



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_DRY CREEK PAD 6

P_DRY CREEK 27-27

P_DRY CREEK 27-27

Plan: PLAN #1 10-27-09 RHS

Standard Planning Report

27 October, 2009



P DRY CREEK 27-27
COLORADO NORTHERN ZONE - 83
SECTION 27 T1N R67W
454 FNL 847 FEL
LAT: 40° 1' 41.196 N
LONG: 104° 52' 13.044 W



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 27-27

+N/-S	+E/-W	Northing	Ground Level:	4993.01	Longitude	Slot
0.00	0.00	1253712.70	Easting	3176341.32	40° 1' 41.196 N	104° 52' 13.044 W

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3121.01	3135.48	PARKMAN TOP
4723.01	4751.83	SUSSEX TOP
7305.01	7345.73	NIO TOP
7705.02	7745.73	CODELL TOP

SECTION DETAILS

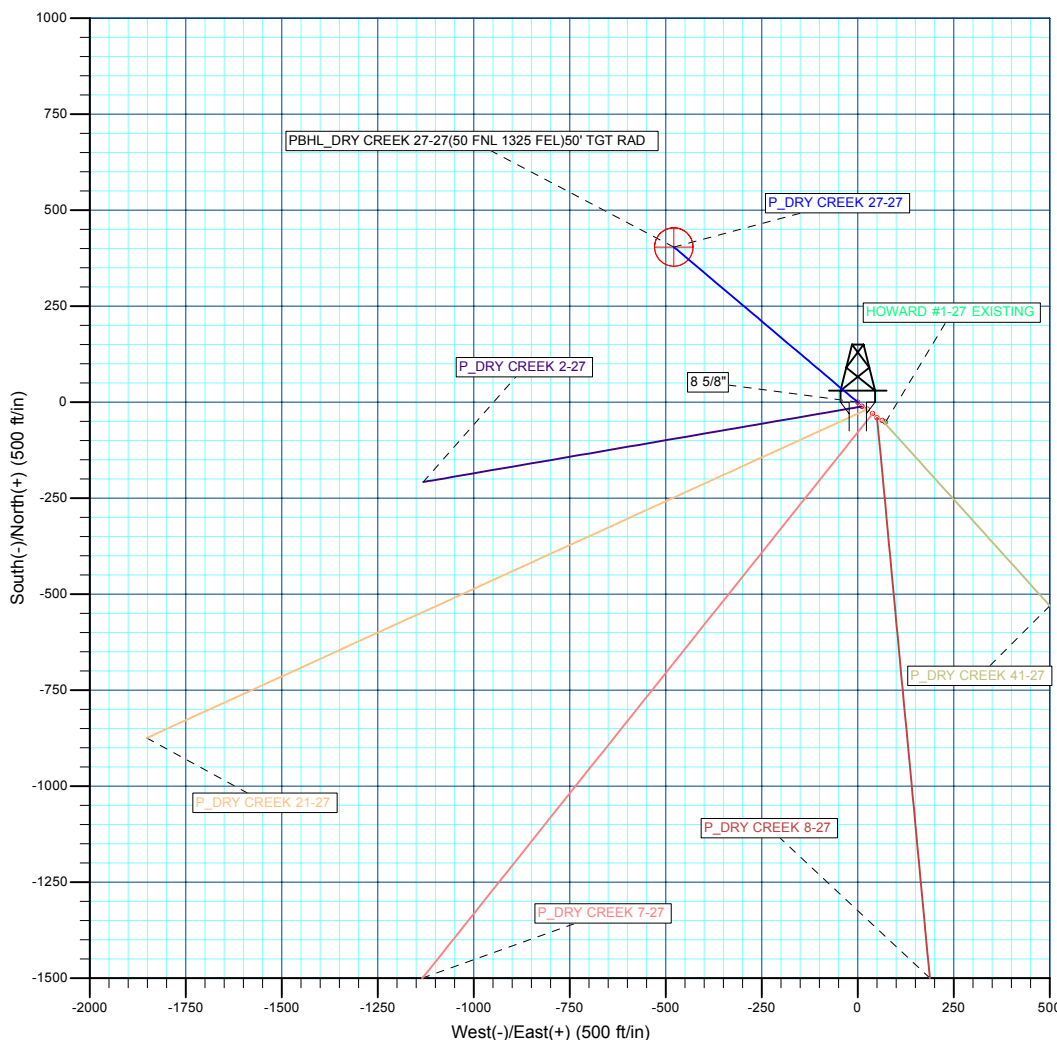
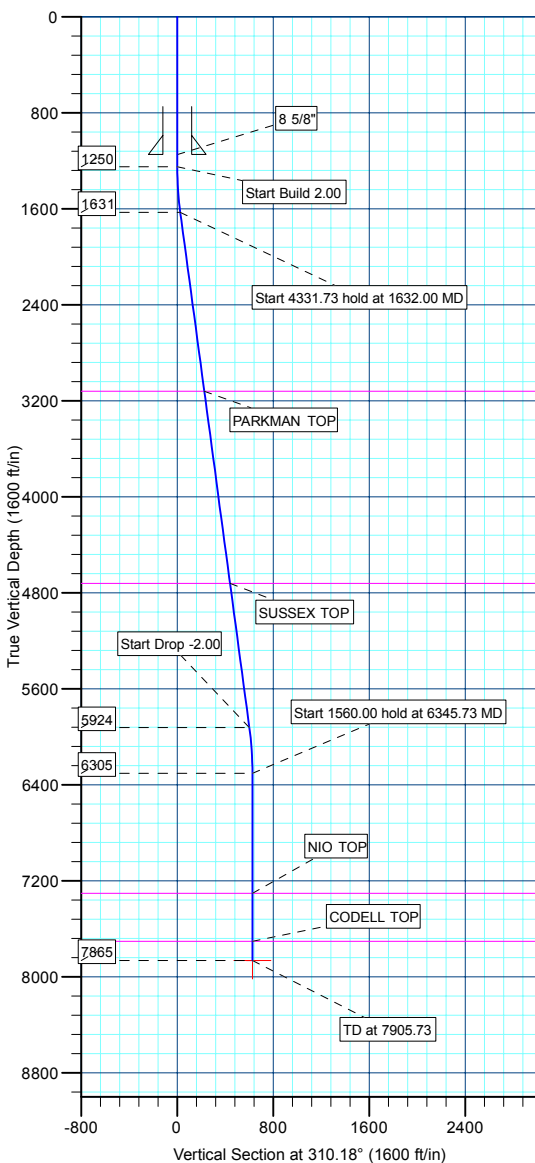
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	0.00	0.00	
1632.00	7.64	310.18	1630.87	16.41	-19.43	2.00	310.18	25.43	
5963.73	7.64	310.18	5924.15	387.96	-459.43	0.00	0.00	601.32	
6345.73	0.00	0.00	6305.01	404.36	-478.86	2.00	180.00	626.75	
7905.73	0.00	0.00	7865.02	404.36	-478.86	0.00	0.00	626.75	PBHL_DRY CREEK 27-27(50 FNL 1325 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	7865.02	404.37	-478.86	1254113.66	3175859.60	40° 1' 45.192 N	104° 52' 19.200 W	Circle (Radius: 50.00)

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

Created By: Robert H. Scott

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 27-27		
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 27-27					
Well Position	+N/-S	10.91 ft	Northing:	1,253,712.70 ft	Latitude:	40° 1' 41.196 N
	+E/-W	-11.20 ft	Easting:	3,176,341.32 ft	Longitude:	104° 52' 13.044 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,993.01 ft

Wellbore	P_DRY CREEK 27-27				
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			
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	310.18

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	
1,632.00	7.64	310.18	1,630.87	16.41	-19.43	2.00	2.00	0.00	310.18	
5,963.73	7.64	310.18	5,924.15	387.96	-459.43	0.00	0.00	0.00	0.00	
6,345.73	0.00	0.00	6,305.01	404.36	-478.86	2.00	-2.00	0.00	180.00	
7,905.73	0.00	0.00	7,865.02	404.36	-478.86	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 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 27-27		
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)
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	310.18	1,300.00	0.28	-0.33	0.44	2.00	2.00	0.00
1,400.00	3.00	310.18	1,399.93	2.53	-3.00	3.93	2.00	2.00	0.00
1,500.00	5.00	310.18	1,499.68	7.03	-8.33	10.90	2.00	2.00	0.00
1,600.00	7.00	310.18	1,599.13	13.78	-16.31	21.35	2.00	2.00	0.00
1,632.00	7.64	310.18	1,630.87	16.41	-19.43	25.43	2.00	2.00	0.00
1,700.00	7.64	310.18	1,698.27	22.24	-26.34	34.47	0.00	0.00	0.00
1,800.00	7.64	310.18	1,797.38	30.82	-36.49	47.77	0.00	0.00	0.00
1,900.00	7.64	310.18	1,896.49	39.39	-46.65	61.06	0.00	0.00	0.00
2,000.00	7.64	310.18	1,995.60	47.97	-56.81	74.35	0.00	0.00	0.00
2,100.00	7.64	310.18	2,094.71	56.55	-66.97	87.65	0.00	0.00	0.00
2,200.00	7.64	310.18	2,193.83	65.13	-77.12	100.94	0.00	0.00	0.00
2,300.00	7.64	310.18	2,292.94	73.70	-87.28	114.24	0.00	0.00	0.00
2,400.00	7.64	310.18	2,392.05	82.28	-97.44	127.53	0.00	0.00	0.00
2,500.00	7.64	310.18	2,491.16	90.86	-107.60	140.83	0.00	0.00	0.00
2,600.00	7.64	310.18	2,590.28	99.44	-117.76	154.12	0.00	0.00	0.00
2,700.00	7.64	310.18	2,689.39	108.01	-127.91	167.42	0.00	0.00	0.00
2,800.00	7.64	310.18	2,788.50	116.59	-138.07	180.71	0.00	0.00	0.00
2,900.00	7.64	310.18	2,887.61	125.17	-148.23	194.01	0.00	0.00	0.00
3,000.00	7.64	310.18	2,986.73	133.75	-158.39	207.30	0.00	0.00	0.00
3,100.00	7.64	310.18	3,085.84	142.32	-168.54	220.60	0.00	0.00	0.00
PARKMAN TOP									
3,135.48	7.64	310.18	3,121.01	145.37	-172.15	225.31	0.00	0.00	0.00
3,200.00	7.64	310.18	3,184.95	150.90	-178.70	233.89	0.00	0.00	0.00
3,300.00	7.64	310.18	3,284.06	159.48	-188.86	247.19	0.00	0.00	0.00
3,400.00	7.64	310.18	3,383.17	168.06	-199.02	260.48	0.00	0.00	0.00
3,500.00	7.64	310.18	3,482.29	176.63	-209.17	273.77	0.00	0.00	0.00
3,600.00	7.64	310.18	3,581.40	185.21	-219.33	287.07	0.00	0.00	0.00
3,700.00	7.64	310.18	3,680.51	193.79	-229.49	300.36	0.00	0.00	0.00
3,800.00	7.64	310.18	3,779.62	202.36	-239.65	313.66	0.00	0.00	0.00
3,900.00	7.64	310.18	3,878.74	210.94	-249.80	326.95	0.00	0.00	0.00
4,000.00	7.64	310.18	3,977.85	219.52	-259.96	340.25	0.00	0.00	0.00
4,100.00	7.64	310.18	4,076.96	228.10	-270.12	353.54	0.00	0.00	0.00
4,200.00	7.64	310.18	4,176.07	236.67	-280.28	366.84	0.00	0.00	0.00
4,300.00	7.64	310.18	4,275.19	245.25	-290.43	380.13	0.00	0.00	0.00
4,400.00	7.64	310.18	4,374.30	253.83	-300.59	393.43	0.00	0.00	0.00
4,500.00	7.64	310.18	4,473.41	262.41	-310.75	406.72	0.00	0.00	0.00
4,600.00	7.64	310.18	4,572.52	270.98	-320.91	420.02	0.00	0.00	0.00
4,700.00	7.64	310.18	4,671.64	279.56	-331.06	433.31	0.00	0.00	0.00
SUSSEX TOP									
4,751.83	7.64	310.18	4,723.01	284.01	-336.33	440.20	0.00	0.00	0.00
4,800.00	7.64	310.18	4,770.75	288.14	-341.22	446.61	0.00	0.00	0.00
4,900.00	7.64	310.18	4,869.86	296.72	-351.38	459.90	0.00	0.00	0.00
5,000.00	7.64	310.18	4,968.97	305.29	-361.54	473.19	0.00	0.00	0.00
5,100.00	7.64	310.18	5,068.08	313.87	-371.69	486.49	0.00	0.00	0.00
5,200.00	7.64	310.18	5,167.20	322.45	-381.85	499.78	0.00	0.00	0.00
5,300.00	7.64	310.18	5,266.31	331.03	-392.01	513.08	0.00	0.00	0.00
5,400.00	7.64	310.18	5,365.42	339.60	-402.17	526.37	0.00	0.00	0.00
5,500.00	7.64	310.18	5,464.53	348.18	-412.32	539.67	0.00	0.00	0.00
5,600.00	7.64	310.18	5,563.65	356.76	-422.48	552.96	0.00	0.00	0.00
5,700.00	7.64	310.18	5,662.76	365.34	-432.64	566.26	0.00	0.00	0.00
5,800.00	7.64	310.18	5,761.87	373.91	-442.80	579.55	0.00	0.00	0.00
5,900.00	7.64	310.18	5,860.98	382.49	-452.96	592.85	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 27-27		
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)
5,963.73	7.64	310.18	5,924.15	387.96	-459.43	601.32	0.00	0.00	0.00
6,000.00	6.91	310.18	5,960.12	390.92	-462.94	605.91	2.00	-2.00	0.00
6,100.00	4.91	310.18	6,059.59	397.57	-470.81	616.22	2.00	-2.00	0.00
6,200.00	2.91	310.18	6,159.35	401.97	-476.03	623.04	2.00	-2.00	0.00
6,300.00	0.91	310.18	6,259.29	404.13	-478.58	626.38	2.00	-2.00	0.00
6,345.73	0.00	0.00	6,305.01	404.36	-478.86	626.75	2.00	-2.00	0.00
6,400.00	0.00	0.00	6,359.29	404.36	-478.86	626.75	0.00	0.00	0.00
6,500.00	0.00	0.00	6,459.29	404.36	-478.86	626.75	0.00	0.00	0.00
6,600.00	0.00	0.00	6,559.29	404.36	-478.86	626.75	0.00	0.00	0.00
6,700.00	0.00	0.00	6,659.29	404.36	-478.86	626.75	0.00	0.00	0.00
6,800.00	0.00	0.00	6,759.29	404.36	-478.86	626.75	0.00	0.00	0.00
6,900.00	0.00	0.00	6,859.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,000.00	0.00	0.00	6,959.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,100.00	0.00	0.00	7,059.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,200.00	0.00	0.00	7,159.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,300.00	0.00	0.00	7,259.29	404.36	-478.86	626.75	0.00	0.00	0.00
NIO TOP									
7,345.73	0.00	0.00	7,305.01	404.36	-478.86	626.75	0.00	0.00	0.00
7,400.00	0.00	0.00	7,359.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,500.00	0.00	0.00	7,459.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,600.00	0.00	0.00	7,559.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,700.00	0.00	0.00	7,659.29	404.36	-478.86	626.75	0.00	0.00	0.00
CODELL TOP									
7,745.73	0.00	0.00	7,705.02	404.36	-478.86	626.75	0.00	0.00	0.00
7,800.00	0.00	0.00	7,759.29	404.36	-478.86	626.75	0.00	0.00	0.00
7,900.00	0.00	0.00	7,859.29	404.36	-478.86	626.75	0.00	0.00	0.00
PBHL_DRY CREEK 27-27(50 FNL 1325 FEL)50' TGT RAD									
7,905.73	0.00	0.00	7,865.02	404.36	-478.86	626.75	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
PBHL_DRY CREEK 2	0.00	0.00	7,865.02	404.37	-478.86	1,254,113.66	3,175,859.60	40° 1' 45.192 N	104° 52' 19.200 W
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.00)									

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	

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 27-27		
Design:	PLAN #1 10-27-09 RHS		

Formations						
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	3,135.48	3,121.01	PARKMAN TOP			
	4,751.83	4,723.01	SUSSEX TOP			
	7,345.73	7,305.01	NIO TOP			
	7,745.73	7,705.02	CODELL TOP			



US ROCKIES REGION PLANNING

**COLORADO NORTHERN ZONE - 83
WELD_DRY CREEK PAD 6
P_DRY CREEK 27-27**

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

Anticollision Report

27 October, 2009



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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	7,905.73	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	1,250.00	1,242.00	88.85	86.17	33.148	CC, ES
HOWARD #1-27 EXISTING - HOWARD #1-27 EXISTING	1,400.00	1,391.93	92.77	89.75	30.777	SF
P_DRY CREEK 21-27 - PLAN #1 10-27-09 RHS - PLAN	1,250.00	1,250.00	31.10	25.74	5.801	CC, ES
P_DRY CREEK 21-27 - PLAN #1 10-27-09 RHS - PLAN	1,400.00	1,400.69	33.27	27.30	5.573	SF
P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 1	1,250.00	1,250.00	15.64	10.28	2.917	CC
P_DRY CREEK 2-27 - P_DRY CREEK 2-27 - PLAN #1 1	1,300.00	1,300.16	15.82	10.24	2.838	ES, SF
P_DRY CREEK 41-27 - P_DRY CREEK 41-27 - PLAN #	1,250.00	1,250.00	79.94	74.58	14.913	CC, ES
P_DRY CREEK 41-27 - P_DRY CREEK 41-27 - PLAN #	1,300.00	1,298.66	80.80	75.23	14.514	SF
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	279.68	279.71	48.82	47.84	49.669	CC
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	300.00	300.00	48.83	47.76	45.630	ES
P_DRY CREEK 7-27 - P_DRY CREEK 7-27 - PLAN #1 1	600.00	594.63	63.00	60.61	26.388	SF
P_DRY CREEK 8-27 - P_DRY CREEK 8-27 - PLAN #1 1	1,250.00	1,250.00	64.39	59.03	12.012	CC, ES
P_DRY CREEK 8-27 - P_DRY CREEK 8-27 - PLAN #1 1	1,300.00	1,299.22	65.13	59.56	11.701	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 +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		125.60	-51.72	72.25	89.21					
100.00	100.00	92.00	92.00	0.10		125.60	-51.72	72.25	88.85	88.76	0.10	928.207		
200.00	200.00	192.00	192.00	0.32		125.60	-51.72	72.25	88.85	88.53	0.32	277.240		
300.00	300.00	292.00	292.00	0.55		125.60	-51.72	72.25	88.85	88.31	0.55	162.956		
400.00	400.00	392.00	392.00	0.77		125.60	-51.72	72.25	88.85	88.08	0.77	115.390		
500.00	500.00	492.00	492.00	0.99		125.60	-51.72	72.25	88.85	87.86	0.99	89.319		
600.00	600.00	592.00	592.00	1.22		125.60	-51.72	72.25	88.85	87.63	1.22	72.857		
700.00	700.00	692.00	692.00	1.44		125.60	-51.72	72.25	88.85	87.41	1.44	61.519		
800.00	800.00	792.00	792.00	1.67		125.60	-51.72	72.25	88.85	87.18	1.67	53.235		
900.00	900.00	892.00	892.00	1.89		125.60	-51.72	72.25	88.85	86.96	1.89	46.917		
1,000.00	1,000.00	992.00	992.00	2.12		125.60	-51.72	72.25	88.85	86.73	2.12	41.939		
1,100.00	1,100.00	1,092.00	1,092.00	2.34		125.60	-51.72	72.25	88.85	86.51	2.34	37.917		
1,200.00	1,200.00	1,192.00	1,192.00	2.57		125.60	-51.72	72.25	88.85	86.29	2.57	34.598		
1,250.00	1,250.00	1,242.00	1,242.00	2.68		125.60	-51.72	72.25	88.85	86.17	2.68	33.148	CC, ES	
1,300.00	1,300.00	1,292.00	1,292.00	2.79		175.44	-51.72	72.25	89.29	86.49	2.79	31.960		

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 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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
1,400.00	1,399.93	1,391.93	1,391.93	3.01		175.61	-51.72	72.25	92.77	89.75	3.01	30.777 SF	
1,500.00	1,499.68	1,491.68	1,491.68	3.23		175.90	-51.72	72.25	99.72	96.49	3.23	30.838	
1,600.00	1,599.13	1,591.13	1,591.13	3.47		176.28	-51.72	72.25	110.15	106.70	3.45	31.900	
1,632.00	1,630.87	1,622.87	1,622.87	3.54		176.40	-51.72	72.25	114.22	110.70	3.52	32.419	
1,700.00	1,698.27	1,690.27	1,690.27	3.72		176.67	-51.72	72.25	123.24	119.57	3.67	33.545	
1,800.00	1,797.38	1,789.38	1,789.38	3.98		176.99	-51.72	72.25	136.52	132.62	3.90	35.023	
1,900.00	1,896.49	1,888.49	1,888.49	4.26		177.26	-51.72	72.25	149.80	145.67	4.12	36.320	
2,000.00	1,995.60	1,987.60	1,987.60	4.54		177.48	-51.72	72.25	163.08	158.73	4.35	37.466	
2,100.00	2,094.71	2,086.71	2,086.71	4.83		177.67	-51.72	72.25	176.36	171.78	4.58	38.485	
2,200.00	2,193.83	2,185.83	2,185.83	5.12		177.84	-51.72	72.25	189.65	184.83	4.81	39.395	
2,300.00	2,292.94	2,284.94	2,284.94	5.42		177.98	-51.72	72.25	202.93	197.89	5.05	40.212	
2,400.00	2,392.05	2,384.05	2,384.05	5.72		178.10	-51.72	72.25	216.22	210.94	5.28	40.950	
2,500.00	2,491.16	2,483.16	2,483.16	6.03		178.21	-51.72	72.25	229.51	223.99	5.51	41.618	
2,600.00	2,590.28	2,582.28	2,582.28	6.34		178.31	-51.72	72.25	242.80	237.05	5.75	42.226	
2,700.00	2,689.39	2,681.39	2,681.39	6.65		178.40	-51.72	72.25	256.08	250.10	5.99	42.782	
2,800.00	2,788.50	2,780.50	2,780.50	6.96		178.48	-51.72	72.25	269.37	263.15	6.22	43.291	
2,900.00	2,887.61	2,879.61	2,879.61	7.28		178.55	-51.72	72.25	282.67	276.21	6.46	43.759	
3,000.00	2,986.73	2,978.73	2,978.73	7.60		178.61	-51.72	72.25	295.96	289.26	6.70	44.191	
3,100.00	3,085.84	3,077.84	3,077.84	7.91		178.67	-51.72	72.25	309.25	302.31	6.94	44.591	
3,200.00	3,184.95	3,176.95	3,176.95	8.23		178.73	-51.72	72.25	322.54	315.36	7.17	44.961	
3,300.00	3,284.06	3,276.06	3,276.06	8.56		178.78	-51.72	72.25	335.83	328.42	7.41	45.306	
3,400.00	3,383.17	3,375.17	3,375.17	8.88		178.82	-51.72	72.25	349.12	341.47	7.65	45.627	
3,500.00	3,482.29	3,474.29	3,474.29	9.20		178.87	-51.72	72.25	362.41	354.52	7.89	45.927	
3,600.00	3,581.40	3,573.40	3,573.40	9.52		178.91	-51.72	72.25	375.71	367.57	8.13	46.208	
3,700.00	3,680.51	3,672.51	3,672.51	9.85		178.94	-51.72	72.25	389.00	380.63	8.37	46.471	
3,800.00	3,779.62	3,771.62	3,771.62	10.17		178.98	-51.72	72.25	402.29	393.68	8.61	46.719	
3,900.00	3,878.74	3,870.74	3,870.74	10.50		179.01	-51.72	72.25	415.58	406.73	8.85	46.952	
4,000.00	3,977.85	3,969.85	3,969.85	10.82		179.04	-51.72	72.25	428.88	419.78	9.09	47.172	
4,100.00	4,076.96	4,068.96	4,068.96	11.15		179.07	-51.72	72.25	442.17	432.84	9.33	47.379	
4,200.00	4,176.07	4,168.07	4,168.07	11.48		179.10	-51.72	72.25	455.46	445.89	9.57	47.576	
4,300.00	4,275.19	4,267.19	4,267.19	11.81		179.12	-51.72	72.25	468.75	458.94	9.81	47.762	
4,400.00	4,374.30	4,366.30	4,366.30	12.13		179.15	-51.72	72.25	482.05	471.99	10.06	47.938	
4,500.00	4,473.41	4,465.41	4,465.41	12.46		179.17	-51.72	72.25	495.34	485.04	10.30	48.106	
4,600.00	4,572.52	4,564.52	4,564.52	12.79		179.19	-51.72	72.25	508.63	498.10	10.54	48.265	
4,700.00	4,671.64	4,663.63	4,663.63	13.12		179.21	-51.72	72.25	521.93	511.15	10.78	48.417	
4,800.00	4,770.75	4,762.75	4,762.75	13.45		179.23	-51.72	72.25	535.22	524.20	11.02	48.561	
4,900.00	4,869.86	4,861.86	4,861.86	13.78		179.25	-51.72	72.25	548.52	537.25	11.26	48.699	
5,000.00	4,968.97	4,960.97	4,960.97	14.11		179.27	-51.72	72.25	561.81	550.30	11.51	48.831	
5,100.00	5,068.08	5,060.08	5,060.08	14.44		179.29	-51.72	72.25	575.10	563.36	11.75	48.957	
5,200.00	5,167.20	5,159.20	5,159.20	14.77		179.30	-51.72	72.25	588.40	576.41	11.99	49.078	
5,300.00	5,266.31	5,258.31	5,258.31	15.10		179.32	-51.72	72.25	601.69	589.46	12.23	49.194	
5,400.00	5,365.42	5,357.42	5,357.42	15.43		179.33	-51.72	72.25	614.98	602.51	12.47	49.304	
5,500.00	5,464.53	5,456.53	5,456.53	15.76		179.35	-51.72	72.25	628.28	615.56	12.72	49.411	
5,600.00	5,563.65	5,555.65	5,555.65	16.09		179.36	-51.72	72.25	641.57	628.61	12.96	49.513	
5,700.00	5,662.76	5,654.76	5,654.76	16.42		179.37	-51.72	72.25	654.86	641.66	13.20	49.611	
5,800.00	5,761.87	5,753.87	5,753.87	16.75		179.39	-51.72	72.25	668.16	654.72	13.44	49.705	
5,900.00	5,860.98	5,852.98	5,852.98	17.08		179.40	-51.72	72.25	681.45	667.77	13.68	49.796	
5,963.73	5,924.15	5,916.15	5,916.15	17.29		179.41	-51.72	72.25	689.92	676.09	13.84	49.852	
6,000.00	5,960.12	5,952.12	5,952.12	17.40		179.41	-51.72	72.25	694.52	680.63	13.89	50.009	
6,100.00	6,059.59	6,051.59	6,051.59	17.63		179.42	-51.72	72.25	704.82	690.75	14.07	50.088	
6,200.00	6,159.35	6,151.35	6,151.35	17.82		179.43	-51.72	72.25	711.65	697.42	14.23	50.000	
6,300.00	6,259.29	6,251.29	6,251.29	17.99		179.43	-51.72	72.25	714.99	700.62	14.37	49.754	

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 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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		
6,345.73	6,305.01	6,297.01	6,297.01	18.05		129.61	-51.72	72.25	715.35	700.93	14.43	49.585		
6,400.00	6,359.29	6,351.29	6,351.29	18.14		129.61	-51.72	72.25	715.35	700.82	14.53	49.235		
6,500.00	6,459.29	6,451.29	6,451.29	18.31		129.61	-51.72	72.25	715.35	700.62	14.74	48.542		
6,600.00	6,559.29	6,551.29	6,551.29	18.48		129.61	-51.72	72.25	715.35	700.41	14.94	47.867		
6,700.00	6,659.29	6,651.29	6,651.29	18.65		129.61	-51.72	72.25	715.35	700.20	15.15	47.209		
6,800.00	6,759.29	6,751.29	6,751.29	18.82		129.61	-51.72	72.25	715.35	699.99	15.36	46.567		
6,900.00	6,859.29	6,851.29	6,851.29	18.99		129.61	-51.72	72.25	715.35	699.78	15.57	45.941		
7,000.00	6,959.29	6,951.29	6,951.29	19.17		129.61	-51.72	72.25	715.35	699.57	15.78	45.331		
7,100.00	7,059.29	7,051.29	7,051.29	19.35		129.61	-51.72	72.25	715.35	699.36	15.99	44.735		
7,200.00	7,159.29	7,151.29	7,151.29	19.52		129.61	-51.72	72.25	715.35	699.15	16.20	44.154		
7,300.00	7,259.29	7,251.29	7,251.29	19.70		129.61	-51.72	72.25	715.35	698.94	16.41	43.586		
7,400.00	7,359.29	7,351.29	7,351.29	19.88		129.61	-51.72	72.25	715.35	698.73	16.62	43.032		
7,500.00	7,459.29	7,451.29	7,451.29	20.06		129.61	-51.72	72.25	715.35	698.52	16.84	42.492		
7,600.00	7,559.29	7,551.29	7,551.29	20.24		129.61	-51.72	72.25	715.35	698.31	17.05	41.963		
7,700.00	7,659.29	7,651.29	7,651.29	20.42		129.61	-51.72	72.25	715.35	698.09	17.26	41.447		
7,800.00	7,759.29	7,751.29	7,751.29	20.60		129.61	-51.72	72.25	715.35	697.88	17.47	40.943		
7,905.73	7,865.02	7,857.02	7,857.02	20.80		129.61	-51.72	72.25	715.35	697.66	17.70	40.422		

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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	125.85	-18.21	25.20	31.10				
100.00	100.00	100.00	100.00	0.10	0.10	125.85	-18.21	25.20	31.10	30.90	0.19	162.762	
200.00	200.00	200.00	200.00	0.32	0.32	125.85	-18.21	25.20	31.10	30.46	0.64	48.543	
300.00	300.00	300.00	300.00	0.55	0.55	125.85	-18.21	25.20	31.10	30.01	1.09	28.525	
400.00	400.00	400.00	400.00	0.77	0.77	125.85	-18.21	25.20	31.10	29.56	1.54	20.197	
500.00	500.00	500.00	500.00	0.99	0.99	125.85	-18.21	25.20	31.10	29.11	1.99	15.633	
600.00	600.00	600.00	600.00	1.22	1.22	125.85	-18.21	25.20	31.10	28.66	2.44	12.751	
700.00	700.00	700.00	700.00	1.44	1.44	125.85	-18.21	25.20	31.10	28.21	2.89	10.766	
800.00	800.00	800.00	800.00	1.67	1.67	125.85	-18.21	25.20	31.10	27.76	3.34	9.316	
900.00	900.00	900.00	900.00	1.89	1.89	125.85	-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	125.85	-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	125.85	-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	125.85	-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	125.85	-18.21	25.20	31.10	25.74	5.36	5.801 CC, ES	
1,300.00	1,300.00	1,300.27	1,300.26	2.79	2.78	176.44	-18.40	24.80	31.32	25.74	5.57	5.620	
1,400.00	1,399.93	1,400.69	1,400.62	3.01	2.97	-177.87	-19.86	21.60	33.27	27.30	5.97	5.573 SF	
1,500.00	1,499.68	1,500.80	1,500.48	3.23	3.17	-168.48	-22.77	15.22	37.99	31.62	6.38	5.959	
1,600.00	1,599.13	1,600.38	1,599.51	3.47	3.39	-158.40	-27.10	5.73	46.44	39.64	6.80	6.829	
1,632.00	1,630.87	1,632.11	1,630.97	3.54	3.47	-155.42	-28.77	2.05	50.03	43.08	6.95	7.203	
1,700.00	1,698.27	1,699.30	1,697.47	3.72	3.63	-149.46	-32.81	-6.79	58.42	51.15	7.27	8.031	
1,800.00	1,797.38	1,797.54	1,794.21	3.98	3.90	-141.11	-39.86	-22.26	72.17	64.37	7.80	9.256	
1,900.00	1,896.49	1,894.87	1,889.44	4.26	4.21	-133.46	-48.21	-40.55	88.10	79.74	8.36	10.542	
2,000.00	1,995.60	1,991.09	1,982.85	4.54	4.56	-126.64	-57.78	-61.52	106.62	97.67	8.95	11.917	
2,100.00	2,094.71	2,086.01	2,074.20	4.83	4.96	-120.68	-68.48	-84.99	127.98	118.42	9.56	13.392	
2,200.00	2,193.83	2,179.46	2,163.24	5.12	5.42	-115.53	-80.25	-110.77	152.32	142.14	10.18	14.965	
2,300.00	2,292.94	2,271.26	2,249.77	5.42	5.92	-111.10	-92.97	-138.66	179.68	168.87	10.81	16.627	
2,400.00	2,392.05	2,361.29	2,333.63	5.72	6.48	-107.30	-106.56	-168.45	210.04	198.60	11.44	18.366	
2,500.00	2,491.16	2,449.41	2,414.68	6.03	7.08	-104.04	-120.91	-199.91	243.35	231.28	12.07	20.169	
2,600.00	2,590.28	2,535.54	2,492.83	6.34	7.72	-101.22	-135.93	-232.84	279.53	266.84	12.69	22.024	
2,700.00	2,689.39	2,619.57	2,568.00	6.65	8.41	-98.78	-151.52	-267.01	318.50	305.19	13.31	23.922	
2,800.00	2,788.50	2,700.01	2,638.88	6.96	9.11	-96.69	-167.29	-301.59	360.16	346.23	13.93	25.863	
2,900.00	2,887.61	2,783.09	2,710.98	7.28	9.89	-94.75	-184.43	-339.14	404.35	389.79	14.55	27.782	
3,000.00	2,986.73	2,871.52	2,787.33	7.60	10.75	-93.03	-202.95	-379.74	449.58	434.37	15.21	29.562	
3,100.00	3,085.84	2,959.95	2,863.68	7.91	11.62	-91.61	-221.47	-420.35	495.08	479.22	15.86	31.211	
3,200.00	3,184.95	3,048.39	2,940.02	8.23	12.51	-90.44	-239.99	-460.95	540.78	524.26	16.52	32.734	
3,300.00	3,284.06	3,136.82	3,016.37	8.56	13.40	-89.44	-258.51	-501.55	586.64	569.46	17.18	34.144	
3,400.00	3,383.17	3,225.26	3,092.72	8.88	14.30	-88.59	-277.04	-542.15	632.62	614.77	17.85	35.449	
3,500.00	3,482.29	3,313.69	3,169.07	9.20	15.20	-87.85	-295.56	-582.75	678.70	660.18	18.51	36.660	
3,600.00	3,581.40	3,402.12	3,245.42	9.52	16.11	-87.21	-314.08	-623.35	724.85	705.67	19.18	37.785	
3,700.00	3,680.51	3,490.56	3,321.77	9.85	17.03	-86.64	-332.60	-663.95	771.07	751.21	19.86	38.831	
3,800.00	3,779.62	3,578.99	3,398.11	10.17	17.95	-86.13	-351.12	-704.55	817.34	796.80	20.53	39.807	
3,900.00	3,878.74	3,667.43	3,474.46	10.50	18.87	-85.68	-369.65	-745.16	863.65	842.44	21.21	40.718	
4,000.00	3,977.85	3,755.86	3,550.81	10.82	19.79	-85.28	-388.17	-785.76	910.00	888.11	21.89	41.571	
4,100.00	4,076.96	3,844.30	3,627.16	11.15	20.72	-84.91	-406.69	-826.36	956.39	933.82	22.57	42.371	
4,200.00	4,176.07	3,932.73	3,703.51	11.48	21.65	-84.58	-425.21	-866.96	1,002.80	979.54	23.26	43.122	
4,300.00	4,275.19	4,021.16	3,779.86	11.81	22.58	-84.28	-443.73	-907.56	1,049.24	1,025.30	23.94	43.828	
4,400.00	4,374.30	4,109.60	3,856.21	12.13	23.51	-84.00	-462.26	-948.16	1,095.69	1,071.07	24.63	44.493	
4,500.00	4,473.41	4,198.03	3,932.55	12.46	24.44	-83.75	-480.78	-988.76	1,142.17	1,116.86	25.31	45.120	
4,600.00	4,572.52	4,286.47	4,008.90	12.79	25.37	-83.51	-499.30	-1,029.36	1,188.66	1,162.66	26.00	45.712	
4,700.00	4,671.64	4,374.90	4,085.25	13.12	26.31	-83.30	-517.82	-1,069.97	1,235.17	1,208.48	26.69	46.272	
4,800.00	4,770.75	4,463.34	4,161.60	13.45	27.24	-83.10	-536.34	-1,110.57	1,281.69	1,254.30	27.38	46.803	
4,900.00	4,869.86	4,551.77	4,237.95	13.78	28.18	-82.91	-554.87	-1,151.17	1,328.22	1,300.14	28.08	47.306	

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 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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 21-27 - PLAN #1 10-27-09 RHS - PLAN #1 10-27-09 RH												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	4,968.97	4,640.20	4,314.30	14.11	29.12	-82.74	-573.39	-1,191.77	1,374.76	1,345.99	28.77	47.784	
5,100.00	5,068.08	4,728.64	4,390.64	14.44	30.06	-82.57	-591.91	-1,232.37	1,421.31	1,391.85	29.46	48.238	
5,200.00	5,167.20	4,817.07	4,466.99	14.77	31.00	-82.42	-610.43	-1,272.97	1,467.87	1,437.71	30.16	48.671	
5,300.00	5,266.31	4,905.51	4,543.34	15.10	31.93	-82.28	-628.95	-1,313.57	1,514.44	1,483.58	30.85	49.083	
5,400.00	5,365.42	4,993.94	4,619.69	15.43	32.87	-82.14	-647.48	-1,354.18	1,561.01	1,529.46	31.55	49.475	
5,500.00	5,464.53	5,082.37	4,696.04	15.76	33.81	-82.01	-666.00	-1,394.78	1,607.59	1,575.34	32.25	49.850	
5,600.00	5,563.65	5,170.81	4,772.39	16.09	34.75	-81.89	-684.52	-1,435.38	1,654.18	1,621.23	32.95	50.209	
5,700.00	5,662.76	5,259.24	4,848.73	16.42	35.70	-81.78	-703.04	-1,475.98	1,700.77	1,667.13	33.64	50.552	
5,800.00	5,761.87	5,412.46	4,982.09	16.75	37.16	-81.62	-734.34	-1,544.59	1,746.49	1,711.91	34.58	50.499	
5,900.00	5,860.98	5,633.49	5,180.94	17.08	38.78	-81.57	-774.34	-1,632.27	1,786.48	1,750.75	35.73	49.998	
5,963.73	5,924.15	5,781.46	5,317.96	17.29	39.73	-81.64	-797.51	-1,683.06	1,808.34	1,771.86	36.48	49.573	
6,000.00	5,960.12	5,867.90	5,399.28	17.40	40.22	-81.93	-809.68	-1,709.73	1,819.47	1,782.52	36.95	49.244	
6,100.00	6,059.59	6,113.69	5,634.87	17.63	41.42	-82.56	-838.64	-1,773.23	1,845.23	1,807.14	38.09	48.444	
6,200.00	6,159.35	6,368.51	5,884.50	17.82	42.31	-82.96	-859.71	-1,819.41	1,863.35	1,824.33	39.02	47.750	
6,300.00	6,259.29	6,629.45	6,143.76	17.99	42.88	-83.15	-871.66	-1,845.61	1,873.43	1,833.72	39.72	47.171	
6,345.73	6,305.01	6,749.88	6,264.06	18.05	43.02	-132.98	-873.86	-1,850.43	1,875.30	1,835.35	39.95	46.946	
6,400.00	6,359.29	6,845.11	6,359.29	18.14	43.09	-132.98	-874.18	-1,851.12	1,875.57	1,835.43	40.14	46.722	
6,500.00	6,459.29	6,945.11	6,459.29	18.31	43.16	-132.98	-874.18	-1,851.12	1,875.57	1,835.14	40.43	46.387	
6,600.00	6,559.29	7,045.11	6,559.29	18.48	43.23	-132.98	-874.18	-1,851.12	1,875.57	1,834.85	40.73	46.052	
6,700.00	6,659.29	7,145.11	6,659.29	18.65	43.30	-132.98	-874.18	-1,851.12	1,875.57	1,834.55	41.02	45.718	
6,800.00	6,759.29	7,245.11	6,759.29	18.82	43.37	-132.98	-874.18	-1,851.12	1,875.57	1,834.25	41.32	45.387	
6,900.00	6,859.29	7,345.11	6,859.29	18.99	43.44	-132.98	-874.18	-1,851.12	1,875.57	1,833.95	41.63	45.057	
7,000.00	6,959.29	7,445.11	6,959.29	19.17	43.51	-132.98	-874.18	-1,851.12	1,875.57	1,833.64	41.93	44.729	
7,100.00	7,059.29	7,545.11	7,059.29	19.35	43.58	-132.98	-874.18	-1,851.12	1,875.57	1,833.33	42.24	44.404	
7,200.00	7,159.29	7,645.11	7,159.29	19.52	43.66	-132.98	-874.18	-1,851.12	1,875.57	1,833.02	42.55	44.080	
7,300.00	7,259.29	7,745.11	7,259.29	19.70	43.73	-132.98	-874.18	-1,851.12	1,875.57	1,832.71	42.86	43.759	
7,400.00	7,359.29	7,845.11	7,359.29	19.88	43.81	-132.98	-874.18	-1,851.12	1,875.57	1,832.40	43.18	43.440	
7,500.00	7,459.29	7,945.11	7,459.29	20.06	43.89	-132.98	-874.18	-1,851.12	1,875.57	1,832.08	43.49	43.124	
7,600.00	7,559.29	8,045.11	7,559.29	20.24	43.96	-132.98	-874.18	-1,851.12	1,875.57	1,831.76	43.81	42.810	
7,700.00	7,659.29	8,145.11	7,659.29	20.42	44.04	-132.98	-874.18	-1,851.12	1,875.57	1,831.44	44.13	42.498	
7,800.00	7,759.29	8,245.11	7,759.29	20.60	44.12	-132.98	-874.18	-1,851.12	1,875.57	1,831.12	44.46	42.189	
7,905.73	7,865.02	8,350.84	7,865.02	20.80	44.21	-132.98	-874.18	-1,851.12	1,875.57	1,830.77	44.80	41.864	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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)	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	134.25	-10.91	11.20	15.64				
100.00	100.00	100.00	100.00	0.10	0.10	134.25	-10.91	11.20	15.64	15.45	0.19	81.850	
200.00	200.00	200.00	200.00	0.32	0.32	134.25	-10.91	11.20	15.64	15.00	0.64	24.411	
300.00	300.00	300.00	300.00	0.55	0.55	134.25	-10.91	11.20	15.64	14.55	1.09	14.345	
400.00	400.00	400.00	400.00	0.77	0.77	134.25	-10.91	11.20	15.64	14.10	1.54	10.157	
500.00	500.00	500.00	500.00	0.99	0.99	134.25	-10.91	11.20	15.64	13.65	1.99	7.861	
600.00	600.00	600.00	600.00	1.22	1.22	134.25	-10.91	11.20	15.64	13.20	2.44	6.412	
700.00	700.00	700.00	700.00	1.44	1.44	134.25	-10.91	11.20	15.64	12.75	2.89	5.414	
800.00	800.00	800.00	800.00	1.67	1.67	134.25	-10.91	11.20	15.64	12.30	3.34	4.685	
900.00	900.00	900.00	900.00	1.89	1.89	134.25	-10.91	11.20	15.64	11.85	3.79	4.129	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	134.25	-10.91	11.20	15.64	11.40	4.24	3.691	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	134.25	-10.91	11.20	15.64	10.95	4.69	3.337	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	134.25	-10.91	11.20	15.64	10.50	5.14	3.045	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	134.25	-10.91	11.20	15.64	10.28	5.36	2.917 CC	
1,300.00	1,300.00	1,300.16	1,300.16	2.79	2.78	-174.76	-10.99	10.77	15.82	10.24	5.57	2.838 ES, SF	
1,400.00	1,399.93	1,400.41	1,400.34	3.01	2.98	-166.33	-11.58	7.31	17.48	11.50	5.98	2.924	
1,500.00	1,499.68	1,500.46	1,500.14	3.23	3.19	-153.97	-12.77	0.42	21.65	15.25	6.40	3.384	
1,600.00	1,599.13	1,600.19	1,599.32	3.47	3.41	-142.83	-14.54	-9.87	29.04	22.20	6.84	4.246	
1,632.00	1,630.87	1,632.01	1,630.88	3.54	3.49	-139.91	-15.23	-13.86	32.12	25.13	6.99	4.594	
1,700.00	1,698.27	1,699.50	1,697.66	3.72	3.66	-134.01	-16.88	-23.48	39.23	31.90	7.33	5.351	
1,800.00	1,797.38	1,798.32	1,794.98	3.98	3.93	-125.28	-19.79	-40.35	50.81	42.94	7.87	6.458	
1,900.00	1,896.49	1,896.42	1,890.95	4.26	4.25	-117.03	-23.23	-60.37	64.35	55.91	8.44	7.627	
2,000.00	1,995.60	1,993.59	1,985.27	4.54	4.61	-109.62	-27.19	-83.37	80.38	71.36	9.03	8.903	
2,100.00	2,094.71	2,091.42	2,079.76	4.83	5.01	-103.74	-31.49	-108.35	98.43	88.79	9.63	10.219	
2,200.00	2,193.83	2,189.36	2,174.35	5.12	5.44	-99.68	-35.80	-133.38	117.17	106.93	10.24	11.441	
2,300.00	2,292.94	2,287.31	2,268.95	5.42	5.89	-96.76	-40.11	-158.40	136.33	125.47	10.86	12.557	
2,400.00	2,392.05	2,385.25	2,363.54	5.72	6.36	-94.55	-44.41	-183.42	155.75	144.27	11.48	13.568	
2,500.00	2,491.16	2,483.19	2,458.13	6.03	6.83	-92.83	-48.72	-208.44	175.34	163.23	12.11	14.483	
2,600.00	2,590.28	2,581.13	2,552.73	6.34	7.32	-91.46	-53.03	-233.46	195.05	182.31	12.74	15.311	
2,700.00	2,689.39	2,679.07	2,647.32	6.65	7.81	-90.34	-57.34	-258.48	214.85	201.47	13.38	16.060	
2,800.00	2,788.50	2,777.02	2,741.92	6.96	8.31	-89.41	-61.64	-283.51	234.71	220.69	14.02	16.742	
2,900.00	2,887.61	2,874.96	2,836.51	7.28	8.82	-88.63	-65.95	-308.53	254.62	239.96	14.67	17.362	
3,000.00	2,986.73	2,972.90	2,931.10	7.60	9.33	-87.96	-70.26	-333.55	274.58	259.26	15.32	17.929	
3,100.00	3,085.84	3,070.84	3,025.70	7.91	9.84	-87.38	-74.56	-358.57	294.56	278.60	15.97	18.447	
3,200.00	3,184.95	3,168.78	3,120.29	8.23	10.36	-86.87	-78.87	-383.59	314.57	297.95	16.62	18.924	
3,300.00	3,284.06	3,266.73	3,214.88	8.56	10.88	-86.43	-83.18	-408.61	334.60	317.32	17.28	19.363	
3,400.00	3,383.17	3,364.67	3,309.48	8.88	11.40	-86.03	-87.49	-433.64	354.65	336.71	17.94	19.769	
3,500.00	3,482.29	3,462.61	3,404.07	9.20	11.92	-85.68	-91.79	-458.66	374.72	356.11	18.60	20.144	
3,600.00	3,581.40	3,560.55	3,498.67	9.52	12.45	-85.36	-96.10	-483.68	394.79	375.53	19.27	20.493	
3,700.00	3,680.51	3,658.49	3,593.26	9.85	12.98	-85.07	-100.41	-508.70	414.88	394.95	19.93	20.817	
3,800.00	3,779.62	3,756.43	3,687.85	10.17	13.50	-84.81	-104.72	-533.72	434.97	414.38	20.60	21.119	
3,900.00	3,878.74	3,854.38	3,782.45	10.50	14.03	-84.57	-109.02	-558.74	455.07	433.81	21.26	21.401	
4,000.00	3,977.85	3,952.32	3,877.04	10.82	14.56	-84.36	-113.33	-583.77	475.18	453.25	21.93	21.666	
4,100.00	4,076.96	4,050.26	3,971.63	11.15	15.10	-84.16	-117.64	-608.79	495.30	472.70	22.60	21.913	
4,200.00	4,176.07	4,148.20	4,066.23	11.48	15.63	-83.97	-121.94	-633.81	515.42	492.15	23.27	22.146	
4,300.00	4,275.19	4,246.14	4,160.82	11.81	16.16	-83.80	-126.25	-658.83	535.55	511.60	23.95	22.366	
4,400.00	4,374.30	4,344.09	4,255.42	12.13	16.70	-83.65	-130.56	-683.85	555.68	531.06	24.62	22.572	
4,500.00	4,473.41	4,442.03	4,350.01	12.46	17.23	-83.50	-134.87	-708.87	575.81	550.52	25.29	22.767	
4,600.00	4,572.52	4,539.97	4,444.60	12.79	17.77	-83.36	-139.17	-733.90	595.95	569.98	25.96	22.952	
4,700.00	4,671.64	4,637.91	4,539.20	13.12	18.30	-83.23	-143.48	-758.92	616.09	589.45	26.64	23.127	
4,800.00	4,770.75	4,735.85	4,633.79	13.45	18.84	-83.12	-147.79	-783.94	636.23	608.91	27.31	23.292	
4,900.00	4,869.86	4,833.80	4,728.39	13.78	19.38	-83.00	-152.09	-808.96	656.37	628.38	27.99	23.450	

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 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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
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	4,968.97	4,931.74	4,822.98	14.11	19.91	-82.90	-156.40	-833.98	676.52	647.85	28.67	23.599	
5,100.00	5,068.08	5,029.68	4,917.57	14.44	20.45	-82.80	-160.71	-859.00	696.67	667.33	29.34	23.742	
5,200.00	5,167.20	5,127.62	5,012.17	14.77	20.99	-82.70	-165.02	-884.03	716.82	686.80	30.02	23.877	
5,300.00	5,266.31	5,225.56	5,106.76	15.10	21.53	-82.61	-169.32	-909.05	736.98	706.28	30.70	24.007	
5,400.00	5,365.42	5,323.51	5,201.35	15.43	22.07	-82.53	-173.63	-934.07	757.13	725.75	31.38	24.130	
5,500.00	5,464.53	5,421.45	5,295.95	15.76	22.61	-82.45	-177.94	-959.09	777.29	745.23	32.06	24.248	
5,600.00	5,563.65	5,519.39	5,390.54	16.09	23.15	-82.37	-182.25	-984.11	797.44	764.71	32.73	24.361	
5,700.00	5,662.76	5,617.33	5,485.14	16.42	23.69	-82.30	-186.55	-1,009.13	817.60	784.19	33.41	24.469	
5,800.00	5,761.87	5,715.27	5,579.73	16.75	24.23	-82.23	-190.86	-1,034.16	837.76	803.67	34.09	24.573	
5,900.00	5,860.98	5,845.10	5,705.81	17.08	24.78	-82.25	-196.11	-1,064.63	856.15	821.32	34.83	24.579	
5,963.73	5,924.15	5,929.27	5,788.24	17.29	25.07	-82.38	-198.99	-1,081.37	865.90	830.60	35.29	24.533	
6,000.00	5,960.12	5,977.41	5,835.61	17.40	25.22	-82.57	-200.45	-1,089.86	870.78	835.23	35.55	24.492	
6,100.00	6,059.59	6,110.93	5,967.65	17.63	25.59	-82.98	-203.80	-1,109.31	881.92	845.75	36.17	24.386	
6,200.00	6,159.35	6,245.35	6,101.36	17.82	25.87	-83.23	-206.11	-1,122.75	889.59	852.92	36.67	24.257	
6,300.00	6,259.29	6,380.35	6,236.14	17.99	26.09	-83.34	-207.36	-1,130.01	893.76	856.68	37.08	24.103	
6,345.73	6,305.01	6,442.18	6,297.96	18.05	26.16	-133.17	-207.57	-1,131.24	894.49	857.26	37.23	24.023	
6,400.00	6,359.29	6,503.50	6,359.29	18.14	26.23	-133.16	-207.59	-1,131.37	894.57	857.17	37.40	23.917	
6,500.00	6,459.29	6,603.50	6,459.29	18.31	26.34	-133.16	-207.59	-1,131.37	894.57	856.85	37.72	23.717	
6,600.00	6,559.29	6,703.50	6,559.29	18.48	26.46	-133.16	-207.59	-1,131.37	894.57	856.53	38.04	23.517	
6,700.00	6,659.29	6,803.50	6,659.29	18.65	26.57	-133.16	-207.59	-1,131.37	894.57	856.21	38.36	23.320	
6,800.00	6,759.29	6,903.50	6,759.29	18.82	26.69	-133.16	-207.59	-1,131.37	894.57	855.89	38.69	23.124	
6,900.00	6,859.29	7,003.50	6,859.29	18.99	26.81	-133.16	-207.59	-1,131.37	894.57	855.56	39.01	22.931	
7,000.00	6,959.29	7,103.50	6,959.29	19.17	26.93	-133.16	-207.59	-1,131.37	894.57	855.23	39.34	22.739	
7,100.00	7,059.29	7,203.50	7,059.29	19.35	27.05	-133.16	-207.59	-1,131.37	894.57	854.90	39.67	22.548	
7,200.00	7,159.29	7,303.50	7,159.29	19.52	27.17	-133.16	-207.59	-1,131.37	894.57	854.56	40.01	22.360	
7,300.00	7,259.29	7,403.50	7,259.29	19.70	27.29	-133.16	-207.59	-1,131.37	894.57	854.23	40.34	22.174	
7,400.00	7,359.29	7,503.50	7,359.29	19.88	27.42	-133.16	-207.59	-1,131.37	894.57	853.89	40.68	21.989	
7,500.00	7,459.29	7,603.50	7,459.29	20.06	27.54	-133.16	-207.59	-1,131.37	894.57	853.55	41.02	21.807	
7,600.00	7,559.29	7,703.50	7,559.29	20.24	27.67	-133.16	-207.59	-1,131.37	894.57	853.21	41.36	21.626	
7,700.00	7,659.29	7,803.50	7,659.29	20.42	27.80	-133.16	-207.59	-1,131.37	894.57	852.86	41.71	21.448	
7,800.00	7,759.29	7,903.50	7,759.29	20.60	27.93	-133.16	-207.59	-1,131.37	894.57	852.52	42.06	21.271	
7,905.73	7,865.02	8,009.23	7,865.02	20.80	28.07	-133.16	-207.59	-1,131.37	894.57	852.15	42.42	21.086	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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	126.32	-47.36	64.41	79.94				
100.00	100.00	100.00	100.00	0.10	0.10	126.32	-47.36	64.41	79.94	79.75	0.19	418.444	
200.00	200.00	200.00	200.00	0.32	0.32	126.32	-47.36	64.41	79.94	79.30	0.64	124.799	
300.00	300.00	300.00	300.00	0.55	0.55	126.32	-47.36	64.41	79.94	78.85	1.09	73.336	
400.00	400.00	400.00	400.00	0.77	0.77	126.32	-47.36	64.41	79.94	78.40	1.54	51.924	
500.00	500.00	500.00	500.00	0.99	0.99	126.32	-47.36	64.41	79.94	77.96	1.99	40.190	
600.00	600.00	600.00	600.00	1.22	1.22	126.32	-47.36	64.41	79.94	77.51	2.44	32.781	
700.00	700.00	700.00	700.00	1.44	1.44	126.32	-47.36	64.41	79.94	77.06	2.89	27.679	
800.00	800.00	800.00	800.00	1.67	1.67	126.32	-47.36	64.41	79.94	76.61	3.34	23.951	
900.00	900.00	900.00	900.00	1.89	1.89	126.32	-47.36	64.41	79.94	76.16	3.79	21.108	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	126.32	-47.36	64.41	79.94	75.71	4.24	18.869	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	126.32	-47.36	64.41	79.94	75.26	4.69	17.059	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	126.32	-47.36	64.41	79.94	74.81	5.14	15.566	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	126.32	-47.36	64.41	79.94	74.58	5.36	14.913 CC, ES	
1,300.00	1,300.00	1,298.66	1,298.65	2.79	2.78	176.22	-47.66	64.69	80.80	75.23	5.57	14.514 SF	
1,400.00	1,399.93	1,395.62	1,395.56	3.01	2.95	176.79	-50.10	66.89	87.60	81.65	5.95	14.729	
1,500.00	1,499.68	1,491.58	1,491.29	3.23	3.13	177.70	-54.91	71.23	101.18	94.85	6.33	15.996	
1,600.00	1,599.13	1,585.87	1,585.10	3.47	3.33	178.68	-61.95	77.59	121.45	114.75	6.70	18.132	
1,632.00	1,630.87	1,615.59	1,614.60	3.54	3.39	178.97	-64.64	80.02	129.32	122.51	6.82	18.974	
1,700.00	1,698.27	1,678.12	1,676.52	3.72	3.54	179.56	-71.05	85.81	147.49	140.40	7.09	20.813	
1,800.00	1,797.38	1,768.64	1,765.81	3.98	3.77	-179.69	-82.10	95.79	176.77	169.28	7.49	23.607	
1,900.00	1,896.49	1,857.35	1,852.81	4.26	4.04	-179.05	-94.95	107.40	209.02	201.13	7.89	26.484	
2,000.00	1,995.60	1,944.13	1,937.36	4.54	4.33	-178.52	-109.45	120.50	244.16	235.86	8.30	29.427	
2,100.00	2,094.71	2,035.66	2,026.10	4.83	4.67	-178.05	-126.08	135.52	281.18	272.46	8.72	32.238	
2,200.00	2,193.83	2,128.52	2,116.12	5.12	5.05	-177.68	-142.98	150.78	318.25	309.10	9.15	34.766	
2,300.00	2,292.94	2,221.37	2,206.15	5.42	5.44	-177.39	-159.87	166.04	355.34	345.75	9.59	37.044	
2,400.00	2,392.05	2,314.23	2,296.17	5.72	5.85	-177.16	-176.77	181.31	392.43	382.39	10.04	39.104	
2,500.00	2,491.16	2,407.08	2,386.19	6.03	6.27	-176.96	-193.67	196.57	429.53	419.04	10.48	40.972	
2,600.00	2,590.28	2,499.94	2,476.21	6.34	6.70	-176.80	-210.57	211.83	466.63	455.69	10.93	42.673	
2,700.00	2,689.39	2,592.80	2,566.23	6.65	7.14	-176.66	-227.46	227.09	503.73	492.34	11.39	44.223	
2,800.00	2,788.50	2,685.65	2,656.25	6.96	7.58	-176.54	-244.36	242.36	540.83	528.98	11.85	45.643	
2,900.00	2,887.61	2,778.51	2,746.27	7.28	8.03	-176.43	-261.26	257.62	577.94	565.63	12.31	46.947	
3,000.00	2,986.73	2,871.36	2,836.29	7.60	8.49	-176.34	-278.16	272.88	615.05	602.27	12.77	48.149	
3,100.00	3,085.84	2,964.22	2,926.31	7.91	8.95	-176.26	-295.05	288.14	652.16	638.92	13.24	49.258	
3,200.00	3,184.95	3,057.07	3,016.33	8.23	9.41	-176.18	-311.95	303.41	689.27	675.56	13.71	50.286	
3,300.00	3,284.06	3,149.93	3,106.35	8.56	9.88	-176.12	-328.85	318.67	726.38	712.20	14.18	51.239	
3,400.00	3,383.17	3,242.79	3,196.37	8.88	10.34	-176.06	-345.74	333.93	763.49	748.84	14.65	52.126	
3,500.00	3,482.29	3,335.64	3,286.40	9.20	10.81	-176.01	-362.64	349.19	800.60	785.48	15.12	52.953	
3,600.00	3,581.40	3,428.50	3,376.42	9.52	11.29	-175.96	-379.54	364.46	837.72	822.12	15.59	53.725	
3,700.00	3,680.51	3,521.35	3,466.44	9.85	11.76	-175.91	-396.44	379.72	874.83	858.76	16.07	54.448	
3,800.00	3,779.62	3,614.21	3,556.46	10.17	12.23	-175.87	-413.33	394.98	911.94	895.40	16.54	55.126	
3,900.00	3,878.74	3,707.07	3,646.48	10.50	12.71	-175.83	-430.23	410.24	949.06	932.04	17.02	55.763	
4,000.00	3,977.85	3,799.92	3,736.50	10.82	13.19	-175.80	-447.13	425.51	986.17	968.67	17.50	56.362	
4,100.00	4,076.96	3,892.78	3,826.52	11.15	13.67	-175.77	-464.03	440.77	1,023.29	1,005.31	17.98	56.926	
4,200.00	4,176.07	3,985.63	3,916.54	11.48	14.14	-175.74	-480.92	456.03	1,060.40	1,041.95	18.45	57.459	
4,300.00	4,275.19	4,078.49	4,006.56	11.81	14.62	-175.71	-497.82	471.29	1,097.52	1,078.58	18.93	57.963	
4,400.00	4,374.30	4,171.34	4,096.58	12.13	15.11	-175.68	-514.72	486.56	1,134.63	1,115.22	19.42	58.440	
4,500.00	4,473.41	4,264.20	4,186.60	12.46	15.59	-175.66	-531.61	501.82	1,171.75	1,151.85	19.90	58.893	
4,600.00	4,572.52	4,357.06	4,276.62	12.79	16.07	-175.63	-548.51	517.08	1,208.86	1,188.49	20.38	59.322	
4,700.00	4,671.64	4,449.91	4,366.64	13.12	16.55	-175.61	-565.41	532.34	1,245.98	1,225.12	20.86	59.730	
4,800.00	4,770.75	4,542.77	4,456.67	13.45	17.04	-175.59	-582.31	547.61	1,283.10	1,261.75	21.34	60.118	
4,900.00	4,869.86	4,635.62	4,546.69	13.78	17.52	-175.57	-599.20	562.87	1,320.21	1,298.39	21.83	60.488	

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 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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
5,000.00	4,968.97	4,728.48	4,636.71	14.11	18.00	-175.55	-616.10	578.13	1,357.33	1,335.02	22.31	60.841	
5,100.00	5,068.08	4,821.33	4,726.73	14.44	18.49	-175.54	-633.00	593.39	1,394.45	1,371.65	22.79	61.178	
5,200.00	5,167.20	4,914.19	4,816.75	14.77	18.97	-175.52	-649.89	608.66	1,431.56	1,408.29	23.28	61.500	
5,300.00	5,266.31	5,007.05	4,906.77	15.10	19.46	-175.50	-666.79	623.92	1,468.68	1,444.92	23.76	61.807	
5,400.00	5,365.42	5,099.90	4,996.79	15.43	19.94	-175.49	-683.69	639.18	1,505.80	1,481.55	24.25	62.102	
5,500.00	5,464.53	5,192.76	5,086.81	15.76	20.43	-175.47	-700.59	654.44	1,542.91	1,518.18	24.73	62.384	
5,600.00	5,563.65	5,285.61	5,176.83	16.09	20.92	-175.46	-717.48	669.71	1,580.03	1,554.81	25.22	62.655	
5,700.00	5,662.76	5,378.47	5,266.85	16.42	21.40	-175.45	-734.38	684.97	1,617.15	1,591.44	25.70	62.915	
5,800.00	5,761.87	5,471.33	5,356.87	16.75	21.89	-175.44	-751.28	700.23	1,654.27	1,628.08	26.19	63.164	
5,900.00	5,860.98	5,564.18	5,446.89	17.08	22.38	-175.42	-768.18	715.50	1,691.38	1,664.71	26.68	63.404	
5,963.73	5,924.15	5,623.36	5,504.26	17.29	22.69	-175.42	-778.94	725.22	1,715.04	1,688.05	26.99	63.552	
6,000.00	5,960.12	5,657.12	5,537.00	17.40	22.86	-175.44	-785.09	730.77	1,728.29	1,701.08	27.21	63.515	
6,100.00	6,059.59	5,815.94	5,691.42	17.63	23.59	-175.46	-812.58	755.61	1,761.85	1,733.92	27.93	63.077	
6,200.00	6,159.35	6,070.69	5,942.57	17.82	24.34	-175.47	-843.88	783.88	1,785.08	1,756.31	28.77	62.047	
6,300.00	6,259.29	6,335.18	6,206.20	17.99	24.83	-175.47	-858.74	797.29	1,795.97	1,766.44	29.52	60.836	
6,345.73	6,305.01	6,434.00	6,305.01	18.05	24.95	134.71	-859.67	798.14	1,796.80	1,767.00	29.80	60.305	
6,400.00	6,359.29	6,488.27	6,359.29	18.14	25.01	134.71	-859.67	798.14	1,796.80	1,766.81	29.99	59.908	
6,500.00	6,459.29	6,588.27	6,459.29	18.31	25.12	134.71	-859.67	798.14	1,796.80	1,766.43	30.37	59.163	
6,600.00	6,559.29	6,688.27	6,559.29	18.48	25.23	134.71	-859.67	798.14	1,796.80	1,766.05	30.75	58.434	
6,700.00	6,659.29	6,788.27	6,659.29	18.65	25.34	134.71	-859.67	798.14	1,796.80	1,765.67	31.13	57.720	
6,800.00	6,759.29	6,888.27	6,759.29	18.82	25.45	134.71	-859.67	798.14	1,796.80	1,765.29	31.51	57.020	
6,900.00	6,859.29	6,988.27	6,859.29	18.99	25.56	134.71	-859.67	798.14	1,796.80	1,764.90	31.90	56.334	
7,000.00	6,959.29	7,088.27	6,959.29	19.17	25.68	134.71	-859.67	798.14	1,796.80	1,764.52	32.28	55.661	
7,100.00	7,059.29	7,188.27	7,059.29	19.35	25.79	134.71	-859.67	798.14	1,796.80	1,764.13	32.67	55.001	
7,200.00	7,159.29	7,288.27	7,159.29	19.52	25.91	134.71	-859.67	798.14	1,796.80	1,763.74	33.06	54.354	
7,300.00	7,259.29	7,388.27	7,259.29	19.70	26.03	134.71	-859.67	798.14	1,796.80	1,763.35	33.45	53.720	
7,400.00	7,359.29	7,488.27	7,359.29	19.88	26.15	134.71	-859.67	798.14	1,796.80	1,762.96	33.84	53.099	
7,500.00	7,459.29	7,588.27	7,459.29	20.06	26.27	134.71	-859.67	798.14	1,796.80	1,762.57	34.23	52.489	
7,600.00	7,559.29	7,688.27	7,559.29	20.24	26.40	134.71	-859.67	798.14	1,796.80	1,762.17	34.63	51.891	
7,700.00	7,659.29	7,788.27	7,659.29	20.42	26.52	134.71	-859.67	798.14	1,796.80	1,761.78	35.02	51.305	
7,800.00	7,759.29	7,888.27	7,759.29	20.60	26.65	134.71	-859.67	798.14	1,796.80	1,761.38	35.42	50.730	
7,865.11	7,824.39	7,953.38	7,824.39	20.72	26.73	134.71	-859.67	798.14	1,796.80	1,761.12	35.68	50.361	
7,905.73	7,865.02	7,980.00	7,851.02	20.80	26.76	134.71	-859.67	798.14	1,796.85	1,761.04	35.81	50.172	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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					
0.00	0.00	0.00	0.00	0.00	0.00	126.63	-29.15	39.21	48.85								
100.00	100.00	100.00	100.00	0.10	0.10	126.63	-29.15	39.21	48.85	48.66	0.19	255.704					
200.00	200.00	200.00	200.00	0.32	0.32	126.63	-29.15	39.21	48.85	48.21	0.64	76.263					
279.68	279.68	279.71	279.68	0.50	0.48	128.58	-30.45	38.17	48.82	47.84	0.98	49.669 CC					
300.00	300.00	300.00	299.95	0.55	0.53	129.70	-31.19	37.57	48.83	47.76	1.07	45.630 ES					
400.00	400.00	399.45	399.08	0.77	0.75	138.73	-37.28	32.72	49.61	48.11	1.50	33.019					
500.00	500.00	497.82	496.62	0.99	1.03	152.36	-47.26	24.75	53.46	51.52	1.94	27.496					
600.00	600.00	594.63	591.83	1.22	1.39	167.17	-60.91	13.87	63.00	60.61	2.39	26.388 SF					
700.00	700.00	689.43	684.09	1.44	1.81	179.77	-77.90	0.31	79.51	76.65	2.86	27.758					
800.00	800.00	781.83	772.87	1.67	2.30	-170.93	-97.90	-15.63	102.78	99.37	3.41	30.102					
900.00	900.00	871.50	857.75	1.89	2.86	-164.39	-120.48	-33.65	132.04	127.99	4.04	32.657					
1,000.00	1,000.00	958.19	938.43	2.12	3.47	-159.81	-145.26	-53.42	166.57	161.83	4.74	35.171					
1,100.00	1,100.00	1,041.70	1,014.71	2.34	4.13	-156.53	-171.81	-74.59	205.81	200.33	5.48	37.573					
1,200.00	1,200.00	1,121.90	1,086.51	2.57	4.81	-154.13	-199.74	-96.87	249.31	243.06	6.26	39.857					
1,250.00	1,250.00	1,160.74	1,120.73	2.68	5.17	-153.16	-214.10	-108.33	272.56	265.90	6.66	40.932					
1,300.00	1,300.00	1,200.00	1,154.93	2.79	5.54	-102.02	-229.18	-120.35	296.82	291.01	5.80	51.158					
1,400.00	1,399.93	1,272.05	1,216.63	3.01	6.27	-100.01	-258.25	-143.55	348.37	342.14	6.23	55.907					
1,500.00	1,499.68	1,352.85	1,284.69	3.23	7.11	-98.54	-292.30	-170.71	402.73	396.02	6.71	60.038					
1,600.00	1,599.13	1,436.40	1,355.02	3.47	8.00	-97.59	-327.56	-198.83	457.61	450.40	7.22	63.422					
1,632.00	1,630.87	1,463.06	1,377.46	3.54	8.29	-97.37	-338.81	-207.81	475.27	467.88	7.38	64.372					
1,700.00	1,698.27	1,519.65	1,425.10	3.72	8.89	-97.80	-362.69	-226.86	512.83	505.07	7.77	66.013					
1,800.00	1,797.38	1,602.88	1,495.16	3.98	9.78	-98.33	-397.81	-254.88	568.11	559.76	8.35	68.036					
1,900.00	1,896.49	1,686.11	1,565.22	4.26	10.68	-98.76	-432.94	-282.89	623.41	614.47	8.95	69.684					
2,000.00	1,995.60	1,769.34	1,635.29	4.54	11.57	-99.12	-468.06	-310.91	678.74	669.19	9.55	71.046					
2,100.00	2,094.71	1,852.58	1,705.35	4.83	12.47	-99.43	-503.19	-338.93	734.08	723.91	10.17	72.182					
2,200.00	2,193.83	1,935.81	1,775.41	5.12	13.37	-99.70	-538.31	-366.95	789.43	778.64	10.79	73.139					
2,300.00	2,292.94	2,019.04	1,845.47	5.42	14.27	-99.93	-573.43	-394.96	844.80	833.37	11.42	73.950					
2,400.00	2,392.05	2,102.27	1,915.53	5.72	15.16	-100.13	-608.56	-422.98	900.17	888.11	12.06	74.645					
2,500.00	2,491.16	2,185.50	1,985.59	6.03	16.06	-100.31	-643.68	-451.00	955.55	942.85	12.70	75.242					
2,600.00	2,590.28	2,268.73	2,055.66	6.34	16.97	-100.47	-678.80	-479.02	1,010.93	997.59	13.34	75.761					
2,700.00	2,689.39	2,351.96	2,125.72	6.65	17.87	-100.62	-713.93	-507.03	1,066.32	1,052.33	13.99	76.214					
2,800.00	2,788.50	2,435.19	2,195.78	6.96	18.77	-100.75	-749.05	-535.05	1,121.72	1,107.08	14.64	76.613					
2,900.00	2,887.61	2,518.42	2,265.84	7.28	19.67	-100.86	-784.18	-563.07	1,177.12	1,161.82	15.29	76.965					
3,000.00	2,986.73	2,601.65	2,335.90	7.60	20.57	-100.97	-819.30	-591.09	1,232.52	1,216.57	15.95	77.278					
3,100.00	3,085.84	2,684.88	2,405.96	7.91	21.47	-101.07	-854.42	-619.10	1,287.92	1,271.31	16.61	77.558					
3,200.00	3,184.95	2,768.11	2,476.02	8.23	22.38	-101.16	-889.55	-647.12	1,343.33	1,326.06	17.26	77.808					
3,300.00	3,284.06	2,851.34	2,546.09	8.56	23.28	-101.24	-924.67	-675.14	1,398.73	1,380.81	17.92	78.034					
3,400.00	3,383.17	2,934.57	2,616.15	8.88	24.18	-101.31	-959.79	-703.16	1,454.14	1,435.56	18.59	78.238					
3,500.00	3,482.29	3,017.80	2,686.21	9.20	25.08	-101.38	-994.92	-731.17	1,509.55	1,490.31	19.25	78.423					
3,600.00	3,581.40	3,101.03	2,756.27	9.52	25.99	-101.45	-1,030.04	-759.19	1,564.97	1,545.06	19.91	78.592					
3,700.00	3,680.51	3,184.26	2,826.33	9.85	26.89	-101.51	-1,065.17	-787.21	1,620.38	1,599.80	20.58	78.745					
3,800.00	3,779.62	3,267.49	2,896.39	10.17	27.79	-101.57	-1,100.29	-815.23	1,675.80	1,654.55	21.24	78.886					
3,900.00	3,878.74	3,350.72	2,966.46	10.50	28.70	-101.62	-1,135.41	-843.25	1,731.21	1,709.30	21.91	79.016					
4,000.00	3,977.85	3,433.95	3,036.52	10.82	29.60	-101.67	-1,170.54	-871.26	1,786.63	1,764.05	22.58	79.136					
4,100.00	4,076.96	3,517.18	3,106.58	11.15	30.50	-101.72	-1,205.66	-899.28	1,842.05	1,818.80	23.24	79.246					
4,200.00	4,176.07	3,600.41	3,176.64	11.48	31.41	-101.76	-1,240.78	-927.30	1,897.47	1,873.56	23.91	79.348					
4,300.00	4,275.19	3,683.64	3,246.70	11.81	32.31	-101.80	-1,275.91	-955.32	1,952.89	1,928.31	24.58	79.443					
4,400.00	4,374.30	3,766.87	3,316.76	12.13	33.21	-101.84	-1,311.03	-983.33	2,008.31	1,983.06	25.25	79.531					
4,500.00	4,473.41	3,850.10	3,386.82	12.46	34.12	-101.88	-1,346.16	-1,011.35	2,063.73	2,037.81	25.92	79.614					
4,600.00	4,572.52	3,933.33	3,456.89	12.79	35.02	-101.91	-1,381.28	-1,039.37	2,119.15	2,092.56	26.59	79.690					
4,700.00	4,671.64	4,016.43	4,062.18	13.12	35.55	-102.69	-1,603.17	-1,216.37	2,167.92	2,138.60	29.32	73.951					
4,800.00	4,770.75	5,322.31	4,770.75	13.45	41.28	-104.61	-1,679.26	-1,277.07	2,178.64	2,147.22	31.42	69.336					

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,869.86	5,421.43	4,869.86	13.78	41.32	-104.95	-1,679.26	-1,277.07	2,182.06	2,150.12	31.94	68.327	
5,000.00	4,968.97	5,520.54	4,968.97	14.11	41.37	-105.28	-1,679.26	-1,277.07	2,185.56	2,153.10	32.45	67.347	
5,100.00	5,068.08	5,619.65	5,068.08	14.44	41.42	-105.62	-1,679.26	-1,277.07	2,189.13	2,156.16	32.97	66.396	
5,200.00	5,167.20	5,718.76	5,167.20	14.77	41.47	-105.95	-1,679.26	-1,277.07	2,192.77	2,159.28	33.49	65.471	
5,300.00	5,266.31	5,817.87	5,266.31	15.10	41.52	-106.28	-1,679.26	-1,277.07	2,196.49	2,162.48	34.02	64.574	
5,400.00	5,365.42	5,916.99	5,365.42	15.43	41.57	-106.61	-1,679.26	-1,277.07	2,200.29	2,165.75	34.54	63.702	
5,500.00	5,464.53	6,016.10	5,464.53	15.76	41.62	-106.94	-1,679.26	-1,277.07	2,204.16	2,169.09	35.07	62.855	
5,600.00	5,563.65	6,115.21	5,563.65	16.09	41.67	-107.26	-1,679.26	-1,277.07	2,208.10	2,172.50	35.60	62.032	
5,700.00	5,662.76	6,214.32	5,662.76	16.42	41.73	-107.59	-1,679.26	-1,277.07	2,212.11	2,175.98	36.13	61.233	
5,800.00	5,761.87	6,313.44	5,761.87	16.75	41.78	-107.92	-1,679.26	-1,277.07	2,216.20	2,179.54	36.66	60.457	
5,900.00	5,860.98	6,412.55	5,860.98	17.08	41.84	-108.24	-1,679.26	-1,277.07	2,220.36	2,183.17	37.19	59.702	
5,963.73	5,924.15	6,475.71	5,924.15	17.29	41.88	-108.44	-1,679.26	-1,277.07	2,223.04	2,185.51	37.53	59.233	
6,000.00	5,960.12	6,511.69	5,960.12	17.40	41.90	-108.58	-1,679.26	-1,277.07	2,224.51	2,186.76	37.75	58.922	
6,100.00	6,059.59	6,611.15	6,059.59	17.63	41.96	-108.90	-1,679.26	-1,277.07	2,227.84	2,189.56	38.29	58.191	
6,200.00	6,159.35	6,710.92	6,159.35	17.82	42.02	-109.10	-1,679.26	-1,277.07	2,230.07	2,191.32	38.75	57.551	
6,300.00	6,259.29	6,810.85	6,259.29	17.99	42.08	-109.21	-1,679.26	-1,277.07	2,231.16	2,192.02	39.14	56.999	
6,345.73	6,305.01	6,856.58	6,305.01	18.05	42.11	-159.04	-1,679.26	-1,277.07	2,231.28	2,191.98	39.30	56.774	
6,400.00	6,359.29	6,910.85	6,359.29	18.14	42.15	-159.04	-1,679.26	-1,277.07	2,231.28	2,191.83	39.45	56.558	
6,500.00	6,459.29	7,010.85	6,459.29	18.31	42.21	-159.04	-1,679.26	-1,277.07	2,231.28	2,191.54	39.75	56.136	
6,600.00	6,559.29	7,110.85	6,559.29	18.48	42.27	-159.04	-1,679.26	-1,277.07	2,231.28	2,191.24	40.05	55.717	
6,700.00	6,659.29	7,210.85	6,659.29	18.65	42.34	-159.04	-1,679.26	-1,277.07	2,231.28	2,190.94	40.35	55.300	
6,800.00	6,759.29	7,310.85	6,759.29	18.82	42.41	-159.04	-1,679.26	-1,277.07	2,231.28	2,190.63	40.65	54.885	
6,900.00	6,859.29	7,410.85	6,859.29	18.99	42.48	-159.04	-1,679.26	-1,277.07	2,231.28	2,190.32	40.96	54.473	
7,000.00	6,959.29	7,510.85	6,959.29	19.17	42.55	-159.04	-1,679.26	-1,277.07	2,231.28	2,190.01	41.27	54.064	
7,100.00	7,059.29	7,610.85	7,059.29	19.35	42.62	-159.04	-1,679.26	-1,277.07	2,231.28	2,189.70	41.58	53.659	
7,200.00	7,159.29	7,710.85	7,159.29	19.52	42.69	-159.04	-1,679.26	-1,277.07	2,231.28	2,189.39	41.90	53.256	
7,300.00	7,259.29	7,810.85	7,259.29	19.70	42.76	-159.04	-1,679.26	-1,277.07	2,231.28	2,189.07	42.21	52.856	
7,400.00	7,359.29	7,910.85	7,359.29	19.88	42.84	-159.04	-1,679.26	-1,277.07	2,231.28	2,188.75	42.53	52.459	
7,500.00	7,459.29	8,010.85	7,459.29	20.06	42.91	-159.04	-1,679.26	-1,277.07	2,231.28	2,188.43	42.86	52.065	
7,600.00	7,559.29	8,110.85	7,559.29	20.24	42.99	-159.04	-1,679.26	-1,277.07	2,231.28	2,188.11	43.18	51.675	
7,700.00	7,659.29	8,210.85	7,659.29	20.42	43.06	-159.04	-1,679.26	-1,277.07	2,231.28	2,187.78	43.51	51.288	
7,800.00	7,759.29	8,310.85	7,759.29	20.60	43.14	-159.04	-1,679.26	-1,277.07	2,231.28	2,187.45	43.83	50.904	
7,905.73	7,865.02	8,416.58	7,865.02	20.80	43.23	-159.04	-1,679.26	-1,277.07	2,231.28	2,187.10	44.18	50.502	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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	
0.00	0.00	0.00	0.00	0.00	0.00	128.48	-40.07	50.41	64.39				
100.00	100.00	100.00	100.00	0.10	0.10	128.48	-40.07	50.41	64.39	64.20	0.19	337.047	
200.00	200.00	200.00	200.00	0.32	0.32	128.48	-40.07	50.41	64.39	63.75	0.64	100.523	
300.00	300.00	300.00	300.00	0.55	0.55	128.48	-40.07	50.41	64.39	63.30	1.09	59.070	
400.00	400.00	400.00	400.00	0.77	0.77	128.48	-40.07	50.41	64.39	62.85	1.54	41.823	
500.00	500.00	500.00	500.00	0.99	0.99	128.48	-40.07	50.41	64.39	62.40	1.99	32.372	
600.00	600.00	600.00	600.00	1.22	1.22	128.48	-40.07	50.41	64.39	61.95	2.44	26.405	
700.00	700.00	700.00	700.00	1.44	1.44	128.48	-40.07	50.41	64.39	61.51	2.89	22.295	
800.00	800.00	800.00	800.00	1.67	1.67	128.48	-40.07	50.41	64.39	61.06	3.34	19.292	
900.00	900.00	900.00	900.00	1.89	1.89	128.48	-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	128.48	-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	128.48	-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	128.48	-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	128.48	-40.07	50.41	64.39	59.03	5.36	12.012 CC, ES	
1,300.00	1,300.00	1,299.22	1,299.22	2.79	2.78	178.58	-40.49	50.45	65.13	59.56	5.57	11.701 SF	
1,400.00	1,399.93	1,397.36	1,397.29	3.01	2.95	-179.40	-43.84	50.76	71.05	65.11	5.94	11.957	
1,500.00	1,499.68	1,494.60	1,494.30	3.23	3.12	-176.23	-50.46	51.39	83.07	76.75	6.32	13.148	
1,600.00	1,599.13	1,590.37	1,589.57	3.47	3.31	-172.90	-60.18	52.30	101.33	94.64	6.69	15.136	
1,632.00	1,630.87	1,620.62	1,619.59	3.54	3.37	-171.90	-63.90	52.65	108.50	101.69	6.82	15.919	
1,700.00	1,698.27	1,684.33	1,682.67	3.72	3.51	-169.96	-72.79	53.49	125.08	117.99	7.09	17.631	
1,800.00	1,797.38	1,776.72	1,773.76	3.98	3.75	-167.35	-88.14	54.94	151.88	144.37	7.51	20.214	
1,900.00	1,896.49	1,867.44	1,862.67	4.26	4.01	-165.06	-106.06	56.62	181.57	173.62	7.94	22.857	
2,000.00	1,995.60	1,956.34	1,949.21	4.54	4.30	-163.04	-126.32	58.53	214.09	205.71	8.38	25.541	
2,100.00	2,094.71	2,043.32	2,033.22	4.83	4.63	-161.27	-148.73	60.64	249.41	240.58	8.83	28.249	
2,200.00	2,193.83	2,128.29	2,114.60	5.12	5.00	-159.71	-173.06	62.94	287.45	278.17	9.28	30.968	
2,300.00	2,292.94	2,211.17	2,193.24	5.42	5.40	-158.34	-199.10	65.39	328.13	318.39	9.74	33.690	
2,400.00	2,392.05	2,294.73	2,271.77	5.72	5.85	-157.09	-227.52	68.07	371.26	361.05	10.21	36.362	
2,500.00	2,491.16	2,384.34	2,355.78	6.03	6.36	-155.99	-258.57	70.99	415.12	404.42	10.71	38.773	
2,600.00	2,590.28	2,473.95	2,439.79	6.34	6.89	-155.10	-289.63	73.92	459.08	447.87	11.21	40.958	
2,700.00	2,689.39	2,563.56	2,523.79	6.65	7.44	-154.36	-320.68	76.85	503.12	491.40	11.72	42.942	
2,800.00	2,788.50	2,653.17	2,607.80	6.96	8.00	-153.74	-351.73	79.77	547.21	534.98	12.23	44.746	
2,900.00	2,887.61	2,742.79	2,691.81	7.28	8.57	-153.21	-382.79	82.70	591.34	578.59	12.75	46.393	
3,000.00	2,986.73	2,832.40	2,775.82	7.60	9.14	-152.76	-413.84	85.62	635.51	622.24	13.27	47.900	
3,100.00	3,085.84	2,922.01	2,859.82	7.91	9.73	-152.37	-444.89	88.55	679.71	665.91	13.79	49.282	
3,200.00	3,184.95	3,011.62	2,943.83	8.23	10.32	-152.02	-475.94	91.47	723.93	709.61	14.32	50.553	
3,300.00	3,284.06	3,101.23	3,027.84	8.56	10.91	-151.71	-507.00	94.40	768.16	753.31	14.85	51.725	
3,400.00	3,383.17	3,190.84	3,111.85	8.88	11.51	-151.44	-538.05	97.33	812.42	797.03	15.38	52.808	
3,500.00	3,482.29	3,280.45	3,195.85	9.20	12.11	-151.19	-569.10	100.25	856.69	840.77	15.92	53.811	
3,600.00	3,581.40	3,370.06	3,279.86	9.52	12.71	-150.97	-600.16	103.18	900.96	884.51	16.46	54.743	
3,700.00	3,680.51	3,459.67	3,363.87	9.85	13.31	-150.77	-631.21	106.10	945.25	928.26	17.00	55.610	
3,800.00	3,779.62	3,549.28	3,447.87	10.17	13.92	-150.59	-662.26	109.03	989.55	972.01	17.54	56.419	
3,900.00	3,878.74	3,638.89	3,531.88	10.50	14.53	-150.42	-693.32	111.95	1,033.86	1,015.77	18.08	57.175	
4,000.00	3,977.85	3,728.50	3,615.89	10.82	15.14	-150.27	-724.37	114.88	1,078.17	1,059.54	18.63	57.883	
4,100.00	4,076.96	3,818.12	3,699.90	11.15	15.75	-150.13	-755.42	117.81	1,122.48	1,103.31	19.17	58.548	
4,200.00	4,176.07	3,907.73	3,783.90	11.48	16.36	-150.00	-786.47	120.73	1,166.81	1,147.09	19.72	59.172	
4,300.00	4,275.19	3,997.34	3,867.91	11.81	16.98	-149.88	-817.53	123.66	1,211.13	1,190.87	20.27	59.759	
4,400.00	4,374.30	4,086.95	3,951.92	12.13	17.59	-149.76	-848.58	126.58	1,255.46	1,234.65	20.82	60.313	
4,500.00	4,473.41	4,176.56	4,035.93	12.46	18.21	-149.66	-879.63	129.51	1,299.80	1,278.43	21.37	60.835	
4,600.00	4,572.52	4,266.17	4,119.93	12.79	18.83	-149.56	-910.69	132.43	1,344.14	1,322.22	21.92	61.330	
4,700.00	4,671.64	4,355.78	4,203.94	13.12	19.45	-149.47	-941.74	135.36	1,388.48	1,366.01	22.47	61.797	
4,800.00	4,770.75	4,445.39	4,287.95	13.45	20.06	-149.38	-972.79	138.29	1,432.82	1,409.80	23.02	62.241	
4,900.00	4,869.86	4,535.00	4,371.96	13.78	20.68	-149.30	-1,003.85	141.21	1,477.16	1,453.59	23.57	62.662	

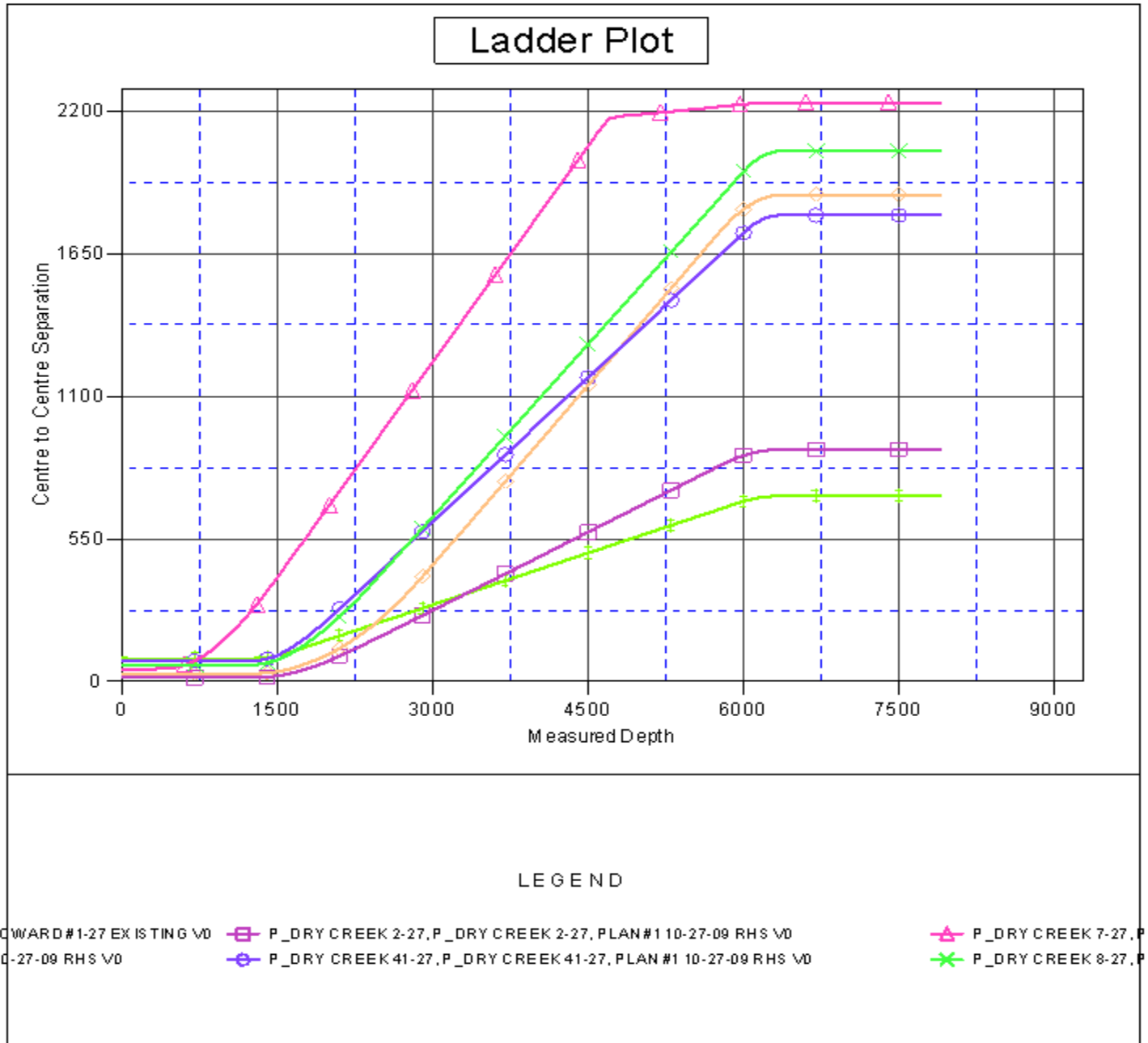
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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									
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	4,968.97	4,624.61	4,455.96	14.11	21.30	-149.23	-1,034.90	144.14	1,521.51	1,497.38	24.13	63.063	
5,100.00	5,068.08	4,714.22	4,539.97	14.44	21.92	-149.16	-1,065.95	147.06	1,565.86	1,541.18	24.68	63.444	
5,200.00	5,167.20	4,803.83	4,623.98	14.77	22.54	-149.09	-1,097.00	149.99	1,610.21	1,584.98	25.24	63.806	
5,300.00	5,266.31	4,893.45	4,707.99	15.10	23.16	-149.02	-1,128.06	152.91	1,654.57	1,628.78	25.79	64.152	
5,400.00	5,365.42	4,983.06	4,791.99	15.43	23.79	-148.96	-1,159.11	155.84	1,698.92	1,672.57	26.35	64.483	
5,500.00	5,464.53	5,072.67	4,876.00	15.76	24.41	-148.91	-1,190.16	158.77	1,743.28	1,716.37	26.90	64.798	
5,600.00	5,563.65	5,162.28	4,960.01	16.09	25.03	-148.85	-1,221.22	161.69	1,787.64	1,760.18	27.46	65.100	
5,700.00	5,662.76	5,251.89	5,044.02	16.42	25.65	-148.80	-1,252.27	164.62	1,831.99	1,803.98	28.02	65.389	
5,800.00	5,761.87	5,341.50	5,128.02	16.75	26.27	-148.75	-1,283.32	167.54	1,876.35	1,847.78	28.57	65.666	
5,900.00	5,860.98	5,431.11	5,212.03	17.08	26.90	-148.70	-1,314.38	170.47	1,920.72	1,891.58	29.13	65.931	
5,963.73	5,924.15	5,488.22	5,265.57	17.29	27.29	-148.67	-1,334.17	172.33	1,948.99	1,919.50	29.49	66.095	
6,000.00	5,960.12	5,520.81	5,296.12	17.40	27.52	-148.84	-1,345.46	173.40	1,964.90	1,935.14	29.76	66.032	
6,100.00	6,059.59	5,788.48	5,550.84	17.63	28.82	-149.08	-1,427.05	181.08	2,003.25	1,972.36	30.89	64.852	
6,200.00	6,159.35	6,093.66	5,849.08	17.82	29.87	-149.22	-1,490.75	187.09	2,029.38	1,997.42	31.96	63.496	
6,300.00	6,259.29	6,414.01	6,167.60	17.99	30.54	-149.29	-1,523.25	190.15	2,042.16	2,009.29	32.87	62.136	
6,345.73	6,305.01	6,551.47	6,305.01	18.05	30.69	160.88	-1,526.30	190.43	2,043.38	2,010.19	33.20	61.551	
6,400.00	6,359.29	6,605.74	6,359.29	18.14	30.74	160.88	-1,526.30	190.43	2,043.38	2,010.01	33.37	61.226	
6,500.00	6,459.29	6,705.74	6,459.29	18.31	30.82	160.88	-1,526.30	190.43	2,043.38	2,009.67	33.71	60.610	
6,600.00	6,559.29	6,805.74	6,559.29	18.48	30.90	160.88	-1,526.30	190.43	2,043.38	2,009.33	34.06	60.002	
6,700.00	6,659.29	6,905.74	6,659.29	18.65	30.99	160.88	-1,526.30	190.43	2,043.38	2,008.98	34.40	59.401	
6,800.00	6,759.29	7,005.74	6,759.29	18.82	31.07	160.88	-1,526.30	190.43	2,043.38	2,008.64	34.75	58.809	
6,900.00	6,859.29	7,105.74	6,859.29	18.99	31.16	160.88	-1,526.30	190.43	2,043.38	2,008.29	35.09	58.225	
7,000.00	6,959.29	7,205.74	6,959.29	19.17	31.25	160.88	-1,526.30	190.43	2,043.38	2,007.94	35.45	57.649	
7,100.00	7,059.29	7,305.74	7,059.29	19.35	31.34	160.88	-1,526.30	190.43	2,043.38	2,007.59	35.80	57.081	
7,200.00	7,159.29	7,405.74	7,159.29	19.52	31.43	160.88	-1,526.30	190.43	2,043.38	2,007.23	36.15	56.520	
7,300.00	7,259.29	7,505.74	7,259.29	19.70	31.52	160.88	-1,526.30	190.43	2,043.38	2,006.87	36.51	55.968	
7,400.00	7,359.29	7,605.74	7,359.29	19.88	31.61	160.88	-1,526.30	190.43	2,043.38	2,006.52	36.87	55.423	
7,500.00	7,459.29	7,705.74	7,459.29	20.06	31.71	160.88	-1,526.30	190.43	2,043.38	2,006.15	37.23	54.886	
7,600.00	7,559.29	7,805.74	7,559.29	20.24	31.80	160.88	-1,526.30	190.43	2,043.38	2,005.79	37.59	54.356	
7,700.00	7,659.29	7,905.74	7,659.29	20.42	31.90	160.88	-1,526.30	190.43	2,043.38	2,005.43	37.96	53.835	
7,800.00	7,759.29	8,005.74	7,759.29	20.60	32.00	160.88	-1,526.30	190.43	2,043.38	2,005.06	38.32	53.320	
7,905.73	7,865.02	8,111.47	7,865.02	20.80	32.10	160.88	-1,526.30	190.43	2,043.38	2,004.67	38.71	52.785	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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 27-27
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 27-27
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 27-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 27-27	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 27-27
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°

