



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_WINTERS 12-3 PAD**

**P\_WINTERS 23-3**

**P\_WINTERS 23-3**

**Plan: PLAN #1 3-10-10 RHS**

## **Standard Planning Report**

**10 March, 2010**

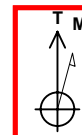




Project: COLORADO NORTHERN ZONE - 83  
 Site: WELD\_WINTERS 12-3 PAD  
 Well: P\_WINTERS 23-3  
 Wellbore: P\_WINTERS 23-3  
 Section: SECTION 3 T5N R65W  
 SHL: 1711 FSL 499 FWL  
 Design: PLAN #1 3-10-10 RHS  
 Latitude: 40° 25' 32.649 N  
 Longitude: 104° 39' 25.546 W  
 GL: 4632.00  
 KB: WELL @ 4647.00ft (Original Well Elev)



**Weatherford®**



Azimuths to True North  
 Magnetic North: 8.98°  
 Magnetic Field  
 Strength: 53291.9snT  
 Dip Angle: 67.13°  
 Date: 3/10/2010  
 Model: IGRF2010

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3555.00	3800.38	PARKMAN
4265.00	4581.97	SUSSEX
6633.00	7055.51	NIO A
6941.00	7363.51	CODELL
7016.00	7438.51	GREENHORN

#### CASING DETAILS

TVD	MD	Name	Size
530.00	530.25	8 5/8"	8.62

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1535.67	24.71	98.10	1497.71	-36.96	259.77	2.00	98.10	262.38	Start 3784.18 hold at 1535.67 MD
5319.84	24.71	98.10	4935.29	-259.84	1826.07	0.00	0.00	1844.46	Start Drop -2.00
6555.51	0.00	0.00	6133.00	-296.80	2085.84	2.00	180.00	2106.85	Start 967.00 hold at 6555.51 MD
7522.51	0.00	0.00	7100.00	-296.80	2085.84	0.00	0.00	2106.85	TD at 7522.51

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

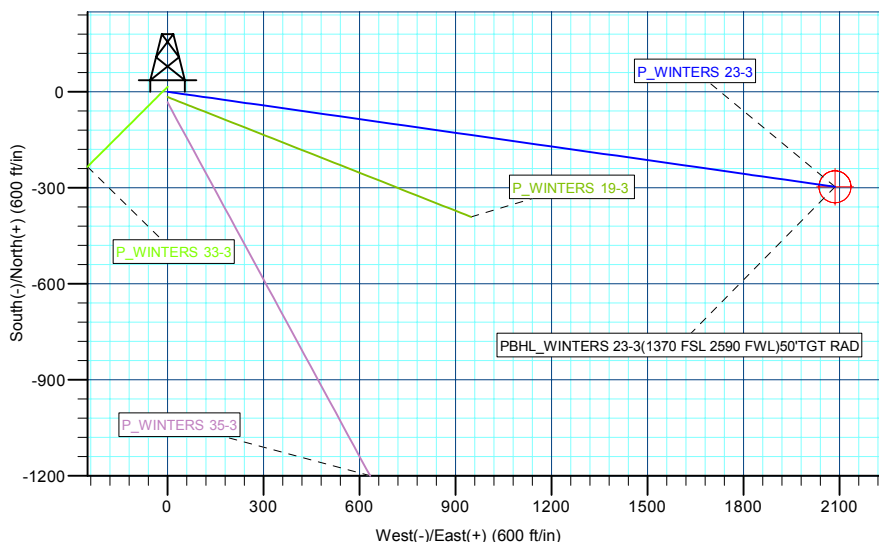
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	7100.00	-296.80	2085.84	40° 25' 29.716 N	104° 38' 58.574 W	Circle (Radius: 50.00)

#### WELL DETAILS: P\_WINTERS 23-3

+N/-S	+E/-W	Northing	Ground Level: Easting	4632.00 Latitude	Longitude	Slot
0.00	0.00	1399051.27	3234664.84	40° 25' 32.649 N	104° 39' 25.546 W	

#### LEGEND

- P\_WINTERS 19-3, P\_WINTERS 19-3, PLAN #1 3-10-10 RHS V0
- P\_WINTERS 33-3, P\_WINTERS 33-3, PLAN #1 3-10-10 RHS V0
- P\_WINTERS 35-3, P\_WINTERS 35-3, PLAN #1 3-10-10 RHS V0
- PLAN #1 3-10-10 RHS



Plan: PLAN #1 3-10-10 RHS (P\_WINTERS 23-3/P\_WINTERS 23-3)

Created By: Robert H. Scott Date: 9:20, March 10 2010

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site:</b>	WELD_WINTERS 12-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_WINTERS 23-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_WINTERS 23-3		
<b>Design:</b>	PLAN #1 3-10-10 RHS		

<b>Project</b>	COLORADO NORTHERN 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_WINTERS 12-3 PAD, SECTION 3 T5N R65W											
Site Position:						Northing:			1,399,035.25 ft			Latitude:			40° 25' 32.491 N		
From:			Lat/Long			Easting:			3,234,664.71 ft			Longitude:			104° 39' 25.549 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.54 °		

Well	P_WINTERS 23-3					
Well Position	+N/-S	16.02 ft	Northing:	1,399,051.27 ft	Latitude:	40° 25' 32.649 N
	+E/-W	0.28 ft	Easting:	3,234,664.84 ft	Longitude:	104° 39' 25.546 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,632.00 ft

<b>Wellbore</b>	P_WINTERS 23-3				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/10/2010	8.98	67.13	53,292

<b>Design</b>	PLAN #1 3-10-10 RHS			
<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	98.10

<b>Plan Sections</b>										
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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,535.67	24.71	98.10	1,497.71	-36.96	259.77	2.00	2.00	0.00	98.10	
5,319.84	24.71	98.10	4,935.29	-259.84	1,826.07	0.00	0.00	0.00	0.00	
6,555.51	0.00	0.00	6,133.00	-296.80	2,085.84	2.00	-2.00	0.00	180.00	
7,522.51	0.00	0.00	7,100.00	-296.80	2,085.84	0.00	0.00	0.00	0.00	PBHL_WINTERS 2

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site:</b>	WELD_WINTERS 12-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_WINTERS 23-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_WINTERS 23-3		
<b>Design:</b>	PLAN #1 3-10-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
<b>Start Build 2.00</b>									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	98.10	399.98	-0.25	1.73	1.75	2.00	2.00	0.00
500.00	4.00	98.10	499.84	-0.98	6.91	6.98	2.00	2.00	0.00
<b>8 5/8"</b>									
530.25	4.60	98.10	530.00	-1.30	9.16	9.25	2.00	2.00	0.00
600.00	6.00	98.10	599.45	-2.21	15.54	15.69	2.00	2.00	0.00
700.00	8.00	98.10	698.70	-3.93	27.60	27.88	2.00	2.00	0.00
800.00	10.00	98.10	797.47	-6.13	43.09	43.52	2.00	2.00	0.00
900.00	12.00	98.10	895.62	-8.82	61.98	62.60	2.00	2.00	0.00
1,000.00	14.00	98.10	993.06	-11.99	84.25	85.10	2.00	2.00	0.00
1,100.00	16.00	98.10	1,089.64	-15.63	109.87	110.98	2.00	2.00	0.00
1,200.00	18.00	98.10	1,185.27	-19.75	138.81	140.21	2.00	2.00	0.00
1,300.00	20.00	98.10	1,279.82	-24.34	171.04	172.77	2.00	2.00	0.00
1,400.00	22.00	98.10	1,373.17	-29.39	206.52	208.60	2.00	2.00	0.00
1,500.00	24.00	98.10	1,465.21	-34.89	245.20	247.67	2.00	2.00	0.00
<b>Start 3784.18 hold at 1535.67 MD</b>									
1,535.67	24.71	98.10	1,497.71	-36.96	259.77	262.38	2.00	2.00	0.00
1,600.00	24.71	98.10	1,556.15	-40.75	286.39	289.28	0.00	0.00	0.00
1,700.00	24.71	98.10	1,646.99	-46.64	327.79	331.09	0.00	0.00	0.00
1,800.00	24.71	98.10	1,737.83	-52.53	369.18	372.90	0.00	0.00	0.00
1,900.00	24.71	98.10	1,828.67	-58.42	410.57	414.70	0.00	0.00	0.00
2,000.00	24.71	98.10	1,919.51	-64.31	451.96	456.51	0.00	0.00	0.00
2,100.00	24.71	98.10	2,010.35	-70.20	493.35	498.32	0.00	0.00	0.00
2,200.00	24.71	98.10	2,101.19	-76.09	534.74	540.13	0.00	0.00	0.00
2,300.00	24.71	98.10	2,192.04	-81.98	576.13	581.93	0.00	0.00	0.00
2,400.00	24.71	98.10	2,282.88	-87.87	617.52	623.74	0.00	0.00	0.00
2,500.00	24.71	98.10	2,373.72	-93.76	658.91	665.55	0.00	0.00	0.00
2,600.00	24.71	98.10	2,464.56	-99.65	700.30	707.36	0.00	0.00	0.00
2,700.00	24.71	98.10	2,555.40	-105.54	741.69	749.17	0.00	0.00	0.00
2,800.00	24.71	98.10	2,646.24	-111.43	783.09	790.97	0.00	0.00	0.00
2,900.00	24.71	98.10	2,737.08	-117.32	824.48	832.78	0.00	0.00	0.00
3,000.00	24.71	98.10	2,827.92	-123.21	865.87	874.59	0.00	0.00	0.00
3,100.00	24.71	98.10	2,918.76	-129.10	907.26	916.40	0.00	0.00	0.00
3,200.00	24.71	98.10	3,009.61	-134.99	948.65	958.20	0.00	0.00	0.00
3,300.00	24.71	98.10	3,100.45	-140.88	990.04	1,000.01	0.00	0.00	0.00
3,400.00	24.71	98.10	3,191.29	-146.77	1,031.43	1,041.82	0.00	0.00	0.00
3,500.00	24.71	98.10	3,282.13	-152.66	1,072.82	1,083.63	0.00	0.00	0.00
3,600.00	24.71	98.10	3,372.97	-158.55	1,114.21	1,125.44	0.00	0.00	0.00
3,700.00	24.71	98.10	3,463.81	-164.44	1,155.60	1,167.24	0.00	0.00	0.00
3,800.00	24.71	98.10	3,554.65	-170.33	1,196.99	1,209.05	0.00	0.00	0.00
<b>PARKMAN</b>									
3,800.38	24.71	98.10	3,555.00	-170.35	1,197.15	1,209.21	0.00	0.00	0.00
3,900.00	24.71	98.10	3,645.49	-176.22	1,238.38	1,250.86	0.00	0.00	0.00
4,000.00	24.71	98.10	3,736.33	-182.11	1,279.78	1,292.67	0.00	0.00	0.00
4,100.00	24.71	98.10	3,827.18	-188.00	1,321.17	1,334.48	0.00	0.00	0.00
4,200.00	24.71	98.10	3,918.02	-193.88	1,362.56	1,376.28	0.00	0.00	0.00
4,300.00	24.71	98.10	4,008.86	-199.77	1,403.95	1,418.09	0.00	0.00	0.00
4,400.00	24.71	98.10	4,099.70	-205.66	1,445.34	1,459.90	0.00	0.00	0.00
4,500.00	24.71	98.10	4,190.54	-211.55	1,486.73	1,501.71	0.00	0.00	0.00
<b>SUSSEX</b>									
4,581.97	24.71	98.10	4,265.00	-216.38	1,520.66	1,535.98	0.00	0.00	0.00
4,600.00	24.71	98.10	4,281.38	-217.44	1,528.12	1,543.51	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site:</b>	WELD_WINTERS 12-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_WINTERS 23-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_WINTERS 23-3		
<b>Design:</b>	PLAN #1 3-10-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.00	24.71	98.10	4,372.22	-223.33	1,569.51	1,585.32	0.00	0.00	0.00
4,800.00	24.71	98.10	4,463.06	-229.22	1,610.90	1,627.13	0.00	0.00	0.00
4,900.00	24.71	98.10	4,553.90	-235.11	1,652.29	1,668.94	0.00	0.00	0.00
5,000.00	24.71	98.10	4,644.75	-241.00	1,693.68	1,710.75	0.00	0.00	0.00
5,100.00	24.71	98.10	4,735.59	-246.89	1,735.08	1,752.55	0.00	0.00	0.00
5,200.00	24.71	98.10	4,826.43	-252.78	1,776.47	1,794.36	0.00	0.00	0.00
5,300.00	24.71	98.10	4,917.27	-258.67	1,817.86	1,836.17	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,319.84	24.71	98.10	4,935.29	-259.84	1,826.07	1,844.46	0.00	0.00	0.00
5,400.00	23.11	98.10	5,008.57	-264.42	1,858.24	1,876.95	2.00	-2.00	0.00
5,500.00	21.11	98.10	5,101.21	-269.72	1,895.50	1,914.59	2.00	-2.00	0.00
5,600.00	19.11	98.10	5,195.11	-274.56	1,929.53	1,948.97	2.00	-2.00	0.00
5,700.00	17.11	98.10	5,290.15	-278.94	1,960.31	1,980.05	2.00	-2.00	0.00
5,800.00	15.11	98.10	5,386.22	-282.85	1,987.78	2,007.80	2.00	-2.00	0.00
5,900.00	13.11	98.10	5,483.20	-286.28	2,011.91	2,032.18	2.00	-2.00	0.00
6,000.00	11.11	98.10	5,580.97	-289.24	2,032.68	2,053.16	2.00	-2.00	0.00
6,100.00	9.11	98.10	5,679.41	-291.71	2,050.06	2,070.71	2.00	-2.00	0.00
6,200.00	7.11	98.10	5,778.40	-293.70	2,064.03	2,084.82	2.00	-2.00	0.00
6,300.00	5.11	98.10	5,877.83	-295.20	2,074.56	2,095.46	2.00	-2.00	0.00
6,400.00	3.11	98.10	5,977.57	-296.21	2,081.66	2,102.63	2.00	-2.00	0.00
6,500.00	1.11	98.10	6,077.49	-296.73	2,085.30	2,106.31	2.00	-2.00	0.00
<b>Start 967.00 hold at 6555.51 MD</b>									
6,555.51	0.00	0.00	6,133.00	-296.80	2,085.84	2,106.85	2.00	-2.00	-176.73
6,600.00	0.00	0.00	6,177.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
6,700.00	0.00	0.00	6,277.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
6,800.00	0.00	0.00	6,377.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
6,900.00	0.00	0.00	6,477.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
7,000.00	0.00	0.00	6,577.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
<b>NIO A</b>									
7,055.51	0.00	0.00	6,633.00	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
7,100.00	0.00	0.00	6,677.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
7,200.00	0.00	0.00	6,777.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
7,300.00	0.00	0.00	6,877.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
<b>CODELL</b>									
7,363.51	0.00	0.00	6,941.00	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
7,400.00	0.00	0.00	6,977.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
<b>GREENHORN</b>									
7,438.51	0.00	0.00	7,016.00	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
7,500.00	0.00	0.00	7,077.49	-296.80	2,085.84	2,106.85	0.00	0.00	0.00
<b>PBHL_WINTERS 23-3(1370 FSL 2590 FWL)50'TGT RAD</b>									
7,522.51	0.00	0.00	7,100.00	-296.80	2,085.84	2,106.85	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_WINTERS 23-3	0.00	0.00	7,100.00	-296.80	2,085.84	1,398,774.31	3,236,753.40	40° 25' 29.716 N	104° 38' 58.574 W
- plan hits target center									
- Circle (radius 50.00)									

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site:</b>	WELD_WINTERS 12-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_WINTERS 23-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_WINTERS 23-3		
<b>Design:</b>	PLAN #1 3-10-10 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
530.25	530.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,800.38	3,555.00	PARKMAN				
4,581.97	4,265.00	SUSSEX				
7,055.51	6,633.00	NIO A				
7,363.51	6,941.00	CODELL				
7,438.51	7,016.00	GREENHORN				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 2.00	
1,535.67	1,497.71	-36.96	259.77	Start 3784.18 hold at 1535.67 MD	
5,319.84	4,935.29	-259.84	1,826.07	Start Drop -2.00	
6,555.51	6,133.00	-296.80	2,085.84	Start 967.00 hold at 6555.51 MD	
7,522.51	7,100.00	-296.80	2,085.84	TD at 7522.51	



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_WINTERS 12-3 PAD  
P\_WINTERS 23-3**

**P\_WINTERS 23-3  
PLAN #1 3-10-10 RHS**

## **Anticollision Report**

**10 March, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 3-10-10 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> 3/10/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	7,522.51	PLAN #1 3-10-10 RHS (P_WINTERS 23-3	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
WELD_WINTERS 12-3 PAD						
P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-1	406.55	406.52	15.90	14.34	10.205	CC, ES
P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-1	500.00	499.84	16.66	14.70	8.469	SF
P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-1	300.00	300.00	16.02	14.93	14.695	CC
P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-1	400.00	399.98	16.33	14.80	10.695	ES
P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-1	500.00	499.84	18.25	16.28	9.298	SF
P_WINTERS 35-3 - P_WINTERS 35-3 - PLAN #1 3-10-1	300.00	300.00	32.06	30.97	29.413	CC, ES
P_WINTERS 35-3 - P_WINTERS 35-3 - PLAN #1 3-10-1	600.00	596.45	44.29	41.92	18.684	SF

<b>Offset Design</b> WELD_WINTERS 12-3 PAD - P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-10 RHS												
Survey Program: 0-MWD												
Offset Site Error: 0.00 ft												
Offset Well Error: 0.00 ft												
<b>Reference</b>	<b>Offset</b>	<b>Semi Major Axis</b>		<b>Distance</b>								
<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Measured Depth (ft)</b>	<b>Vertical Depth (ft)</b>	<b>Reference (ft)</b>	<b>Offset (ft)</b>	<b>Highside Toolface (°)</b>	<b>Offset Wellbore Centre +N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Between Centres (ft)</b>	<b>Between Ellipses (ft)</b>	<b>Minimum Separation (ft)</b>	<b>Separation Factor</b>
												<b>Warning</b>
0.00	0.00	0.00	0.00	0.00	0.00	-179.00	-16.02	-0.28	16.02			
100.00	100.00	100.00	100.00	0.10	0.10	-179.00	-16.02	-0.28	16.02	15.83	0.19	83.849
200.00	200.00	200.00	200.00	0.32	0.32	-179.00	-16.02	-0.28	16.02	15.38	0.64	25.007
300.00	300.00	300.00	300.00	0.55	0.55	-179.00	-16.02	-0.28	16.02	14.93	1.09	14.695
400.00	399.98	399.98	399.98	0.76	0.77	89.15	-16.02	-0.28	15.90	14.37	1.53	10.411
406.55	406.52	406.52	406.52	0.77	0.78	90.00	-16.02	-0.28	15.90	14.34	1.56	10.205 CC, ES
500.00	499.84	499.84	499.84	0.97	0.99	107.41	-16.02	-0.28	16.66	14.70	1.97	8.469 SF
600.00	599.45	599.45	599.45	1.22	1.22	130.63	-16.02	-0.28	20.99	18.57	2.42	8.679
700.00	698.70	699.21	699.20	1.49	1.43	147.14	-16.32	0.50	29.81	26.95	2.85	10.445
800.00	797.47	799.44	799.34	1.82	1.63	154.91	-17.86	4.38	40.49	37.21	3.28	12.352
900.00	895.62	900.05	899.65	2.19	1.85	158.57	-20.69	11.55	51.96	48.24	3.72	13.950
1,000.00	993.06	1,001.01	999.98	2.63	2.09	160.21	-24.83	22.04	63.90	59.70	4.20	15.210
1,100.00	1,089.64	1,102.34	1,100.20	3.12	2.37	160.74	-30.28	35.86	76.18	71.47	4.71	16.161
1,200.00	1,185.27	1,204.01	1,200.18	3.69	2.71	160.62	-37.07	53.03	88.77	83.50	5.27	16.832
1,300.00	1,279.82	1,305.62	1,299.38	4.32	3.10	160.08	-45.13	73.45	101.68	95.79	5.89	17.259
1,400.00	1,373.17	1,404.47	1,395.60	5.02	3.51	159.88	-53.44	94.51	116.74	110.20	6.54	17.854
1,500.00	1,465.21	1,502.77	1,491.29	5.80	3.94	160.20	-61.71	115.45	135.04	127.84	7.20	18.767
1,535.67	1,497.71	1,537.68	1,525.27	6.09	4.10	160.39	-64.65	122.89	142.35	134.91	7.43	19.156
1,600.00	1,556.15	1,600.56	1,586.48	6.64	4.38	160.83	-69.94	136.28	155.90	148.02	7.89	19.771
1,700.00	1,646.99	1,698.30	1,681.62	7.49	4.83	161.38	-78.16	157.10	176.99	168.39	8.60	20.581
1,800.00	1,737.83	1,796.04	1,776.76	8.35	5.29	161.81	-86.38	177.92	198.09	188.77	9.32	21.253

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_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
1,900.00	1,828.67	1,893.77	1,871.90	9.22	5.76	162.15	-94.60	198.75	219.19	209.15	10.05	21.817	
2,000.00	1,919.51	1,991.51	1,967.04	10.09	6.22	162.44	-102.82	219.57	240.31	229.53	10.78	22.298	
2,100.00	2,010.35	2,089.25	2,062.18	10.96	6.69	162.68	-111.04	240.39	261.42	249.91	11.51	22.712	
2,200.00	2,101.19	2,186.99	2,157.33	11.84	7.16	162.89	-119.26	261.21	282.55	270.30	12.25	23.072	
2,300.00	2,192.04	2,284.73	2,252.47	12.72	7.64	163.06	-127.48	282.03	303.67	290.69	12.98	23.388	
2,400.00	2,282.88	2,382.47	2,347.61	13.60	8.12	163.21	-135.70	302.86	324.80	311.07	13.72	23.667	
2,500.00	2,373.72	2,480.21	2,442.75	14.48	8.59	163.35	-143.93	323.68	345.93	331.46	14.46	23.916	
2,600.00	2,464.56	2,577.95	2,537.89	15.36	9.07	163.47	-152.15	344.50	367.06	351.85	15.21	24.139	
2,700.00	2,555.40	2,675.69	2,633.03	16.25	9.55	163.57	-160.37	365.32	388.19	372.24	15.95	24.341	
2,800.00	2,646.24	2,773.43	2,728.17	17.13	10.03	163.67	-168.59	386.14	409.32	392.63	16.69	24.523	
2,900.00	2,737.08	2,871.17	2,823.31	18.01	10.52	163.75	-176.81	406.96	430.46	413.02	17.43	24.690	
3,000.00	2,827.92	2,968.91	2,918.46	18.90	11.00	163.83	-185.03	427.79	451.59	433.41	18.18	24.842	
3,100.00	2,918.76	3,066.65	3,013.60	19.79	11.48	163.90	-193.25	448.61	472.73	453.80	18.92	24.982	
3,200.00	3,009.61	3,164.39	3,108.74	20.67	11.96	163.97	-201.47	469.43	493.86	474.20	19.67	25.112	
3,300.00	3,100.45	3,262.13	3,203.88	21.56	12.45	164.02	-209.69	490.25	515.00	494.59	20.41	25.231	
3,400.00	3,191.29	3,359.86	3,299.02	22.45	12.93	164.08	-217.92	511.07	536.14	514.98	21.16	25.343	
3,500.00	3,282.13	3,457.60	3,394.16	23.33	13.42	164.13	-226.14	531.89	557.27	535.37	21.90	25.447	
3,600.00	3,372.97	3,555.34	3,489.30	24.22	13.90	164.18	-234.36	552.72	578.41	555.77	22.64	25.544	
3,700.00	3,463.81	3,653.08	3,584.44	25.11	14.39	164.22	-242.58	573.54	599.55	576.16	23.39	25.635	
3,800.00	3,554.65	3,750.82	3,679.59	26.00	14.87	164.26	-250.80	594.36	620.69	596.56	24.13	25.721	
3,900.00	3,645.49	3,848.56	3,774.73	26.88	15.36	164.30	-259.02	615.18	641.83	616.94	24.88	25.795	
4,000.00	3,736.33	3,946.30	3,869.87	27.77	15.84	164.33	-267.24	636.00	662.97	637.33	25.63	25.863	
4,100.00	3,827.18	4,044.04	3,965.01	28.66	16.33	164.37	-275.46	656.82	684.11	657.72	26.39	25.926	
4,200.00	3,918.02	4,141.78	4,060.15	29.55	16.82	164.40	-283.68	677.65	705.25	678.11	27.14	25.987	
4,300.00	4,008.86	4,239.52	4,155.29	30.44	17.30	164.43	-291.91	698.47	726.38	698.49	27.89	26.043	
4,400.00	4,099.70	4,337.26	4,250.43	31.33	17.79	164.46	-300.13	719.29	747.52	718.88	28.64	26.097	
4,500.00	4,190.54	4,435.00	4,345.57	32.22	18.28	164.48	-308.35	740.11	768.66	739.27	29.40	26.147	
4,600.00	4,281.38	4,532.74	4,440.72	33.11	18.76	164.51	-316.57	760.93	789.81	759.65	30.15	26.195	
4,700.00	4,372.22	4,630.48	4,535.86	34.00	19.25	164.53	-324.79	781.75	810.95	780.04	30.90	26.240	
4,800.00	4,463.06	4,728.22	4,631.00	34.88	19.74	164.55	-333.01	802.58	832.09	800.43	31.66	26.284	
4,900.00	4,553.90	4,825.96	4,726.14	35.77	20.22	164.57	-341.23	823.40	853.23	820.81	32.41	26.325	
5,000.00	4,644.75	4,923.69	4,821.28	36.66	20.71	164.59	-349.45	844.22	874.37	841.20	33.17	26.364	
5,100.00	4,735.59	5,021.43	4,916.42	37.55	21.20	164.61	-357.67	865.04	895.51	861.59	33.92	26.401	
5,200.00	4,826.43	5,111.33	5,003.95	38.44	21.62	164.63	-365.19	884.07	916.80	882.17	34.63	26.475	
5,300.00	4,917.27	5,186.98	5,077.98	39.33	21.88	164.70	-370.93	898.61	939.92	904.70	35.22	26.689	
5,319.84	4,935.29	5,200.00	5,090.75	39.51	21.92	164.72	-371.84	900.93	944.77	909.45	35.33	26.743	
5,400.00	5,008.57	5,261.95	5,151.71	40.13	22.11	164.91	-375.91	911.22	964.23	928.44	35.79	26.938	
5,500.00	5,101.21	5,336.65	5,225.50	40.77	22.32	165.15	-380.17	922.00	987.59	951.30	36.29	27.216	
5,600.00	5,195.11	5,400.00	5,288.30	41.35	22.48	165.37	-383.22	929.74	1,009.99	973.29	36.70	27.517	
5,700.00	5,290.15	5,485.33	5,373.15	41.88	22.67	165.62	-386.53	938.11	1,031.19	994.11	37.08	27.811	
5,800.00	5,386.22	5,559.32	5,446.92	42.35	22.80	165.86	-388.64	943.47	1,051.41	1,014.03	37.37	28.132	
5,900.00	5,483.20	5,633.10	5,520.59	42.77	22.92	166.10	-390.05	947.05	1,070.56	1,032.96	37.60	28.470	
6,000.00	5,580.97	5,706.68	5,594.14	43.13	23.02	166.33	-390.77	948.85	1,088.65	1,050.88	37.77	28.824	
6,100.00	5,679.41	5,791.95	5,679.41	43.43	23.11	166.59	-390.86	949.10	1,105.42	1,067.53	37.89	29.178	
6,200.00	5,778.40	5,890.94	5,778.40	43.68	23.22	166.82	-390.86	949.10	1,119.15	1,081.18	37.98	29.470	
6,300.00	5,877.83	5,990.37	5,877.83	43.88	23.33	166.99	-390.86	949.10	1,129.52	1,091.48	38.04	29.693	
6,400.00	5,977.57	6,090.11	5,977.57	44.04	23.44	167.11	-390.86	949.10	1,136.51	1,098.43	38.07	29.850	
6,500.00	6,077.49	6,190.03	6,077.49	44.14	23.55	167.16	-390.86	949.10	1,140.10	1,102.02	38.08	29.941	
6,555.51	6,133.00	6,245.54	6,133.00	44.18	23.62	-94.73	-390.86	949.10	1,140.62	1,102.55	38.07	29.960	
6,600.00	6,177.49	6,290.03	6,177.49	44.20	23.67	-94.73	-390.86	949.10	1,140.62	1,102.43	38.19	29.865	
6,700.00	6,277.49	6,390.03	6,277.49	44.27	23.79	-94.73	-390.86	949.10	1,140.62	1,102.16	38.47	29.653	
6,800.00	6,377.49	6,490.03	6,377.49	44.34	23.91	-94.73	-390.86	949.10	1,140.62	1,101.88	38.74	29.441	

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_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_WINTERS 12-3 PAD - P_WINTERS 19-3 - P_WINTERS 19-3 - PLAN #1 3-10-10 RHS												<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
6,900.00	6,477.49	6,590.03	6,477.49	44.41	24.03	-94.73	-390.86	949.10	1,140.62	1,101.60	39.02	29.229	
7,000.00	6,577.49	6,690.03	6,577.49	44.48	24.15	-94.73	-390.86	949.10	1,140.62	1,101.32	39.31	29.018	
7,100.00	6,677.49	6,790.03	6,677.49	44.55	24.28	-94.73	-390.86	949.10	1,140.62	1,101.03	39.59	28.809	
7,200.00	6,777.49	6,890.03	6,777.49	44.62	24.40	-94.73	-390.86	949.10	1,140.62	1,100.74	39.88	28.600	
7,300.00	6,877.49	6,990.03	6,877.49	44.69	24.53	-94.73	-390.86	949.10	1,140.62	1,100.45	40.17	28.392	
7,400.00	6,977.49	7,090.03	6,977.49	44.76	24.66	-94.73	-390.86	949.10	1,140.62	1,100.15	40.47	28.185	
7,500.00	7,077.49	7,190.03	7,077.49	44.84	24.79	-94.73	-390.86	949.10	1,140.62	1,099.86	40.77	27.979	
7,522.51	7,100.00	7,212.54	7,100.00	44.85	24.82	-94.73	-390.86	949.10	1,140.62	1,099.79	40.84	27.932	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	1.00	16.02	0.28	16.02				
100.00	100.00	100.00	100.00	0.10	0.10	1.00	16.02	0.28	16.02	15.83	0.19	83.849	
200.00	200.00	200.00	200.00	0.32	0.32	1.00	16.02	0.28	16.02	15.38	0.64	25.007	
300.00	300.00	300.00	300.00	0.55	0.55	1.00	16.02	0.28	16.02	14.93	1.09	14.695 CC	
400.00	399.98	399.98	399.98	0.76	0.77	-103.18	16.02	0.28	16.33	14.80	1.53	10.695 ES	
500.00	499.84	499.84	499.84	0.97	0.99	-119.35	16.02	0.28	18.25	16.28	1.96	9.298 SF	
600.00	599.45	599.45	599.45	1.22	1.22	-137.88	16.02	0.28	23.77	21.37	2.40	9.885	
700.00	698.70	698.56	698.56	1.49	1.42	-153.10	15.44	-0.30	33.97	31.14	2.82	12.024	
800.00	797.47	796.43	796.33	1.82	1.61	-165.78	12.60	-3.14	49.89	46.68	3.21	15.521	
900.00	895.62	892.49	892.12	2.19	1.81	-174.83	7.53	-8.23	72.17	68.55	3.62	19.941	
1,000.00	993.06	986.25	985.34	2.63	2.03	178.93	0.39	-15.38	100.69	96.64	4.05	24.887	
1,100.00	1,089.64	1,078.93	1,077.16	3.12	2.27	174.63	-8.44	-24.21	134.86	130.36	4.50	29.979	
1,200.00	1,185.27	1,171.22	1,168.58	3.69	2.53	172.06	-17.41	-33.20	172.84	167.87	4.97	34.761	
1,300.00	1,279.82	1,262.18	1,258.67	4.32	2.80	170.50	-26.26	-42.06	214.16	208.70	5.46	39.208	
1,400.00	1,373.17	1,351.68	1,347.32	5.02	3.08	169.52	-34.96	-50.78	258.66	252.69	5.97	43.348	
1,500.00	1,465.21	1,439.62	1,434.42	5.80	3.36	168.88	-43.51	-59.35	306.22	299.74	6.48	47.243	
1,535.67	1,497.71	1,470.58	1,465.09	6.09	3.46	168.71	-46.53	-62.36	323.92	317.25	6.67	48.580	
1,600.00	1,556.15	1,526.24	1,520.22	6.64	3.63	168.59	-51.94	-67.78	356.17	349.12	7.05	50.530	
1,700.00	1,646.99	1,612.76	1,605.91	7.49	3.92	168.43	-60.35	-76.21	406.31	398.66	7.65	53.127	
1,800.00	1,737.83	1,699.28	1,691.61	8.35	4.20	168.31	-68.77	-84.64	456.45	448.20	8.25	55.302	
1,900.00	1,828.67	1,785.79	1,777.30	9.22	4.49	168.21	-77.18	-93.06	506.59	497.73	8.86	57.146	
2,000.00	1,919.51	1,872.31	1,863.00	10.09	4.78	168.13	-85.59	-101.49	556.73	547.25	9.48	58.729	
2,100.00	2,010.35	1,958.83	1,948.69	10.96	5.07	168.07	-94.01	-109.92	606.88	596.78	10.10	60.101	
2,200.00	2,101.19	2,045.35	2,034.39	11.84	5.36	168.01	-102.42	-118.34	657.02	646.30	10.72	61.303	
2,300.00	2,192.04	2,131.87	2,120.08	12.72	5.65	167.96	-110.84	-126.77	707.16	695.83	11.34	62.364	
2,400.00	2,282.88	2,218.38	2,205.78	13.60	5.95	167.92	-119.25	-135.20	757.31	745.35	11.96	63.308	
2,500.00	2,373.72	2,304.90	2,291.47	14.48	6.24	167.88	-127.66	-143.63	807.45	794.87	12.59	64.153	
2,600.00	2,464.56	2,391.42	2,377.16	15.36	6.54	167.85	-136.08	-152.05	857.60	844.39	13.21	64.916	
2,700.00	2,555.40	2,477.94	2,462.86	16.25	6.83	167.82	-144.49	-160.48	907.74	893.91	13.84	65.608	
2,800.00	2,646.24	2,564.45	2,548.55	17.13	7.13	167.80	-152.91	-168.91	957.89	943.43	14.46	66.239	
2,900.00	2,737.08	2,650.97	2,634.25	18.01	7.43	167.77	-161.32	-177.33	1,008.03	992.95	15.09	66.817	
3,000.00	2,827.92	2,737.49	2,719.94	18.90	7.73	167.75	-169.73	-185.76	1,058.18	1,042.47	15.71	67.349	
3,100.00	2,918.76	2,824.01	2,805.64	19.79	8.02	167.73	-178.15	-194.19	1,108.33	1,091.99	16.34	67.842	
3,200.00	3,009.61	2,910.53	2,891.33	20.67	8.32	167.72	-186.56	-202.61	1,158.47	1,141.51	16.96	68.298	
3,300.00	3,100.45	2,997.04	2,977.02	21.56	8.62	167.70	-194.98	-211.04	1,208.62	1,191.03	17.59	68.724	
3,400.00	3,191.29	3,083.56	3,062.72	22.45	8.92	167.69	-203.39	-219.47	1,258.76	1,240.55	18.21	69.122	
3,500.00	3,282.13	3,170.08	3,148.41	23.33	9.22	167.67	-211.80	-227.89	1,308.91	1,290.06	18.85	69.456	
3,600.00	3,372.97	3,256.60	3,234.11	24.22	9.52	167.66	-220.22	-236.32	1,359.05	1,339.57	19.48	69.766	
3,700.00	3,463.81	3,343.12	3,319.80	25.11	9.82	167.65	-228.63	-244.75	1,409.20	1,389.08	20.12	70.055	
3,800.00	3,554.65	3,429.63	3,405.50	26.00	10.12	167.64	-237.04	-253.18	1,459.35	1,438.59	20.75	70.324	
3,900.00	3,645.49	3,516.15	3,491.19	26.88	10.42	167.63	-245.46	-261.60	1,509.49	1,488.10	21.39	70.577	
4,000.00	3,736.33	3,602.67	3,576.88	27.77	10.72	167.62	-253.87	-270.03	1,559.64	1,537.61	22.02	70.814	
4,100.00	3,827.18	3,689.19	3,662.58	28.66	11.02	167.61	-262.29	-278.46	1,609.78	1,587.12	22.66	71.037	
4,200.00	3,918.02	3,775.70	3,748.27	29.55	11.32	167.60	-270.70	-286.88	1,659.93	1,636.63	23.30	71.247	
4,300.00	4,008.86	3,862.22	3,833.97	30.44	11.62	167.59	-279.11	-295.31	1,710.08	1,686.14	23.94	71.444	
4,400.00	4,099.70	3,948.74	3,919.66	31.33	11.93	167.58	-287.53	-303.74	1,760.22	1,735.65	24.57	71.631	
4,500.00	4,190.54	4,035.26	4,005.36	32.22	12.23	167.58	-295.94	-312.16	1,810.37	1,785.16	25.21	71.808	
4,600.00	4,281.38	4,121.78	4,091.05	33.11	12.53	167.57	-304.36	-320.59	1,860.51	1,834.67	25.85	71.975	
4,700.00	4,372.22	4,208.29	4,176.75	34.00	12.83	167.56	-312.77	-329.02	1,910.66	1,884.17	26.49	72.134	
4,800.00	4,463.06	4,294.81	4,262.44	34.88	13.13	167.56	-321.18	-337.44	1,960.81	1,933.68	27.13	72.285	
4,900.00	4,553.90	4,381.33	4,348.13	35.77	13.43	167.55	-329.60	-345.87	2,010.95	1,983.19	27.76	72.429	
5,000.00	4,644.75	4,467.85	4,433.83	36.66	13.73	167.55	-338.01	-354.30	2,061.10	2,032.70	28.40	72.566	

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_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 33-3 - P_WINTERS 33-3 - PLAN #1 3-10-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	4,735.59	4,554.36	4,519.52	37.55	14.04	167.54	-346.43	-362.73	2,111.25	2,082.20	29.04	72.696	
5,200.00	4,826.43	4,640.88	4,605.22	38.44	14.34	167.54	-354.84	-371.15	2,161.39	2,131.71	29.68	72.820	
5,300.00	4,917.27	4,727.40	4,690.91	39.33	14.64	167.53	-363.25	-379.58	2,211.54	2,181.22	30.32	72.939	
5,319.84	4,935.29	4,744.57	4,707.92	39.51	14.70	167.53	-364.92	-381.25	2,221.49	2,191.04	30.45	72.962	
5,400.00	5,008.57	4,814.46	4,777.14	40.13	14.94	167.71	-371.72	-388.06	2,260.73	2,229.66	31.07	72.758	
5,500.00	5,101.21	4,903.10	4,864.94	40.77	15.25	167.90	-380.34	-396.69	2,306.99	2,275.19	31.80	72.556	
5,600.00	5,195.11	4,993.26	4,954.24	41.35	15.57	168.05	-389.11	-405.47	2,350.19	2,317.71	32.49	72.342	
5,700.00	5,290.15	5,084.83	5,044.94	41.88	15.89	168.16	-398.01	-414.39	2,390.30	2,357.15	33.14	72.121	
5,800.00	5,386.22	5,177.69	5,136.91	42.35	16.21	168.24	-407.04	-423.44	2,427.25	2,393.49	33.76	71.897	
5,900.00	5,483.20	5,271.73	5,230.06	42.77	16.54	168.29	-416.19	-432.60	2,461.01	2,426.68	34.34	71.673	
6,000.00	5,580.97	5,448.80	5,405.79	43.13	17.04	168.25	-431.47	-447.90	2,490.82	2,455.79	35.03	71.101	
6,100.00	5,679.41	5,722.82	5,679.41	43.43	17.50	168.36	-440.43	-456.87	2,511.34	2,475.66	35.68	70.394	
6,200.00	5,778.40	5,821.81	5,778.40	43.68	17.63	168.48	-440.43	-456.87	2,525.16	2,489.20	35.96	70.212	
6,300.00	5,877.83	5,921.24	5,877.83	43.88	17.77	168.57	-440.43	-456.87	2,535.60	2,499.40	36.19	70.058	
6,400.00	5,977.57	6,020.98	5,977.57	44.04	17.90	168.63	-440.43	-456.87	2,542.62	2,506.25	36.37	69.907	
6,500.00	6,077.49	6,120.91	6,077.49	44.14	18.04	168.66	-440.43	-456.87	2,546.23	2,509.73	36.50	69.761	
6,555.51	6,133.00	6,176.41	6,133.00	44.18	18.11	-93.23	-440.43	-456.87	2,546.76	2,510.21	36.55	69.675	
6,600.00	6,177.49	6,220.90	6,177.49	44.20	18.18	-93.23	-440.43	-456.87	2,546.76	2,510.09	36.68	69.441	
6,700.00	6,277.49	6,320.90	6,277.49	44.27	18.32	-93.23	-440.43	-456.87	2,546.76	2,509.81	36.95	68.918	
6,800.00	6,377.49	6,420.90	6,377.49	44.34	18.46	-93.23	-440.43	-456.87	2,546.76	2,509.53	37.24	68.396	
6,900.00	6,477.49	6,520.90	6,477.49	44.41	18.60	-93.23	-440.43	-456.87	2,546.76	2,509.24	37.52	67.877	
7,000.00	6,577.49	6,620.90	6,577.49	44.48	18.75	-93.23	-440.43	-456.87	2,546.76	2,508.95	37.81	67.360	
7,100.00	6,677.49	6,720.90	6,677.49	44.55	18.89	-93.23	-440.43	-456.87	2,546.76	2,508.66	38.10	66.845	
7,200.00	6,777.49	6,820.90	6,777.49	44.62	19.04	-93.23	-440.43	-456.87	2,546.76	2,508.37	38.39	66.333	
7,300.00	6,877.49	6,920.90	6,877.49	44.69	19.19	-93.23	-440.43	-456.87	2,546.76	2,508.07	38.69	65.823	
7,400.00	6,977.49	7,020.90	6,977.49	44.76	19.34	-93.23	-440.43	-456.87	2,546.76	2,507.77	38.99	65.317	
7,500.00	7,077.49	7,120.90	7,077.49	44.84	19.50	-93.23	-440.43	-456.87	2,546.76	2,507.47	39.29	64.813	
7,522.51	7,100.00	7,143.41	7,100.00	44.85	19.53	-93.23	-440.43	-456.87	2,546.76	2,507.40	39.36	64.701	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 35-3 - P_WINTERS 35-3 - PLAN #1 3-10-10 RHS													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-179.50	-32.06	-0.28	32.06					
100.00	100.00	100.00	100.00	0.10	0.10	-179.50	-32.06	-0.28	32.06	31.87	0.19	167.827		
200.00	200.00	200.00	200.00	0.32	0.32	-179.50	-32.06	-0.28	32.06	31.42	0.64	50.054		
300.00	300.00	300.00	300.00	0.55	0.55	-179.50	-32.06	-0.28	32.06	30.97	1.09	29.413 CC, ES		
400.00	399.98	399.01	398.99	0.76	0.74	83.89	-33.57	0.54	33.36	31.86	1.50	22.219		
500.00	499.84	497.87	497.71	0.97	0.94	87.73	-38.07	2.98	37.35	35.44	1.91	19.544		
600.00	599.45	596.45	595.92	1.22	1.17	92.52	-45.53	7.03	44.29	41.92	2.37	18.684 SF		
700.00	698.70	694.60	693.35	1.49	1.44	97.08	-55.92	12.65	54.36	51.47	2.89	18.791		
800.00	797.47	792.20	789.78	1.82	1.75	100.87	-69.14	19.82	67.61	64.11	3.49	19.360		
900.00	895.62	889.10	884.96	2.19	2.12	103.79	-85.12	28.49	84.01	79.83	4.18	20.098		
1,000.00	993.06	985.20	978.69	2.63	2.53	105.97	-103.76	38.59	103.50	98.54	4.96	20.851		
1,100.00	1,089.64	1,080.38	1,070.76	3.12	3.00	107.56	-124.93	50.07	126.01	120.16	5.85	21.543		
1,200.00	1,185.27	1,174.53	1,161.01	3.69	3.51	108.71	-148.50	62.85	151.45	144.61	6.84	22.148		
1,300.00	1,279.82	1,267.56	1,249.27	4.32	4.08	109.51	-174.34	76.86	179.74	171.81	7.93	22.661		
1,400.00	1,373.17	1,359.38	1,335.40	5.02	4.70	110.05	-202.31	92.02	210.81	201.68	9.13	23.089		
1,500.00	1,465.21	1,449.91	1,419.28	5.80	5.36	110.39	-232.24	108.25	244.57	234.14	10.43	23.441		
1,535.67	1,497.71	1,481.88	1,448.64	6.09	5.60	110.47	-243.36	114.28	257.25	246.33	10.92	23.555		
1,600.00	1,556.15	1,541.02	1,502.69	6.64	6.07	110.96	-264.46	125.72	280.57	268.73	11.84	23.689		
1,700.00	1,646.99	1,634.14	1,587.76	7.49	6.82	111.58	-297.76	143.76	316.91	303.60	13.30	23.820		
1,800.00	1,737.83	1,727.26	1,672.83	8.35	7.57	112.08	-331.05	161.81	353.26	338.49	14.78	23.905		
1,900.00	1,828.67	1,820.37	1,757.90	9.22	8.33	112.48	-364.34	179.86	389.64	373.38	16.26	23.963		
2,000.00	1,919.51	1,913.49	1,842.97	10.09	9.09	112.81	-397.63	197.91	426.03	408.28	17.75	24.003		
2,100.00	2,010.35	2,006.61	1,928.04	10.96	9.85	113.09	-430.92	215.96	462.43	443.19	19.24	24.031		
2,200.00	2,101.19	2,099.73	2,013.11	11.84	10.62	113.33	-464.22	234.01	498.84	478.10	20.74	24.051		
2,300.00	2,192.04	2,192.85	2,098.18	12.72	11.39	113.53	-497.51	252.06	535.25	513.01	22.24	24.066		
2,400.00	2,282.88	2,285.96	2,183.24	13.60	12.16	113.71	-530.80	270.11	571.67	547.93	23.74	24.076		
2,500.00	2,373.72	2,379.08	2,268.31	14.48	12.93	113.87	-564.09	288.16	608.10	582.85	25.25	24.085		
2,600.00	2,464.56	2,472.20	2,353.38	15.36	13.70	114.01	-597.39	306.21	644.53	617.77	26.75	24.091		
2,700.00	2,555.40	2,565.32	2,438.45	16.25	14.47	114.14	-630.68	324.25	680.96	652.70	28.26	24.096		
2,800.00	2,646.24	2,658.44	2,523.52	17.13	15.24	114.25	-663.97	342.30	717.39	687.62	29.77	24.101		
2,900.00	2,737.08	2,751.55	2,608.59	18.01	16.02	114.35	-697.26	360.35	753.83	722.55	31.27	24.104		
3,000.00	2,827.92	2,844.67	2,693.66	18.90	16.79	114.45	-730.55	378.40	790.26	757.48	32.78	24.107		
3,100.00	2,918.76	2,937.79	2,778.73	19.79	17.56	114.53	-763.85	396.45	826.70	792.41	34.29	24.110		
3,200.00	3,009.61	3,030.91	2,863.80	20.67	18.34	114.61	-797.14	414.50	863.14	827.35	35.80	24.113		
3,300.00	3,100.45	3,124.02	2,948.87	21.56	19.11	114.68	-830.43	432.55	899.59	862.28	37.30	24.116		
3,400.00	3,191.29	3,217.14	3,033.94	22.45	19.89	114.74	-863.72	450.60	936.03	897.22	38.81	24.118		
3,500.00	3,282.13	3,310.26	3,119.01	23.33	20.67	114.80	-897.02	468.65	972.47	932.16	40.32	24.121		
3,600.00	3,372.97	3,403.38	3,204.08	24.22	21.44	114.86	-930.31	486.70	1,008.92	967.09	41.82	24.123		
3,700.00	3,463.81	3,496.50	3,289.15	25.11	22.22	114.91	-963.60	504.75	1,045.36	1,002.03	43.33	24.126		
3,800.00	3,554.65	3,589.61	3,374.22	26.00	22.99	114.96	-996.89	522.79	1,081.81	1,036.97	44.84	24.128		
3,900.00	3,645.49	3,682.73	3,459.29	26.88	23.77	115.01	-1,030.18	540.84	1,118.26	1,071.92	46.34	24.131		
4,000.00	3,736.33	3,775.85	3,544.36	27.77	24.55	115.05	-1,063.48	558.89	1,154.70	1,106.86	47.85	24.134		
4,100.00	3,827.18	3,868.97	3,629.42	28.66	25.32	115.09	-1,096.77	576.94	1,191.15	1,141.80	49.35	24.137		
4,200.00	3,918.02	3,962.09	3,714.49	29.55	26.10	115.13	-1,130.06	594.99	1,227.60	1,176.75	50.85	24.139		
4,300.00	4,008.86	4,055.20	3,799.56	30.44	26.88	115.16	-1,163.35	613.04	1,264.05	1,211.69	52.36	24.142		
4,400.00	4,099.70	4,148.32	3,884.63	31.33	27.65	115.20	-1,196.65	631.09	1,300.50	1,246.64	53.86	24.146		
4,500.00	4,190.54	4,241.44	3,969.70	32.22	28.43	115.23	-1,229.94	649.14	1,336.95	1,281.59	55.36	24.149		
4,600.00	4,281.38	4,334.56	4,054.77	33.11	29.21	115.26	-1,263.23	667.19	1,373.40	1,316.54	56.86	24.152		
4,700.00	4,372.22	4,427.68	4,139.84	34.00	29.98	115.29	-1,296.52	685.24	1,409.85	1,351.48	58.37	24.156		
4,800.00	4,463.06	4,520.79	4,224.91	34.88	30.76	115.31	-1,329.81	703.29	1,446.30	1,386.44	59.87	24.159		
4,900.00	4,553.90	4,613.91	4,309.98	35.77	31.54	115.34	-1,363.11	721.33	1,482.75	1,421.39	61.37	24.163		
5,000.00	4,644.75	4,707.03	4,395.05	36.66	32.32	115.36	-1,396.40	739.38	1,519.20	1,456.34	62.86	24.166		

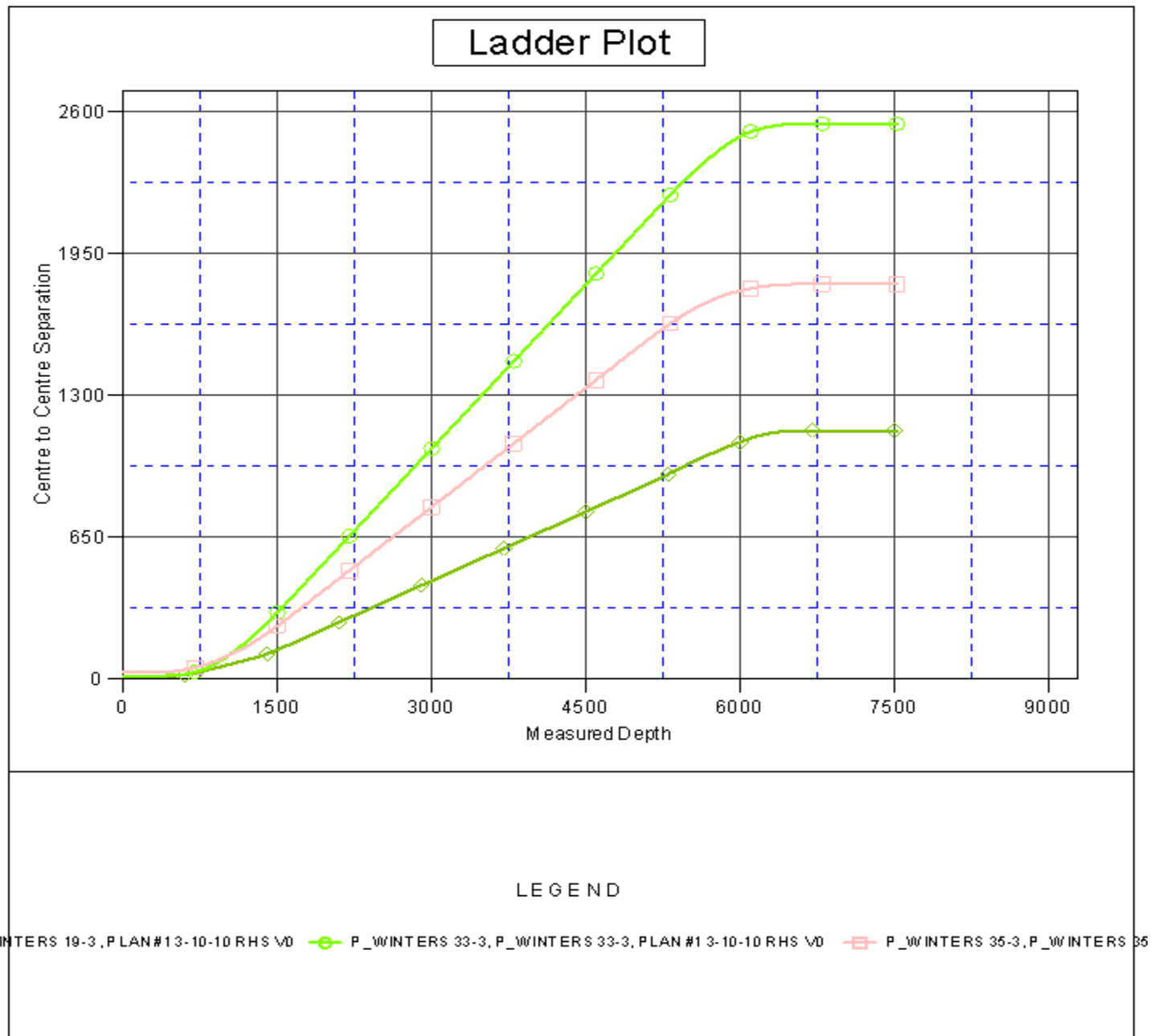
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_WINTERS 12-3 PAD - P_WINTERS 35-3 - P_WINTERS 35-3 - PLAN #1 3-10-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	4,735.59	4,803.90	4,483.57	37.55	33.10	115.39	-1,430.99	758.14	1,555.64	1,491.27	64.37	24.168	
5,200.00	4,826.43	4,923.93	4,594.49	38.44	33.80	115.53	-1,471.29	779.99	1,591.08	1,525.30	65.78	24.187	
5,300.00	4,917.27	5,045.02	4,708.24	39.33	34.44	115.84	-1,507.78	799.76	1,624.95	1,557.81	67.14	24.201	
5,319.84	4,935.29	5,069.14	4,731.10	39.51	34.56	115.92	-1,514.53	803.43	1,631.49	1,564.08	67.41	24.203	
5,400.00	5,008.57	5,167.09	4,824.57	40.13	35.03	116.74	-1,540.24	817.37	1,656.80	1,588.36	68.44	24.207	
5,500.00	5,101.21	5,290.53	4,943.71	40.77	35.55	117.71	-1,568.61	832.75	1,685.63	1,616.09	69.54	24.239	
5,600.00	5,195.11	5,415.12	5,065.26	41.35	36.00	118.63	-1,592.65	845.78	1,711.36	1,640.84	70.51	24.269	
5,700.00	5,290.15	5,540.62	5,188.77	41.88	36.38	119.51	-1,612.14	856.34	1,733.90	1,662.55	71.35	24.300	
5,800.00	5,386.22	5,666.75	5,313.76	42.35	36.68	120.36	-1,626.91	864.35	1,753.24	1,681.17	72.06	24.330	
5,900.00	5,483.20	5,793.22	5,439.72	42.77	36.91	121.17	-1,636.86	869.75	1,769.32	1,696.69	72.63	24.360	
6,000.00	5,580.97	5,919.75	5,566.11	43.13	37.06	121.95	-1,641.91	872.49	1,782.13	1,709.08	73.06	24.394	
6,100.00	5,679.41	6,033.06	5,679.41	43.43	37.15	122.64	-1,642.60	872.86	1,791.84	1,718.47	73.37	24.423	
6,200.00	5,778.40	6,132.05	5,778.40	43.68	37.21	123.15	-1,642.60	872.86	1,799.56	1,725.94	73.62	24.445	
6,300.00	5,877.83	6,231.48	5,877.83	43.88	37.27	123.53	-1,642.60	872.86	1,805.43	1,731.61	73.82	24.456	
6,400.00	5,977.57	6,331.21	5,977.57	44.04	37.33	123.78	-1,642.60	872.86	1,809.41	1,735.42	73.99	24.454	
6,500.00	6,077.49	6,431.14	6,077.49	44.14	37.40	123.91	-1,642.60	872.86	1,811.46	1,737.33	74.13	24.437	
6,555.51	6,133.00	6,486.65	6,133.00	44.18	37.43	-137.97	-1,642.60	872.86	1,811.76	1,737.57	74.19	24.420	
6,600.00	6,177.49	6,531.14	6,177.49	44.20	37.46	-137.97	-1,642.60	872.86	1,811.76	1,737.51	74.25	24.400	
6,700.00	6,277.49	6,631.14	6,277.49	44.27	37.53	-137.97	-1,642.60	872.86	1,811.76	1,737.36	74.40	24.353	
6,800.00	6,377.49	6,731.14	6,377.49	44.34	37.60	-137.97	-1,642.60	872.86	1,811.76	1,737.22	74.54	24.305	
6,900.00	6,477.49	6,831.14	6,477.49	44.41	37.66	-137.97	-1,642.60	872.86	1,811.76	1,737.07	74.69	24.256	
7,000.00	6,577.49	6,931.14	6,577.49	44.48	37.73	-137.97	-1,642.60	872.86	1,811.76	1,736.92	74.84	24.208	
7,100.00	6,677.49	7,031.14	6,677.49	44.55	37.81	-137.97	-1,642.60	872.86	1,811.76	1,736.77	75.00	24.158	
7,200.00	6,777.49	7,131.14	6,777.49	44.62	37.88	-137.97	-1,642.60	872.86	1,811.76	1,736.61	75.15	24.108	
7,300.00	6,877.49	7,231.14	6,877.49	44.69	37.95	-137.97	-1,642.60	872.86	1,811.76	1,736.45	75.31	24.057	
7,400.00	6,977.49	7,331.14	6,977.49	44.76	38.03	-137.97	-1,642.60	872.86	1,811.76	1,736.29	75.47	24.006	
7,500.00	7,077.49	7,431.14	7,077.49	44.84	38.10	-137.97	-1,642.60	872.86	1,811.76	1,736.13	75.63	23.955	
7,522.51	7,100.00	7,453.65	7,100.00	44.85	38.12	-137.97	-1,642.60	872.86	1,811.76	1,736.09	75.67	23.943	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4647.00ft (Original Well Elev) Coordinates are relative to: P\_WINTERS 23-3  
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: 0.54°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_WINTERS 23-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_WINTERS 12-3 PAD	<b>MD Reference:</b>	WELL @ 4647.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_WINTERS 23-3	<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_WINTERS 23-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-10-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4647.00ft (Original Well Elev) Coordinates are relative to: P\_WINTERS 23-3  
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: 0.54°

