40.52	31.49	-15.15	949.34	1,044.00	1,999.44	1,938.56	60.88	32.841	
8,600.00	8,235.78	8,439.33	8,235.78	40.61	31.62	-15.15	949.34	1,044.00	1,999.44	1,938.30	61.13	32.706	
8,638.19	8,273.97	8,477.52	8,273.97	40.64	31.66	-15.15	949.34	1,044.00	1,999.44	1,938.21	61.23	32.654	
8,663.22	8,299.00	8,492.56	8,289.00	40.67	31.68	-15.15	949.34	1,044.00	1,999.46	1,938.18	61.28	32.628	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 13-9 - P_NRC 13-9 - PLAN #1 1-10-10 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)	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	0.00	-32.19	32.19				
100.00	100.00	100.00	100.00	0.10	0.10	-89.99	0.00	-32.19	32.19	32.00	0.19	168.483	
200.00	200.00	200.00	200.00	0.32	0.32	-89.99	0.00	-32.19	32.19	31.55	0.64	50.249	
300.00	300.00	300.00	300.00	0.55	0.55	-89.99	0.00	-32.19	32.19	31.10	1.09	29.528	
400.00	400.00	400.00	400.00	0.77	0.77	-89.99	0.00	-32.19	32.19	30.65	1.54	20.907	
500.00	500.00	500.00	500.00	0.99	0.99	-89.99	0.00	-32.19	32.19	30.20	1.99	16.182	
600.00	600.00	600.00	600.00	1.22	1.22	-89.99	0.00	-32.19	32.19	29.75	2.44	13.199	
700.00	700.00	700.00	700.00	1.44	1.44	-89.99	0.00	-32.19	32.19	29.30	2.89	11.145	
800.00	800.00	800.00	800.00	1.67	1.67	-89.99	0.00	-32.19	32.19	28.85	3.34	9.644	
900.00	900.00	900.00	900.00	1.89	1.89	-89.99	0.00	-32.19	32.19	28.40	3.79	8.499	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-89.99	0.00	-32.19	32.19	27.95	4.24	7.597	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-89.99	0.00	-32.19	32.19	27.57	4.62	6.969 CC	
1,100.00	1,100.00	1,099.90	1,099.90	2.34	2.34	147.95	-0.03	-32.21	32.25	27.57	4.68	6.892 ES, SF	
1,200.00	1,199.97	1,199.13	1,199.10	2.52	2.51	146.96	-1.81	-33.56	35.53	30.49	5.03	7.058	
1,300.00	1,299.80	1,297.91	1,297.72	2.72	2.70	145.10	-6.32	-36.94	43.88	38.48	5.40	8.126	
1,400.00	1,399.37	1,395.87	1,395.26	2.93	2.90	143.22	-13.46	-42.32	57.29	51.51	5.78	9.913	
1,500.00	1,498.55	1,492.64	1,491.26	3.17	3.11	141.68	-23.13	-49.59	75.73	69.55	6.18	12.255	
1,600.00	1,597.23	1,587.87	1,585.29	3.44	3.36	140.47	-35.17	-58.65	99.09	92.48	6.61	14.987	
1,700.00	1,695.29	1,681.35	1,677.05	3.75	3.63	139.52	-49.42	-69.37	127.26	120.18	7.08	17.974	
1,800.00	1,792.60	1,776.18	1,769.86	4.11	3.95	139.18	-64.99	-81.09	158.98	151.38	7.60	20.920	
1,900.00	1,889.05	1,870.11	1,861.78	4.53	4.28	139.49	-80.42	-92.69	193.21	185.06	8.15	23.696	
2,000.00	1,984.52	1,963.02	1,952.71	5.02	4.62	140.12	-95.68	-104.17	229.97	221.23	8.74	26.301	
2,100.00	2,078.90	2,054.80	2,042.53	5.58	4.97	140.91	-110.75	-115.51	269.31	259.94	9.37	28.748	
2,200.00	2,172.06	2,145.33	2,131.13	6.22	5.33	141.76	-125.62	-126.70	311.25	301.23	10.02	31.054	
2,300.00	2,263.90	2,234.52	2,218.41	6.93	5.69	142.61	-140.27	-137.72	355.83	345.12	10.71	33.233	
2,313.94	2,276.59	2,246.83	2,230.47	7.03	5.74	142.73	-142.29	-139.24	362.25	351.45	10.80	33.527	
2,400.00	2,354.85	2,322.80	2,304.81	7.70	6.05	143.87	-154.77	-148.62	402.13	390.67	11.47	35.067	
2,500.00	2,445.79	2,411.06	2,391.19	8.49	6.41	144.94	-169.26	-159.53	448.60	436.35	12.25	36.622	
2,600.00	2,536.73	2,499.33	2,477.57	9.30	6.78	145.81	-183.76	-170.44	495.17	482.13	13.04	37.967	
2,700.00	2,627.67	2,587.59	2,563.95	10.12	7.16	146.53	-198.26	-181.34	541.82	527.97	13.84	39.139	
2,800.00	2,718.61	2,675.86	2,650.33	10.95	7.53	147.14	-212.76	-192.25	588.52	573.87	14.65	40.170	
2,900.00	2,809.55	2,764.12	2,736.71	11.78	7.91	147.66	-227.25	-203.15	635.27	619.80	15.46	41.081	
3,000.00	2,900.49	2,852.39	2,823.09	12.63	8.29	148.10	-241.75	-214.06	682.05	665.77	16.28	41.893	
3,100.00	2,991.43	2,940.66	2,909.47	13.47	8.68	148.49	-256.25	-224.97	728.86	711.76	17.10	42.619	
3,200.00	3,082.37	3,028.92	2,995.85	14.33	9.06	148.84	-270.74	-235.87	775.69	757.76	17.93	43.274	
3,300.00	3,173.31	3,117.19	3,082.24	15.18	9.45	149.14	-285.24	-246.78	822.54	803.79	18.75	43.866	
3,400.00	3,264.24	3,205.45	3,168.62	16.04	9.83	149.41	-299.74	-257.68	869.41	849.83	19.58	44.404	
3,500.00	3,355.18	3,293.72	3,255.00	16.90	10.22	149.66	-314.23	-268.59	916.29	895.88	20.41	44.896	
3,600.00	3,446.12	3,381.98	3,341.38	17.76	10.61	149.88	-328.73	-279.50	963.19	941.95	21.24	45.347	
3,700.00	3,537.06	3,470.25	3,427.76	18.63	11.00	150.08	-343.23	-290.40	1,010.09	988.02	22.07	45.763	
3,800.00	3,628.00	3,558.51	3,514.14	19.49	11.40	150.26	-357.72	-301.31	1,057.00	1,034.10	22.91	46.147	
3,900.00	3,718.94	3,646.78	3,600.52	20.36	11.79	150.42	-372.22	-312.21	1,103.92	1,080.18	23.74	46.503	
4,000.00	3,809.88	3,735.05	3,686.90	21.23	12.18	150.58	-386.72	-323.12	1,150.85	1,126.28	24.57	46.835	
4,100.00	3,900.82	3,823.31	3,773.29	22.10	12.58	150.72	-401.21	-334.02	1,197.78	1,172.38	25.41	47.144	
4,200.00	3,991.76	3,911.58	3,859.67	22.97	12.97	150.85	-415.71	-344.93	1,244.72	1,218.48	26.24	47.433	
4,300.00	4,082.70	3,999.84	3,946.05	23.84	13.36	150.97	-430.21	-355.84	1,291.66	1,264.59	27.08	47.705	
4,400.00	4,173.64	4,088.11	4,032.43	24.71	13.76	151.08	-444.70	-366.74	1,338.61	1,310.70	27.91	47.960	
4,500.00	4,264.57	4,176.37	4,118.81	25.59	14.16	151.19	-459.20	-377.65	1,385.56	1,356.81	28.75	48.201	
4,600.00	4,355.51	4,268.14	4,208.62	26.46	14.56	151.29	-474.25	-388.97	1,432.50	1,402.92	29.58	48.423	
4,700.00	4,446.45	4,387.95	4,326.47	27.33	14.94	151.53	-491.51	-401.96	1,478.30	1,447.94	30.37	48.681	
4,800.00	4,537.39	4,509.83	4,447.16	28.21	15.26	151.93	-505.02	-412.12	1,522.21	1,491.15	31.06	49.005	
4,900.00	4,628.33	4,633.37	4,570.12	29.08	15.53	152.50	-514.51	-419.25	1,564.23	1,532.56	31.67	49.385	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 13-9 - P_NRC 13-9 - PLAN #1 1-10-10 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	4,719.27	4,758.15	4,694.70	29.96	15.75	153.21	-519.78	-423.22	1,604.39	1,572.19	32.20	49.825	
5,100.00	4,810.21	4,873.66	4,810.21	30.83	15.91	153.98	-520.90	-424.06	1,642.81	1,610.15	32.66	50.296	
5,200.00	4,901.15	4,964.60	4,901.15	31.71	16.03	154.59	-520.90	-424.06	1,680.92	1,647.80	33.12	50.755	
5,300.00	4,992.09	5,055.54	4,992.09	32.58	16.14	155.18	-520.90	-424.06	1,719.18	1,685.61	33.57	51.215	
5,400.00	5,083.03	5,146.48	5,083.03	33.46	16.26	155.74	-520.90	-424.06	1,757.60	1,723.58	34.01	51.674	
5,509.28	5,182.41	5,245.86	5,182.41	34.42	16.39	156.33	-520.90	-424.06	1,799.74	1,765.24	34.50	52.171	
5,600.00	5,265.49	5,328.94	5,265.49	35.11	16.50	157.06	-520.90	-424.06	1,833.62	1,798.65	34.97	52.439	
5,700.00	5,358.35	5,421.81	5,358.35	35.72	16.62	157.78	-520.90	-424.06	1,868.21	1,832.79	35.42	52.742	
5,800.00	5,452.46	5,515.91	5,452.46	36.29	16.75	158.41	-520.90	-424.06	1,899.84	1,863.93	35.90	52.914	
5,900.00	5,547.68	5,611.14	5,547.68	36.80	16.88	158.96	-520.90	-424.06	1,928.43	1,892.06	36.37	53.022	
6,000.00	5,643.92	5,707.37	5,643.92	37.26	17.02	159.43	-520.90	-424.06	1,953.95	1,917.15	36.80	53.091	
6,100.00	5,741.04	5,804.50	5,741.04	37.67	17.16	159.83	-520.90	-424.06	1,976.33	1,939.13	37.20	53.124	
6,200.00	5,838.94	5,902.39	5,838.94	38.02	17.30	160.17	-520.90	-424.06	1,995.54	1,957.97	37.56	53.125	
6,300.00	5,937.48	6,000.94	5,937.48	38.33	17.44	160.44	-520.90	-424.06	2,011.53	1,973.64	37.89	53.094	
6,400.00	6,036.56	6,100.02	6,036.56	38.58	17.59	160.65	-520.90	-424.06	2,024.28	1,986.11	38.17	53.034	
6,500.00	6,136.05	6,199.51	6,136.05	38.78	17.73	160.81	-520.90	-424.06	2,033.77	1,995.36	38.41	52.946	
6,600.00	6,235.83	6,299.28	6,235.83	38.93	17.88	160.91	-520.90	-424.06	2,039.97	2,001.36	38.61	52.830	
6,700.00	6,335.78	6,399.23	6,335.78	39.04	18.03	160.96	-520.90	-424.06	2,042.88	2,004.11	38.78	52.685	
6,738.22	6,374.00	6,437.46	6,374.00	39.06	18.09	-77.00	-520.90	-424.06	2,043.12	2,004.29	38.83	52.619	
6,800.00	6,435.78	6,499.23	6,435.78	39.11	18.19	-77.00	-520.90	-424.06	2,043.12	2,004.12	39.00	52.385	
6,900.00	6,535.78	6,599.23	6,535.78	39.18	18.34	-77.00	-520.90	-424.06	2,043.12	2,003.84	39.28	52.011	
7,000.00	6,635.78	6,699.23	6,635.78	39.26	18.50	-77.00	-520.90	-424.06	2,043.12	2,003.56	39.57	51.639	
7,100.00	6,735.78	6,799.23	6,735.78	39.33	18.66	-77.00	-520.90	-424.06	2,043.12	2,003.27	39.85	51.267	
7,200.00	6,835.78	6,899.23	6,835.78	39.41	18.81	-77.00	-520.90	-424.06	2,043.12	2,002.98	40.14	50.898	
7,300.00	6,935.78	6,999.23	6,935.78	39.49	18.97	-77.00	-520.90	-424.06	2,043.12	2,002.69	40.43	50.530	
7,400.00	7,035.78	7,099.23	7,035.78	39.57	19.14	-77.00	-520.90	-424.06	2,043.12	2,002.39	40.73	50.164	
7,500.00	7,135.78	7,199.23	7,135.78	39.65	19.30	-77.00	-520.90	-424.06	2,043.12	2,002.10	41.03	49.800	
7,600.00	7,235.78	7,299.23	7,235.78	39.73	19.46	-77.00	-520.90	-424.06	2,043.12	2,001.80	41.33	49.438	
7,700.00	7,335.78	7,399.23	7,335.78	39.81	19.63	-77.00	-520.90	-424.06	2,043.12	2,001.49	41.63	49.078	
7,800.00	7,435.78	7,499.23	7,435.78	39.90	19.79	-77.00	-520.90	-424.06	2,043.12	2,001.19	41.94	48.721	
7,900.00	7,535.78	7,599.23	7,535.78	39.98	19.96	-77.00	-520.90	-424.06	2,043.12	2,000.88	42.24	48.365	
8,000.00	7,635.78	7,699.23	7,635.78	40.07	20.13	-77.00	-520.90	-424.06	2,043.12	2,000.57	42.55	48.012	
8,100.00	7,735.78	7,799.23	7,735.78	40.16	20.30	-77.00	-520.90	-424.06	2,043.12	2,000.26	42.87	47.662	
8,200.00	7,835.78	7,899.23	7,835.78	40.24	20.47	-77.00	-520.90	-424.06	2,043.12	1,999.94	43.18	47.314	
8,300.00	7,935.78	7,999.23	7,935.78	40.33	20.64	-77.00	-520.90	-424.06	2,043.12	1,999.62	43.50	46.968	
8,400.00	8,035.78	8,099.23	8,035.78	40.42	20.82	-77.00	-520.90	-424.06	2,043.12	1,999.30	43.82	46.625	
8,500.00	8,135.78	8,199.23	8,135.78	40.52	20.99	-77.00	-520.90	-424.06	2,043.12	1,998.98	44.14	46.285	
8,600.00	8,235.78	8,299.23	8,235.78	40.61	21.16	-77.00	-520.90	-424.06	2,043.12	1,998.66	44.47	45.947	
8,663.22	8,299.00	8,362.46	8,299.00	40.67	21.27	-77.00	-520.90	-424.06	2,043.12	1,998.45	44.67	45.735	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 14-9 - P_NRC 14-9 - PLAN #1 1-10-10 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	89.99	0.00	47.86	47.86				
100.00	100.00	100.00	100.00	0.10	0.10	89.99	0.00	47.86	47.86	47.67	0.19	250.527	
200.00	200.00	200.00	200.00	0.32	0.32	89.99	0.00	47.86	47.86	47.22	0.64	74.719	
300.00	300.00	300.00	300.00	0.55	0.55	89.99	0.00	47.86	47.86	46.77	1.09	43.907	
400.00	400.00	400.00	400.00	0.77	0.77	89.99	0.00	47.86	47.86	46.32	1.54	31.087	
500.00	500.00	500.00	500.00	0.99	0.99	89.99	0.00	47.86	47.86	45.87	1.99	24.062	
600.00	600.00	600.00	600.00	1.22	1.22	89.99	0.00	47.86	47.86	45.42	2.44	19.627	
700.00	700.00	700.00	700.00	1.44	1.44	89.99	0.00	47.86	47.86	44.98	2.89	16.572	
800.00	800.00	800.00	800.00	1.67	1.67	89.99	0.00	47.86	47.86	44.53	3.34	14.340	
900.00	900.00	900.00	900.00	1.89	1.89	89.99	0.00	47.86	47.86	44.08	3.79	12.638	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.99	0.00	47.86	47.86	43.63	4.24	11.297	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	89.99	0.00	47.86	47.86	43.24	4.62	10.362 CC	
1,100.00	1,100.00	1,099.77	1,099.77	2.34	2.34	-32.06	-0.01	47.90	47.87	43.19	4.68	10.229	
1,200.00	1,199.97	1,198.23	1,198.20	2.52	2.53	-32.55	-0.77	49.96	48.04	42.99	5.05	9.520 ES	
1,300.00	1,299.80	1,296.68	1,296.48	2.72	2.72	-33.80	-2.72	55.19	48.49	43.07	5.42	8.943	
1,400.00	1,399.37	1,395.11	1,394.51	2.93	2.94	-35.76	-5.83	63.58	49.27	43.46	5.81	8.477	
1,500.00	1,498.55	1,493.53	1,492.15	3.17	3.17	-38.34	-10.12	75.13	50.44	44.21	6.23	8.102	
1,600.00	1,597.23	1,591.93	1,589.29	3.44	3.44	-41.44	-15.56	89.80	52.06	45.38	6.68	7.798	
1,700.00	1,695.29	1,690.30	1,685.81	3.75	3.74	-44.94	-22.17	107.59	54.22	47.03	7.19	7.544	
1,800.00	1,792.60	1,788.64	1,781.59	4.11	4.09	-48.69	-29.92	128.47	57.00	49.22	7.79	7.320	
1,900.00	1,889.05	1,886.94	1,876.51	4.53	4.50	-52.54	-38.80	152.41	60.47	51.97	8.50	7.111	
2,000.00	1,984.52	1,985.20	1,970.46	5.02	4.97	-56.35	-48.81	179.37	64.68	55.32	9.36	6.908	
2,100.00	2,078.90	2,083.42	2,063.33	5.58	5.51	-60.02	-59.93	209.32	69.66	59.27	10.38	6.708	
2,200.00	2,172.06	2,181.59	2,155.00	6.22	6.12	-63.47	-72.15	242.23	75.42	63.85	11.58	6.514	
2,300.00	2,263.90	2,280.24	2,245.95	6.93	6.80	-66.79	-85.45	278.06	81.86	68.91	12.95	6.320	
2,313.94	2,276.59	2,294.13	2,258.72	7.03	6.90	-67.33	-87.36	283.19	82.73	69.57	13.16	6.285	
2,400.00	2,354.85	2,379.88	2,337.52	7.70	7.53	-70.66	-99.12	314.87	88.19	73.67	14.52	6.075	
2,500.00	2,445.79	2,479.51	2,429.09	8.49	8.28	-74.04	-112.78	351.68	94.85	78.71	16.13	5.879	
2,600.00	2,536.73	2,579.14	2,520.66	9.30	9.04	-76.97	-126.45	388.49	101.80	84.01	17.78	5.724	
2,700.00	2,627.67	2,678.77	2,612.23	10.12	9.81	-79.52	-140.11	425.30	108.97	89.52	19.45	5.602	
2,800.00	2,718.61	2,778.41	2,703.80	10.95	10.60	-81.75	-153.77	462.10	116.34	95.21	21.13	5.505	
2,900.00	2,809.55	2,878.04	2,795.37	11.78	11.39	-83.71	-167.44	498.91	123.86	101.04	22.82	5.428	
3,000.00	2,900.49	2,977.67	2,886.94	12.63	12.18	-85.45	-181.10	535.72	131.51	107.00	24.51	5.366	
3,100.00	2,991.43	3,077.30	2,978.51	13.47	12.98	-86.99	-194.77	572.53	139.27	113.07	26.20	5.316	
3,200.00	3,082.37	3,176.94	3,070.08	14.33	13.78	-88.37	-208.43	609.34	147.12	119.23	27.89	5.276	
3,300.00	3,173.31	3,276.57	3,161.65	15.18	14.59	-89.61	-222.09	646.15	155.04	125.47	29.57	5.243	
3,400.00	3,264.24	3,376.20	3,253.22	16.04	15.40	-90.73	-235.76	682.95	163.03	131.77	31.26	5.216	
3,500.00	3,355.18	3,475.83	3,344.79	16.90	16.21	-91.75	-249.42	719.76	171.07	138.13	32.94	5.193	
3,600.00	3,446.12	3,575.47	3,436.36	17.76	17.03	-92.67	-263.09	756.57	179.17	144.55	34.62	5.175	
3,700.00	3,537.06	3,675.10	3,527.93	18.63	17.84	-93.51	-276.75	793.38	187.30	151.00	36.30	5.160	
3,800.00	3,628.00	3,774.77	3,619.54	19.49	18.65	-94.29	-290.42	830.20	195.48	157.50	37.97	5.148 SF	
3,900.00	3,718.94	3,875.05	3,712.44	20.36	19.30	-95.54	-303.55	865.58	203.50	164.04	39.46	5.157	
4,000.00	3,809.88	3,974.96	3,806.26	21.23	19.87	-97.65	-315.51	897.77	211.41	170.55	40.86	5.174	
4,100.00	3,900.82	4,074.26	3,900.64	22.10	20.40	-100.48	-326.25	926.72	219.54	177.42	42.11	5.213	
4,200.00	3,991.76	4,172.73	3,995.22	22.97	20.88	-103.94	-335.77	952.37	228.34	185.17	43.17	5.289	
4,300.00	4,082.70	4,270.14	4,089.65	23.84	21.30	-107.89	-344.08	974.74	238.32	194.36	43.97	5.420	
4,400.00	4,173.64	4,366.28	4,183.61	24.71	21.66	-112.21	-351.17	993.85	250.04	205.58	44.47	5.623	
4,500.00	4,264.57	4,460.98	4,276.77	25.59	21.98	-116.73	-357.08	1,009.77	264.01	219.37	44.64	5.914	
4,600.00	4,355.51	4,554.06	4,368.83	26.46	22.25	-121.31	-361.85	1,022.60	280.68	236.18	44.50	6.307	
4,700.00	4,446.45	4,645.37	4,459.53	27.33	22.47	-125.83	-365.51	1,032.46	300.43	256.33	44.10	6.813	
4,800.00	4,537.39	4,734.78	4,548.62	28.21	22.65	-130.18	-368.11	1,039.48	323.49	280.01	43.49	7.439	
4,900.00	4,628.33	4,822.18	4,635.90	29.08	22.78	-134.28	-369.72	1,043.82	350.00	307.27	42.74	8.190	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												WELD_NRC 19-9 PAD - P_NRC 14-9 - P_NRC 14-9 - PLAN #1 1-10-10 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	4,719.27	4,907.49	4,721.17	29.96	22.88	-138.07	-370.40	1,045.65	379.99	338.07	41.92	9.065				
5,100.00	4,810.21	4,996.52	4,810.21	30.83	22.97	-141.71	-370.43	1,045.73	412.95	371.92	41.03	10.065				
5,200.00	4,901.15	5,087.46	4,901.15	31.71	23.05	-144.92	-370.43	1,045.73	447.40	407.15	40.25	11.116				
5,300.00	4,992.09	5,178.40	4,992.09	32.58	23.14	-147.69	-370.43	1,045.73	482.97	443.36	39.61	12.194				
5,400.00	5,083.03	5,269.34	5,083.03	33.46	23.23	-150.09	-370.43	1,045.73	519.44	480.34	39.10	13.284				
5,509.28	5,182.41	5,368.72	5,182.41	34.42	23.33	-152.36	-370.43	1,045.73	560.11	521.43	38.69	14.479				
5,600.00	5,265.49	5,451.80	5,265.49	35.11	23.42	-154.28	-370.43	1,045.73	593.20	554.83	38.37	15.461				
5,700.00	5,358.35	5,544.66	5,358.35	35.72	23.52	-156.03	-370.43	1,045.73	627.27	589.14	38.12	16.453				
5,800.00	5,452.46	5,638.77	5,452.46	36.29	23.61	-157.47	-370.43	1,045.73	658.62	620.63	37.99	17.337				
5,900.00	5,547.68	5,734.00	5,547.68	36.80	23.72	-158.65	-370.43	1,045.73	687.11	649.17	37.93	18.114				
6,000.00	5,643.92	5,830.23	5,643.92	37.26	23.82	-159.63	-370.43	1,045.73	712.61	674.68	37.93	18.787				
6,100.00	5,741.04	5,927.35	5,741.04	37.67	23.93	-160.43	-370.43	1,045.73	735.05	697.08	37.97	19.361				
6,200.00	5,838.94	6,025.25	5,838.94	38.02	24.04	-161.07	-370.43	1,045.73	754.34	716.32	38.02	19.839				
6,300.00	5,937.48	6,123.79	5,937.48	38.33	24.15	-161.59	-370.43	1,045.73	770.43	732.34	38.09	20.226				
6,400.00	6,036.56	6,222.87	6,036.56	38.58	24.26	-161.98	-370.43	1,045.73	783.28	745.11	38.16	20.525				
6,500.00	6,136.05	6,322.36	6,136.05	38.78	24.38	-162.26	-370.43	1,045.73	792.84	754.61	38.23	20.738				
6,600.00	6,235.83	6,422.14	6,235.83	38.93	24.50	-162.44	-370.43	1,045.73	799.10	760.80	38.29	20.867				
6,700.00	6,335.78	6,522.09	6,335.78	39.04	24.62	-162.53	-370.43	1,045.73	802.03	763.69	38.35	20.914				
6,738.22	6,374.00	6,560.31	6,374.00	39.06	24.66	-40.49	-370.43	1,045.73	802.28	763.91	38.37	20.910				
6,800.00	6,435.78	6,622.09	6,435.78	39.11	24.74	-40.49	-370.43	1,045.73	802.28	763.73	38.55	20.812				
6,900.00	6,535.78	6,722.09	6,535.78	39.18	24.86	-40.49	-370.43	1,045.73	802.28	763.43	38.84	20.654				
7,000.00	6,635.78	6,822.09	6,635.78	39.26	24.99	-40.49	-370.43	1,045.73	802.28	763.13	39.14	20.496				
7,100.00	6,735.78	6,922.09	6,735.78	39.33	25.11	-40.49	-370.43	1,045.73	802.28	762.83	39.44	20.340				
7,200.00	6,835.78	7,022.09	6,835.78	39.41	25.24	-40.49	-370.43	1,045.73	802.28	762.53	39.75	20.184				
7,300.00	6,935.78	7,122.09	6,935.78	39.49	25.37	-40.49	-370.43	1,045.73	802.28	762.22	40.05	20.029				
7,400.00	7,035.78	7,222.09	7,035.78	39.57	25.50	-40.49	-370.43	1,045.73	802.28	761.91	40.36	19.876				
7,500.00	7,135.78	7,322.09	7,135.78	39.65	25.63	-40.49	-370.43	1,045.73	802.28	761.60	40.68	19.723				
7,600.00	7,235.78	7,422.09	7,235.78	39.73	25.76	-40.49	-370.43	1,045.73	802.28	761.29	40.99	19.572				
7,700.00	7,335.78	7,522.09	7,335.78	39.81	25.89	-40.49	-370.43	1,045.73	802.28	760.97	41.31	19.422				
7,800.00	7,435.78	7,622.09	7,435.78	39.90	26.03	-40.49	-370.43	1,045.73	802.28	760.65	41.63	19.273				
7,900.00	7,535.78	7,722.09	7,535.78	39.98	26.16	-40.49	-370.43	1,045.73	802.28	760.33	41.95	19.125				
8,000.00	7,635.78	7,822.09	7,635.78	40.07	26.30	-40.49	-370.43	1,045.73	802.28	760.01	42.27	18.979				
8,100.00	7,735.78	7,922.09	7,735.78	40.16	26.44	-40.49	-370.43	1,045.73	802.28	759.68	42.60	18.833				
8,200.00	7,835.78	8,022.09	7,835.78	40.24	26.58	-40.49	-370.43	1,045.73	802.28	759.35	42.93	18.689				
8,300.00	7,935.78	8,122.09	7,935.78	40.33	26.72	-40.49	-370.43	1,045.73	802.28	759.02	43.26	18.547				
8,400.00	8,035.78	8,222.09	8,035.78	40.42	26.86	-40.49	-370.43	1,045.73	802.28	758.69	43.59	18.405				
8,500.00	8,135.78	8,322.09	8,135.78	40.52	27.00	-40.49	-370.43	1,045.73	802.28	758.35	43.92	18.265				
8,600.00	8,235.78	8,422.09	8,235.78	40.61	27.15	-40.49	-370.43	1,045.73	802.28	758.02	44.26	18.126				
8,663.22	8,299.00	8,485.31	8,299.00	40.67	27.24	-40.49	-370.43	1,045.73	802.28	757.80	44.48	18.039				

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 23-9 - P_NRC 23-9 - PLAN #1 1-10-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-Good_gyro												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	90.00	0.00	31.91	31.91				
100.00	100.00	100.00	100.00	0.10	0.04	90.00	0.00	31.91	31.91	31.77	0.14	227.870	
200.00	200.00	200.00	200.00	0.32	0.10	90.00	0.00	31.91	31.91	31.49	0.42	76.491	
300.00	300.00	300.00	300.00	0.55	0.15	90.00	0.00	31.91	31.91	31.21	0.69	45.960	
400.00	400.00	400.00	400.00	0.77	0.20	90.00	0.00	31.91	31.91	30.94	0.97	32.848	
500.00	500.00	500.00	500.00	0.99	0.25	90.00	0.00	31.91	31.91	30.66	1.25	25.557	
600.00	600.00	600.00	600.00	1.22	0.31	90.00	0.00	31.91	31.91	30.38	1.53	20.915	
700.00	700.00	700.00	700.00	1.44	0.36	90.00	0.00	31.91	31.91	30.11	1.80	17.700	
800.00	800.00	800.00	800.00	1.67	0.41	90.00	0.00	31.91	31.91	29.83	2.08	15.341	
900.00	900.00	900.00	900.00	1.89	0.46	90.00	0.00	31.91	31.91	29.55	2.36	13.538	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	0.52	90.00	0.00	31.91	31.91	29.27	2.63	12.114	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	0.56	90.00	0.00	31.91	31.91	29.04	2.87	11.119	CC
1,100.00	1,100.00	1,099.84	1,099.84	2.34	0.57	-32.09	0.01	31.95	31.91	29.01	2.91	10.975	ES
1,200.00	1,199.97	1,198.73	1,198.70	2.52	0.62	-34.90	0.40	34.13	32.24	29.10	3.14	10.261	
1,300.00	1,299.80	1,297.52	1,297.32	2.72	0.68	-41.72	1.40	39.66	33.41	30.02	3.38	9.874	SF
1,400.00	1,399.37	1,396.11	1,395.50	2.93	0.74	-51.45	2.99	48.52	36.18	32.54	3.64	9.937	
1,500.00	1,498.55	1,494.42	1,493.02	3.17	0.82	-62.22	5.18	60.65	41.42	37.49	3.93	10.532	
1,600.00	1,597.23	1,592.35	1,589.71	3.44	0.92	-72.14	7.94	76.01	49.68	45.40	4.28	11.606	
1,700.00	1,695.29	1,689.84	1,685.35	3.75	1.05	-80.22	11.28	94.51	61.10	56.40	4.70	12.997	
1,800.00	1,792.60	1,786.79	1,779.79	4.11	1.21	-86.38	15.16	116.08	75.55	70.35	5.20	14.520	
1,900.00	1,889.05	1,883.14	1,872.85	4.53	1.40	-90.97	19.58	140.62	92.85	87.06	5.79	16.026	
2,000.00	1,984.52	1,978.80	1,964.37	5.02	1.63	-94.35	24.52	168.02	112.82	106.35	6.48	17.422	
2,100.00	2,078.90	2,073.73	2,054.22	5.58	1.89	-96.85	29.95	198.17	135.33	128.07	7.25	18.658	
2,200.00	2,172.06	2,168.54	2,142.93	6.22	2.18	-98.75	35.88	231.09	160.19	152.07	8.12	19.716	
2,300.00	2,263.90	2,264.76	2,232.65	6.93	2.49	-100.86	42.04	265.29	186.31	177.23	9.09	20.501	
2,313.94	2,276.59	2,278.13	2,245.12	7.03	2.54	-101.18	42.90	270.04	190.03	180.81	9.23	20.594	
2,400.00	2,354.85	2,360.68	2,322.10	7.70	2.81	-103.37	48.18	299.39	213.20	203.10	10.11	21.097	
2,500.00	2,445.79	2,456.60	2,411.54	8.49	3.13	-105.38	54.33	333.49	240.41	229.27	11.14	21.581	
2,600.00	2,536.73	2,552.52	2,500.99	9.30	3.45	-106.98	60.47	367.58	267.85	255.66	12.18	21.982	
2,700.00	2,627.67	2,648.44	2,590.43	10.12	3.78	-108.29	66.61	401.68	295.44	282.20	13.24	22.318	
2,800.00	2,718.61	2,744.36	2,679.88	10.95	4.10	-109.37	72.75	435.78	323.14	308.85	14.30	22.604	
2,900.00	2,809.55	2,840.28	2,769.32	11.78	4.43	-110.29	78.90	469.88	350.94	335.58	15.36	22.848	
3,000.00	2,900.49	2,936.20	2,858.76	12.63	4.76	-111.06	85.04	503.98	378.81	362.38	16.43	23.060	
3,100.00	2,991.43	3,032.12	2,948.21	13.47	5.09	-111.74	91.18	538.07	406.74	389.24	17.50	23.245	
3,200.00	3,082.37	3,128.04	3,037.65	14.33	5.42	-112.32	97.32	572.17	434.71	416.14	18.57	23.407	
3,300.00	3,173.31	3,223.96	3,127.10	15.18	5.75	-112.84	103.47	606.27	462.71	443.07	19.65	23.551	
3,400.00	3,264.24	3,319.88	3,216.54	16.04	6.08	-113.29	109.61	640.37	490.75	470.03	20.72	23.680	
3,500.00	3,355.18	3,415.80	3,305.98	16.90	6.41	-113.70	115.75	674.47	518.81	497.01	21.80	23.795	
3,600.00	3,446.12	3,511.72	3,395.43	17.76	6.74	-114.07	121.89	708.56	546.90	524.01	22.88	23.899	
3,700.00	3,537.06	3,607.64	3,484.87	18.63	7.07	-114.40	128.04	742.66	575.00	551.04	23.97	23.993	
3,800.00	3,628.00	3,703.56	3,574.31	19.49	7.40	-114.70	134.18	776.76	603.12	578.07	25.05	24.079	
3,900.00	3,718.94	3,799.48	3,663.76	20.36	7.73	-114.97	140.32	810.86	631.25	605.12	26.13	24.157	
4,000.00	3,809.88	3,895.40	3,753.20	21.23	8.06	-115.22	146.46	844.96	659.40	632.18	27.21	24.229	
4,100.00	3,900.82	3,991.32	3,842.65	22.10	8.40	-115.45	152.60	879.06	687.55	659.25	28.30	24.295	
4,200.00	3,991.76	4,087.24	3,932.09	22.97	8.73	-115.66	158.75	913.15	715.72	686.33	29.39	24.356	
4,300.00	4,082.70	4,183.16	4,021.53	23.84	9.06	-115.85	164.89	947.25	743.89	713.42	30.47	24.413	
4,400.00	4,173.64	4,279.08	4,110.98	24.71	9.39	-116.03	171.03	981.35	772.07	740.51	31.56	24.465	
4,500.00	4,264.57	4,375.00	4,200.42	25.59	9.72	-116.20	177.17	1,015.45	800.26	767.61	32.64	24.514	
4,600.00	4,355.51	4,470.92	4,289.87	26.46	10.06	-116.36	183.32	1,049.55	828.45	794.72	33.73	24.560	
4,700.00	4,446.45	4,566.84	4,379.31	27.33	10.39	-116.50	189.46	1,083.64	856.65	821.83	34.82	24.602	
4,800.00	4,537.39	4,662.76	4,468.75	28.21	10.72	-116.64	195.60	1,117.74	884.85	848.94	35.91	24.642	
4,900.00	4,628.33	4,758.68	4,558.20	29.08	11.05	-116.77	201.74	1,151.84	913.06	876.06	37.00	24.680	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 23-9 - P_NRC 23-9 - PLAN #1 1-10-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-Good_gyro												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	4,719.27	4,854.60	4,647.64	29.96	11.39	-116.89	207.89	1,185.94	941.27	903.18	38.08	24.715	
5,100.00	4,810.21	4,950.52	4,737.09	30.83	11.72	-117.00	214.03	1,220.04	969.48	930.31	39.17	24.748	
5,200.00	4,901.15	5,046.44	4,826.53	31.71	12.05	-117.11	220.17	1,254.13	997.70	957.44	40.26	24.780	
5,300.00	4,992.09	5,142.36	4,915.97	32.58	12.39	-117.21	226.31	1,288.23	1,025.92	984.57	41.35	24.810	
5,400.00	5,083.03	5,238.28	5,005.42	33.46	12.72	-117.31	232.46	1,322.33	1,054.15	1,011.71	42.44	24.838	
5,509.28	5,182.41	5,343.10	5,103.17	34.42	13.08	-117.41	239.17	1,359.59	1,084.99	1,041.36	43.63	24.867	
5,600.00	5,265.49	5,430.31	5,184.48	35.11	13.39	-117.88	244.75	1,390.60	1,109.96	1,065.45	44.51	24.935	
5,700.00	5,358.35	5,526.82	5,274.48	35.72	13.72	-118.21	250.93	1,424.90	1,135.99	1,090.60	45.40	25.025	
5,800.00	5,452.46	5,626.15	5,367.15	36.29	14.06	-118.36	257.27	1,460.07	1,160.41	1,114.15	46.26	25.082	
5,900.00	5,547.68	5,732.67	5,467.56	36.80	14.40	-118.43	263.58	1,495.08	1,182.69	1,135.59	47.09	25.113	
6,000.00	5,643.92	5,840.21	5,570.19	37.26	14.70	-118.50	269.27	1,526.68	1,202.58	1,154.75	47.84	25.138	
6,100.00	5,741.04	5,948.67	5,674.84	37.67	14.97	-118.56	274.31	1,554.68	1,220.06	1,171.56	48.50	25.156	
6,200.00	5,838.94	6,057.94	5,781.29	38.02	15.20	-118.61	278.68	1,578.93	1,235.07	1,186.00	49.07	25.169	
6,300.00	5,937.48	6,167.91	5,889.29	38.33	15.40	-118.66	282.35	1,599.28	1,247.59	1,198.03	49.56	25.174	
6,400.00	6,036.56	6,278.46	5,998.58	38.58	15.56	-118.69	285.29	1,615.62	1,257.58	1,207.62	49.96	25.173	
6,500.00	6,136.05	6,389.47	6,108.88	38.78	15.68	-118.72	287.49	1,627.83	1,265.01	1,214.74	50.27	25.164	
6,600.00	6,235.83	6,500.80	6,219.91	38.93	15.77	-118.73	288.93	1,635.85	1,269.87	1,219.38	50.50	25.148	
6,700.00	6,335.78	6,612.32	6,331.35	39.04	15.81	-118.74	289.61	1,639.62	1,272.16	1,221.52	50.64	25.123	
6,738.22	6,374.00	6,654.97	6,374.00	39.06	15.82	3.30	289.67	1,639.93	1,272.35	1,221.68	50.67	25.111	
6,800.00	6,435.78	6,716.74	6,435.78	39.11	15.83	3.30	289.67	1,639.93	1,272.35	1,221.62	50.72	25.084	
6,900.00	6,535.78	6,816.74	6,535.78	39.18	15.84	3.30	289.67	1,639.93	1,272.35	1,221.53	50.82	25.037	
7,000.00	6,635.78	6,916.74	6,635.78	39.26	15.85	3.30	289.67	1,639.93	1,272.35	1,221.43	50.91	24.990	
7,100.00	6,735.78	7,016.74	6,735.78	39.33	15.86	3.30	289.67	1,639.93	1,272.35	1,221.34	51.01	24.942	
7,200.00	6,835.78	7,116.74	6,835.78	39.41	15.87	3.30	289.67	1,639.93	1,272.35	1,221.24	51.11	24.894	
7,300.00	6,935.78	7,216.74	6,935.78	39.49	15.89	3.30	289.67	1,639.93	1,272.35	1,221.14	51.21	24.846	
7,400.00	7,035.78	7,316.74	7,035.78	39.57	15.90	3.30	289.67	1,639.93	1,272.35	1,221.04	51.31	24.797	
7,500.00	7,135.78	7,416.74	7,135.78	39.65	15.91	3.30	289.67	1,639.93	1,272.35	1,220.93	51.41	24.747	
7,600.00	7,235.78	7,516.74	7,235.78	39.73	15.92	3.30	289.67	1,639.93	1,272.35	1,220.83	51.52	24.697	
7,700.00	7,335.78	7,616.74	7,335.78	39.81	15.94	3.30	289.67	1,639.93	1,272.35	1,220.72	51.62	24.647	
7,800.00	7,435.78	7,716.74	7,435.78	39.90	15.95	3.30	289.67	1,639.93	1,272.35	1,220.62	51.73	24.596	
7,900.00	7,535.78	7,816.74	7,535.78	39.98	15.96	3.30	289.67	1,639.93	1,272.35	1,220.51	51.84	24.545	
8,000.00	7,635.78	7,916.74	7,635.78	40.07	15.98	3.30	289.67	1,639.93	1,272.35	1,220.40	51.95	24.493	
8,100.00	7,735.78	8,016.74	7,735.78	40.16	15.99	3.30	289.67	1,639.93	1,272.35	1,220.29	52.06	24.441	
8,200.00	7,835.78	8,116.74	7,835.78	40.24	16.00	3.30	289.67	1,639.93	1,272.35	1,220.18	52.17	24.388	
8,300.00	7,935.78	8,216.74	7,935.78	40.33	16.02	3.30	289.67	1,639.93	1,272.35	1,220.06	52.28	24.336	
8,400.00	8,035.78	8,316.74	8,035.78	40.42	16.03	3.30	289.67	1,639.93	1,272.35	1,219.95	52.40	24.282	
8,500.00	8,135.78	8,416.74	8,135.78	40.52	16.05	3.30	289.67	1,639.93	1,272.35	1,219.83	52.51	24.229	
8,600.00	8,235.78	8,516.74	8,235.78	40.61	16.06	3.30	289.67	1,639.93	1,272.35	1,219.72	52.63	24.175	
8,663.22	8,299.00	8,579.97	8,299.00	40.67	16.07	3.30	289.67	1,639.93	1,272.35	1,219.64	52.71	24.141	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 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	0.00	-16.23	16.23				
100.00	100.00	100.00	100.00	0.10	0.10	-90.01	0.00	-16.23	16.23	16.04	0.19	84.974	
200.00	200.00	200.00	200.00	0.32	0.32	-90.01	0.00	-16.23	16.23	15.59	0.64	25.343	
300.00	300.00	300.00	300.00	0.55	0.55	-90.01	0.00	-16.23	16.23	15.14	1.09	14.892	
400.00	400.00	400.00	400.00	0.77	0.77	-90.01	0.00	-16.23	16.23	14.69	1.54	10.544	
500.00	500.00	500.00	500.00	0.99	0.99	-90.01	0.00	-16.23	16.23	14.25	1.99	8.161	
600.00	600.00	600.00	600.00	1.22	1.22	-90.01	0.00	-16.23	16.23	13.80	2.44	6.657	
700.00	700.00	700.00	700.00	1.44	1.44	-90.01	0.00	-16.23	16.23	13.35	2.89	5.621	
800.00	800.00	800.00	800.00	1.67	1.67	-90.01	0.00	-16.23	16.23	12.90	3.34	4.864	
900.00	900.00	900.00	900.00	1.89	1.89	-90.01	0.00	-16.23	16.23	12.45	3.79	4.287	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.01	0.00	-16.23	16.23	12.00	4.24	3.832	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-90.01	0.00	-16.23	16.23	11.62	4.62	3.515 CC	
1,100.00	1,100.00	1,100.03	1,100.03	2.34	2.34	147.89	-0.04	-16.22	16.25	11.57	4.68	3.474 ES	
1,200.00	1,199.97	1,200.23	1,200.20	2.52	2.51	144.89	-2.15	-15.36	17.35	12.31	5.03	3.447 SF	
1,300.00	1,299.80	1,300.34	1,300.14	2.72	2.70	138.79	-7.50	-13.19	20.29	14.89	5.40	3.756	
1,400.00	1,399.37	1,400.31	1,399.67	2.93	2.89	132.07	-16.07	-9.72	25.34	19.54	5.80	4.370	
1,500.00	1,498.55	1,500.06	1,498.61	3.17	3.12	126.30	-27.82	-4.95	32.63	26.39	6.24	5.228	
1,600.00	1,597.23	1,599.52	1,596.76	3.44	3.37	121.86	-42.71	1.09	42.18	35.43	6.75	6.250	
1,700.00	1,695.29	1,698.64	1,693.96	3.75	3.67	118.56	-60.67	8.37	53.95	46.61	7.34	7.354	
1,800.00	1,792.60	1,797.61	1,790.49	4.11	4.01	116.86	-80.90	16.58	67.74	59.73	8.01	8.455	
1,900.00	1,889.05	1,896.40	1,886.82	4.53	4.38	117.72	-101.22	24.82	83.14	74.39	8.75	9.499	
2,000.00	1,984.52	1,994.84	1,982.80	5.02	4.77	119.97	-121.46	33.03	100.26	90.71	9.55	10.503	
2,100.00	2,078.90	2,092.80	2,078.32	5.58	5.16	122.88	-141.60	41.20	119.36	108.98	10.38	11.502	
2,200.00	2,172.06	2,190.17	2,173.27	6.22	5.57	126.05	-161.62	49.32	140.72	129.49	11.23	12.531	
2,300.00	2,263.90	2,286.83	2,267.52	6.93	5.99	129.22	-181.50	57.38	164.61	152.52	12.09	13.613	
2,313.94	2,276.59	2,300.25	2,280.60	7.03	6.05	129.65	-184.25	58.50	168.15	155.94	12.21	13.770	
2,400.00	2,354.85	2,382.99	2,361.28	7.70	6.41	132.32	-201.27	65.40	190.37	177.40	12.98	14.668	
2,500.00	2,445.79	2,479.14	2,455.03	8.49	6.83	134.73	-221.04	73.42	216.58	202.70	13.88	15.608	
2,600.00	2,536.73	2,575.29	2,548.79	9.30	7.26	136.63	-240.81	81.44	243.06	228.28	14.78	16.446	
2,700.00	2,627.67	2,671.44	2,642.54	10.12	7.70	138.15	-260.58	89.46	269.75	254.06	15.69	17.193	
2,800.00	2,718.61	2,767.59	2,736.29	10.95	8.14	139.39	-280.35	97.48	296.58	279.97	16.60	17.863	
2,900.00	2,809.55	2,863.74	2,830.05	11.78	8.58	140.43	-300.12	105.50	323.52	305.99	17.52	18.463	
3,000.00	2,900.49	2,959.89	2,923.80	12.63	9.02	141.31	-319.88	113.52	350.54	332.10	18.44	19.005	
3,100.00	2,991.43	3,056.04	3,017.55	13.47	9.47	142.07	-339.65	121.54	377.63	358.26	19.37	19.495	
3,200.00	3,082.37	3,152.19	3,111.31	14.33	9.92	142.72	-359.42	129.55	404.77	384.47	20.30	19.941	
3,300.00	3,173.31	3,248.34	3,205.06	15.18	10.37	143.30	-379.19	137.57	431.96	410.73	21.23	20.347	
3,400.00	3,264.24	3,344.49	3,298.81	16.04	10.82	143.80	-398.96	145.59	459.18	437.01	22.16	20.719	
3,500.00	3,355.18	3,440.64	3,392.57	16.90	11.27	144.25	-418.73	153.61	486.42	463.33	23.10	21.061	
3,600.00	3,446.12	3,536.79	3,486.32	17.76	11.72	144.65	-438.50	161.63	513.70	489.67	24.03	21.376	
3,700.00	3,537.06	3,632.94	3,580.07	18.63	12.18	145.01	-458.27	169.65	540.99	516.02	24.97	21.667	
3,800.00	3,628.00	3,729.09	3,673.83	19.49	12.63	145.33	-478.04	177.67	568.31	542.40	25.91	21.937	
3,900.00	3,718.94	3,825.24	3,767.58	20.36	13.09	145.63	-497.81	185.69	595.63	568.79	26.85	22.188	
4,000.00	3,809.88	3,921.39	3,861.33	21.23	13.54	145.90	-517.58	193.71	622.97	595.19	27.78	22.422	
4,100.00	3,900.82	4,017.54	3,955.09	22.10	14.00	146.15	-537.35	201.73	650.33	621.60	28.72	22.640	
4,200.00	3,991.76	4,113.69	4,048.84	22.97	14.46	146.37	-557.12	209.75	677.69	648.03	29.66	22.845	
4,300.00	4,082.70	4,209.84	4,142.59	23.84	14.92	146.58	-576.89	217.76	705.06	674.46	30.60	23.038	
4,400.00	4,173.64	4,305.99	4,236.35	24.71	15.38	146.78	-596.66	225.78	732.44	700.90	31.55	23.218	
4,500.00	4,264.57	4,402.14	4,330.10	25.59	15.83	146.96	-616.43	233.80	759.83	727.34	32.49	23.389	
4,600.00	4,355.51	4,498.29	4,423.85	26.46	16.29	147.12	-636.20	241.82	787.22	753.80	33.43	23.550	
4,700.00	4,446.45	4,594.44	4,517.61	27.33	16.75	147.28	-655.97	249.84	814.62	780.26	34.37	23.703	
4,800.00	4,537.39	4,690.59	4,611.36	28.21	17.21	147.43	-675.74	257.86	842.03	806.72	35.31	23.847	
4,900.00	4,628.33	4,786.74	4,705.12	29.08	17.68	147.56	-695.51	265.88	869.44	833.19	36.25	23.984	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 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	4,719.27	4,882.89	4,798.87	29.96	18.14	147.69	-715.28	273.90	896.85	859.66	37.19	24.115	
5,100.00	4,810.21	4,979.05	4,892.62	30.83	18.60	147.81	-735.05	281.92	924.27	886.14	38.13	24.239	
5,200.00	4,901.15	5,075.20	4,986.38	31.71	19.06	147.92	-754.82	289.94	951.69	912.62	39.07	24.357	
5,300.00	4,992.09	5,171.35	5,080.13	32.58	19.52	148.03	-774.59	297.95	979.12	939.11	40.01	24.470	
5,400.00	5,083.03	5,267.50	5,173.88	33.46	19.98	148.13	-794.36	305.97	1,006.55	965.59	40.95	24.578	
5,509.28	5,182.41	5,372.57	5,276.34	34.42	20.49	148.24	-815.96	314.74	1,036.52	994.54	41.98	24.691	
5,600.00	5,265.49	5,460.13	5,361.71	35.11	20.91	148.54	-833.96	322.04	1,060.23	1,017.41	42.82	24.762	
5,700.00	5,358.35	5,557.35	5,456.51	35.72	21.38	148.73	-853.95	330.15	1,083.61	1,039.91	43.70	24.797	
5,800.00	5,452.46	5,655.18	5,551.91	36.29	21.85	148.81	-874.07	338.31	1,104.09	1,059.50	44.59	24.759	
5,900.00	5,547.68	5,753.52	5,647.79	36.80	22.32	148.75	-894.29	346.51	1,121.65	1,076.15	45.49	24.655	
6,000.00	5,643.92	5,851.52	5,743.35	37.26	22.79	148.59	-914.44	354.68	1,136.29	1,089.89	46.40	24.490	
6,100.00	5,741.04	5,937.70	5,827.65	37.67	23.10	148.43	-930.99	361.39	1,148.61	1,101.50	47.11	24.383	
6,200.00	5,838.94	6,023.51	5,912.10	38.02	23.36	148.29	-945.12	367.13	1,159.17	1,111.47	47.70	24.302	
6,300.00	5,937.48	6,109.54	5,997.18	38.33	23.59	148.18	-956.93	371.92	1,167.95	1,119.75	48.20	24.232	
6,400.00	6,036.56	6,200.00	6,087.00	38.58	23.81	148.09	-966.79	375.92	1,174.95	1,126.33	48.62	24.166	
6,500.00	6,136.05	6,282.12	6,168.80	38.78	23.97	148.03	-973.46	378.62	1,180.12	1,131.20	48.92	24.122	
6,600.00	6,235.83	6,368.58	6,255.11	38.93	24.11	147.98	-978.13	380.52	1,183.49	1,134.34	49.15	24.079	
6,700.00	6,335.78	6,455.10	6,341.59	39.04	24.23	147.96	-980.39	381.43	1,185.05	1,135.75	49.29	24.040	
6,738.22	6,374.00	6,492.51	6,379.00	39.06	24.28	-90.00	-980.61	381.52	1,185.17	1,135.83	49.34	24.021	
6,760.63	6,396.41	6,509.91	6,396.41	39.08	24.30	-90.00	-980.61	381.52	1,185.16	1,135.77	49.38	24.000	
6,800.00	6,435.78	6,549.28	6,435.78	39.11	24.34	-90.00	-980.61	381.52	1,185.16	1,135.69	49.47	23.959	
6,900.00	6,535.78	6,649.28	6,535.78	39.18	24.44	-90.00	-980.61	381.52	1,185.16	1,135.48	49.67	23.859	
7,000.00	6,635.78	6,749.28	6,635.78	39.26	24.55	-90.00	-980.61	381.52	1,185.16	1,135.27	49.89	23.757	
7,100.00	6,735.78	6,849.28	6,735.78	39.33	24.66	-90.00	-980.61	381.52	1,185.16	1,135.05	50.10	23.655	
7,200.00	6,835.78	6,949.28	6,835.78	39.41	24.77	-90.00	-980.61	381.52	1,185.16	1,134.84	50.32	23.552	
7,300.00	6,935.78	7,049.28	6,935.78	39.49	24.88	-90.00	-980.61	381.52	1,185.16	1,134.61	50.54	23.449	
7,400.00	7,035.78	7,149.28	7,035.78	39.57	24.99	-90.00	-980.61	381.52	1,185.16	1,134.39	50.77	23.345	
7,500.00	7,135.78	7,249.28	7,135.78	39.65	25.11	-90.00	-980.61	381.52	1,185.16	1,134.16	50.99	23.241	
7,600.00	7,235.78	7,349.28	7,235.78	39.73	25.22	-90.00	-980.61	381.52	1,185.16	1,133.93	51.23	23.136	
7,700.00	7,335.78	7,449.28	7,335.78	39.81	25.34	-90.00	-980.61	381.52	1,185.16	1,133.70	51.46	23.031	
7,800.00	7,435.78	7,549.28	7,435.78	39.90	25.46	-90.00	-980.61	381.52	1,185.16	1,133.46	51.69	22.926	
7,900.00	7,535.78	7,649.28	7,535.78	39.98	25.58	-90.00	-980.61	381.52	1,185.16	1,133.22	51.93	22.820	
8,000.00	7,635.78	7,749.28	7,635.78	40.07	25.70	-90.00	-980.61	381.52	1,185.16	1,132.98	52.18	22.715	
8,100.00	7,735.78	7,849.28	7,735.78	40.16	25.82	-90.00	-980.61	381.52	1,185.16	1,132.74	52.42	22.608	
8,200.00	7,835.78	7,949.28	7,835.78	40.24	25.94	-90.00	-980.61	381.52	1,185.16	1,132.49	52.67	22.502	
8,300.00	7,935.78	8,049.28	7,935.78	40.33	26.07	-90.00	-980.61	381.52	1,185.16	1,132.24	52.92	22.396	
8,400.00	8,035.78	8,149.28	8,035.78	40.42	26.20	-90.00	-980.61	381.52	1,185.16	1,131.99	53.17	22.289	
8,500.00	8,135.78	8,249.28	8,135.78	40.52	26.32	-90.00	-980.61	381.52	1,185.16	1,131.73	53.43	22.183	
8,600.00	8,235.78	8,349.28	8,235.78	40.61	26.45	-90.00	-980.61	381.52	1,185.16	1,131.47	53.68	22.076	
8,663.22	8,299.00	8,412.51	8,299.00	40.67	26.54	-90.00	-980.61	381.52	1,185.16	1,131.31	53.85	22.009	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	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
0.00	0.00	0.00	0.00	0.00	0.00	136.70	-49.90	47.02	71.15				
100.00	100.00	81.00	81.00	0.10	1.62	136.70	-49.90	47.02	68.57	66.85	1.72	39.968	
200.00	200.00	181.00	181.00	0.32	5.24	136.70	-49.90	47.02	68.57	63.01	5.56	12.332	
300.00	300.00	281.00	281.00	0.55	9.24	136.70	-49.90	47.02	68.57	58.78	9.79	7.007	
400.00	400.00	381.00	381.00	0.77	13.24	136.70	-49.90	47.02	68.57	54.56	14.01	4.894	
500.00	500.00	481.00	481.00	0.99	17.24	136.70	-49.90	47.02	68.57	50.33	18.23	3.760	
600.00	600.00	581.00	581.00	1.22	21.24	136.70	-49.90	47.02	68.57	46.11	22.46	3.053	
700.00	700.00	681.00	681.00	1.44	25.24	136.70	-49.90	47.02	68.57	41.88	26.68	2.570	
800.00	800.00	781.00	781.00	1.67	29.24	136.70	-49.90	47.02	68.57	37.66	30.91	2.218	
900.00	900.00	881.00	881.00	1.89	33.24	136.70	-49.90	47.02	68.57	33.43	35.13	1.952	
1,000.00	1,000.00	981.00	981.00	2.12	37.24	136.70	-49.90	47.02	68.57	29.21	39.36	1.742	
1,085.00	1,085.00	1,066.00	1,066.00	2.31	40.64	136.70	-49.90	47.02	68.57	25.62	42.95	1.596	
1,100.00	1,100.00	1,081.00	1,081.00	2.34	41.24	14.67	-49.90	47.02	68.53	24.95	43.58	1.573	
1,200.00	1,199.97	1,180.97	1,180.97	2.52	45.24	15.17	-49.90	47.02	66.34	18.61	47.73	1.390	Level 3
1,300.00	1,299.80	1,280.80	1,280.80	2.72	49.23	16.63	-49.90	47.02	60.80	8.99	51.81	1.173	Level 2
1,400.00	1,399.37	1,380.37	1,380.37	2.93	53.21	19.60	-49.90	47.02	52.01	-3.82	55.83	0.932	Level 1
1,500.00	1,498.55	1,479.55	1,479.55	3.17	57.18	25.77	-49.90	47.02	40.26	-19.54	59.80	0.673	Level 1
1,600.00	1,597.23	1,578.23	1,578.23	3.44	61.13	41.17	-49.90	47.02	26.61	-37.32	63.93	0.416	Level 1
1,700.00	1,695.29	1,676.29	1,676.29	3.75	65.05	88.14	-49.90	47.02	17.36	-51.48	68.85	0.252	Level 1
1,702.69	1,697.92	1,678.92	1,678.92	3.76	65.16	90.00	-49.90	47.02	17.35	-51.64	68.99	0.252	Level 1, CC, ES, SF
1,800.00	1,792.60	1,773.60	1,773.60	4.11	68.94	141.40	-49.90	47.02	28.36	-43.25	71.61	0.396	Level 1
1,900.00	1,889.05	1,870.05	1,870.05	4.53	72.80	159.68	-49.90	47.02	51.81	-22.53	74.33	0.697	Level 1
2,000.00	1,984.52	1,965.52	1,965.52	5.02	76.62	166.90	-49.90	47.02	80.44	3.19	77.25	1.041	Level 2
2,100.00	2,078.90	2,059.90	2,059.90	5.58	80.40	170.59	-49.90	47.02	112.94	32.86	80.08	1.410	Level 3
2,200.00	2,172.06	2,153.06	2,153.06	6.22	84.12	172.77	-49.90	47.02	148.94	66.21	82.72	1.800	
2,300.00	2,263.90	2,244.90	2,244.90	6.93	87.80	174.20	-49.90	47.02	188.28	103.12	85.16	2.211	
2,313.94	2,276.59	2,257.59	2,257.59	7.03	88.30	174.36	-49.90	47.02	194.02	108.54	85.48	2.270	
2,400.00	2,354.85	2,335.85	2,335.85	7.70	91.43	175.24	-49.90	47.02	229.70	141.13	88.56	2.594	
2,500.00	2,445.79	2,426.79	2,426.79	8.49	95.07	175.97	-49.90	47.02	271.19	179.02	92.17	2.942	
2,600.00	2,536.73	2,517.73	2,517.73	9.30	98.71	176.50	-49.90	47.02	312.71	216.93	95.78	3.265	
2,700.00	2,627.67	2,608.67	2,608.67	10.12	102.35	176.91	-49.90	47.02	354.25	254.84	99.41	3.564	
2,800.00	2,718.61	2,699.61	2,699.61	10.95	105.98	177.24	-49.90	47.02	395.80	292.76	103.04	3.841	
2,900.00	2,809.55	2,790.55	2,790.55	11.78	109.62	177.50	-49.90	47.02	437.36	330.68	106.68	4.100	
3,000.00	2,900.49	2,881.49	2,881.49	12.63	113.26	177.72	-49.90	47.02	478.92	368.60	110.32	4.341	
3,100.00	2,991.43	2,972.43	2,972.43	13.47	116.90	177.90	-49.90	47.02	520.49	406.52	113.97	4.567	
3,200.00	3,082.37	3,063.37	3,063.37	14.33	120.53	178.05	-49.90	47.02	562.06	444.44	117.62	4.779	
3,300.00	3,173.31	3,154.31	3,154.31	15.18	124.17	178.19	-49.90	47.02	603.64	482.37	121.27	4.977	
3,400.00	3,264.24	3,245.24	3,245.24	16.04	127.81	178.31	-49.90	47.02	645.22	520.29	124.93	5.165	
3,500.00	3,355.18	3,336.18	3,336.18	16.90	131.45	178.41	-49.90	47.02	686.80	558.21	128.59	5.341	
3,600.00	3,446.12	3,427.12	3,427.12	17.76	135.08	178.50	-49.90	47.02	728.38	596.13	132.24	5.508	
3,700.00	3,537.06	3,518.06	3,518.06	18.63	138.72	178.58	-49.90	47.02	769.96	634.06	135.91	5.665	
3,800.00	3,628.00	3,609.00	3,609.00	19.49	142.36	178.65	-49.90	47.02	811.55	671.98	139.57	5.815	
3,900.00	3,718.94	3,699.94	3,699.94	20.36	146.00	178.72	-49.90	47.02	853.13	709.90	143.23	5.956	
4,000.00	3,809.88	3,790.88	3,790.88	21.23	149.64	178.78	-49.90	47.02	894.72	747.82	146.89	6.091	
4,100.00	3,900.82	3,881.82	3,881.82	22.10	153.27	178.83	-49.90	47.02	936.31	785.75	150.56	6.219	
4,200.00	3,991.76	3,972.76	3,972.76	22.97	156.91	178.88	-49.90	47.02	977.89	823.67	154.23	6.341	
4,300.00	4,082.70	4,063.70	4,063.70	23.84	160.55	178.93	-49.90	47.02	1,019.48	861.59	157.89	6.457	
4,400.00	4,173.64	4,154.64	4,154.64	24.71	164.19	178.97	-49.90	47.02	1,061.07	899.51	161.56	6.568	
4,500.00	4,264.57	4,245.57	4,245.57	25.59	167.82	179.01	-49.90	47.02	1,102.66	937.43	165.23	6.673	
4,600.00	4,355.51	4,336.51	4,336.51	26.46	171.46	179.04	-49.90	47.02	1,144.25	975.35	168.90	6.775	
4,700.00	4,446.45	4,427.45	4,427.45	27.33	175.10	179.08	-49.90	47.02	1,185.84	1,013.27	172.57	6.872	
4,800.00	4,537.39	4,518.39	4,518.39	28.21	178.74	179.11	-49.90	47.02	1,227.43	1,051.19	176.24	6.965	

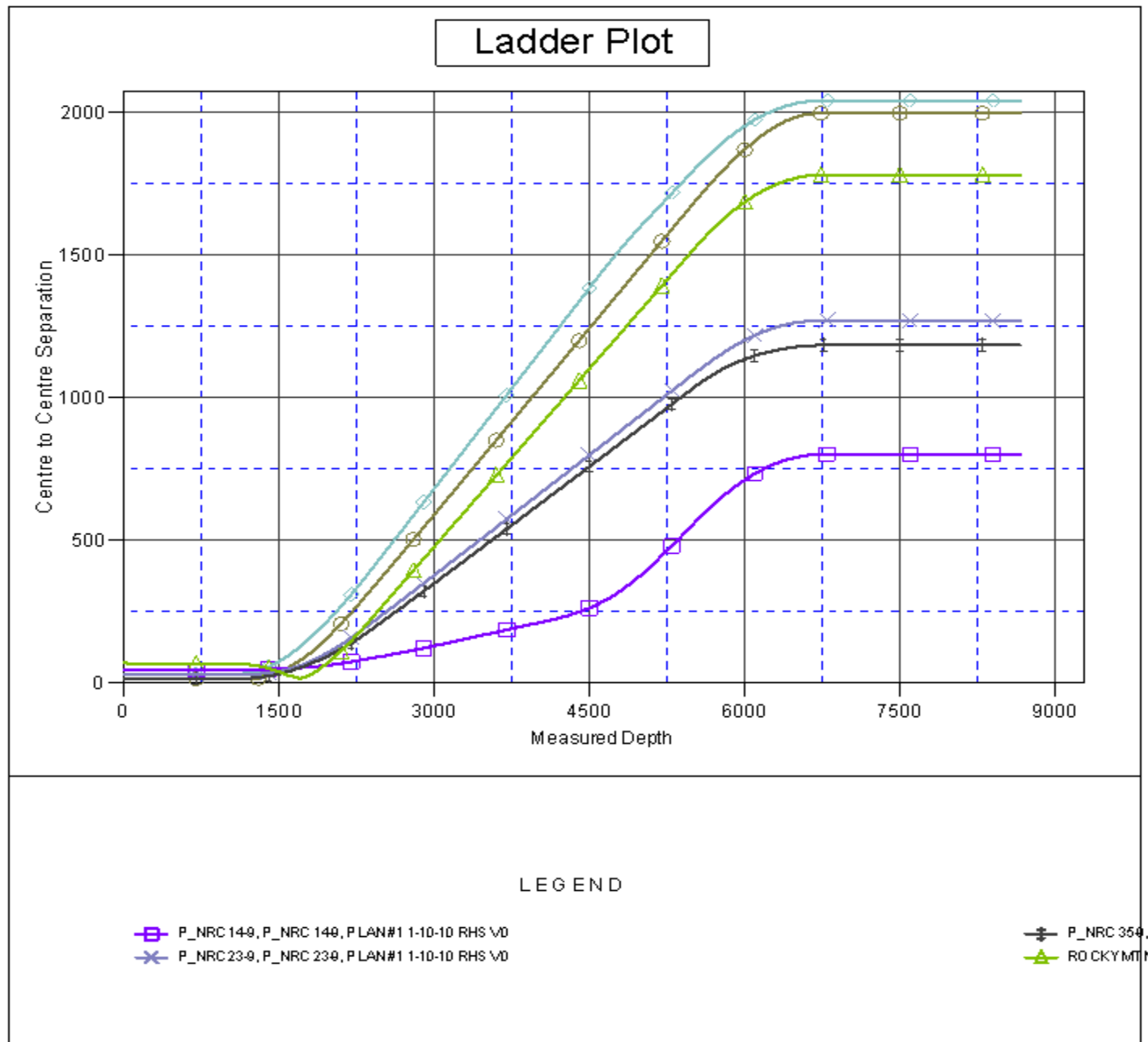
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 19-9 PAD - ROCKY MTN FUEL CO. "F" #2 EXISTING - ROCKY MTN FUEL CO. "F" #2 E												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
4,900.00	4,628.33	4,609.33	4,609.33	29.08	182.37	179.14	-49.90	47.02	1,269.02	1,089.11	179.91	7.054	
5,000.00	4,719.27	4,700.27	4,700.27	29.96	186.01	179.17	-49.90	47.02	1,310.61	1,127.03	183.58	7.139	
5,100.00	4,810.21	4,791.21	4,791.21	30.83	189.65	179.19	-49.90	47.02	1,352.20	1,164.95	187.25	7.221	
5,200.00	4,901.15	4,882.15	4,882.15	31.71	193.29	179.22	-49.90	47.02	1,393.79	1,202.87	190.92	7.300	
5,300.00	4,992.09	4,973.09	4,973.09	32.58	196.92	179.24	-49.90	47.02	1,435.38	1,240.79	194.60	7.376	
5,400.00	5,083.03	5,064.03	5,064.03	33.46	200.56	179.26	-49.90	47.02	1,476.97	1,278.71	198.27	7.449	
5,509.28	5,182.41	5,163.41	5,163.41	34.42	204.54	179.28	-49.90	47.02	1,522.43	1,320.14	202.28	7.526	
5,600.00	5,265.49	5,246.49	5,246.49	35.11	207.86	179.31	-49.90	47.02	1,558.85	1,350.68	208.16	7.489	
5,700.00	5,358.35	5,339.35	5,339.35	35.72	211.57	179.33	-49.90	47.02	1,595.92	1,381.35	214.57	7.438	
5,800.00	5,452.46	5,433.46	5,433.46	36.29	215.34	179.36	-49.90	47.02	1,629.73	1,408.81	220.92	7.377	
5,900.00	5,547.68	5,528.68	5,528.68	36.80	219.15	179.37	-49.90	47.02	1,660.24	1,433.12	227.12	7.310	
6,000.00	5,643.92	5,624.92	5,624.92	37.26	223.00	179.39	-49.90	47.02	1,687.41	1,454.27	233.14	7.238	
6,100.00	5,741.04	5,722.04	5,722.04	37.67	226.88	179.40	-49.90	47.02	1,711.20	1,472.24	238.96	7.161	
6,200.00	5,838.94	5,819.94	5,819.94	38.02	230.80	179.42	-49.90	47.02	1,731.58	1,487.02	244.57	7.080	
6,300.00	5,937.48	5,918.48	5,918.48	38.33	234.74	179.42	-49.90	47.02	1,748.54	1,498.60	249.94	6.996	
6,400.00	6,036.56	6,017.56	6,017.56	38.58	238.70	179.43	-49.90	47.02	1,762.05	1,507.00	255.05	6.909	
6,500.00	6,136.05	6,117.05	6,117.05	38.78	242.68	179.44	-49.90	47.02	1,772.09	1,512.21	259.89	6.819	
6,600.00	6,235.83	6,216.83	6,216.83	38.93	246.67	179.44	-49.90	47.02	1,778.66	1,514.24	264.42	6.727	
6,700.00	6,335.78	6,316.78	6,316.78	39.04	250.67	179.44	-49.90	47.02	1,781.74	1,513.09	268.64	6.632	
6,738.22	6,374.00	6,355.00	6,355.00	39.06	252.20	-58.52	-49.90	47.02	1,781.99	1,511.82	270.17	6.596	
6,800.00	6,435.78	6,416.78	6,416.78	39.11	254.67	-58.52	-49.90	47.02	1,781.99	1,509.26	272.73	6.534	
6,900.00	6,535.78	6,516.78	6,516.78	39.18	258.67	-58.52	-49.90	47.02	1,781.99	1,505.11	276.88	6.436	
7,000.00	6,635.78	6,616.78	6,616.78	39.26	262.67	-58.52	-49.90	47.02	1,781.99	1,500.97	281.02	6.341	
7,100.00	6,735.78	6,716.78	6,716.78	39.33	266.67	-58.52	-49.90	47.02	1,781.99	1,496.82	285.17	6.249	
7,200.00	6,835.78	6,816.78	6,816.78	39.41	270.67	-58.52	-49.90	47.02	1,781.99	1,492.67	289.32	6.159	
7,300.00	6,935.78	6,916.78	6,916.78	39.49	274.67	-58.52	-49.90	47.02	1,781.99	1,488.52	293.48	6.072	
7,400.00	7,035.78	7,016.78	7,016.78	39.57	278.67	-58.52	-49.90	47.02	1,781.99	1,484.36	297.63	5.987	
7,500.00	7,135.78	7,116.78	7,116.78	39.65	282.67	-58.52	-49.90	47.02	1,781.99	1,480.21	301.78	5.905	
7,600.00	7,235.78	7,216.78	7,216.78	39.73	286.67	-58.52	-49.90	47.02	1,781.99	1,476.05	305.94	5.825	
7,700.00	7,335.78	7,316.78	7,316.78	39.81	290.67	-58.52	-49.90	47.02	1,781.99	1,471.89	310.10	5.747	
7,800.00	7,435.78	7,416.78	7,416.78	39.90	294.67	-58.52	-49.90	47.02	1,781.99	1,467.73	314.26	5.670	
7,900.00	7,535.78	7,516.78	7,516.78	39.98	298.67	-58.52	-49.90	47.02	1,781.99	1,463.57	318.42	5.596	
8,000.00	7,635.78	7,616.78	7,616.78	40.07	302.67	-58.52	-49.90	47.02	1,781.99	1,459.41	322.58	5.524	
8,100.00	7,735.78	7,716.78	7,716.78	40.16	306.67	-58.52	-49.90	47.02	1,781.99	1,455.25	326.74	5.454	
8,200.00	7,835.78	7,816.78	7,816.78	40.24	310.67	-58.52	-49.90	47.02	1,781.99	1,451.09	330.91	5.385	
8,300.00	7,935.78	7,916.78	7,916.78	40.33	314.67	-58.52	-49.90	47.02	1,781.99	1,446.92	335.07	5.318	
8,400.00	8,035.78	8,016.78	8,016.78	40.42	318.67	-58.52	-49.90	47.02	1,781.99	1,442.75	339.24	5.253	
8,500.00	8,135.78	8,116.78	8,116.78	40.52	322.67	-58.52	-49.90	47.02	1,781.99	1,438.59	343.40	5.189	
8,600.00	8,235.78	8,216.78	8,216.78	40.61	326.67	-58.52	-49.90	47.02	1,781.99	1,434.42	347.57	5.127	
8,663.22	8,299.00	8,280.00	8,280.00	40.67	329.20	-58.52	-49.90	47.02	1,781.99	1,431.78	350.21	5.088	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

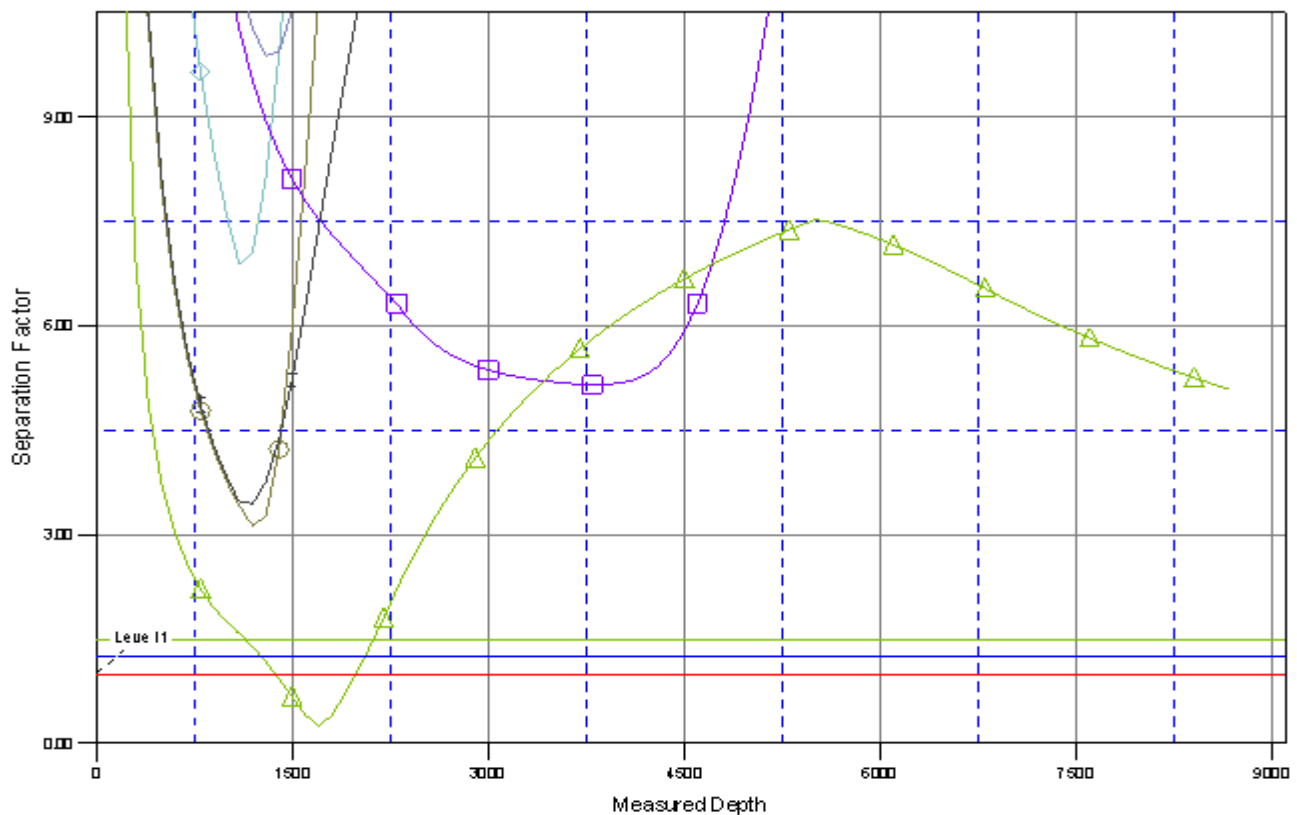
Reference Depths are relative to WELL @ 5067.00ft (Original Well Elev) Coordinates are relative to: P_NRC 36-9
Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W °
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.39°





Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 36-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5067.00ft (Original Well Elev)
Reference Site:	WELD_NRC 19-9 PAD	MD Reference:	WELL @ 5067.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 36-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 36-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum



Reference Depths are relative to WELL @ 5067.00ft (Original Well Elev) Coordinates are relative to: P_NRC 36-9
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

 P_NRC 14-9, P_NRC 14-9, P LAN#1 1-10-10 RHS V/D
 P_NRC 23-9, P_NRC 23-9, P LAN#1 1-10-10 RHS V/D

 P_NRC 36-9, I
 ROCKY MOUNTAIN