



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_DRY CREEK PAD 6**

**P\_DRY CREEK 8-27**

**P\_DRY CREEK 8-27**

**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 8-27

+N/-S	+E/-W	Northing	Ground Level:	4993.01	Longitude	Slot
0.00	0.00	1253672.99	Easting	3176392.01	40° 1' 40.800 N	104° 52' 12.396 W

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3116.01	3195.28	PARKMAN TOP
4718.01	4904.14	SUSSEX TOP
7300.01	7546.47	NIO TOP
7700.02	7946.47	CODELL TOP
8137.02	8383.47	JSAND TOP

#### SECTION DETAILS

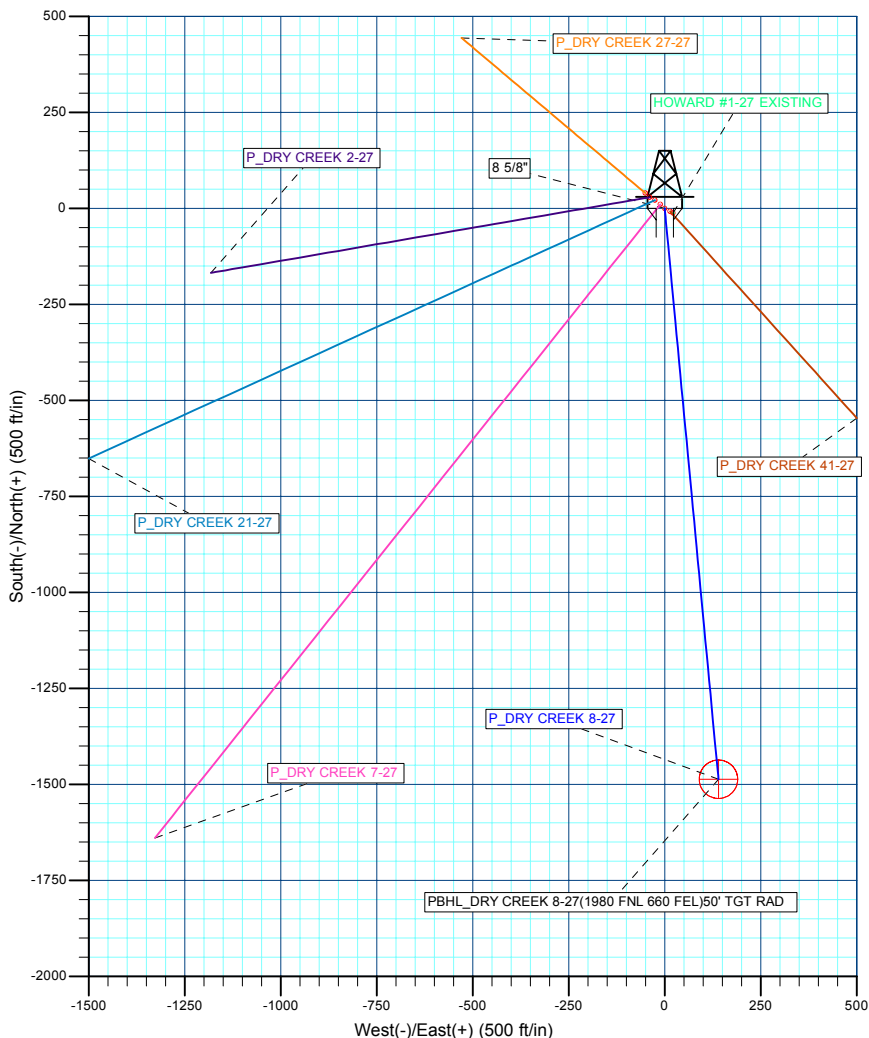
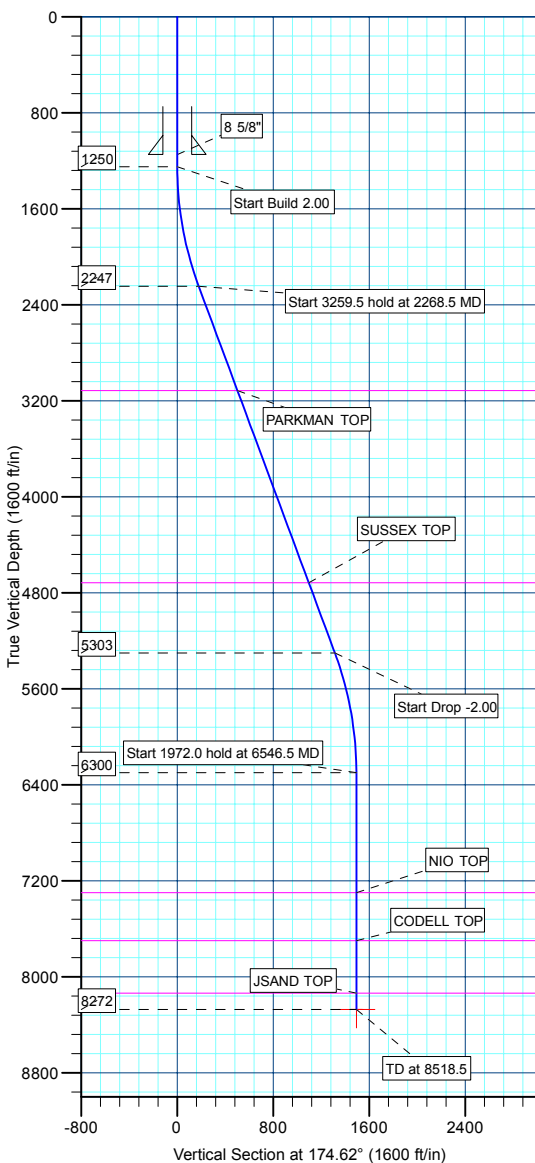
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	0.00	0.00	
2268.46	20.37	174.62	2247.14	-178.35	16.80	2.00	174.62	179.14	
5528.01	20.37	174.62	5302.87	-1307.88	123.22	0.00	0.00	1313.68	
6546.47	0.00	0.00	6300.01	-1486.23	140.03	2.00	180.00	1492.81	
8518.47	0.00	0.00	8272.02	-1486.23	140.03	0.00	0.00	1492.81	PBHL_DRY CREEK 8-27(1980 FNL 660 FEL)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	8272.02	-1486.23	140.03	1252187.80	3176542.59	40° 1' 26.112 N	104° 52' 10.596 W	Circle (Radius: 50.00)

Plan: PLAN #1 10-27-09 RHS (P\_DRY CREEK 8-27/P\_DRY CREEK 8-27)

Created By: Robert H. Scott

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site:</b>	WELD_DRY CREEK PAD 6	<b>North Reference:</b>	True
<b>Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_DRY CREEK 8-27		
<b>Design:</b>	PLAN #1 10-27-09 RHS		

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

Site						WELD_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 8-27					
Well Position	+N/-S	-29.16 ft	Northing:	1,253,672.99 ft	Latitude:	40° 1' 40.800 N
	+E/-W	39.21 ft	Easting:	3,176,392.01 ft	Longitude:	104° 52' 12.396 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,993.01 ft

<b>Wellbore</b>	P_DRY CREEK 8-27				
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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

<b>Design</b>	PLAN #1 10-27-09 RHS				
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<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	174.62	

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	
2,268.46	20.37	174.62	2,247.14	-178.35	16.80	2.00	2.00	0.00	174.62	
5,528.01	20.37	174.62	5,302.87	-1,307.88	123.22	0.00	0.00	0.00	0.00	
6,546.47	0.00	0.00	6,300.01	-1,486.23	140.03	2.00	-2.00	0.00	180.00	
8,518.47	0.00	0.00	8,272.02	-1,486.23	140.03	0.00	0.00	0.00	0.00	PBHL_DRY CREEK

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site:</b>	WELD_DRY CREEK PAD 6	<b>North Reference:</b>	True
<b>Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_DRY CREEK 8-27		
<b>Design:</b>	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)
<b>Start Build 2.00</b>									
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	174.62	1,300.00	-0.43	0.04	0.44	2.00	2.00	0.00
1,400.00	3.00	174.62	1,399.93	-3.91	0.37	3.93	2.00	2.00	0.00
1,500.00	5.00	174.62	1,499.68	-10.85	1.02	10.90	2.00	2.00	0.00
1,600.00	7.00	174.62	1,599.13	-21.26	2.00	21.35	2.00	2.00	0.00
1,700.00	9.00	174.62	1,698.15	-35.11	3.31	35.27	2.00	2.00	0.00
1,800.00	11.00	174.62	1,796.63	-52.40	4.94	52.63	2.00	2.00	0.00
1,900.00	13.00	174.62	1,894.44	-73.10	6.89	73.42	2.00	2.00	0.00
2,000.00	15.00	174.62	1,991.46	-97.18	9.16	97.61	2.00	2.00	0.00
2,100.00	17.00	174.62	2,087.58	-124.62	11.74	125.18	2.00	2.00	0.00
2,200.00	19.00	174.62	2,182.68	-155.39	14.64	156.08	2.00	2.00	0.00
<b>Start 3259.5 hold at 2268.5 MD</b>									
2,268.46	20.37	174.62	2,247.14	-178.35	16.80	179.14	2.00	2.00	0.00
2,300.00	20.37	174.62	2,276.71	-189.28	17.83	190.11	0.00	0.00	0.00
2,400.00	20.37	174.62	2,370.46	-223.93	21.10	224.92	0.00	0.00	0.00
2,500.00	20.37	174.62	2,464.20	-258.58	24.36	259.73	0.00	0.00	0.00
2,600.00	20.37	174.62	2,557.95	-293.24	27.63	294.53	0.00	0.00	0.00
2,700.00	20.37	174.62	2,651.70	-327.89	30.89	329.34	0.00	0.00	0.00
2,800.00	20.37	174.62	2,745.44	-362.54	34.16	364.15	0.00	0.00	0.00
2,900.00	20.37	174.62	2,839.19	-397.20	37.42	398.95	0.00	0.00	0.00
3,000.00	20.37	174.62	2,932.94	-431.85	40.69	433.76	0.00	0.00	0.00
3,100.00	20.37	174.62	3,026.69	-466.50	43.95	468.57	0.00	0.00	0.00
<b>PARKMAN TOP</b>									
3,195.28	20.37	174.62	3,116.01	-499.52	47.06	501.73	0.00	0.00	0.00
3,200.00	20.37	174.62	3,120.43	-501.15	47.22	503.37	0.00	0.00	0.00
3,300.00	20.37	174.62	3,214.18	-535.81	50.48	538.18	0.00	0.00	0.00
3,400.00	20.37	174.62	3,307.93	-570.46	53.75	572.99	0.00	0.00	0.00
3,500.00	20.37	174.62	3,401.67	-605.11	57.01	607.79	0.00	0.00	0.00
3,600.00	20.37	174.62	3,495.42	-639.77	60.28	642.60	0.00	0.00	0.00
3,700.00	20.37	174.62	3,589.17	-674.42	63.54	677.41	0.00	0.00	0.00
3,800.00	20.37	174.62	3,682.91	-709.07	66.81	712.21	0.00	0.00	0.00
3,900.00	20.37	174.62	3,776.66	-743.73	70.07	747.02	0.00	0.00	0.00
4,000.00	20.37	174.62	3,870.41	-778.38	73.34	781.83	0.00	0.00	0.00
4,100.00	20.37	174.62	3,964.16	-813.03	76.60	816.63	0.00	0.00	0.00
4,200.00	20.37	174.62	4,057.90	-847.69	79.87	851.44	0.00	0.00	0.00
4,300.00	20.37	174.62	4,151.65	-882.34	83.13	886.25	0.00	0.00	0.00
4,400.00	20.37	174.62	4,245.40	-916.99	86.40	921.05	0.00	0.00	0.00
4,500.00	20.37	174.62	4,339.14	-951.65	89.66	955.86	0.00	0.00	0.00
4,600.00	20.37	174.62	4,432.89	-986.30	92.93	990.67	0.00	0.00	0.00
4,700.00	20.37	174.62	4,526.64	-1,020.95	96.19	1,025.47	0.00	0.00	0.00
4,800.00	20.37	174.62	4,620.38	-1,055.61	99.46	1,060.28	0.00	0.00	0.00
4,900.00	20.37	174.62	4,714.13	-1,090.26	102.72	1,095.09	0.00	0.00	0.00
<b>SUSSEX TOP</b>									
4,904.14	20.37	174.62	4,718.01	-1,091.69	102.86	1,096.53	0.00	0.00	0.00
5,000.00	20.37	174.62	4,807.88	-1,124.91	105.99	1,129.89	0.00	0.00	0.00
5,100.00	20.37	174.62	4,901.63	-1,159.57	109.25	1,164.70	0.00	0.00	0.00
5,200.00	20.37	174.62	4,995.37	-1,194.22	112.52	1,199.51	0.00	0.00	0.00
5,300.00	20.37	174.62	5,089.12	-1,228.87	115.78	1,234.31	0.00	0.00	0.00
5,400.00	20.37	174.62	5,182.87	-1,263.52	119.05	1,269.12	0.00	0.00	0.00
5,500.00	20.37	174.62	5,276.61	-1,298.18	122.31	1,303.93	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,528.01	20.37	174.62	5,302.87	-1,307.88	123.22	1,313.68	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site:</b>	WELD_DRY CREEK PAD 6	<b>North Reference:</b>	True
<b>Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_DRY CREEK 8-27		
<b>Design:</b>	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	18.93	174.62	5,370.67	-1,331.98	125.50	1,337.88	2.00	-2.00	0.00
5,700.00	16.93	174.62	5,465.81	-1,362.63	128.38	1,368.67	2.00	-2.00	0.00
5,800.00	14.93	174.62	5,561.96	-1,389.95	130.96	1,396.11	2.00	-2.00	0.00
5,900.00	12.93	174.62	5,659.02	-1,413.92	133.21	1,420.18	2.00	-2.00	0.00
6,000.00	10.93	174.62	5,756.85	-1,434.50	135.15	1,440.85	2.00	-2.00	0.00
6,100.00	8.93	174.62	5,855.35	-1,451.66	136.77	1,458.09	2.00	-2.00	0.00
6,200.00	6.93	174.62	5,954.39	-1,465.40	138.07	1,471.89	2.00	-2.00	0.00
6,300.00	4.93	174.62	6,053.85	-1,475.68	139.03	1,482.22	2.00	-2.00	0.00
6,400.00	2.93	174.62	6,153.61	-1,482.50	139.68	1,489.07	2.00	-2.00	0.00
6,500.00	0.93	174.62	6,253.55	-1,485.86	139.99	1,492.44	2.00	-2.00	0.00
<b>Start 1972.0 hold at 6546.5 MD</b>									
6,546.47	0.00	0.00	6,300.01	-1,486.23	140.03	1,492.81	2.00	-2.00	-375.77
6,600.00	0.00	0.00	6,353.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
6,700.00	0.00	0.00	6,453.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
6,800.00	0.00	0.00	6,553.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
6,900.00	0.00	0.00	6,653.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,000.00	0.00	0.00	6,753.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,100.00	0.00	0.00	6,853.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,200.00	0.00	0.00	6,953.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,300.00	0.00	0.00	7,053.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,400.00	0.00	0.00	7,153.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,500.00	0.00	0.00	7,253.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
<b>NIO TOP</b>									
7,546.47	0.00	0.00	7,300.01	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,600.00	0.00	0.00	7,353.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,700.00	0.00	0.00	7,453.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,800.00	0.00	0.00	7,553.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
7,900.00	0.00	0.00	7,653.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
<b>CODELL TOP</b>									
7,946.47	0.00	0.00	7,700.02	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
8,000.00	0.00	0.00	7,753.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
8,100.00	0.00	0.00	7,853.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
8,200.00	0.00	0.00	7,953.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
8,300.00	0.00	0.00	8,053.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
<b>JSAND TOP</b>									
8,383.47	0.00	0.00	8,137.02	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
8,400.00	0.00	0.00	8,153.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
8,500.00	0.00	0.00	8,253.54	-1,486.23	140.03	1,492.81	0.00	0.00	0.00
<b>TD at 8518.5 - PBHL_DRY CREEK 8-27(1980 FNL 660 FEL)50' TGT RAD</b>									
8,518.47	0.00	0.00	8,272.02	-1,486.23	140.03	1,492.81	0.00	0.00	0.00

#### Design Targets

##### Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_DRY CREEK 8 - plan hits target center - Circle (radius 50.00)	0.00	0.00	8,272.02	-1,486.23	140.03	1,252,187.80	3,176,542.59	40° 1' 26.112 N	104° 52' 10.596 W

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site:</b>	WELD_DRY CREEK PAD 6	<b>North Reference:</b>	True
<b>Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_DRY CREEK 8-27		
<b>Design:</b>	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 (°)	
3,195.28	3,116.01	PARKMAN TOP				
4,904.14	4,718.01	SUSSEX TOP				
7,546.47	7,300.01	NIO TOP				
7,946.47	7,700.02	CODELL TOP				
8,383.47	8,137.02	JSAND 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	
2,268.46	2,247.14	-178.35	16.80	Start 3259.5 hold at 2268.5 MD	
5,528.01	5,302.87	-1,307.88	123.22	Start Drop -2.00	
6,546.47	6,300.01	-1,486.23	140.03	Start 1972.0 hold at 6546.5 MD	
8,518.47	8,272.02	-1,486.23	140.03	TD at 8518.5	



# **US ROCKIES REGION PLANNING**

**COLORADO NOTHERN ZONE - 83  
WELD\_DRY CREEK PAD 6  
P\_DRY CREEK 8-27**

**P\_DRY CREEK 8-27  
PLAN #1 10-27-09 RHS**

## **Anticollision Report**

**27 October, 2009**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 10-27-09 RHS		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	0.00 to 20,000.00ft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.00ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	10/27/2009		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,518.47	PLAN #1 10-27-09 RHS (P_DRY CREEK	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	1,529.68	1,521.24	20.65	17.47	6.479	CC, ES, SF
P_DRY CREEK 21-27 - PLAN #1 10-27-09 RHS - PLAN	1,250.00	1,250.00	33.36	28.00	6.223	CC, ES
P_DRY CREEK 21-27 - PLAN #1 10-27-09 RHS - PLAN	1,300.00	1,299.75	33.86	28.30	6.090	SF
P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 1	1,250.00	1,250.00	48.86	43.50	9.115	CC, ES
P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 1	1,300.00	1,299.41	49.45	43.89	8.893	SF
P_DRY CREEK 27-27 - P_DRY CREEK 27-27 - PLAN #	1,250.00	1,250.00	64.39	59.03	12.012	CC, ES
P_DRY CREEK 27-27 - P_DRY CREEK 27-27 - PLAN #	1,300.00	1,298.89	65.12	59.56	11.702	SF
P_DRY CREEK 41-27 - P_DRY CREEK 41-27 - PLAN #	1,250.00	1,250.00	15.78	10.42	2.944	CC
P_DRY CREEK 41-27 - P_DRY CREEK 41-27 - PLAN #	1,300.00	1,299.74	15.96	10.40	2.871	ES, SF
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	277.05	277.07	15.57	14.60	16.017	CC
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	300.00	300.00	15.61	14.53	14.574	ES
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	400.00	399.43	17.93	16.42	11.838	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		Distance							Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor					
							+N/-S (ft)	+E/-W (ft)									
0.00	0.00	0.00	0.00	0.00		118.07	-11.65	21.84	26.02								
100.00	100.00	92.00	92.00	0.10		118.07	-11.65	21.84	24.75	24.66	0.10	258.602					
200.00	200.00	192.00	192.00	0.32		118.07	-11.65	21.84	24.75	24.43	0.32	77.240					
300.00	300.00	292.00	292.00	0.55		118.07	-11.65	21.84	24.75	24.21	0.55	45.400					
400.00	400.00	392.00	392.00	0.77		118.07	-11.65	21.84	24.75	23.98	0.77	32.148					
500.00	500.00	492.00	492.00	0.99		118.07	-11.65	21.84	24.75	23.76	0.99	24.885					
600.00	600.00	592.00	592.00	1.22		118.07	-11.65	21.84	24.75	23.54	1.22	20.298					
700.00	700.00	692.00	692.00	1.44		118.07	-11.65	21.84	24.75	23.31	1.44	17.139					
800.00	800.00	792.00	792.00	1.67		118.07	-11.65	21.84	24.75	23.09	1.67	14.831					
900.00	900.00	892.00	892.00	1.89		118.07	-11.65	21.84	24.75	22.86	1.89	13.071					
1,000.00	1,000.00	992.00	992.00	2.12		118.07	-11.65	21.84	24.75	22.64	2.12	11.684					
1,100.00	1,100.00	1,092.00	1,092.00	2.34		118.07	-11.65	21.84	24.75	22.41	2.34	10.564					
1,200.00	1,200.00	1,192.00	1,192.00	2.57		118.07	-11.65	21.84	24.75	22.19	2.57	9.639					
1,250.00	1,250.00	1,242.00	1,242.00	2.68		118.07	-11.65	21.84	24.75	22.07	2.68	9.235					
1,300.00	1,300.00	1,292.00	1,292.00	2.78			-57.40	21.84	24.52	21.74	2.78	8.825					
1,400.00	1,399.93	1,391.93	1,391.93	2.95			-64.83	21.84	22.83	19.88	2.95	7.743					

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



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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 #1-27 EXISTING													
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
1,500.00	1,499.68	1,491.68	1,491.68	3.13		-82.46	-11.65	21.84	20.84	17.71	3.13	6.659	
1,529.68	1,529.24	1,521.24	1,521.24	3.19		-89.99	-11.65	21.84	20.65	17.47	3.19	6.479	CC, ES, SF
1,600.00	1,599.13	1,591.13	1,591.13	3.33		-110.32	-11.65	21.84	22.05	18.71	3.33	6.614	
1,700.00	1,698.15	1,690.15	1,690.15	3.55		-135.96	-11.65	21.84	29.90	26.36	3.54	8.443	
1,800.00	1,796.63	1,788.63	1,788.63	3.81		-151.65	-11.65	21.84	44.12	40.38	3.74	11.794	
1,900.00	1,894.44	1,886.44	1,886.44	4.11		-160.48	-11.65	21.84	63.25	59.30	3.94	16.043	
2,000.00	1,991.46	1,983.46	1,983.46	4.46		-165.71	-11.65	21.84	86.47	82.32	4.15	20.836	
2,100.00	2,087.58	2,079.58	2,079.58	4.87		-169.04	-11.65	21.84	113.43	109.06	4.37	25.974	
2,200.00	2,182.68	2,174.68	2,174.68	5.34		-171.28	-11.65	21.84	143.92	139.33	4.59	31.331	
2,268.46	2,247.14	2,239.14	2,239.14	5.70		-172.42	-11.65	21.84	166.77	162.02	4.76	35.073	
2,300.00	2,276.71	2,268.71	2,268.71	5.88		-172.88	-11.65	21.84	177.67	172.84	4.84	36.736	
2,400.00	2,370.46	2,362.46	2,362.46	6.45		-174.05	-11.65	21.84	212.28	207.18	5.10	41.617	
2,500.00	2,464.20	2,456.20	2,456.20	7.05		-174.88	-11.65	21.84	246.95	241.57	5.37	45.955	
2,600.00	2,557.95	2,549.95	2,549.95	7.67		-175.52	-11.65	21.84	281.65	275.99	5.65	49.820	
2,700.00	2,651.70	2,643.70	2,643.70	8.29		-176.01	-11.65	21.84	316.37	310.43	5.94	53.271	
2,800.00	2,745.44	2,737.44	2,737.44	8.93		-176.40	-11.65	21.84	351.11	344.88	6.23	56.363	
2,900.00	2,839.19	2,831.19	2,831.19	9.58		-176.73	-11.65	21.84	385.86	379.34	6.52	59.142	
3,000.00	2,932.94	2,924.94	2,924.94	10.24		-177.00	-11.65	21.84	420.62	413.80	6.82	61.648	
3,100.00	3,026.69	3,018.69	3,018.69	10.90		-177.23	-11.65	21.84	455.39	448.27	7.12	63.915	
3,200.00	3,120.43	3,112.43	3,112.43	11.57		-177.42	-11.65	21.84	490.16	482.73	7.43	65.974	
3,300.00	3,214.18	3,206.18	3,206.18	12.24		-177.59	-11.65	21.84	524.94	517.20	7.74	67.850	
3,400.00	3,307.93	3,299.93	3,299.93	12.91		-177.74	-11.65	21.84	559.72	551.68	8.05	69.564	
3,500.00	3,401.67	3,393.67	3,393.67	13.59		-177.88	-11.65	21.84	594.51	586.15	8.36	71.134	
3,600.00	3,495.42	3,487.42	3,487.42	14.26		-177.99	-11.65	21.84	629.29	620.62	8.67	72.577	
3,700.00	3,589.17	3,581.17	3,581.17	14.94		-178.10	-11.65	21.84	664.08	655.10	8.99	73.908	
3,800.00	3,682.91	3,674.91	3,674.91	15.63		-178.19	-11.65	21.84	698.87	689.57	9.30	75.137	
3,900.00	3,776.66	3,768.66	3,768.66	16.31		-178.28	-11.65	21.84	733.67	724.05	9.62	76.276	
4,000.00	3,870.41	3,862.41	3,862.41	17.00		-178.36	-11.65	21.84	768.46	758.52	9.94	77.333	
4,100.00	3,964.16	3,956.16	3,956.16	17.68		-178.43	-11.65	21.84	803.25	793.00	10.26	78.317	
4,200.00	4,057.90	4,049.90	4,049.90	18.37		-178.49	-11.65	21.84	838.05	827.47	10.58	79.234	
4,300.00	4,151.65	4,143.65	4,143.65	19.06		-178.55	-11.65	21.84	872.85	861.95	10.90	80.092	
4,400.00	4,245.40	4,237.40	4,237.40	19.75		-178.61	-11.65	21.84	907.64	896.42	11.22	80.895	
4,500.00	4,339.14	4,331.14	4,331.14	20.44		-178.66	-11.65	21.84	942.44	930.90	11.54	81.648	
4,600.00	4,432.89	4,424.89	4,424.89	21.13		-178.71	-11.65	21.84	977.24	965.37	11.87	82.356	
4,700.00	4,526.64	4,518.64	4,518.64	21.82		-178.75	-11.65	21.84	1,012.04	999.85	12.19	83.023	
4,800.00	4,620.38	4,612.38	4,612.38	22.52		-178.79	-11.65	21.84	1,046.84	1,034.32	12.51	83.651	
4,900.00	4,714.13	4,706.13	4,706.13	23.21		-178.83	-11.65	21.84	1,081.64	1,068.80	12.84	84.244	
5,000.00	4,807.88	4,799.88	4,799.88	23.90		-178.87	-11.65	21.84	1,116.44	1,103.27	13.16	84.805	
5,100.00	4,901.63	4,893.63	4,893.63	24.60		-178.90	-11.65	21.84	1,151.24	1,137.75	13.49	85.336	
5,200.00	4,995.37	4,987.37	4,987.37	25.29		-178.94	-11.65	21.84	1,186.04	1,172.22	13.82	85.839	
5,300.00	5,089.12	5,081.12	5,081.12	25.99		-178.97	-11.65	21.84	1,220.84	1,206.70	14.14	86.317	
5,400.00	5,182.87	5,174.87	5,174.87	26.68		-178.99	-11.65	21.84	1,255.64	1,241.17	14.47	86.772	
5,500.00	5,276.61	5,268.61	5,268.61	27.38		-179.02	-11.65	21.84	1,290.45	1,275.65	14.80	87.204	
5,528.01	5,302.87	5,294.87	5,294.87	27.57		-179.03	-11.65	21.84	1,300.20	1,285.31	14.89	87.322	
5,600.00	5,370.67	5,362.67	5,362.67	27.99		-179.06	-11.65	21.84	1,324.40	1,309.37	15.03	88.103	
5,700.00	5,465.81	5,457.81	5,457.81	28.45		-179.09	-11.65	21.84	1,355.18	1,339.89	15.29	88.627	
5,800.00	5,561.96	5,553.96	5,553.96	28.87		-179.11	-11.65	21.84	1,382.62	1,367.06	15.56	88.879	
5,900.00	5,659.02	5,651.02	5,651.02	29.25		-179.14	-11.65	21.84	1,406.69	1,390.90	15.79	89.094	
6,000.00	5,756.85	5,748.85	5,748.85	29.59		-179.16	-11.65	21.84	1,427.35	1,411.37	15.99	89.275	
6,100.00	5,855.35	5,847.35	5,847.35	29.88		-179.17	-11.65	21.84	1,444.59	1,428.44	16.15	89.427	
6,200.00	5,954.39	5,946.39	5,946.39	30.14		-179.18	-11.65	21.84	1,458.39	1,442.10	16.29	89.550	
6,300.00	6,053.85	6,045.85	6,045.85	30.35		-179.19	-11.65	21.84	1,468.72	1,452.33	16.38	89.647	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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
6,400.00	6,153.61	6,145.61	6,145.61	30.52		-179.20	-11.65	21.84	1,475.57	1,459.12	16.45	89.717	
6,500.00	6,253.55	6,245.55	6,245.55	30.64		-179.20	-11.65	21.84	1,478.93	1,462.46	16.48	89.761	
6,546.47	6,300.01	6,292.01	6,292.01	30.69		-4.58	-11.65	21.84	1,479.31	1,462.83	16.48	89.755	
6,600.00	6,353.54	6,345.54	6,345.54	30.73		-4.58	-11.65	21.84	1,479.31	1,462.74	16.57	89.290	
6,700.00	6,453.54	6,445.54	6,445.54	30.82		-4.58	-11.65	21.84	1,479.31	1,462.59	16.72	88.465	
6,800.00	6,553.54	6,545.54	6,545.54	30.90		-4.58	-11.65	21.84	1,479.31	1,462.43	16.88	87.647	
6,900.00	6,653.54	6,645.54	6,645.54	30.98		-4.58	-11.65	21.84	1,479.31	1,462.28	17.04	86.836	
7,000.00	6,753.54	6,745.54	6,745.54	31.07		-4.58	-11.65	21.84	1,479.31	1,462.12	17.19	86.033	
7,100.00	6,853.54	6,845.54	6,845.54	31.15		-4.58	-11.65	21.84	1,479.31	1,461.96	17.36	85.237	
7,200.00	6,953.54	6,945.54	6,945.54	31.24		-4.58	-11.65	21.84	1,479.31	1,461.79	17.52	84.449	
7,300.00	7,053.54	7,045.54	7,045.54	31.33		-4.58	-11.65	21.84	1,479.31	1,461.63	17.68	83.668	
7,400.00	7,153.54	7,145.54	7,145.54	31.42		-4.58	-11.65	21.84	1,479.31	1,461.47	17.85	82.896	
7,500.00	7,253.54	7,245.54	7,245.54	31.51		-4.58	-11.65	21.84	1,479.31	1,461.30	18.01	82.132	
7,600.00	7,353.54	7,345.54	7,345.54	31.61		-4.58	-11.65	21.84	1,479.31	1,461.13	18.18	81.377	
7,700.00	7,453.54	7,445.54	7,445.54	31.70		-4.58	-11.65	21.84	1,479.31	1,460.96	18.35	80.630	
7,800.00	7,553.54	7,545.54	7,545.54	31.80		-4.58	-11.65	21.84	1,479.31	1,460.79	18.52	79.891	
7,900.00	7,653.54	7,645.54	7,645.54	31.89		-4.58	-11.65	21.84	1,479.31	1,460.62	18.69	79.161	
8,000.00	7,753.54	7,745.54	7,745.54	31.99		-4.58	-11.65	21.84	1,479.31	1,460.45	18.86	78.439	
8,100.00	7,853.54	7,845.54	7,845.54	32.09		-4.58	-11.65	21.84	1,479.31	1,460.28	19.03	77.726	
8,200.00	7,953.54	7,945.54	7,945.54	32.19		-4.58	-11.65	21.84	1,479.31	1,460.10	19.21	77.021	
8,300.00	8,053.54	8,045.54	8,045.54	32.30		-4.58	-11.65	21.84	1,479.31	1,459.93	19.38	76.325	
8,400.00	8,153.54	8,145.54	8,145.54	32.40		-4.58	-11.65	21.84	1,479.31	1,459.75	19.56	75.637	
8,500.00	8,253.54	8,245.54	8,245.54	32.50		-4.58	-11.65	21.84	1,479.31	1,459.58	19.74	74.958	
8,518.47	8,272.02	8,264.02	8,264.02	32.52		-4.58	-11.65	21.84	1,479.31	1,459.54	19.77	74.834	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_DRY CREEK PAD 6 - P_DRY CREEK 21-27 - PLAN #1 10-27-09 RHS - PLAN #1 10-27-09 RH												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWMD												<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-49.07	21.86	-25.20	33.36				
100.00	100.00	100.00	100.00	0.10	0.10	-49.07	21.86	-25.20	33.36	33.17	0.19	174.616	
200.00	200.00	200.00	200.00	0.32	0.32	-49.07	21.86	-25.20	33.36	32.72	0.64	52.078	
300.00	300.00	300.00	300.00	0.55	0.55	-49.07	21.86	-25.20	33.36	32.27	1.09	30.603	
400.00	400.00	400.00	400.00	0.77	0.77	-49.07	21.86	-25.20	33.36	31.82	1.54	21.668	
500.00	500.00	500.00	500.00	0.99	0.99	-49.07	21.86	-25.20	33.36	31.37	1.99	16.771	
600.00	600.00	600.00	600.00	1.22	1.22	-49.07	21.86	-25.20	33.36	30.92	2.44	13.680	
700.00	700.00	700.00	700.00	1.44	1.44	-49.07	21.86	-25.20	33.36	30.47	2.89	11.550	
800.00	800.00	800.00	800.00	1.67	1.67	-49.07	21.86	-25.20	33.36	30.02	3.34	9.995	
900.00	900.00	900.00	900.00	1.89	1.89	-49.07	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	-49.07	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	-49.07	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	-49.07	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	-49.07	21.86	-25.20	33.36	28.00	5.36	6.223 CC, ES	
1,300.00	1,300.00	1,299.75	1,299.75	2.78	2.78	136.15	21.68	-25.60	33.86	28.30	5.56	6.090 SF	
1,400.00	1,399.93	1,399.14	1,399.07	2.95	2.97	134.99	20.25	-28.73	37.83	31.92	5.91	6.397	
1,500.00	1,499.68	1,498.17	1,497.86	3.13	3.17	133.25	17.40	-34.98	45.80	39.52	6.28	7.291	
1,600.00	1,599.13	1,596.60	1,595.75	3.33	3.38	131.52	13.17	-44.26	57.76	51.09	6.67	8.661	
1,700.00	1,698.15	1,694.20	1,692.42	3.55	3.62	130.04	7.59	-56.47	73.69	66.60	7.09	10.394	
1,800.00	1,796.63	1,790.76	1,787.56	3.81	3.88	128.83	0.74	-71.50	93.53	85.98	7.56	12.380	
1,900.00	1,894.44	1,886.08	1,880.87	4.11	4.18	127.85	-7.33	-89.19	117.22	109.14	8.08	14.512	
2,000.00	1,991.46	1,979.97	1,972.10	4.46	4.52	127.02	-16.53	-109.36	144.66	135.99	8.66	16.694	
2,100.00	2,087.58	2,072.26	2,061.01	4.87	4.90	126.30	-26.78	-131.83	175.76	166.43	9.33	18.843	
2,200.00	2,182.68	2,162.80	2,147.43	5.34	5.34	125.64	-37.99	-156.39	210.42	200.35	10.07	20.897	
2,268.46	2,247.14	2,223.70	2,205.06	5.70	5.65	125.21	-46.16	-174.31	236.15	225.52	10.62	22.229	
2,300.00	2,276.71	2,251.49	2,231.21	5.88	5.81	125.20	-50.06	-182.85	248.44	237.54	10.91	22.782	
2,400.00	2,370.46	2,338.75	2,312.73	6.45	6.33	124.86	-62.98	-211.17	288.42	276.58	11.84	24.366	
2,500.00	2,464.20	2,424.62	2,391.98	7.05	6.90	124.18	-76.70	-241.24	329.91	317.08	12.83	25.717	
2,600.00	2,557.95	2,508.99	2,468.86	7.67	7.51	123.30	-91.13	-272.87	372.94	359.07	13.87	26.885	
2,700.00	2,651.70	2,591.76	2,543.24	8.29	8.17	122.30	-106.19	-305.89	417.53	402.57	14.96	27.908	
2,800.00	2,745.44	2,672.83	2,615.05	8.93	8.87	121.23	-121.80	-340.11	463.72	447.63	16.09	28.819	
2,900.00	2,839.19	2,752.13	2,684.24	9.58	9.59	120.13	-137.88	-375.36	511.51	494.27	17.24	29.668	
3,000.00	2,932.94	2,837.40	2,757.87	10.24	10.41	119.00	-155.73	-414.48	560.42	541.95	18.47	30.348	
3,100.00	3,026.69	2,924.09	2,832.71	10.90	11.27	118.02	-173.89	-454.29	609.50	589.79	19.71	30.922	
3,200.00	3,120.43	3,010.78	2,907.56	11.57	12.13	117.20	-192.05	-494.09	658.69	637.73	20.96	31.423	
3,300.00	3,214.18	3,097.48	2,982.41	12.24	13.00	116.48	-210.20	-533.89	707.98	685.76	22.22	31.864	
3,400.00	3,307.93	3,184.17	3,057.25	12.91	13.88	115.86	-228.36	-573.69	757.33	733.85	23.48	32.252	
3,500.00	3,401.67	3,270.87	3,132.10	13.59	14.76	115.31	-246.52	-613.50	806.75	782.00	24.75	32.599	
3,600.00	3,495.42	3,357.56	3,206.94	14.26	15.66	114.83	-264.68	-653.30	856.21	830.20	26.02	32.910	
3,700.00	3,589.17	3,444.25	3,281.79	14.94	16.55	114.40	-282.83	-693.10	905.72	878.43	27.29	33.191	
3,800.00	3,682.91	3,530.95	3,356.64	15.63	17.45	114.01	-300.99	-732.90	955.26	926.70	28.56	33.445	
3,900.00	3,776.66	3,617.64	3,431.48	16.31	18.35	113.66	-319.15	-772.71	1,004.83	974.99	29.84	33.676	
4,000.00	3,870.41	3,704.34	3,506.33	17.00	19.25	113.35	-337.31	-812.51	1,054.43	1,023.31	31.12	33.887	
4,100.00	3,964.16	3,791.03	3,581.17	17.68	20.16	113.06	-355.46	-852.31	1,104.05	1,071.65	32.39	34.081	
4,200.00	4,057.90	3,877.73	3,656.02	18.37	21.07	112.80	-373.62	-892.11	1,153.69	1,120.01	33.67	34.260	
4,300.00	4,151.65	3,964.42	3,730.87	19.06	21.98	112.56	-391.78	-931.92	1,203.34	1,168.39	34.96	34.425	
4,400.00	4,245.40	4,051.11	3,805.71	19.75	22.89	112.34	-409.94	-971.72	1,253.01	1,216.77	36.24	34.579	
4,500.00	4,339.14	4,137.81	3,880.56	20.44	23.81	112.13	-428.09	-1,011.52	1,302.69	1,265.17	37.52	34.721	
4,600.00	4,432.89	4,224.50	3,955.40	21.13	24.72	111.94	-446.25	-1,051.32	1,352.39	1,313.59	38.80	34.855	
4,700.00	4,526.64	4,311.20	4,030.25	21.82	25.64	111.76	-464.41	-1,091.13	1,402.09	1,362.01	40.08	34.980	
4,800.00	4,620.38	4,397.89	4,105.10	22.52	26.55	111.60	-482.57	-1,130.93	1,451.81	1,410.44	41.37	35.097	
4,900.00	4,714.13	4,484.58	4,179.94	23.21	27.47	111.44	-500.72	-1,170.73	1,501.53	1,458.88	42.65	35.207	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_DRY CREEK PAD 6 - P_DRY CREEK 21-27 - PLAN #1 10-27-09 RHS - PLAN #1 10-27-09 RH												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,807.88	4,571.28	4,254.79	23.90	28.39	111.30	-518.88	-1,210.53	1,551.26	1,507.33	43.93	35.311	
5,100.00	4,901.63	4,657.97	4,329.63	24.60	29.31	111.17	-537.04	-1,250.33	1,601.00	1,555.78	45.21	35.409	
5,200.00	4,995.37	4,744.67	4,404.48	25.29	30.23	111.04	-555.20	-1,290.14	1,650.74	1,604.24	46.50	35.503	
5,300.00	5,089.12	4,831.36	4,479.33	25.99	31.15	110.92	-573.35	-1,329.94	1,700.49	1,652.71	47.78	35.591	
5,400.00	5,182.87	4,918.05	4,554.17	26.68	32.07	110.81	-591.51	-1,369.74	1,750.24	1,701.18	49.06	35.675	
5,500.00	5,276.61	5,004.75	4,629.02	27.38	32.99	110.70	-609.67	-1,409.54	1,800.00	1,749.66	50.34	35.755	
5,528.01	5,302.87	5,029.03	4,649.98	27.57	33.25	110.67	-614.75	-1,420.69	1,813.94	1,763.24	50.70	35.777	
5,600.00	5,370.67	5,091.57	4,703.97	27.99	33.91	111.33	-627.85	-1,449.40	1,849.48	1,797.67	51.81	35.694	
5,700.00	5,465.81	5,178.80	4,779.28	28.45	34.84	112.13	-646.12	-1,489.45	1,897.92	1,844.69	53.23	35.656	
5,800.00	5,561.96	5,266.35	4,854.87	28.87	35.77	112.80	-664.46	-1,529.65	1,945.23	1,890.64	54.59	35.633	
5,900.00	5,659.02	5,408.53	4,978.62	29.25	37.13	113.11	-693.50	-1,593.31	1,990.69	1,934.54	56.15	35.455	
6,000.00	5,756.85	5,593.69	5,144.59	29.59	38.51	113.20	-727.54	-1,667.93	2,031.19	1,973.55	57.64	35.238	
6,100.00	5,855.35	5,788.70	5,324.74	29.88	39.77	113.25	-758.50	-1,735.79	2,066.04	2,007.05	58.98	35.027	
6,200.00	5,954.39	5,992.74	5,518.19	30.14	40.88	113.25	-785.37	-1,794.69	2,094.81	2,034.67	60.15	34.828	
6,300.00	6,053.85	6,204.57	5,723.37	30.35	41.78	113.23	-807.14	-1,842.42	2,117.15	2,056.04	61.11	34.647	
6,400.00	6,153.61	6,422.53	5,937.94	30.52	42.46	113.19	-822.92	-1,877.00	2,132.74	2,070.89	61.84	34.486	
6,500.00	6,253.55	6,644.62	6,158.90	30.64	42.90	113.14	-831.98	-1,896.88	2,141.34	2,078.98	62.36	34.339	
6,546.47	6,300.01	6,748.61	6,262.78	30.69	43.02	-72.27	-833.78	-1,900.81	2,142.92	2,080.39	62.53	34.271	
6,600.00	6,353.54	6,839.37	6,353.54	30.73	43.09	-72.29	-834.11	-1,901.53	2,143.18	2,080.52	62.66	34.206	
6,700.00	6,453.54	6,939.37	6,453.54	30.82	43.15	-72.29	-834.11	-1,901.53	2,143.18	2,080.36	62.82	34.114	
6,800.00	6,553.54	7,039.37	6,553.54	30.90	43.22	-72.29	-834.11	-1,901.53	2,143.18	2,080.18	62.99	34.022	
6,900.00	6,653.54	7,139.37	6,653.54	30.98	43.29	-72.29	-834.11	-1,901.53	2,143.18	2,080.01	63.17	33.928	
7,000.00	6,753.54	7,239.37	6,753.54	31.07	43.36	-72.29	-834.11	-1,901.53	2,143.18	2,079.84	63.34	33.834	
7,100.00	6,853.54	7,339.37	6,853.54	31.15	43.43	-72.29	-834.11	-1,901.53	2,143.18	2,079.66	63.52	33.739	
7,200.00	6,953.54	7,439.37	6,953.54	31.24	43.50	-72.29	-834.11	-1,901.53	2,143.18	2,079.47	63.70	33.642	
7,300.00	7,053.54	7,539.37	7,053.54	31.33	43.58	-72.29	-834.11	-1,901.53	2,143.18	2,079.29	63.89	33.545	
7,400.00	7,153.54	7,639.37	7,153.54	31.42	43.65	-72.29	-834.11	-1,901.53	2,143.18	2,079.10	64.08	33.447	
7,500.00	7,253.54	7,739.37	7,253.54	31.51	43.73	-72.29	-834.11	-1,901.53	2,143.18	2,078.91	64.27	33.349	
7,600.00	7,353.54	7,839.37	7,353.54	31.61	43.80	-72.29	-834.11	-1,901.53	2,143.18	2,078.72	64.46	33.249	
7,700.00	7,453.54	7,939.37	7,453.54	31.70	43.88	-72.29	-834.11	-1,901.53	2,143.18	2,078.53	64.65	33.149	
7,800.00	7,553.54	8,039.37	7,553.54	31.80	43.96	-72.29	-834.11	-1,901.53	2,143.18	2,078.33	64.85	33.048	
7,900.00	7,653.54	8,139.37	7,653.54	31.89	44.04	-72.29	-834.11	-1,901.53	2,143.18	2,078.13	65.05	32.946	
8,000.00	7,753.54	8,239.37	7,753.54	31.99	44.12	-72.29	-834.11	-1,901.53	2,143.18	2,077.93	65.25	32.844	
8,100.00	7,853.54	8,339.37	7,853.54	32.09	44.20	-72.29	-834.11	-1,901.53	2,143.18	2,077.72	65.46	32.741	
8,108.59	7,862.14	8,347.97	7,862.14	32.10	44.21	-72.29	-834.11	-1,901.53	2,143.18	2,077.70	65.48	32.732	
8,200.00	7,953.54	8,375.84	7,890.02	32.19	44.23	-72.29	-834.11	-1,901.53	2,144.12	2,078.52	65.60	32.684	
8,300.00	8,053.54	8,375.84	7,890.02	32.30	44.23	-72.29	-834.11	-1,901.53	2,149.41	2,083.70	65.71	32.711	
8,400.00	8,153.54	8,375.84	7,890.02	32.40	44.23	-72.29	-834.11	-1,901.53	2,159.32	2,093.50	65.82	32.808	
8,500.00	8,253.54	8,375.84	7,890.02	32.50	44.23	-72.29	-834.11	-1,901.53	2,173.79	2,107.86	65.93	32.972	
8,518.47	8,272.02	8,375.84	7,890.02	32.52	44.23	-72.29	-834.11	-1,901.53	2,176.96	2,111.01	65.95	33.010	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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	
0.00	0.00	0.00	0.00	0.00	0.00	-53.36	29.16	-39.21	48.86				
100.00	100.00	100.00	100.00	0.10	0.10	-53.36	29.16	-39.21	48.86	48.67	0.19	255.743	
200.00	200.00	200.00	200.00	0.32	0.32	-53.36	29.16	-39.21	48.86	48.22	0.64	76.274	
300.00	300.00	300.00	300.00	0.55	0.55	-53.36	29.16	-39.21	48.86	47.77	1.09	44.821	
400.00	400.00	400.00	400.00	0.77	0.77	-53.36	29.16	-39.21	48.86	47.32	1.54	31.735	
500.00	500.00	500.00	500.00	0.99	0.99	-53.36	29.16	-39.21	48.86	46.87	1.99	24.563	
600.00	600.00	600.00	600.00	1.22	1.22	-53.36	29.16	-39.21	48.86	46.42	2.44	20.035	
700.00	700.00	700.00	700.00	1.44	1.44	-53.36	29.16	-39.21	48.86	45.97	2.89	16.917	
800.00	800.00	800.00	800.00	1.67	1.67	-53.36	29.16	-39.21	48.86	45.52	3.34	14.639	
900.00	900.00	900.00	900.00	1.89	1.89	-53.36	29.16	-39.21	48.86	45.07	3.79	12.901	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-53.36	29.16	-39.21	48.86	44.62	4.24	11.532	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-53.36	29.16	-39.21	48.86	44.17	4.69	10.426	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-53.36	29.16	-39.21	48.86	43.72	5.14	9.513	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	-53.36	29.16	-39.21	48.86	43.50	5.36	9.115 CC, ES	
1,300.00	1,300.00	1,299.41	1,299.41	2.78	2.78	132.03	29.09	-39.63	49.45	43.89	5.56	8.893 SF	
1,400.00	1,399.93	1,398.07	1,398.01	2.95	2.98	132.06	28.51	-42.98	54.16	48.24	5.92	9.148	
1,500.00	1,499.68	1,496.24	1,495.94	3.13	3.18	132.09	27.36	-49.63	63.56	57.27	6.29	10.104	
1,600.00	1,599.13	1,593.61	1,592.79	3.33	3.40	132.09	25.67	-59.49	77.61	70.93	6.68	11.624	
1,700.00	1,698.15	1,689.87	1,688.14	3.55	3.63	132.04	23.44	-72.42	96.25	89.16	7.09	13.583	
1,800.00	1,796.63	1,784.73	1,781.63	3.81	3.89	131.93	20.72	-88.24	119.39	111.86	7.53	15.857	
1,900.00	1,894.44	1,877.93	1,872.91	4.11	4.19	131.77	17.53	-106.75	146.94	138.92	8.02	18.331	
2,000.00	1,991.46	1,969.23	1,961.70	4.46	4.52	131.55	13.92	-127.71	178.79	170.23	8.55	20.903	
2,100.00	2,087.58	2,061.28	2,050.65	4.87	4.89	131.43	9.90	-151.06	214.40	205.25	9.15	23.435	
2,200.00	2,182.68	2,153.74	2,139.95	5.34	5.29	131.73	5.84	-174.68	252.32	242.52	9.80	25.757	
2,268.46	2,247.14	2,216.45	2,200.51	5.70	5.57	132.11	3.08	-190.70	279.55	269.29	10.26	27.239	
2,300.00	2,276.71	2,245.23	2,228.31	5.88	5.70	132.49	1.81	-198.05	292.35	281.85	10.50	27.844	
2,400.00	2,370.46	2,336.46	2,316.42	6.45	6.13	133.52	-2.20	-221.36	332.97	321.71	11.27	29.551	
2,500.00	2,464.20	2,427.69	2,404.53	7.05	6.56	134.32	-6.21	-244.67	373.67	361.61	12.06	30.981	
2,600.00	2,557.95	2,518.92	2,492.65	7.67	7.01	134.96	-10.22	-267.98	414.42	401.54	12.87	32.188	
2,700.00	2,651.70	2,610.15	2,580.76	8.29	7.46	135.49	-14.23	-291.28	455.20	441.50	13.70	33.215	
2,800.00	2,745.44	2,701.39	2,668.87	8.93	7.93	135.93	-18.25	-314.59	496.01	481.46	14.55	34.095	
2,900.00	2,839.19	2,792.62	2,756.99	9.58	8.39	136.31	-22.26	-337.90	536.84	521.44	15.40	34.855	
3,000.00	2,932.94	2,883.85	2,845.10	10.24	8.86	136.63	-26.27	-361.21	577.69	561.43	16.27	35.517	
3,100.00	3,026.69	2,975.08	2,933.21	10.90	9.34	136.91	-30.28	-384.51	618.55	601.42	17.14	36.098	
3,200.00	3,120.43	3,066.32	3,021.33	11.57	9.82	137.16	-34.29	-407.82	659.42	641.41	18.01	36.611	
3,300.00	3,214.18	3,157.55	3,109.44	12.24	10.30	137.37	-38.31	-431.13	700.30	681.41	18.89	37.066	
3,400.00	3,307.93	3,248.78	3,197.55	12.91	10.78	137.56	-42.32	-454.44	741.19	721.41	19.78	37.473	
3,500.00	3,401.67	3,340.01	3,285.67	13.59	11.27	137.74	-46.33	-477.74	782.09	761.42	20.67	37.839	
3,600.00	3,495.42	3,431.24	3,373.78	14.26	11.75	137.89	-50.34	-501.05	822.99	801.42	21.56	38.169	
3,700.00	3,589.17	3,522.48	3,461.89	14.94	12.24	138.03	-54.36	-524.36	863.89	841.43	22.46	38.469	
3,800.00	3,682.91	3,613.71	3,550.01	15.63	12.73	138.16	-58.37	-547.67	904.80	881.44	23.35	38.742	
3,900.00	3,776.66	3,704.94	3,638.12	16.31	13.23	138.28	-62.38	-570.97	945.71	921.46	24.25	38.993	
4,000.00	3,870.41	3,796.17	3,726.23	17.00	13.72	138.38	-66.39	-594.28	986.62	961.47	25.15	39.223	
4,100.00	3,964.16	3,887.40	3,814.35	17.68	14.21	138.48	-70.40	-617.59	1,027.54	1,001.48	26.06	39.435	
4,200.00	4,057.90	3,978.64	3,902.46	18.37	14.71	138.57	-74.42	-640.90	1,068.46	1,041.50	26.96	39.632	
4,300.00	4,151.65	4,069.87	3,990.57	19.06	15.20	138.66	-78.43	-664.20	1,109.38	1,081.52	27.86	39.814	
4,400.00	4,245.40	4,161.10	4,078.69	19.75	15.70	138.74	-82.44	-687.51	1,150.30	1,121.54	28.77	39.985	
4,500.00	4,339.14	4,252.33	4,166.80	20.44	16.20	138.81	-86.45	-710.82	1,191.23	1,161.56	29.67	40.144	
4,600.00	4,432.89	4,343.56	4,254.91	21.13	16.69	138.88	-90.47	-734.13	1,232.16	1,201.58	30.58	40.293	
4,700.00	4,526.64	4,434.80	4,343.03	21.82	17.19	138.94	-94.48	-757.43	1,273.08	1,241.60	31.49	40.433	
4,800.00	4,620.38	4,526.03	4,431.14	22.52	17.69	139.00	-98.49	-780.74	1,314.01	1,281.62	32.39	40.565	
4,900.00	4,714.13	4,617.26	4,519.25	23.21	18.19	139.06	-102.50	-804.05	1,354.94	1,321.64	33.30	40.690	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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	4,807.88	4,708.49	4,607.37	23.90	18.69	139.11	-106.51	-827.36	1,395.87	1,361.67	34.21	40.808	
5,100.00	4,901.63	4,799.73	4,695.48	24.60	19.19	139.16	-110.53	-850.66	1,436.81	1,401.69	35.11	40.920	
5,200.00	4,995.37	4,890.96	4,783.59	25.29	19.69	139.21	-114.54	-873.97	1,477.74	1,441.72	36.02	41.027	
5,300.00	5,089.12	4,982.19	4,871.71	25.99	20.19	139.25	-118.55	-897.28	1,518.67	1,481.75	36.92	41.129	
5,400.00	5,182.87	5,073.42	4,959.82	26.68	20.69	139.29	-122.56	-920.59	1,559.61	1,521.78	37.83	41.226	
5,500.00	5,276.61	5,164.65	5,047.93	27.38	21.19	139.33	-126.57	-943.89	1,600.54	1,561.81	38.74	41.318	
5,528.01	5,302.87	5,190.21	5,072.61	27.57	21.34	139.34	-127.70	-950.42	1,612.01	1,573.02	38.99	41.344	
5,600.00	5,370.67	5,256.17	5,136.32	27.99	21.70	139.76	-130.60	-967.27	1,640.85	1,601.15	39.70	41.332	
5,700.00	5,465.81	5,348.66	5,225.65	28.45	22.21	140.22	-134.67	-990.90	1,678.80	1,638.19	40.61	41.343	
5,800.00	5,561.96	5,442.08	5,315.87	28.87	22.72	140.56	-138.78	-1,014.77	1,714.26	1,672.77	41.49	41.315	
5,900.00	5,659.02	5,536.29	5,406.86	29.25	23.24	140.79	-142.92	-1,038.84	1,747.21	1,704.86	42.35	41.256	
6,000.00	5,756.85	5,631.19	5,498.52	29.59	23.76	140.91	-147.09	-1,063.08	1,777.62	1,734.44	43.18	41.168	
6,100.00	5,855.35	5,731.45	5,595.36	29.88	24.30	140.92	-151.50	-1,088.67	1,805.47	1,761.47	44.00	41.032	
6,200.00	5,954.39	5,822.50	5,742.38	30.14	24.92	140.72	-157.37	-1,122.77	1,829.10	1,784.24	44.86	40.778	
6,300.00	6,053.85	6,037.35	5,894.76	30.35	25.39	140.56	-162.01	-1,149.75	1,847.16	1,801.62	45.54	40.561	
6,400.00	6,153.61	6,195.07	6,051.27	30.52	25.78	140.43	-165.30	-1,168.85	1,859.50	1,813.41	46.09	40.342	
6,500.00	6,253.55	6,354.65	6,210.46	30.64	26.05	140.35	-167.13	-1,179.51	1,866.01	1,819.51	46.50	40.132	
6,546.47	6,300.01	6,429.13	6,284.91	30.69	26.15	-45.06	-167.48	-1,181.50	1,867.02	1,820.38	46.64	40.028	
6,600.00	6,353.54	6,497.76	6,353.54	30.73	26.22	-45.07	-167.52	-1,181.77	1,867.12	1,820.34	46.79	39.907	
6,700.00	6,453.54	6,597.76	6,453.54	30.82	26.34	-45.07	-167.52	-1,181.77	1,867.12	1,820.11	47.02	39.713	
6,800.00	6,553.54	6,697.76	6,553.54	30.90	26.45	-45.07	-167.52	-1,181.77	1,867.12	1,819.88	47.25	39.518	
6,900.00	6,653.54	6,797.76	6,653.54	30.98	26.57	-45.07	-167.52	-1,181.77	1,867.12	1,819.64	47.48	39.323	
7,000.00	6,753.54	6,897.76	6,753.54	31.07	26.68	-45.07	-167.52	-1,181.77	1,867.12	1,819.40	47.72	39.127	
7,100.00	6,853.54	6,997.76	6,853.54	31.15	26.80	-45.07	-167.52	-1,181.77	1,867.12	1,819.16	47.96	38.930	
7,200.00	6,953.54	7,097.76	6,953.54	31.24	26.92	-45.07	-167.52	-1,181.77	1,867.12	1,818.92	48.20	38.733	
7,300.00	7,053.54	7,197.76	7,053.54	31.33	27.04	-45.07	-167.52	-1,181.77	1,867.12	1,818.67	48.45	38.536	
7,400.00	7,153.54	7,297.76	7,153.54	31.42	27.16	-45.07	-167.52	-1,181.77	1,867.12	1,818.42	48.70	38.338	
7,500.00	7,253.54	7,397.76	7,253.54	31.51	27.29	-45.07	-167.52	-1,181.77	1,867.12	1,818.17	48.95	38.140	
7,600.00	7,353.54	7,497.76	7,353.54	31.61	27.41	-45.07	-167.52	-1,181.77	1,867.12	1,817.91	49.21	37.942	
7,700.00	7,453.54	7,597.76	7,453.54	31.70	27.54	-45.07	-167.52	-1,181.77	1,867.12	1,817.65	49.47	37.744	
7,800.00	7,553.54	7,697.76	7,553.54	31.80	27.66	-45.07	-167.52	-1,181.77	1,867.12	1,817.39	49.73	37.546	
7,900.00	7,653.54	7,797.76	7,653.54	31.89	27.79	-45.07	-167.52	-1,181.77	1,867.12	1,817.13	49.99	37.348	
8,000.00	7,753.54	7,897.76	7,753.54	31.99	27.92	-45.07	-167.52	-1,181.77	1,867.12	1,816.86	50.26	37.150	
8,100.00	7,853.54	7,997.76	7,853.54	32.09	28.05	-45.07	-167.52	-1,181.77	1,867.12	1,816.59	50.53	36.952	
8,200.00	7,953.54	8,097.76	7,953.54	32.19	28.18	-45.07	-167.52	-1,181.77	1,867.12	1,816.32	50.80	36.755	
8,300.00	8,053.54	8,197.76	8,053.54	32.30	28.32	-45.07	-167.52	-1,181.77	1,867.12	1,816.05	51.07	36.558	
8,400.00	8,153.54	8,297.76	8,153.54	32.40	28.45	-45.07	-167.52	-1,181.77	1,867.12	1,815.77	51.35	36.361	
8,500.00	8,253.54	8,397.76	8,253.54	32.50	28.59	-45.07	-167.52	-1,181.77	1,867.12	1,815.49	51.63	36.165	
8,518.47	8,272.02	8,416.23	8,272.02	32.52	28.61	-45.07	-167.52	-1,181.77	1,867.12	1,815.44	51.68	36.128	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												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	-51.52	40.07	-50.41	64.39				
100.00	100.00	100.00	100.00	0.10	0.10	-51.52	40.07	-50.41	64.39	64.20	0.19	337.047	
200.00	200.00	200.00	200.00	0.32	0.32	-51.52	40.07	-50.41	64.39	63.75	0.64	100.523	
300.00	300.00	300.00	300.00	0.55	0.55	-51.52	40.07	-50.41	64.39	63.30	1.09	59.070	
400.00	400.00	400.00	400.00	0.77	0.77	-51.52	40.07	-50.41	64.39	62.85	1.54	41.823	
500.00	500.00	500.00	500.00	0.99	0.99	-51.52	40.07	-50.41	64.39	62.40	1.99	32.372	
600.00	600.00	600.00	600.00	1.22	1.22	-51.52	40.07	-50.41	64.39	61.95	2.44	26.405	
700.00	700.00	700.00	700.00	1.44	1.44	-51.52	40.07	-50.41	64.39	61.51	2.89	22.295	
800.00	800.00	800.00	800.00	1.67	1.67	-51.52	40.07	-50.41	64.39	61.06	3.34	19.292	
900.00	900.00	900.00	900.00	1.89	1.89	-51.52	40.07	-50.41	64.39	60.61	3.79	17.002	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-51.52	40.07	-50.41	64.39	60.16	4.24	15.198	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-51.52	40.07	-50.41	64.39	59.71	4.69	13.741	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-51.52	40.07	-50.41	64.39	59.26	5.14	12.538	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	-51.52	40.07	-50.41	64.39	59.03	5.36	12.012 CC, ES	
1,300.00	1,300.00	1,298.89	1,298.89	2.78	2.79	134.14	40.34	-50.73	65.12	59.56	5.57	11.702 SF	
1,400.00	1,399.93	1,396.37	1,396.31	2.95	3.00	136.10	42.48	-53.26	71.00	65.06	5.94	11.949	
1,500.00	1,499.68	1,492.97	1,492.67	3.13	3.22	139.15	46.71	-58.27	82.94	76.62	6.32	13.121	
1,600.00	1,599.13	1,588.11	1,587.33	3.33	3.44	142.32	52.93	-65.63	101.08	94.38	6.70	15.085	
1,700.00	1,698.15	1,683.40	1,681.81	3.55	3.68	145.15	60.89	-75.06	125.00	117.91	7.09	17.639	
1,800.00	1,796.63	1,779.35	1,776.91	3.81	3.93	147.69	69.12	-84.80	152.34	144.86	7.48	20.369	
1,900.00	1,894.44	1,874.32	1,871.04	4.11	4.19	149.92	77.26	-94.45	182.83	174.95	7.88	23.213	
2,000.00	1,991.46	1,968.19	1,964.07	4.46	4.45	151.87	85.31	-103.99	216.46	208.19	8.28	26.155	
2,100.00	2,087.58	2,060.84	2,055.90	4.87	4.71	153.56	93.26	-113.40	253.25	244.57	8.68	29.179	
2,200.00	2,182.68	2,152.16	2,146.42	5.34	4.98	155.02	101.09	-122.67	293.18	284.09	9.08	32.271	
2,268.46	2,247.14	2,213.86	2,207.56	5.70	5.16	155.91	106.39	-128.94	322.30	312.94	9.36	34.421	
2,300.00	2,276.71	2,242.12	2,235.58	5.88	5.25	156.40	108.81	-131.81	336.07	326.55	9.52	35.306	
2,400.00	2,370.46	2,331.73	2,324.39	6.45	5.52	157.73	116.50	-140.91	379.81	369.80	10.02	37.915	
2,500.00	2,464.20	2,421.35	2,413.21	7.05	5.79	158.79	124.18	-150.02	423.69	413.17	10.53	40.250	
2,600.00	2,557.95	2,510.96	2,502.02	7.67	6.06	159.65	131.87	-159.12	467.67	456.63	11.04	42.347	
2,700.00	2,651.70	2,600.57	2,590.84	8.29	6.34	160.36	139.56	-168.22	511.72	500.15	11.57	44.236	
2,800.00	2,745.44	2,690.18	2,679.65	8.93	6.62	160.96	147.24	-177.32	555.82	543.72	12.10	45.942	
2,900.00	2,839.19	2,779.79	2,768.47	9.58	6.90	161.47	154.93	-186.42	599.96	587.32	12.63	47.489	
3,000.00	2,932.94	2,869.40	2,857.28	10.24	7.18	161.91	162.61	-195.53	644.13	630.96	13.17	48.898	
3,100.00	3,026.69	2,959.01	2,946.10	10.90	7.47	162.30	170.30	-204.63	688.33	674.62	13.72	50.183	
3,200.00	3,120.43	3,048.62	3,034.91	11.57	7.75	162.63	177.99	-213.73	732.56	718.29	14.26	51.360	
3,300.00	3,214.18	3,138.23	3,123.73	12.24	8.04	162.93	185.67	-222.83	776.80	761.99	14.81	52.441	
3,400.00	3,307.93	3,227.84	3,212.55	12.91	8.32	163.20	193.36	-231.94	821.06	805.69	15.36	53.437	
3,500.00	3,401.67	3,317.45	3,301.36	13.59	8.61	163.44	201.05	-241.04	865.33	849.41	15.92	54.357	
3,600.00	3,495.42	3,407.06	3,390.18	14.26	8.90	163.66	208.73	-250.14	909.61	893.13	16.48	55.209	
3,700.00	3,589.17	3,496.68	3,478.99	14.94	9.19	163.86	216.42	-259.24	953.90	936.86	17.03	55.999	
3,800.00	3,682.91	3,586.29	3,567.81	15.63	9.48	164.03	224.10	-268.34	998.20	980.60	17.59	56.735	
3,900.00	3,776.66	3,675.90	3,656.62	16.31	9.77	164.20	231.79	-277.45	1,042.50	1,024.35	18.16	57.420	
4,000.00	3,870.41	3,765.51	3,745.44	17.00	10.06	164.35	239.48	-286.55	1,086.82	1,068.10	18.72	58.061	
4,100.00	3,964.16	3,855.12	3,834.25	17.68	10.35	164.49	247.16	-295.65	1,131.13	1,111.85	19.28	58.661	
4,200.00	4,057.90	3,944.73	3,923.07	18.37	10.64	164.62	254.85	-304.75	1,175.46	1,155.61	19.85	59.224	
4,300.00	4,151.65	4,034.34	4,011.88	19.06	10.94	164.74	262.54	-313.86	1,219.78	1,199.37	20.41	59.753	
4,400.00	4,245.40	4,123.95	4,100.70	19.75	11.23	164.85	270.22	-322.96	1,264.12	1,243.13	20.98	60.250	
4,500.00	4,339.14	4,213.56	4,189.51	20.44	11.52	164.95	277.91	-332.06	1,308.45	1,286.90	21.55	60.720	
4,600.00	4,432.89	4,303.17	4,278.33	21.13	11.82	165.05	285.59	-341.16	1,352.79	1,330.67	22.12	61.163	
4,700.00	4,526.64	4,392.78	4,367.15	21.82	12.11	165.14	293.28	-350.27	1,397.13	1,374.44	22.69	61.582	
4,800.00	4,620.38	4,482.39	4,455.96	22.52	12.40	165.22	300.97	-359.37	1,441.47	1,418.21	23.26	61.979	
4,900.00	4,714.13	4,572.01	4,544.78	23.21	12.70	165.30	308.65	-368.47	1,485.82	1,461.99	23.83	62.355	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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	4,807.88	4,661.62	4,633.59	23.90	12.99	165.38	316.34	-377.57	1,530.17	1,505.77	24.40	62.712	
5,100.00	4,901.63	4,751.23	4,722.41	24.60	13.29	165.45	324.03	-386.67	1,574.52	1,549.54	24.97	63.052	
5,200.00	4,995.37	4,840.84	4,811.22	25.29	13.58	165.51	331.71	-395.78	1,618.87	1,593.32	25.54	63.375	
5,300.00	5,089.12	4,930.45	4,900.04	25.99	13.88	165.58	339.40	-404.88	1,663.22	1,637.11	26.12	63.683	
5,400.00	5,182.87	5,020.06	4,988.85	26.68	14.17	165.64	347.08	-413.98	1,707.58	1,680.89	26.69	63.977	
5,500.00	5,276.61	5,109.67	5,077.67	27.38	14.47	165.70	354.77	-423.08	1,751.93	1,724.67	27.26	64.257	
5,528.01	5,302.87	5,134.77	5,102.55	27.57	14.55	165.71	356.92	-425.63	1,764.36	1,736.93	27.43	64.334	
5,600.00	5,370.67	5,199.67	5,166.87	27.99	14.77	165.91	362.49	-432.23	1,795.50	1,767.56	27.94	64.254	
5,700.00	5,465.81	5,291.04	5,257.43	28.45	15.07	166.14	370.33	-441.51	1,836.12	1,807.50	28.62	64.159	
5,800.00	5,561.96	5,383.74	5,349.30	28.87	15.37	166.32	378.28	-450.92	1,873.62	1,844.36	29.26	64.028	
5,900.00	5,659.02	5,477.64	5,442.38	29.25	15.68	166.46	386.33	-460.46	1,907.96	1,878.08	29.87	63.868	
6,000.00	5,756.85	5,572.65	5,536.54	29.59	16.00	166.55	394.48	-470.11	1,939.09	1,908.64	30.45	63.684	
6,100.00	5,855.35	5,668.63	5,631.67	29.88	16.32	166.60	402.72	-479.86	1,966.97	1,935.99	30.99	63.480	
6,200.00	5,954.39	5,765.48	5,727.66	30.14	16.64	166.61	411.02	-489.70	1,991.59	1,960.11	31.48	63.260	
6,300.00	6,053.85	5,863.08	5,824.39	30.35	16.96	166.58	419.39	-499.61	2,012.92	1,980.98	31.94	63.025	
6,400.00	6,153.61	5,961.31	5,921.74	30.52	17.29	166.52	427.82	-509.59	2,030.92	1,998.57	32.35	62.779	
6,500.00	6,253.55	6,061.26	6,021.10	30.64	17.84	166.29	442.44	-526.91	2,041.99	2,009.05	32.94	61.986	
6,546.47	6,300.01	6,107.80	6,067.08	30.69	18.03	-19.12	444.41	-529.24	2,043.37	2,010.20	33.17	61.603	
6,600.00	6,353.54	6,161.26	6,121.54	30.73	18.13	-19.12	444.43	-529.27	2,043.38	2,010.03	33.36	61.260	
6,700.00	6,453.54	6,261.26	6,221.54	30.82	18.30	-19.12	444.43	-529.27	2,043.38	2,009.69	33.69	60.645	
6,800.00	6,553.54	6,361.26	6,321.54	30.90	18.47	-19.12	444.43	-529.27	2,043.38	2,009.35	34.04	60.036	
6,900.00	6,653.54	6,461.26	6,421.54	30.98	18.64	-19.12	444.43	-529.27	2,043.38	2,009.00	34.38	59.436	
7,000.00	6,753.54	6,561.26	6,521.54	31.07	18.81	-19.12	444.43	-529.27	2,043.38	2,008.66	34.73	58.843	
7,100.00	6,853.54	6,661.26	6,621.54	31.15	18.98	-19.12	444.43	-529.27	2,043.38	2,008.31	35.07	58.258	
7,200.00	6,953.54	6,761.26	6,721.54	31.24	19.16	-19.12	444.43	-529.27	2,043.38	2,007.96	35.43	57.682	
7,300.00	7,053.54	6,861.26	6,821.54	31.33	19.34	-19.12	444.43	-529.27	2,043.38	2,007.61	35.78	57.113	
7,400.00	7,153.54	6,961.26	6,921.54	31.42	19.51	-19.12	444.43	-529.27	2,043.38	2,007.25	36.13	56.552	
7,500.00	7,253.54	7,061.26	7,021.54	31.51	19.69	-19.12	444.43	-529.27	2,043.38	2,006.89	36.49	55.999	
7,600.00	7,353.54	7,161.26	7,121.54	31.61	19.87	-19.12	444.43	-529.27	2,043.38	2,006.54	36.85	55.454	
7,700.00	7,453.54	7,261.26	7,221.54	31.70	20.05	-19.12	444.43	-529.27	2,043.38	2,006.18	37.21	54.916	
7,800.00	7,553.54	7,361.26	7,321.54	31.80	20.23	-19.12	444.43	-529.27	2,043.38	2,005.81	37.57	54.387	
7,900.00	7,653.54	7,461.26	7,421.54	31.89	20.41	-19.12	444.43	-529.27	2,043.38	2,005.45	37.94	53.864	
8,000.00	7,753.54	7,561.26	7,521.54	31.99	20.59	-19.12	444.43	-529.27	2,043.38	2,005.08	38.30	53.350	
8,100.00	7,853.54	7,661.26	7,621.54	32.09	20.78	-19.12	444.43	-529.27	2,043.38	2,004.72	38.67	52.842	
8,200.00	7,953.54	7,761.26	7,721.54	32.19	20.80	-19.12	444.43	-529.27	2,043.38	2,004.36	38.86	52.636	
8,300.00	8,053.54	7,861.26	7,821.54	32.30	20.80	-19.12	444.43	-529.27	2,052.06	2,013.04	39.02	52.585	
8,400.00	8,153.54	7,961.26	7,921.54	32.40	20.80	-19.12	444.43	-529.27	2,063.65	2,024.46	39.19	52.657	
8,500.00	8,253.54	8,061.26	8,021.54	32.50	20.80	-19.12	444.43	-529.27	2,079.99	2,040.63	39.36	52.847	
8,518.47	8,272.02	8,080.74	8,040.22	32.52	20.80	-19.12	444.43	-529.27	2,083.52	2,044.13	39.39	52.895	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												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	117.49	-7.29	14.00	15.78				
100.00	100.00	100.00	100.00	0.10	0.10	117.49	-7.29	14.00	15.78	15.59	0.19	82.616	
200.00	200.00	200.00	200.00	0.32	0.32	117.49	-7.29	14.00	15.78	15.14	0.64	24.640	
300.00	300.00	300.00	300.00	0.55	0.55	117.49	-7.29	14.00	15.78	14.69	1.09	14.479	
400.00	400.00	400.00	400.00	0.77	0.77	117.49	-7.29	14.00	15.78	14.24	1.54	10.252	
500.00	500.00	500.00	500.00	0.99	0.99	117.49	-7.29	14.00	15.78	13.79	1.99	7.935	
600.00	600.00	600.00	600.00	1.22	1.22	117.49	-7.29	14.00	15.78	13.35	2.44	6.472	
700.00	700.00	700.00	700.00	1.44	1.44	117.49	-7.29	14.00	15.78	12.90	2.89	5.465	
800.00	800.00	800.00	800.00	1.67	1.67	117.49	-7.29	14.00	15.78	12.45	3.34	4.729	
900.00	900.00	900.00	900.00	1.89	1.89	117.49	-7.29	14.00	15.78	12.00	3.79	4.168	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	117.49	-7.29	14.00	15.78	11.55	4.24	3.725	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	117.49	-7.29	14.00	15.78	11.10	4.69	3.368	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	117.49	-7.29	14.00	15.78	10.65	5.14	3.073	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	117.49	-7.29	14.00	15.78	10.42	5.36	2.944 CC	
1,300.00	1,300.00	1,299.74	1,299.74	2.78	2.78	-57.89	-7.61	14.29	15.96	10.40	5.56	2.871 ES, SF	
1,400.00	1,399.93	1,399.19	1,399.12	2.95	2.96	-63.44	-10.17	16.61	17.42	11.52	5.90	2.951	
1,500.00	1,499.68	1,498.53	1,498.22	3.13	3.15	-71.98	-15.28	21.22	20.73	14.47	6.27	3.308	
1,600.00	1,599.13	1,597.70	1,596.84	3.33	3.35	-80.44	-22.92	28.13	26.28	19.62	6.66	3.945	
1,700.00	1,698.15	1,696.62	1,694.81	3.55	3.58	-87.21	-33.07	37.29	34.21	27.11	7.10	4.818	
1,800.00	1,796.63	1,795.23	1,791.94	3.81	3.85	-92.15	-45.67	48.67	44.50	36.90	7.60	5.852	
1,900.00	1,894.44	1,893.46	1,888.07	4.11	4.15	-95.63	-60.69	62.24	57.08	48.89	8.19	6.971	
2,000.00	1,991.46	1,991.62	1,983.41	4.46	4.50	-98.22	-78.00	77.87	71.80	62.93	8.87	8.099	
2,100.00	2,087.58	2,090.23	2,079.01	4.87	4.89	-101.62	-95.94	94.08	87.61	77.98	9.63	9.094	
2,200.00	2,182.68	2,188.50	2,174.28	5.34	5.30	-105.74	-113.82	110.23	104.58	94.10	10.47	9.986	
2,268.46	2,247.14	2,255.52	2,239.26	5.70	5.59	-108.72	-126.02	121.25	117.09	106.01	11.08	10.570	
2,300.00	2,276.71	2,286.35	2,269.14	5.88	5.73	-110.16	-131.63	126.32	123.08	111.72	11.36	10.832	
2,400.00	2,370.46	2,384.08	2,363.88	6.45	6.17	-113.90	-149.41	142.38	142.50	130.21	12.28	11.601	
2,500.00	2,464.20	2,481.80	2,458.62	7.05	6.62	-116.74	-167.20	158.44	162.36	149.14	13.22	12.282	
2,600.00	2,557.95	2,579.53	2,553.37	7.67	7.08	-118.96	-184.98	174.51	182.52	168.35	14.17	12.882	
2,700.00	2,651.70	2,677.26	2,648.11	8.29	7.54	-120.73	-202.76	190.57	202.89	187.77	15.13	13.412	
2,800.00	2,745.44	2,774.98	2,742.86	8.93	8.02	-122.19	-220.55	206.63	223.42	207.33	16.10	13.881	
2,900.00	2,839.19	2,872.71	2,837.60	9.58	8.50	-123.40	-238.33	222.70	244.06	226.99	17.07	14.297	
3,000.00	2,932.94	2,970.44	2,932.34	10.24	8.98	-124.42	-256.11	238.76	264.79	246.74	18.05	14.669	
3,100.00	3,026.69	3,068.17	3,027.09	10.90	9.47	-125.29	-273.90	254.82	285.59	266.55	19.04	15.001	
3,200.00	3,120.43	3,165.89	3,121.83	11.57	9.96	-126.04	-291.68	270.89	306.44	286.42	20.03	15.301	
3,300.00	3,214.18	3,263.62	3,216.57	12.24	10.45	-126.70	-309.47	286.95	327.34	306.32	21.02	15.571	
3,400.00	3,307.93	3,361.35	3,311.32	12.91	10.94	-127.28	-327.25	303.01	348.28	326.26	22.02	15.817	
3,500.00	3,401.67	3,459.08	3,406.06	13.59	11.44	-127.79	-345.03	319.08	369.24	346.22	23.02	16.040	
3,600.00	3,495.42	3,556.80	3,500.80	14.26	11.94	-128.25	-362.82	335.14	390.23	366.20	24.03	16.241	
3,700.00	3,589.17	3,654.53	3,595.55	14.94	12.44	-128.66	-380.60	351.20	411.24	386.20	25.04	16.425	
3,800.00	3,682.91	3,752.26	3,690.29	15.63	12.94	-129.03	-398.38	367.27	432.27	406.22	26.05	16.594	
3,900.00	3,776.66	3,849.98	3,785.03	16.31	13.44	-129.37	-416.17	383.33	453.32	426.25	27.06	16.750	
4,000.00	3,870.41	3,947.71	3,879.78	17.00	13.95	-129.67	-433.95	399.39	474.37	446.29	28.08	16.894	
4,100.00	3,964.16	4,045.44	3,974.52	17.68	14.45	-129.96	-451.74	415.45	495.44	466.35	29.10	17.027	
4,200.00	4,057.90	4,143.17	4,069.27	18.37	14.96	-130.21	-469.52	431.52	516.53	486.41	30.12	17.151	
4,300.00	4,151.65	4,240.89	4,164.01	19.06	15.47	-130.45	-487.30	447.58	537.62	506.48	31.14	17.266	
4,400.00	4,245.40	4,338.62	4,258.75	19.75	15.97	-130.67	-505.09	463.64	558.71	526.56	32.16	17.374	
4,500.00	4,339.14	4,436.35	4,353.50	20.44	16.48	-130.87	-522.87	479.71	579.82	546.64	33.18	17.475	
4,600.00	4,432.89	4,534.08	4,448.24	21.13	16.99	-131.06	-540.65	495.77	600.93	566.73	34.20	17.569	
4,700.00	4,526.64	4,631.80	4,542.98	21.82	17.50	-131.24	-558.44	511.83	622.05	586.82	35.23	17.658	
4,800.00	4,620.38	4,729.53	4,637.73	22.52	18.01	-131.41	-576.22	527.90	643.17	606.92	36.25	17.741	
4,900.00	4,714.13	4,827.26	4,732.47	23.21	18.52	-131.56	-594.00	543.96	664.30	627.02	37.28	17.820	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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									
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	4,807.88	4,924.99	4,827.21	23.90	19.03	-131.71	-611.79	560.02	685.43	647.13	38.30	17.894	
5,100.00	4,901.63	5,022.71	4,921.96	24.60	19.54	-131.84	-629.57	576.09	706.57	667.24	39.33	17.964	
5,200.00	4,995.37	5,120.44	5,016.70	25.29	20.05	-131.97	-647.36	592.15	727.71	687.35	40.36	18.031	
5,300.00	5,089.12	5,218.17	5,111.44	25.99	20.56	-132.09	-665.14	608.21	748.85	707.47	41.39	18.094	
5,400.00	5,182.87	5,315.89	5,206.19	26.68	21.08	-132.21	-682.92	624.28	770.00	727.59	42.42	18.154	
5,500.00	5,276.61	5,413.62	5,300.93	27.38	21.59	-132.31	-700.71	640.34	791.15	747.71	43.44	18.210	
5,528.01	5,302.87	5,441.00	5,327.47	27.57	21.73	-132.34	-705.69	644.84	797.07	753.34	43.73	18.226	
5,600.00	5,370.67	5,511.48	5,395.80	27.99	22.10	-132.59	-718.51	656.43	811.70	767.25	44.46	18.258	
5,700.00	5,465.81	5,609.77	5,491.09	28.45	22.62	-132.74	-736.40	672.58	830.03	784.62	45.41	18.278	
5,800.00	5,561.96	5,708.38	5,586.69	28.87	23.13	-132.69	-754.35	688.79	846.04	799.66	46.38	18.242	
5,900.00	5,659.02	5,804.04	5,679.78	29.25	23.55	-132.56	-770.64	703.51	859.93	812.70	47.22	18.209	
6,000.00	5,756.85	5,900.01	5,773.88	29.59	23.87	-132.45	-784.67	716.18	871.87	823.95	47.92	18.194	
6,100.00	5,855.35	5,996.32	5,868.88	29.88	24.15	-132.37	-796.39	726.77	881.85	833.32	48.53	18.172	
6,200.00	5,954.39	6,092.90	5,964.62	30.14	24.39	-132.31	-805.75	735.23	889.85	840.81	49.04	18.145	
6,300.00	6,053.85	6,189.68	6,060.95	30.35	24.60	-132.28	-812.73	741.53	895.85	846.39	49.46	18.113	
6,400.00	6,153.61	6,286.62	6,157.68	30.52	24.76	-132.26	-817.29	745.65	899.85	850.06	49.78	18.075	
6,500.00	6,253.55	6,383.64	6,254.65	30.64	24.89	-132.26	-819.43	747.57	901.82	851.81	50.01	18.031	
6,546.47	6,300.01	6,429.00	6,300.01	30.69	24.95	42.35	-819.60	747.73	902.05	851.96	50.10	18.006	
6,600.00	6,353.54	6,482.53	6,353.54	30.73	25.00	42.35	-819.60	747.73	902.05	851.84	50.22	17.964	
6,700.00	6,453.54	6,582.53	6,453.54	30.82	25.11	42.35	-819.60	747.73	902.05	851.63	50.42	17.889	
6,800.00	6,553.54	6,682.53	6,553.54	30.90	25.22	42.35	-819.60	747.73	902.05	851.42	50.64	17.814	
6,900.00	6,653.54	6,782.53	6,653.54	30.98	25.33	42.35	-819.60	747.73	902.05	851.20	50.85	17.739	
7,000.00	6,753.54	6,882.53	6,753.54	31.07	25.44	42.35	-819.60	747.73	902.05	850.98	51.07	17.663	
7,100.00	6,853.54	6,982.53	6,853.54	31.15	25.56	42.35	-819.60	747.73	902.05	850.76	51.29	17.587	
7,200.00	6,953.54	7,082.53	6,953.54	31.24	25.67	42.35	-819.60	747.73	902.05	850.54	51.52	17.510	
7,300.00	7,053.54	7,182.53	7,053.54	31.33	25.79	42.35	-819.60	747.73	902.05	850.31	51.74	17.433	
7,400.00	7,153.54	7,282.53	7,153.54	31.42	25.91	42.35	-819.60	747.73	902.05	850.08	51.97	17.356	
7,500.00	7,253.54	7,382.53	7,253.54	31.51	26.02	42.35	-819.60	747.73	902.05	849.85	52.21	17.279	
7,600.00	7,353.54	7,482.53	7,353.54	31.61	26.15	42.35	-819.60	747.73	902.05	849.61	52.44	17.201	
7,700.00	7,453.54	7,582.53	7,453.54	31.70	26.27	42.35	-819.60	747.73	902.05	849.37	52.68	17.123	
7,800.00	7,553.54	7,682.53	7,553.54	31.80	26.39	42.35	-819.60	747.73	902.05	849.13	52.92	17.045	
7,900.00	7,653.54	7,782.53	7,653.54	31.89	26.51	42.35	-819.60	747.73	902.05	848.89	53.17	16.967	
8,000.00	7,753.54	7,882.53	7,753.54	31.99	26.64	42.35	-819.60	747.73	902.05	848.64	53.41	16.888	
8,065.80	7,819.35	7,948.33	7,819.35	32.06	26.72	42.35	-819.60	747.73	902.05	848.48	53.58	16.837	
8,100.00	7,853.54	7,980.00	7,851.02	32.09	26.76	42.35	-819.60	747.73	902.06	848.40	53.66	16.811	
8,200.00	7,953.54	7,980.00	7,851.02	32.19	26.76	42.35	-819.60	747.73	907.86	854.08	53.78	16.880	
8,300.00	8,053.54	7,980.00	7,851.02	32.30	26.76	42.35	-819.60	747.73	924.51	870.60	53.91	17.151	
8,400.00	8,153.54	7,980.00	7,851.02	32.40	26.76	42.35	-819.60	747.73	951.43	897.40	54.03	17.609	
8,500.00	8,253.54	7,980.00	7,851.02	32.50	26.76	42.35	-819.60	747.73	987.79	933.63	54.16	18.239	
8,518.47	8,272.02	7,980.00	7,851.02	32.52	26.76	42.35	-819.60	747.73	995.46	941.28	54.18	18.373	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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	-45.72	10.92	-11.20	15.65				
100.00	100.00	100.00	100.00	0.10	0.10	-45.72	10.92	-11.20	15.65	15.46	0.19	81.896	
200.00	200.00	200.00	200.00	0.32	0.32	-45.72	10.92	-11.20	15.65	15.01	0.64	24.425	
277.05	277.05	277.07	277.05	0.49	0.48	-51.42	9.71	-12.17	15.57	14.60	0.97	16.017 CC	
300.00	300.00	300.00	299.95	0.55	0.53	-55.33	8.88	-12.83	15.61	14.53	1.07	14.574 ES	
400.00	400.00	399.43	399.07	0.77	0.75	-81.03	2.79	-17.69	17.93	16.42	1.51	11.838 SF	
500.00	500.00	497.81	496.60	0.99	1.03	-105.66	-7.19	-25.65	26.86	24.88	1.98	13.592	
600.00	600.00	594.61	591.81	1.22	1.39	-119.69	-20.83	-36.53	42.85	40.41	2.44	17.592	
700.00	700.00	689.41	684.07	1.44	1.81	-127.06	-37.83	-50.09	64.76	61.86	2.90	22.330	
800.00	800.00	781.80	772.84	1.67	2.30	-131.20	-57.82	-66.04	91.88	88.50	3.37	27.245	
900.00	900.00	871.46	857.72	1.89	2.86	-133.73	-80.40	-84.05	123.76	119.91	3.85	32.124	
1,000.00	1,000.00	958.15	938.39	2.12	3.47	-135.37	-105.18	-103.81	160.11	155.77	4.34	36.900	
1,100.00	1,100.00	1,041.65	1,014.68	2.34	4.13	-136.50	-131.72	-124.99	200.63	195.81	4.83	41.558	
1,200.00	1,200.00	1,121.86	1,086.48	2.57	4.81	-137.31	-159.65	-147.27	245.08	239.76	5.32	46.097	
1,250.00	1,250.00	1,160.69	1,120.69	2.68	5.17	-137.63	-174.02	-158.72	268.69	263.13	5.56	48.307	
1,300.00	1,300.00	1,200.00	1,154.93	2.78	5.54	47.12	-189.11	-170.76	292.94	287.24	5.70	51.380	
1,400.00	1,399.93	1,273.32	1,217.71	2.95	6.28	46.26	-218.71	-194.38	342.45	336.31	6.14	55.805	
1,500.00	1,499.68	1,357.19	1,288.34	3.13	7.16	45.79	-254.06	-222.57	392.19	385.56	6.63	59.152	
1,600.00	1,599.13	1,444.96	1,362.23	3.33	8.09	45.67	-291.10	-252.12	439.90	432.74	7.16	61.429	
1,700.00	1,698.15	1,533.72	1,436.95	3.55	9.04	45.80	-328.56	-282.00	485.53	477.81	7.72	62.862	
1,800.00	1,796.63	1,623.37	1,512.40	3.81	10.00	46.12	-366.39	-312.18	529.09	520.76	8.32	63.568	
1,900.00	1,894.44	1,713.78	1,588.51	4.11	10.97	46.60	-404.54	-342.61	570.61	561.64	8.97	63.635	
2,000.00	1,991.46	1,804.85	1,665.18	4.46	11.95	47.22	-442.98	-373.27	610.15	600.49	9.66	63.136	
2,100.00	2,087.58	1,896.47	1,742.30	4.87	12.94	47.96	-481.64	-404.11	647.78	637.35	10.42	62.138	
2,200.00	2,182.68	1,988.54	1,819.80	5.34	13.94	48.80	-520.49	-435.10	683.56	672.30	11.26	60.708	
2,268.46	2,247.14	2,051.75	1,873.01	5.70	14.62	49.44	-547.17	-456.38	707.04	695.16	11.88	59.515	
2,300.00	2,276.71	2,080.91	1,897.56	5.88	14.93	49.91	-559.47	-466.20	717.70	705.52	12.18	58.924	
2,400.00	2,370.46	2,173.35	1,975.37	6.45	15.93	51.31	-598.48	-497.32	751.76	738.59	13.17	57.094	
2,500.00	2,464.20	2,265.79	2,053.18	7.05	16.93	52.59	-637.49	-528.43	786.19	771.97	14.22	55.274	
2,600.00	2,557.95	2,358.23	2,131.00	7.67	17.93	53.77	-676.50	-559.55	820.95	805.62	15.33	53.539	
2,700.00	2,651.70	2,450.67	2,208.81	8.29	18.94	54.85	-715.51	-590.67	856.00	839.53	16.48	51.946	
2,800.00	2,745.44	2,543.11	2,286.62	8.93	19.94	55.85	-754.52	-621.79	891.31	873.66	17.65	50.490	
2,900.00	2,839.19	2,635.54	2,364.44	9.58	20.94	56.78	-793.53	-652.90	926.84	907.99	18.85	49.163	
3,000.00	2,932.94	2,727.98	2,442.25	10.24	21.94	57.64	-832.54	-684.02	962.57	942.50	20.07	47.954	
3,100.00	3,026.69	2,820.42	2,520.06	10.90	22.94	58.44	-871.55	-715.14	998.48	977.17	21.31	46.852	
3,200.00	3,120.43	2,912.86	2,597.87	11.57	23.95	59.18	-910.56	-746.26	1,034.54	1,011.98	22.57	45.847	
3,300.00	3,214.18	3,005.30	2,675.69	12.24	24.95	59.87	-949.57	-777.37	1,070.76	1,046.92	23.83	44.928	
3,400.00	3,307.93	3,097.74	2,753.50	12.91	25.95	60.52	-988.58	-808.49	1,107.10	1,081.99	25.11	44.087	
3,500.00	3,401.67	3,190.18	2,831.31	13.59	26.95	61.13	-1,027.59	-839.61	1,143.56	1,117.16	26.40	43.316	
3,600.00	3,495.42	3,282.62	2,909.13	14.26	27.96	61.70	-1,066.60	-870.73	1,180.13	1,152.43	27.70	42.608	
3,700.00	3,589.17	3,375.06	2,986.94	14.94	28.96	62.24	-1,105.61	-901.84	1,216.79	1,187.79	29.00	41.955	
3,800.00	3,682.91	3,467.50	3,064.75	15.63	29.96	62.75	-1,144.62	-932.96	1,253.54	1,223.23	30.31	41.352	
3,900.00	3,776.66	3,559.94	3,142.57	16.31	30.97	63.22	-1,183.63	-964.08	1,290.37	1,258.74	31.63	40.795	
4,000.00	3,870.41	3,652.37	3,220.38	17.00	31.97	63.68	-1,222.64	-995.20	1,327.28	1,294.33	32.95	40.278	
4,100.00	3,964.16	3,744.81	3,298.19	17.68	32.97	64.10	-1,261.65	-1,026.31	1,364.25	1,329.97	34.28	39.798	
4,200.00	4,057.90	3,837.25	3,376.01	18.37	33.98	64.51	-1,300.66	-1,057.43	1,401.29	1,365.68	35.61	39.351	
4,300.00	4,151.65	3,929.69	3,453.82	19.06	34.98	64.89	-1,339.67	-1,088.55	1,438.39	1,401.44	36.94	38.935	
4,400.00	4,245.40	4,096.20	3,595.87	19.75	36.44	65.60	-1,407.54	-1,142.69	1,474.17	1,435.44	38.73	38.062	
4,500.00	4,339.14	4,322.86	3,798.41	20.44	38.00	66.82	-1,486.92	-1,206.01	1,502.55	1,461.65	40.90	36.736	
4,600.00	4,432.89	4,556.68	4,016.79	21.13	39.32	68.38	-1,552.01	-1,257.93	1,522.49	1,479.33	43.16	35.275	
4,700.00	4,526.64	4,793.00	4,244.97	21.82	40.32	70.30	-1,599.78	-1,296.04	1,533.85	1,488.37	45.47	33.733	
4,800.00	4,620.38	5,026.87	4,475.78	22.52	40.95	72.56	-1,628.74	-1,319.13	1,536.81	1,489.03	47.78	32.163	

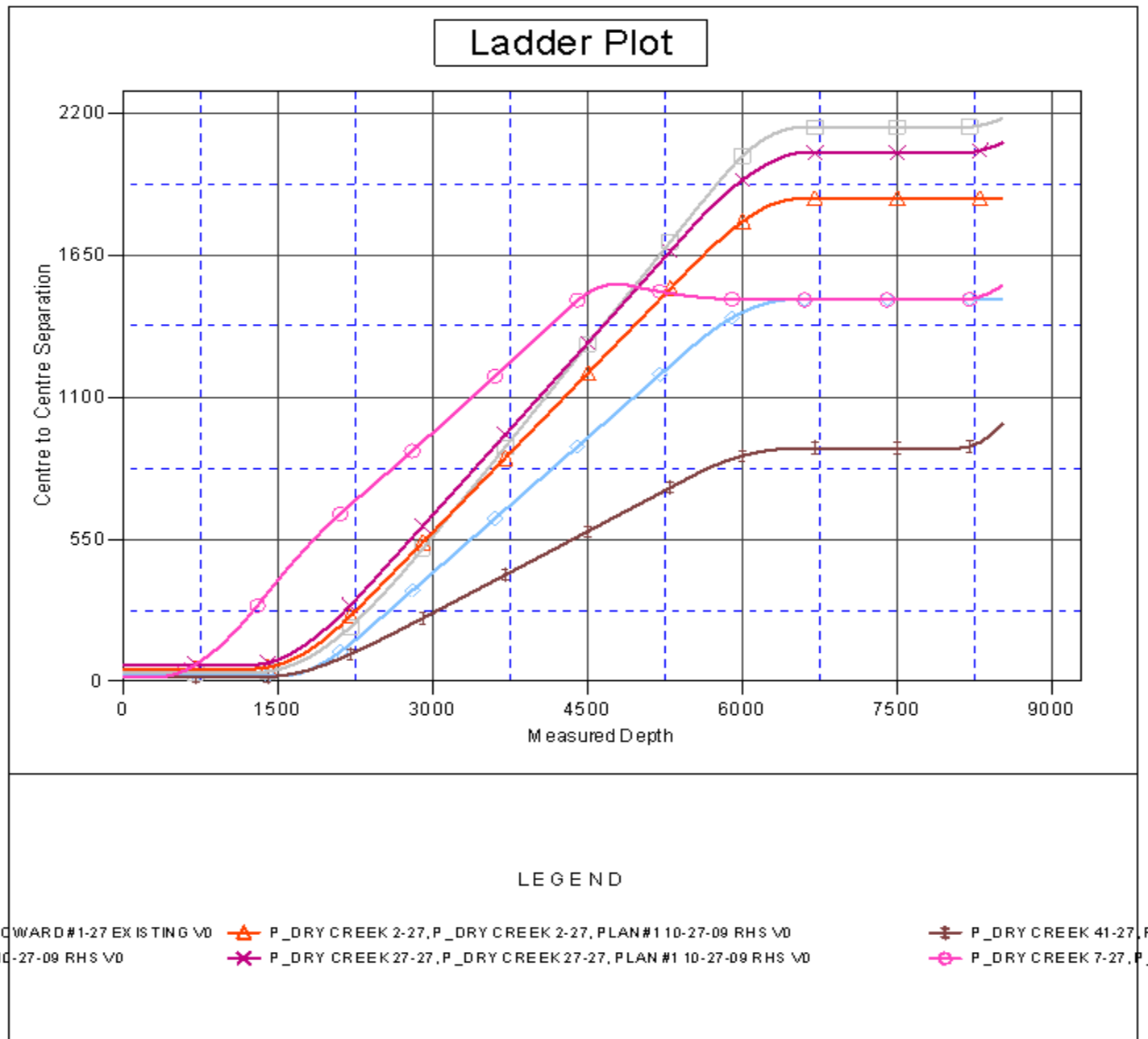
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	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	
4,900.00	4,714.13	5,253.62	4,702.05	23.21	41.24	75.17	-1,639.12	-1,327.41	1,531.89	1,481.81	50.07	30.593	
5,000.00	4,807.88	5,359.44	4,807.88	23.90	41.29	76.51	-1,639.19	-1,327.47	1,522.92	1,471.40	51.52	29.559	
5,100.00	4,901.63	5,453.19	4,901.63	24.60	41.34	77.71	-1,639.19	-1,327.47	1,514.67	1,461.79	52.88	28.644	
5,200.00	4,995.37	5,546.94	4,995.37	25.29	41.38	78.93	-1,639.19	-1,327.47	1,507.17	1,452.93	54.24	27.788	
5,300.00	5,089.12	5,640.69	5,089.12	25.99	41.43	80.15	-1,639.19	-1,327.47	1,500.45	1,444.85	55.59	26.990	
5,400.00	5,182.87	5,734.43	5,182.87	26.68	41.47	81.39	-1,639.19	-1,327.47	1,494.50	1,437.56	56.94	26.245	
5,500.00	5,276.61	5,828.18	5,276.61	27.38	41.52	82.63	-1,639.19	-1,327.47	1,489.35	1,431.06	58.29	25.552	
5,528.01	5,302.87	5,854.44	5,302.87	27.57	41.54	82.98	-1,639.19	-1,327.47	1,488.05	1,429.39	58.66	25.366	
5,600.00	5,370.67	5,922.23	5,370.67	27.99	41.57	83.80	-1,639.19	-1,327.47	1,485.09	1,425.62	59.47	24.971	
5,700.00	5,465.81	6,017.37	5,465.81	28.45	41.62	84.86	-1,639.19	-1,327.47	1,481.89	1,421.45	60.44	24.517	
5,800.00	5,561.96	6,113.53	5,561.96	28.87	41.67	85.83	-1,639.19	-1,327.47	1,479.57	1,418.23	61.34	24.122	
5,900.00	5,659.02	6,210.58	5,659.02	29.25	41.73	86.70	-1,639.19	-1,327.47	1,477.96	1,415.80	62.15	23.780	
6,000.00	5,756.85	6,308.42	5,756.85	29.59	41.78	87.46	-1,639.19	-1,327.47	1,476.88	1,414.00	62.88	23.488	
6,100.00	5,855.35	6,406.92	5,855.35	29.88	41.84	88.11	-1,639.19	-1,327.47	1,476.20	1,412.69	63.52	23.242	
6,200.00	5,954.39	6,505.95	5,954.39	30.14	41.90	88.63	-1,639.19	-1,327.47	1,475.81	1,411.75	64.06	23.038	
6,300.00	6,053.85	6,605.41	6,053.85	30.35	41.96	89.02	-1,639.19	-1,327.47	1,475.59	1,411.09	64.50	22.876	
6,400.00	6,153.61	6,705.17	6,153.61	30.52	42.02	89.29	-1,639.19	-1,327.47	1,475.49	1,410.64	64.85	22.751	
6,500.00	6,253.55	6,805.11	6,253.55	30.64	42.08	89.42	-1,639.19	-1,327.47	1,475.45	1,410.35	65.10	22.663	
6,546.47	6,300.01	6,851.58	6,300.01	30.69	42.11	-95.95	-1,639.19	-1,327.47	1,475.45	1,410.26	65.19	22.633	
6,600.00	6,353.54	6,905.11	6,353.54	30.73	42.14	-95.95	-1,639.19	-1,327.47	1,475.45	1,410.17	65.28	22.602	
6,700.00	6,453.54	7,005.11	6,453.54	30.82	42.21	-95.95	-1,639.19	-1,327.47	1,475.45	1,410.01	65.44	22.547	
6,800.00	6,553.54	7,105.11	6,553.54	30.90	42.27	-95.95	-1,639.19	-1,327.47	1,475.45	1,409.85	65.60	22.491	
6,900.00	6,653.54	7,205.11	6,653.54	30.98	42.34	-95.95	-1,639.19	-1,327.47	1,475.45	1,409.69	65.77	22.435	
7,000.00	6,753.54	7,305.11	6,753.54	31.07	42.40	-95.95	-1,639.19	-1,327.47	1,475.45	1,409.52	65.93	22.378	
7,100.00	6,853.54	7,405.11	6,853.54	31.15	42.47	-95.95	-1,639.19	-1,327.47	1,475.45	1,409.35	66.10	22.321	
7,200.00	6,953.54	7,505.11	6,953.54	31.24	42.54	-95.95	-1,639.19	-1,327.47	1,475.45	1,409.18	66.28	22.263	
7,300.00	7,053.54	7,605.11	7,053.54	31.33	42.61	-95.95	-1,639.19	-1,327.47	1,475.45	1,409.00	66.45	22.204	
7,400.00	7,153.54	7,705.11	7,153.54	31.42	42.68	-95.95	-1,639.19	-1,327.47	1,475.45	1,408.82	66.63	22.145	
7,500.00	7,253.54	7,805.11	7,253.54	31.51	42.76	-95.95	-1,639.19	-1,327.47	1,475.45	1,408.64	66.81	22.085	
7,600.00	7,353.54	7,905.11	7,353.54	31.61	42.83	-95.95	-1,639.19	-1,327.47	1,475.45	1,408.46	66.99	22.024	
7,700.00	7,453.54	8,005.11	7,453.54	31.70	42.91	-95.95	-1,639.19	-1,327.47	1,475.45	1,408.27	67.18	21.963	
7,800.00	7,553.54	8,105.11	7,553.54	31.80	42.98	-95.95	-1,639.19	-1,327.47	1,475.45	1,408.08	67.37	21.902	
7,900.00	7,653.54	8,205.11	7,653.54	31.89	43.06	-95.95	-1,639.19	-1,327.47	1,475.45	1,407.89	67.56	21.840	
8,000.00	7,753.54	8,305.11	7,753.54	31.99	43.14	-95.95	-1,639.19	-1,327.47	1,475.45	1,407.70	67.75	21.778	
8,100.00	7,853.54	8,405.11	7,853.54	32.09	43.22	-95.95	-1,639.19	-1,327.47	1,475.45	1,407.50	67.95	21.715	
8,200.00	7,953.54	8,416.58	7,865.02	32.19	43.23	-95.95	-1,639.19	-1,327.47	1,478.10	1,410.05	68.06	21.718	
8,300.00	8,053.54	8,416.58	7,865.02	32.30	43.23	-95.95	-1,639.19	-1,327.47	1,487.45	1,419.29	68.16	21.823	
8,400.00	8,153.54	8,416.58	7,865.02	32.40	43.23	-95.95	-1,639.19	-1,327.47	1,503.40	1,435.13	68.26	22.023	
8,500.00	8,253.54	8,416.58	7,865.02	32.50	43.23	-95.95	-1,639.19	-1,327.47	1,525.75	1,457.38	68.37	22.316	
8,518.47	8,272.02	8,416.58	7,865.02	32.52	43.23	-95.95	-1,639.19	-1,327.47	1,530.56	1,462.17	68.39	22.380	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5008.01ft (Original Well Elev) Coordinates are relative to: P\_DRY CREEK 8-27  
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°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_DRY CREEK 8-27
<b>Project:</b>	COLORADO NOTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Reference Site:</b>	WELD_DRY CREEK PAD 6	<b>MD Reference:</b>	WELL @ 5008.01ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_DRY CREEK 8-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_DRY CREEK 8-27	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 10-27-09 RHS	<b>Offset TVD Reference:</b>	Offset Datum

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