



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_NRC 19-9 PAD

P_NRC 23-9

P_NRC 23-9

Plan: PLAN #1 1-10-10 RH

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 23-9

+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	1265667.98	3167480.13	5052.00	40° 3' 39.949 N	104° 54' 5.918 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3259.00	3365.42	PARKMAN
4734.00	4947.21	SUSSEX
5204.00	5451.24	SHANNON
7374.00	7654.97	NIO A
7714.00	7994.97	CODELL
8164.00	8444.97	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	
2143.72	21.17	79.79	2119.78	34.29	190.35	2.00	79.79	193.41	
5596.25	21.17	79.79	5339.22	255.38	1417.67	0.00	0.00	1440.49	
6654.97	0.00	0.00	6374.00	289.67	1608.02	2.00	180.00	1633.91	
8579.97	0.00	0.00	8299.00	289.67	1608.02	0.00	0.00	1633.91	PBHL_NRC 23-9(1320 FSL 2575 FWL)

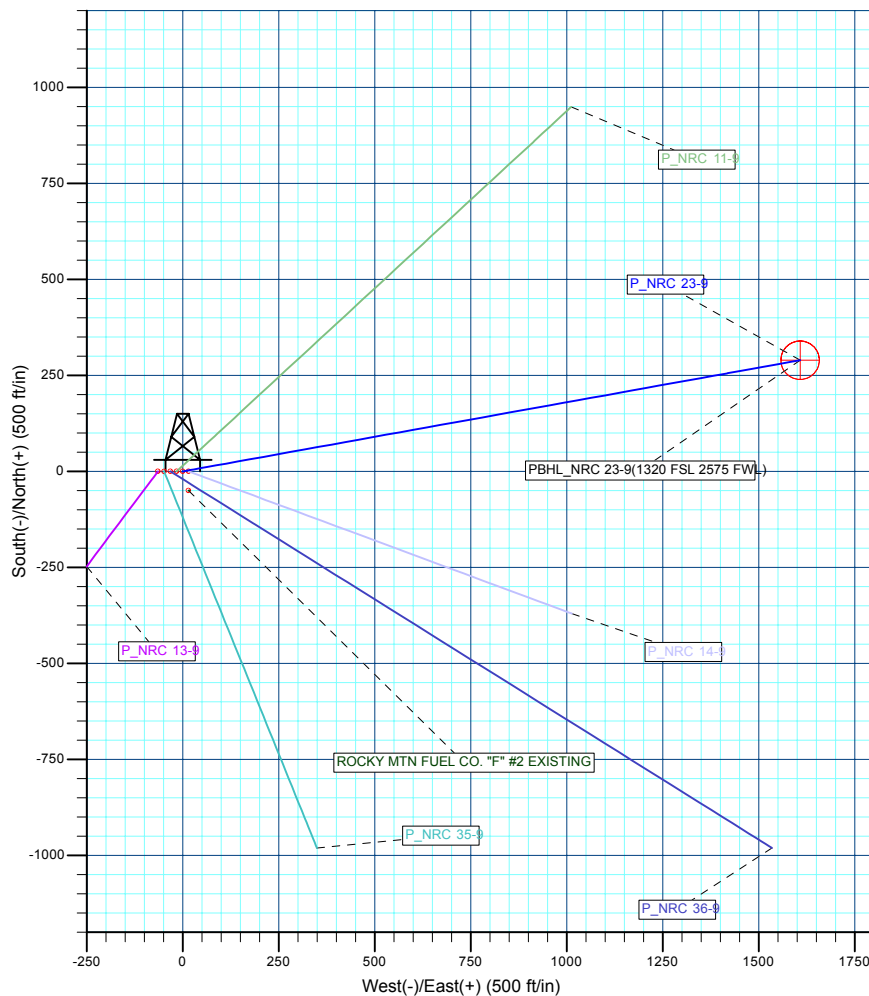
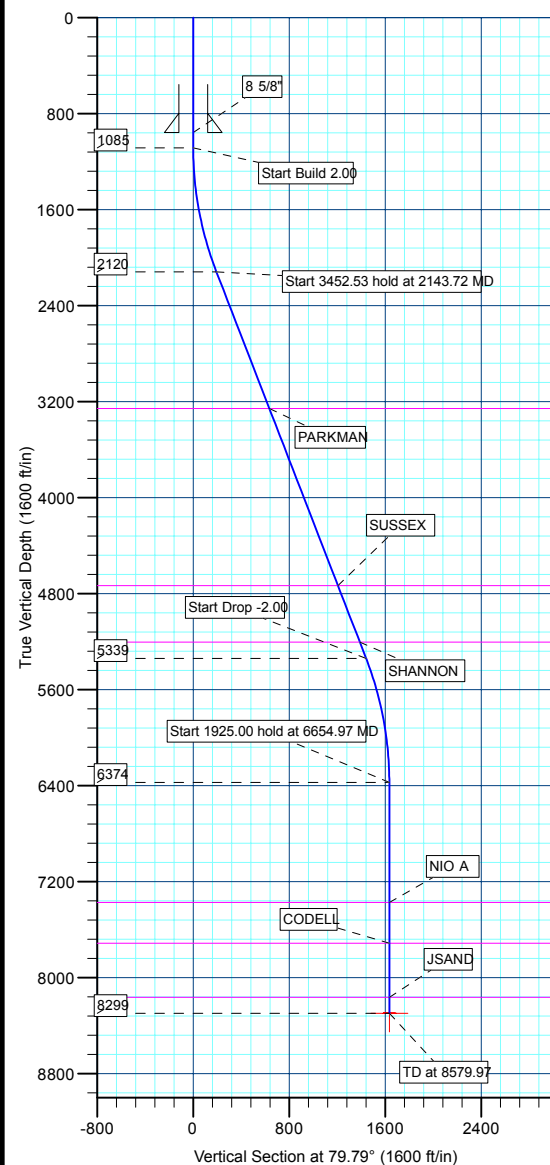
CASING DETAILS

TVD	MD	Name	Size
958.00	958.00	8 5/8"	8.62



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	289.67	1608.02	1265968.50	3169086.16	40° 3' 42.811 N	104° 53' 45.236 W	Circle (Radius: 50.00)

Plan: PLAN #1 1-10-10 RHS (P_NRC 23-9/P_NRC 23-9)

Created By: Robert H. Scott

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 23-9		
Design:	PLAN #1 1-10-10 RH		

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 23-9					
Well Position	+N/-S	-0.02 ft	Northing:	1,265,667.98 ft	Latitude:	40° 3' 39.949 N
	+E/-W	15.95 ft	Easting:	3,167,480.13 ft	Longitude:	104° 54' 5.918 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,052.00 ft

Wellbore	P_NRC 23-9				
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 RH			
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	79.79

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	
2,143.72	21.17	79.79	2,119.78	34.29	190.35	2.00	2.00	0.00	79.79	
5,596.25	21.17	79.79	5,339.22	255.38	1,417.67	0.00	0.00	0.00	0.00	
6,654.97	0.00	0.00	6,374.00	289.67	1,608.02	2.00	-2.00	0.00	180.00	
8,579.97	0.00	0.00	8,299.00	289.67	1,608.02	0.00	0.00	0.00	0.00	PBHL_NRC 23-9(1:

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 23-9		
Design:	PLAN #1 1-10-10 RH		

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	79.79	1,100.00	0.01	0.04	0.04	2.00	2.00	0.00
1,200.00	2.30	79.79	1,199.97	0.41	2.27	2.31	2.00	2.00	0.00
1,300.00	4.30	79.79	1,299.80	1.43	7.94	8.06	2.00	2.00	0.00
1,400.00	6.30	79.79	1,399.37	3.07	17.03	17.30	2.00	2.00	0.00
1,500.00	8.30	79.79	1,498.55	5.32	29.53	30.01	2.00	2.00	0.00
1,600.00	10.30	79.79	1,597.23	8.18	45.43	46.17	2.00	2.00	0.00
1,700.00	12.30	79.79	1,695.29	11.66	64.72	65.76	2.00	2.00	0.00
1,800.00	14.30	79.79	1,792.60	15.74	87.36	88.76	2.00	2.00	0.00
1,900.00	16.30	79.79	1,889.05	20.41	113.33	115.15	2.00	2.00	0.00
2,000.00	18.30	79.79	1,984.52	25.69	142.59	144.89	2.00	2.00	0.00
2,100.00	20.30	79.79	2,078.90	31.55	175.12	177.94	2.00	2.00	0.00
Start 3452.53 hold at 2143.72 MD									
2,143.72	21.17	79.79	2,119.78	34.29	190.35	193.41	2.00	2.00	0.00
2,200.00	21.17	79.79	2,172.26	37.89	210.36	213.74	0.00	0.00	0.00
2,300.00	21.17	79.79	2,265.51	44.30	245.91	249.86	0.00	0.00	0.00
2,400.00	21.17	79.79	2,358.76	50.70	281.46	285.99	0.00	0.00	0.00
2,500.00	21.17	79.79	2,452.01	57.10	317.00	322.11	0.00	0.00	0.00
2,600.00	21.17	79.79	2,545.26	63.51	352.55	358.23	0.00	0.00	0.00
2,700.00	21.17	79.79	2,638.51	69.91	388.10	394.35	0.00	0.00	0.00
2,800.00	21.17	79.79	2,731.76	76.32	423.65	430.47	0.00	0.00	0.00
2,900.00	21.17	79.79	2,825.00	82.72	459.20	466.59	0.00	0.00	0.00
3,000.00	21.17	79.79	2,918.25	89.12	494.75	502.71	0.00	0.00	0.00
3,100.00	21.17	79.79	3,011.50	95.53	530.29	538.83	0.00	0.00	0.00
3,200.00	21.17	79.79	3,104.75	101.93	565.84	574.95	0.00	0.00	0.00
3,300.00	21.17	79.79	3,198.00	108.33	601.39	611.07	0.00	0.00	0.00
PARKMAN									
3,365.42	21.17	79.79	3,259.00	112.52	624.65	634.70	0.00	0.00	0.00
3,400.00	21.17	79.79	3,291.25	114.74	636.94	647.19	0.00	0.00	0.00
3,500.00	21.17	79.79	3,384.50	121.14	672.49	683.31	0.00	0.00	0.00
3,600.00	21.17	79.79	3,477.74	127.55	708.04	719.43	0.00	0.00	0.00
3,700.00	21.17	79.79	3,570.99	133.95	743.59	755.55	0.00	0.00	0.00
3,800.00	21.17	79.79	3,664.24	140.35	779.13	791.68	0.00	0.00	0.00
3,900.00	21.17	79.79	3,757.49	146.76	814.68	827.80	0.00	0.00	0.00
4,000.00	21.17	79.79	3,850.74	153.16	850.23	863.92	0.00	0.00	0.00
4,100.00	21.17	79.79	3,943.99	159.56	885.78	900.04	0.00	0.00	0.00
4,200.00	21.17	79.79	4,037.24	165.97	921.33	936.16	0.00	0.00	0.00
4,300.00	21.17	79.79	4,130.48	172.37	956.88	972.28	0.00	0.00	0.00
4,400.00	21.17	79.79	4,223.73	178.78	992.43	1,008.40	0.00	0.00	0.00
4,500.00	21.17	79.79	4,316.98	185.18	1,027.97	1,044.52	0.00	0.00	0.00
4,600.00	21.17	79.79	4,410.23	191.58	1,063.52	1,080.64	0.00	0.00	0.00
4,700.00	21.17	79.79	4,503.48	197.99	1,099.07	1,116.76	0.00	0.00	0.00
4,800.00	21.17	79.79	4,596.73	204.39	1,134.62	1,152.88	0.00	0.00	0.00
4,900.00	21.17	79.79	4,689.98	210.79	1,170.17	1,189.00	0.00	0.00	0.00
SUSSEX									
4,947.21	21.17	79.79	4,734.00	213.82	1,186.95	1,206.06	0.00	0.00	0.00
5,000.00	21.17	79.79	4,783.22	217.20	1,205.72	1,225.12	0.00	0.00	0.00
5,100.00	21.17	79.79	4,876.47	223.60	1,241.27	1,261.24	0.00	0.00	0.00
5,200.00	21.17	79.79	4,969.72	230.00	1,276.81	1,297.36	0.00	0.00	0.00
5,300.00	21.17	79.79	5,062.97	236.41	1,312.36	1,333.49	0.00	0.00	0.00
5,400.00	21.17	79.79	5,156.22	242.81	1,347.91	1,369.61	0.00	0.00	0.00
SHANNON									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 23-9		
Design:	PLAN #1 1-10-10 RH		

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)
5,451.24	21.17	79.79	5,204.00	246.09	1,366.13	1,388.11	0.00	0.00	0.00
5,500.00	21.17	79.79	5,249.47	249.22	1,383.46	1,405.73	0.00	0.00	0.00
Start Drop -2.00									
5,596.25	21.17	79.79	5,339.22	255.38	1,417.67	1,440.49	0.00	0.00	0.00
5,600.00	21.10	79.79	5,342.72	255.62	1,419.01	1,441.85	2.00	-2.00	0.00
5,700.00	19.10	79.79	5,436.62	261.71	1,452.82	1,476.21	2.00	-2.00	0.00
5,800.00	17.10	79.79	5,531.67	267.22	1,483.40	1,507.27	2.00	-2.00	0.00
5,900.00	15.10	79.79	5,627.74	272.13	1,510.69	1,535.00	2.00	-2.00	0.00
6,000.00	13.10	79.79	5,724.73	276.45	1,534.66	1,559.36	2.00	-2.00	0.00
6,100.00	11.10	79.79	5,822.50	280.17	1,555.29	1,580.32	2.00	-2.00	0.00
6,200.00	9.10	79.79	5,920.94	283.28	1,572.54	1,597.86	2.00	-2.00	0.00
6,300.00	7.10	79.79	6,019.94	285.78	1,586.41	1,611.94	2.00	-2.00	0.00
6,400.00	5.10	79.79	6,119.37	287.66	1,596.87	1,622.57	2.00	-2.00	0.00
6,500.00	3.10	79.79	6,219.11	288.93	1,603.90	1,629.72	2.00	-2.00	0.00
6,600.00	1.10	79.79	6,319.04	289.58	1,607.51	1,633.38	2.00	-2.00	0.00
Start 1925.00 hold at 6654.97 MD									
6,654.97	0.00	0.00	6,374.00	289.67	1,608.02	1,633.91	2.00	-2.00	0.00
6,700.00	0.00	0.00	6,419.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
6,800.00	0.00	0.00	6,519.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
6,900.00	0.00	0.00	6,619.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,000.00	0.00	0.00	6,719.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,100.00	0.00	0.00	6,819.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,200.00	0.00	0.00	6,919.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,300.00	0.00	0.00	7,019.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,400.00	0.00	0.00	7,119.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,500.00	0.00	0.00	7,219.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,600.00	0.00	0.00	7,319.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
NIO A									
7,654.97	0.00	0.00	7,374.00	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,700.00	0.00	0.00	7,419.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,800.00	0.00	0.00	7,519.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
7,900.00	0.00	0.00	7,619.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
CODELL									
7,994.97	0.00	0.00	7,714.00	289.67	1,608.02	1,633.91	0.00	0.00	0.00
8,000.00	0.00	0.00	7,719.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
8,100.00	0.00	0.00	7,819.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
8,200.00	0.00	0.00	7,919.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
8,300.00	0.00	0.00	8,019.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
8,400.00	0.00	0.00	8,119.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
JSAND									
8,444.97	0.00	0.00	8,164.00	289.67	1,608.02	1,633.91	0.00	0.00	0.00
8,500.00	0.00	0.00	8,219.03	289.67	1,608.02	1,633.91	0.00	0.00	0.00
PBHL_NRC 23-9(1320 FSL 2575 FWL)									
8,579.97	0.00	0.00	8,299.00	289.67	1,608.02	1,633.91	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 23-9		
Design:	PLAN #1 1-10-10 RH		

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 23-9(132	0.00	0.00	8,299.00	289.67	1,608.02	1,265,968.50	3,169,086.16	40° 3' 42.811 N	104° 53' 45.236 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
	Measured Depth	Vertical Depth		Casing Diameter	Hole Diameter
	(ft)	(ft)	Name	(in)	(in)
	958.00	958.00	8 5/8"	8.62	11.00

Formations						
	Measured Depth	Vertical Depth			Dip	Dip Direction
	(ft)	(ft)	Name	Lithology	(°)	(°)
	3,365.42	3,259.00	PARKMAN			
	4,947.21	4,734.00	SUSSEX			
	5,451.24	5,204.00	SHANNON			
	7,654.97	7,374.00	NIO A			
	7,994.97	7,714.00	CODELL			
	8,444.97	8,164.00	JSAND			

Plan Annotations					
	Measured Depth	Vertical Depth	Local Coordinates		
	(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment
	1,085.00	1,085.00	0.00	0.00	Start Build 2.00
	2,143.72	2,119.78	34.29	190.35	Start 3452.53 hold at 2143.72 MD
	5,596.25	5,339.22	255.38	1,417.67	Start Drop -2.00
	6,654.97	6,374.00	289.67	1,608.02	Start 1925.00 hold at 6654.97 MD
	8,579.97	8,299.00	289.67	1,608.02	TD at 8579.97



US ROCKIES REGION PLANNING

**COLORADO NORTHERN ZONE - 83
WELD_NRC 19-9 PAD
P_NRC 23-9**

**P_NRC 23-9
PLAN #1 1-10-10 RHS**

Anticollision Report

11 January, 2010



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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	8,579.97	PLAN #1 1-10-10 RHS (P_NRC 23-9)	Good_gyro	Good Gyro

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	1,085.00	1,085.00	15.95	13.08	5.560	CC
P_NRC 11-9 - P_NRC 11-9 - PLAN #1 1-10-10 RHS	1,100.00	1,100.06	15.96	13.05	5.485	ES
P_NRC 11-9 - P_NRC 11-9 - PLAN #1 1-10-10 RHS	1,200.00	1,200.46	16.57	13.39	5.213	SF
P_NRC 13-9 - P_NRC 13-9 - PLAN #1 1-10-10 RHS	1,085.00	1,085.00	64.10	61.23	22.336	CC, ES
P_NRC 13-9 - P_NRC 13-9 - PLAN #1 1-10-10 RHS	1,200.00	1,198.32	67.77	64.64	21.651	SF
P_NRC 14-9 - P_NRC 14-9 - PLAN #1 1-10-10 RHS	1,216.03	1,215.33	15.88	12.68	4.972	CC, ES
P_NRC 14-9 - P_NRC 14-9 - PLAN #1 1-10-10 RHS	1,300.00	1,298.80	16.10	12.70	4.732	SF
P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 RHS	1,085.00	1,085.00	48.14	45.27	16.776	CC
P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 RHS	1,100.00	1,100.10	48.17	45.26	16.569	ES
P_NRC 35-9 - P_NRC 35-9 - PLAN #1 1-10-10 RHS	1,200.00	1,200.66	49.61	46.48	15.845	SF
P_NRC 36-9 - P_NRC 36-9 - PLAN #1 1-10-10 RHS	1,085.00	1,085.00	31.91	29.04	11.119	CC
P_NRC 36-9 - P_NRC 36-9 - PLAN #1 1-10-10 RHS	1,100.00	1,100.14	31.91	29.01	10.974	ES
P_NRC 36-9 - P_NRC 36-9 - PLAN #1 1-10-10 RHS	1,300.00	1,301.89	33.45	30.06	9.880	SF
ROCKY MTN FUEL CO. "F" #2 EXISTING - ROCKY MT	1,270.88	1,251.75	51.79	3.06	1.063	Level 2, CC
ROCKY MTN FUEL CO. "F" #2 EXISTING - ROCKY MT	1,400.00	1,380.37	53.00	-0.94	0.983	Level 1, 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												
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)	Distance Between Centres (ft)	Distance 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	0.04	0.10	-89.94	0.02	-15.95	15.95	15.81	0.14	113.935
200.00	200.00	200.00	200.00	0.10	0.32	-89.94	0.02	-15.95	15.95	15.54	0.42	38.246
300.00	300.00	300.00	300.00	0.15	0.55	-89.94	0.02	-15.95	15.95	15.26	0.69	22.980
400.00	400.00	400.00	400.00	0.20	0.77	-89.94	0.02	-15.95	15.95	14.98	0.97	16.424
500.00	500.00	500.00	500.00	0.25	0.99	-89.94	0.02	-15.95	15.95	14.71	1.25	12.779
600.00	600.00	600.00	600.00	0.31	1.22	-89.94	0.02	-15.95	15.95	14.43	1.53	10.457
700.00	700.00	700.00	700.00	0.36	1.44	-89.94	0.02	-15.95	15.95	14.15	1.80	8.850
800.00	800.00	800.00	800.00	0.41	1.67	-89.94	0.02	-15.95	15.95	13.87	2.08	7.671
900.00	900.00	900.00	900.00	0.46	1.89	-89.94	0.02	-15.95	15.95	13.60	2.36	6.769
1,000.00	1,000.00	1,000.00	1,000.00	0.52	2.12	-89.94	0.02	-15.95	15.95	13.32	2.63	6.057
1,085.00	1,085.00	1,085.00	1,085.00	0.56	2.31	-89.94	0.02	-15.95	15.95	13.08	2.87	5.560 CC
1,100.00	1,100.00	1,100.06	1,100.06	0.57	2.34	-169.66	0.04	-15.93	15.96	13.05	2.91	5.485 ES

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 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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)	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	1,200.46	1,200.43	0.62	2.56	-165.69	1.59	-14.25	16.57	13.39	3.18	5.213 SF	
1,300.00	1,299.80	1,300.79	1,300.58	0.68	2.78	-156.92	5.53	-9.99	18.40	14.96	3.45	5.341	
1,400.00	1,399.37	1,400.99	1,400.35	0.74	3.01	-146.33	11.83	-3.16	22.03	18.31	3.73	5.914	
1,500.00	1,498.55	1,501.01	1,499.55	0.82	3.26	-136.69	20.47	6.20	27.84	23.80	4.04	6.895	
1,600.00	1,597.23	1,600.80	1,598.02	0.93	3.53	-129.16	31.43	18.07	35.92	31.52	4.40	8.160	
1,700.00	1,695.29	1,700.30	1,695.58	1.06	3.84	-123.62	44.67	32.40	46.20	41.37	4.83	9.563	
1,800.00	1,792.60	1,799.46	1,792.07	1.23	4.19	-119.60	60.14	49.16	58.58	53.24	5.34	10.978	
1,900.00	1,889.05	1,898.23	1,887.35	1.44	4.60	-116.62	77.80	68.28	72.97	67.04	5.93	12.296	
2,000.00	1,984.52	1,996.66	1,981.39	1.68	5.05	-114.45	97.52	89.63	89.30	82.67	6.63	13.478	
2,100.00	2,078.90	2,095.04	2,075.12	1.96	5.54	-114.09	117.80	111.59	107.19	99.81	7.37	14.540	
2,143.72	2,119.78	2,137.96	2,116.01	2.10	5.77	-114.43	126.64	121.17	115.45	107.74	7.71	14.974	
2,200.00	2,172.26	2,193.17	2,168.61	2.28	6.05	-115.15	138.03	133.50	126.28	118.12	8.16	15.475	
2,300.00	2,265.51	2,291.27	2,262.07	2.61	6.58	-116.16	158.25	155.40	145.56	136.58	8.98	16.210	
2,400.00	2,358.76	2,389.36	2,355.52	2.94	7.12	-116.94	178.47	177.29	164.88	155.06	9.82	16.798	
2,500.00	2,452.01	2,487.46	2,448.98	3.27	7.67	-117.56	198.69	199.19	184.21	173.55	10.66	17.275	
2,600.00	2,545.26	2,585.55	2,542.44	3.61	8.23	-118.06	218.91	221.09	203.57	192.05	11.52	17.669	
2,700.00	2,638.51	2,683.65	2,635.89	3.95	8.80	-118.47	239.13	242.99	222.93	210.55	12.39	17.998	
2,800.00	2,731.76	2,781.74	2,729.35	4.29	9.36	-118.81	259.36	264.89	242.31	229.05	13.26	18.277	
2,900.00	2,825.00	2,879.84	2,822.81	4.63	9.94	-119.11	279.58	286.79	261.69	247.56	14.13	18.515	
3,000.00	2,918.25	2,977.93	2,916.27	4.98	10.52	-119.36	299.80	308.69	281.08	266.07	15.01	18.721	
3,100.00	3,011.50	3,076.03	3,009.72	5.32	11.10	-119.58	320.02	330.58	300.47	284.58	15.90	18.901	
3,200.00	3,104.75	3,174.12	3,103.18	5.66	11.68	-119.78	340.24	352.48	319.87	303.09	16.78	19.059	
3,300.00	3,198.00	3,272.22	3,196.64	6.01	12.27	-119.95	360.46	374.38	339.27	321.60	17.67	19.199	
3,400.00	3,291.25	3,370.31	3,290.09	6.35	12.85	-120.10	380.69	396.28	358.67	340.11	18.56	19.324	
3,500.00	3,384.50	3,468.41	3,383.55	6.70	13.44	-120.24	400.91	418.18	378.08	358.63	19.45	19.436	
3,600.00	3,477.74	3,566.50	3,477.01	7.04	14.03	-120.36	421.13	440.08	397.49	377.14	20.35	19.537	
3,700.00	3,570.99	3,664.60	3,570.47	7.39	14.63	-120.48	441.35	461.98	416.89	395.66	21.24	19.629	
3,800.00	3,664.24	3,762.70	3,663.92	7.73	15.22	-120.58	461.57	483.87	436.30	414.17	22.13	19.712	
3,900.00	3,757.49	3,860.79	3,757.38	8.08	15.81	-120.67	481.79	505.77	455.72	432.69	23.03	19.789	
4,000.00	3,850.74	3,958.89	3,850.84	8.43	16.41	-120.76	502.02	527.67	475.13	451.20	23.92	19.859	
4,100.00	3,943.99	4,056.98	3,944.29	8.77	17.01	-120.84	522.24	549.57	494.54	469.72	24.82	19.925	
4,200.00	4,037.24	4,155.08	4,037.75	9.12	17.60	-120.91	542.46	571.47	513.95	488.24	25.72	19.985	
4,300.00	4,130.48	4,253.17	4,131.21	9.46	18.20	-120.98	562.68	593.37	533.37	506.76	26.61	20.041	
4,400.00	4,223.73	4,351.27	4,224.67	9.81	18.80	-121.05	582.90	615.26	552.78	525.27	27.51	20.093	
4,500.00	4,316.98	4,449.36	4,318.12	10.16	19.40	-121.10	603.12	637.16	572.20	543.79	28.41	20.142	
4,600.00	4,410.23	4,547.46	4,411.58	10.50	20.00	-121.16	623.35	659.06	591.62	562.31	29.31	20.188	
4,700.00	4,503.48	4,645.55	4,505.04	10.85	20.60	-121.21	643.57	680.96	611.03	580.83	30.20	20.231	
4,800.00	4,596.73	4,743.65	4,598.49	11.20	21.20	-121.26	663.79	702.86	630.45	599.35	31.10	20.272	
4,900.00	4,689.98	4,841.74	4,691.95	11.54	21.80	-121.31	684.01	724.76	649.87	617.87	32.00	20.310	
5,000.00	4,783.22	4,939.84	4,785.41	11.89	22.40	-121.35	704.23	746.66	669.29	636.39	32.89	20.346	
5,100.00	4,876.47	5,037.93	4,878.87	12.24	23.00	-121.39	724.46	768.55	688.71	654.91	33.79	20.381	
5,200.00	4,969.72	5,136.03	4,972.32	12.59	23.60	-121.43	744.68	790.45	708.13	673.44	34.69	20.414	
5,300.00	5,062.97	5,234.13	5,065.78	12.93	24.20	-121.46	764.90	812.35	727.54	691.96	35.59	20.445	
5,400.00	5,156.22	5,332.22	5,159.24	13.28	24.80	-121.50	785.12	834.25	746.96	710.48	36.48	20.475	
5,500.00	5,249.47	5,430.32	5,252.69	13.63	25.40	-121.53	805.34	856.15	766.38	729.01	37.38	20.504	
5,596.25	5,339.22	5,524.73	5,342.65	13.96	25.98	-121.56	824.81	877.23	785.08	746.83	38.24	20.530	
5,600.00	5,342.72	5,528.41	5,346.15	13.97	26.01	-121.57	825.56	878.05	785.80	747.52	38.28	20.528	
5,700.00	5,436.62	5,626.68	5,439.78	14.30	26.61	-121.81	845.82	899.98	804.26	764.95	39.30	20.463	
5,800.00	5,531.67	5,725.10	5,533.63	14.60	27.16	-121.82	865.91	921.74	820.91	780.64	40.27	20.384	
5,900.00	5,627.74	5,823.74	5,628.51	14.86	27.60	-121.81	884.20	941.55	835.79	794.70	41.09	20.338	
6,000.00	5,724.73	5,922.78	5,724.65	15.09	27.99	-121.80	900.32	959.01	848.88	807.04	41.84	20.289	
6,100.00	5,822.50	6,022.16	5,821.89	15.29	28.35	-121.81	914.23	974.06	860.15	817.64	42.51	20.236	

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 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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
6,200.00	5,920.94	6,121.84	5,920.08	15.45	28.66	-121.81	925.87	986.67	869.58	826.49	43.09	20.179	
6,300.00	6,019.94	6,221.76	6,019.04	15.59	28.93	-121.82	935.20	996.78	877.17	833.57	43.60	20.118	
6,400.00	6,119.37	6,321.88	6,118.62	15.69	29.15	-121.83	942.20	1,004.36	882.89	838.86	44.03	20.053	
6,500.00	6,219.11	6,422.12	6,218.62	15.77	29.33	-121.85	946.84	1,009.38	886.74	842.36	44.38	19.982	
6,600.00	6,319.04	6,522.44	6,318.88	15.81	29.46	-121.87	949.10	1,011.83	888.71	844.06	44.65	19.904	
6,654.97	6,374.00	6,577.56	6,374.00	15.82	29.52	-42.09	949.34	1,012.09	888.99	844.23	44.77	19.858	
6,700.00	6,419.03	6,622.59	6,419.03	15.82	29.56	-42.09	949.34	1,012.09	888.99	844.18	44.82	19.836	
6,800.00	6,519.03	6,722.59	6,519.03	15.84	29.66	-42.09	949.34	1,012.09	888.99	844.06	44.93	19.785	
6,900.00	6,619.03	6,822.59	6,619.03	15.85	29.77	-42.09	949.34	1,012.09	888.99	843.94	45.05	19.733	
7,000.00	6,719.03	6,922.59	6,719.03	15.86	29.87	-42.09	949.34	1,012.09	888.99	843.82	45.17	19.681	
7,100.00	6,819.03	7,022.59	6,819.03	15.87	29.98	-42.09	949.34	1,012.09	888.99	843.70	45.29	19.629	
7,200.00	6,919.03	7,122.59	6,919.03	15.88	30.08	-42.09	949.34	1,012.09	888.99	843.58	45.41	19.576	
7,300.00	7,019.03	7,222.59	7,019.03	15.90	30.19	-42.09	949.34	1,012.09	888.99	843.46	45.53	19.524	
7,400.00	7,119.03	7,322.59	7,119.03	15.91	30.30	-42.09	949.34	1,012.09	888.99	843.33	45.66	19.470	
7,500.00	7,219.03	7,422.59	7,219.03	15.92	30.41	-42.09	949.34	1,012.09	888.99	843.21	45.79	19.417	
7,600.00	7,319.03	7,522.59	7,319.03	15.94	30.53	-42.09	949.34	1,012.09	888.99	843.08	45.91	19.363	
7,700.00	7,419.03	7,622.59	7,419.03	15.95	30.64	-42.09	949.34	1,012.09	888.99	842.95	46.04	19.309	
7,800.00	7,519.03	7,722.59	7,519.03	15.96	30.76	-42.09	949.34	1,012.09	888.99	842.82	46.17	19.254	
7,900.00	7,619.03	7,822.59	7,619.03	15.98	30.87	-42.09	949.34	1,012.09	888.99	842.69	46.30	19.199	
8,000.00	7,719.03	7,922.59	7,719.03	15.99	30.99	-42.09	949.34	1,012.09	888.99	842.56	46.44	19.144	
8,100.00	7,819.03	8,022.59	7,819.03	16.00	31.11	-42.09	949.34	1,012.09	888.99	842.42	46.57	19.089	
8,200.00	7,919.03	8,122.59	7,919.03	16.02	31.23	-42.09	949.34	1,012.09	888.99	842.29	46.71	19.034	
8,300.00	8,019.03	8,222.59	8,019.03	16.03	31.35	-42.09	949.34	1,012.09	888.99	842.15	46.84	18.978	
8,400.00	8,119.03	8,322.59	8,119.03	16.04	31.47	-42.09	949.34	1,012.09	888.99	842.01	46.98	18.922	
8,500.00	8,219.03	8,422.59	8,219.03	16.06	31.60	-42.09	949.34	1,012.09	888.99	841.87	47.12	18.866	
8,549.50	8,268.53	8,472.09	8,268.53	16.07	31.66	-42.09	949.34	1,012.09	888.99	841.80	47.19	18.838	
8,579.97	8,299.00	8,492.56	8,289.00	16.07	31.68	-42.09	949.34	1,012.09	889.05	841.83	47.22	18.827	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-64.10	64.10				
100.00	100.00	100.00	100.00	0.04	0.10	-90.00	0.00	-64.10	64.10	63.96	0.14	457.738	
200.00	200.00	200.00	200.00	0.10	0.32	-90.00	0.00	-64.10	64.10	63.68	0.42	153.654	
300.00	300.00	300.00	300.00	0.15	0.55	-90.00	0.00	-64.10	64.10	63.40	0.69	92.322	
400.00	400.00	400.00	400.00	0.20	0.77	-90.00	0.00	-64.10	64.10	63.13	0.97	65.984	
500.00	500.00	500.00	500.00	0.25	0.99	-90.00	0.00	-64.10	64.10	62.85	1.25	51.338	
600.00	600.00	600.00	600.00	0.31	1.22	-90.00	0.00	-64.10	64.10	62.57	1.53	42.013	
700.00	700.00	700.00	700.00	0.36	1.44	-90.00	0.00	-64.10	64.10	62.30	1.80	35.555	
800.00	800.00	800.00	800.00	0.41	1.67	-90.00	0.00	-64.10	64.10	62.02	2.08	30.818	
900.00	900.00	900.00	900.00	0.46	1.89	-90.00	0.00	-64.10	64.10	61.74	2.36	27.194	
1,000.00	1,000.00	1,000.00	1,000.00	0.52	2.12	-90.00	0.00	-64.10	64.10	61.46	2.63	24.333	
1,085.00	1,085.00	1,085.00	1,085.00	0.56	2.31	-90.00	0.00	-64.10	64.10	61.23	2.87	22.336 CC, ES	
1,100.00	1,100.00	1,099.80	1,099.80	0.57	2.34	-169.82	-0.03	-64.12	64.16	61.25	2.91	22.072	
1,200.00	1,199.97	1,198.32	1,198.29	0.62	2.51	-171.63	-1.79	-65.44	67.77	64.64	3.13	21.651 SF	
1,300.00	1,299.80	1,296.13	1,295.94	0.68	2.70	-175.45	-6.21	-68.77	77.19	73.83	3.36	22.994	
1,400.00	1,399.37	1,392.66	1,392.06	0.74	2.89	-179.91	-13.18	-74.02	92.77	89.19	3.59	25.869	
1,500.00	1,498.55	1,487.33	1,486.01	0.82	3.10	175.97	-22.53	-81.05	114.73	110.91	3.82	30.043	
1,600.00	1,597.23	1,579.63	1,577.18	0.93	3.34	172.56	-34.03	-89.71	142.99	138.94	4.05	35.267	
1,700.00	1,695.29	1,669.12	1,665.08	1.06	3.60	169.86	-47.42	-99.77	177.37	173.08	4.29	41.325	
1,800.00	1,792.60	1,760.42	1,754.44	1.23	3.90	167.81	-62.40	-111.05	216.63	212.08	4.55	47.649	
1,900.00	1,889.05	1,850.84	1,842.92	1.44	4.21	166.48	-77.25	-122.22	259.13	254.32	4.81	53.923	
2,000.00	1,984.52	1,939.79	1,929.97	1.68	4.53	165.61	-91.86	-133.21	304.73	299.66	5.07	60.109	
2,100.00	2,078.90	2,027.17	2,015.49	1.96	4.87	165.03	-106.21	-144.01	353.32	347.99	5.34	66.195	
2,143.72	2,119.78	2,064.85	2,052.36	2.10	5.01	164.84	-112.40	-148.66	375.49	370.03	5.46	68.821	
2,200.00	2,172.26	2,113.14	2,099.63	2.28	5.20	164.79	-120.33	-154.63	404.39	398.74	5.64	71.643	
2,300.00	2,265.51	2,198.96	2,183.61	2.61	5.54	164.73	-134.43	-165.23	455.73	449.74	5.99	76.119	
2,400.00	2,358.76	2,284.77	2,267.59	2.94	5.89	164.68	-148.52	-175.83	507.07	500.73	6.34	80.007	
2,500.00	2,452.01	2,370.59	2,351.57	3.27	6.24	164.63	-162.62	-186.44	558.41	551.71	6.69	83.414	
2,600.00	2,545.26	2,456.40	2,435.56	3.61	6.60	164.60	-176.71	-197.04	609.75	602.69	7.06	86.417	
2,700.00	2,638.51	2,542.21	2,519.54	3.95	6.96	164.57	-190.81	-207.64	661.09	653.67	7.42	89.077	
2,800.00	2,731.76	2,628.03	2,603.52	4.29	7.33	164.54	-204.90	-218.25	712.43	704.64	7.79	91.447	
2,900.00	2,825.00	2,713.84	2,687.50	4.63	7.69	164.52	-218.99	-228.85	763.77	755.61	8.16	93.568	
3,000.00	2,918.25	2,799.66	2,771.48	4.98	8.06	164.50	-233.09	-239.45	815.11	806.58	8.54	95.475	
3,100.00	3,011.50	2,885.47	2,855.47	5.32	8.44	164.48	-247.18	-250.06	866.45	857.54	8.91	97.193	
3,200.00	3,104.75	2,971.28	2,939.45	5.66	8.81	164.47	-261.28	-260.66	917.80	908.50	9.29	98.751	
3,300.00	3,198.00	3,057.10	3,023.43	6.01	9.18	164.45	-275.37	-271.26	969.14	959.46	9.67	100.170	
3,400.00	3,291.25	3,142.91	3,107.41	6.35	9.56	164.44	-289.46	-281.86	1,020.48	1,010.42	10.06	101.466	
3,500.00	3,384.50	3,228.72	3,191.39	6.70	9.94	164.43	-303.56	-292.47	1,071.82	1,061.38	10.44	102.654	
3,600.00	3,477.74	3,314.54	3,275.37	7.04	10.32	164.42	-317.65	-303.07	1,123.16	1,112.34	10.83	103.747	
3,700.00	3,570.99	3,400.35	3,359.36	7.39	10.69	164.41	-331.75	-313.67	1,174.50	1,163.29	11.21	104.754	
3,800.00	3,664.24	3,486.17	3,443.34	7.73	11.08	164.40	-345.84	-324.28	1,225.85	1,214.25	11.60	105.684	
3,900.00	3,757.49	3,571.98	3,527.32	8.08	11.46	164.39	-359.94	-334.88	1,277.19	1,265.20	11.99	106.546	
4,000.00	3,850.74	3,657.79	3,611.30	8.43	11.84	164.39	-374.03	-345.48	1,328.53	1,316.15	12.38	107.347	
4,100.00	3,943.99	3,743.61	3,695.28	8.77	12.22	164.38	-388.12	-356.09	1,379.87	1,367.11	12.77	108.094	
4,200.00	4,037.24	3,829.42	3,779.26	9.12	12.60	164.37	-402.22	-366.69	1,431.21	1,418.06	13.16	108.791	
4,300.00	4,130.48	3,915.23	3,863.25	9.46	12.99	164.37	-416.31	-377.29	1,482.56	1,469.01	13.55	109.443	
4,400.00	4,223.73	4,001.05	3,947.23	9.81	13.37	164.36	-430.41	-387.89	1,533.90	1,519.96	13.94	110.054	
4,500.00	4,316.98	4,086.86	4,031.21	10.16	13.75	164.36	-444.50	-398.50	1,585.24	1,570.91	14.33	110.627	
4,600.00	4,410.23	4,172.68	4,115.19	10.50	14.14	164.35	-458.59	-409.10	1,636.58	1,621.86	14.72	111.166	
4,700.00	4,503.48	4,262.83	4,203.42	10.85	14.54	164.35	-473.39	-420.23	1,687.92	1,672.79	15.12	111.604	
4,800.00	4,596.73	4,348.41	4,284.26	11.20	15.10	164.45	-498.50	-439.12	1,736.62	1,720.95	15.68	110.773	
4,900.00	4,689.98	4,441.01	4,377.73	11.54	15.54	164.77	-514.95	-451.50	1,780.20	1,764.00	16.20	109.890	

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 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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						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	4,783.22	4,845.72	4,782.26	11.89	15.87	165.31	-520.90	-455.97	1,818.24	1,801.55	16.69	108.948	
5,100.00	4,876.47	4,939.93	4,876.47	12.24	15.99	165.59	-520.90	-455.97	1,853.34	1,836.36	16.99	109.094	
5,200.00	4,969.72	5,033.18	4,969.72	12.59	16.11	165.86	-520.90	-455.97	1,888.49	1,871.21	17.28	109.275	
5,300.00	5,062.97	5,126.43	5,062.97	12.93	16.23	166.12	-520.90	-455.97	1,923.67	1,906.10	17.58	109.449	
5,400.00	5,156.22	5,219.67	5,156.22	13.28	16.35	166.38	-520.90	-455.97	1,958.89	1,941.02	17.87	109.618	
5,500.00	5,249.47	5,312.92	5,249.47	13.63	16.48	166.62	-520.90	-455.97	1,994.14	1,975.97	18.16	109.781	
5,596.25	5,339.22	5,402.67	5,339.22	13.96	16.60	166.85	-520.90	-455.97	2,028.09	2,009.64	18.45	109.933	
5,600.00	5,342.72	5,406.17	5,342.72	13.97	16.60	166.86	-520.90	-455.97	2,029.41	2,010.94	18.47	109.894	
5,700.00	5,436.62	5,500.08	5,436.62	14.30	16.73	167.24	-520.90	-455.97	2,063.00	2,044.05	18.95	108.862	
5,800.00	5,531.67	5,595.12	5,531.67	14.60	16.86	167.56	-520.90	-455.97	2,093.39	2,073.98	19.41	107.853	
5,900.00	5,627.74	5,691.20	5,627.74	14.86	17.00	167.84	-520.90	-455.97	2,120.53	2,100.69	19.84	106.867	
6,000.00	5,724.73	5,788.18	5,724.73	15.09	17.13	168.08	-520.90	-455.97	2,144.38	2,124.13	20.25	105.900	
6,100.00	5,822.50	5,885.95	5,822.50	15.29	17.27	168.28	-520.90	-455.97	2,164.92	2,144.29	20.63	104.951	
6,200.00	5,920.94	5,984.40	5,920.94	15.45	17.42	168.45	-520.90	-455.97	2,182.10	2,161.12	20.98	104.017	
6,300.00	6,019.94	6,083.40	6,019.94	15.59	17.56	168.57	-520.90	-455.97	2,195.91	2,174.61	21.30	103.097	
6,400.00	6,119.37	6,182.83	6,119.37	15.69	17.71	168.67	-520.90	-455.97	2,206.33	2,184.74	21.59	102.187	
6,500.00	6,219.11	6,282.57	6,219.11	15.77	17.86	168.73	-520.90	-455.97	2,213.34	2,191.49	21.85	101.287	
6,600.00	6,319.04	6,382.49	6,319.04	15.81	18.01	168.77	-520.90	-455.97	2,216.93	2,194.85	22.08	100.393	
6,654.97	6,374.00	6,437.46	6,374.00	15.82	18.09	-111.44	-520.90	-455.97	2,217.45	2,195.26	22.20	99.904	
6,700.00	6,419.03	6,482.49	6,419.03	15.82	18.16	-111.44	-520.90	-455.97	2,217.45	2,195.16	22.29	99.487	
6,800.00	6,519.03	6,582.49	6,519.03	15.84	18.32	-111.44	-520.90	-455.97	2,217.45	2,194.96	22.50	98.569	
6,900.00	6,619.03	6,682.49	6,619.03	15.85	18.47	-111.44	-520.90	-455.97	2,217.45	2,194.75	22.71	97.662	
7,000.00	6,719.03	6,782.49	6,719.03	15.86	18.63	-111.44	-520.90	-455.97	2,217.45	2,194.54	22.92	96.765	
7,100.00	6,819.03	6,882.49	6,819.03	15.87	18.79	-111.44	-520.90	-455.97	2,217.45	2,194.32	23.13	95.879	
7,200.00	6,919.03	6,982.49	6,919.03	15.88	18.95	-111.44	-520.90	-455.97	2,217.45	2,194.11	23.34	95.004	
7,300.00	7,019.03	7,082.49	7,019.03	15.90	19.11	-111.44	-520.90	-455.97	2,217.45	2,193.90	23.55	94.140	
7,400.00	7,119.03	7,182.49	7,119.03	15.91	19.27	-111.44	-520.90	-455.97	2,217.45	2,193.68	23.77	93.286	
7,500.00	7,219.03	7,282.49	7,219.03	15.92	19.44	-111.44	-520.90	-455.97	2,217.45	2,193.46	23.99	92.443	
7,600.00	7,319.03	7,382.49	7,319.03	15.94	19.60	-111.44	-520.90	-455.97	2,217.45	2,193.25	24.20	91.611	
7,700.00	7,419.03	7,482.49	7,419.03	15.95	19.77	-111.44	-520.90	-455.97	2,217.45	2,193.03	24.42	90.790	
7,800.00	7,519.03	7,582.49	7,519.03	15.96	19.93	-111.44	-520.90	-455.97	2,217.45	2,192.81	24.64	89.979	
7,900.00	7,619.03	7,682.49	7,619.03	15.98	20.10	-111.44	-520.90	-455.97	2,217.45	2,192.59	24.87	89.179	
8,000.00	7,719.03	7,782.49	7,719.03	15.99	20.27	-111.44	-520.90	-455.97	2,217.45	2,192.36	25.09	88.389	
8,100.00	7,819.03	7,882.49	7,819.03	16.00	20.44	-111.44	-520.90	-455.97	2,217.45	2,192.14	25.31	87.610	
8,200.00	7,919.03	7,982.49	7,919.03	16.02	20.61	-111.44	-520.90	-455.97	2,217.45	2,191.92	25.53	86.841	
8,300.00	8,019.03	8,082.49	8,019.03	16.03	20.79	-111.44	-520.90	-455.97	2,217.45	2,191.69	25.76	86.082	
8,400.00	8,119.03	8,182.49	8,119.03	16.04	20.96	-111.44	-520.90	-455.97	2,217.45	2,191.47	25.99	85.333	
8,500.00	8,219.03	8,282.49	8,219.03	16.06	21.13	-111.44	-520.90	-455.97	2,217.45	2,191.24	26.21	84.595	
8,579.97	8,299.00	8,362.46	8,299.00	16.07	21.27	-111.44	-520.90	-455.97	2,217.45	2,191.06	26.39	84.011	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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
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	89.98	0.00	15.95	15.95				
100.00	100.00	100.00	100.00	0.04	0.10	89.98	0.00	15.95	15.95	15.81	0.14	113.935	
200.00	200.00	200.00	200.00	0.10	0.32	89.98	0.00	15.95	15.95	15.54	0.42	38.246	
300.00	300.00	300.00	300.00	0.15	0.55	89.98	0.00	15.95	15.95	15.26	0.69	22.980	
400.00	400.00	400.00	400.00	0.20	0.77	89.98	0.00	15.95	15.95	14.98	0.97	16.424	
500.00	500.00	500.00	500.00	0.25	0.99	89.98	0.00	15.95	15.95	14.71	1.25	12.779	
600.00	600.00	600.00	600.00	0.31	1.22	89.98	0.00	15.95	15.95	14.43	1.53	10.457	
700.00	700.00	700.00	700.00	0.36	1.44	89.98	0.00	15.95	15.95	14.15	1.80	8.850	
800.00	800.00	800.00	800.00	0.41	1.67	89.98	0.00	15.95	15.95	13.87	2.08	7.671	
900.00	900.00	900.00	900.00	0.46	1.89	89.98	0.00	15.95	15.95	13.60	2.36	6.769	
1,000.00	1,000.00	1,000.00	1,000.00	0.52	2.12	89.98	0.00	15.95	15.95	13.32	2.63	6.057	
1,085.00	1,085.00	1,085.00	1,085.00	0.56	2.31	89.98	0.00	15.95	15.95	13.08	2.87	5.560	
1,100.00	1,100.00	1,099.92	1,099.92	0.57	2.34	10.27	-0.01	15.99	15.95	13.04	2.91	5.484	
1,200.00	1,199.97	1,199.39	1,199.36	0.62	2.53	14.54	-0.79	18.10	15.88	12.73	3.15	5.036	
1,216.03	1,215.98	1,215.33	1,215.28	0.63	2.56	15.83	-1.03	18.73	15.88	12.68	3.19	4.972 CC, ES	
1,300.00	1,299.80	1,298.80	1,298.60	0.68	2.73	25.31	-2.77	23.43	16.10	12.70	3.40	4.732 SF	
1,400.00	1,399.37	1,398.11	1,397.48	0.74	2.94	41.01	-5.94	31.98	17.56	13.90	3.66	4.798	
1,500.00	1,498.55	1,497.26	1,495.84	0.82	3.18	57.34	-10.30	43.72	21.27	17.33	3.95	5.392	
1,600.00	1,597.23	1,596.21	1,593.50	0.93	3.45	70.44	-15.83	58.60	27.64	23.34	4.29	6.436	
1,700.00	1,695.29	1,694.91	1,690.31	1.06	3.75	79.60	-22.51	76.59	36.51	31.79	4.72	7.732	
1,800.00	1,792.60	1,793.32	1,786.12	1.23	4.11	85.77	-30.32	97.63	47.63	42.40	5.23	9.109	
1,900.00	1,889.05	1,891.40	1,880.79	1.44	4.52	89.97	-39.23	121.65	60.79	54.97	5.82	10.443	
2,000.00	1,984.52	1,989.10	1,974.17	1.68	4.99	92.87	-49.24	148.59	75.87	69.37	6.51	11.663	
2,100.00	2,078.90	2,086.40	2,066.13	1.96	5.53	94.92	-60.29	178.37	92.78	85.49	7.29	12.734	
2,143.72	2,119.78	2,128.80	2,105.86	2.10	5.79	95.63	-65.45	192.26	100.72	93.06	7.66	13.149	
2,200.00	2,172.26	2,183.28	2,156.58	2.28	6.14	96.33	-72.37	210.91	111.38	103.22	8.16	13.649	
2,300.00	2,265.51	2,280.34	2,246.04	2.61	6.80	96.32	-85.46	246.19	131.22	122.13	9.09	14.436	
2,400.00	2,358.76	2,378.29	2,336.07	2.94	7.52	96.08	-98.90	282.38	151.31	141.25	10.06	15.038	
2,500.00	2,452.01	2,476.25	2,426.10	3.27	8.25	95.89	-112.33	318.57	171.42	160.36	11.05	15.506	
2,600.00	2,545.26	2,574.21	2,516.13	3.61	9.00	95.73	-125.77	354.76	191.52	179.45	12.06	15.876	
2,700.00	2,638.51	2,672.17	2,606.16	3.95	9.76	95.61	-139.20	390.95	211.62	198.54	13.09	16.173	
2,800.00	2,731.76	2,770.12	2,696.19	4.29	10.53	95.51	-152.64	427.14	231.73	217.61	14.12	16.415	
2,900.00	2,825.00	2,868.08	2,786.22	4.63	11.31	95.43	-166.07	463.32	251.83	236.67	15.16	16.616	
3,000.00	2,918.25	2,966.04	2,876.25	4.98	12.09	95.36	-179.51	499.51	271.94	255.73	16.20	16.785	
3,100.00	3,011.50	3,064.00	2,966.28	5.32	12.87	95.29	-192.94	535.70	292.04	274.79	17.25	16.927	
3,200.00	3,104.75	3,161.95	3,056.31	5.66	13.66	95.24	-206.38	571.89	312.15	293.84	18.31	17.050	
3,300.00	3,198.00	3,259.91	3,146.34	6.01	14.46	95.19	-219.81	608.08	332.25	312.89	19.37	17.156	
3,400.00	3,291.25	3,357.87	3,236.37	6.35	15.25	95.15	-233.25	644.27	352.36	331.93	20.43	17.248	
3,500.00	3,384.50	3,455.83	3,326.40	6.70	16.05	95.11	-246.68	680.46	372.47	350.97	21.49	17.329	
3,600.00	3,477.74	3,553.78	3,416.43	7.04	16.85	95.08	-260.11	716.65	392.57	370.01	22.56	17.401	
3,700.00	3,570.99	3,651.74	3,506.47	7.39	17.65	95.05	-273.55	752.84	412.68	389.05	23.63	17.464	
3,800.00	3,664.24	3,749.70	3,596.50	7.73	18.45	95.02	-286.98	789.03	432.79	408.09	24.70	17.521	
3,900.00	3,757.49	3,852.85	3,691.76	8.08	19.16	95.14	-300.74	826.10	452.45	426.74	25.71	17.601	
4,000.00	3,850.74	3,957.70	3,789.97	8.43	19.78	95.67	-313.52	860.52	470.74	444.07	26.67	17.652	
4,100.00	3,943.99	4,062.69	3,889.58	8.77	20.34	96.58	-325.06	891.59	487.70	460.09	27.62	17.660	
4,200.00	4,037.24	4,167.54	3,990.21	9.12	20.85	97.84	-335.30	919.19	503.47	474.94	28.54	17.642	
4,300.00	4,130.48	4,271.95	4,091.42	9.46	21.30	99.41	-344.22	943.22	518.25	488.83	29.42	17.614	
4,400.00	4,223.73	4,375.67	4,192.82	9.81	21.70	101.26	-351.81	963.65	532.26	502.01	30.25	17.593	
4,500.00	4,316.98	4,478.43	4,293.99	10.16	22.04	103.37	-358.06	980.48	545.79	514.77	31.02	17.595	
4,600.00	4,410.23	4,579.99	4,394.55	10.50	22.32	105.71	-362.99	993.77	559.16	527.46	31.70	17.637	
4,700.00	4,503.48	4,680.10	4,494.11	10.85	22.54	108.24	-366.63	1,003.59	572.71	540.42	32.29	17.735	
4,800.00	4,596.73	4,778.58	4,592.34	11.20	22.72	110.94	-369.03	1,010.06	586.81	554.04	32.78	17.903	

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 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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
4,900.00	4,689.98	4,875.22	4,688.92	11.54	22.85	113.77	-370.25	1,013.33	601.84	568.69	33.15	18.157	
5,000.00	4,783.22	4,969.54	4,783.22	11.89	22.94	116.66	-370.43	1,013.82	618.17	584.76	33.41	18.503	
5,100.00	4,876.47	5,062.78	4,876.47	12.24	23.03	119.42	-370.43	1,013.82	636.09	602.48	33.60	18.930	
5,200.00	4,969.72	5,156.03	4,969.72	12.59	23.12	122.04	-370.43	1,013.82	655.51	621.76	33.75	19.425	
5,300.00	5,062.97	5,249.28	5,062.97	12.93	23.21	124.51	-370.43	1,013.82	676.30	642.45	33.85	19.982	
5,400.00	5,156.22	5,342.53	5,156.22	13.28	23.31	126.85	-370.43	1,013.82	698.34	664.43	33.91	20.594	
5,500.00	5,249.47	5,435.78	5,249.47	13.63	23.40	129.06	-370.43	1,013.82	721.52	687.57	33.95	21.253	
5,596.25	5,339.22	5,525.53	5,339.22	13.96	23.50	131.06	-370.43	1,013.82	744.81	710.84	33.97	21.929	
5,600.00	5,342.72	5,529.03	5,342.72	13.97	23.50	131.15	-370.43	1,013.82	745.73	711.76	33.97	21.955	
5,700.00	5,436.62	5,622.93	5,436.62	14.30	23.60	133.37	-370.43	1,013.82	769.63	735.63	34.00	22.636	
5,800.00	5,531.67	5,717.98	5,531.67	14.60	23.70	135.29	-370.43	1,013.82	791.90	757.87	34.03	23.272	
5,900.00	5,627.74	5,814.05	5,627.74	14.86	23.80	136.92	-370.43	1,013.82	812.26	778.20	34.06	23.850	
6,000.00	5,724.73	5,911.04	5,724.73	15.09	23.91	138.30	-370.43	1,013.82	830.50	796.41	34.09	24.360	
6,100.00	5,822.50	6,008.81	5,822.50	15.29	24.02	139.45	-370.43	1,013.82	846.44	812.31	34.14	24.797	
6,200.00	5,920.94	6,107.26	5,920.94	15.45	24.13	140.38	-370.43	1,013.82	859.95	825.76	34.19	25.154	
6,300.00	6,019.94	6,206.25	6,019.94	15.59	24.25	141.10	-370.43	1,013.82	870.90	836.65	34.25	25.429	
6,400.00	6,119.37	6,305.68	6,119.37	15.69	24.36	141.64	-370.43	1,013.82	879.22	844.90	34.32	25.619	
6,500.00	6,219.11	6,405.42	6,219.11	15.77	24.48	142.00	-370.43	1,013.82	884.84	850.44	34.40	25.724	
6,600.00	6,319.04	6,505.35	6,319.04	15.81	24.60	142.18	-370.43	1,013.82	887.73	853.25	34.49	25.741	
6,654.97	6,374.00	6,560.31	6,374.00	15.82	24.66	-138.01	-370.43	1,013.82	888.15	853.61	34.54	25.714	
6,700.00	6,419.03	6,605.35	6,419.03	15.82	24.72	-138.01	-370.43	1,013.82	888.15	853.55	34.60	25.667	
6,800.00	6,519.03	6,705.35	6,519.03	15.84	24.84	-138.01	-370.43	1,013.82	888.15	853.40	34.75	25.561	
6,900.00	6,619.03	6,805.35	6,619.03	15.85	24.97	-138.01	-370.43	1,013.82	888.15	853.26	34.89	25.455	
7,000.00	6,719.03	6,905.35	6,719.03	15.86	25.09	-138.01	-370.43	1,013.82	888.15	853.11	35.04	25.349	
7,100.00	6,819.03	7,005.35	6,819.03	15.87	25.22	-138.01	-370.43	1,013.82	888.15	852.96	35.19	25.242	
7,200.00	6,919.03	7,105.35	6,919.03	15.88	25.34	-138.01	-370.43	1,013.82	888.15	852.81	35.33	25.135	
7,300.00	7,019.03	7,205.35	7,019.03	15.90	25.47	-138.01	-370.43	1,013.82	888.15	852.66	35.49	25.028	
7,400.00	7,119.03	7,305.35	7,119.03	15.91	25.60	-138.01	-370.43	1,013.82	888.15	852.51	35.64	24.921	
7,500.00	7,219.03	7,405.35	7,219.03	15.92	25.74	-138.01	-370.43	1,013.82	888.15	852.36	35.79	24.814	
7,600.00	7,319.03	7,505.35	7,319.03	15.94	25.87	-138.01	-370.43	1,013.82	888.15	852.20	35.95	24.706	
7,700.00	7,419.03	7,605.35	7,419.03	15.95	26.00	-138.01	-370.43	1,013.82	888.15	852.04	36.11	24.599	
7,800.00	7,519.03	7,705.35	7,519.03	15.96	26.14	-138.01	-370.43	1,013.82	888.15	851.89	36.26	24.491	
7,900.00	7,619.03	7,805.35	7,619.03	15.98	26.28	-138.01	-370.43	1,013.82	888.15	851.73	36.42	24.383	
8,000.00	7,719.03	7,905.35	7,719.03	15.99	26.41	-138.01	-370.43	1,013.82	888.15	851.56	36.59	24.276	
8,100.00	7,819.03	8,005.35	7,819.03	16.00	26.55	-138.01	-370.43	1,013.82	888.15	851.40	36.75	24.168	
8,200.00	7,919.03	8,105.35	7,919.03	16.02	26.69	-138.01	-370.43	1,013.82	888.15	851.24	36.91	24.061	
8,300.00	8,019.03	8,205.35	8,019.03	16.03	26.84	-138.01	-370.43	1,013.82	888.15	851.07	37.08	23.953	
8,400.00	8,119.03	8,305.35	8,119.03	16.04	26.98	-138.01	-370.43	1,013.82	888.15	850.90	37.25	23.846	
8,500.00	8,219.03	8,405.35	8,219.03	16.06	27.12	-138.01	-370.43	1,013.82	888.15	850.74	37.41	23.739	
8,579.97	8,299.00	8,485.31	8,299.00	16.07	27.24	-138.01	-370.43	1,013.82	888.15	850.60	37.55	23.653	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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)	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	-48.14	48.14				
100.00	100.00	100.00	100.00	0.04	0.10	-90.00	0.00	-48.14	48.14	48.00	0.14	343.803	
200.00	200.00	200.00	200.00	0.10	0.32	-90.00	0.00	-48.14	48.14	47.73	0.42	115.408	
300.00	300.00	300.00	300.00	0.15	0.55	-90.00	0.00	-48.14	48.14	47.45	0.69	69.342	
400.00	400.00	400.00	400.00	0.20	0.77	-90.00	0.00	-48.14	48.14	47.17	0.97	49.560	
500.00	500.00	500.00	500.00	0.25	0.99	-90.00	0.00	-48.14	48.14	46.89	1.25	38.560	
600.00	600.00	600.00	600.00	0.31	1.22	-90.00	0.00	-48.14	48.14	46.62	1.53	31.556	
700.00	700.00	700.00	700.00	0.36	1.44	-90.00	0.00	-48.14	48.14	46.34	1.80	26.705	
800.00	800.00	800.00	800.00	0.41	1.67	-90.00	0.00	-48.14	48.14	46.06	2.08	23.147	
900.00	900.00	900.00	900.00	0.46	1.89	-90.00	0.00	-48.14	48.14	45.79	2.36	20.425	
1,000.00	1,000.00	1,000.00	1,000.00	0.52	2.12	-90.00	0.00	-48.14	48.14	45.51	2.63	18.277	
1,085.00	1,085.00	1,085.00	1,085.00	0.56	2.31	-90.00	0.00	-48.14	48.14	45.27	2.87	16.776	CC
1,100.00	1,100.00	1,100.10	1,100.10	0.57	2.34	-169.85	-0.04	-48.13	48.17	45.26	2.91	16.569	ES
1,200.00	1,199.97	1,200.66	1,200.62	0.62	2.51	-172.76	-2.17	-47.27	49.61	46.48	3.13	15.845	SF
1,300.00	1,299.80	1,300.88	1,300.68	0.68	2.70	-179.39	-7.54	-45.09	53.78	50.42	3.36	16.000	
1,400.00	1,399.37	1,400.48	1,399.84	0.74	2.89	172.09	-16.08	-41.62	61.70	58.09	3.61	17.112	
1,500.00	1,498.55	1,499.17	1,497.73	0.82	3.12	163.60	-27.70	-36.91	74.20	70.32	3.87	19.155	
1,600.00	1,597.23	1,596.70	1,593.98	0.93	3.37	156.32	-42.24	-31.01	91.64	87.46	4.18	21.942	
1,700.00	1,695.29	1,692.81	1,688.26	1.06	3.65	150.53	-59.53	-24.00	113.96	109.44	4.52	25.201	
1,800.00	1,792.60	1,788.36	1,781.47	1.23	3.98	146.27	-79.00	-16.10	140.72	135.81	4.91	28.637	
1,900.00	1,889.05	1,883.61	1,874.35	1.44	4.33	143.86	-98.59	-8.16	170.69	165.35	5.34	31.961	
2,000.00	1,984.52	1,978.06	1,966.44	1.68	4.70	142.63	-118.01	-0.28	203.44	197.64	5.79	35.111	
2,100.00	2,078.90	2,071.59	2,057.64	1.96	5.08	142.13	-137.24	7.52	238.80	232.53	6.27	38.082	
2,143.72	2,119.78	2,112.16	2,097.20	2.10	5.25	142.06	-145.58	10.91	255.08	248.59	6.48	39.334	
2,200.00	2,172.26	2,164.26	2,148.00	2.28	5.46	142.28	-156.29	15.25	276.34	269.55	6.79	40.698	
2,300.00	2,265.51	2,256.84	2,238.27	2.61	5.86	142.61	-175.33	22.97	314.13	306.79	7.34	42.785	
2,400.00	2,358.76	2,349.41	2,328.53	2.94	6.26	142.86	-194.36	30.69	351.93	344.02	7.91	44.517	
2,500.00	2,452.01	2,441.98	2,418.80	3.27	6.67	143.06	-213.40	38.41	389.73	381.25	8.48	45.973	
2,600.00	2,545.26	2,534.55	2,509.06	3.61	7.08	143.23	-232.43	46.13	427.53	418.47	9.06	47.209	
2,700.00	2,638.51	2,627.13	2,599.33	3.95	7.50	143.37	-251.46	53.85	465.34	455.70	9.64	48.267	
2,800.00	2,731.76	2,719.70	2,689.59	4.29	7.92	143.49	-270.50	61.58	503.15	492.92	10.23	49.182	
2,900.00	2,825.00	2,812.27	2,779.86	4.63	8.34	143.59	-289.53	69.30	540.96	530.13	10.82	49.980	
3,000.00	2,918.25	2,904.84	2,870.12	4.98	8.77	143.68	-308.57	77.02	578.77	567.35	11.42	50.679	
3,100.00	3,011.50	2,997.42	2,960.39	5.32	9.20	143.76	-327.60	84.74	616.58	604.56	12.02	51.298	
3,200.00	3,104.75	3,089.99	3,050.65	5.66	9.63	143.83	-346.63	92.46	654.39	641.77	12.62	51.847	
3,300.00	3,198.00	3,182.56	3,140.92	6.01	10.06	143.89	-365.67	100.18	692.21	678.98	13.23	52.338	
3,400.00	3,291.25	3,275.13	3,231.18	6.35	10.49	143.95	-384.70	107.90	730.02	716.19	13.83	52.779	
3,500.00	3,384.50	3,367.70	3,321.45	6.70	10.93	144.00	-403.74	115.62	767.84	753.40	14.44	53.177	
3,600.00	3,477.74	3,460.28	3,411.71	7.04	11.36	144.04	-422.77	123.34	805.65	790.61	15.05	53.539	
3,700.00	3,570.99	3,552.85	3,501.98	7.39	11.80	144.08	-441.80	131.06	843.47	827.81	15.66	53.867	
3,800.00	3,664.24	3,645.42	3,592.24	7.73	12.24	144.12	-460.84	138.78	881.29	865.02	16.27	54.168	
3,900.00	3,757.49	3,737.99	3,682.51	8.08	12.67	144.16	-479.87	146.50	919.10	902.22	16.88	54.444	
4,000.00	3,850.74	3,830.57	3,772.77	8.43	13.11	144.19	-498.91	154.22	956.92	939.43	17.49	54.697	
4,100.00	3,943.99	3,923.14	3,863.04	8.77	13.55	144.22	-517.94	161.94	994.74	976.63	18.11	54.931	
4,200.00	4,037.24	4,015.71	3,953.30	9.12	13.99	144.24	-536.97	169.66	1,032.56	1,013.83	18.72	55.148	
4,300.00	4,130.48	4,108.28	4,043.56	9.46	14.43	144.27	-556.01	177.38	1,070.37	1,051.04	19.34	55.348	
4,400.00	4,223.73	4,200.86	4,133.83	9.81	14.87	144.29	-575.04	185.11	1,108.19	1,088.24	19.95	55.535	
4,500.00	4,316.98	4,293.43	4,224.09	10.16	15.32	144.32	-594.08	192.83	1,146.01	1,125.44	20.57	55.709	
4,600.00	4,410.23	4,386.00	4,314.36	10.50	15.76	144.34	-613.11	200.55	1,183.83	1,162.64	21.19	55.872	
4,700.00	4,503.48	4,478.57	4,404.62	10.85	16.20	144.36	-632.14	208.27	1,221.65	1,199.84	21.81	56.024	
4,800.00	4,596.73	4,571.14	4,494.89	11.20	16.64	144.37	-651.18	215.99	1,259.47	1,237.04	22.42	56.167	
4,900.00	4,689.98	4,663.72	4,585.15	11.54	17.09	144.39	-670.21	223.71	1,297.28	1,274.24	23.04	56.301	

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 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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	4,783.22	4,756.29	4,675.42	11.89	17.53	144.41	-689.25	231.43	1,335.10	1,311.44	23.66	56.428	
5,100.00	4,876.47	4,848.86	4,765.68	12.24	17.97	144.42	-708.28	239.15	1,372.92	1,348.64	24.28	56.547	
5,200.00	4,969.72	4,941.43	4,855.95	12.59	18.42	144.44	-727.31	246.87	1,410.74	1,385.84	24.90	56.660	
5,300.00	5,062.97	5,034.01	4,946.21	12.93	18.86	144.45	-746.35	254.59	1,448.56	1,423.04	25.52	56.766	
5,400.00	5,156.22	5,126.58	5,036.48	13.28	19.31	144.46	-765.38	262.31	1,486.38	1,460.24	26.14	56.867	
5,500.00	5,249.47	5,219.15	5,126.74	13.63	19.75	144.48	-784.42	270.03	1,524.20	1,497.44	26.76	56.963	
5,596.25	5,339.22	5,308.25	5,213.62	13.96	20.18	144.49	-802.74	277.46	1,560.60	1,533.24	27.35	57.050	
5,600.00	5,342.72	5,311.72	5,217.01	13.97	20.19	144.50	-803.45	277.75	1,562.01	1,534.63	27.38	57.040	
5,700.00	5,436.62	5,404.86	5,307.82	14.30	20.64	144.93	-822.60	285.52	1,598.41	1,570.25	28.16	56.754	
5,800.00	5,531.67	5,498.95	5,399.57	14.60	21.09	145.23	-841.95	293.37	1,632.14	1,603.21	28.92	56.428	
5,900.00	5,627.74	5,593.89	5,492.15	14.86	21.55	145.43	-861.47	301.29	1,663.16	1,633.49	29.66	56.070	
6,000.00	5,724.73	5,689.57	5,585.44	15.09	22.01	145.53	-881.14	309.27	1,691.45	1,661.08	30.38	55.682	
6,100.00	5,822.50	5,785.86	5,679.33	15.29	22.47	145.53	-900.94	317.30	1,717.01	1,685.95	31.07	55.271	
6,200.00	5,920.94	5,892.04	5,782.92	15.45	22.95	145.41	-922.51	326.05	1,739.75	1,708.01	31.74	54.810	
6,300.00	6,019.94	6,019.78	5,908.41	15.59	23.35	145.24	-944.55	334.99	1,758.47	1,726.15	32.31	54.417	
6,400.00	6,119.37	6,149.54	6,036.86	15.69	23.69	145.10	-961.61	341.91	1,772.68	1,739.89	32.79	54.061	
6,500.00	6,219.11	6,280.81	6,167.50	15.77	23.96	145.01	-973.37	346.68	1,782.32	1,749.15	33.17	53.734	
6,600.00	6,319.04	6,413.02	6,299.52	15.81	24.18	144.95	-979.59	349.20	1,787.32	1,753.87	33.44	53.442	
6,654.97	6,374.00	6,485.88	6,372.37	15.82	24.27	-135.27	-980.61	349.61	1,788.07	1,754.52	33.56	53.285	
6,700.00	6,419.03	6,532.54	6,419.03	15.82	24.32	-135.27	-980.61	349.61	1,788.08	1,754.46	33.62	53.187	
6,800.00	6,519.03	6,632.54	6,519.03	15.84	24.43	-135.27	-980.61	349.61	1,788.08	1,754.33	33.75	52.983	
6,900.00	6,619.03	6,732.54	6,619.03	15.85	24.53	-135.27	-980.61	349.61	1,788.08	1,754.20	33.88	52.778	
7,000.00	6,719.03	6,832.54	6,719.03	15.86	24.64	-135.27	-980.61	349.61	1,788.08	1,754.06	34.01	52.571	
7,100.00	6,819.03	6,932.54	6,819.03	15.87	24.75	-135.27	-980.61	349.61	1,788.08	1,753.93	34.15	52.363	
7,200.00	6,919.03	7,032.54	6,919.03	15.88	24.86	-135.27	-980.61	349.61	1,788.08	1,753.79	34.28	52.155	
7,300.00	7,019.03	7,132.54	7,019.03	15.90	24.97	-135.27	-980.61	349.61	1,788.08	1,753.65	34.42	51.945	
7,400.00	7,119.03	7,232.54	7,119.03	15.91	25.09	-135.27	-980.61	349.61	1,788.08	1,753.51	34.56	51.734	
7,500.00	7,219.03	7,332.54	7,219.03	15.92	25.20	-135.27	-980.61	349.61	1,788.08	1,753.37	34.70	51.523	
7,600.00	7,319.03	7,432.54	7,319.03	15.94	25.32	-135.27	-980.61	349.61	1,788.08	1,753.23	34.85	51.310	
7,700.00	7,419.03	7,532.54	7,419.03	15.95	25.44	-135.27	-980.61	349.61	1,788.08	1,753.08	34.99	51.097	
7,800.00	7,519.03	7,632.54	7,519.03	15.96	25.56	-135.27	-980.61	349.61	1,788.08	1,752.94	35.14	50.884	
7,900.00	7,619.03	7,732.54	7,619.03	15.98	25.68	-135.27	-980.61	349.61	1,788.08	1,752.79	35.29	50.670	
8,000.00	7,719.03	7,832.54	7,719.03	15.99	25.80	-135.27	-980.61	349.61	1,788.08	1,752.64	35.44	50.455	
8,100.00	7,819.03	7,932.54	7,819.03	16.00	25.92	-135.27	-980.61	349.61	1,788.08	1,752.48	35.59	50.240	
8,200.00	7,919.03	8,032.54	7,919.03	16.02	26.05	-135.27	-980.61	349.61	1,788.08	1,752.33	35.74	50.025	
8,300.00	8,019.03	8,132.54	8,019.03	16.03	26.17	-135.27	-980.61	349.61	1,788.08	1,752.18	35.90	49.809	
8,400.00	8,119.03	8,232.54	8,119.03	16.04	26.30	-135.27	-980.61	349.61	1,788.08	1,752.02	36.05	49.593	
8,500.00	8,219.03	8,332.54	8,219.03	16.06	26.43	-135.27	-980.61	349.61	1,788.08	1,751.86	36.21	49.377	
8,579.97	8,299.00	8,412.51	8,299.00	16.07	26.54	-135.27	-980.61	349.61	1,788.08	1,751.74	36.34	49.204	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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 36-9 - P_NRC 36-9 - 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	-90.00	0.00	-31.91	31.91				
100.00	100.00	100.00	100.00	0.04	0.10	-90.00	0.00	-31.91	31.91	31.77	0.14	227.870	
200.00	200.00	200.00	200.00	0.10	0.32	-90.00	0.00	-31.91	31.91	31.49	0.42	76.491	
300.00	300.00	300.00	300.00	0.15	0.55	-90.00	0.00	-31.91	31.91	31.21	0.69	45.960	
400.00	400.00	400.00	400.00	0.20	0.77	-90.00	0.00	-31.91	31.91	30.94	0.97	32.848	
500.00	500.00	500.00	500.00	0.25	0.99	-90.00	0.00	-31.91	31.91	30.66	1.25	25.557	
600.00	600.00	600.00	600.00	0.31	1.22	-90.00	0.00	-31.91	31.91	30.38	1.53	20.915	
700.00	700.00	700.00	700.00	0.36	1.44	-90.00	0.00	-31.91	31.91	30.11	1.80	17.700	
800.00	800.00	800.00	800.00	0.41	1.67	-90.00	0.00	-31.91	31.91	29.83	2.08	15.341	
900.00	900.00	900.00	900.00	0.46	1.89	-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	0.52	2.12	-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	0.56	2.31	-90.00	0.00	-31.91	31.91	29.04	2.87	11.119 CC	
1,100.00	1,100.00	1,100.14	1,100.14	0.57	2.34	-169.84	-0.02	-31.88	31.91	29.01	2.91	10.974 ES	
1,200.00	1,199.97	1,201.07	1,201.04	0.62	2.53	-172.74	-1.25	-29.92	32.25	29.10	3.14	10.257	
1,300.00	1,299.80	1,301.89	1,301.68	0.68	2.72	-179.76	-4.35	-24.95	33.45	30.06	3.39	9.880 SF	
1,400.00	1,399.37	1,402.49	1,401.84	0.74	2.94	170.22	-9.32	-17.01	36.31	32.67	3.64	9.975	
1,500.00	1,498.55	1,502.80	1,501.32	0.82	3.17	159.18	-16.13	-6.13	41.71	37.78	3.93	10.626	
1,600.00	1,597.23	1,602.71	1,599.89	0.93	3.44	149.02	-24.75	7.64	50.21	45.94	4.27	11.769	
1,700.00	1,695.29	1,702.13	1,697.37	1.06	3.75	140.70	-35.13	24.22	61.92	57.24	4.68	13.232	
1,800.00	1,792.60	1,800.99	1,793.56	1.23	4.11	134.28	-47.22	43.54	76.71	71.54	5.18	14.823	
1,900.00	1,889.05	1,899.20	1,888.28	1.44	4.53	129.39	-60.97	65.51	94.40	88.64	5.76	16.394	
2,000.00	1,984.52	1,996.68	1,981.37	1.68	5.01	125.64	-76.32	90.02	114.79	108.36	6.43	17.854	
2,100.00	2,078.90	2,093.39	2,072.69	1.96	5.54	122.72	-93.19	116.98	137.76	130.57	7.19	19.159	
2,143.72	2,119.78	2,135.40	2,112.02	2.10	5.81	121.64	-101.03	129.50	148.57	141.01	7.56	19.664	
2,200.00	2,172.26	2,189.28	2,162.14	2.28	6.15	120.48	-111.53	146.28	162.90	154.85	8.05	20.242	
2,300.00	2,265.51	2,284.47	2,249.73	2.61	6.82	118.09	-131.29	177.85	188.97	179.99	8.98	21.035	
2,400.00	2,358.76	2,379.99	2,336.66	2.94	7.54	115.62	-152.29	211.41	215.87	205.90	9.97	21.652	
2,500.00	2,452.01	2,475.91	2,423.89	3.27	8.30	113.66	-173.46	245.23	243.11	232.13	10.98	22.148	
2,600.00	2,545.26	2,571.83	2,511.12	3.61	9.07	112.09	-194.63	279.05	270.56	258.57	11.99	22.563	
2,700.00	2,638.51	2,667.75	2,598.34	3.95	9.85	110.80	-215.79	312.87	298.16	285.15	13.01	22.914	
2,800.00	2,731.76	2,763.67	2,685.57	4.29	10.64	109.74	-236.96	346.69	325.88	311.84	14.04	23.213	
2,900.00	2,825.00	2,859.59	2,772.80	4.63	11.44	108.84	-258.13	380.51	353.69	338.62	15.07	23.471	
3,000.00	2,918.25	2,955.51	2,860.03	4.98	12.25	108.07	-279.30	414.33	381.56	365.46	16.10	23.695	
3,100.00	3,011.50	3,051.43	2,947.26	5.32	13.06	107.41	-300.46	448.15	409.49	392.35	17.14	23.892	
3,200.00	3,104.75	3,147.35	3,034.49	5.66	13.88	106.83	-321.63	481.97	437.46	419.29	18.18	24.065	
3,300.00	3,198.00	3,243.27	3,121.72	6.01	14.70	106.32	-342.80	515.79	465.47	446.26	19.22	24.219	
3,400.00	3,291.25	3,339.19	3,208.94	6.35	15.52	105.87	-363.96	549.61	493.51	473.25	20.26	24.356	
3,500.00	3,384.50	3,435.11	3,296.17	6.70	16.34	105.47	-385.13	583.43	521.58	500.27	21.31	24.480	
3,600.00	3,477.74	3,531.03	3,383.40	7.04	17.17	105.11	-406.30	617.25	549.67	527.31	22.35	24.591	
3,700.00	3,570.99	3,626.95	3,470.63	7.39	18.00	104.78	-427.47	651.06	577.77	554.37	23.40	24.692	
3,800.00	3,664.24	3,722.87	3,557.86	7.73	18.83	104.49	-448.63	684.88	605.89	581.45	24.45	24.785	
3,900.00	3,757.49	3,818.79	3,645.09	8.08	19.66	104.22	-469.80	718.70	634.03	608.53	25.49	24.869	
4,000.00	3,850.74	3,914.71	3,732.32	8.43	20.49	103.97	-490.97	752.52	662.17	635.63	26.54	24.946	
4,100.00	3,943.99	4,010.63	3,819.54	8.77	21.32	103.74	-512.13	786.34	690.33	662.73	27.59	25.017	
4,200.00	4,037.24	4,106.55	3,906.77	9.12	22.16	103.53	-533.30	820.16	718.49	689.85	28.64	25.083	
4,300.00	4,130.48	4,202.47	3,994.00	9.46	22.99	103.34	-554.47	853.98	746.67	716.97	29.70	25.144	
4,400.00	4,223.73	4,298.39	4,081.23	9.81	23.83	103.16	-575.64	887.80	774.85	744.10	30.75	25.201	
4,500.00	4,316.98	4,394.31	4,168.46	10.16	24.66	102.99	-596.80	921.62	803.04	771.24	31.80	25.253	
4,600.00	4,410.23	4,490.23	4,255.69	10.50	25.50	102.84	-617.97	955.44	831.23	798.38	32.85	25.302	
4,700.00	4,503.48	4,586.15	4,342.92	10.85	26.34	102.69	-639.14	989.26	859.43	825.52	33.90	25.348	
4,800.00	4,596.73	4,682.07	4,430.14	11.20	27.18	102.56	-660.30	1,023.08	887.63	852.67	34.96	25.392	
4,900.00	4,689.98	4,777.99	4,517.37	11.54	28.01	102.43	-681.47	1,056.90	915.84	879.83	36.01	25.432	

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 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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 36-9 - P_NRC 36-9 - 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	4,783.22	4,873.91	4,604.60	11.89	28.85	102.31	-702.64	1,090.72	944.05	906.98	37.06	25.470	
5,100.00	4,876.47	4,969.83	4,691.83	12.24	29.69	102.20	-723.81	1,124.54	972.26	934.15	38.12	25.506	
5,200.00	4,969.72	5,065.75	4,779.06	12.59	30.53	102.09	-744.97	1,158.35	1,000.48	961.31	39.17	25.540	
5,300.00	5,062.97	5,161.67	4,866.29	12.93	31.37	101.99	-766.14	1,192.17	1,028.70	988.48	40.23	25.572	
5,400.00	5,156.22	5,257.59	4,953.52	13.28	32.21	101.89	-787.31	1,225.99	1,056.93	1,015.65	41.28	25.603	
5,500.00	5,249.47	5,353.51	5,040.74	13.63	33.05	101.80	-808.47	1,259.81	1,085.16	1,042.82	42.34	25.631	
5,596.25	5,339.22	5,445.83	5,124.70	13.96	33.86	101.72	-828.85	1,292.36	1,112.33	1,068.97	43.35	25.658	
5,600.00	5,342.72	5,449.43	5,127.97	13.97	33.89	101.74	-829.64	1,293.63	1,113.38	1,069.99	43.40	25.655	
5,700.00	5,436.62	5,553.64	5,222.88	14.30	34.75	102.12	-852.47	1,330.11	1,141.12	1,096.52	44.60	25.588	
5,800.00	5,531.67	5,672.67	5,332.85	14.60	35.56	102.41	-876.64	1,368.72	1,166.66	1,120.96	45.70	25.527	
5,900.00	5,627.74	5,793.27	5,446.09	14.86	36.25	102.66	-898.63	1,403.86	1,189.58	1,142.90	46.68	25.481	
6,000.00	5,724.73	5,915.31	5,562.36	15.09	36.87	102.88	-918.29	1,435.27	1,209.82	1,162.25	47.56	25.436	
6,100.00	5,822.50	6,038.64	5,681.35	15.29	37.42	103.06	-935.47	1,462.72	1,227.31	1,178.97	48.34	25.391	
6,200.00	5,920.94	6,163.09	5,802.72	15.45	37.89	103.21	-950.04	1,486.00	1,241.99	1,192.98	49.01	25.343	
6,300.00	6,019.94	6,288.48	5,926.10	15.59	38.29	103.33	-961.88	1,504.91	1,253.83	1,204.26	49.57	25.294	
6,400.00	6,119.37	6,414.62	6,051.08	15.69	38.61	103.42	-970.88	1,519.29	1,262.78	1,212.76	50.02	25.246	
6,500.00	6,219.11	6,541.31	6,177.24	15.77	38.84	103.48	-976.98	1,529.04	1,268.81	1,218.45	50.36	25.197	
6,600.00	6,319.04	6,668.34	6,304.12	15.81	39.00	103.51	-980.11	1,534.05	1,271.90	1,221.32	50.58	25.144	
6,654.97	6,374.00	6,738.22	6,374.00	15.82	39.06	-176.70	-980.57	1,534.77	1,272.35	1,221.68	50.67	25.111	
6,700.00	6,419.03	6,783.26	6,419.03	15.82	39.10	-176.70	-980.57	1,534.77	1,272.35	1,221.64	50.71	25.091	
6,800.00	6,519.03	6,883.26	6,519.03	15.84	39.17	-176.70	-980.57	1,534.77	1,272.35	1,221.54	50.80	25.045	
6,900.00	6,619.03	6,983.26	6,619.03	15.85	39.25	-176.70	-980.57	1,534.77	1,272.35	1,221.45	50.90	24.998	
7,000.00	6,719.03	7,083.26	6,719.03	15.86	39.32	-176.70	-980.57	1,534.77	1,272.35	1,221.35	51.00	24.950	
7,100.00	6,819.03	7,183.26	6,819.03	15.87	39.40	-176.70	-980.57	1,534.77	1,272.35	1,221.25	51.09	24.902	
7,200.00	6,919.03	7,283.26	6,919.03	15.88	39.48	-176.70	-980.57	1,534.77	1,272.35	1,221.15	51.19	24.854	
7,300.00	7,019.03	7,383.26	7,019.03	15.90	39.56	-176.70	-980.57	1,534.77	1,272.35	1,221.05	51.29	24.805	
7,400.00	7,119.03	7,483.26	7,119.03	15.91	39.64	-176.70	-980.57	1,534.77	1,272.35	1,220.95	51.40	24.755	
7,500.00	7,219.03	7,583.26	7,219.03	15.92	39.72	-176.70	-980.57	1,534.77	1,272.35	1,220.85	51.50	24.705	
7,600.00	7,319.03	7,683.26	7,319.03	15.94	39.80	-176.70	-980.57	1,534.77	1,272.35	1,220.74	51.61	24.655	
7,700.00	7,419.03	7,783.26	7,419.03	15.95	39.88	-176.70	-980.57	1,534.77	1,272.35	1,220.63	51.71	24.604	
7,800.00	7,519.03	7,883.26	7,519.03	15.96	39.97	-176.70	-980.57	1,534.77	1,272.35	1,220.53	51.82	24.553	
7,900.00	7,619.03	7,983.26	7,619.03	15.98	40.05	-176.70	-980.57	1,534.77	1,272.35	1,220.42	51.93	24.502	
8,000.00	7,719.03	8,083.26	7,719.03	15.99	40.14	-176.70	-980.57	1,534.77	1,272.35	1,220.31	52.04	24.450	
8,100.00	7,819.03	8,183.26	7,819.03	16.00	40.23	-176.70	-980.57	1,534.77	1,272.35	1,220.20	52.15	24.397	
8,200.00	7,919.03	8,283.26	7,919.03	16.02	40.32	-176.70	-980.57	1,534.77	1,272.35	1,220.08	52.26	24.344	
8,300.00	8,019.03	8,383.26	8,019.03	16.03	40.41	-176.70	-980.57	1,534.77	1,272.35	1,219.97	52.38	24.291	
8,400.00	8,119.03	8,483.26	8,119.03	16.04	40.50	-176.70	-980.57	1,534.77	1,272.35	1,219.85	52.49	24.238	
8,500.00	8,219.03	8,583.26	8,219.03	16.06	40.59	-176.70	-980.57	1,534.77	1,272.35	1,219.74	52.61	24.184	
8,579.97	8,299.00	8,663.22	8,299.00	16.07	40.67	-176.70	-980.57	1,534.77	1,272.35	1,219.64	52.71	24.141	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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
0.00	0.00	0.00	0.00	0.00	0.00	163.15	-49.90	15.11	55.49				
100.00	100.00	81.00	81.00	0.04	1.62	163.15	-49.90	15.11	52.14	50.48	1.66	31.324	
200.00	200.00	181.00	181.00	0.10	5.24	163.15	-49.90	15.11	52.14	46.80	5.34	9.770	
300.00	300.00	281.00	281.00	0.15	9.24	163.15	-49.90	15.11	52.14	42.75	9.39	5.553	
400.00	400.00	381.00	381.00	0.20	13.24	163.15	-49.90	15.11	52.14	38.70	13.44	3.879	
500.00	500.00	481.00	481.00	0.25	17.24	163.15	-49.90	15.11	52.14	34.65	17.49	2.980	
600.00	600.00	581.00	581.00	0.31	21.24	163.15	-49.90	15.11	52.14	30.59	21.55	2.420	
700.00	700.00	681.00	681.00	0.36	25.24	163.15	-49.90	15.11	52.14	26.54	25.60	2.037	
800.00	800.00	781.00	781.00	0.41	29.24	163.15	-49.90	15.11	52.14	22.49	29.65	1.758	
900.00	900.00	881.00	881.00	0.46	33.24	163.15	-49.90	15.11	52.14	18.44	33.70	1.547	
1,000.00	1,000.00	981.00	981.00	0.52	37.24	163.15	-49.90	15.11	52.14	14.38	37.76	1.381 Level 3	
1,085.00	1,085.00	1,066.00	1,066.00	0.56	40.64	163.15	-49.90	15.11	52.14	10.94	41.20	1.266 Level 3	
1,100.00	1,100.00	1,081.00	1,081.00	0.57	41.24	83.40	-49.90	15.11	52.14	10.33	41.81	1.247 Level 2	
1,200.00	1,199.97	1,180.97	1,180.97	0.62	45.24	85.89	-49.90	15.11	51.92	6.06	45.86	1.132 Level 2	
1,270.88	1,270.75	1,251.75	1,251.75	0.66	48.07	90.00	-49.90	15.11	51.79	3.06	48.73	1.063 Level 2, CC	
1,300.00	1,299.80	1,280.80	1,280.80	0.68	49.23	92.24	-49.90	15.11	51.83	1.92	49.91	1.039 Level 2	
1,400.00	1,399.37	1,380.37	1,380.37	0.74	53.21	102.21	-49.90	15.11	53.00	-0.94	53.94	0.983 Level 1, ES, SF	
1,500.00	1,498.55	1,479.55	1,479.55	0.82	57.18	114.61	-49.90	15.11	57.07	-0.82	57.89	0.986 Level 1	
1,600.00	1,597.23	1,578.23	1,578.23	0.93	61.13	127.33	-49.90	15.11	65.52	3.86	61.67	1.063 Level 2	
1,700.00	1,695.29	1,676.29	1,676.29	1.06	65.05	138.41	-49.90	15.11	79.06	13.86	65.20	1.213 Level 2	
1,800.00	1,792.60	1,773.60	1,773.60	1.23	68.94	147.14	-49.90	15.11	97.61	29.10	68.51	1.425 Level 3	
1,900.00	1,889.05	1,870.05	1,870.05	1.44	72.80	153.69	-49.90	15.11	120.79	49.18	71.61	1.687	
2,000.00	1,984.52	1,965.52	1,965.52	1.68	76.62	158.55	-49.90	15.11	148.20	73.69	74.51	1.989	
2,100.00	2,078.90	2,059.90	2,059.90	1.96	80.40	162.19	-49.90	15.11	179.54	102.32	77.22	2.325	
2,143.72	2,119.78	2,100.78	2,100.78	2.10	82.03	163.49	-49.90	15.11	194.41	116.08	78.33	2.482	
2,200.00	2,172.26	2,153.26	2,153.26	2.28	84.13	165.03	-49.90	15.11	214.07	133.80	80.28	2.667	
2,300.00	2,265.51	2,246.51	2,246.51	2.61	87.86	167.17	-49.90	15.11	249.28	165.50	83.78	2.975	
2,400.00	2,358.76	2,339.76	2,339.76	2.94	91.59	168.78	-49.90	15.11	284.71	197.40	87.31	3.261	
2,500.00	2,452.01	2,433.01	2,433.01	3.27	95.32	170.03	-49.90	15.11	320.29	229.43	90.86	3.525	
2,600.00	2,545.26	2,526.26	2,526.26	3.61	99.05	171.04	-49.90	15.11	355.99	261.56	94.43	3.770	
2,700.00	2,638.51	2,619.51	2,619.51	3.95	102.78	171.86	-49.90	15.11	391.76	293.75	98.00	3.997	
2,800.00	2,731.76	2,712.76	2,712.76	4.29	106.51	172.54	-49.90	15.11	427.59	326.00	101.59	4.209	
2,900.00	2,825.00	2,806.00	2,806.00	4.63	110.24	173.12	-49.90	15.11	463.46	358.29	105.17	4.407	
3,000.00	2,918.25	2,899.25	2,899.25	4.98	113.97	173.62	-49.90	15.11	499.37	390.61	108.77	4.591	
3,100.00	3,011.50	2,992.50	2,992.50	5.32	117.70	174.05	-49.90	15.11	535.31	422.95	112.36	4.764	
3,200.00	3,104.75	3,085.75	3,085.75	5.66	121.43	174.42	-49.90	15.11	571.28	455.32	115.96	4.927	
3,300.00	3,198.00	3,179.00	3,179.00	6.01	125.16	174.76	-49.90	15.11	607.26	487.70	119.56	5.079	
3,400.00	3,291.25	3,272.25	3,272.25	6.35	128.89	175.05	-49.90	15.11	643.25	520.09	123.16	5.223	
3,500.00	3,384.50	3,365.50	3,365.50	6.70	132.62	175.31	-49.90	15.11	679.26	552.50	126.76	5.359	
3,600.00	3,477.74	3,458.74	3,458.74	7.04	136.35	175.55	-49.90	15.11	715.28	584.92	130.37	5.487	
3,700.00	3,570.99	3,551.99	3,551.99	7.39	140.08	175.76	-49.90	15.11	751.31	617.34	133.97	5.608	
3,800.00	3,664.24	3,645.24	3,645.24	7.73	143.81	175.96	-49.90	15.11	787.35	649.77	137.58	5.723	
3,900.00	3,757.49	3,738.49	3,738.49	8.08	147.54	176.13	-49.90	15.11	823.40	682.21	141.19	5.832	
4,000.00	3,850.74	3,831.74	3,831.74	8.43	151.27	176.30	-49.90	15.11	859.45	714.66	144.79	5.936	
4,100.00	3,943.99	3,924.99	3,924.99	8.77	155.00	176.45	-49.90	15.11	895.51	747.11	148.40	6.034	
4,200.00	4,037.24	4,018.24	4,018.24	9.12	158.73	176.58	-49.90	15.11	931.57	779.56	152.01	6.128	
4,300.00	4,130.48	4,111.48	4,111.48	9.46	162.46	176.71	-49.90	15.11	967.64	812.02	155.62	6.218	
4,400.00	4,223.73	4,204.73	4,204.73	9.81	166.19	176.83	-49.90	15.11	1,003.71	844.48	159.23	6.304	
4,500.00	4,316.98	4,297.98	4,297.98	10.16	169.92	176.94	-49.90	15.11	1,039.78	876.94	162.84	6.385	
4,600.00	4,410.23	4,391.23	4,391.23	10.50	173.65	177.04	-49.90	15.11	1,075.86	909.41	166.45	6.464	
4,700.00	4,503.48	4,484.48	4,484.48	10.85	177.38	177.14	-49.90	15.11	1,111.94	941.88	170.06	6.539	
4,800.00	4,596.73	4,577.73	4,577.73	11.20	181.11	177.23	-49.90	15.11	1,148.02	974.35	173.67	6.610	

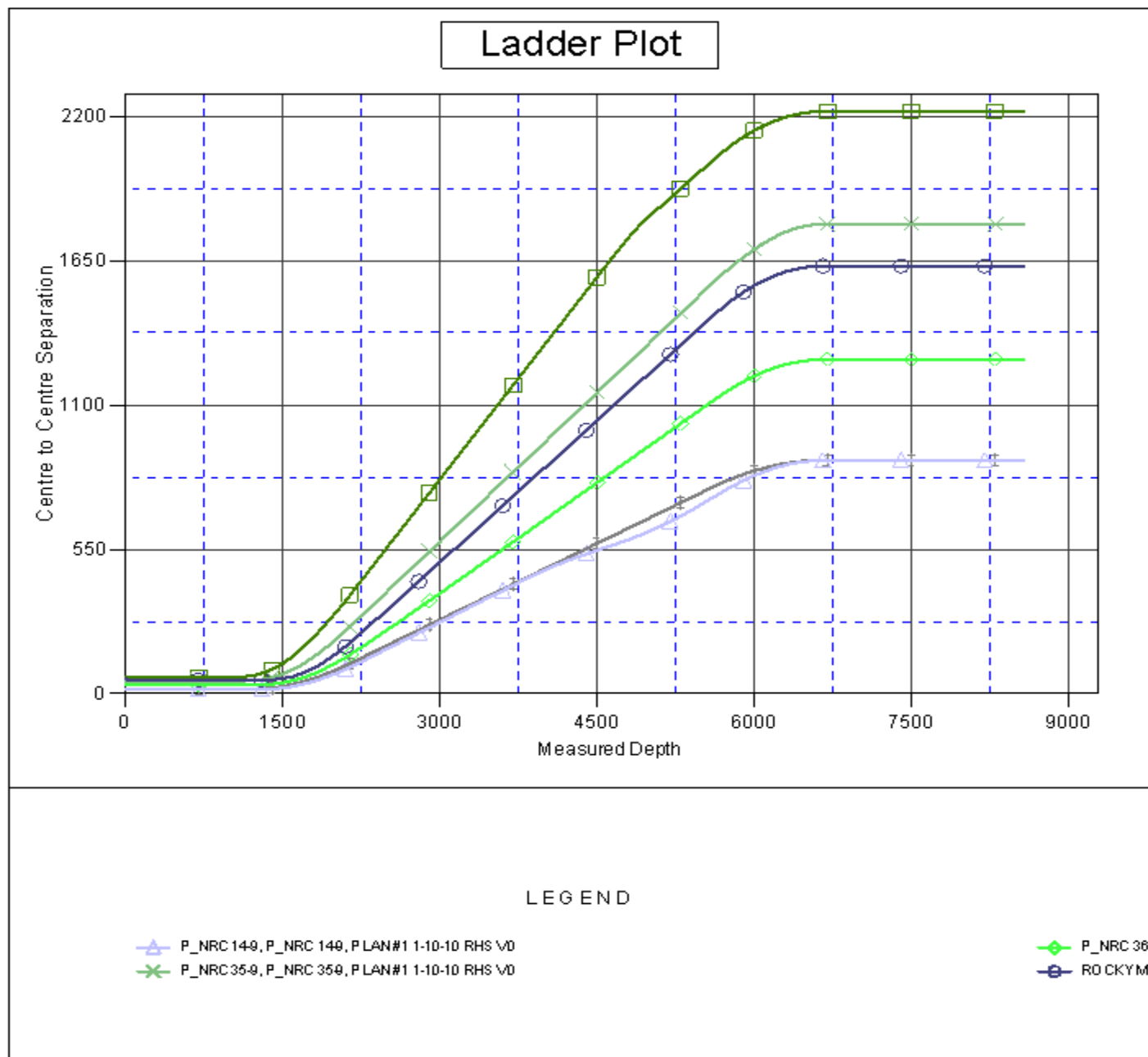
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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	4,689.98	4,670.98	4,670.98	11.54	184.84	177.31	-49.90	15.11	1,184.11	1,006.83	177.28	6.679	
5,000.00	4,783.22	4,764.22	4,764.22	11.89	188.57	177.39	-49.90	15.11	1,220.19	1,039.30	180.89	6.745	
5,100.00	4,876.47	4,857.47	4,857.47	12.24	192.30	177.47	-49.90	15.11	1,256.28	1,071.78	184.50	6.809	
5,200.00	4,969.72	4,950.72	4,950.72	12.59	196.03	177.54	-49.90	15.11	1,292.37	1,104.26	188.11	6.870	
5,300.00	5,062.97	5,043.97	5,043.97	12.93	199.76	177.60	-49.90	15.11	1,328.47	1,136.74	191.73	6.929	
5,400.00	5,156.22	5,137.22	5,137.22	13.28	203.49	177.67	-49.90	15.11	1,364.56	1,169.22	195.34	6.986	
5,500.00	5,249.47	5,230.47	5,230.47	13.63	207.22	177.73	-49.90	15.11	1,400.66	1,201.71	198.95	7.040	
5,596.25	5,339.22	5,320.22	5,320.22	13.96	210.81	177.78	-49.90	15.11	1,435.40	1,232.97	202.43	7.091	
5,600.00	5,342.72	5,323.72	5,323.72	13.97	210.95	177.79	-49.90	15.11	1,436.75	1,234.09	202.66	7.089	
5,700.00	5,436.62	5,417.62	5,417.62	14.30	214.70	177.87	-49.90	15.11	1,471.09	1,262.23	208.87	7.043	
5,800.00	5,531.67	5,512.67	5,512.67	14.60	218.51	177.93	-49.90	15.11	1,502.14	1,287.20	214.94	6.989	
5,900.00	5,627.74	5,608.74	5,608.74	14.86	222.35	177.99	-49.90	15.11	1,529.85	1,308.99	220.86	6.927	
6,000.00	5,724.73	5,705.73	5,705.73	15.09	226.23	178.04	-49.90	15.11	1,554.20	1,327.59	226.61	6.859	
6,100.00	5,822.50	5,803.50	5,803.50	15.29	230.14	178.08	-49.90	15.11	1,575.14	1,342.98	232.16	6.785	
6,200.00	5,920.94	5,901.94	5,901.94	15.45	234.08	178.11	-49.90	15.11	1,592.67	1,355.16	237.51	6.706	
6,300.00	6,019.94	6,000.94	6,000.94	15.59	238.04	178.14	-49.90	15.11	1,606.75	1,364.13	242.62	6.622	
6,400.00	6,119.37	6,100.37	6,100.37	15.69	242.01	178.16	-49.90	15.11	1,617.37	1,369.88	247.48	6.535	
6,500.00	6,219.11	6,200.11	6,200.11	15.77	246.00	178.17	-49.90	15.11	1,624.51	1,372.44	252.07	6.445	
6,600.00	6,319.04	6,300.04	6,300.04	15.81	250.00	178.18	-49.90	15.11	1,628.18	1,371.80	256.37	6.351	
6,654.97	6,374.00	6,355.00	6,355.00	15.82	252.20	-102.03	-49.90	15.11	1,628.70	1,370.10	258.60	6.298	
6,700.00	6,419.03	6,400.03	6,400.03	15.82	254.00	-102.03	-49.90	15.11	1,628.70	1,368.28	260.42	6.254	
6,800.00	6,519.03	6,500.03	6,500.03	15.84	258.00	-102.03	-49.90	15.11	1,628.70	1,364.26	264.45	6.159	
6,900.00	6,619.03	6,600.03	6,600.03	15.85	262.00	-102.03	-49.90	15.11	1,628.70	1,360.23	268.48	6.066	
7,000.00	6,719.03	6,700.03	6,700.03	15.86	266.00	-102.03	-49.90	15.11	1,628.70	1,356.20	272.50	5.977	
7,100.00	6,819.03	6,800.03	6,800.03	15.87	270.00	-102.03	-49.90	15.11	1,628.70	1,352.17	276.53	5.890	
7,200.00	6,919.03	6,900.03	6,900.03	15.88	274.00	-102.03	-49.90	15.11	1,628.70	1,348.14	280.56	5.805	
7,300.00	7,019.03	7,000.03	7,000.03	15.90	278.00	-102.03	-49.90	15.11	1,628.70	1,344.11	284.59	5.723	
7,400.00	7,119.03	7,100.03	7,100.03	15.91	282.00	-102.03	-49.90	15.11	1,628.70	1,340.08	288.62	5.643	
7,500.00	7,219.03	7,200.03	7,200.03	15.92	286.00	-102.03	-49.90	15.11	1,628.70	1,336.05	292.66	5.565	
7,600.00	7,319.03	7,300.03	7,300.03	15.94	290.00	-102.03	-49.90	15.11	1,628.70	1,332.02	296.69	5.490	
7,700.00	7,419.03	7,400.03	7,400.03	15.95	294.00	-102.03	-49.90	15.11	1,628.70	1,327.98	300.72	5.416	
7,800.00	7,519.03	7,500.03	7,500.03	15.96	298.00	-102.03	-49.90	15.11	1,628.70	1,323.95	304.75	5.344	
7,900.00	7,619.03	7,600.03	7,600.03	15.98	302.00	-102.03	-49.90	15.11	1,628.70	1,319.92	308.78	5.275	
8,000.00	7,719.03	7,700.03	7,700.03	15.99	306.00	-102.03	-49.90	15.11	1,628.70	1,315.89	312.81	5.207	
8,100.00	7,819.03	7,800.03	7,800.03	16.00	310.00	-102.03	-49.90	15.11	1,628.70	1,311.86	316.84	5.140	
8,200.00	7,919.03	7,900.03	7,900.03	16.02	314.00	-102.03	-49.90	15.11	1,628.70	1,307.82	320.88	5.076	
8,300.00	8,019.03	8,000.03	8,000.03	16.03	318.00	-102.03	-49.90	15.11	1,628.70	1,303.79	324.91	5.013	
8,400.00	8,119.03	8,100.03	8,100.03	16.04	322.00	-102.03	-49.90	15.11	1,628.70	1,299.76	328.94	4.951	
8,500.00	8,219.03	8,200.03	8,200.03	16.06	326.00	-102.03	-49.90	15.11	1,628.70	1,295.73	332.98	4.891	
8,579.97	8,299.00	8,280.00	8,280.00	16.07	329.20	-102.03	-49.90	15.11	1,628.70	1,292.50	336.20	4.844	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-10-10 RHS	Offset TVD Reference:	Offset Datum

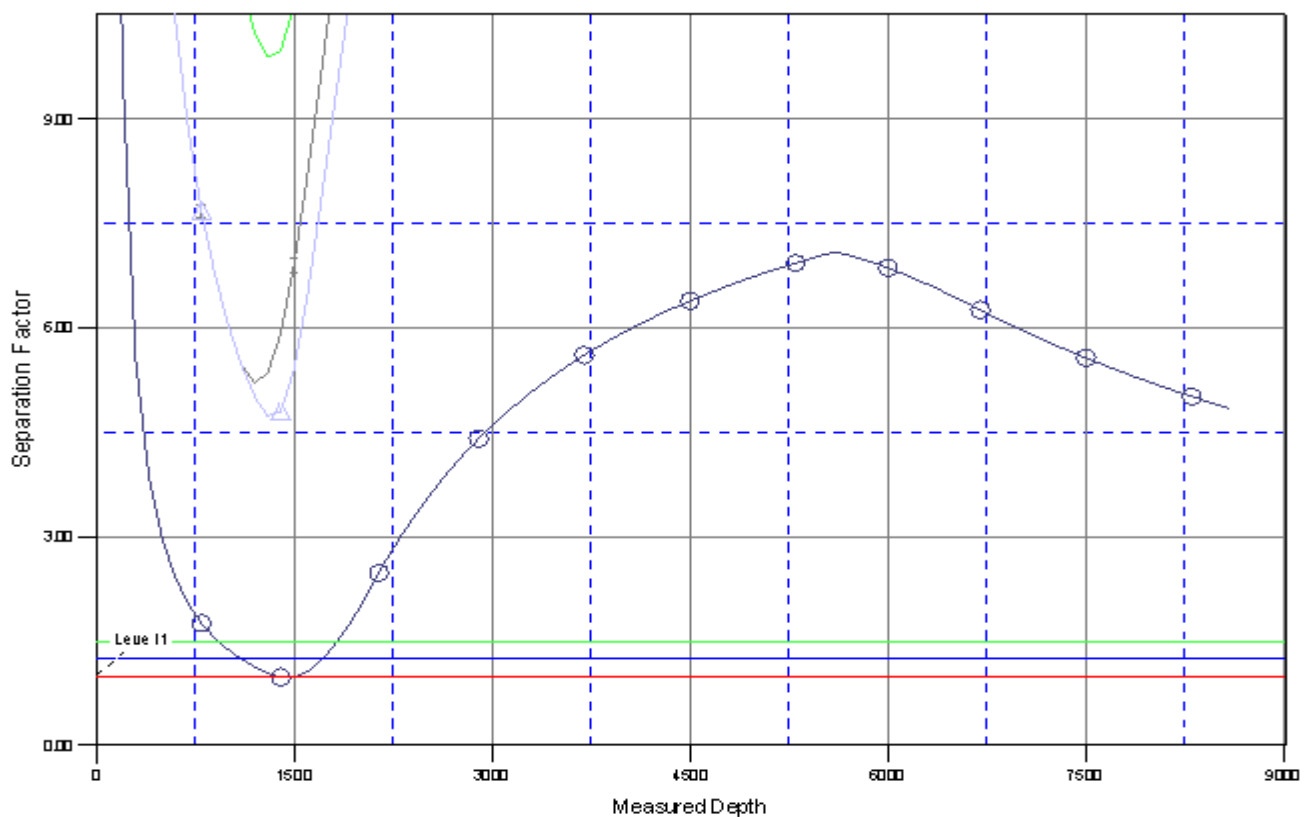
Reference Depths are relative to WELL @ 5067.00ft (Original Well Elev) Coordinates are relative to: P_NRC 23-9
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.39°





Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 23-9
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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 23-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 23-9	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 23-9
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 35-9, P_NRC 35-9, P LAN#1 1-10-10 RHS V/D

 P_NRC 36-9, I
 ROCKY MOUNTAIN