



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_DRY CREEK PAD 6

P_DRY CREEK 21-27

PLAN #1 10-27-09 RHS

Plan: PLAN #1 10-27-09 RHS

Standard Planning Report

27 October, 2009





Azimuths to True North
Magnetic North: 9.07°

Magnetic Field
Strength: 53113.7nT
Dip Angle: 66.79°
Date: 10/27/2009
Model: IGRF200510

WELL DETAILS: P_DRY CREEK 21-27

+N/-S	+E/-W	Northing	Easting	Ground Level:	4993.01	Latitude	Longitude	Slot
0.00	0.00	1253694.67	3176366.65	40° 1' 41.016 N	104° 52' 12.720 W			

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3146.01	3286.98	PARKMAN TOP
4748.01	5142.57	SUSSEX TOP
7330.01	7815.84	NIO TOP
7730.02	8215.84	CODELL TOP

SECTION DETAILS

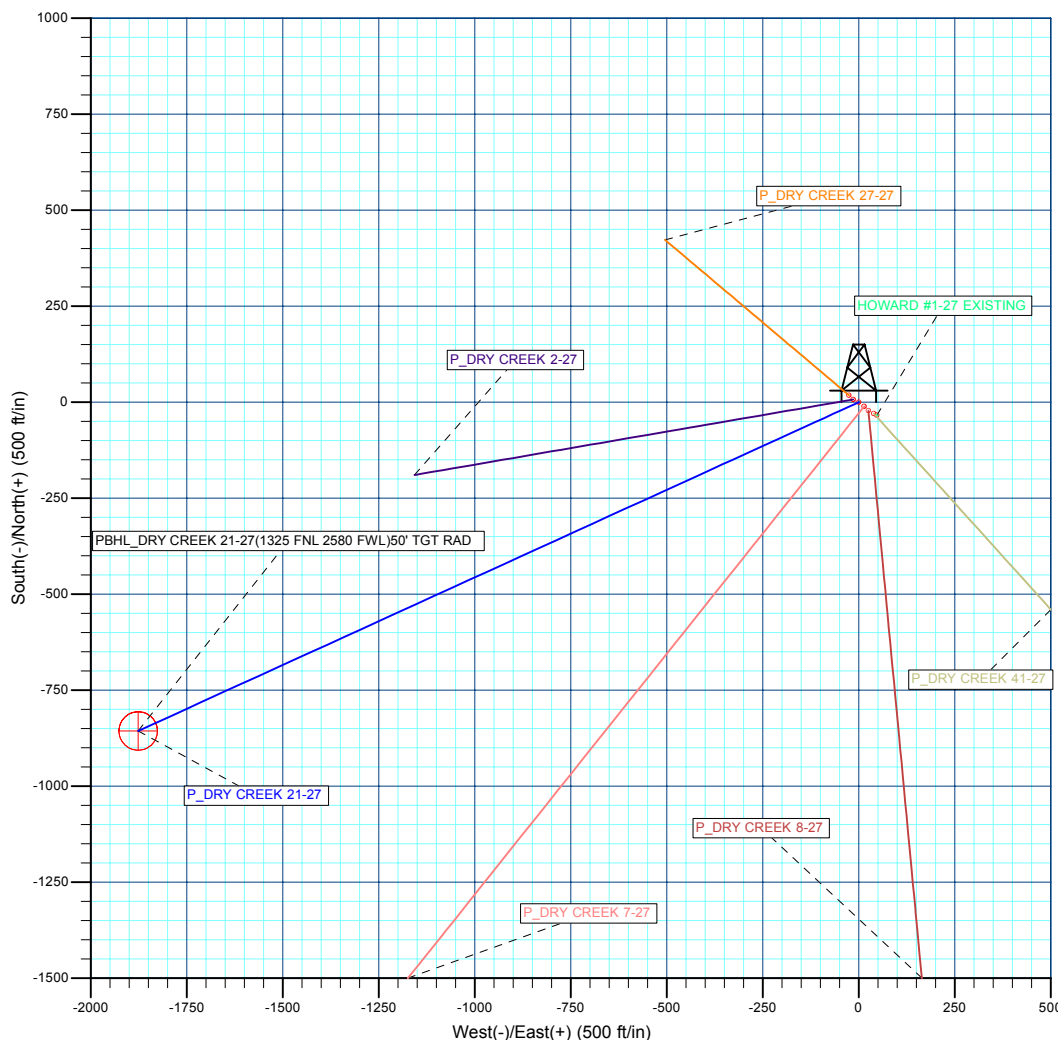
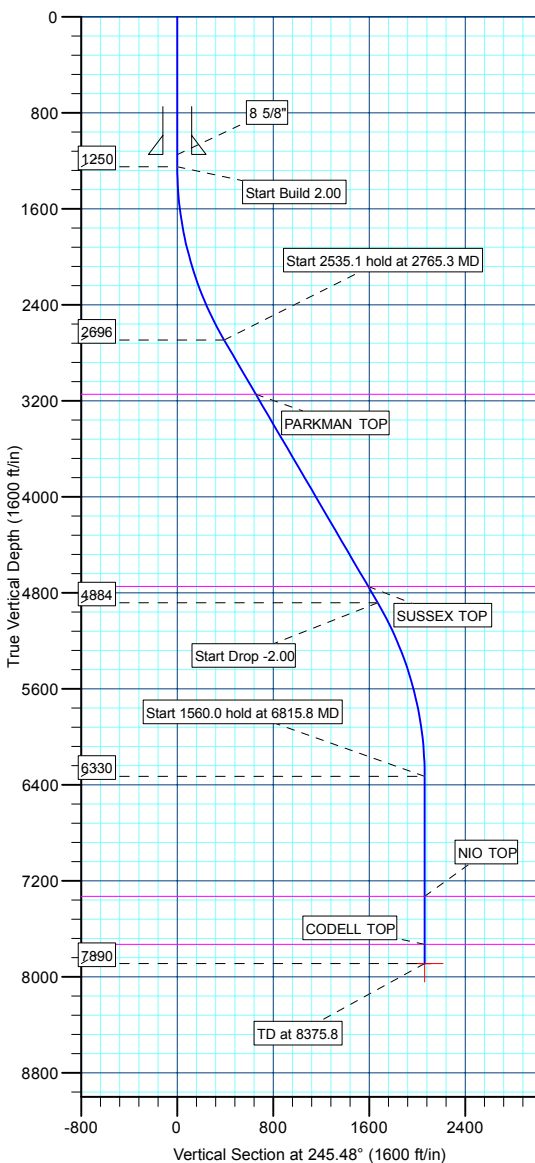
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	0.00	0.00	
2765.35	30.31	245.48	2695.67	-162.50	-356.20	2.00	245.48	391.52	
5300.50	30.31	245.48	4884.35	-693.47	-1520.12	0.00	0.00	1670.83	
6815.84	0.00	0.00	6330.01	-855.96	-1876.33	2.00	180.00	2062.35	
8375.84	0.00	0.00	7890.02	-855.96	-1876.33	0.00	0.00	2062.35	PBHL_DRY CREEK 21-27(1325 FNL 2580 FWL)50' TGT RAD

CASING DETAILS

TVD	MD	Name	Size
1150.00	1150.00	8 5/8"	8.62



KB ELEV: WELL @ 5008.01ft (Original Well Elev)
GRD ELEV: 4993.01



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7890.02	-855.96	-1876.33	1252825.40	3174496.46	40° 1' 32.556 N	104° 52' 36.840 W	Circle (Radius: 50.00)

Plan: PLAN #1 10-27-09 RHS (P_DRY CREEK 21-27/PLAN #1 10-27-09 RHS)

Created By: Robert H. Scott

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Project:	COLORADO NOTHERN ZONE - 83	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 6	North Reference:	True
Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN #1 10-27-09 RHS		
Design:	PLAN #1 10-27-09 RHS		

Project	COLORADO NOTHERN 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_DRY CREEK PAD 6, SECTION 27 T1N R67W											
Site Position:						Northing:			1,253,701.87 ft			Latitude:			40° 1' 41.088 N		
From:			Lat/Long			Easting:			3,176,352.60 ft			Longitude:			104° 52' 12.900 W		
Position Uncertainty:			0.00 ft			Slot Radius:			0.00 in			Grid Convergence:			0.41 °		

Well	P_DRY CREEK 21-27					
Well Position	+N/-S	-7.30 ft	Northing:	1,253,694.67 ft	Latitude:	40° 1' 41.016 N
	+E/-W	14.00 ft	Easting:	3,176,366.65 ft	Longitude:	104° 52' 12.720 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,993.01 ft

Wellbore	PLAN #1 10-27-09 RHS				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/27/2009	9.07	66.79	53,114

Design	PLAN #1 10-27-09 RHS				
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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	245.48	

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	
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,765.35	30.31	245.48	2,695.67	-162.50	-356.20	2.00	2.00	0.00	245.48	
5,300.50	30.31	245.48	4,884.35	-693.47	-1,520.12	0.00	0.00	0.00	0.00	
6,815.84	0.00	0.00	6,330.01	-855.96	-1,876.33	2.00	-2.00	0.00	180.00	
8,375.84	0.00	0.00	7,890.02	-855.96	-1,876.33	0.00	0.00	0.00	0.00	PBHL_DRY CREEK

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Project:	COLORADO NOTHERN ZONE - 83	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 6	North Reference:	True
Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN #1 10-27-09 RHS		
Design:	PLAN #1 10-27-09 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									
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	1.00	245.48	1,300.00	-0.18	-0.40	0.44	2.00	2.00	0.00
1,400.00	3.00	245.48	1,399.93	-1.63	-3.57	3.93	2.00	2.00	0.00
1,500.00	5.00	245.48	1,499.68	-4.52	-9.92	10.90	2.00	2.00	0.00
1,600.00	7.00	245.48	1,599.13	-8.86	-19.43	21.35	2.00	2.00	0.00
1,700.00	9.00	245.48	1,698.15	-14.64	-32.09	35.27	2.00	2.00	0.00
1,800.00	11.00	245.48	1,796.63	-21.85	-47.89	52.63	2.00	2.00	0.00
1,900.00	13.00	245.48	1,894.44	-30.47	-66.80	73.42	2.00	2.00	0.00
2,000.00	15.00	245.48	1,991.46	-40.51	-88.81	97.61	2.00	2.00	0.00
2,100.00	17.00	245.48	2,087.58	-51.95	-113.89	125.18	2.00	2.00	0.00
2,200.00	19.00	245.48	2,182.68	-64.78	-142.00	156.08	2.00	2.00	0.00
2,300.00	21.00	245.48	2,276.65	-78.97	-173.11	190.28	2.00	2.00	0.00
2,400.00	23.00	245.48	2,369.36	-94.52	-207.19	227.74	2.00	2.00	0.00
2,500.00	25.00	245.48	2,460.71	-111.40	-244.20	268.41	2.00	2.00	0.00
2,600.00	27.00	245.48	2,550.59	-129.59	-284.08	312.24	2.00	2.00	0.00
2,700.00	29.00	245.48	2,638.88	-149.08	-326.79	359.19	2.00	2.00	0.00
Start 2535.1 hold at 2765.3 MD									
2,765.35	30.31	245.48	2,695.67	-162.50	-356.20	391.52	2.00	2.00	0.00
2,800.00	30.31	245.48	2,725.58	-169.75	-372.11	409.00	0.00	0.00	0.00
2,900.00	30.31	245.48	2,811.92	-190.70	-418.02	459.47	0.00	0.00	0.00
3,000.00	30.31	245.48	2,898.25	-211.64	-463.93	509.93	0.00	0.00	0.00
3,100.00	30.31	245.48	2,984.58	-232.59	-509.85	560.39	0.00	0.00	0.00
3,200.00	30.31	245.48	3,070.92	-253.53	-555.76	610.86	0.00	0.00	0.00
PARKMAN TOP									
3,286.98	30.31	245.48	3,146.01	-271.75	-595.69	654.75	0.00	0.00	0.00
3,300.00	30.31	245.48	3,157.25	-274.48	-601.67	661.32	0.00	0.00	0.00
3,400.00	30.31	245.48	3,243.58	-295.42	-647.58	711.78	0.00	0.00	0.00
3,500.00	30.31	245.48	3,329.92	-316.36	-693.49	762.24	0.00	0.00	0.00
3,600.00	30.31	245.48	3,416.25	-337.31	-739.40	812.71	0.00	0.00	0.00
3,700.00	30.31	245.48	3,502.58	-358.25	-785.31	863.17	0.00	0.00	0.00
3,800.00	30.31	245.48	3,588.92	-379.20	-831.23	913.63	0.00	0.00	0.00
3,900.00	30.31	245.48	3,675.25	-400.14	-877.14	964.10	0.00	0.00	0.00
4,000.00	30.31	245.48	3,761.59	-421.09	-923.05	1,014.56	0.00	0.00	0.00
4,100.00	30.31	245.48	3,847.92	-442.03	-968.96	1,065.02	0.00	0.00	0.00
4,200.00	30.31	245.48	3,934.25	-462.98	-1,014.87	1,115.49	0.00	0.00	0.00
4,300.00	30.31	245.48	4,020.59	-483.92	-1,060.78	1,165.95	0.00	0.00	0.00
4,400.00	30.31	245.48	4,106.92	-504.86	-1,106.69	1,216.41	0.00	0.00	0.00
4,500.00	30.31	245.48	4,193.25	-525.81	-1,152.60	1,266.87	0.00	0.00	0.00
4,600.00	30.31	245.48	4,279.59	-546.75	-1,198.52	1,317.34	0.00	0.00	0.00
4,700.00	30.31	245.48	4,365.92	-567.70	-1,244.43	1,367.80	0.00	0.00	0.00
4,800.00	30.31	245.48	4,452.25	-588.64	-1,290.34	1,418.26	0.00	0.00	0.00
4,900.00	30.31	245.48	4,538.59	-609.59	-1,336.25	1,468.73	0.00	0.00	0.00
5,000.00	30.31	245.48	4,624.92	-630.53	-1,382.16	1,519.19	0.00	0.00	0.00
5,100.00	30.31	245.48	4,711.25	-651.48	-1,428.07	1,569.65	0.00	0.00	0.00
SUSSEX TOP									
5,142.57	30.31	245.48	4,748.01	-660.39	-1,447.62	1,591.14	0.00	0.00	0.00
5,200.00	30.31	245.48	4,797.59	-672.42	-1,473.98	1,620.12	0.00	0.00	0.00
5,300.00	30.31	245.48	4,883.92	-693.36	-1,519.90	1,670.58	0.00	0.00	0.00
Start Drop -2.00									
5,300.50	30.31	245.48	4,884.35	-693.47	-1,520.12	1,670.83	0.00	0.00	0.00
5,400.00	28.32	245.48	4,971.11	-713.68	-1,564.44	1,719.54	2.00	-2.00	0.00
5,500.00	26.32	245.48	5,059.95	-732.73	-1,606.19	1,765.43	2.00	-2.00	0.00

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Project:	COLORADO NOTHERN ZONE - 83	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 6	North Reference:	True
Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN #1 10-27-09 RHS		
Design:	PLAN #1 10-27-09 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)
5,600.00	24.32	245.48	5,150.34	-750.48	-1,645.09	1,808.19	2.00	-2.00	0.00
5,700.00	22.32	245.48	5,242.17	-766.91	-1,681.10	1,847.77	2.00	-2.00	0.00
5,800.00	20.32	245.48	5,335.33	-781.99	-1,714.17	1,884.12	2.00	-2.00	0.00
5,900.00	18.32	245.48	5,429.69	-795.72	-1,744.27	1,917.20	2.00	-2.00	0.00
6,000.00	16.32	245.48	5,525.15	-808.07	-1,771.35	1,946.96	2.00	-2.00	0.00
6,100.00	14.32	245.48	5,621.60	-819.04	-1,795.38	1,973.37	2.00	-2.00	0.00
6,200.00	12.32	245.48	5,718.90	-828.60	-1,816.33	1,996.41	2.00	-2.00	0.00
6,300.00	10.32	245.48	5,816.95	-836.74	-1,834.19	2,016.03	2.00	-2.00	0.00
6,400.00	8.32	245.48	5,915.63	-843.46	-1,848.91	2,032.22	2.00	-2.00	0.00
6,500.00	6.32	245.48	6,014.81	-848.75	-1,860.50	2,044.95	2.00	-2.00	0.00
6,600.00	4.32	245.48	6,114.38	-852.59	-1,868.93	2,054.22	2.00	-2.00	0.00
6,700.00	2.32	245.48	6,214.20	-854.99	-1,874.19	2,060.00	2.00	-2.00	0.00
6,800.00	0.32	245.48	6,314.17	-855.95	-1,876.29	2,062.30	2.00	-2.00	0.00
Start 1560.0 hold at 6815.8 MD									
6,815.84	0.00	0.00	6,330.01	-855.96	-1,876.33	2,062.35	2.00	-2.00	0.00
6,900.00	0.00	0.00	6,414.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,000.00	0.00	0.00	6,514.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,100.00	0.00	0.00	6,614.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,200.00	0.00	0.00	6,714.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,300.00	0.00	0.00	6,814.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,400.00	0.00	0.00	6,914.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,500.00	0.00	0.00	7,014.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,600.00	0.00	0.00	7,114.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,700.00	0.00	0.00	7,214.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,800.00	0.00	0.00	7,314.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
NIO TOP									
7,815.84	0.00	0.00	7,330.01	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
7,900.00	0.00	0.00	7,414.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
8,000.00	0.00	0.00	7,514.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
8,100.00	0.00	0.00	7,614.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
8,200.00	0.00	0.00	7,714.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
CODELL TOP									
8,215.84	0.00	0.00	7,730.02	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
8,300.00	0.00	0.00	7,814.17	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00
TD at 8375.8 - PBHL_DRY CREEK 21-27(1325 FNL 2580 FWL)50' TGT RAD									
8,375.84	0.00	0.00	7,890.02	-855.96	-1,876.33	2,062.35	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_DRY CREEK 2	0.00	0.00	7,890.02	-855.96	-1,876.33	1,252,825.40	3,174,496.46	40° 1' 32.556 N	104° 52' 36.840 W
- plan hits target center									
- Circle (radius 50.00)									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Project:	COLORADO NOTHERN ZONE - 83	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 6	North Reference:	True
Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN #1 10-27-09 RHS		
Design:	PLAN #1 10-27-09 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,150.00	1,150.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,286.98	3,146.01	PARKMAN TOP				
5,142.57	4,748.01	SUSSEX TOP				
7,815.84	7,330.01	NIO TOP				
8,215.84	7,730.02	CODELL TOP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,250.00	1,250.00	0.00	0.00	Start Build 2.00	
2,765.35	2,695.67	-162.50	-356.20	Start 2535.1 hold at 2765.3 MD	
5,300.50	4,884.35	-693.47	-1,520.12	Start Drop -2.00	
6,815.84	6,330.01	-855.96	-1,876.33	Start 1560.0 hold at 6815.8 MD	
8,375.84	7,890.02	-855.96	-1,876.33	TD at 8375.8	



US ROCKIES REGION PLANNING

**COLORADO NOTHERN ZONE - 83
WELD_DRY CREEK PAD 6
P_DRY CREEK 21-27**

**PLAN #1 10-27-09 RHS
PLAN #1 10-27-09 RHS**

Anticollision Report

27 October, 2009



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 10-27-09 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	10/27/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,375.84	PLAN #1 10-27-09 RHS (PLAN #1 10-27-09)	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_DRY CREEK PAD 6						
HOWARD #1-27 EXISTING - HOWARD #1-27 EXISTING	1,250.00	1,242.00	57.76	55.08	21.547	CC, ES
HOWARD #1-27 EXISTING - HOWARD #1-27 EXISTING	1,400.00	1,391.93	59.82	56.84	20.095	SF
P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 1	1,250.00	1,250.00	15.79	10.43	2.946	CC
P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 1	1,300.00	1,299.78	15.87	10.30	2.851	ES
P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 1	1,400.00	1,399.34	16.50	10.56	2.776	SF
P_DRY CREEK 27-27 - P_DRY CREEK 27-27 - PLAN #	1,250.00	1,250.00	31.10	25.74	5.801	CC, ES
P_DRY CREEK 27-27 - P_DRY CREEK 27-27 - PLAN #	1,400.00	1,398.28	33.23	27.26	5.565	SF
P_DRY CREEK 41-27 - P_DRY CREEK 41-27 - PLAN #	1,250.00	1,250.00	48.85	43.49	9.113	CC, ES
P_DRY CREEK 41-27 - P_DRY CREEK 41-27 - PLAN #	1,300.00	1,299.17	49.48	43.92	8.899	SF
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	232.21	232.21	17.76	16.98	22.813	CC
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	300.00	299.92	17.93	16.86	16.776	ES
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	8,375.84	8,416.58	989.10	902.78	11.458	SF
P_DRY CREEK 8-27 - P_DRY CREEK 8-27 - PLAN #1 1	1,250.00	1,250.00	33.36	28.00	6.223	CC, ES
P_DRY CREEK 8-27 - P_DRY CREEK 8-27 - PLAN #1 1	1,300.00	1,299.58	33.85	28.30	6.089	SF

Offset Design		WELD_DRY CREEK PAD 6 - HOWARD #1-27 EXISTING - HOWARD #1-27 EXISTING - HOWARD #1-										Offset Site Error:		0.00 ft
Survey Program: 0-												Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)				Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00		125.46	-33.50	47.05	58.31					
100.00	100.00	92.00	92.00	0.10		125.46	-33.50	47.05	57.76	57.66	0.10	603.368		
200.00	200.00	192.00	192.00	0.32		125.46	-33.50	47.05	57.76	57.44	0.32	180.216		
300.00	300.00	292.00	292.00	0.55		125.46	-33.50	47.05	57.76	57.21	0.55	105.927		
400.00	400.00	392.00	392.00	0.77		125.46	-33.50	47.05	57.76	56.99	0.77	75.008		
500.00	500.00	492.00	492.00	0.99		125.46	-33.50	47.05	57.76	56.76	0.99	58.060		
600.00	600.00	592.00	592.00	1.22		125.46	-33.50	47.05	57.76	56.54	1.22	47.360		
700.00	700.00	692.00	692.00	1.44		125.46	-33.50	47.05	57.76	56.31	1.44	39.990		
800.00	800.00	792.00	792.00	1.67		125.46	-33.50	47.05	57.76	56.09	1.67	34.604		
900.00	900.00	892.00	892.00	1.89		125.46	-33.50	47.05	57.76	55.86	1.89	30.497		
1,000.00	1,000.00	992.00	992.00	2.12		125.46	-33.50	47.05	57.76	55.64	2.12	27.262		
1,100.00	1,100.00	1,092.00	1,092.00	2.34		125.46	-33.50	47.05	57.76	55.41	2.34	24.647		
1,200.00	1,200.00	1,192.00	1,192.00	2.57		125.46	-33.50	47.05	57.76	55.19	2.57	22.490		
1,250.00	1,250.00	1,242.00	1,242.00	2.68		125.46	-33.50	47.05	57.76	55.08	2.68	21.547	CC, 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_DRY CREEK 21-27
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-												Offset Well Error:	0.00 ft
WELD_DRY CREEK PAD 6 - HOWARD #1-27 EXISTING - HOWARD #1-27 EXISTING - HOWARD #1-													
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
1,300.00	1,300.00	1,292.00	1,292.00	2.78		-120.39	-33.50	47.05	57.98	55.19	2.78	20.821	
1,400.00	1,399.93	1,391.93	1,391.93	2.97		-123.24	-33.50	47.05	59.82	56.84	2.98	20.095 SF	
1,500.00	1,499.68	1,491.68	1,491.68	3.17		-128.41	-33.50	47.05	63.91	60.73	3.18	20.107	
1,600.00	1,599.13	1,591.13	1,591.13	3.39		-134.92	-33.50	47.05	70.89	67.50	3.39	20.910	
1,700.00	1,698.15	1,690.15	1,690.15	3.63		-141.72	-33.50	47.05	81.35	77.74	3.61	22.530	
1,800.00	1,796.63	1,788.63	1,788.63	3.91		-148.00	-33.50	47.05	95.65	91.81	3.84	24.926	
1,900.00	1,894.44	1,886.44	1,886.44	4.22		-153.36	-33.50	47.05	113.89	109.82	4.07	28.000	
2,000.00	1,991.46	1,983.46	1,983.46	4.59		-157.74	-33.50	47.05	136.04	131.74	4.30	31.621	
2,100.00	2,087.58	2,079.58	2,079.58	5.02		-161.25	-33.50	47.05	161.99	157.44	4.54	35.664	
2,200.00	2,182.68	2,174.68	2,174.68	5.52		-164.04	-33.50	47.05	191.61	186.83	4.79	40.013	
2,300.00	2,276.65	2,268.65	2,268.65	6.09		-166.27	-33.50	47.05	224.81	219.76	5.04	44.566	
2,400.00	2,369.36	2,361.36	2,361.36	6.73		-168.05	-33.50	47.05	261.46	256.15	5.31	49.240	
2,500.00	2,460.71	2,452.71	2,452.71	7.44		-169.49	-33.50	47.05	301.48	295.89	5.59	53.961	
2,600.00	2,550.59	2,542.59	2,542.59	8.24		-170.66	-33.50	47.05	344.78	338.91	5.88	58.671	
2,700.00	2,638.88	2,630.88	2,630.88	9.11		-171.62	-33.50	47.05	391.29	385.11	6.18	63.319	
2,765.35	2,695.67	2,687.67	2,687.67	9.72		-172.16	-33.50	47.05	423.38	416.99	6.39	66.303	
2,800.00	2,725.58	2,717.58	2,717.58	10.05		-172.46	-33.50	47.05	440.75	434.24	6.51	67.740	
2,900.00	2,811.92	2,803.92	2,803.92	11.03		-173.24	-33.50	47.05	490.92	484.06	6.86	71.551	
3,000.00	2,898.25	2,890.25	2,890.25	12.02		-173.86	-33.50	47.05	541.14	533.92	7.22	74.920	
3,100.00	2,984.58	2,976.58	2,976.58	13.02		-174.39	-33.50	47.05	591.41	583.82	7.59	77.910	
3,200.00	3,070.92	3,062.92	3,062.92	14.04		-174.83	-33.50	47.05	641.70	633.74	7.96	80.573	
3,300.00	3,157.25	3,149.25	3,149.25	15.06		-175.20	-33.50	47.05	692.02	683.68	8.34	82.953	
3,400.00	3,243.58	3,235.58	3,235.58	16.09		-175.53	-33.50	47.05	742.36	733.64	8.72	85.090	
3,500.00	3,329.92	3,321.92	3,321.92	17.13		-175.81	-33.50	47.05	792.72	783.61	9.11	87.014	
3,600.00	3,416.25	3,408.25	3,408.25	18.17		-176.06	-33.50	47.05	843.09	833.59	9.50	88.754	
3,700.00	3,502.58	3,494.58	3,494.58	19.21		-176.28	-33.50	47.05	893.47	883.58	9.89	90.333	
3,800.00	3,588.92	3,580.92	3,580.92	20.26		-176.48	-33.50	47.05	943.86	933.57	10.28	91.770	
3,900.00	3,675.25	3,667.25	3,667.25	21.30		-176.66	-33.50	47.05	994.25	983.57	10.68	93.083	
4,000.00	3,761.59	3,753.59	3,753.59	22.35		-176.82	-33.50	47.05	1,044.65	1,033.57	11.08	94.286	
4,100.00	3,847.92	3,839.92	3,839.92	23.41		-176.97	-33.50	47.05	1,095.06	1,083.58	11.48	95.391	
4,200.00	3,934.25	3,926.25	3,926.25	24.46		-177.10	-33.50	47.05	1,145.47	1,133.59	11.88	96.410	
4,300.00	4,020.59	4,012.59	4,012.59	25.52		-177.22	-33.50	47.05	1,195.89	1,183.61	12.28	97.351	
4,400.00	4,106.92	4,098.92	4,098.92	26.57		-177.34	-33.50	47.05	1,246.31	1,233.62	12.69	98.223	
4,500.00	4,193.25	4,185.25	4,185.25	27.63		-177.44	-33.50	47.05	1,296.74	1,283.64	13.09	99.032	
4,600.00	4,279.59	4,271.59	4,271.59	28.69		-177.54	-33.50	47.05	1,347.16	1,333.66	13.50	99.785	
4,700.00	4,365.92	4,357.92	4,357.92	29.75		-177.63	-33.50	47.05	1,397.59	1,383.68	13.91	100.487	
4,800.00	4,452.25	4,444.25	4,444.25	30.81		-177.71	-33.50	47.05	1,448.02	1,433.71	14.32	101.144	
4,900.00	4,538.59	4,530.59	4,530.59	31.88		-177.79	-33.50	47.05	1,498.46	1,483.73	14.73	101.758	
5,000.00	4,624.92	4,616.92	4,616.92	32.94		-177.86	-33.50	47.05	1,548.89	1,533.76	15.14	102.335	
5,100.00	4,711.25	4,703.25	4,703.25	34.00		-177.92	-33.50	47.05	1,599.33	1,583.79	15.55	102.876	
5,200.00	4,797.59	4,789.59	4,789.59	35.07		-177.99	-33.50	47.05	1,649.77	1,633.81	15.96	103.386	
5,300.00	4,884.35	4,876.35	4,876.35	36.13		-178.05	-33.50	47.05	1,700.46	1,684.09	16.37	103.869	
5,400.00	4,971.11	4,963.11	4,963.11	37.06		-178.14	-33.50	47.05	1,749.15	1,732.47	16.68	104.849	
5,500.00	5,059.95	5,051.95	5,051.95	37.83		-178.22	-33.50	47.05	1,795.02	1,778.08	16.95	105.931	
5,600.00	5,150.34	5,142.34	5,142.34	38.55		-178.29	-33.50	47.05	1,837.77	1,820.60	17.17	107.041	
5,700.00	5,242.17	5,234.17	5,234.17	39.22		-178.35	-33.50	47.05	1,877.33	1,859.87	17.46	107.524	
5,800.00	5,335.33	5,327.33	5,327.33	39.84		-178.40	-33.50	47.05	1,913.67	1,895.93	17.74	107.848	
5,900.00	5,429.69	5,421.69	5,421.69	40.41		-178.45	-33.50	47.05	1,946.74	1,928.74	17.99	108.204	
6,000.00	5,525.15	5,517.15	5,517.15	40.91		-178.49	-33.50	47.05	1,976.49	1,958.29	18.20	108.595	
6,100.00	5,621.60	5,613.60	5,613.60	41.37		-178.52	-33.50	47.05	2,002.90	1,984.53	18.37	109.023	
6,200.00	5,718.90	5,710.90	5,710.90	41.77		-178.55	-33.50	47.05	2,025.92	2,007.42	18.50	109.491	
6,300.00	5,816.95	5,808.95	5,808.95	42.11		-178.58	-33.50	47.05	2,045.54	2,026.94	18.60	110.000	

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_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design		WELD_DRY CREEK PAD 6 - HOWARD #1-27 EXISTING - HOWARD #1-27 EXISTING - HOWARD #1-										Offset Site Error:		0.00 ft
Survey Program: 0-												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		
6,400.00	5,915.63	5,907.63	5,907.63	42.41		-178.60	-33.50	47.05	2,061.72	2,043.07	18.65	110.553		
6,500.00	6,014.81	6,006.81	6,006.81	42.65		-178.61	-33.50	47.05	2,074.45	2,055.79	18.66	111.152		
6,600.00	6,114.38	6,106.38	6,106.38	42.84		-178.62	-33.50	47.05	2,083.72	2,065.08	18.64	111.798		
6,700.00	6,214.20	6,206.20	6,206.20	42.97		-178.63	-33.50	47.05	2,089.50	2,070.93	18.57	112.494		
6,800.00	6,314.17	6,306.17	6,306.17	43.06		-178.63	-33.50	47.05	2,091.80	2,073.33	18.47	113.242		
6,815.84	6,330.01	6,322.01	6,322.01	43.07		66.85	-33.50	47.05	2,091.84	2,073.39	18.45	113.363		
6,900.00	6,414.17	6,406.17	6,406.17	43.13		66.85	-33.50	47.05	2,091.84	2,073.27	18.57	112.646		
7,000.00	6,514.17	6,506.17	6,506.17	43.20		66.85	-33.50	47.05	2,091.84	2,073.13	18.71	111.791		
7,100.00	6,614.17	6,606.17	6,606.17	43.26		66.85	-33.50	47.05	2,091.84	2,072.99	18.86	110.939		
7,200.00	6,714.17	6,706.17	6,706.17	43.33		66.85	-33.50	47.05	2,091.84	2,072.84	19.00	110.091		
7,300.00	6,814.17	6,806.17	6,806.17	43.40		66.85	-33.50	47.05	2,091.84	2,072.69	19.15	109.247		
7,400.00	6,914.17	6,906.17	6,906.17	43.48		66.85	-33.50	47.05	2,091.84	2,072.54	19.30	108.407		
7,500.00	7,014.17	7,006.17	7,006.17	43.55		66.85	-33.50	47.05	2,091.84	2,072.39	19.45	107.572		
7,600.00	7,114.17	7,106.17	7,106.17	43.62		66.85	-33.50	47.05	2,091.84	2,072.24	19.60	106.742		
7,700.00	7,214.17	7,206.17	7,206.17	43.70		66.85	-33.50	47.05	2,091.84	2,072.09	19.75	105.917		
7,800.00	7,314.17	7,306.17	7,306.17	43.77		66.85	-33.50	47.05	2,091.84	2,071.94	19.90	105.098		
7,900.00	7,414.17	7,406.17	7,406.17	43.85		66.85	-33.50	47.05	2,091.84	2,071.78	20.06	104.284		
8,000.00	7,514.17	7,506.17	7,506.17	43.93		66.85	-33.50	47.05	2,091.84	2,071.63	20.22	103.476		
8,100.00	7,614.17	7,606.17	7,606.17	44.01		66.85	-33.50	47.05	2,091.84	2,071.47	20.37	102.674		
8,200.00	7,714.17	7,706.17	7,706.17	44.09		66.85	-33.50	47.05	2,091.84	2,071.31	20.53	101.879		
8,300.00	7,814.17	7,806.17	7,806.17	44.17		66.85	-33.50	47.05	2,091.84	2,071.15	20.69	101.089		
8,375.84	7,890.02	7,882.02	7,882.02	44.23		66.85	-33.50	47.05	2,091.84	2,071.03	20.82	100.495		

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 6 - P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 10-27-09 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	-62.46	7.30	-14.00	15.79				
100.00	100.00	100.00	100.00	0.10	0.10	-62.46	7.30	-14.00	15.79	15.60	0.19	82.657	
200.00	200.00	200.00	200.00	0.32	0.32	-62.46	7.30	-14.00	15.79	15.15	0.64	24.652	
300.00	300.00	300.00	300.00	0.55	0.55	-62.46	7.30	-14.00	15.79	14.70	1.09	14.486	
400.00	400.00	400.00	400.00	0.77	0.77	-62.46	7.30	-14.00	15.79	14.25	1.54	10.257	
500.00	500.00	500.00	500.00	0.99	0.99	-62.46	7.30	-14.00	15.79	13.80	1.99	7.939	
600.00	600.00	600.00	600.00	1.22	1.22	-62.46	7.30	-14.00	15.79	13.35	2.44	6.475	
700.00	700.00	700.00	700.00	1.44	1.44	-62.46	7.30	-14.00	15.79	12.90	2.89	5.468	
800.00	800.00	800.00	800.00	1.67	1.67	-62.46	7.30	-14.00	15.79	12.45	3.34	4.731	
900.00	900.00	900.00	900.00	1.89	1.89	-62.46	7.30	-14.00	15.79	12.00	3.79	4.170	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-62.46	7.30	-14.00	15.79	11.55	4.24	3.727	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-62.46	7.30	-14.00	15.79	11.11	4.69	3.370	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-62.46	7.30	-14.00	15.79	10.66	5.14	3.075	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	-62.46	7.30	-14.00	15.79	10.43	5.36	2.946 CC	
1,300.00	1,300.00	1,299.78	1,299.78	2.78	2.78	52.35	7.23	-14.43	15.87	10.30	5.57	2.851 ES	
1,400.00	1,399.93	1,399.34	1,399.27	2.97	2.98	54.57	6.64	-17.84	16.50	10.56	5.95	2.776 SF	
1,500.00	1,499.68	1,498.88	1,498.57	3.17	3.19	58.51	5.47	-24.65	17.84	11.50	6.34	2.813	
1,600.00	1,599.13	1,598.39	1,597.53	3.39	3.41	63.38	3.71	-34.85	19.97	13.20	6.76	2.952	
1,700.00	1,698.15	1,697.86	1,696.04	3.63	3.65	68.41	1.38	-48.43	22.98	15.74	7.24	3.176	
1,800.00	1,796.63	1,797.29	1,793.96	3.91	3.93	73.04	-1.54	-65.36	26.92	19.15	7.78	3.463	
1,900.00	1,894.44	1,896.65	1,891.17	4.22	4.25	77.04	-5.03	-85.62	31.82	23.42	8.40	3.786	
2,000.00	1,991.46	1,995.94	1,987.54	4.59	4.62	80.34	-9.08	-109.17	37.66	28.52	9.14	4.122	
2,100.00	2,087.58	2,095.65	2,083.85	5.02	5.03	84.93	-13.46	-134.64	43.89	33.90	9.99	4.392	
2,200.00	2,182.68	2,195.25	2,180.04	5.52	5.47	92.28	-17.84	-160.08	50.37	39.41	10.96	4.597	
2,300.00	2,276.65	2,294.58	2,275.97	6.09	5.93	101.22	-22.21	-185.46	58.09	46.14	11.95	4.863	
2,400.00	2,369.36	2,393.51	2,371.52	6.73	6.40	110.64	-26.56	-210.73	68.08	55.22	12.86	5.294	
2,500.00	2,460.71	2,491.93	2,466.58	7.44	6.88	119.58	-30.89	-235.88	81.15	67.52	13.63	5.952	
2,600.00	2,550.59	2,589.72	2,561.03	8.24	7.36	127.48	-35.19	-260.86	97.77	83.51	14.26	6.856	
2,700.00	2,638.88	2,686.77	2,654.75	9.11	7.85	134.14	-39.46	-285.65	118.15	103.37	14.78	7.993	
2,765.35	2,695.67	2,749.72	2,715.55	9.72	8.17	137.85	-42.23	-301.73	133.52	118.43	15.09	8.851	
2,800.00	2,725.58	2,782.99	2,747.69	10.05	8.34	139.69	-43.69	-310.24	142.16	126.90	15.26	9.317	
2,900.00	2,811.92	2,879.03	2,840.44	11.03	8.84	143.94	-47.91	-334.77	167.73	151.93	15.79	10.620	
3,000.00	2,898.25	2,975.06	2,933.19	12.02	9.34	147.06	-52.14	-359.30	193.93	177.56	16.38	11.842	
3,100.00	2,984.58	3,071.09	3,025.94	13.02	9.84	149.44	-56.36	-383.84	220.55	203.56	17.00	12.975	
3,200.00	3,070.92	3,167.12	3,118.69	14.04	10.35	151.31	-60.58	-408.37	247.45	229.80	17.65	14.021	
3,300.00	3,157.25	3,263.16	3,211.44	15.06	10.86	152.81	-64.81	-432.91	274.55	256.23	18.32	14.984	
3,400.00	3,243.58	3,359.19	3,304.19	16.09	11.37	154.05	-69.03	-457.44	301.79	282.78	19.02	15.871	
3,500.00	3,329.92	3,455.22	3,396.94	17.13	11.88	155.08	-73.25	-481.97	329.14	309.42	19.72	16.689	
3,600.00	3,416.25	3,551.25	3,489.69	18.17	12.40	155.95	-77.48	-506.51	356.57	336.13	20.44	17.444	
3,700.00	3,502.58	3,647.29	3,582.44	19.21	12.91	156.70	-81.70	-531.04	384.07	362.90	21.17	18.142	
3,800.00	3,588.92	3,743.32	3,675.19	20.26	13.43	157.34	-85.92	-555.57	411.62	389.72	21.91	18.789	
3,900.00	3,675.25	3,839.35	3,767.94	21.30	13.95	157.91	-90.15	-580.11	439.22	416.57	22.65	19.390	
4,000.00	3,761.59	3,935.38	3,860.69	22.35	14.47	158.41	-94.37	-604.64	466.85	443.44	23.40	19.949	
4,100.00	3,847.92	4,031.42	3,953.43	23.41	14.99	158.85	-98.59	-629.18	494.50	470.35	24.16	20.470	
4,200.00	3,934.25	4,127.45	4,046.18	24.46	15.52	159.25	-102.82	-653.71	522.19	497.27	24.92	20.957	
4,300.00	4,020.59	4,223.48	4,138.93	25.52	16.04	159.61	-107.04	-678.24	549.89	524.21	25.68	21.412	
4,400.00	4,106.92	4,319.51	4,231.68	26.57	16.56	159.93	-111.26	-702.78	577.61	551.16	26.45	21.839	
4,500.00	4,193.25	4,415.55	4,324.43	27.63	17.09	160.22	-115.49	-727.31	605.35	578.13	27.22	22.240	
4,600.00	4,279.59	4,511.58	4,417.18	28.69	17.61	160.49	-119.71	-751.85	633.10	605.11	27.99	22.617	
4,700.00	4,365.92	4,607.61	4,509.93	29.75	18.14	160.73	-123.93	-776.38	660.86	632.09	28.77	22.972	
4,800.00	4,452.25	4,703.64	4,602.68	30.81	18.66	160.96	-128.16	-800.91	688.63	659.09	29.55	23.307	
4,900.00	4,538.59	4,799.68	4,695.43	31.88	19.19	161.17	-132.38	-825.45	716.41	686.09	30.33	23.624	

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_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												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	4,624.92	4,895.71	4,788.18	32.94	19.72	161.36	-136.60	-849.98	744.20	713.09	31.11	23.924	
5,100.00	4,711.25	4,991.74	4,880.93	34.00	20.24	161.54	-140.83	-874.51	772.00	740.11	31.89	24.208	
5,200.00	4,797.59	5,087.77	4,973.68	35.07	20.77	161.70	-145.05	-899.05	799.80	767.12	32.67	24.478	
5,300.50	4,884.35	5,184.28	5,066.89	36.13	21.30	161.86	-149.29	-923.70	827.74	794.28	33.46	24.735	
5,400.00	4,971.11	5,280.29	5,159.61	37.06	21.83	162.13	-153.52	-948.23	853.84	819.50	34.34	24.864	
5,500.00	5,059.95	5,377.60	5,253.60	37.83	22.37	162.31	-157.80	-973.09	876.85	841.65	35.20	24.912	
5,600.00	5,150.34	5,475.62	5,348.27	38.55	22.91	162.39	-162.11	-998.13	896.61	860.56	36.05	24.870	
5,700.00	5,242.17	5,574.23	5,443.51	39.22	23.45	162.38	-166.44	-1,023.33	913.10	876.20	36.90	24.745	
5,800.00	5,335.33	5,673.31	5,539.20	39.84	24.00	162.29	-170.80	-1,048.64	926.31	888.57	37.74	24.544	
5,900.00	5,429.69	5,760.87	5,623.85	40.41	24.44	162.17	-174.60	-1,070.70	936.58	898.09	38.49	24.332	
6,000.00	5,525.15	5,838.76	5,699.62	40.91	24.76	162.06	-177.66	-1,088.48	945.61	906.50	39.11	24.179	
6,100.00	5,621.60	5,916.61	5,775.81	41.37	25.03	161.98	-180.37	-1,104.20	953.63	913.99	39.64	24.057	
6,200.00	5,718.90	6,000.01	5,857.89	41.77	25.29	161.90	-182.88	-1,118.78	960.65	920.53	40.11	23.947	
6,300.00	5,816.95	6,072.20	5,929.25	42.11	25.49	161.85	-184.72	-1,129.50	966.61	926.13	40.47	23.882	
6,400.00	5,915.63	6,149.95	6,006.40	42.41	25.68	161.80	-186.37	-1,139.05	971.55	930.78	40.78	23.826	
6,500.00	6,014.81	6,227.69	6,083.76	42.65	25.84	161.76	-187.65	-1,146.54	975.47	934.46	41.00	23.789	
6,600.00	6,114.38	6,300.01	6,155.89	42.84	25.98	161.74	-188.53	-1,151.65	978.36	937.22	41.15	23.777	
6,700.00	6,214.20	6,383.11	6,238.90	42.97	26.09	161.72	-189.16	-1,155.29	980.18	938.95	41.23	23.772	
6,800.00	6,314.17	6,460.81	6,316.59	43.06	26.19	161.72	-189.38	-1,156.56	980.98	939.75	41.23	23.790	
6,815.84	6,330.01	6,474.23	6,330.01	43.07	26.20	47.20	-189.38	-1,156.57	981.01	939.78	41.23	23.793	
6,900.00	6,414.17	6,558.39	6,414.17	43.13	26.29	47.20	-189.38	-1,156.57	981.01	939.56	41.45	23.666	
7,000.00	6,514.17	6,658.39	6,514.17	43.20	26.41	47.20	-189.38	-1,156.57	981.01	939.29	41.72	23.512	
7,100.00	6,614.17	6,758.39	6,614.17	43.26	26.52	47.20	-189.38	-1,156.57	981.01	939.01	42.00	23.358	
7,200.00	6,714.17	6,858.39	6,714.17	43.33	26.64	47.20	-189.38	-1,156.57	981.01	938.73	42.28	23.204	
7,300.00	6,814.17	6,958.39	6,814.17	43.40	26.75	47.20	-189.38	-1,156.57	981.01	938.45	42.56	23.051	
7,400.00	6,914.17	7,058.39	6,914.17	43.48	26.87	47.20	-189.38	-1,156.57	981.01	938.17	42.84	22.898	
7,500.00	7,014.17	7,158.39	7,014.17	43.55	26.99	47.20	-189.38	-1,156.57	981.01	937.88	43.13	22.746	
7,600.00	7,114.17	7,258.39	7,114.17	43.62	27.11	47.20	-189.38	-1,156.57	981.01	937.59	43.42	22.595	
7,700.00	7,214.17	7,358.39	7,214.17	43.70	27.24	47.20	-189.38	-1,156.57	981.01	937.30	43.71	22.444	
7,800.00	7,314.17	7,458.39	7,314.17	43.77	27.36	47.20	-189.38	-1,156.57	981.01	937.01	44.00	22.293	
7,900.00	7,414.17	7,558.39	7,414.17	43.85	27.49	47.20	-189.38	-1,156.57	981.01	936.71	44.30	22.144	
8,000.00	7,514.17	7,658.39	7,514.17	43.93	27.61	47.20	-189.38	-1,156.57	981.01	936.41	44.60	21.995	
8,100.00	7,614.17	7,758.39	7,614.17	44.01	27.74	47.20	-189.38	-1,156.57	981.01	936.11	44.90	21.847	
8,200.00	7,714.17	7,858.39	7,714.17	44.09	27.87	47.20	-189.38	-1,156.57	981.01	935.80	45.21	21.700	
8,300.00	7,814.17	7,958.39	7,814.17	44.17	28.00	47.20	-189.38	-1,156.57	981.01	935.50	45.52	21.553	
8,375.84	7,890.02	8,034.23	7,890.02	44.23	28.10	47.20	-189.38	-1,156.57	981.01	935.26	45.75	21.443	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 6 - P_DRY CREEK 27-27 - P_DRY CREEK 27-27 - PLAN #1 10-27-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												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	-54.15	18.21	-25.20	31.10				
100.00	100.00	100.00	100.00	0.10	0.10	-54.15	18.21	-25.20	31.10	30.90	0.19	162.762	
200.00	200.00	200.00	200.00	0.32	0.32	-54.15	18.21	-25.20	31.10	30.46	0.64	48.543	
300.00	300.00	300.00	300.00	0.55	0.55	-54.15	18.21	-25.20	31.10	30.01	1.09	28.525	
400.00	400.00	400.00	400.00	0.77	0.77	-54.15	18.21	-25.20	31.10	29.56	1.54	20.197	
500.00	500.00	500.00	500.00	0.99	0.99	-54.15	18.21	-25.20	31.10	29.11	1.99	15.633	
600.00	600.00	600.00	600.00	1.22	1.22	-54.15	18.21	-25.20	31.10	28.66	2.44	12.751	
700.00	700.00	700.00	700.00	1.44	1.44	-54.15	18.21	-25.20	31.10	28.21	2.89	10.766	
800.00	800.00	800.00	800.00	1.67	1.67	-54.15	18.21	-25.20	31.10	27.76	3.34	9.316	
900.00	900.00	900.00	900.00	1.89	1.89	-54.15	18.21	-25.20	31.10	27.31	3.79	8.211	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-54.15	18.21	-25.20	31.10	26.86	4.24	7.339	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-54.15	18.21	-25.20	31.10	26.41	4.69	6.635	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-54.15	18.21	-25.20	31.10	25.96	5.14	6.055	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	-54.15	18.21	-25.20	31.10	25.74	5.36	5.801 CC, ES	
1,300.00	1,300.00	1,299.46	1,299.46	2.78	2.79	61.12	18.49	-25.53	31.31	25.74	5.57	5.621	
1,400.00	1,399.93	1,398.28	1,398.21	2.97	3.00	66.67	20.69	-28.13	33.23	27.26	5.97	5.565 SF	
1,500.00	1,499.68	1,496.80	1,496.49	3.17	3.22	75.82	25.07	-33.32	37.86	31.48	6.39	5.929	
1,600.00	1,599.13	1,594.81	1,593.98	3.39	3.45	85.65	31.59	-41.04	46.15	39.32	6.82	6.763	
1,700.00	1,698.15	1,693.19	1,691.51	3.63	3.70	94.43	39.87	-50.85	58.03	50.73	7.30	7.953	
1,800.00	1,796.63	1,791.77	1,789.22	3.91	3.96	102.69	48.33	-60.86	71.74	63.94	7.81	9.191	
1,900.00	1,894.44	1,889.90	1,886.48	4.22	4.23	110.26	56.74	-70.83	87.67	79.32	8.35	10.504	
2,000.00	1,991.46	1,987.43	1,983.15	4.59	4.50	117.02	65.11	-80.74	106.26	97.35	8.91	11.927	
2,100.00	2,087.58	2,084.27	2,079.12	5.02	4.78	122.92	73.41	-90.57	127.80	118.31	9.48	13.474	
2,200.00	2,182.68	2,180.28	2,174.28	5.52	5.06	128.00	81.65	-100.33	152.47	142.41	10.07	15.147	
2,300.00	2,276.65	2,275.35	2,268.51	6.09	5.35	132.35	89.80	-109.98	180.38	169.73	10.65	16.939	
2,400.00	2,369.36	2,369.37	2,361.70	6.73	5.63	136.07	97.87	-119.53	211.56	200.33	11.23	18.838	
2,500.00	2,460.71	2,462.22	2,453.72	7.44	5.91	139.24	105.83	-128.96	246.00	234.19	11.81	20.830	
2,600.00	2,550.59	2,553.79	2,544.48	8.24	6.20	141.94	113.69	-138.26	283.70	271.31	12.39	22.902	
2,700.00	2,638.88	2,643.96	2,633.85	9.11	6.48	144.25	121.42	-147.42	324.60	311.64	12.96	25.041	
2,765.35	2,695.67	2,702.08	2,691.45	9.72	6.66	145.58	126.41	-153.33	353.04	339.71	13.34	26.469	
2,800.00	2,725.58	2,732.73	2,721.83	10.05	6.75	146.41	129.03	-156.44	368.51	354.95	13.56	27.169	
2,900.00	2,811.92	2,821.16	2,809.48	11.03	7.03	148.47	136.62	-165.42	413.46	399.24	14.22	29.072	
3,000.00	2,898.25	2,909.60	2,897.13	12.02	7.31	150.12	144.21	-174.41	458.75	443.86	14.89	30.809	
3,100.00	2,984.58	2,998.03	2,984.78	13.02	7.59	151.48	151.79	-183.39	504.30	488.73	15.57	32.396	
3,200.00	3,070.92	3,086.47	3,072.42	14.04	7.87	152.62	159.38	-192.37	550.04	533.79	16.25	33.847	
3,300.00	3,157.25	3,174.90	3,160.07	15.06	8.15	153.58	166.96	-201.35	595.92	578.98	16.94	35.177	
3,400.00	3,243.58	3,263.33	3,247.72	16.09	8.44	154.41	174.55	-210.34	641.92	624.29	17.64	36.399	
3,500.00	3,329.92	3,351.77	3,335.37	17.13	8.72	155.13	182.13	-219.32	688.02	669.68	18.34	37.523	
3,600.00	3,416.25	3,440.20	3,423.02	18.17	9.01	155.76	189.72	-228.30	734.18	715.14	19.04	38.562	
3,700.00	3,502.58	3,528.64	3,510.67	19.21	9.29	156.31	197.30	-237.29	780.41	760.67	19.75	39.522	
3,800.00	3,588.92	3,617.07	3,598.32	20.26	9.58	156.80	204.89	-246.27	826.69	806.24	20.46	40.412	
3,900.00	3,675.25	3,705.51	3,685.97	21.30	9.87	157.24	212.47	-255.25	873.01	851.84	21.17	41.239	
4,000.00	3,761.59	3,793.94	3,773.62	22.35	10.15	157.64	220.06	-264.23	919.37	897.49	21.88	42.010	
4,100.00	3,847.92	3,882.37	3,861.27	23.41	10.44	158.00	227.64	-273.22	965.76	943.16	22.60	42.729	
4,200.00	3,934.25	3,970.81	3,948.92	24.46	10.73	158.32	235.23	-282.20	1,012.18	988.86	23.32	43.401	
4,300.00	4,020.59	4,059.24	4,036.57	25.52	11.02	158.62	242.81	-291.18	1,058.62	1,034.58	24.04	44.031	
4,400.00	4,106.92	4,147.68	4,124.21	26.57	11.31	158.89	250.40	-300.17	1,105.08	1,080.32	24.77	44.622	
4,500.00	4,193.25	4,236.11	4,211.86	27.63	11.60	159.14	257.99	-309.15	1,151.56	1,126.07	25.49	45.178	
4,600.00	4,279.59	4,324.54	4,299.51	28.69	11.89	159.37	265.57	-318.13	1,198.06	1,171.84	26.22	45.701	
4,700.00	4,365.92	4,412.98	4,387.16	29.75	12.18	159.59	273.16	-327.11	1,244.57	1,217.63	26.94	46.195	
4,800.00	4,452.25	4,501.41	4,474.81	30.81	12.47	159.78	280.74	-336.10	1,291.09	1,263.42	27.67	46.661	
4,900.00	4,538.59	4,589.85	4,562.46	31.88	12.76	159.97	288.33	-345.08	1,337.62	1,309.23	28.40	47.102	

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_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_DRY CREEK PAD 6 - P_DRY CREEK 27-27 - P_DRY CREEK 27-27 - PLAN #1 10-27-09 RHS												Offset Well Error:	0.00 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,624.92	4,678.28	4,650.11	32.94	13.05	160.14	295.91	-354.06	1,384.17	1,355.04	29.13	47.520	
5,100.00	4,711.25	4,766.72	4,737.76	34.00	13.34	160.30	303.50	-363.04	1,430.72	1,400.86	29.86	47.916	
5,200.00	4,797.59	4,855.15	4,825.41	35.07	13.63	160.45	311.08	-372.03	1,477.28	1,446.69	30.59	48.293	
5,300.50	4,884.35	4,944.02	4,913.49	36.13	13.92	160.59	318.71	-381.05	1,524.08	1,492.76	31.33	48.653	
5,400.00	4,971.11	5,032.78	5,001.46	37.06	14.22	161.03	326.32	-390.07	1,568.97	1,536.81	32.16	48.787	
5,500.00	5,059.95	5,123.44	5,091.32	37.83	14.51	161.39	334.10	-399.28	1,611.13	1,578.17	32.96	48.880	
5,600.00	5,150.34	5,215.46	5,182.52	38.55	14.82	161.68	341.99	-408.63	1,650.26	1,616.52	33.75	48.902	
5,700.00	5,242.17	5,308.72	5,274.95	39.22	15.13	161.89	349.99	-418.10	1,686.33	1,651.81	34.51	48.861	
5,800.00	5,335.33	5,403.11	5,368.51	39.84	15.44	162.04	358.08	-427.69	1,719.28	1,684.02	35.26	48.765	
5,900.00	5,429.69	5,498.52	5,463.07	40.41	15.75	162.14	366.27	-437.38	1,749.08	1,713.11	35.97	48.621	
6,000.00	5,525.15	5,594.83	5,558.52	40.91	16.07	162.17	374.53	-447.16	1,775.71	1,739.04	36.66	48.433	
6,100.00	5,621.60	5,691.92	5,654.75	41.37	16.39	162.16	382.86	-457.02	1,799.12	1,761.80	37.32	48.206	
6,200.00	5,718.90	5,789.67	5,751.63	41.77	16.72	162.09	391.24	-466.95	1,819.31	1,781.37	37.95	47.942	
6,300.00	5,816.95	5,887.96	5,849.05	42.11	17.04	161.97	399.67	-476.94	1,836.27	1,797.72	38.54	47.643	
6,400.00	5,915.63	5,984.94	5,945.18	42.41	17.35	161.81	407.94	-486.73	1,849.98	1,810.90	39.09	47.332	
6,500.00	6,014.81	6,076.68	6,036.36	42.65	17.57	161.68	414.43	-494.42	1,860.72	1,821.24	39.47	47.139	
6,600.00	6,114.38	6,168.92	6,128.31	42.84	17.76	161.60	419.06	-499.89	1,868.57	1,828.81	39.76	46.994	
6,700.00	6,214.20	6,261.49	6,220.79	42.97	17.92	161.55	421.78	-503.12	1,873.51	1,833.56	39.95	46.893	
6,800.00	6,314.17	6,354.89	6,314.17	43.06	18.07	161.55	422.58	-504.06	1,875.53	1,835.48	40.05	46.826	
6,815.84	6,330.01	6,370.73	6,330.01	43.07	18.09	47.02	422.58	-504.06	1,875.57	1,835.51	40.06	46.814	
6,900.00	6,414.17	6,454.89	6,414.17	43.13	18.23	47.02	422.58	-504.06	1,875.57	1,835.27	40.30	46.539	
7,000.00	6,514.17	6,554.89	6,514.17	43.20	18.40	47.02	422.58	-504.06	1,875.57	1,834.98	40.59	46.203	
7,100.00	6,614.17	6,654.89	6,614.17	43.26	18.57	47.02	422.58	-504.06	1,875.57	1,834.68	40.89	45.869	
7,200.00	6,714.17	6,754.89	6,714.17	43.33	18.74	47.02	422.58	-504.06	1,875.57	1,834.38	41.19	45.536	
7,300.00	6,814.17	6,854.89	6,814.17	43.40	18.92	47.02	422.58	-504.06	1,875.57	1,834.08	41.49	45.205	
7,400.00	6,914.17	6,954.89	6,914.17	43.48	19.09	47.02	422.58	-504.06	1,875.57	1,833.78	41.79	44.877	
7,500.00	7,014.17	7,054.89	7,014.17	43.55	19.27	47.02	422.58	-504.06	1,875.57	1,833.47	42.10	44.550	
7,600.00	7,114.17	7,154.89	7,114.17	43.62	19.44	47.02	422.58	-504.06	1,875.57	1,833.16	42.41	44.226	
7,700.00	7,214.17	7,254.89	7,214.17	43.70	19.62	47.02	422.58	-504.06	1,875.57	1,832.85	42.72	43.904	
7,800.00	7,314.17	7,354.89	7,314.17	43.77	19.80	47.02	422.58	-504.06	1,875.57	1,832.54	43.03	43.584	
7,900.00	7,414.17	7,454.89	7,414.17	43.85	19.98	47.02	422.58	-504.06	1,875.57	1,832.22	43.35	43.266	
8,000.00	7,514.17	7,554.89	7,514.17	43.93	20.16	47.02	422.58	-504.06	1,875.57	1,831.91	43.67	42.951	
8,100.00	7,614.17	7,654.89	7,614.17	44.01	20.34	47.02	422.58	-504.06	1,875.57	1,831.59	43.99	42.638	
8,200.00	7,714.17	7,754.89	7,714.17	44.09	20.52	47.02	422.58	-504.06	1,875.57	1,831.26	44.31	42.328	
8,300.00	7,814.17	7,854.89	7,814.17	44.17	20.70	47.02	422.58	-504.06	1,875.57	1,830.94	44.64	42.020	
8,338.13	7,852.30	7,893.02	7,852.30	44.20	20.77	47.02	422.58	-504.06	1,875.57	1,830.81	44.76	41.903	
8,375.84	7,890.02	7,905.73	7,865.02	44.23	20.80	47.02	422.58	-504.06	1,875.74	1,830.90	44.84	41.835	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 6 - P_DRY CREEK 41-27 - P_DRY CREEK 41-27 - PLAN #1 10-27-09 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 Tooface (")	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	126.62	-29.14	39.21	48.85				
100.00	100.00	100.00	100.00	0.10	0.10	126.62	-29.14	39.21	48.85	48.66	0.19	255.691	
200.00	200.00	200.00	200.00	0.32	0.32	126.62	-29.14	39.21	48.85	48.21	0.64	76.259	
300.00	300.00	300.00	300.00	0.55	0.55	126.62	-29.14	39.21	48.85	47.76	1.09	44.812	
400.00	400.00	400.00	400.00	0.77	0.77	126.62	-29.14	39.21	48.85	47.31	1.54	31.728	
500.00	500.00	500.00	500.00	0.99	0.99	126.62	-29.14	39.21	48.85	46.86	1.99	24.558	
600.00	600.00	600.00	600.00	1.22	1.22	126.62	-29.14	39.21	48.85	46.41	2.44	20.031	
700.00	700.00	700.00	700.00	1.44	1.44	126.62	-29.14	39.21	48.85	45.96	2.89	16.913	
800.00	800.00	800.00	800.00	1.67	1.67	126.62	-29.14	39.21	48.85	45.51	3.34	14.636	
900.00	900.00	900.00	900.00	1.89	1.89	126.62	-29.14	39.21	48.85	45.06	3.79	12.898	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	126.62	-29.14	39.21	48.85	44.61	4.24	11.530	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	126.62	-29.14	39.21	48.85	44.16	4.69	10.424	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	126.62	-29.14	39.21	48.85	43.71	5.14	9.511	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	126.62	-29.14	39.21	48.85	43.49	5.36	9.113 CC, ES	
1,300.00	1,300.00	1,299.17	1,299.17	2.78	2.78	-119.18	-29.46	39.49	49.48	43.92	5.56	8.899 SF	
1,400.00	1,399.93	1,397.28	1,397.21	2.97	2.96	-121.53	-31.95	41.74	54.59	48.67	5.92	9.220	
1,500.00	1,499.68	1,494.70	1,494.40	3.17	3.14	-125.07	-36.89	46.21	65.00	58.71	6.29	10.334	
1,600.00	1,599.13	1,591.01	1,590.21	3.39	3.34	-128.60	-44.19	52.79	80.89	74.22	6.67	12.128	
1,700.00	1,698.15	1,685.78	1,684.10	3.63	3.56	-131.51	-53.69	61.38	102.27	95.21	7.06	14.481	
1,800.00	1,796.63	1,778.64	1,775.64	3.91	3.80	-133.71	-65.23	71.81	129.03	121.56	7.48	17.260	
1,900.00	1,894.44	1,869.22	1,864.41	4.22	4.07	-135.27	-78.61	83.89	161.02	153.10	7.92	20.335	
2,000.00	1,991.46	1,957.24	1,950.08	4.59	4.37	-136.35	-93.60	97.42	198.02	189.63	8.39	23.600	
2,100.00	2,087.58	2,048.24	2,038.30	5.02	4.72	-137.34	-110.16	112.38	238.77	229.86	8.92	26.782	
2,200.00	2,182.68	2,138.15	2,125.46	5.52	5.09	-138.34	-126.52	127.16	282.01	272.54	9.47	29.772	
2,300.00	2,276.65	2,226.71	2,211.32	6.09	5.46	-139.31	-142.63	141.72	327.78	317.72	10.06	32.572	
2,400.00	2,369.36	2,313.82	2,295.77	6.73	5.85	-140.22	-158.48	156.04	376.09	365.40	10.69	35.192	
2,500.00	2,460.71	2,399.37	2,378.71	7.44	6.23	-141.07	-174.05	170.10	426.95	415.61	11.34	37.647	
2,600.00	2,550.59	2,483.26	2,460.04	8.24	6.62	-141.83	-189.32	183.89	480.37	468.34	12.03	39.943	
2,700.00	2,638.88	2,565.38	2,539.65	9.11	7.01	-142.50	-204.26	197.38	536.33	523.59	12.74	42.098	
2,765.35	2,695.67	2,618.04	2,590.70	9.72	7.26	-142.90	-213.84	206.04	574.25	561.03	13.22	43.435	
2,800.00	2,725.58	2,645.75	2,617.57	10.05	7.39	-143.38	-218.89	210.59	594.67	581.16	13.50	44.037	
2,900.00	2,811.92	2,725.71	2,695.09	11.03	7.78	-144.62	-233.44	223.74	653.71	639.38	14.33	45.634	
3,000.00	2,898.25	2,805.67	2,772.61	12.02	8.17	-145.65	-247.99	236.88	712.91	697.76	15.15	47.042	
3,100.00	2,984.58	2,885.64	2,850.13	13.02	8.56	-146.53	-262.54	250.02	772.25	756.26	15.99	48.291	
3,200.00	3,070.92	2,965.60	2,927.65	14.04	8.96	-147.29	-277.09	263.17	831.69	814.86	16.83	49.405	
3,300.00	3,157.25	3,045.56	3,005.17	15.06	9.35	-147.94	-291.64	276.31	891.22	873.54	17.68	50.406	
3,400.00	3,243.58	3,125.52	3,082.69	16.09	9.75	-148.51	-306.19	289.45	950.81	932.28	18.53	51.309	
3,500.00	3,329.92	3,205.49	3,160.21	17.13	10.16	-149.02	-320.74	302.60	1,010.45	991.07	19.38	52.127	
3,600.00	3,416.25	3,285.45	3,237.74	18.17	10.56	-149.47	-335.29	315.74	1,070.14	1,049.90	20.24	52.872	
3,700.00	3,502.58	3,365.41	3,315.26	19.21	10.96	-149.87	-349.85	328.88	1,129.87	1,108.77	21.10	53.553	
3,800.00	3,588.92	3,445.37	3,392.78	20.26	11.37	-150.23	-364.40	342.03	1,189.63	1,167.67	21.96	54.178	
3,900.00	3,675.25	3,525.34	3,470.30	21.30	11.78	-150.56	-378.95	355.17	1,249.41	1,226.59	22.82	54.754	
4,000.00	3,761.59	3,605.30	3,547.82	22.35	12.19	-150.86	-393.50	368.31	1,309.22	1,285.54	23.68	55.287	
4,100.00	3,847.92	3,685.26	3,625.34	23.41	12.60	-151.13	-408.05	381.46	1,369.06	1,344.51	24.54	55.781	
4,200.00	3,934.25	3,765.22	3,702.86	24.46	13.01	-151.38	-422.60	394.60	1,428.91	1,403.50	25.41	56.240	
4,300.00	4,020.59	3,845.19	3,780.38	25.52	13.42	-151.61	-437.15	407.74	1,488.77	1,462.50	26.27	56.669	
4,400.00	4,106.92	3,925.15	3,857.90	26.57	13.83	-151.82	-451.70	420.89	1,548.66	1,521.52	27.14	57.070	
4,500.00	4,193.25	4,005.11	3,935.43	27.63	14.25	-152.02	-466.25	434.03	1,608.55	1,580.55	28.00	57.446	
4,600.00	4,279.59	4,085.07	4,012.95	28.69	14.66	-152.20	-480.80	447.17	1,668.45	1,639.59	28.87	57.800	
4,700.00	4,365.92	4,165.04	4,090.47	29.75	15.07	-152.37	-495.36	460.32	1,728.37	1,698.64	29.73	58.133	
4,800.00	4,452.25	4,245.00	4,167.99	30.81	15.49	-152.53	-509.91	473.46	1,788.29	1,757.70	30.60	58.448	
4,900.00	4,538.59	4,324.96	4,245.51	31.88	15.90	-152.68	-524.46	486.60	1,848.22	1,816.76	31.46	58.746	

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_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												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	4,624.92	4,404.93	4,323.03	32.94	16.32	-152.81	-539.01	499.75	1,908.16	1,875.84	32.33	59.029	
5,100.00	4,711.25	4,484.89	4,400.55	34.00	16.73	-152.94	-553.56	512.89	1,968.11	1,934.92	33.19	59.297	
5,200.00	4,797.59	4,564.85	4,478.07	35.07	17.15	-153.07	-568.11	526.03	2,028.06	1,994.01	34.05	59.553	
5,300.50	4,884.35	4,645.21	4,555.98	36.13	17.57	-153.18	-582.73	539.24	2,088.32	2,053.40	34.92	59.798	
5,400.00	4,971.11	4,725.72	4,634.03	37.06	17.99	-153.91	-597.38	552.47	2,146.74	2,110.93	35.81	59.949	
5,500.00	5,059.95	4,808.45	4,714.24	37.83	18.42	-154.53	-612.44	566.07	2,202.89	2,166.24	36.65	60.111	
5,600.00	5,150.34	4,892.92	4,796.12	38.55	18.86	-155.05	-627.81	579.96	2,256.41	2,218.93	37.48	60.210	
5,700.00	5,242.17	4,979.01	4,879.59	39.22	19.31	-155.49	-643.48	594.11	2,307.22	2,268.93	38.29	60.256	
5,800.00	5,335.33	5,066.63	4,964.53	39.84	19.77	-155.84	-659.42	608.51	2,355.29	2,316.20	39.09	60.258	
5,900.00	5,429.69	5,155.67	5,050.85	40.41	20.24	-156.12	-675.62	623.14	2,400.54	2,360.68	39.86	60.221	
6,000.00	5,525.15	5,246.01	5,138.44	40.91	20.71	-156.34	-692.06	637.99	2,442.94	2,402.32	40.61	60.153	
6,100.00	5,621.60	5,337.56	5,227.19	41.37	21.19	-156.49	-708.72	653.04	2,482.44	2,441.10	41.33	60.057	
6,200.00	5,718.90	5,430.19	5,316.99	41.77	21.67	-156.58	-725.58	668.27	2,519.01	2,476.98	42.03	59.938	
6,300.00	5,816.95	5,523.79	5,407.74	42.11	22.17	-156.62	-742.61	683.65	2,552.61	2,509.93	42.69	59.800	
6,400.00	5,915.63	5,618.26	5,499.32	42.41	22.66	-156.60	-759.80	699.18	2,583.23	2,539.92	43.31	59.644	
6,500.00	6,014.81	5,718.31	5,596.32	42.65	23.18	-156.52	-778.00	715.62	2,610.85	2,566.93	43.92	59.448	
6,600.00	6,114.38	5,814.77	5,693.70	42.84	23.66	-156.36	-797.21	732.74	2,638.52	2,595.65	44.49	59.216	
6,700.00	6,214.20	5,914.37	5,793.30	42.97	24.15	-155.82	-816.67	749.74	2,666.38	2,623.51	45.06	58.984	
6,800.00	6,314.17	6,014.16	5,893.01	43.06	24.64	-155.79	-836.29	767.27	2,694.26	2,651.41	45.63	58.752	
6,815.84	6,330.01	6,459.00	6,330.01	43.07	24.98	89.69	-841.45	772.93	2,649.30	2,603.43	45.87	57.760	
6,900.00	6,414.17	6,543.16	6,414.17	43.13	25.07	89.69	-841.45	772.93	2,649.30	2,603.24	46.06	57.516	
7,000.00	6,514.17	6,643.16	6,514.17	43.20	25.18	89.69	-841.45	772.93	2,649.30	2,603.01	46.29	57.232	
7,100.00	6,614.17	6,743.16	6,614.17	43.26	25.29	89.69	-841.45	772.93	2,649.30	2,602.77	46.52	56.947	
7,200.00	6,714.17	6,843.16	6,714.17	43.33	25.40	89.69	-841.45	772.93	2,649.30	2,602.54	46.76	56.660	
7,300.00	6,814.17	6,943.16	6,814.17	43.40	25.51	89.69	-841.45	772.93	2,649.30	2,602.30	47.00	56.373	
7,400.00	6,914.17	7,043.16	6,914.17	43.48	25.63	89.69	-841.45	772.93	2,649.30	2,602.06	47.24	56.085	
7,500.00	7,014.17	7,143.16	7,014.17	43.55	25.74	89.69	-841.45	772.93	2,649.30	2,601.82	47.48	55.797	
7,600.00	7,114.17	7,243.16	7,114.17	43.62	25.86	89.69	-841.45	772.93	2,649.30	2,601.57	47.73	55.507	
7,700.00	7,214.17	7,343.16	7,214.17	43.70	25.98	89.69	-841.45	772.93	2,649.30	2,601.32	47.98	55.218	
7,800.00	7,314.17	7,443.16	7,314.17	43.77	26.10	89.69	-841.45	772.93	2,649.30	2,601.07	48.23	54.928	
7,900.00	7,414.17	7,543.16	7,414.17	43.85	26.22	89.69	-841.45	772.93	2,649.30	2,600.81	48.49	54.638	
8,000.00	7,514.17	7,643.16	7,514.17	43.93	26.34	89.69	-841.45	772.93	2,649.30	2,600.55	48.75	54.348	
8,100.00	7,614.17	7,743.16	7,614.17	44.01	26.47	89.69	-841.45	772.93	2,649.30	2,600.29	49.01	54.058	
8,200.00	7,714.17	7,843.16	7,714.17	44.09	26.59	89.69	-841.45	772.93	2,649.30	2,600.02	49.27	53.768	
8,300.00	7,814.17	7,943.16	7,814.17	44.17	26.72	89.69	-841.45	772.93	2,649.30	2,599.76	49.54	53.478	
8,323.80	7,837.97	7,966.96	7,837.97	44.19	26.75	89.69	-841.45	772.93	2,649.30	2,599.69	49.60	53.409	
8,375.84	7,890.02	7,980.00	7,851.02	44.23	26.76	89.69	-841.45	772.93	2,649.58	2,599.90	49.69	53.324	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												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	127.98	-10.93	14.00	17.76				
100.00	100.00	100.00	100.00	0.10	0.10	127.98	-10.93	14.00	17.76	17.57	0.19	92.982	
200.00	200.00	200.00	200.00	0.32	0.32	127.98	-10.93	14.00	17.76	17.12	0.64	27.732	
232.21	232.21	232.21	232.21	0.39	0.39	128.86	-11.14	13.83	17.76	16.98	0.78	22.813 CC	
300.00	300.00	299.92	299.87	0.55	0.53	136.36	-12.98	12.37	17.93	16.86	1.07	16.776 ES	
400.00	400.00	399.29	398.93	0.77	0.75	158.45	-19.05	7.52	20.51	19.00	1.51	13.572	
500.00	500.00	497.60	496.39	0.99	1.03	-179.16	-29.02	-0.43	29.25	27.22	2.03	14.418	
600.00	600.00	594.34	591.54	1.22	1.38	-165.17	-42.64	-11.29	44.92	42.30	2.62	17.144	
700.00	700.00	689.07	683.74	1.44	1.81	-157.39	-59.62	-24.83	66.60	63.32	3.28	20.331	
800.00	800.00	781.41	772.47	1.67	2.30	-152.88	-79.58	-40.76	93.56	89.56	3.99	23.427	
900.00	900.00	871.02	857.30	1.89	2.86	-150.09	-102.14	-58.75	125.33	120.56	4.77	26.279	
1,000.00	1,000.00	957.66	937.94	2.12	3.47	-148.26	-126.89	-78.49	161.59	156.00	5.60	28.872	
1,100.00	1,100.00	1,041.13	1,014.20	2.34	4.12	-146.99	-153.40	-99.65	202.05	195.58	6.47	31.241	
1,200.00	1,200.00	1,121.29	1,085.98	2.57	4.81	-146.08	-181.30	-121.90	246.44	239.07	7.37	33.432	
1,250.00	1,250.00	1,160.12	1,120.18	2.68	5.17	-145.72	-195.65	-133.35	270.03	262.19	7.84	34.441	
1,300.00	1,300.00	1,200.00	1,154.93	2.78	5.54	-30.64	-210.96	-145.56	294.18	288.48	5.71	51.549	
1,400.00	1,399.93	1,273.01	1,217.45	2.97	6.28	-29.85	-240.44	-169.07	343.10	336.94	6.16	55.673	
1,500.00	1,499.68	1,357.46	1,288.57	3.17	7.16	-29.37	-276.03	-197.46	391.74	385.06	6.68	58.663	
1,600.00	1,599.13	1,446.21	1,363.27	3.39	8.11	-29.17	-313.48	-227.34	437.77	430.55	7.23	60.577	
1,700.00	1,698.15	1,536.26	1,439.08	3.63	9.07	-29.17	-351.48	-257.65	481.11	473.30	7.80	61.671	
1,800.00	1,796.63	1,627.51	1,515.90	3.91	10.05	-29.34	-389.99	-288.37	521.71	513.30	8.40	62.088	
1,900.00	1,894.44	1,719.86	1,593.63	4.22	11.04	-29.64	-428.96	-319.45	559.57	550.53	9.03	61.934	
2,000.00	1,991.46	1,813.18	1,672.18	4.59	12.04	-30.07	-468.35	-350.87	594.69	584.99	9.70	61.292	
2,100.00	2,087.58	1,907.36	1,751.46	5.02	13.06	-30.60	-508.09	-382.57	627.08	616.67	10.41	60.224	
2,200.00	2,182.68	2,002.29	1,831.37	5.52	14.08	-31.24	-548.15	-414.53	656.77	645.59	11.17	58.783	
2,300.00	2,276.65	2,097.85	1,911.81	6.09	15.12	-31.98	-588.48	-446.70	683.78	671.78	11.99	57.014	
2,400.00	2,369.36	2,193.93	1,992.69	6.73	16.16	-32.82	-629.02	-479.04	708.15	695.27	12.89	54.959	
2,500.00	2,460.71	2,290.40	2,073.90	7.44	17.20	-33.76	-669.74	-511.52	729.95	716.09	13.86	52.660	
2,600.00	2,550.59	2,387.16	2,155.35	8.24	18.25	-34.81	-710.57	-544.09	749.23	734.30	14.94	50.160	
2,700.00	2,638.88	2,484.08	2,236.94	9.11	19.30	-35.96	-751.47	-576.71	766.09	749.97	16.13	47.505	
2,765.35	2,695.67	2,547.45	2,290.28	9.72	19.98	-36.78	-778.21	-598.04	775.84	758.87	16.97	45.708	
2,800.00	2,725.58	2,581.05	2,318.56	10.05	20.35	-37.28	-792.39	-609.36	780.79	763.34	17.45	44.752	
2,900.00	2,811.92	2,678.02	2,400.19	11.03	21.40	-38.69	-833.31	-642.00	795.39	776.53	18.86	42.172	
3,000.00	2,898.25	2,774.99	2,481.81	12.02	22.45	-40.05	-874.23	-674.64	810.46	790.12	20.34	39.841	
3,100.00	2,984.58	2,871.95	2,563.44	13.02	23.50	-41.37	-915.16	-707.28	825.98	804.10	21.89	37.742	
3,200.00	3,070.92	2,968.92	2,645.06	14.04	24.55	-42.63	-956.08	-739.92	841.93	818.44	23.48	35.851	
3,300.00	3,157.25	3,065.89	2,726.69	15.06	25.61	-43.85	-997.00	-772.57	858.27	833.14	25.13	34.150	
3,400.00	3,243.58	3,162.86	2,808.31	16.09	26.66	-45.03	-1,037.92	-805.21	874.99	848.16	26.83	32.616	
3,500.00	3,329.92	3,259.82	2,889.94	17.13	27.71	-46.16	-1,078.84	-837.85	892.07	863.49	28.58	31.213	
3,600.00	3,416.25	3,356.79	2,971.56	18.17	28.76	-47.25	-1,119.76	-870.49	909.48	879.10	30.38	29.933	
3,700.00	3,502.58	3,453.76	3,053.19	19.21	29.81	-48.30	-1,160.68	-903.13	927.21	894.99	32.22	28.776	
3,800.00	3,588.92	3,550.73	3,134.82	20.26	30.87	-49.31	-1,201.60	-935.78	945.25	911.16	34.09	27.728	
3,900.00	3,675.25	3,647.69	3,216.44	21.30	31.92	-50.29	-1,242.52	-968.42	963.56	927.57	35.98	26.777	
4,000.00	3,761.59	3,744.66	3,298.07	22.35	32.97	-51.23	-1,283.44	-1,001.06	982.14	944.23	37.90	25.911	
4,100.00	3,847.92	3,841.63	3,379.69	23.41	34.03	-52.13	-1,324.36	-1,033.70	1,000.97	961.13	39.84	25.122	
4,200.00	3,934.25	3,938.59	3,461.32	24.46	35.08	-53.00	-1,365.29	-1,066.34	1,020.04	978.24	41.80	24.400	
4,300.00	4,020.59	4,078.14	3,580.19	25.52	36.30	-54.28	-1,422.41	-1,111.91	1,037.94	993.80	44.14	23.513	
4,400.00	4,106.92	4,236.61	3,720.17	26.57	37.44	-55.96	-1,480.42	-1,158.19	1,050.69	1,003.95	46.73	22.483	
4,500.00	4,193.25	4,394.47	3,864.38	27.63	38.45	-57.89	-1,530.56	-1,198.18	1,058.19	1,008.74	49.44	21.401	
4,600.00	4,279.59	4,550.26	4,010.70	28.69	39.29	-60.08	-1,572.32	-1,231.49	1,060.74	1,008.48	52.26	20.299	
4,700.00	4,365.92	4,702.62	4,156.97	29.75	39.98	-62.53	-1,605.55	-1,257.99	1,058.76	1,003.60	55.15	19.196	
4,800.00	4,452.25	4,850.36	4,301.22	30.81	40.50	-65.23	-1,630.45	-1,277.86	1,052.77	994.68	58.09	18.122	

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_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 6 - P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 10-27-09 RHS										Offset Site Error: 0.00 ft			
Survey Program: 0-MWD										Offset Well Error: 0.00 ft			
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
4,900.00	4,538.59	4,992.54	4,441.68	31.88	40.88	-68.17	-1,647.50	-1,291.46	1,043.39	982.34	61.05	17.092	
5,000.00	4,624.92	5,128.42	4,576.95	32.94	41.12	-71.34	-1,657.41	-1,299.36	1,031.33	967.37	63.96	16.126	
5,100.00	4,711.25	5,257.54	4,705.97	34.00	41.24	-74.70	-1,661.00	-1,302.23	1,017.35	950.57	66.78	15.234	
5,200.00	4,797.59	5,349.15	4,797.59	35.07	41.29	-77.27	-1,661.05	-1,302.27	1,003.43	934.35	69.09	14.524	
5,300.50	4,884.35	5,435.92	4,884.35	36.13	41.33	-79.75	-1,661.05	-1,302.27	991.80	920.52	71.28	13.914	
5,400.00	4,971.11	5,522.68	4,971.11	37.06	41.37	-82.02	-1,661.05	-1,302.27	982.97	909.85	73.13	13.442	
5,500.00	5,059.95	5,611.52	5,059.95	37.83	41.41	-84.26	-1,661.05	-1,302.27	976.80	902.06	74.75	13.068	
5,600.00	5,150.34	5,701.91	5,150.34	38.55	41.46	-86.45	-1,661.05	-1,302.27	972.97	896.74	76.23	12.764	
5,700.00	5,242.17	5,793.74	5,242.17	39.22	41.50	-88.56	-1,661.05	-1,302.27	971.09	893.53	77.56	12.521	
5,771.84	5,308.97	5,860.54	5,308.97	39.67	41.54	-90.00	-1,661.05	-1,302.27	970.73	892.30	78.43	12.377	
5,800.00	5,335.33	5,886.89	5,335.33	39.84	41.55	-90.55	-1,661.05	-1,302.27	970.78	892.04	78.73	12.330	
5,900.00	5,429.69	5,981.26	5,429.69	40.41	41.60	-92.41	-1,661.05	-1,302.27	971.68	891.92	79.76	12.182	
6,000.00	5,525.15	6,076.72	5,525.15	40.91	41.65	-94.11	-1,661.05	-1,302.27	973.45	892.80	80.65	12.071	
6,100.00	5,621.60	6,173.16	5,621.60	41.37	41.71	-95.65	-1,661.05	-1,302.27	975.78	894.38	81.40	11.987	
6,200.00	5,718.90	6,270.47	5,718.90	41.77	41.76	-97.01	-1,661.05	-1,302.27	978.39	896.35	82.03	11.927	
6,300.00	5,816.95	6,368.52	5,816.95	42.11	41.82	-98.18	-1,661.05	-1,302.27	981.03	898.47	82.56	11.883	
6,400.00	5,915.63	6,467.20	5,915.63	42.41	41.87	-99.15	-1,661.05	-1,302.27	983.50	900.51	82.99	11.851	
6,500.00	6,014.81	6,566.38	6,014.81	42.65	41.93	-99.92	-1,661.05	-1,302.27	985.63	902.29	83.34	11.826	
6,600.00	6,114.38	6,665.94	6,114.38	42.84	41.99	-100.48	-1,661.05	-1,302.27	987.27	903.66	83.62	11.807	
6,700.00	6,214.20	6,765.77	6,214.20	42.97	42.05	-100.83	-1,661.05	-1,302.27	988.35	904.51	83.84	11.789	
6,800.00	6,314.17	6,865.74	6,314.17	43.06	42.12	-100.97	-1,661.05	-1,302.27	988.78	904.78	84.00	11.772	
6,815.84	6,330.01	6,881.58	6,330.01	43.07	42.13	144.51	-1,661.05	-1,302.27	988.79	904.77	84.02	11.769	
6,900.00	6,414.17	6,965.74	6,414.17	43.13	42.18	144.51	-1,661.05	-1,302.27	988.79	904.66	84.13	11.753	
7,000.00	6,514.17	7,065.74	6,514.17	43.20	42.25	144.51	-1,661.05	-1,302.27	988.79	904.52	84.26	11.734	
7,100.00	6,614.17	7,165.74	6,614.17	43.26	42.31	144.51	-1,661.05	-1,302.27	988.79	904.39	84.40	11.715	
7,200.00	6,714.17	7,265.74	6,714.17	43.33	42.38	144.51	-1,661.05	-1,302.27	988.79	904.25	84.54	11.696	
7,300.00	6,814.17	7,365.74	6,814.17	43.40	42.45	144.51	-1,661.05	-1,302.27	988.79	904.10	84.68	11.676	
7,400.00	6,914.17	7,465.74	6,914.17	43.48	42.52	144.51	-1,661.05	-1,302.27	988.79	903.96	84.83	11.656	
7,500.00	7,014.17	7,565.74	7,014.17	43.55	42.59	144.51	-1,661.05	-1,302.27	988.79	903.81	84.97	11.636	
7,600.00	7,114.17	7,665.74	7,114.17	43.62	42.66	144.51	-1,661.05	-1,302.27	988.79	903.67	85.12	11.616	
7,700.00	7,214.17	7,765.74	7,214.17	43.70	42.73	144.51	-1,661.05	-1,302.27	988.79	903.51	85.27	11.595	
7,800.00	7,314.17	7,865.74	7,314.17	43.77	42.80	144.51	-1,661.05	-1,302.27	988.79	903.36	85.43	11.575	
7,900.00	7,414.17	7,965.74	7,414.17	43.85	42.88	144.51	-1,661.05	-1,302.27	988.79	903.21	85.58	11.554	
8,000.00	7,514.17	8,065.74	7,514.17	43.93	42.95	144.51	-1,661.05	-1,302.27	988.79	903.05	85.74	11.533	
8,100.00	7,614.17	8,165.74	7,614.17	44.01	43.03	144.51	-1,661.05	-1,302.27	988.79	902.89	85.90	11.511	
8,200.00	7,714.17	8,265.74	7,714.17	44.09	43.11	144.51	-1,661.05	-1,302.27	988.79	902.73	86.06	11.490	
8,300.00	7,814.17	8,365.74	7,814.17	44.17	43.19	144.51	-1,661.05	-1,302.27	988.79	902.57	86.22	11.468	
8,338.13	7,852.30	8,403.87	7,852.30	44.20	43.22	144.51	-1,661.05	-1,302.27	988.79	902.50	86.29	11.460	
8,375.84	7,890.02	8,416.58	7,865.02	44.23	43.23	144.51	-1,661.05	-1,302.27	989.10	902.78	86.33	11.458 SF	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 6 - P_DRY CREEK 8-27 - P_DRY CREEK 8-27 - PLAN #1 10-27-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												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	130.93	-21.86	25.20	33.36				
100.00	100.00	100.00	100.00	0.10	0.10	130.93	-21.86	25.20	33.36	33.17	0.19	174.616	
200.00	200.00	200.00	200.00	0.32	0.32	130.93	-21.86	25.20	33.36	32.72	0.64	52.078	
300.00	300.00	300.00	300.00	0.55	0.55	130.93	-21.86	25.20	33.36	32.27	1.09	30.603	
400.00	400.00	400.00	400.00	0.77	0.77	130.93	-21.86	25.20	33.36	31.82	1.54	21.668	
500.00	500.00	500.00	500.00	0.99	0.99	130.93	-21.86	25.20	33.36	31.37	1.99	16.771	
600.00	600.00	600.00	600.00	1.22	1.22	130.93	-21.86	25.20	33.36	30.92	2.44	13.680	
700.00	700.00	700.00	700.00	1.44	1.44	130.93	-21.86	25.20	33.36	30.47	2.89	11.550	
800.00	800.00	800.00	800.00	1.67	1.67	130.93	-21.86	25.20	33.36	30.02	3.34	9.995	
900.00	900.00	900.00	900.00	1.89	1.89	130.93	-21.86	25.20	33.36	29.57	3.79	8.809	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	130.93	-21.86	25.20	33.36	29.12	4.24	7.874	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	130.93	-21.86	25.20	33.36	28.67	4.69	7.119	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	130.93	-21.86	25.20	33.36	28.22	5.14	6.496	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	130.93	-21.86	25.20	33.36	28.00	5.36	6.223 CC, ES	
1,300.00	1,300.00	1,299.58	1,299.58	2.78	2.78	-114.70	-22.28	25.24	33.85	28.30	5.56	6.089 SF	
1,400.00	1,399.93	1,398.61	1,398.55	2.97	2.95	-115.80	-25.69	25.57	37.81	31.90	5.92	6.393	
1,500.00	1,499.68	1,497.29	1,496.98	3.17	3.12	-117.39	-32.48	26.20	45.75	39.47	6.29	7.279	
1,600.00	1,599.13	1,595.37	1,594.54	3.39	3.32	-118.92	-42.56	27.15	57.67	51.00	6.68	8.638	
1,700.00	1,698.15	1,692.64	1,690.88	3.63	3.53	-120.14	-55.83	28.40	73.55	66.45	7.10	10.356	
1,800.00	1,796.63	1,788.87	1,785.70	3.91	3.78	-121.00	-72.17	29.94	93.32	85.75	7.57	12.323	
1,900.00	1,894.44	1,883.88	1,878.72	4.22	4.06	-121.57	-91.39	31.75	116.92	108.82	8.10	14.434	
2,000.00	1,991.46	1,977.46	1,969.67	4.59	4.38	-121.91	-113.32	33.82	144.27	135.57	8.70	16.590	
2,100.00	2,087.58	2,069.45	2,058.32	5.02	4.74	-122.07	-137.74	36.12	175.27	165.90	9.37	18.708	
2,200.00	2,182.68	2,159.71	2,144.50	5.52	5.15	-122.08	-164.45	38.64	209.82	199.69	10.13	20.722	
2,300.00	2,276.65	2,248.10	2,228.03	6.09	5.59	-121.98	-193.22	41.35	247.81	236.84	10.97	22.597	
2,400.00	2,369.36	2,338.28	2,312.60	6.73	6.10	-121.95	-224.40	44.29	288.67	276.76	11.91	24.239	
2,500.00	2,460.71	2,428.56	2,397.23	7.44	6.62	-122.26	-255.68	47.23	331.33	318.40	12.93	25.632	
2,600.00	2,550.59	2,517.82	2,480.91	8.24	7.16	-122.77	-286.61	50.15	375.79	361.78	14.01	26.827	
2,700.00	2,638.88	2,605.94	2,563.52	9.11	7.70	-123.39	-317.15	53.03	422.12	406.97	15.15	27.866	
2,765.35	2,695.67	2,662.87	2,616.89	9.72	8.06	-123.83	-336.88	54.88	453.44	437.51	15.92	28.476	
2,800.00	2,725.58	2,692.91	2,645.05	10.05	8.25	-124.36	-347.29	55.86	470.28	453.93	16.35	28.758	
2,900.00	2,811.92	2,779.61	2,726.33	11.03	8.80	-125.72	-377.33	58.70	519.05	501.45	17.61	29.480	
3,000.00	2,898.25	2,866.30	2,807.60	12.02	9.36	-126.84	-407.37	61.53	568.01	549.14	18.87	30.094	
3,100.00	2,984.58	2,952.99	2,888.87	13.02	9.93	-127.79	-437.42	64.36	617.11	596.96	20.15	30.621	
3,200.00	3,070.92	3,039.69	2,970.14	14.04	10.50	-128.60	-467.46	67.19	666.32	644.88	21.44	31.078	
3,300.00	3,157.25	3,126.38	3,051.42	15.06	11.08	-129.30	-497.50	70.02	715.61	692.88	22.73	31.478	
3,400.00	3,243.58	3,213.08	3,132.69	16.09	11.65	-129.91	-527.54	72.85	764.98	740.95	24.03	31.830	
3,500.00	3,329.92	3,299.77	3,213.96	17.13	12.23	-130.45	-557.58	75.68	814.40	789.07	25.34	32.142	
3,600.00	3,416.25	3,386.46	3,295.24	18.17	12.82	-130.92	-587.63	78.51	863.88	837.23	26.65	32.421	
3,700.00	3,502.58	3,473.16	3,376.51	19.21	13.40	-131.34	-617.67	81.34	913.39	885.43	27.96	32.672	
3,800.00	3,588.92	3,559.85	3,457.78	20.26	13.99	-131.72	-647.71	84.17	962.93	933.67	29.27	32.899	
3,900.00	3,675.25	3,646.55	3,539.06	21.30	14.58	-132.07	-677.75	87.00	1,012.51	981.93	30.58	33.105	
4,000.00	3,761.59	3,733.24	3,620.33	22.35	15.17	-132.38	-707.80	89.83	1,062.11	1,030.21	31.90	33.293	
4,100.00	3,847.92	3,819.93	3,701.60	23.41	15.76	-132.66	-737.84	92.66	1,111.73	1,078.51	33.22	33.466	
4,200.00	3,934.25	3,906.63	3,782.87	24.46	16.36	-132.92	-767.88	95.49	1,161.37	1,126.83	34.54	33.625	
4,300.00	4,020.59	3,993.32	3,864.15	25.52	16.95	-133.16	-797.92	98.32	1,211.03	1,175.17	35.86	33.771	
4,400.00	4,106.92	4,080.02	3,945.42	26.57	17.55	-133.38	-827.96	101.15	1,260.70	1,223.52	37.18	33.908	
4,500.00	4,193.25	4,166.71	4,026.69	27.63	18.14	-133.58	-858.01	103.98	1,310.39	1,271.88	38.50	34.035	
4,600.00	4,279.59	4,253.40	4,107.97	28.69	18.74	-133.77	-888.05	106.81	1,360.08	1,320.26	39.82	34.153	
4,700.00	4,365.92	4,340.10	4,189.24	29.75	19.34	-133.94	-918.09	109.64	1,409.79	1,368.64	41.14	34.264	
4,800.00	4,452.25	4,426.79	4,270.51	30.81	19.94	-134.11	-948.13	112.47	1,459.50	1,417.04	42.47	34.368	
4,900.00	4,538.59	4,513.49	4,351.79	31.88	20.53	-134.26	-978.18	115.30	1,509.23	1,465.44	43.79	34.466	

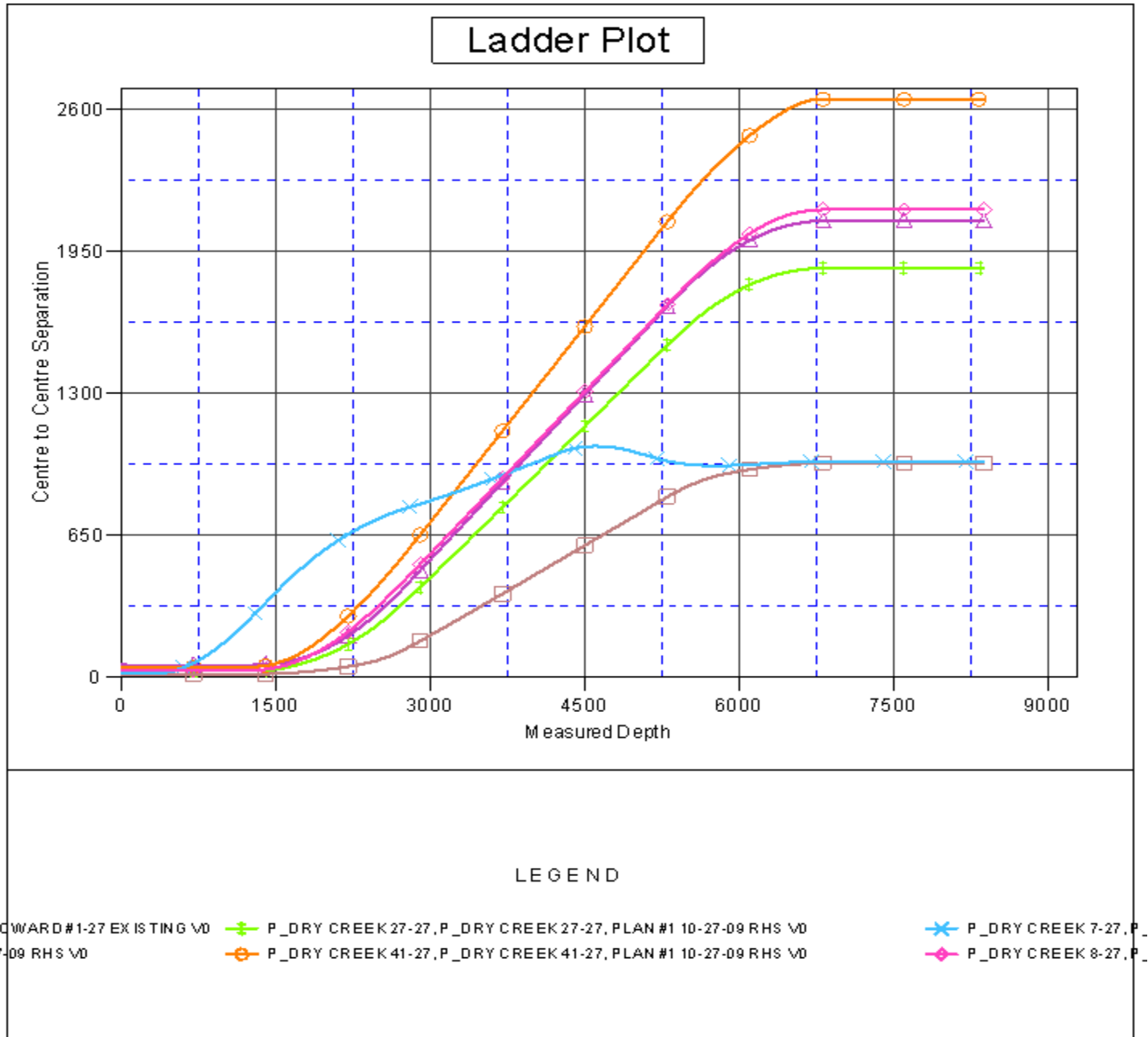
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 6 - P_DRY CREEK 8-27 - P_DRY CREEK 8-27 - PLAN #1 10-27-09 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	4,624.92	4,600.18	4,433.06	32.94	21.13	-134.40	-1,008.22	118.14	1,558.96	1,513.85	45.11	34.559	
5,100.00	4,711.25	4,686.87	4,514.33	34.00	21.73	-134.53	-1,038.26	120.97	1,608.70	1,562.26	46.43	34.646	
5,200.00	4,797.59	4,773.57	4,595.61	35.07	22.33	-134.66	-1,068.30	123.80	1,658.44	1,610.69	47.75	34.729	
5,300.50	4,884.35	4,860.69	4,677.28	36.13	22.94	-134.78	-1,098.49	126.64	1,708.44	1,659.36	49.08	34.808	
5,400.00	4,971.11	4,947.59	4,758.74	37.06	23.54	-135.62	-1,128.61	129.48	1,756.88	1,706.53	50.35	34.895	
5,500.00	5,059.95	5,036.11	4,841.73	37.83	24.15	-136.33	-1,159.28	132.37	1,803.37	1,751.84	51.53	34.994	
5,600.00	5,150.34	5,125.73	4,925.75	38.55	24.78	-136.90	-1,190.34	135.29	1,847.62	1,794.91	52.71	35.052	
5,700.00	5,242.17	5,216.33	5,010.68	39.22	25.40	-137.34	-1,221.73	138.25	1,889.58	1,835.70	53.88	35.073	
5,800.00	5,335.33	5,307.81	5,096.44	39.84	26.04	-137.68	-1,253.43	141.24	1,929.22	1,874.20	55.02	35.062	
5,900.00	5,429.69	5,400.05	5,182.91	40.41	26.68	-137.90	-1,285.40	144.25	1,966.52	1,910.37	56.15	35.024	
6,000.00	5,525.15	5,492.94	5,269.99	40.91	27.33	-138.03	-1,317.59	147.28	2,001.46	1,944.21	57.25	34.960	
6,100.00	5,621.60	5,607.36	5,377.64	41.37	28.02	-137.99	-1,356.21	150.92	2,033.76	1,975.37	58.38	34.834	
6,200.00	5,718.90	5,737.32	5,501.58	41.77	28.60	-137.90	-1,395.08	154.58	2,062.19	2,002.83	59.36	34.739	
6,300.00	5,816.95	5,870.42	5,630.23	42.11	29.13	-137.83	-1,429.04	157.78	2,086.54	2,026.31	60.23	34.643	
6,400.00	5,915.63	6,006.25	5,762.99	42.41	29.60	-137.78	-1,457.53	160.47	2,106.66	2,045.68	60.98	34.548	
6,500.00	6,014.81	6,144.32	5,899.19	42.65	30.00	-137.74	-1,480.03	162.59	2,122.45	2,060.86	61.59	34.463	
6,600.00	6,114.38	6,284.11	6,038.02	42.84	30.32	-137.73	-1,496.14	164.11	2,133.83	2,071.76	62.06	34.381	
6,700.00	6,214.20	6,425.04	6,178.62	42.97	30.55	-137.74	-1,505.53	164.99	2,140.73	2,078.34	62.40	34.308	
6,800.00	6,314.17	6,560.63	6,314.17	43.06	30.70	-137.76	-1,508.09	165.23	2,143.15	2,080.55	62.60	34.238	
6,815.84	6,330.01	6,576.47	6,330.01	43.07	30.71	107.71	-1,508.09	165.23	2,143.18	2,080.57	62.61	34.228	
6,900.00	6,414.17	6,660.63	6,414.17	43.13	30.78	107.71	-1,508.09	165.23	2,143.18	2,080.42	62.76	34.150	
7,000.00	6,514.17	6,760.63	6,514.17	43.20	30.87	107.71	-1,508.09	165.23	2,143.18	2,080.25	62.93	34.058	
7,100.00	6,614.17	6,860.63	6,614.17	43.26	30.95	107.71	-1,508.09	165.23	2,143.18	2,080.08	63.10	33.965	
7,200.00	6,714.17	6,960.63	6,714.17	43.33	31.03	107.71	-1,508.09	165.23	2,143.18	2,079.90	63.27	33.871	
7,300.00	6,814.17	7,060.63	6,814.17	43.40	31.12	107.71	-1,508.09	165.23	2,143.18	2,079.73	63.45	33.776	
7,400.00	6,914.17	7,160.63	6,914.17	43.48	31.21	107.71	-1,508.09	165.23	2,143.18	2,079.55	63.63	33.680	
7,500.00	7,014.17	7,260.63	7,014.17	43.55	31.30	107.71	-1,508.09	165.23	2,143.18	2,079.36	63.82	33.584	
7,600.00	7,114.17	7,360.63	7,114.17	43.62	31.39	107.71	-1,508.09	165.23	2,143.18	2,079.18	64.00	33.486	
7,700.00	7,214.17	7,460.63	7,214.17	43.70	31.48	107.71	-1,508.09	165.23	2,143.18	2,078.99	64.19	33.388	
7,800.00	7,314.17	7,560.63	7,314.17	43.77	31.57	107.71	-1,508.09	165.23	2,143.18	2,078.80	64.38	33.288	
7,900.00	7,414.17	7,660.63	7,414.17	43.85	31.66	107.71	-1,508.09	165.23	2,143.18	2,078.60	64.58	33.188	
8,000.00	7,514.17	7,760.63	7,514.17	43.93	31.76	107.71	-1,508.09	165.23	2,143.18	2,078.41	64.77	33.088	
8,100.00	7,614.17	7,860.63	7,614.17	44.01	31.86	107.71	-1,508.09	165.23	2,143.18	2,078.21	64.97	32.986	
8,200.00	7,714.17	7,960.63	7,714.17	44.09	31.95	107.71	-1,508.09	165.23	2,143.18	2,078.01	65.17	32.884	
8,300.00	7,814.17	8,060.63	7,814.17	44.17	32.05	107.71	-1,508.09	165.23	2,143.18	2,077.80	65.38	32.781	
8,375.84	7,890.02	8,136.47	7,890.02	44.23	32.13	107.71	-1,508.09	165.23	2,143.18	2,077.65	65.53	32.703	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5008.01ft (Original Well Elev) Coordinates are relative to: P_DRY CREEK 21-27
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: 0.41°



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 21-27
Project:	COLORADO NOTHERN ZONE - 83	TVD Reference:	WELL @ 5008.01ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 6	MD Reference:	WELL @ 5008.01ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_DRY CREEK 21-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	PLAN #1 10-27-09 RHS	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-27-09 RHS	Offset TVD Reference:	Offset Datum

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