



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_NRC 18-9 PAD

P_NRC 3-9

P_NRC 3-9

Plan: PLAN #1 1-6-10 RHS

Standard Planning Report

04 February, 2010





Azimuths to True North
Magnetic North: 9.10°

Magnetic Field
Strength: 53092.0snT
Dip Angle: 66.81°
Date: 1/6/2010
Model: IGRF2010

WELL DETAILS: P_NRC 3-9

+N/-S	+E/-W	Northing	Ground Level: Easting	5021.00 Latitude	Longitude	Slot
0.00	0.00	1268598.94	3167683.42	40° 4' 8.900 N	104° 54' 3.049 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3228.00	3269.94	PARKMAN
4703.00	4780.78	SUSSEX
5173.00	5262.19	SHANNON
7343.00	7450.50	NIO A
7683.00	7790.50	CODELL
8133.00	8240.50	JSAND
8303.00	8410.50	DAKOTA

SECTION DETAILS

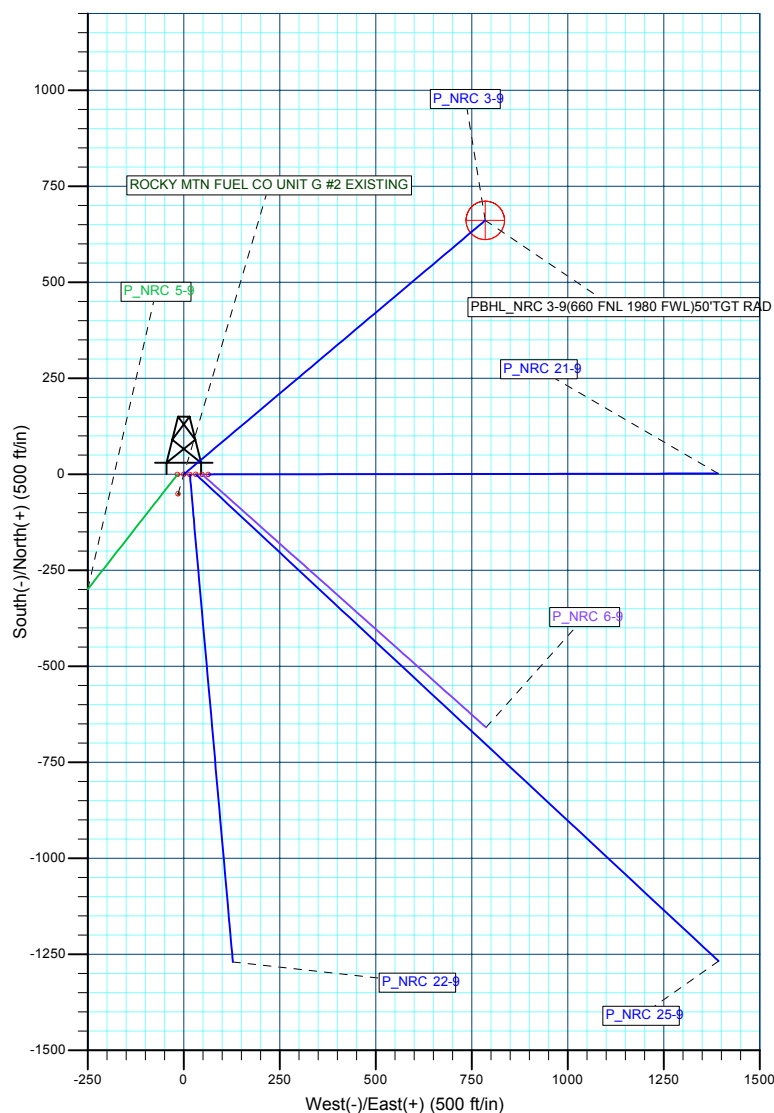
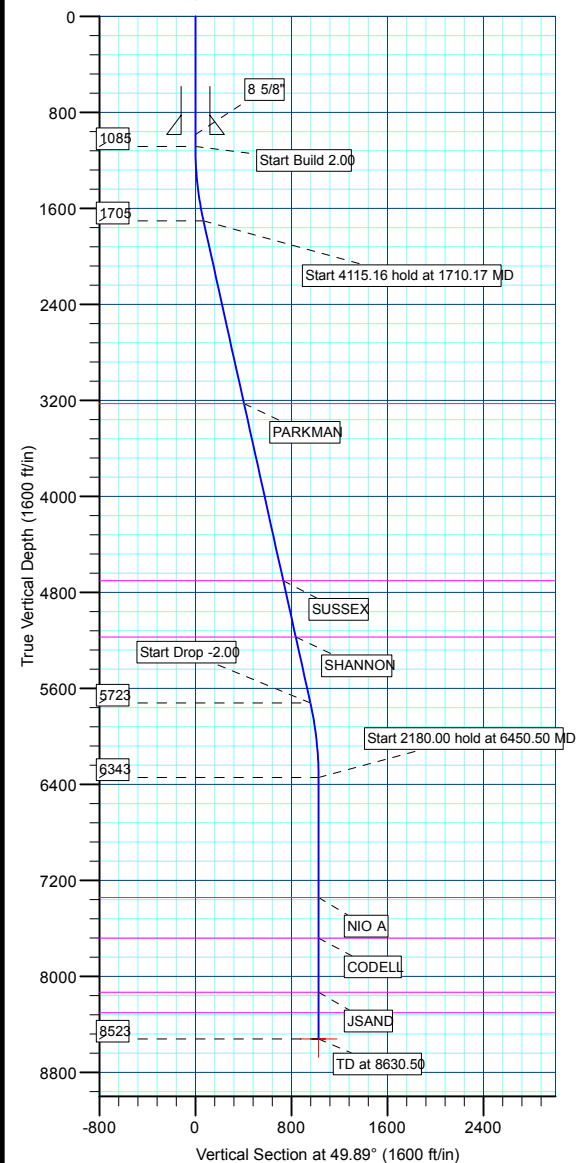
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1085.00	0.00	0.00	1085.00	0.00	0.00	0.00	0.00	0.00	
1710.17	12.50	49.89	1705.22	43.77	51.96	2.00	49.89	67.94	
5825.33	12.50	49.89	5722.78	617.77	733.33	0.00	0.00	958.86	
6450.50	0.00	0.00	6343.00	661.55	785.30	2.00	180.00	1026.81	
8630.50	0.00	0.00	8523.00	661.55	785.30	0.00	0.00	1026.81	PBHL_NRC 3-9(660 FNL 1980 FWL)50'TGT RAD

CASING DETAILS

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



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



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	8523.00	661.55	785.29	1269265.78	3168464.22	40° 4' 15.438 N	104° 53' 52.948 W	Circle (Radius: 50.00)

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 3-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site:	WELD_NRC 18-9 PAD	North Reference:	True
Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 3-9		
Design:	PLAN #1 1-6-10 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 18-9 PAD, SECTION 9 T1N R67W											
Site Position:						Northing:			1,268,599.17 ft			Latitude:			40° 4' 8.900 N		
From:			Lat/Long			Easting:			3,167,715.32 ft			Longitude:			104° 54' 2.639 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.39 °		

Well	P_NRC 3-9					
Well Position	+N/-S	-0.01 ft	Northing:	1,268,598.94 ft	Latitude:	40° 4' 8.900 N
	+E/-W	-31.91 ft	Easting:	3,167,683.42 ft	Longitude:	104° 54' 3.049 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,021.00 ft

Wellbore	P_NRC 3-9				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/6/2010	9.10	66.81	53,092

Design	PLAN #1 1-6-10 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	49.89

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	
1,710.17	12.50	49.89	1,705.22	43.77	51.96	2.00	2.00	0.00	49.89	
5,825.33	12.50	49.89	5,722.78	617.77	733.33	0.00	0.00	0.00	0.00	
6,450.50	0.00	0.00	6,343.00	661.55	785.30	2.00	-2.00	0.00	180.00	
8,630.50	0.00	0.00	8,523.00	661.55	785.30	0.00	0.00	0.00	0.00	PBHL_NRC 3-9(66)

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 3-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site:	WELD_NRC 18-9 PAD	North Reference:	True
Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 3-9		
Design:	PLAN #1 1-6-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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	49.89	1,100.00	0.03	0.03	0.04	2.00	2.00	0.00
1,200.00	2.30	49.89	1,199.97	1.49	1.77	2.31	2.00	2.00	0.00
1,300.00	4.30	49.89	1,299.80	5.20	6.17	8.06	2.00	2.00	0.00
1,400.00	6.30	49.89	1,399.37	11.15	13.23	17.30	2.00	2.00	0.00
1,500.00	8.30	49.89	1,498.55	19.33	22.95	30.01	2.00	2.00	0.00
1,600.00	10.30	49.89	1,597.23	29.74	35.31	46.17	2.00	2.00	0.00
1,700.00	12.30	49.89	1,695.29	42.37	50.29	65.76	2.00	2.00	0.00
Start 4115.16 hold at 1710.17 MD									
1,710.17	12.50	49.89	1,705.22	43.77	51.96	67.94	2.00	2.00	0.00
1,800.00	12.50	49.89	1,792.92	56.30	66.84	87.39	0.00	0.00	0.00
1,900.00	12.50	49.89	1,890.55	70.25	83.39	109.04	0.00	0.00	0.00
2,000.00	12.50	49.89	1,988.18	84.20	99.95	130.69	0.00	0.00	0.00
2,100.00	12.50	49.89	2,085.80	98.15	116.51	152.34	0.00	0.00	0.00
2,200.00	12.50	49.89	2,183.43	112.10	133.07	173.99	0.00	0.00	0.00
2,300.00	12.50	49.89	2,281.06	126.05	149.62	195.64	0.00	0.00	0.00
2,400.00	12.50	49.89	2,378.69	139.99	166.18	217.29	0.00	0.00	0.00
2,500.00	12.50	49.89	2,476.32	153.94	182.74	238.94	0.00	0.00	0.00
2,600.00	12.50	49.89	2,573.95	167.89	199.30	260.59	0.00	0.00	0.00
2,700.00	12.50	49.89	2,671.57	181.84	215.85	282.24	0.00	0.00	0.00
2,800.00	12.50	49.89	2,769.20	195.79	232.41	303.89	0.00	0.00	0.00
2,900.00	12.50	49.89	2,866.83	209.74	248.97	325.54	0.00	0.00	0.00
3,000.00	12.50	49.89	2,964.46	223.69	265.53	347.19	0.00	0.00	0.00
3,100.00	12.50	49.89	3,062.09	237.63	282.08	368.84	0.00	0.00	0.00
3,200.00	12.50	49.89	3,159.72	251.58	298.64	390.49	0.00	0.00	0.00
PARKMAN									
3,269.94	12.50	49.89	3,228.00	261.34	310.22	405.63	0.00	0.00	0.00
3,300.00	12.50	49.89	3,257.34	265.53	315.20	412.14	0.00	0.00	0.00
3,400.00	12.50	49.89	3,354.97	279.48	331.76	433.79	0.00	0.00	0.00
3,500.00	12.50	49.89	3,452.60	293.43	348.32	455.44	0.00	0.00	0.00
3,600.00	12.50	49.89	3,550.23	307.38	364.87	477.09	0.00	0.00	0.00
3,700.00	12.50	49.89	3,647.86	321.32	381.43	498.74	0.00	0.00	0.00
3,800.00	12.50	49.89	3,745.49	335.27	397.99	520.39	0.00	0.00	0.00
3,900.00	12.50	49.89	3,843.11	349.22	414.55	542.04	0.00	0.00	0.00
4,000.00	12.50	49.89	3,940.74	363.17	431.10	563.69	0.00	0.00	0.00
4,100.00	12.50	49.89	4,038.37	377.12	447.66	585.34	0.00	0.00	0.00
4,200.00	12.50	49.89	4,136.00	391.07	464.22	606.98	0.00	0.00	0.00
4,300.00	12.50	49.89	4,233.63	405.01	480.78	628.63	0.00	0.00	0.00
4,400.00	12.50	49.89	4,331.26	418.96	497.33	650.28	0.00	0.00	0.00
4,500.00	12.50	49.89	4,428.88	432.91	513.89	671.93	0.00	0.00	0.00
4,600.00	12.50	49.89	4,526.51	446.86	530.45	693.58	0.00	0.00	0.00
4,700.00	12.50	49.89	4,624.14	460.81	547.01	715.23	0.00	0.00	0.00
SUSSEX									
4,780.78	12.50	49.89	4,703.00	472.07	560.38	732.72	0.00	0.00	0.00
4,800.00	12.50	49.89	4,721.77	474.76	563.56	736.88	0.00	0.00	0.00
4,900.00	12.50	49.89	4,819.40	488.70	580.12	758.53	0.00	0.00	0.00
5,000.00	12.50	49.89	4,917.03	502.65	596.68	780.18	0.00	0.00	0.00
5,100.00	12.50	49.89	5,014.65	516.60	613.24	801.83	0.00	0.00	0.00
5,200.00	12.50	49.89	5,112.28	530.55	629.79	823.48	0.00	0.00	0.00
SHANNON									
5,262.19	12.50	49.89	5,173.00	539.22	640.09	836.95	0.00	0.00	0.00
5,300.00	12.50	49.89	5,209.91	544.50	646.35	845.13	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 3-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site:	WELD_NRC 18-9 PAD	North Reference:	True
Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 3-9		
Design:	PLAN #1 1-6-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	12.50	49.89	5,307.54	558.45	662.91	866.78	0.00	0.00	0.00
5,500.00	12.50	49.89	5,405.17	572.39	679.47	888.43	0.00	0.00	0.00
5,600.00	12.50	49.89	5,502.80	586.34	696.02	910.08	0.00	0.00	0.00
5,700.00	12.50	49.89	5,600.42	600.29	712.58	931.73	0.00	0.00	0.00
5,800.00	12.50	49.89	5,698.05	614.24	729.14	953.38	0.00	0.00	0.00
Start Drop -2.00									
5,825.33	12.50	49.89	5,722.78	617.77	733.33	958.86	0.00	0.00	0.00
5,900.00	11.01	49.89	5,795.88	627.58	744.97	974.08	2.00	-2.00	0.00
6,000.00	9.01	49.89	5,894.36	638.77	758.26	991.46	2.00	-2.00	0.00
6,100.00	7.01	49.89	5,993.38	647.75	768.92	1,005.39	2.00	-2.00	0.00
6,200.00	5.01	49.89	6,092.82	654.50	776.92	1,015.86	2.00	-2.00	0.00
6,300.00	3.01	49.89	6,192.57	659.00	782.27	1,022.86	2.00	-2.00	0.00
6,400.00	1.01	49.89	6,292.50	661.26	784.96	1,026.36	2.00	-2.00	0.00
Start 2180.00 hold at 6450.50 MD									
6,450.50	0.00	0.00	6,343.00	661.55	785.30	1,026.81	2.00	-2.00	-98.79
6,500.00	0.00	0.00	6,392.50	661.55	785.30	1,026.81	0.00	0.00	0.00
6,600.00	0.00	0.00	6,492.50	661.55	785.30	1,026.81	0.00	0.00	0.00
6,700.00	0.00	0.00	6,592.50	661.55	785.30	1,026.81	0.00	0.00	0.00
6,800.00	0.00	0.00	6,692.50	661.55	785.30	1,026.81	0.00	0.00	0.00
6,900.00	0.00	0.00	6,792.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,000.00	0.00	0.00	6,892.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,100.00	0.00	0.00	6,992.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,200.00	0.00	0.00	7,092.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,300.00	0.00	0.00	7,192.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,400.00	0.00	0.00	7,292.50	661.55	785.30	1,026.81	0.00	0.00	0.00
NIO A									
7,450.50	0.00	0.00	7,343.00	661.55	785.30	1,026.81	0.00	0.00	0.00
7,500.00	0.00	0.00	7,392.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,600.00	0.00	0.00	7,492.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,700.00	0.00	0.00	7,592.50	661.55	785.30	1,026.81	0.00	0.00	0.00
CODELL									
7,790.50	0.00	0.00	7,683.00	661.55	785.30	1,026.81	0.00	0.00	0.00
7,800.00	0.00	0.00	7,692.50	661.55	785.30	1,026.81	0.00	0.00	0.00
7,900.00	0.00	0.00	7,792.50	661.55	785.30	1,026.81	0.00	0.00	0.00
8,000.00	0.00	0.00	7,892.50	661.55	785.30	1,026.81	0.00	0.00	0.00
8,100.00	0.00	0.00	7,992.50	661.55	785.30	1,026.81	0.00	0.00	0.00
8,200.00	0.00	0.00	8,092.50	661.55	785.30	1,026.81	0.00	0.00	0.00
JSAND									
8,240.50	0.00	0.00	8,133.00	661.55	785.30	1,026.81	0.00	0.00	0.00
8,300.00	0.00	0.00	8,192.50	661.55	785.30	1,026.81	0.00	0.00	0.00
8,400.00	0.00	0.00	8,292.50	661.55	785.30	1,026.81	0.00	0.00	0.00
DAKOTA									
8,410.50	0.00	0.00	8,303.00	661.55	785.30	1,026.81	0.00	0.00	0.00
8,500.00	0.00	0.00	8,392.50	661.55	785.30	1,026.81	0.00	0.00	0.00
8,600.00	0.00	0.00	8,492.50	661.55	785.30	1,026.81	0.00	0.00	0.00
PBHL_NRC 3-9(660 FNL 1980 FWL)50'TGT RAD									
8,630.50	0.00	0.00	8,523.00	661.55	785.30	1,026.81	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_NRC 3-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site:	WELD_NRC 18-9 PAD	North Reference:	True
Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NRC 3-9		
Design:	PLAN #1 1-6-10 RHS		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
PBHL_NRC 3-9(660 F	0.00	0.00	8,523.00	661.55	785.29	1,269,265.78	3,168,464.22	40° 4' 15.438 N	104° 53' 52.948 W
- plan misses target center by 0.01ft at 8630.50ft MD (8523.00 TVD, 661.55 N, 785.30 E)									
- Circle (radius 50.00)									

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

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(ft)	(ft)		Name	Lithology	(°)	(°)
3,269.94	3,228.00		PARKMAN			
4,780.78	4,703.00		SUSSEX			
5,262.19	5,173.00		SHANNON			
7,450.50	7,343.00		NIO A			
7,790.50	7,683.00		CODELL			
8,240.50	8,133.00		JSAND			
8,410.50	8,303.00		DAKOTA		0.00	

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	
1,710.17	1,705.22	43.77	51.96	Start 4115.16 hold at 1710.17 MD	
5,825.33	5,722.78	617.77	733.33	Start Drop -2.00	
6,450.50	6,343.00	661.55	785.30	Start 2180.00 hold at 6450.50 MD	
8,630.50	8,523.00	661.55	785.30	TD at 8630.50	



US ROCKIES REGION PLANNING

**COLORADO NORTHERN ZONE - 83
WELD_NRC 18-9 PAD
P_NRC 3-9**

**P_NRC 3-9
PLAN #1 1-6-10 RHS**

Anticollision Report

04 February, 2010



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 1-6-10 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 2/4/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,630.50	PLAN #1 1-6-10 RHS (P_NRC 3-9)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WELD_NRC 18-9 PAD						
P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	64.09	59.47	13.876	CC
P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.67	64.10	59.42	13.689	ES
P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS	1,500.00	1,489.98	73.02	66.66	11.487	SF
P_NRC 22-9 - P_NRC 22-9 - PLAN #1 1-6-10 RHS	1,225.33	1,224.99	14.75	9.58	2.854	CC, ES, SF
P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS	300.00	300.00	31.91	30.82	29.268	CC, ES
P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS	600.00	596.51	44.55	42.14	18.517	SF
P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS	1,085.00	1,085.00	16.23	11.61	3.514	CC
P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS	1,100.00	1,099.95	16.29	11.61	3.479	ES, SF
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,151.42	1,150.59	47.85	42.96	9.799	CC
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,200.00	1,198.51	47.89	42.82	9.442	ES
P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS	1,400.00	1,394.55	52.38	46.50	8.898	SF
ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY	1,085.00	1,065.00	52.77	9.86	1.230	Level 2, CC
ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY	1,200.00	1,179.97	54.70	6.97	1.146	Level 2, ES, SF

Offset Design WELD_NRC 18-9 PAD - P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 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)
0.00	0.00	0.00	0.00	0.00	0.00	90.01	-0.02	64.09	64.09		
100.00	100.00	100.00	100.00	0.10	0.10	90.01	-0.02	64.09	64.09	63.90	0.19
200.00	200.00	200.00	200.00	0.32	0.32	90.01	-0.02	64.09	64.09	63.45	0.64
300.00	300.00	300.00	300.00	0.55	0.55	90.01	-0.02	64.09	64.09	63.00	1.09
400.00	400.00	400.00	400.00	0.77	0.77	90.01	-0.02	64.09	64.09	62.55	1.54
500.00	500.00	500.00	500.00	0.99	0.99	90.01	-0.02	64.09	64.09	62.10	1.99
600.00	600.00	600.00	600.00	1.22	1.22	90.01	-0.02	64.09	64.09	61.65	2.44
700.00	700.00	700.00	700.00	1.44	1.44	90.01	-0.02	64.09	64.09	61.20	2.89
800.00	800.00	800.00	800.00	1.67	1.67	90.01	-0.02	64.09	64.09	60.75	3.34
900.00	900.00	900.00	900.00	1.89	1.89	90.01	-0.02	64.09	64.09	60.30	3.79
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.01	-0.02	64.09	64.09	59.85	4.24
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.01	-0.02	64.09	64.09	59.47	4.62
1,100.00	1,100.00	1,099.67	1,099.67	2.34	2.34	40.15	-0.02	64.13	64.10	59.42	4.68
1,200.00	1,199.97	1,197.46	1,197.43	2.56	2.54	41.41	-0.01	66.30	64.60	59.51	5.09
1,300.00	1,299.80	1,295.16	1,294.98	2.78	2.74	44.50	0.00	71.80	66.01	60.51	5.50

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 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
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	
1,400.00	1,399.37	1,392.70	1,392.10	3.01	2.96	49.16	0.01	80.60	68.67	62.75	5.92	11.605	
1,500.00	1,498.55	1,489.98	1,488.63	3.26	3.19	54.94	0.03	92.67	73.02	66.66	6.36	11.487 SF	
1,600.00	1,597.23	1,586.94	1,584.38	3.53	3.46	61.24	0.06	107.95	79.52	72.68	6.84	11.633	
1,700.00	1,695.29	1,683.51	1,679.17	3.84	3.75	67.51	0.09	126.38	88.53	81.15	7.38	11.995	
1,710.17	1,705.22	1,693.31	1,688.75	3.87	3.79	68.13	0.09	128.43	89.59	82.15	7.44	12.043	
1,800.00	1,792.92	1,779.68	1,772.89	4.19	4.10	72.77	0.12	147.90	100.64	92.64	8.00	12.581	
1,900.00	1,890.55	1,875.36	1,865.38	4.55	4.49	75.91	0.17	172.43	116.07	107.41	8.67	13.393	
2,000.00	1,988.18	1,972.46	1,958.52	4.94	4.93	77.64	0.21	199.86	133.85	124.47	9.38	14.274	
2,100.00	2,085.80	2,070.77	2,052.75	5.33	5.41	78.91	0.26	227.87	151.91	141.78	10.13	14.998	
2,200.00	2,183.43	2,169.07	2,146.98	5.74	5.91	79.92	0.31	255.88	170.03	159.12	10.91	15.587	
2,300.00	2,281.06	2,267.38	2,241.21	6.15	6.43	80.73	0.35	283.90	188.19	176.48	11.71	16.069	
2,400.00	2,378.69	2,365.69	2,335.44	6.57	6.96	81.39	0.40	311.91	206.38	193.85	12.53	16.467	
2,500.00	2,476.32	2,463.99	2,429.67	7.00	7.50	81.95	0.45	339.92	224.59	211.22	13.37	16.798	
2,600.00	2,573.95	2,562.30	2,523.90	7.43	8.04	82.43	0.50	367.93	242.83	228.60	14.22	17.076	
2,700.00	2,671.57	2,660.60	2,618.13	7.87	8.59	82.84	0.54	395.94	261.07	245.99	15.08	17.312	
2,800.00	2,769.20	2,758.91	2,712.36	8.30	9.15	83.19	0.59	423.96	279.33	263.38	15.95	17.513	
2,900.00	2,866.83	2,857.21	2,806.59	8.74	9.71	83.51	0.64	451.97	297.59	280.76	16.83	17.686	
3,000.00	2,964.46	2,955.52	2,900.82	9.19	10.27	83.78	0.68	479.98	315.86	298.15	17.71	17.836	
3,100.00	3,062.09	3,053.83	2,995.05	9.63	10.84	84.03	0.73	507.99	334.14	315.54	18.60	17.966	
3,200.00	3,159.72	3,152.13	3,089.28	10.08	11.40	84.25	0.78	536.00	352.43	332.93	19.49	18.081	
3,300.00	3,257.34	3,250.44	3,183.51	10.53	11.97	84.45	0.83	564.02	370.71	350.33	20.39	18.182	
3,400.00	3,354.97	3,348.74	3,277.74	10.98	12.55	84.63	0.87	592.03	389.01	367.72	21.29	18.272	
3,500.00	3,452.60	3,447.05	3,371.97	11.43	13.12	84.79	0.92	620.04	407.30	385.11	22.19	18.352	
3,600.00	3,550.23	3,545.35	3,466.20	11.88	13.70	84.94	0.97	648.05	425.60	402.50	23.10	18.424	
3,700.00	3,647.86	3,643.66	3,560.43	12.33	14.27	85.08	1.02	676.07	443.90	419.89	24.01	18.489	
3,800.00	3,745.49	3,741.97	3,654.66	12.78	14.85	85.20	1.06	704.08	462.21	437.29	24.92	18.547	
3,900.00	3,843.11	3,840.27	3,748.89	13.24	15.43	85.32	1.11	732.09	480.51	454.68	25.83	18.600	
4,000.00	3,940.74	3,938.58	3,843.12	13.69	16.01	85.43	1.16	760.10	498.82	472.07	26.75	18.648	
4,100.00	4,038.37	4,036.88	3,937.35	14.15	16.59	85.53	1.20	788.11	517.13	489.46	27.67	18.692	
4,200.00	4,136.00	4,135.19	4,031.58	14.60	17.17	85.62	1.25	816.13	535.44	506.86	28.58	18.732	
4,300.00	4,233.63	4,233.49	4,125.81	15.06	17.75	85.71	1.30	844.14	553.75	524.25	29.50	18.769	
4,400.00	4,331.26	4,331.80	4,220.04	15.52	18.33	85.79	1.35	872.15	572.07	541.64	30.42	18.803	
4,500.00	4,428.88	4,430.10	4,314.27	15.97	18.92	85.87	1.39	900.16	590.38	559.03	31.35	18.835	
4,600.00	4,526.51	4,528.41	4,408.50	16.43	19.50	85.94	1.44	928.17	608.70	576.43	32.27	18.864	
4,700.00	4,624.14	4,626.72	4,502.73	16.89	20.08	86.01	1.49	956.19	627.01	593.82	33.19	18.891	
4,800.00	4,721.77	4,725.02	4,596.96	17.35	20.67	86.07	1.53	984.20	645.33	611.21	34.12	18.916	
4,900.00	4,819.40	4,823.33	4,691.19	17.81	21.25	86.13	1.58	1,012.21	663.65	628.60	35.04	18.939	
5,000.00	4,917.03	4,921.63	4,785.42	18.26	21.84	86.19	1.63	1,040.22	681.96	646.00	35.97	18.961	
5,100.00	5,014.65	5,019.94	4,879.65	18.72	22.42	86.25	1.68	1,068.23	700.28	663.39	36.89	18.982	
5,200.00	5,112.28	5,118.24	4,973.88	19.18	23.01	86.30	1.72	1,096.25	718.60	680.78	37.82	19.001	
5,300.00	5,209.91	5,216.55	5,068.11	19.64	23.59	86.35	1.77	1,124.26	736.92	698.17	38.75	19.019	
5,400.00	5,307.54	5,314.86	5,162.34	20.10	24.18	86.39	1.82	1,152.27	755.24	715.57	39.67	19.036	
5,500.00	5,405.17	5,413.16	5,256.57	20.56	24.76	86.44	1.87	1,180.28	773.56	732.96	40.60	19.052	
5,600.00	5,502.80	5,511.47	5,350.80	21.02	25.35	86.48	1.91	1,208.29	791.88	750.35	41.53	19.067	
5,700.00	5,600.42	5,609.77	5,445.03	21.48	25.93	86.52	1.96	1,236.31	810.21	767.74	42.46	19.081	
5,800.00	5,698.05	5,708.08	5,539.27	21.94	26.52	86.56	2.01	1,264.32	828.53	785.14	43.39	19.094	
5,825.33	5,722.78	5,732.98	5,563.13	22.06	26.67	86.57	2.02	1,271.41	833.17	789.54	43.63	19.098	
5,900.00	5,795.88	5,823.65	5,650.41	22.35	27.11	86.85	2.06	1,295.98	846.19	801.85	44.34	19.084	
6,000.00	5,894.36	5,947.27	5,770.56	22.66	27.60	87.15	2.11	1,325.01	861.32	816.19	45.13	19.086	
6,100.00	5,993.38	6,071.87	5,892.83	22.93	28.01	87.38	2.15	1,348.99	873.72	827.91	45.81	19.072	
6,200.00	6,092.82	6,197.29	6,016.82	23.16	28.37	87.52	2.18	1,367.74	883.37	836.98	46.39	19.043	
6,300.00	6,192.57	6,323.32	6,142.14	23.35	28.64	87.59	2.20	1,381.09	890.23	843.38	46.85	19.001	

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 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 21-9 - P_NRC 21-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,400.00	6,292.50	6,449.80	6,268.36	23.50	28.85	87.58	2.22	1,388.94	894.27	847.06	47.21	18.944	
6,450.50	6,343.00	6,513.77	6,332.30	23.56	28.93	137.44	2.22	1,390.79	895.23	847.89	47.35	18.908	
6,500.00	6,392.50	6,573.97	6,392.50	23.62	28.99	137.42	2.22	1,391.23	895.47	848.00	47.47	18.864	
6,600.00	6,492.50	6,673.97	6,492.50	23.75	29.09	137.42	2.22	1,391.23	895.47	847.75	47.72	18.765	
6,700.00	6,592.50	6,773.97	6,592.50	23.88	29.20	137.42	2.22	1,391.23	895.47	847.50	47.97	18.666	
6,800.00	6,692.50	6,873.97	6,692.50	24.01	29.31	137.42	2.22	1,391.23	895.47	847.24	48.23	18.567	
6,900.00	6,792.50	6,973.97	6,792.50	24.14	29.41	137.42	2.22	1,391.23	895.47	846.99	48.49	18.468	
7,000.00	6,892.50	7,073.97	6,892.50	24.28	29.52	137.42	2.22	1,391.23	895.47	846.72	48.75	18.369	
7,100.00	6,992.50	7,173.97	6,992.50	24.41	29.63	137.42	2.22	1,391.23	895.47	846.46	49.01	18.270	
7,200.00	7,092.50	7,273.97	7,092.50	24.55	29.75	137.42	2.22	1,391.23	895.47	846.19	49.28	18.171	
7,300.00	7,192.50	7,373.97	7,192.50	24.69	29.86	137.42	2.22	1,391.23	895.47	845.92	49.55	18.072	
7,400.00	7,292.50	7,473.97	7,292.50	24.83	29.98	137.42	2.22	1,391.23	895.47	845.65	49.82	17.973	
7,500.00	7,392.50	7,573.97	7,392.50	24.97	30.09	137.42	2.22	1,391.23	895.47	845.38	50.10	17.874	
7,600.00	7,492.50	7,673.97	7,492.50	25.11	30.21	137.42	2.22	1,391.23	895.47	845.10	50.38	17.776	
7,700.00	7,592.50	7,773.97	7,592.50	25.25	30.33	137.42	2.22	1,391.23	895.47	844.82	50.66	17.678	
7,800.00	7,692.50	7,873.97	7,692.50	25.40	30.45	137.42	2.22	1,391.23	895.47	844.54	50.94	17.580	
7,900.00	7,792.50	7,973.97	7,792.50	25.54	30.57	137.42	2.22	1,391.23	895.47	844.25	51.22	17.482	
8,000.00	7,892.50	8,073.97	7,892.50	25.69	30.69	137.42	2.22	1,391.23	895.47	843.96	51.51	17.385	
8,100.00	7,992.50	8,173.97	7,992.50	25.84	30.81	137.42	2.22	1,391.23	895.47	843.68	51.80	17.288	
8,200.00	8,092.50	8,273.97	8,092.50	25.99	30.94	137.42	2.22	1,391.23	895.47	843.38	52.09	17.191	
8,300.00	8,192.50	8,373.97	8,192.50	26.14	31.06	137.42	2.22	1,391.23	895.47	843.09	52.38	17.094	
8,400.00	8,292.50	8,473.97	8,292.50	26.29	31.19	137.42	2.22	1,391.23	895.47	842.79	52.68	16.998	
8,500.00	8,392.50	8,489.47	8,308.00	26.44	31.21	137.42	2.22	1,391.23	899.45	846.60	52.85	17.018	
8,600.00	8,492.50	8,489.47	8,308.00	26.59	31.21	137.42	2.22	1,391.23	914.28	861.28	53.01	17.248	
8,630.50	8,523.00	8,489.47	8,308.00	26.64	31.21	137.42	2.22	1,391.23	920.92	867.87	53.05	17.358	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 22-9 - P_NRC 22-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance								Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	90.05	-0.01	15.95	15.95				
100.00	100.00	100.00	100.00	0.10	0.10	90.05	-0.01	15.95	15.95	15.76	0.19	83.499	
200.00	200.00	200.00	200.00	0.32	0.32	90.05	-0.01	15.95	15.95	15.31	0.64	24.903	
300.00	300.00	300.00	300.00	0.55	0.55	90.05	-0.01	15.95	15.95	14.86	1.09	14.634	
400.00	400.00	400.00	400.00	0.77	0.77	90.05	-0.01	15.95	15.95	14.41	1.54	10.361	
500.00	500.00	500.00	500.00	0.99	0.99	90.05	-0.01	15.95	15.95	13.96	1.99	8.020	
600.00	600.00	600.00	600.00	1.22	1.22	90.05	-0.01	15.95	15.95	13.51	2.44	6.541	
700.00	700.00	700.00	700.00	1.44	1.44	90.05	-0.01	15.95	15.95	13.06	2.89	5.523	
800.00	800.00	800.00	800.00	1.67	1.67	90.05	-0.01	15.95	15.95	12.61	3.34	4.779	
900.00	900.00	900.00	900.00	1.89	1.89	90.05	-0.01	15.95	15.95	12.17	3.79	4.212	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.05	-0.01	15.95	15.95	11.72	4.24	3.765	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.05	-0.01	15.95	15.95	11.33	4.62	3.454	
1,100.00	1,100.00	1,099.99	1,099.99	2.34	2.34	40.39	-0.05	15.96	15.93	11.25	4.68	3.402	
1,200.00	1,199.97	1,199.80	1,199.77	2.56	2.51	54.86	-2.30	16.15	14.88	9.82	5.06	2.938	
1,225.33	1,225.27	1,224.99	1,224.94	2.61	2.55	62.54	-3.42	16.25	14.75	9.58	5.17	2.854 CC, ES, SF	
1,300.00	1,299.80	1,298.95	1,298.75	2.78	2.69	91.29	-7.97	16.65	16.86	11.40	5.46	3.086	
1,400.00	1,399.37	1,396.89	1,396.27	3.01	2.88	120.83	-16.91	17.44	28.54	22.67	5.87	4.864	
1,500.00	1,498.55	1,493.09	1,491.71	3.26	3.09	134.23	-28.92	18.50	48.93	42.67	6.27	7.808	
1,600.00	1,597.23	1,587.08	1,584.51	3.53	3.33	140.46	-43.73	19.81	76.16	69.48	6.67	11.410	
1,700.00	1,695.29	1,678.41	1,674.18	3.84	3.59	143.70	-61.02	21.33	109.42	102.33	7.09	15.430	
1,710.17	1,705.22	1,687.54	1,683.11	3.87	3.62	143.93	-62.90	21.50	113.12	105.99	7.13	15.857	
1,800.00	1,792.92	1,767.19	1,760.76	4.19	3.89	145.64	-80.54	23.05	147.23	139.68	7.55	19.495	
1,900.00	1,890.55	1,853.91	1,844.72	4.55	4.22	146.46	-102.19	24.96	187.75	179.72	8.03	23.370	
2,000.00	1,988.18	1,943.18	1,930.63	4.94	4.60	146.81	-126.33	27.09	230.09	221.55	8.54	26.935	
2,100.00	2,085.80	2,033.73	2,017.76	5.33	5.01	147.04	-150.89	29.26	272.52	263.45	9.07	30.049	
2,200.00	2,183.43	2,124.28	2,104.89	5.74	5.44	147.21	-175.46	31.42	314.94	305.33	9.61	32.777	
2,300.00	2,281.06	2,214.84	2,192.02	6.15	5.88	147.34	-200.02	33.59	357.37	347.21	10.16	35.178	
2,400.00	2,378.69	2,305.39	2,279.14	6.57	6.33	147.45	-224.59	35.76	399.80	389.08	10.72	37.301	
2,500.00	2,476.32	2,395.94	2,366.27	7.00	6.79	147.53	-249.15	37.92	442.23	430.94	11.29	39.185	
2,600.00	2,573.95	2,486.49	2,453.40	7.43	7.26	147.60	-273.71	40.09	484.66	472.80	11.86	40.865	
2,700.00	2,671.57	2,577.04	2,540.53	7.87	7.73	147.66	-298.28	42.26	527.09	514.65	12.44	42.371	
2,800.00	2,769.20	2,667.59	2,627.66	8.30	8.21	147.71	-322.84	44.42	569.52	556.50	13.02	43.726	
2,900.00	2,866.83	2,758.14	2,714.78	8.74	8.70	147.75	-347.41	46.59	611.95	598.34	13.61	44.950	
3,000.00	2,964.46	2,848.69	2,801.91	9.19	9.18	147.78	-371.97	48.75	654.38	640.18	14.21	46.061	
3,100.00	3,062.09	2,939.24	2,889.04	9.63	9.67	147.82	-396.54	50.92	696.82	682.01	14.80	47.072	
3,200.00	3,159.72	3,029.79	2,976.17	10.08	10.16	147.85	-421.10	53.09	739.25	723.85	15.40	47.995	
3,300.00	3,257.34	3,120.34	3,063.30	10.53	10.66	147.87	-445.67	55.25	781.68	765.68	16.00	48.841	
3,400.00	3,354.97	3,210.89	3,150.43	10.98	11.15	147.89	-470.23	57.42	824.11	807.50	16.61	49.619	
3,500.00	3,452.60	3,301.44	3,237.55	11.43	11.65	147.91	-494.79	59.59	866.55	849.33	17.22	50.336	
3,600.00	3,550.23	3,391.99	3,324.68	11.88	12.15	147.93	-519.36	61.75	908.98	891.16	17.82	50.999	
3,700.00	3,647.86	3,482.54	3,411.81	12.33	12.65	147.95	-543.92	63.92	951.41	932.98	18.43	51.613	
3,800.00	3,745.49	3,573.09	3,498.94	12.78	13.15	147.97	-568.49	66.09	993.84	974.80	19.05	52.184	
3,900.00	3,843.11	3,663.64	3,586.07	13.24	13.65	147.98	-593.05	68.25	1,036.28	1,016.62	19.66	52.715	
4,000.00	3,940.74	3,754.19	3,673.19	13.69	14.15	147.99	-617.62	70.42	1,078.71	1,058.44	20.27	53.212	
4,100.00	4,038.37	3,844.75	3,760.32	14.15	14.65	148.01	-642.18	72.58	1,121.14	1,100.26	20.89	53.676	
4,200.00	4,136.00	3,935.30	3,847.45	14.60	15.16	148.02	-666.74	74.75	1,163.58	1,142.07	21.50	54.110	
4,300.00	4,233.63	4,025.85	3,934.58	15.06	15.66	148.03	-691.31	76.92	1,206.01	1,183.89	22.12	54.518	
4,400.00	4,331.26	4,116.40	4,021.71	15.52	16.17	148.04	-715.87	79.08	1,248.44	1,225.70	22.74	54.902	
4,500.00	4,428.88	4,206.95	4,108.83	15.97	16.67	148.05	-740.44	81.25	1,290.87	1,267.52	23.36	55.264	
4,600.00	4,526.51	4,297.50	4,195.96	16.43	17.18	148.05	-765.00	83.42	1,333.31	1,309.33	23.98	55.605	
4,700.00	4,624.14	4,388.05	4,283.09	16.89	17.69	148.06	-789.57	85.58	1,375.74	1,351.14	24.60	55.928	
4,800.00	4,721.77	4,478.60	4,370.22	17.35	18.19	148.07	-814.13	87.75	1,418.17	1,392.95	25.22	56.233	

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 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 22-9 - P_NRC 22-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
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	4,819.40	4,569.15	4,457.35	17.81	18.70	148.08	-838.70	89.91	1,460.61	1,434.77	25.84	56.522	
5,000.00	4,917.03	4,659.70	4,544.47	18.26	19.21	148.08	-863.26	92.08	1,503.04	1,476.58	26.46	56.796	
5,100.00	5,014.65	4,750.25	4,631.60	18.72	19.72	148.09	-887.82	94.25	1,545.47	1,518.39	27.09	57.057	
5,200.00	5,112.28	4,840.80	4,718.73	19.18	20.22	148.10	-912.39	96.41	1,587.91	1,560.20	27.71	57.305	
5,300.00	5,209.91	4,931.35	4,805.86	19.64	20.73	148.10	-936.95	98.58	1,630.34	1,602.01	28.33	57.541	
5,400.00	5,307.54	5,021.90	4,892.99	20.10	21.24	148.11	-961.52	100.75	1,672.77	1,643.82	28.96	57.766	
5,500.00	5,405.17	5,112.45	4,980.11	20.56	21.75	148.11	-986.08	102.91	1,715.21	1,685.62	29.58	57.981	
5,600.00	5,502.80	5,203.00	5,067.24	21.02	22.26	148.12	-1,010.65	105.08	1,757.64	1,727.43	30.21	58.186	
5,700.00	5,600.42	5,293.55	5,154.37	21.48	22.77	148.12	-1,035.21	107.24	1,800.07	1,769.24	30.83	58.383	
5,800.00	5,698.05	5,384.10	5,241.50	21.94	23.28	148.13	-1,059.77	109.41	1,842.51	1,811.05	31.46	58.570	
5,825.33	5,722.78	5,407.04	5,263.57	22.06	23.41	148.13	-1,066.00	109.96	1,853.25	1,821.64	31.62	58.617	
5,900.00	5,795.88	5,475.00	5,328.96	22.35	23.79	148.47	-1,084.43	111.59	1,884.19	1,851.99	32.19	58.527	
6,000.00	5,894.36	5,567.03	5,417.51	22.66	24.31	148.84	-1,109.40	113.79	1,923.23	1,890.34	32.90	58.460	
6,100.00	5,993.38	5,660.13	5,507.09	22.93	24.83	149.12	-1,134.65	116.01	1,959.52	1,925.96	33.57	58.380	
6,200.00	6,092.82	5,754.17	5,597.58	23.16	25.36	149.31	-1,160.17	118.26	1,993.01	1,958.82	34.19	58.291	
6,300.00	6,192.57	6,011.34	5,847.72	23.35	26.32	149.14	-1,219.25	123.47	2,020.09	1,984.96	35.13	57.511	
6,400.00	6,292.50	6,291.03	6,124.60	23.50	27.03	148.99	-1,257.87	126.88	2,035.76	1,999.83	35.93	56.661	
6,450.50	6,343.00	6,435.13	6,268.38	23.56	27.26	-161.17	-1,267.22	127.70	2,039.15	2,002.89	36.26	56.231	
6,500.00	6,392.50	6,559.28	6,392.50	23.62	27.41	-161.20	-1,269.51	127.91	2,039.88	2,003.35	36.53	55.841	
6,600.00	6,492.50	6,659.28	6,492.50	23.75	27.51	-161.20	-1,269.51	127.91	2,039.88	2,003.04	36.84	55.370	
6,700.00	6,592.50	6,759.28	6,592.50	23.88	27.60	-161.20	-1,269.51	127.91	2,039.88	2,002.73	37.15	54.908	
6,800.00	6,692.50	6,859.28	6,692.50	24.01	27.69	-161.20	-1,269.51	127.91	2,039.88	2,002.42	37.46	54.449	
6,900.00	6,792.50	6,959.28	6,792.50	24.14	27.79	-161.20	-1,269.51	127.91	2,039.88	2,002.10	37.78	53.995	
7,000.00	6,892.50	7,059.28	6,892.50	24.28	27.88	-161.20	-1,269.51	127.91	2,039.88	2,001.79	38.10	53.544	
7,100.00	6,992.50	7,159.28	6,992.50	24.41	27.98	-161.20	-1,269.51	127.91	2,039.88	2,001.47	38.42	53.097	
7,200.00	7,092.50	7,259.28	7,092.50	24.55	28.08	-161.20	-1,269.51	127.91	2,039.88	2,001.14	38.74	52.654	
7,300.00	7,192.50	7,359.28	7,192.50	24.69	28.18	-161.20	-1,269.51	127.91	2,039.88	2,000.82	39.07	52.215	
7,400.00	7,292.50	7,459.28	7,292.50	24.83	28.28	-161.20	-1,269.51	127.91	2,039.88	2,000.49	39.40	51.780	
7,500.00	7,392.50	7,559.28	7,392.50	24.97	28.38	-161.20	-1,269.51	127.91	2,039.88	2,000.16	39.73	51.349	
7,600.00	7,492.50	7,659.28	7,492.50	25.11	28.49	-161.20	-1,269.51	127.91	2,039.88	1,999.83	40.06	50.922	
7,700.00	7,592.50	7,759.28	7,592.50	25.25	28.59	-161.20	-1,269.51	127.91	2,039.88	1,999.49	40.39	50.500	
7,800.00	7,692.50	7,859.28	7,692.50	25.40	28.70	-161.20	-1,269.51	127.91	2,039.88	1,999.15	40.73	50.082	
7,900.00	7,792.50	7,959.28	7,792.50	25.54	28.81	-161.20	-1,269.51	127.91	2,039.88	1,998.81	41.07	49.668	
8,000.00	7,892.50	8,059.28	7,892.50	25.69	28.92	-161.20	-1,269.51	127.91	2,039.88	1,998.47	41.41	49.258	
8,100.00	7,992.50	8,159.28	7,992.50	25.84	29.03	-161.20	-1,269.51	127.91	2,039.88	1,998.13	41.76	48.853	
8,200.00	8,092.50	8,259.28	8,092.50	25.99	29.14	-161.20	-1,269.51	127.91	2,039.88	1,997.78	42.10	48.452	
8,300.00	8,192.50	8,359.28	8,192.50	26.14	29.25	-161.20	-1,269.51	127.91	2,039.88	1,997.44	42.45	48.055	
8,400.00	8,292.50	8,459.28	8,292.50	26.29	29.37	-161.20	-1,269.51	127.91	2,039.88	1,997.09	42.80	47.663	
8,500.00	8,392.50	8,474.78	8,308.00	26.44	29.39	-161.20	-1,269.51	127.91	2,041.63	1,998.62	43.01	47.469	
8,600.00	8,492.50	8,474.78	8,308.00	26.59	29.39	-161.20	-1,269.51	127.91	2,048.21	2,005.01	43.20	47.416	
8,630.50	8,523.00	8,474.78	8,308.00	26.64	29.39	-161.20	-1,269.51	127.91	2,051.18	2,007.93	43.25	47.423	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
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	0.01	31.91	31.91				
100.00	100.00	100.00	100.00	0.10	0.10	89.98	0.01	31.91	31.91	31.71	0.19	166.998	
200.00	200.00	200.00	200.00	0.32	0.32	89.98	0.01	31.91	31.91	31.26	0.64	49.806	
300.00	300.00	300.00	300.00	0.55	0.55	89.98	0.01	31.91	31.91	30.82	1.09	29.268 CC, ES	
400.00	400.00	399.15	399.13	0.77	0.75	92.00	-1.16	33.16	33.19	31.67	1.52	21.870	
500.00	500.00	498.07	497.91	0.99	0.95	97.18	-4.65	36.91	37.26	35.32	1.95	19.143	
600.00	600.00	596.51	595.98	1.22	1.18	103.60	-10.44	43.12	44.55	42.14	2.41	18.517 SF	
700.00	700.00	694.26	693.02	1.44	1.45	109.63	-18.45	51.73	55.36	52.46	2.90	19.094	
800.00	800.00	791.09	788.69	1.67	1.76	114.55	-28.60	62.63	69.78	66.35	3.43	20.354	
900.00	900.00	886.80	882.71	1.89	2.12	118.32	-40.80	75.73	87.74	83.75	3.99	21.974	
1,000.00	1,000.00	981.21	974.81	2.12	2.53	121.14	-54.93	90.89	109.15	104.55	4.59	23.756	
1,085.00	1,085.00	1,060.29	1,051.40	2.31	2.91	122.99	-68.34	105.30	129.95	124.82	5.14	25.302	
1,100.00	1,100.00	1,074.13	1,064.74	2.34	2.98	73.32	-70.84	107.98	133.86	129.22	4.64	28.837	
1,200.00	1,199.97	1,165.46	1,152.35	2.56	3.48	75.14	-88.41	126.84	161.22	156.13	5.10	31.621	
1,300.00	1,299.80	1,255.03	1,237.44	2.78	4.02	77.29	-107.48	147.32	191.07	185.52	5.56	34.382	
1,400.00	1,399.37	1,342.65	1,319.79	3.01	4.61	79.51	-127.88	169.23	223.60	217.57	6.03	37.109	
1,500.00	1,498.55	1,428.17	1,399.24	3.26	5.23	81.65	-149.44	192.37	258.94	252.43	6.51	39.757	
1,600.00	1,597.23	1,511.45	1,475.67	3.53	5.88	83.63	-171.98	216.57	297.20	290.16	7.03	42.265	
1,700.00	1,695.29	1,592.37	1,548.98	3.84	6.56	85.40	-195.32	241.63	338.39	330.80	7.59	44.565	
1,710.17	1,705.22	1,600.00	1,555.84	3.87	6.63	85.56	-197.59	244.07	342.75	335.10	7.65	44.798	
1,800.00	1,792.92	1,671.03	1,619.29	4.19	7.28	87.65	-219.35	267.44	382.59	374.38	8.20	46.646	
1,900.00	1,890.55	1,747.65	1,686.82	4.55	8.01	89.45	-244.01	293.92	429.64	420.79	8.84	48.587	
2,000.00	1,988.18	1,822.20	1,751.58	4.94	8.76	90.84	-269.19	320.94	479.27	469.76	9.51	50.417	
2,100.00	2,085.80	1,900.00	1,818.11	5.33	9.58	91.99	-296.67	350.46	531.30	521.09	10.21	52.054	
2,200.00	2,183.43	1,965.05	1,872.87	5.74	10.31	92.75	-320.59	376.13	585.45	574.57	10.88	53.812	
2,300.00	2,281.06	2,033.35	1,929.51	6.15	11.09	93.40	-346.61	404.07	641.67	630.09	11.58	55.427	
2,400.00	2,378.69	2,111.27	1,993.37	6.57	12.02	93.99	-377.04	436.75	699.29	686.96	12.33	56.714	
2,500.00	2,476.32	2,192.74	2,060.11	7.00	13.00	94.52	-408.89	470.94	757.01	743.90	13.11	57.740	
2,600.00	2,573.95	2,274.22	2,126.85	7.43	13.98	94.98	-440.73	505.13	814.77	800.87	13.90	58.604	
2,700.00	2,671.57	2,355.69	2,193.59	7.87	14.97	95.37	-472.58	539.33	872.56	857.86	14.70	59.343	
2,800.00	2,769.20	2,437.16	2,260.34	8.30	15.96	95.71	-504.42	573.52	930.37	914.86	15.51	59.978	
2,900.00	2,866.83	2,518.64	2,327.08	8.74	16.95	96.02	-536.27	607.71	988.21	971.88	16.33	60.527	
3,000.00	2,964.46	2,600.11	2,393.82	9.19	17.94	96.29	-568.12	641.91	1,046.06	1,028.91	17.15	61.005	
3,100.00	3,062.09	2,681.58	2,460.56	9.63	18.93	96.53	-599.96	676.10	1,103.92	1,085.95	17.97	61.422	
3,200.00	3,159.72	2,763.06	2,527.30	10.08	19.93	96.75	-631.81	710.29	1,161.80	1,143.00	18.80	61.789	
3,300.00	3,257.34	2,844.53	2,594.05	10.53	20.92	96.95	-663.66	744.49	1,219.69	1,200.05	19.64	62.114	
3,400.00	3,354.97	2,926.00	2,660.79	10.98	21.92	97.13	-695.50	778.68	1,277.58	1,257.11	20.47	62.404	
3,500.00	3,452.60	3,007.47	2,727.53	11.43	22.91	97.29	-727.35	812.87	1,335.49	1,314.17	21.31	62.662	
3,600.00	3,550.23	3,088.95	2,794.27	11.88	23.91	97.44	-759.19	847.07	1,393.40	1,371.24	22.15	62.894	
3,700.00	3,647.86	3,170.42	2,861.01	12.33	24.91	97.58	-791.04	881.26	1,451.31	1,428.31	23.00	63.103	
3,800.00	3,745.49	3,251.89	2,927.76	12.78	25.91	97.71	-822.89	915.45	1,509.23	1,485.39	23.85	63.292	
3,900.00	3,843.11	3,333.37	2,994.50	13.24	26.91	97.83	-854.73	949.65	1,567.16	1,542.47	24.69	63.463	
4,000.00	3,940.74	3,414.84	3,061.24	13.69	27.91	97.94	-886.58	983.84	1,625.09	1,599.55	25.54	63.620	
4,100.00	4,038.37	3,508.45	3,137.97	14.15	29.02	98.06	-923.12	1,023.08	1,682.99	1,656.54	26.45	63.634	
4,200.00	4,136.00	3,600.00	3,219.04	14.60	30.03	98.17	-954.95	1,064.91	1,737.76	1,710.00	27.36	63.597	
4,300.00	4,233.63	3,696.51	3,300.40	15.06	31.03	98.28	-986.78	1,106.84	1,786.95	1,757.82	28.27	63.334	
4,400.00	4,331.26	3,793.02	3,381.25	15.52	32.03	98.39	-1,018.61	1,148.77	1,837.84	1,808.84	29.18	62.902	
4,500.00	4,428.88	3,893.53	3,462.00	15.97	33.03	98.50	-1,050.44	1,190.70	1,888.87	1,859.87	30.09	62.469	
4,600.00	4,526.51	3,994.04	3,542.75	16.43	34.03	98.61	-1,082.27	1,232.63	1,939.90	1,910.90	31.00	62.036	
4,700.00	4,624.14	4,094.55	3,623.50	16.89	35.03	98.72	-1,114.10	1,274.56	1,990.93	1,961.93	31.91	61.603	
4,800.00	4,721.77	4,195.06	3,704.25	17.35	36.03	98.83	-1,145.93	1,316.49	2,041.96	2,012.96	32.82	61.170	
4,900.00	4,819.40	4,295.57	3,785.00	17.81	37.03	98.94	-1,177.76	1,358.42	2,092.99	2,063.99	33.73	60.737	

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 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 25-9 - P_NRC 25-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,917.03	5,390.38	4,917.03	18.26	38.18	105.53	-1,267.63	1,392.98	1,941.14	1,903.44	37.70	51.492	
5,100.00	5,014.65	5,488.01	5,014.65	18.72	38.24	106.13	-1,267.63	1,392.98	1,947.18	1,908.75	38.43	50.673	
5,200.00	5,112.28	5,585.64	5,112.28	19.18	38.29	106.73	-1,267.63	1,392.98	1,953.44	1,914.29	39.15	49.892	
5,300.00	5,209.91	5,683.27	5,209.91	19.64	38.35	107.32	-1,267.63	1,392.98	1,959.92	1,920.04	39.88	49.146	
5,400.00	5,307.54	5,780.89	5,307.54	20.10	38.41	107.91	-1,267.63	1,392.98	1,966.62	1,926.01	40.60	48.434	
5,500.00	5,405.17	5,878.52	5,405.17	20.56	38.47	108.50	-1,267.63	1,392.98	1,973.53	1,932.20	41.33	47.755	
5,600.00	5,502.80	5,976.15	5,502.80	21.02	38.53	109.08	-1,267.63	1,392.98	1,980.65	1,938.61	42.05	47.107	
5,700.00	5,600.42	6,073.78	5,600.42	21.48	38.59	109.66	-1,267.63	1,392.98	1,987.99	1,945.23	42.76	46.489	
5,800.00	5,698.05	6,171.41	5,698.05	21.94	38.65	110.23	-1,267.63	1,392.98	1,995.53	1,952.05	43.48	45.899	
5,825.33	5,722.78	6,196.14	5,722.78	22.06	38.67	110.37	-1,267.63	1,392.98	1,997.47	1,953.82	43.66	45.754	
5,900.00	5,795.88	6,269.24	5,795.88	22.35	38.72	110.88	-1,267.63	1,392.98	2,002.93	1,958.68	44.26	45.258	
6,000.00	5,894.36	6,367.71	5,894.36	22.66	38.78	111.45	-1,267.63	1,392.98	2,009.29	1,964.35	44.94	44.711	
6,100.00	5,993.38	6,466.73	5,993.38	22.93	38.85	111.92	-1,267.63	1,392.98	2,014.49	1,968.94	45.54	44.232	
6,200.00	6,092.82	6,566.18	6,092.82	23.16	38.92	112.26	-1,267.63	1,392.98	2,018.44	1,972.38	46.07	43.817	
6,300.00	6,192.57	6,665.93	6,192.57	23.35	38.99	112.50	-1,267.63	1,392.98	2,021.11	1,974.61	46.50	43.462	
6,400.00	6,292.50	6,765.86	6,292.50	23.50	39.06	112.61	-1,267.63	1,392.98	2,022.46	1,975.60	46.86	43.163	
6,450.50	6,343.00	6,816.36	6,343.00	23.56	39.10	162.52	-1,267.63	1,392.98	2,022.63	1,975.63	47.00	43.033	
6,500.00	6,392.50	6,865.86	6,392.50	23.62	39.13	162.52	-1,267.63	1,392.98	2,022.63	1,975.51	47.12	42.927	
6,600.00	6,492.50	6,965.86	6,492.50	23.75	39.21	162.52	-1,267.63	1,392.98	2,022.63	1,975.26	47.37	42.700	
6,700.00	6,592.50	7,065.86	6,592.50	23.88	39.28	162.52	-1,267.63	1,392.98	2,022.63	1,975.01	47.62	42.473	
6,800.00	6,692.50	7,165.86	6,692.50	24.01	39.36	162.52	-1,267.63	1,392.98	2,022.63	1,974.75	47.88	42.246	
6,900.00	6,792.50	7,265.86	6,792.50	24.14	39.43	162.52	-1,267.63	1,392.98	2,022.63	1,974.49	48.14	42.019	
7,000.00	6,892.50	7,365.86	6,892.50	24.28	39.51	162.52	-1,267.63	1,392.98	2,022.63	1,974.23	48.40	41.792	
7,100.00	6,992.50	7,465.86	6,992.50	24.41	39.59	162.52	-1,267.63	1,392.98	2,022.63	1,973.97	48.66	41.565	
7,200.00	7,092.50	7,565.86	7,092.50	24.55	39.67	162.52	-1,267.63	1,392.98	2,022.63	1,973.70	48.93	41.338	
7,300.00	7,192.50	7,665.86	7,192.50	24.69	39.75	162.52	-1,267.63	1,392.98	2,022.63	1,973.43	49.20	41.111	
7,400.00	7,292.50	7,765.86	7,292.50	24.83	39.84	162.52	-1,267.63	1,392.98	2,022.63	1,973.16	49.47	40.885	
7,500.00	7,392.50	7,865.86	7,392.50	24.97	39.92	162.52	-1,267.63	1,392.98	2,022.63	1,972.88	49.75	40.659	
7,600.00	7,492.50	7,965.86	7,492.50	25.11	40.01	162.52	-1,267.63	1,392.98	2,022.63	1,972.61	50.02	40.434	
7,700.00	7,592.50	8,065.86	7,592.50	25.25	40.09	162.52	-1,267.63	1,392.98	2,022.63	1,972.33	50.30	40.209	
7,800.00	7,692.50	8,165.86	7,692.50	25.40	40.18	162.52	-1,267.63	1,392.98	2,022.63	1,972.04	50.59	39.985	
7,900.00	7,792.50	8,265.86	7,792.50	25.54	40.27	162.52	-1,267.63	1,392.98	2,022.63	1,971.76	50.87	39.761	
8,000.00	7,892.50	8,365.86	7,892.50	25.69	40.36	162.52	-1,267.63	1,392.98	2,022.63	1,971.47	51.16	39.538	
8,100.00	7,992.50	8,465.86	7,992.50	25.84	40.45	162.52	-1,267.63	1,392.98	2,022.63	1,971.18	51.45	39.315	
8,200.00	8,092.50	8,565.86	8,092.50	25.99	40.54	162.52	-1,267.63	1,392.98	2,022.63	1,970.89	51.74	39.094	
8,300.00	8,192.50	8,665.86	8,192.50	26.14	40.63	162.52	-1,267.63	1,392.98	2,022.63	1,970.60	52.03	38.873	
8,400.00	8,292.50	8,765.86	8,292.50	26.29	40.72	162.52	-1,267.63	1,392.98	2,022.63	1,970.30	52.33	38.653	
8,406.09	8,298.59	8,771.94	8,298.59	26.30	40.73	162.52	-1,267.63	1,392.98	2,022.63	1,970.28	52.35	38.640	
8,500.00	8,392.50	8,801.36	8,328.00	26.44	40.76	162.52	-1,267.63	1,392.98	2,023.66	1,971.12	52.54	38.520	
8,600.00	8,492.50	8,801.36	8,328.00	26.59	40.76	162.52	-1,267.63	1,392.98	2,029.31	1,976.61	52.69	38.511	
8,630.50	8,523.00	8,801.36	8,328.00	26.64	40.76	162.52	-1,267.63	1,392.98	2,032.01	1,979.26	52.74	38.526	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	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	-90.03	-0.01	-16.23	16.23				
100.00	100.00	100.00	100.00	0.10	0.10	-90.03	-0.01	-16.23	16.23	16.04	0.19	84.964	
200.00	200.00	200.00	200.00	0.32	0.32	-90.03	-0.01	-16.23	16.23	15.59	0.64	25.340	
300.00	300.00	300.00	300.00	0.55	0.55	-90.03	-0.01	-16.23	16.23	15.14	1.09	14.891	
400.00	400.00	400.00	400.00	0.77	0.77	-90.03	-0.01	-16.23	16.23	14.69	1.54	10.543	
500.00	500.00	500.00	500.00	0.99	0.99	-90.03	-0.01	-16.23	16.23	14.24	1.99	8.160	
600.00	600.00	600.00	600.00	1.22	1.22	-90.03	-0.01	-16.23	16.23	13.79	2.44	6.656	
700.00	700.00	700.00	700.00	1.44	1.44	-90.03	-0.01	-16.23	16.23	13.34	2.89	5.620	
800.00	800.00	800.00	800.00	1.67	1.67	-90.03	-0.01	-16.23	16.23	12.89	3.34	4.863	
900.00	900.00	900.00	900.00	1.89	1.89	-90.03	-0.01	-16.23	16.23	12.45	3.79	4.286	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.03	-0.01	-16.23	16.23	12.00	4.24	3.831	
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	-90.03	-0.01	-16.23	16.23	11.61	4.62	3.514 CC	
1,100.00	1,100.00	1,099.95	1,099.95	2.34	2.34	-140.11	-0.04	-16.26	16.29	11.61	4.68	3.479 ES, SF	
1,200.00	1,199.97	1,199.42	1,199.39	2.56	2.52	-149.47	-1.81	-17.64	19.69	14.62	5.07	3.885	
1,300.00	1,299.80	1,298.07	1,297.87	2.78	2.70	-162.52	-6.25	-21.11	29.64	24.19	5.45	5.434	
1,400.00	1,399.37	1,395.22	1,394.61	3.01	2.90	-171.22	-13.23	-26.57	46.91	41.07	5.84	8.034	
1,500.00	1,498.55	1,490.22	1,488.87	3.26	3.11	-176.17	-22.55	-33.86	71.23	65.02	6.22	11.456	
1,600.00	1,597.23	1,582.52	1,580.02	3.53	3.35	-179.05	-33.96	-42.78	102.23	95.64	6.59	15.512	
1,700.00	1,695.29	1,675.80	1,671.90	3.84	3.61	-179.23	-46.63	-52.69	138.10	131.14	6.97	19.828	
1,710.17	1,705.22	1,685.21	1,681.18	3.87	3.64	-179.10	-47.91	-53.69	141.94	134.93	7.00	20.270	
1,800.00	1,792.92	1,768.32	1,763.03	4.19	3.89	-178.24	-59.20	-62.51	175.97	168.59	7.39	23.827	
1,900.00	1,890.55	1,860.83	1,854.16	4.55	4.19	-177.60	-71.77	-72.34	213.89	206.07	7.82	27.354	
2,000.00	1,988.18	1,953.34	1,945.28	4.94	4.49	-177.16	-84.34	-82.17	251.82	243.56	8.26	30.485	
2,100.00	2,085.80	2,045.85	2,036.41	5.33	4.81	-176.83	-96.91	-92.00	289.77	281.06	8.71	33.277	
2,200.00	2,183.43	2,138.36	2,127.53	5.74	5.13	-176.57	-109.48	-101.83	327.72	318.56	9.16	35.776	
2,300.00	2,281.06	2,230.87	2,218.66	6.15	5.46	-176.37	-122.05	-111.66	365.67	356.05	9.62	38.023	
2,400.00	2,378.69	2,323.38	2,309.78	6.57	5.80	-176.21	-134.62	-121.49	403.63	393.55	10.08	40.051	
2,500.00	2,476.32	2,415.89	2,400.90	7.00	6.14	-176.07	-147.19	-131.31	441.59	431.05	10.54	41.888	
2,600.00	2,573.95	2,508.40	2,492.03	7.43	6.48	-175.96	-159.76	-141.14	479.55	468.54	11.01	43.558	
2,700.00	2,671.57	2,600.91	2,583.15	7.87	6.83	-175.86	-172.33	-150.97	517.51	506.03	11.48	45.083	
2,800.00	2,769.20	2,693.42	2,674.28	8.30	7.17	-175.78	-184.90	-160.80	555.48	543.52	11.95	46.478	
2,900.00	2,866.83	2,785.93	2,765.40	8.74	7.53	-175.71	-197.47	-170.63	593.44	581.01	12.43	47.760	
3,000.00	2,964.46	2,878.44	2,856.53	9.19	7.88	-175.64	-210.04	-180.46	631.41	618.50	12.90	48.940	
3,100.00	3,062.09	2,970.96	2,947.65	9.63	8.23	-175.59	-222.61	-190.28	669.37	655.99	13.38	50.031	
3,200.00	3,159.72	3,063.47	3,038.77	10.08	8.59	-175.54	-235.18	-200.11	707.34	693.48	13.86	51.041	
3,300.00	3,257.34	3,155.98	3,129.90	10.53	8.95	-175.49	-247.76	-209.94	745.30	730.97	14.34	51.979	
3,400.00	3,354.97	3,248.49	3,221.02	10.98	9.31	-175.45	-260.33	-219.77	783.27	768.45	14.82	52.852	
3,500.00	3,452.60	3,341.00	3,312.15	11.43	9.67	-175.41	-272.90	-229.60	821.24	805.94	15.30	53.667	
3,600.00	3,550.23	3,433.51	3,403.27	11.88	10.03	-175.38	-285.47	-239.43	859.21	843.42	15.79	54.428	
3,700.00	3,647.86	3,526.02	3,494.39	12.33	10.39	-175.35	-298.04	-249.26	897.17	880.90	16.27	55.142	
3,800.00	3,745.49	3,618.53	3,585.52	12.78	10.75	-175.32	-310.61	-259.08	935.14	918.39	16.76	55.811	
3,900.00	3,843.11	3,711.04	3,676.64	13.24	11.11	-175.29	-323.18	-268.91	973.11	955.87	17.24	56.440	
4,000.00	3,940.74	3,803.55	3,767.77	13.69	11.48	-175.27	-335.75	-278.74	1,011.08	993.35	17.73	57.033	
4,100.00	4,038.37	3,896.06	3,858.89	14.15	11.84	-175.24	-348.32	-288.57	1,049.05	1,030.83	18.22	57.591	
4,200.00	4,136.00	3,988.57	3,950.02	14.60	12.21	-175.22	-360.89	-298.40	1,087.02	1,068.31	18.70	58.119	
4,300.00	4,233.63	4,081.08	4,041.14	15.06	12.57	-175.20	-373.46	-308.23	1,124.99	1,105.79	19.19	58.619	
4,400.00	4,331.26	4,173.60	4,132.26	15.52	12.94	-175.18	-386.03	-318.05	1,162.95	1,143.27	19.68	59.092	
4,500.00	4,428.88	4,266.11	4,223.39	15.97	13.30	-175.17	-398.60	-327.88	1,200.92	1,180.75	20.17	59.541	
4,600.00	4,526.51	4,358.62	4,314.51	16.43	13.67	-175.15	-411.17	-337.71	1,238.89	1,218.23	20.66	59.968	
4,700.00	4,624.14	4,451.13	4,405.64	16.89	14.03	-175.14	-423.74	-347.54	1,276.86	1,255.71	21.15	60.373	
4,800.00	4,721.77	4,543.64	4,496.76	17.35	14.40	-175.12	-436.31	-357.37	1,314.83	1,293.19	21.64	60.759	
4,900.00	4,819.40	4,636.15	4,587.89	17.81	14.77	-175.11	-448.88	-367.20	1,352.80	1,330.67	22.13	61.128	

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 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 5-9 - P_NRC 5-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,000.00	4,917.03	4,728.66	4,679.01	18.26	15.14	175.10	-461.45	-377.03	1,390.77	1,368.15	22.62	61.479	
5,100.00	5,014.65	4,821.17	4,770.13	18.72	15.50	175.08	-474.02	-386.85	1,428.74	1,405.63	23.11	61.815	
5,200.00	5,112.28	4,913.68	4,861.26	19.18	15.87	175.07	-486.59	-396.68	1,466.71	1,443.10	23.61	62.135	
5,300.00	5,209.91	5,006.19	4,952.38	19.64	16.24	175.06	-499.16	-406.51	1,504.68	1,480.58	24.10	62.443	
5,400.00	5,307.54	5,098.70	5,043.51	20.10	16.61	175.05	-511.73	-416.34	1,542.65	1,518.06	24.59	62.737	
5,500.00	5,405.17	5,191.21	5,134.63	20.56	16.98	175.04	-524.30	-426.17	1,580.62	1,555.54	25.08	63.019	
5,600.00	5,502.80	5,283.72	5,225.76	21.02	17.35	175.03	-536.87	-436.00	1,618.59	1,593.01	25.57	63.289	
5,700.00	5,600.42	5,376.24	5,316.88	21.48	17.71	175.02	-549.44	-445.82	1,656.56	1,630.49	26.07	63.549	
5,800.00	5,698.05	5,468.75	5,408.00	21.94	18.08	175.01	-562.01	-455.65	1,694.53	1,667.97	26.56	63.799	
5,825.33	5,722.78	5,492.18	5,431.09	22.06	18.18	175.01	-565.19	-458.14	1,704.15	1,677.46	26.69	63.861	
5,900.00	5,795.88	5,561.62	5,499.48	22.35	18.45	175.05	-574.63	-465.52	1,731.60	1,704.45	27.15	63.775	
6,000.00	5,894.36	5,655.68	5,592.14	22.66	18.83	175.09	-587.41	-475.51	1,765.52	1,737.80	27.72	63.687	
6,100.00	5,993.38	5,750.86	5,685.89	22.93	19.21	175.12	-600.34	-485.63	1,796.15	1,767.90	28.26	63.563	
6,200.00	6,092.82	5,847.05	5,780.64	23.16	19.59	175.13	-613.41	-495.84	1,823.46	1,794.70	28.76	63.408	
6,300.00	6,192.57	5,944.13	5,876.26	23.35	19.98	175.12	-626.60	-506.16	1,847.40	1,818.18	29.22	63.225	
6,400.00	6,292.50	6,043.90	5,975.19	23.50	20.37	175.05	-639.68	-517.33	1,873.51	1,843.56	29.95	62.211	
6,450.50	6,343.00	6,358.42	6,288.04	23.56	20.91	-135.09	-659.80	-532.11	1,866.69	1,836.40	30.29	61.629	
6,500.00	6,392.50	6,462.89	6,392.50	23.62	21.06	-135.09	-660.79	-532.89	1,867.13	1,836.57	30.57	61.087	
6,600.00	6,492.50	6,562.89	6,492.50	23.75	21.18	-135.09	-660.79	-532.89	1,867.13	1,836.20	30.93	60.358	
6,700.00	6,592.50	6,662.89	6,592.50	23.88	21.31	-135.09	-660.79	-532.89	1,867.13	1,835.83	31.30	59.652	
6,800.00	6,692.50	6,762.89	6,692.50	24.01	21.43	-135.09	-660.79	-532.89	1,867.13	1,835.46	31.67	58.957	
6,900.00	6,792.50	6,862.89	6,792.50	24.14	21.56	-135.09	-660.79	-532.89	1,867.13	1,835.09	32.04	58.275	
7,000.00	6,892.50	6,962.89	6,892.50	24.28	21.69	-135.09	-660.79	-532.89	1,867.13	1,834.72	32.41	57.605	
7,100.00	6,992.50	7,062.89	6,992.50	24.41	21.82	-135.09	-660.79	-532.89	1,867.13	1,834.34	32.79	56.946	
7,200.00	7,092.50	7,162.89	7,092.50	24.55	21.95	-135.09	-660.79	-532.89	1,867.13	1,833.97	33.16	56.300	
7,300.00	7,192.50	7,262.89	7,192.50	24.69	22.09	-135.09	-660.79	-532.89	1,867.13	1,833.59	33.54	55.665	
7,400.00	7,292.50	7,362.89	7,292.50	24.83	22.22	-135.09	-660.79	-532.89	1,867.13	1,833.21	33.92	55.041	
7,500.00	7,392.50	7,462.89	7,392.50	24.97	22.36	-135.09	-660.79	-532.89	1,867.13	1,832.83	34.30	54.429	
7,600.00	7,492.50	7,562.89	7,492.50	25.11	22.50	-135.09	-660.79	-532.89	1,867.13	1,832.44	34.69	53.827	
7,700.00	7,592.50	7,662.89	7,592.50	25.25	22.64	-135.09	-660.79	-532.89	1,867.13	1,832.06	35.07	53.236	
7,800.00	7,692.50	7,762.89	7,692.50	25.40	22.78	-135.09	-660.79	-532.89	1,867.13	1,831.67	35.46	52.656	
7,900.00	7,792.50	7,862.89	7,792.50	25.54	22.92	-135.09	-660.79	-532.89	1,867.13	1,831.28	35.85	52.086	
8,000.00	7,892.50	7,962.89	7,892.50	25.69	23.06	-135.09	-660.79	-532.89	1,867.13	1,830.89	36.24	51.526	
8,100.00	7,992.50	8,062.89	7,992.50	25.84	23.21	-135.09	-660.79	-532.89	1,867.13	1,830.50	36.63	50.977	
8,200.00	8,092.50	8,162.89	8,092.50	25.99	23.35	-135.09	-660.79	-532.89	1,867.13	1,830.11	37.02	50.437	
8,300.00	8,192.50	8,262.89	8,192.50	26.14	23.50	-135.09	-660.79	-532.89	1,867.13	1,829.72	37.41	49.906	
8,400.00	8,292.50	8,362.89	8,292.50	26.29	23.65	-135.09	-660.79	-532.89	1,867.13	1,829.32	37.81	49.385	
8,500.00	8,392.50	8,462.89	8,392.50	26.44	23.80	-135.09	-660.79	-532.89	1,867.13	1,828.93	38.20	48.873	
8,600.00	8,492.50	8,562.89	8,492.50	26.59	23.95	-135.09	-660.79	-532.89	1,867.13	1,828.53	38.60	48.371	
8,630.50	8,523.00	8,593.39	8,523.00	26.64	24.00	-135.09	-660.79	-532.89	1,867.13	1,828.41	38.72	48.219	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design		WELD_NRC 18-9 PAD - P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS											Offset Site Error:		0.00 ft
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
0.00	0.00	0.00	0.00	0.00	0.00	90.02	-0.02	47.86	47.86						
100.00	100.00	100.00	100.00	0.10	0.10	90.02	-0.02	47.86	47.86	47.67	0.19	250.497			
200.00	200.00	200.00	200.00	0.32	0.32	90.02	-0.02	47.86	47.86	47.22	0.64	74.710			
300.00	300.00	300.00	300.00	0.55	0.55	90.02	-0.02	47.86	47.86	46.77	1.09	43.902			
400.00	400.00	400.00	400.00	0.77	0.77	90.02	-0.02	47.86	47.86	46.32	1.54	31.084			
500.00	500.00	500.00	500.00	0.99	0.99	90.02	-0.02	47.86	47.86	45.87	1.99	24.059			
600.00	600.00	600.00	600.00	1.22	1.22	90.02	-0.02	47.86	47.86	45.42	2.44	19.624			
700.00	700.00	700.00	700.00	1.44	1.44	90.02	-0.02	47.86	47.86	44.97	2.89	16.570			
800.00	800.00	800.00	800.00	1.67	1.67	90.02	-0.02	47.86	47.86	44.52	3.34	14.338			
900.00	900.00	900.00	900.00	1.89	1.89	90.02	-0.02	47.86	47.86	44.07	3.79	12.636			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.02	-0.02	47.86	47.86	43.62	4.24	11.296			
1,085.00	1,085.00	1,085.00	1,085.00	2.31	2.31	90.02	-0.02	47.86	47.86	43.24	4.62	10.361			
1,100.00	1,100.00	1,099.81	1,099.81	2.34	2.34	40.19	-0.04	47.89	47.86	43.18	4.68	10.223			
1,151.42	1,151.42	1,150.59	1,150.58	2.45	2.43	41.32	-0.52	48.42	47.85	42.96	4.88	9.799 CC			
1,200.00	1,199.97	1,198.51	1,198.48	2.56	2.52	43.68	-1.51	49.54	47.89	42.82	5.07	9.442 ES			
1,300.00	1,299.80	1,296.85	1,296.66	2.78	2.71	52.33	-5.23	53.70	48.77	43.30	5.47	8.914			
1,400.00	1,399.37	1,394.55	1,393.94	3.01	2.91	64.96	-11.13	60.33	52.38	46.50	5.89	8.898 SF			
1,500.00	1,498.55	1,491.31	1,489.95	3.26	3.13	78.74	-19.15	69.33	60.88	54.55	6.33	9.616			
1,600.00	1,597.23	1,586.87	1,584.31	3.53	3.38	90.75	-29.19	80.60	75.44	68.63	6.81	11.080			
1,700.00	1,695.29	1,681.04	1,676.75	3.84	3.66	99.84	-41.12	93.98	96.03	88.71	7.33	13.108			
1,710.17	1,705.22	1,690.82	1,686.32	3.87	3.70	100.63	-42.46	95.49	98.42	91.04	7.38	13.332			
1,800.00	1,792.92	1,777.21	1,770.86	4.19	3.99	106.70	-54.28	108.76	120.31	112.41	7.90	15.236			
1,900.00	1,890.55	1,873.38	1,864.98	4.55	4.33	111.28	-67.45	123.54	145.70	137.20	8.50	17.151			
2,000.00	1,988.18	1,969.56	1,959.09	4.94	4.69	114.50	-80.62	138.32	171.71	162.59	9.12	18.832			
2,100.00	2,085.80	2,065.73	2,053.20	5.33	5.07	116.88	-93.79	153.10	198.10	188.34	9.76	20.296			
2,200.00	2,183.43	2,161.90	2,147.32	5.74	5.45	118.69	-106.96	167.88	224.72	214.31	10.42	21.570			
2,300.00	2,281.06	2,258.08	2,241.43	6.15	5.84	120.12	-120.12	182.66	251.52	240.43	11.09	22.681			
2,400.00	2,378.69	2,354.25	2,335.54	6.57	6.24	121.28	-133.29	197.44	278.43	266.66	11.77	23.653			
2,500.00	2,476.32	2,450.42	2,429.66	7.00	6.65	122.23	-146.46	212.22	305.43	292.97	12.46	24.509			
2,600.00	2,573.95	2,546.59	2,523.77	7.43	7.06	123.03	-159.63	227.00	332.50	319.34	13.16	25.266			
2,700.00	2,671.57	2,642.77	2,617.88	7.87	7.47	123.71	-172.80	241.78	359.61	345.75	13.86	25.938			
2,800.00	2,769.20	2,738.94	2,712.00	8.30	7.88	124.29	-185.96	256.55	386.77	372.20	14.57	26.539			
2,900.00	2,866.83	2,835.11	2,806.11	8.74	8.30	124.80	-199.13	271.33	413.96	398.67	15.29	27.077			
3,000.00	2,964.46	2,931.28	2,900.22	9.19	8.72	125.24	-212.30	286.11	441.17	425.17	16.01	27.563			
3,100.00	3,062.09	3,027.46	2,994.34	9.63	9.15	125.64	-225.47	300.89	468.41	451.68	16.73	28.002			
3,200.00	3,159.72	3,123.63	3,088.45	10.08	9.57	125.98	-238.64	315.67	495.66	478.21	17.45	28.401			
3,300.00	3,257.34	3,219.80	3,182.57	10.53	10.00	126.30	-251.80	330.45	522.93	504.75	18.18	28.765			
3,400.00	3,354.97	3,315.97	3,276.68	10.98	10.42	126.58	-264.97	345.23	550.22	531.31	18.91	29.097			
3,500.00	3,452.60	3,412.15	3,370.79	11.43	10.85	126.83	-278.14	360.01	577.51	557.87	19.64	29.403			
3,600.00	3,550.23	3,508.32	3,464.91	11.88	11.28	127.07	-291.31	374.79	604.81	584.44	20.37	29.685			
3,700.00	3,647.86	3,604.49	3,559.02	12.33	11.71	127.28	-304.48	389.57	632.13	611.02	21.11	29.944			
3,800.00	3,745.49	3,700.67	3,653.13	12.78	12.15	127.47	-317.64	404.34	659.45	637.60	21.85	30.185			
3,900.00	3,843.11	3,796.84	3,747.25	13.24	12.58	127.65	-330.81	419.12	686.77	664.19	22.58	30.409			
4,000.00	3,940.74	3,893.01	3,841.36	13.69	13.01	127.82	-343.98	433.90	714.10	690.78	23.32	30.617			
4,100.00	4,038.37	3,989.18	3,935.47	14.15	13.44	127.97	-357.15	448.68	741.44	717.38	24.06	30.811			
4,200.00	4,136.00	4,085.36	4,029.59	14.60	13.88	128.11	-370.32	463.46	768.78	743.98	24.81	30.992			
4,300.00	4,233.63	4,181.53	4,123.70	15.06	14.31	128.25	-383.49	478.24	796.13	770.58	25.55	31.162			
4,400.00	4,331.26	4,277.70	4,217.82	15.52	14.75	128.37	-396.65	493.02	823.48	797.19	26.29	31.321			
4,500.00	4,428.88	4,373.87	4,311.93	15.97	15.18	128.49	-409.82	507.80	850.83	823.80	27.04	31.471			
4,600.00	4,526.51	4,470.05	4,406.04	16.43	15.62	128.60	-422.99	522.58	878.19	850.41	27.78	31.613			
4,700.00	4,624.14	4,566.22	4,500.16	16.89	16.05	128.70	-436.16	537.36	905.54	877.02	28.52	31.746			
4,800.00	4,721.77	4,662.39	4,594.27	17.35	16.49	128.79	-449.33	552.14	932.91	903.64	29.27	31.872			

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 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - P_NRC 6-9 - P_NRC 6-9 - PLAN #1 1-6-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,819.40	4,758.56	4,688.38	17.81	16.93	128.88	-462.49	566.91	960.27	930.25	30.02	31.991	
5,000.00	4,917.03	4,854.74	4,782.50	18.26	17.37	128.97	-475.66	581.69	987.63	956.87	30.76	32.104	
5,100.00	5,014.65	4,950.91	4,876.61	18.72	17.80	129.05	-488.83	596.47	1,015.00	983.49	31.51	32.211	
5,200.00	5,112.28	5,047.08	4,970.72	19.18	18.24	129.13	-502.00	611.25	1,042.37	1,010.11	32.26	32.313	
5,300.00	5,209.91	5,143.26	5,064.84	19.64	18.68	129.20	-515.17	626.03	1,069.74	1,036.73	33.01	32.409	
5,400.00	5,307.54	5,239.43	5,158.95	20.10	19.12	129.27	-528.33	640.81	1,097.11	1,063.36	33.76	32.501	
5,500.00	5,405.17	5,335.60	5,253.06	20.56	19.55	129.33	-541.50	655.59	1,124.49	1,089.98	34.50	32.589	
5,600.00	5,502.80	5,431.77	5,347.18	21.02	19.99	129.40	-554.67	670.37	1,151.86	1,116.61	35.25	32.673	
5,700.00	5,600.42	5,527.95	5,441.29	21.48	20.43	129.46	-567.84	685.15	1,179.24	1,143.23	36.00	32.753	
5,800.00	5,698.05	5,624.12	5,535.41	21.94	20.87	129.51	-581.01	699.93	1,206.62	1,169.86	36.75	32.830	
5,825.33	5,722.78	5,648.48	5,559.24	22.06	20.98	129.53	-584.34	703.67	1,213.55	1,176.61	36.94	32.849	
5,900.00	5,795.88	5,720.46	5,629.69	22.35	21.31	129.85	-594.20	714.73	1,233.40	1,195.86	37.54	32.856	
6,000.00	5,894.36	5,817.34	5,724.48	22.66	21.75	130.14	-607.46	729.62	1,258.08	1,219.83	38.26	32.886	
6,100.00	5,993.38	5,923.75	5,828.65	22.93	22.20	130.24	-621.92	745.85	1,280.52	1,241.58	38.94	32.884	
6,200.00	6,092.82	6,063.53	5,966.36	23.16	22.61	130.21	-637.85	763.72	1,298.58	1,259.01	39.58	32.812	
6,300.00	6,192.57	6,205.53	6,107.27	23.35	22.96	130.17	-649.43	776.72	1,311.22	1,271.10	40.12	32.684	
6,400.00	6,292.50	6,349.01	6,250.35	23.50	23.23	130.10	-656.40	784.54	1,318.34	1,277.79	40.55	32.513	
6,450.50	6,343.00	6,421.79	6,323.08	23.56	23.34	179.95	-658.11	786.47	1,319.81	1,279.08	40.73	32.405	
6,500.00	6,392.50	6,491.21	6,392.50	23.62	23.43	179.93	-658.60	787.01	1,320.15	1,279.26	40.89	32.282	
6,600.00	6,492.50	6,591.21	6,492.50	23.75	23.54	179.93	-658.60	787.01	1,320.15	1,278.97	41.18	32.059	
6,700.00	6,592.50	6,691.21	6,592.50	23.88	23.66	179.93	-658.60	787.01	1,320.15	1,278.68	41.47	31.837	
6,800.00	6,692.50	6,791.21	6,692.50	24.01	23.78	179.93	-658.60	787.01	1,320.15	1,278.39	41.76	31.615	
6,900.00	6,792.50	6,891.21	6,792.50	24.14	23.90	179.93	-658.60	787.01	1,320.15	1,278.10	42.05	31.395	
7,000.00	6,892.50	6,991.21	6,892.50	24.28	24.02	179.93	-658.60	787.01	1,320.15	1,277.80	42.35	31.175	
7,100.00	6,992.50	7,091.21	6,992.50	24.41	24.14	179.93	-658.60	787.01	1,320.15	1,277.51	42.64	30.957	
7,200.00	7,092.50	7,191.21	7,092.50	24.55	24.27	179.93	-658.60	787.01	1,320.15	1,277.20	42.95	30.740	
7,300.00	7,192.50	7,291.21	7,192.50	24.69	24.40	179.93	-658.60	787.01	1,320.15	1,276.90	43.25	30.524	
7,400.00	7,292.50	7,391.21	7,292.50	24.83	24.52	179.93	-658.60	787.01	1,320.15	1,276.59	43.56	30.309	
7,500.00	7,392.50	7,491.21	7,392.50	24.97	24.65	179.93	-658.60	787.01	1,320.15	1,276.28	43.87	30.095	
7,600.00	7,492.50	7,591.21	7,492.50	25.11	24.78	179.93	-658.60	787.01	1,320.15	1,275.97	44.18	29.883	
7,700.00	7,592.50	7,691.21	7,592.50	25.25	24.91	179.93	-658.60	787.01	1,320.15	1,275.66	44.49	29.673	
7,800.00	7,692.50	7,791.21	7,692.50	25.40	25.05	179.93	-658.60	787.01	1,320.15	1,275.34	44.81	29.463	
7,900.00	7,792.50	7,891.21	7,792.50	25.54	25.18	179.93	-658.60	787.01	1,320.15	1,275.03	45.12	29.255	
8,000.00	7,892.50	7,991.21	7,892.50	25.69	25.32	179.93	-658.60	787.01	1,320.15	1,274.71	45.45	29.049	
8,100.00	7,992.50	8,091.21	7,992.50	25.84	25.45	179.93	-658.60	787.01	1,320.15	1,274.38	45.77	28.844	
8,200.00	8,092.50	8,191.21	8,092.50	25.99	25.59	179.93	-658.60	787.01	1,320.15	1,274.06	46.09	28.641	
8,300.00	8,192.50	8,291.21	8,192.50	26.14	25.73	179.93	-658.60	787.01	1,320.15	1,273.73	46.42	28.439	
8,400.00	8,292.50	8,391.21	8,292.50	26.29	25.87	179.93	-658.60	787.01	1,320.15	1,273.40	46.75	28.239	
8,500.00	8,392.50	8,491.21	8,392.50	26.44	26.01	179.93	-658.60	787.01	1,320.15	1,273.07	47.08	28.041	
8,600.00	8,492.50	8,591.21	8,492.50	26.59	26.16	179.93	-658.60	787.01	1,320.15	1,272.74	47.41	27.844	
8,630.50	8,523.00	8,621.71	8,523.00	26.64	26.20	179.93	-658.60	787.01	1,320.15	1,272.64	47.51	27.784	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 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						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-163.67	-50.64	-14.83	56.43				
100.00	100.00	80.00	80.00	0.10	1.60	-163.67	-50.64	-14.83	52.77	51.07	1.70	31.120	
200.00	200.00	180.00	180.00	0.32	5.20	-163.67	-50.64	-14.83	52.77	47.25	5.52	9.559	
300.00	300.00	280.00	280.00	0.55	9.20	-163.67	-50.64	-14.83	52.77	43.02	9.75	5.415	
400.00	400.00	380.00	380.00	0.77	13.20	-163.67	-50.64	-14.83	52.77	38.80	13.97	3.777	
500.00	500.00	480.00	480.00	0.99	17.20	-163.67	-50.64	-14.83	52.77	34.57	18.19	2.900	
600.00	600.00	580.00	580.00	1.22	21.20	-163.67	-50.64	-14.83	52.77	30.35	22.42	2.354	
700.00	700.00	680.00	680.00	1.44	25.20	-163.67	-50.64	-14.83	52.77	26.12	26.64	1.980	
800.00	800.00	780.00	780.00	1.67	29.20	-163.67	-50.64	-14.83	52.77	21.90	30.87	1.709	
900.00	900.00	880.00	880.00	1.89	33.20	-163.67	-50.64	-14.83	52.77	17.67	35.09	1.504	
1,000.00	1,000.00	980.00	980.00	2.12	37.20	-163.67	-50.64	-14.83	52.77	13.45	39.32	1.342 Level 3	
1,085.00	1,085.00	1,065.00	1,065.00	2.31	40.60	-163.67	-50.64	-14.83	52.77	9.86	42.91	1.230 Level 2, CC	
1,100.00	1,100.00	1,080.00	1,080.00	2.34	41.20	146.46	-50.64	-14.83	52.80	9.26	43.54	1.213 Level 2	
1,200.00	1,199.97	1,179.97	1,179.97	2.56	45.20	147.75	-50.64	-14.83	54.70	6.97	47.74	1.146 Level 2, ES, SF	
1,300.00	1,299.80	1,279.80	1,279.80	2.78	49.19	150.65	-50.64	-14.83	59.65	7.78	51.87	1.150 Level 2	
1,400.00	1,399.37	1,379.37	1,379.37	3.01	53.17	154.41	-50.64	-14.83	67.86	11.94	55.93	1.213 Level 2	
1,500.00	1,498.55	1,478.55	1,478.55	3.26	57.14	158.27	-50.64	-14.83	79.52	19.65	59.87	1.328 Level 3	
1,600.00	1,597.23	1,577.23	1,577.23	3.53	61.09	161.79	-50.64	-14.83	94.74	31.07	63.67	1.488 Level 3	
1,700.00	1,695.29	1,675.29	1,675.29	3.84	65.01	164.78	-50.64	-14.83	113.54	46.21	67.33	1.686	
1,710.17	1,705.22	1,685.22	1,685.22	3.87	65.41	165.05	-50.64	-14.83	115.65	47.96	67.69	1.709	
1,800.00	1,792.92	1,772.92	1,772.92	4.19	68.92	167.19	-50.64	-14.83	134.56	63.25	71.31	1.887	
1,900.00	1,890.55	1,870.55	1,870.55	4.55	72.82	168.95	-50.64	-14.83	155.77	80.42	75.35	2.067	
2,000.00	1,988.18	1,968.18	1,968.18	4.94	76.73	170.29	-50.64	-14.83	177.08	97.68	79.40	2.230	
2,100.00	2,085.80	2,065.80	2,065.80	5.33	80.63	171.35	-50.64	-14.83	198.47	115.01	83.45	2.378	
2,200.00	2,183.43	2,163.43	2,163.43	5.74	84.54	172.19	-50.64	-14.83	219.90	132.39	87.51	2.513	
2,300.00	2,281.06	2,261.06	2,261.06	6.15	88.44	172.89	-50.64	-14.83	241.38	149.81	91.57	2.636	
2,400.00	2,378.69	2,358.69	2,358.69	6.57	92.35	173.48	-50.64	-14.83	262.88	167.25	95.64	2.749	
2,500.00	2,476.32	2,456.32	2,456.32	7.00	96.25	173.97	-50.64	-14.83	284.41	184.71	99.70	2.853	
2,600.00	2,573.95	2,553.95	2,553.95	7.43	100.16	174.40	-50.64	-14.83	305.95	202.18	103.77	2.948	
2,700.00	2,671.57	2,651.57	2,651.57	7.87	104.06	174.77	-50.64	-14.83	327.51	219.67	107.84	3.037	
2,800.00	2,769.20	2,749.20	2,749.20	8.30	107.97	175.09	-50.64	-14.83	349.08	237.17	111.91	3.119	
2,900.00	2,866.83	2,846.83	2,846.83	8.74	111.87	175.38	-50.64	-14.83	370.66	254.67	115.99	3.196	
3,000.00	2,964.46	2,944.46	2,944.46	9.19	115.78	175.63	-50.64	-14.83	392.24	272.18	120.06	3.267	
3,100.00	3,062.09	3,042.09	3,042.09	9.63	119.68	175.86	-50.64	-14.83	413.84	289.70	124.13	3.334	
3,200.00	3,159.72	3,139.72	3,139.72	10.08	123.59	176.07	-50.64	-14.83	435.44	307.23	128.21	3.396	
3,300.00	3,257.34	3,237.34	3,237.34	10.53	127.49	176.25	-50.64	-14.83	457.04	324.75	132.29	3.455	
3,400.00	3,354.97	3,334.97	3,334.97	10.98	131.40	176.42	-50.64	-14.83	478.65	342.28	136.36	3.510	
3,500.00	3,452.60	3,432.60	3,432.60	11.43	135.30	176.58	-50.64	-14.83	500.26	359.82	140.44	3.562	
3,600.00	3,550.23	3,530.23	3,530.23	11.88	139.21	176.72	-50.64	-14.83	521.87	377.36	144.52	3.611	
3,700.00	3,647.86	3,627.86	3,627.86	12.33	143.11	176.85	-50.64	-14.83	543.49	394.89	148.59	3.658	
3,800.00	3,745.49	3,725.49	3,725.49	12.78	147.02	176.97	-50.64	-14.83	565.11	412.44	152.67	3.701	
3,900.00	3,843.11	3,823.11	3,823.11	13.24	150.92	177.08	-50.64	-14.83	586.73	429.98	156.75	3.743	
4,000.00	3,940.74	3,920.74	3,920.74	13.69	154.83	177.18	-50.64	-14.83	608.35	447.52	160.83	3.783	
4,100.00	4,038.37	4,018.37	4,018.37	14.15	158.73	177.28	-50.64	-14.83	629.98	465.07	164.91	3.820	
4,200.00	4,136.00	4,116.00	4,116.00	14.60	162.64	177.37	-50.64	-14.83	651.61	482.62	168.99	3.856	
4,300.00	4,233.63	4,213.63	4,213.63	15.06	166.55	177.46	-50.64	-14.83	673.24	500.17	173.07	3.890	
4,400.00	4,331.26	4,311.26	4,311.26	15.52	170.45	177.54	-50.64	-14.83	694.87	517.72	177.15	3.922	
4,500.00	4,428.88	4,408.88	4,408.88	15.97	174.36	177.61	-50.64	-14.83	716.50	535.27	181.23	3.953	
4,600.00	4,526.51	4,506.51	4,506.51	16.43	178.26	177.68	-50.64	-14.83	738.13	552.82	185.31	3.983	
4,700.00	4,624.14	4,604.14	4,604.14	16.89	182.17	177.75	-50.64	-14.83	759.76	570.37	189.39	4.012	
4,800.00	4,721.77	4,701.77	4,701.77	17.35	186.07	177.81	-50.64	-14.83	781.40	587.92	193.47	4.039	
4,900.00	4,819.40	4,799.40	4,799.40	17.81	189.98	177.87	-50.64	-14.83	803.03	605.48	197.56	4.065	

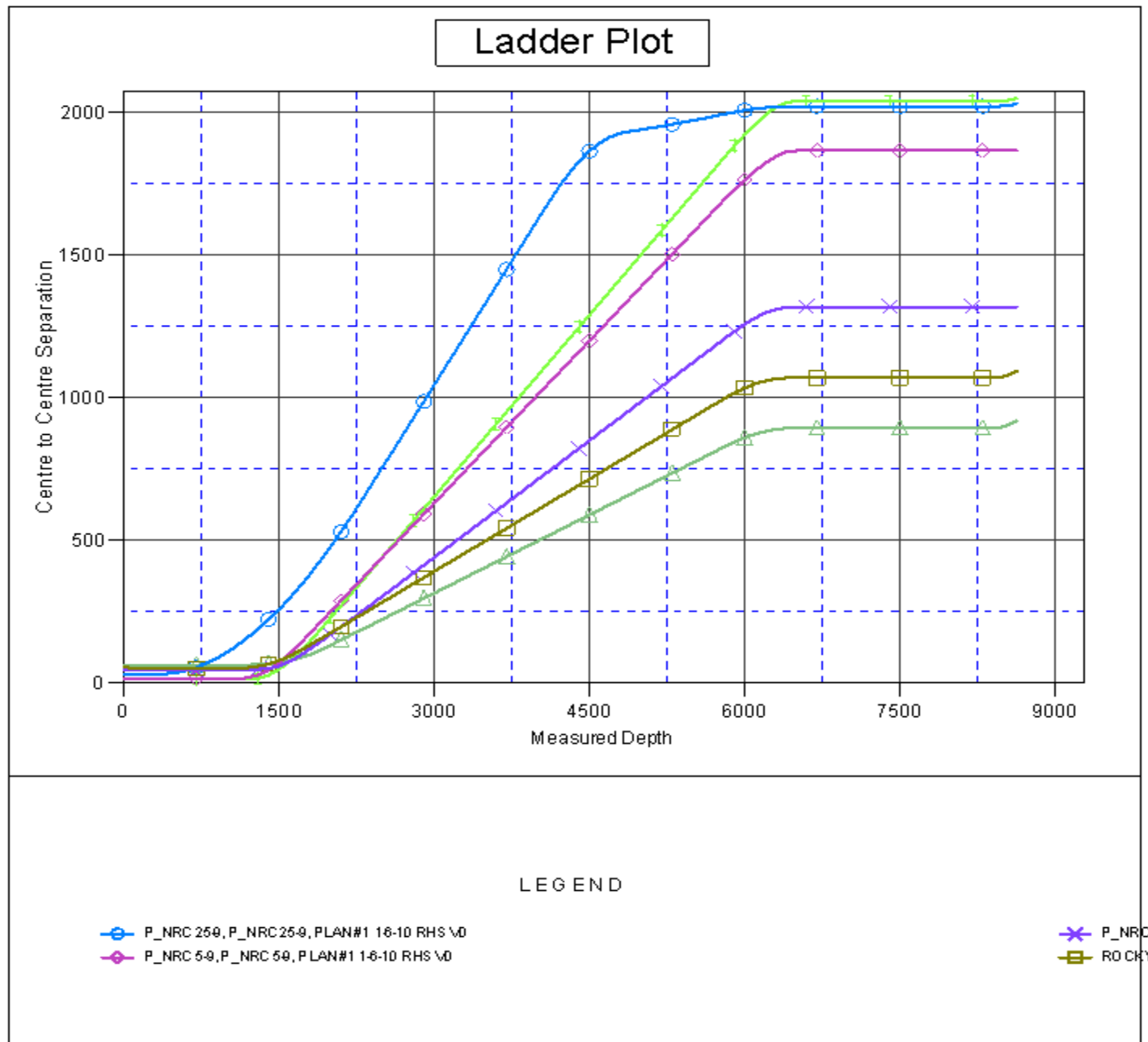
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_NRC 18-9 PAD - ROCKY MTN FUEL CO UNIT G #2 EXISTING - ROCKY MTN FUEL CO UNIT													Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,917.03	4,897.03	4,897.03	18.26	193.88	177.92	-50.64	-14.83	824.67	623.03	201.64	4.090		
5,100.00	5,014.65	4,994.65	4,994.65	18.72	197.79	177.98	-50.64	-14.83	846.30	640.59	205.72	4.114		
5,200.00	5,112.28	5,092.28	5,092.28	19.18	201.69	178.03	-50.64	-14.83	867.94	658.14	209.80	4.137		
5,300.00	5,209.91	5,189.91	5,189.91	19.64	205.60	178.08	-50.64	-14.83	889.58	675.70	213.88	4.159		
5,400.00	5,307.54	5,287.54	5,287.54	20.10	209.50	178.12	-50.64	-14.83	911.22	693.25	217.97	4.181		
5,500.00	5,405.17	5,385.17	5,385.17	20.56	213.41	178.16	-50.64	-14.83	932.86	710.81	222.05	4.201		
5,600.00	5,502.80	5,482.80	5,482.80	21.02	217.31	178.21	-50.64	-14.83	954.50	728.37	226.13	4.221		
5,700.00	5,600.42	5,580.42	5,580.42	21.48	221.22	178.25	-50.64	-14.83	976.14	745.92	230.21	4.240		
5,800.00	5,698.05	5,678.05	5,678.05	21.94	225.12	178.28	-50.64	-14.83	997.78	763.48	234.29	4.259		
5,825.33	5,722.78	5,702.78	5,702.78	22.06	226.11	178.29	-50.64	-14.83	1,003.26	767.93	235.33	4.263		
5,900.00	5,795.88	5,775.88	5,775.88	22.35	229.04	178.33	-50.64	-14.83	1,018.47	778.96	239.51	4.252		
6,000.00	5,894.36	5,874.36	5,874.36	22.66	232.97	178.37	-50.64	-14.83	1,035.84	790.85	244.99	4.228		
6,100.00	5,993.38	5,973.38	5,973.38	22.93	236.94	178.40	-50.64	-14.83	1,049.77	799.53	250.23	4.195		
6,200.00	6,092.82	6,072.82	6,072.82	23.16	240.91	178.42	-50.64	-14.83	1,060.23	805.02	255.21	4.154		
6,300.00	6,192.57	6,172.57	6,172.57	23.35	244.90	178.43	-50.64	-14.83	1,067.22	807.32	259.91	4.106		
6,400.00	6,292.50	6,272.50	6,272.50	23.50	248.90	178.44	-50.64	-14.83	1,070.73	806.43	264.30	4.051		
6,450.50	6,343.00	6,323.00	6,323.00	23.56	250.92	-131.67	-50.64	-14.83	1,071.17	804.78	266.39	4.021		
6,500.00	6,392.50	6,372.50	6,372.50	23.62	252.90	-131.67	-50.64	-14.83	1,071.17	802.72	268.46	3.990		
6,600.00	6,492.50	6,472.50	6,472.50	23.75	256.90	-131.67	-50.64	-14.83	1,071.17	798.53	272.65	3.929		
6,700.00	6,592.50	6,572.50	6,572.50	23.88	260.90	-131.67	-50.64	-14.83	1,071.17	794.33	276.84	3.869		
6,800.00	6,692.50	6,672.50	6,672.50	24.01	264.90	-131.67	-50.64	-14.83	1,071.17	790.14	281.04	3.812		
6,900.00	6,792.50	6,772.50	6,772.50	24.14	268.90	-131.67	-50.64	-14.83	1,071.17	785.95	285.23	3.755		
7,000.00	6,892.50	6,872.50	6,872.50	24.28	272.90	-131.67	-50.64	-14.83	1,071.17	781.75	289.42	3.701		
7,100.00	6,992.50	6,972.50	6,972.50	24.41	276.90	-131.67	-50.64	-14.83	1,071.17	777.55	293.62	3.648		
7,200.00	7,092.50	7,072.50	7,072.50	24.55	280.90	-131.67	-50.64	-14.83	1,071.17	773.36	297.82	3.597		
7,300.00	7,192.50	7,172.50	7,172.50	24.69	284.90	-131.67	-50.64	-14.83	1,071.17	769.16	302.01	3.547		
7,400.00	7,292.50	7,272.50	7,272.50	24.83	288.90	-131.67	-50.64	-14.83	1,071.17	764.96	306.21	3.498		
7,500.00	7,392.50	7,372.50	7,372.50	24.97	292.90	-131.67	-50.64	-14.83	1,071.17	760.76	310.41	3.451		
7,600.00	7,492.50	7,472.50	7,472.50	25.11	296.90	-131.67	-50.64	-14.83	1,071.17	756.57	314.61	3.405		
7,700.00	7,592.50	7,572.50	7,572.50	25.25	300.90	-131.67	-50.64	-14.83	1,071.17	752.37	318.81	3.360		
7,800.00	7,692.50	7,672.50	7,672.50	25.40	304.90	-131.67	-50.64	-14.83	1,071.17	748.17	323.01	3.316		
7,900.00	7,792.50	7,772.50	7,772.50	25.54	308.90	-131.67	-50.64	-14.83	1,071.17	743.96	327.21	3.274		
8,000.00	7,892.50	7,872.50	7,872.50	25.69	312.90	-131.67	-50.64	-14.83	1,071.17	739.76	331.41	3.232		
8,100.00	7,992.50	7,972.50	7,972.50	25.84	316.90	-131.67	-50.64	-14.83	1,071.17	735.56	335.61	3.192		
8,200.00	8,092.50	8,072.50	8,072.50	25.99	320.90	-131.67	-50.64	-14.83	1,071.17	731.36	339.82	3.152		
8,300.00	8,192.50	8,172.50	8,172.50	26.14	324.90	-131.67	-50.64	-14.83	1,071.17	727.16	344.02	3.114		
8,400.00	8,292.50	8,272.50	8,272.50	26.29	328.90	-131.67	-50.64	-14.83	1,071.17	722.95	348.22	3.076		
8,500.00	8,392.50	8,280.00	8,280.00	26.44	329.20	-131.67	-50.64	-14.83	1,075.16	726.44	348.73	3.083		
8,600.00	8,492.50	8,280.00	8,280.00	26.59	329.20	-131.67	-50.64	-14.83	1,088.33	739.40	348.93	3.119		
8,630.50	8,523.00	8,280.00	8,280.00	26.64	329.20	-131.67	-50.64	-14.83	1,094.14	745.15	348.99	3.135		

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_NRC 3-9
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5036.00ft (Original Well Elev)
Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_NRC 3-9	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_NRC 3-9	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 1-6-10 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5036.00ft (Original Well Elev) Coordinates are relative to: P_NRC 3-9
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 3-9
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Reference Site:	WELD_NRC 18-9 PAD	MD Reference:	WELL @ 5036.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
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