



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**LARIMER\_MIRACLE 25-12 PAD**

**P\_MIRACLE 7-12**

**P\_MIRACLE 7-12**

**Plan: PLAN #1 3-23-10 RHS**

## **Standard Planning Report**

**24 March, 2010**

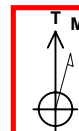




Project: COLORADO NORTHERN ZONE - 83  
 Site: LARIMER MIRACLE 25-12 PAD  
 Well: P\_MIRACLE 7-12  
 Wellbore: P\_MIRACLE 7-12  
 Section: SECTION 12 T5N R68W  
 SHL: 2484 FSL 2601 FEL  
 Design: PLAN #1 3-23-10 RHS  
 Latitude: 40° 24' 50.065 N  
 Longitude: 104° 57' 13.619 W  
 GL: 4963.00  
 KB: WELL @ 4978.00ft (Original Well Elev)



**Weatherford®**



Azimuths to True North  
 Magnetic North: 9.13°  
 Magnetic Field  
 Strength: 53246.6nT  
 Dip Angle: 67.07°  
 Date: 3/23/2010  
 Model: IGRF2010

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3495.00	3547.10	PARKMAN
4125.00	4191.08	SUSSEX
4575.00	4651.07	SHANNON
6915.00	7011.98	NIO A
7205.00	7301.98	CODELL
7665.00	7761.98	JSAND

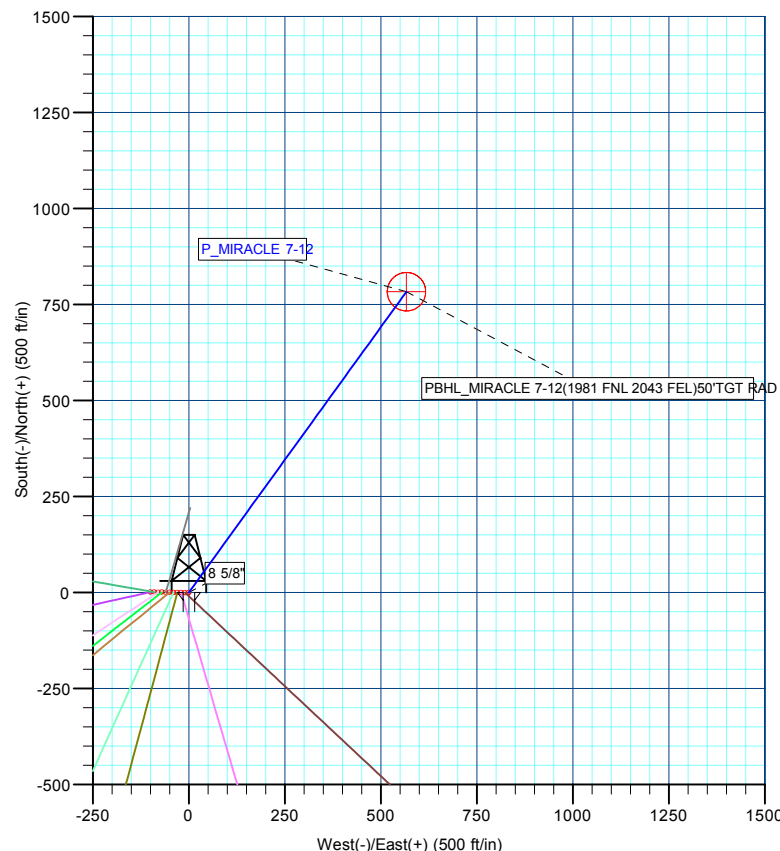
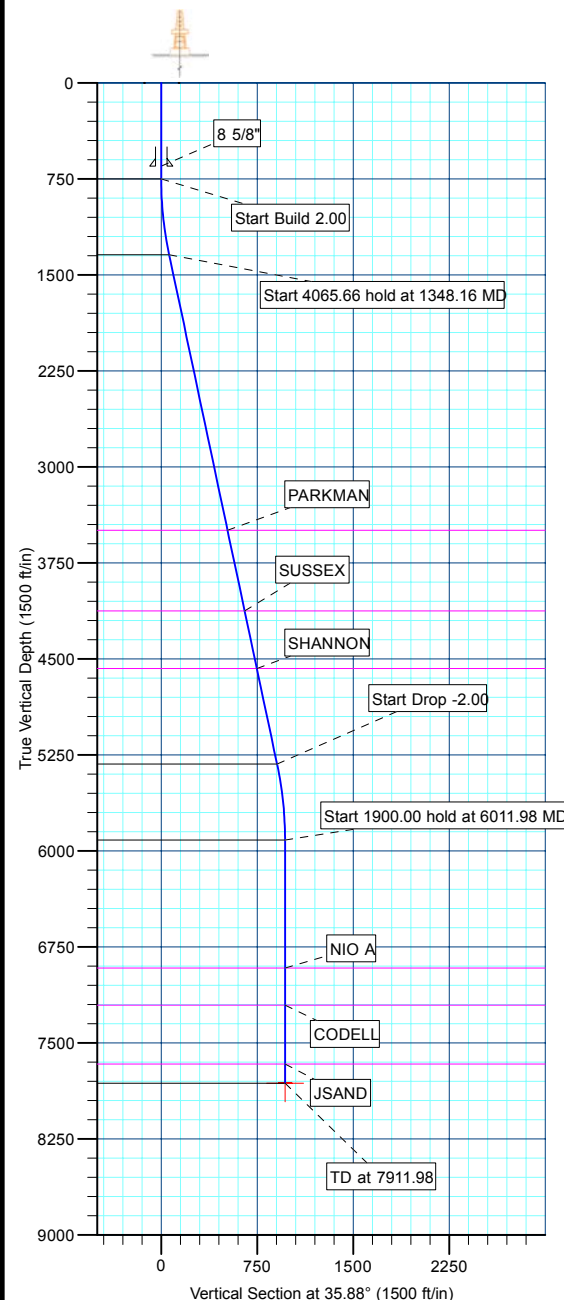
CASING DETAILS			
TVD	MD	Name	Size
650.00	650.00	8 5/8"	8.62

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	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1348.16	11.96	35.88	1343.82	50.41	36.47	2.00	35.88	62.22	Start 4065.66 hold at 1348.16 MD
5413.82	11.96	35.88	5321.18	733.20	530.44	0.00	0.00	904.96	Start Drop -2.00
6011.98	0.00	0.00	5915.00	783.61	566.91	2.00	180.00	967.18	Start 1900.00 hold at 6011.98 MD
7911.98	0.00	0.00	7815.00	783.61	566.91	0.00	0.00	967.18	TD at 7911.98

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
PBHL	7815.00	783.61	566.91	40° 24' 57.809 N	104° 57' 6.289 W	Circle (Radius: 50.00)	

WELL DETAILS: P_MIRACLE 7-12						
+N/-S	+E/-W	Northing	Ground Level: Easting	4963.00 Latitude	Longitude	Slot
0.00	0.00	1394095.11	3152094.92	40° 24' 50.065 N	104° 57' 13.619 W	

LEGEND	
P_MIRACLE 10-12, P_MIRACLE 10-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 11-12, P_MIRACLE 11-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 12-12, P_MIRACLE 12-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 13-12, P_MIRACLE 13-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 14-12, P_MIRACLE 14-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 15-12, P_MIRACLE 15-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 19-12, P_MIRACLE 19-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 22-12, P_MIRACLE 22-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 23-12, P_MIRACLE 23-12, PLAN #1 3-23-10 RHS V0	
P_MIRACLE 25-12, P_MIRACLE 25-12, PLAN #1 3-23-10 RHS V0	
PLAN #1 3-23-10 RHS	



Plan: PLAN #1 3-23-10 RHS (P_MIRACLE 7-12/P_MIRACLE 7-12)	
Created By: Robert H. Scott	Date: 9:03, March 24 2010

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_MIRACLE 7-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_MIRACLE 7-12		
<b>Design:</b>	PLAN #1 3-23-10 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						LARIMER_MIRACLE 25-12 PAD, SECTION 12 T5N R68W											
Site Position:						Northing:			1,394,095.11 ft			Latitude:			40° 24' 50.065 N		
From:			Lat/Long			Easting:			3,152,094.92 ft			Longitude:			104° 57' 13.619 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.35 °		

Well	P_MIRACLE 7-12					
Well Position	+N/-S	0.00 ft	Northing:	1,394,095.11 ft	Latitude:	40° 24' 50.065 N
	+E/-W	0.00 ft	Easting:	3,152,094.92 ft	Longitude:	104° 57' 13.619 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,963.00 ft

<b>Wellbore</b>	P_MIRACLE 7-12				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/23/2010	9.13	67.07	53,247

<b>Design</b>	PLAN #1 3-23-10 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	35.88

<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	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,348.16	11.96	35.88	1,343.82	50.41	36.47	2.00	2.00	0.00	35.88	
5,413.82	11.96	35.88	5,321.18	733.20	530.44	0.00	0.00	0.00	0.00	
6,011.98	0.00	0.00	5,915.00	783.61	566.91	2.00	-2.00	0.00	180.00	
7,911.98	0.00	0.00	7,815.00	783.61	566.91	0.00	0.00	0.00	0.00	PBHL_MIRACLE 7-

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_MIRACLE 7-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_MIRACLE 7-12		
<b>Design:</b>	PLAN #1 3-23-10 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>									
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	1.00	35.88	800.00	0.35	0.26	0.44	2.00	2.00	0.00
900.00	3.00	35.88	899.93	3.18	2.30	3.93	2.00	2.00	0.00
1,000.00	5.00	35.88	999.68	8.83	6.39	10.90	2.00	2.00	0.00
1,100.00	7.00	35.88	1,099.13	17.30	12.52	21.35	2.00	2.00	0.00
1,200.00	9.00	35.88	1,198.15	28.58	20.67	35.27	2.00	2.00	0.00
1,300.00	11.00	35.88	1,296.63	42.64	30.85	52.63	2.00	2.00	0.00
<b>Start 4065.66 hold at 1348.16 MD</b>									
1,348.16	11.96	35.88	1,343.82	50.41	36.47	62.22	2.00	2.00	0.00
1,400.00	11.96	35.88	1,394.54	59.12	42.77	72.97	0.00	0.00	0.00
1,500.00	11.96	35.88	1,492.37	75.91	54.92	93.69	0.00	0.00	0.00
1,600.00	11.96	35.88	1,590.19	92.71	67.07	114.42	0.00	0.00	0.00
1,700.00	11.96	35.88	1,688.02	109.50	79.22	135.15	0.00	0.00	0.00
1,800.00	11.96	35.88	1,785.85	126.29	91.37	155.88	0.00	0.00	0.00
1,900.00	11.96	35.88	1,883.68	143.09	103.52	176.61	0.00	0.00	0.00
2,000.00	11.96	35.88	1,981.51	159.88	115.67	197.34	0.00	0.00	0.00
2,100.00	11.96	35.88	2,079.33	176.68	127.82	218.06	0.00	0.00	0.00
2,200.00	11.96	35.88	2,177.16	193.47	139.97	238.79	0.00	0.00	0.00
2,300.00	11.96	35.88	2,274.99	210.26	152.12	259.52	0.00	0.00	0.00
2,400.00	11.96	35.88	2,372.82	227.06	164.27	280.25	0.00	0.00	0.00
2,500.00	11.96	35.88	2,470.65	243.85	176.42	300.98	0.00	0.00	0.00
2,600.00	11.96	35.88	2,568.47	260.65	188.57	321.71	0.00	0.00	0.00
2,700.00	11.96	35.88	2,666.30	277.44	200.72	342.43	0.00	0.00	0.00
2,800.00	11.96	35.88	2,764.13	294.23	212.87	363.16	0.00	0.00	0.00
2,900.00	11.96	35.88	2,861.96	311.03	225.02	383.89	0.00	0.00	0.00
3,000.00	11.96	35.88	2,959.79	327.82	237.17	404.62	0.00	0.00	0.00
3,100.00	11.96	35.88	3,057.62	344.62	249.32	425.35	0.00	0.00	0.00
3,200.00	11.96	35.88	3,155.44	361.41	261.47	446.08	0.00	0.00	0.00
3,300.00	11.96	35.88	3,253.27	378.21	273.62	466.80	0.00	0.00	0.00
3,400.00	11.96	35.88	3,351.10	395.00	285.77	487.53	0.00	0.00	0.00
3,500.00	11.96	35.88	3,448.93	411.79	297.92	508.26	0.00	0.00	0.00
<b>PARKMAN</b>									
3,547.10	11.96	35.88	3,495.00	419.70	303.64	518.02	0.00	0.00	0.00
3,600.00	11.96	35.88	3,546.76	428.59	310.07	528.99	0.00	0.00	0.00
3,700.00	11.96	35.88	3,644.58	445.38	322.22	549.72	0.00	0.00	0.00
3,800.00	11.96	35.88	3,742.41	462.18	334.37	570.45	0.00	0.00	0.00
3,900.00	11.96	35.88	3,840.24	478.97	346.52	591.17	0.00	0.00	0.00
4,000.00	11.96	35.88	3,938.07	495.76	358.67	611.90	0.00	0.00	0.00
4,100.00	11.96	35.88	4,035.90	512.56	370.82	632.63	0.00	0.00	0.00
<b>SUSSEX</b>									
4,191.08	11.96	35.88	4,125.00	527.85	381.88	651.51	0.00	0.00	0.00
4,200.00	11.96	35.88	4,133.72	529.35	382.97	653.36	0.00	0.00	0.00
4,300.00	11.96	35.88	4,231.55	546.15	395.12	674.09	0.00	0.00	0.00
4,400.00	11.96	35.88	4,329.38	562.94	407.27	694.81	0.00	0.00	0.00
4,500.00	11.96	35.88	4,427.21	579.73	419.42	715.54	0.00	0.00	0.00
4,600.00	11.96	35.88	4,525.04	596.53	431.57	736.27	0.00	0.00	0.00
<b>SHANNON</b>									
4,651.07	11.96	35.88	4,575.00	605.11	437.77	746.86	0.00	0.00	0.00
4,700.00	11.96	35.88	4,622.86	613.32	443.72	757.00	0.00	0.00	0.00
4,800.00	11.96	35.88	4,720.69	630.12	455.87	777.73	0.00	0.00	0.00
4,900.00	11.96	35.88	4,818.52	646.91	468.02	798.46	0.00	0.00	0.00
5,000.00	11.96	35.88	4,916.35	663.71	480.17	819.18	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_MIRACLE 7-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_MIRACLE 7-12		
<b>Design:</b>	PLAN #1 3-23-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,100.00	11.96	35.88	5,014.18	680.50	492.32	839.91	0.00	0.00	0.00	
5,200.00	11.96	35.88	5,112.01	697.29	504.46	860.64	0.00	0.00	0.00	
5,300.00	11.96	35.88	5,209.83	714.09	516.61	881.37	0.00	0.00	0.00	
5,400.00	11.96	35.88	5,307.66	730.88	528.76	902.10	0.00	0.00	0.00	
<b>Start Drop -2.00</b>										
5,413.82	11.96	35.88	5,321.18	733.20	530.44	904.96	0.00	0.00	0.00	
5,500.00	10.24	35.88	5,405.75	746.65	540.17	921.56	2.00	-2.00	0.00	
5,600.00	8.24	35.88	5,504.44	759.65	549.58	937.61	2.00	-2.00	0.00	
5,700.00	6.24	35.88	5,603.64	769.86	556.97	950.21	2.00	-2.00	0.00	
5,800.00	4.24	35.88	5,703.22	777.26	562.32	959.34	2.00	-2.00	0.00	
5,900.00	2.24	35.88	5,803.05	781.84	565.63	964.99	2.00	-2.00	0.00	
6,000.00	0.24	35.88	5,903.02	783.59	566.90	967.16	2.00	-2.00	0.00	
<b>Start 1900.00 hold at 6011.98 MD</b>										
6,011.98	0.00	0.00	5,915.00	783.61	566.91	967.18	2.00	-2.00	0.00	
6,100.00	0.00	0.00	6,003.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,103.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,203.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,303.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,403.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,503.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,603.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,703.02	783.61	566.91	967.18	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,803.02	783.61	566.91	967.18	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,903.02	783.61	566.91	967.18	0.00	0.00	0.00	
<b>NIO A</b>										
7,011.98	0.00	0.00	6,915.00	783.61	566.91	967.18	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,003.02	783.61	566.91	967.18	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,103.02	783.61	566.91	967.18	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,203.02	783.61	566.91	967.18	0.00	0.00	0.00	
<b>CODELL</b>										
7,301.98	0.00	0.00	7,205.00	783.61	566.91	967.18	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,303.02	783.61	566.91	967.18	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,403.02	783.61	566.91	967.18	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,503.02	783.61	566.91	967.18	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,603.02	783.61	566.91	967.18	0.00	0.00	0.00	
<b>JSAND</b>										
7,761.98	0.00	0.00	7,665.00	783.61	566.91	967.18	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,703.02	783.61	566.91	967.18	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,803.02	783.61	566.91	967.18	0.00	0.00	0.00	
<b>PBHL_MIRACLE 7-12(1981 FNL 2043 FEL)50'TGT RAD</b>										
7,911.98	0.00	0.00	7,815.00	783.61	566.91	967.18	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_MIRACLE 7-12	0.00	0.00	7,815.00	783.61	566.91	1,394,882.20	3,152,657.00	40° 24' 57.809 N	104° 57' 6.289 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_MIRACLE 7-12
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_MIRACLE 7-12	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_MIRACLE 7-12		
<b>Design:</b>	PLAN #1 3-23-10 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
650.00	650.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,547.10	3,495.00	PARKMAN				
4,191.08	4,125.00	SUSSEX				
4,651.07	4,575.00	SHANNON				
7,011.98	6,915.00	NIO A				
7,301.98	7,205.00	CODELL				
7,761.98	7,665.00	JSAND				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
750.00	750.00	0.00	0.00	Start Build 2.00	
1,348.16	1,343.82	50.41	36.47	Start 4065.66 hold at 1348.16 MD	
5,413.82	5,321.18	733.20	530.44	Start Drop -2.00	
6,011.98	5,915.00	783.61	566.91	Start 1900.00 hold at 6011.98 MD	
7,911.98	7,815.00	783.61	566.91	TD at 7911.98	



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
LARIMER\_MIRACLE 25-12 PAD  
P\_MIRACLE 7-12**

**P\_MIRACLE 7-12  
PLAN #1 3-23-10 RHS**

## **Anticollision Report**

**24 March, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 3-23-10 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> 3/23/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	7,911.98	PLAN #1 3-23-10 RHS (P_MIRACLE 7-12	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						
LARIMER_MIRACLE 25-12 PAD						
P_MIRACLE 10-12 - P_MIRACLE 10-12 - PLAN #1 3-23	810.15	810.29	9.98	6.61	2.966	CC, ES, SF
P_MIRACLE 11-12 - P_MIRACLE 11-12 - PLAN #1 3-23	750.00	750.00	79.64	76.53	25.583	CC, ES
P_MIRACLE 11-12 - P_MIRACLE 11-12 - PLAN #1 3-23	900.00	896.24	85.26	81.54	22.912	SF
P_MIRACLE 12-12 - P_MIRACLE 12-12 - PLAN #1 3-23	300.00	300.00	99.69	98.60	91.451	CC, ES
P_MIRACLE 12-12 - P_MIRACLE 12-12 - PLAN #1 3-23	800.00	779.04	141.10	137.85	43.425	SF
P_MIRACLE 13-12 - P_MIRACLE 13-12 - PLAN #1 3-23	233.48	233.48	49.85	49.06	63.011	CC, ES
P_MIRACLE 13-12 - P_MIRACLE 13-12 - PLAN #1 3-23	700.00	690.58	79.58	76.76	28.237	SF
P_MIRACLE 14-12 - P_MIRACLE 14-12 - PLAN #1 3-23	300.00	300.00	39.82	38.73	36.529	CC, ES
P_MIRACLE 14-12 - P_MIRACLE 14-12 - PLAN #1 3-23	700.00	695.24	56.91	54.11	20.358	SF
P_MIRACLE 15-12 - P_MIRACLE 15-12 - PLAN #1 3-23	483.37	483.49	18.88	17.01	10.117	CC
P_MIRACLE 15-12 - P_MIRACLE 15-12 - PLAN #1 3-23	500.00	500.08	18.91	16.98	9.770	ES
P_MIRACLE 15-12 - P_MIRACLE 15-12 - PLAN #1 3-23	600.00	599.52	21.28	18.91	8.987	SF
P_MIRACLE 19-12 - P_MIRACLE 19-12 - PLAN #1 3-23	750.00	750.00	69.90	66.79	22.454	CC, ES
P_MIRACLE 19-12 - P_MIRACLE 19-12 - PLAN #1 3-23	900.00	896.81	75.36	71.64	20.257	SF
P_MIRACLE 22-12 - P_MIRACLE 22-12 - PLAN #1 3-23	750.00	750.00	89.67	86.56	28.804	CC, ES
P_MIRACLE 22-12 - P_MIRACLE 22-12 - PLAN #1 3-23	900.00	895.23	95.72	91.98	25.578	SF
P_MIRACLE 23-12 - P_MIRACLE 23-12 - PLAN #1 3-23	750.00	750.00	29.80	26.68	9.572	CC, ES
P_MIRACLE 23-12 - P_MIRACLE 23-12 - PLAN #1 3-23	800.00	799.86	30.17	26.84	9.082	SF
P_MIRACLE 25-12 - P_MIRACLE 25-12 - PLAN #1 3-23	750.00	750.00	59.87	56.76	19.233	CC
P_MIRACLE 25-12 - P_MIRACLE 25-12 - PLAN #1 3-23	800.00	800.28	60.01	56.67	17.987	ES
P_MIRACLE 25-12 - P_MIRACLE 25-12 - PLAN #1 3-23	1,100.00	1,100.45	68.92	64.24	14.745	SF

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 10-12 - P_MIRACLE 10-12 - PLAN #1 3-23-10 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
0.00	0.00	0.00	0.00	0.00	0.00	-90.12	-0.02	-10.02	10.02				
100.00	100.00	100.00	100.00	0.10	0.10	-90.12	-0.02	-10.02	10.02	9.83	0.19	52.469	
200.00	200.00	200.00	200.00	0.32	0.32	-90.12	-0.02	-10.02	10.02	9.38	0.64	15.649	
300.00	300.00	300.00	300.00	0.55	0.55	-90.12	-0.02	-10.02	10.02	8.93	1.09	9.196	
400.00	400.00	400.00	400.00	0.77	0.77	-90.12	-0.02	-10.02	10.02	8.48	1.54	6.511	
500.00	500.00	500.00	500.00	0.99	0.99	-90.12	-0.02	-10.02	10.02	8.04	1.99	5.039	
600.00	600.00	600.00	600.00	1.22	1.22	-90.12	-0.02	-10.02	10.02	7.59	2.44	4.111	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 10-12 - P_MIRACLE 10-12 - PLAN #1 3-23-10 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
700.00	700.00	700.00	700.00	1.44	1.44	-90.12	-0.02	-10.02	10.02	7.14	2.89	3.471	
750.00	750.00	750.00	750.00	1.56	1.56	-90.12	-0.02	-10.02	10.02	6.91	3.11	3.220	
800.00	800.00	800.12	800.12	1.67	1.66	-129.76	-0.32	-9.70	9.98	6.66	3.32	3.003	
810.15	810.15	810.29	810.29	1.69	1.68	-131.44	-0.45	-9.56	9.98	6.61	3.36	2.966 CC, ES, SF	
900.00	899.93	900.15	900.08	1.89	1.84	-157.80	-2.71	-7.15	11.14	7.42	3.72	2.991	
1,000.00	999.68	999.57	999.25	2.12	2.04	171.60	-7.45	-2.10	18.36	14.22	4.14	4.436	
1,100.00	1,099.13	1,097.97	1,097.12	2.36	2.26	156.45	-14.45	5.38	32.60	28.03	4.57	7.130	
1,200.00	1,198.15	1,194.99	1,193.20	2.62	2.52	149.42	-23.60	15.15	52.70	47.67	5.03	10.478	
1,300.00	1,296.63	1,291.72	1,288.71	2.92	2.80	146.36	-34.09	26.35	77.27	71.76	5.51	14.019	
1,348.16	1,343.82	1,338.13	1,334.52	3.08	2.94	145.86	-39.13	31.74	90.15	84.40	5.75	15.668	
1,400.00	1,394.54	1,387.98	1,383.74	3.26	3.10	145.73	-44.55	37.52	104.36	98.33	6.03	17.303	
1,500.00	1,492.37	1,484.15	1,478.69	3.63	3.41	145.56	-55.00	48.68	131.77	125.19	6.58	20.018	
1,600.00	1,590.19	1,580.32	1,573.64	4.01	3.73	145.44	-65.45	59.83	159.18	152.03	7.15	22.264	
1,700.00	1,688.02	1,676.49	1,668.58	4.41	4.06	145.36	-75.90	70.99	186.60	178.87	7.73	24.143	
1,800.00	1,785.85	1,772.66	1,763.53	4.81	4.40	145.30	-86.35	82.15	214.01	205.69	8.32	25.731	
1,900.00	1,883.68	1,868.83	1,858.48	5.22	4.74	145.25	-96.80	93.31	241.42	232.51	8.91	27.085	
2,000.00	1,981.51	1,965.00	1,953.42	5.64	5.08	145.21	-107.25	104.46	268.84	259.32	9.52	28.251	
2,100.00	2,079.33	2,061.16	2,048.37	6.06	5.43	145.18	-117.70	115.62	296.25	286.13	10.12	29.263	
2,200.00	2,177.16	2,157.33	2,143.32	6.48	5.78	145.16	-128.15	126.78	323.66	312.93	10.74	30.149	
2,300.00	2,274.99	2,253.50	2,238.26	6.91	6.13	145.14	-138.60	137.93	351.08	339.73	11.35	30.929	
2,400.00	2,372.82	2,349.67	2,333.21	7.33	6.48	145.12	-149.05	149.09	378.49	366.52	11.97	31.622	
2,500.00	2,470.65	2,445.84	2,428.15	7.76	6.84	145.10	-159.50	160.25	405.90	393.31	12.59	32.239	
2,600.00	2,568.47	2,542.01	2,523.10	8.20	7.20	145.09	-169.95	171.40	433.32	420.10	13.21	32.793	
2,700.00	2,666.30	2,638.18	2,618.05	8.63	7.55	145.08	-180.40	182.56	460.73	446.89	13.84	33.293	
2,800.00	2,764.13	2,734.35	2,712.99	9.07	7.91	145.07	-190.85	193.72	488.14	473.68	14.47	33.745	
2,900.00	2,861.96	2,830.52	2,807.94	9.50	8.27	145.06	-201.30	204.88	515.56	500.46	15.09	34.157	
3,000.00	2,959.79	2,926.69	2,902.89	9.94	8.63	145.05	-211.74	216.03	542.97	527.25	15.72	34.533	
3,100.00	3,057.62	3,022.86	2,997.83	10.38	8.99	145.04	-222.19	227.19	570.38	554.03	16.35	34.877	
3,200.00	3,155.44	3,119.02	3,092.78	10.81	9.35	145.03	-232.64	238.35	597.80	580.81	16.99	35.194	
3,300.00	3,253.27	3,215.19	3,187.73	11.25	9.72	145.03	-243.09	249.50	625.21	607.59	17.62	35.487	
3,400.00	3,351.10	3,311.36	3,282.67	11.69	10.08	145.02	-253.54	260.66	652.63	634.37	18.25	35.757	
3,500.00	3,448.93	3,407.53	3,377.62	12.13	10.44	145.02	-263.99	271.82	680.04	661.15	18.89	36.008	
3,600.00	3,546.76	3,503.70	3,472.56	12.57	10.80	145.01	-274.44	282.98	707.45	687.93	19.52	36.242	
3,700.00	3,644.58	3,599.87	3,567.51	13.01	11.17	145.01	-284.89	294.13	734.87	714.71	20.16	36.459	
3,800.00	3,742.41	3,696.04	3,662.46	13.46	11.53	145.00	-295.34	305.29	762.28	741.49	20.79	36.663	
3,900.00	3,840.24	3,792.21	3,757.40	13.90	11.90	145.00	-305.79	316.45	789.69	768.27	21.43	36.853	
4,000.00	3,938.07	3,888.38	3,852.35	14.34	12.26	144.99	-316.24	327.60	817.11	795.04	22.06	37.032	
4,100.00	4,035.90	3,984.55	3,947.30	14.78	12.62	144.99	-326.69	338.76	844.52	821.82	22.70	37.200	
4,200.00	4,133.72	4,080.71	4,042.24	15.22	12.99	144.99	-337.14	349.92	871.94	848.60	23.34	37.358	
4,300.00	4,231.55	4,176.88	4,137.19	15.66	13.35	144.98	-347.59	361.07	899.35	875.37	23.98	37.508	
4,400.00	4,329.38	4,273.05	4,232.14	16.11	13.72	144.98	-358.04	372.23	926.76	902.15	24.62	37.649	
4,500.00	4,427.21	4,369.22	4,327.08	16.55	14.08	144.98	-368.49	383.39	954.18	928.92	25.25	37.782	
4,600.00	4,525.04	4,465.39	4,422.03	16.99	14.45	144.98	-378.94	394.55	981.59	955.70	25.89	37.909	
4,700.00	4,622.86	4,561.56	4,516.97	17.44	14.81	144.97	-389.39	405.70	1,009.00	982.47	26.53	38.029	
4,800.00	4,720.69	4,657.73	4,611.92	17.88	15.18	144.97	-399.84	416.86	1,036.42	1,009.25	27.17	38.143	
4,900.00	4,818.52	4,753.90	4,706.87	18.32	15.54	144.97	-410.29	428.02	1,063.83	1,036.02	27.81	38.251	
5,000.00	4,916.35	4,850.07	4,801.81	18.77	15.91	144.97	-420.74	439.17	1,091.24	1,062.79	28.45	38.355	
5,100.00	5,014.18	4,946.24	4,896.76	19.21	16.28	144.96	-431.19	450.33	1,118.66	1,089.57	29.09	38.453	
5,200.00	5,112.01	5,042.41	4,991.71	19.65	16.64	144.96	-441.64	461.49	1,146.07	1,116.34	29.73	38.548	
5,300.00	5,209.83	5,138.57	5,086.65	20.10	17.01	144.96	-452.09	472.65	1,173.49	1,143.11	30.37	38.637	
5,400.00	5,307.66	5,234.74	5,181.60	20.54	17.37	144.96	-462.54	483.80	1,200.90	1,169.89	31.01	38.724	
5,413.82	5,321.18	5,248.03	5,194.72	20.60	17.42	144.96	-463.98	485.34	1,204.69	1,173.59	31.10	38.735	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 10-12 - P_MIRACLE 10-12 - PLAN #1 3-23-10 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
5,500.00	5,405.75	5,331.19	5,276.82	20.93	17.74	145.19	-473.02	494.99	1,227.29	1,195.59	31.70	38.715	
5,600.00	5,504.44	5,428.31	5,372.71	21.22	18.11	145.34	-483.57	506.26	1,250.93	1,218.61	32.33	38.696	
5,700.00	5,603.64	5,534.28	5,477.35	21.48	18.49	145.35	-494.99	518.45	1,271.73	1,238.80	32.93	38.617	
5,800.00	5,703.22	5,674.76	5,616.72	21.70	18.87	145.26	-506.99	531.27	1,287.54	1,254.03	33.51	38.425	
5,900.00	5,803.05	5,817.22	5,758.74	21.87	19.14	145.22	-514.38	539.16	1,297.25	1,263.28	33.97	38.191	
6,000.00	5,903.02	5,960.70	5,902.16	22.00	19.35	145.22	-516.93	541.88	1,300.77	1,266.43	34.33	37.885	
6,011.98	5,915.00	5,973.54	5,915.00	22.02	19.37	-178.90	-516.93	541.88	1,300.79	1,266.42	34.37	37.849	
6,100.00	6,003.02	6,061.56	6,003.02	22.12	19.48	-178.90	-516.93	541.88	1,300.79	1,266.16	34.63	37.566	
6,200.00	6,103.02	6,161.56	6,103.02	22.25	19.61	-178.90	-516.93	541.88	1,300.79	1,265.85	34.94	37.229	
6,300.00	6,203.02	6,261.56	6,203.02	22.38	19.74	-178.90	-516.93	541.88	1,300.79	1,265.53	35.26	36.896	
6,400.00	6,303.02	6,361.56	6,303.02	22.51	19.87	-178.90	-516.93	541.88	1,300.79	1,265.21	35.57	36.566	
6,500.00	6,403.02	6,461.56	6,403.02	22.64	20.01	-178.90	-516.93	541.88	1,300.79	1,264.89	35.90	36.238	
6,600.00	6,503.02	6,561.56	6,503.02	22.77	20.14	-178.90	-516.93	541.88	1,300.79	1,264.57	36.22	35.914	
6,700.00	6,603.02	6,661.56	6,603.02	22.91	20.28	-178.90	-516.93	541.88	1,300.79	1,264.24	36.55	35.593	
6,800.00	6,703.02	6,761.56	6,703.02	23.05	20.42	-178.90	-516.93	541.88	1,300.79	1,263.91	36.88	35.275	
6,900.00	6,803.02	6,861.56	6,803.02	23.18	20.56	-178.90	-516.93	541.88	1,300.79	1,263.58	37.21	34.960	
7,000.00	6,903.02	6,961.56	6,903.02	23.32	20.70	-178.90	-516.93	541.88	1,300.79	1,263.25	37.54	34.649	
7,100.00	7,003.02	7,061.56	7,003.02	23.46	20.84	-178.90	-516.93	541.88	1,300.79	1,262.91	37.88	34.341	
7,200.00	7,103.02	7,161.56	7,103.02	23.61	20.99	-178.90	-516.93	541.88	1,300.79	1,262.57	38.22	34.036	
7,300.00	7,203.02	7,261.56	7,203.02	23.75	21.13	-178.90	-516.93	541.88	1,300.79	1,262.23	38.56	33.735	
7,400.00	7,303.02	7,361.56	7,303.02	23.89	21.28	-178.90	-516.93	541.88	1,300.79	1,261.89	38.90	33.437	
7,500.00	7,403.02	7,461.56	7,403.02	24.04	21.43	-178.90	-516.93	541.88	1,300.79	1,261.54	39.25	33.143	
7,600.00	7,503.02	7,561.56	7,503.02	24.19	21.58	-178.90	-516.93	541.88	1,300.79	1,261.19	39.60	32.852	
7,700.00	7,603.02	7,661.56	7,603.02	24.33	21.73	-178.90	-516.93	541.88	1,300.79	1,260.84	39.95	32.564	
7,800.00	7,703.02	7,761.56	7,703.02	24.48	21.88	-178.90	-516.93	541.88	1,300.79	1,260.49	40.30	32.280	
7,900.00	7,803.02	7,861.56	7,803.02	24.63	22.03	-178.90	-516.93	541.88	1,300.79	1,260.14	40.65	31.999	
7,911.98	7,815.00	7,863.54	7,805.00	24.65	22.03	-178.90	-516.93	541.88	1,300.83	1,260.15	40.68	31.980	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-89.48	0.72	-79.64	79.64				
100.00	100.00	100.00	100.00	0.10	0.10	-89.48	0.72	-79.64	79.64	79.45	0.19	416.857	
200.00	200.00	200.00	200.00	0.32	0.32	-89.48	0.72	-79.64	79.64	79.00	0.64	124.326	
300.00	300.00	300.00	300.00	0.55	0.55	-89.48	0.72	-79.64	79.64	78.55	1.09	73.057	
400.00	400.00	400.00	400.00	0.77	0.77	-89.48	0.72	-79.64	79.64	78.10	1.54	51.727	
500.00	500.00	500.00	500.00	0.99	0.99	-89.48	0.72	-79.64	79.64	77.65	1.99	40.037	
600.00	600.00	600.00	600.00	1.22	1.22	-89.48	0.72	-79.64	79.64	77.20	2.44	32.657	
700.00	700.00	700.00	700.00	1.44	1.44	-89.48	0.72	-79.64	79.64	76.75	2.89	27.574	
750.00	750.00	750.00	750.00	1.56	1.56	-89.48	0.72	-79.64	79.64	76.53	3.11	25.583 CC, ES	
800.00	800.00	798.86	798.85	1.67	1.66	-125.77	0.49	-79.99	80.25	76.93	3.32	24.154	
900.00	899.93	896.24	896.17	1.89	1.84	-128.78	-1.33	-82.76	85.26	81.54	3.72	22.912 SF	
1,000.00	999.68	992.62	992.33	2.12	2.04	-133.76	-4.92	-88.22	95.89	91.76	4.13	23.240	
1,100.00	1,099.13	1,087.37	1,086.59	2.36	2.25	-139.34	-10.17	-96.23	112.86	108.32	4.53	24.889	
1,200.00	1,198.15	1,179.90	1,178.29	2.62	2.49	-144.47	-16.94	-106.56	136.58	131.64	4.94	27.631	
1,300.00	1,296.63	1,269.69	1,266.84	2.92	2.75	-148.71	-25.07	-118.94	167.06	161.72	5.35	31.231	
1,348.16	1,343.82	1,312.25	1,308.64	3.08	2.89	-150.43	-29.45	-125.61	184.08	178.54	5.54	33.213	
1,400.00	1,394.54	1,360.08	1,355.58	3.26	3.05	-152.28	-34.50	-133.31	203.19	197.42	5.77	35.199	
1,500.00	1,492.37	1,452.35	1,446.13	3.63	3.38	-155.03	-44.24	-148.16	240.45	234.23	6.22	38.654	
1,600.00	1,590.19	1,544.62	1,536.67	4.01	3.72	-157.04	-53.98	-163.01	278.06	271.39	6.68	41.651	
1,700.00	1,688.02	1,636.89	1,627.22	4.41	4.08	-158.58	-63.72	-177.86	315.91	308.77	7.14	44.258	
1,800.00	1,785.85	1,729.16	1,717.76	4.81	4.44	-159.79	-73.47	-192.72	353.90	346.29	7.60	46.537	
1,900.00	1,883.68	1,821.43	1,808.30	5.22	4.81	-160.76	-83.21	-207.57	392.00	383.93	8.08	48.540	
2,000.00	1,981.51	1,913.70	1,898.85	5.64	5.18	-161.56	-92.95	-222.42	430.19	421.63	8.55	50.309	
2,100.00	2,079.33	2,005.97	1,989.39	6.06	5.56	-162.24	-102.70	-237.27	468.43	459.40	9.03	51.881	
2,200.00	2,177.16	2,098.24	2,079.94	6.48	5.94	-162.81	-112.44	-252.12	506.72	497.21	9.51	53.284	
2,300.00	2,274.99	2,190.51	2,170.48	6.91	6.33	-163.30	-122.18	-266.97	545.05	535.05	9.99	54.542	
2,400.00	2,372.82	2,282.78	2,261.03	7.33	6.71	-163.72	-131.92	-281.82	583.40	572.93	10.48	55.676	
2,500.00	2,470.65	2,375.05	2,351.57	7.76	7.10	-164.10	-141.67	-296.67	621.78	610.82	10.97	56.702	
2,600.00	2,568.47	2,467.32	2,442.11	8.20	7.49	-164.43	-151.41	-311.52	660.19	648.73	11.45	57.636	
2,700.00	2,666.30	2,559.59	2,532.66	8.63	7.89	-164.72	-161.15	-326.37	698.60	686.66	11.94	58.488	
2,800.00	2,764.13	2,651.86	2,623.20	9.07	8.28	-164.98	-170.89	-341.22	737.04	724.60	12.44	59.268	
2,900.00	2,861.96	2,744.13	2,713.75	9.50	8.67	-165.22	-180.64	-356.07	775.48	762.55	12.93	59.985	
3,000.00	2,959.79	2,836.40	2,804.29	9.94	9.07	-165.44	-190.38	-370.92	813.93	800.51	13.42	60.645	
3,100.00	3,057.62	2,928.67	2,894.84	10.38	9.46	-165.63	-200.12	-385.77	852.40	838.48	13.92	61.256	
3,200.00	3,155.44	3,020.94	2,985.38	10.81	9.86	-165.81	-209.87	-400.63	890.87	876.46	14.41	61.822	
3,300.00	3,253.27	3,113.21	3,075.92	11.25	10.26	-165.97	-219.61	-415.48	929.34	914.44	14.91	62.348	
3,400.00	3,351.10	3,205.47	3,166.47	11.69	10.65	-166.12	-229.35	-430.33	967.83	952.43	15.40	62.838	
3,500.00	3,448.93	3,297.74	3,257.01	12.13	11.05	-166.26	-239.09	-445.18	1,006.32	990.42	15.90	63.295	
3,600.00	3,546.76	3,390.01	3,347.56	12.57	11.45	-166.39	-248.84	-460.03	1,044.81	1,028.41	16.40	63.723	
3,700.00	3,644.58	3,482.28	3,438.10	13.01	11.85	-166.51	-258.58	-474.88	1,083.31	1,066.41	16.89	64.123	
3,800.00	3,742.41	3,574.55	3,528.64	13.46	12.25	-166.62	-268.32	-489.73	1,121.81	1,104.42	17.39	64.500	
3,900.00	3,840.24	3,666.82	3,619.19	13.90	12.65	-166.73	-278.06	-504.58	1,160.31	1,142.42	17.89	64.854	
4,000.00	3,938.07	3,759.09	3,709.73	14.34	13.05	-166.83	-287.81	-519.43	1,198.82	1,180.43	18.39	65.188	
4,100.00	4,035.90	3,851.36	3,800.28	14.78	13.45	-166.92	-297.55	-534.28	1,237.33	1,218.44	18.89	65.504	
4,200.00	4,133.72	3,943.63	3,890.82	15.22	13.85	-167.00	-307.29	-549.13	1,275.85	1,256.46	19.39	65.802	
4,300.00	4,231.55	4,035.90	3,981.37	15.66	14.25	-167.08	-317.03	-563.98	1,314.36	1,294.47	19.89	66.084	
4,400.00	4,329.38	4,128.17	4,071.91	16.11	14.65	-167.16	-326.78	-578.83	1,352.88	1,332.49	20.39	66.352	
4,500.00	4,427.21	4,220.44	4,162.45	16.55	15.05	-167.23	-336.52	-593.68	1,391.40	1,370.51	20.89	66.606	
4,600.00	4,525.04	4,312.71	4,253.00	16.99	15.45	-167.30	-346.26	-608.53	1,429.92	1,408.53	21.39	66.847	
4,700.00	4,622.86	4,404.98	4,343.54	17.44	15.85	-167.37	-356.01	-623.39	1,468.44	1,446.55	21.89	67.077	
4,800.00	4,720.69	4,497.25	4,434.09	17.88	16.25	-167.43	-365.75	-638.24	1,506.97	1,484.57	22.39	67.296	
4,900.00	4,818.52	4,589.52	4,524.63	18.32	16.65	-167.49	-375.49	-653.09	1,545.49	1,522.60	22.89	67.505	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 11-12 - P_MIRACLE 11-12 - PLAN #1 3-23-10 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
5,000.00	4,916.35	4,681.79	4,615.17	18.77	17.06	-167.54	-385.23	-667.94	1,584.02	1,560.62	23.40	67.705	
5,100.00	5,014.18	4,774.06	4,705.72	19.21	17.46	-167.59	-394.98	-682.79	1,622.55	1,598.65	23.90	67.896	
5,200.00	5,112.01	4,866.33	4,796.26	19.65	17.86	-167.64	-404.72	-697.64	1,661.08	1,636.68	24.40	68.078	
5,300.00	5,209.83	4,958.60	4,886.81	20.10	18.26	-167.69	-414.46	-712.49	1,699.61	1,674.71	24.90	68.253	
5,400.00	5,307.66	5,050.87	4,977.35	20.54	18.66	-167.74	-424.20	-727.34	1,738.14	1,712.74	25.40	68.421	
5,413.82	5,321.18	5,063.62	4,989.86	20.60	18.72	-167.74	-425.55	-729.39	1,743.46	1,717.99	25.47	68.443	
5,500.00	5,405.75	5,143.62	5,068.37	20.93	19.07	-167.92	-434.00	-742.27	1,775.50	1,749.49	26.01	68.266	
5,600.00	5,504.44	5,237.58	5,160.57	21.22	19.48	-168.08	-443.92	-757.39	1,809.70	1,783.12	26.58	68.093	
5,700.00	5,603.64	5,332.66	5,253.87	21.48	19.89	-168.20	-453.96	-772.69	1,840.67	1,813.56	27.11	67.890	
5,800.00	5,703.22	5,439.04	5,358.27	21.70	20.34	-168.27	-465.17	-789.78	1,868.37	1,840.73	27.64	67.605	
5,900.00	5,803.05	5,537.32	5,453.73	21.87	21.09	-168.26	-486.39	-822.13	1,887.58	1,859.15	28.43	66.390	
6,000.00	5,903.02	5,636.97	5,553.02	22.00	21.51	-168.26	-492.89	-832.03	1,893.79	1,864.70	29.09	65.105	
6,011.98	5,915.00	5,648.94	5,565.00	22.02	21.52	-132.38	-492.89	-832.03	1,893.81	1,864.68	29.13	65.019	
6,100.00	6,003.02	5,736.97	5,653.02	22.12	21.62	-132.38	-492.89	-832.03	1,893.81	1,864.38	29.43	64.351	
6,200.00	6,103.02	5,836.97	5,753.02	22.25	21.74	-132.38	-492.89	-832.03	1,893.81	1,864.02	29.79	63.571	
6,300.00	6,203.02	5,936.97	5,853.02	22.38	21.86	-132.38	-492.89	-832.03	1,893.81	1,863.66	30.15	62.805	
6,400.00	6,303.02	6,036.97	5,953.02	22.51	21.98	-132.38	-492.89	-832.03	1,893.81	1,863.29	30.52	62.052	
6,500.00	6,403.02	6,136.97	6,053.02	22.64	22.11	-132.38	-492.89	-832.03	1,893.81	1,862.92	30.89	61.313	
6,600.00	6,503.02	6,236.97	6,153.02	22.77	22.23	-132.38	-492.89	-832.03	1,893.81	1,862.55	31.26	60.587	
6,700.00	6,603.02	6,336.97	6,253.02	22.91	22.36	-132.38	-492.89	-832.03	1,893.81	1,862.18	31.63	59.874	
6,800.00	6,703.02	6,436.97	6,353.02	23.05	22.48	-132.38	-492.89	-832.03	1,893.81	1,861.81	32.00	59.174	
6,900.00	6,803.02	6,536.97	6,453.02	23.18	22.61	-132.38	-492.89	-832.03	1,893.81	1,861.43	32.38	58.487	
7,000.00	6,903.02	6,636.97	6,553.02	23.32	22.74	-132.38	-492.89	-832.03	1,893.81	1,861.05	32.76	57.812	
7,100.00	7,003.02	6,736.97	6,653.02	23.46	22.88	-132.38	-492.89	-832.03	1,893.81	1,860.67	33.14	57.149	
7,200.00	7,103.02	6,836.97	6,753.02	23.61	23.01	-132.38	-492.89	-832.03	1,893.81	1,860.29	33.52	56.499	
7,300.00	7,203.02	6,936.97	6,853.02	23.75	23.15	-132.38	-492.89	-832.03	1,893.81	1,859.91	33.90	55.861	
7,400.00	7,303.02	7,036.97	6,953.02	23.89	23.28	-132.38	-492.89	-832.03	1,893.81	1,859.52	34.29	55.234	
7,500.00	7,403.02	7,136.97	7,053.02	24.04	23.42	-132.38	-492.89	-832.03	1,893.81	1,859.14	34.67	54.618	
7,600.00	7,503.02	7,236.97	7,153.02	24.19	23.56	-132.38	-492.89	-832.03	1,893.81	1,858.75	35.06	54.014	
7,700.00	7,603.02	7,336.97	7,253.02	24.33	23.70	-132.38	-492.89	-832.03	1,893.81	1,858.36	35.45	53.421	
7,800.00	7,703.02	7,436.97	7,353.02	24.48	23.84	-132.38	-492.89	-832.03	1,893.81	1,857.97	35.84	52.839	
7,863.36	7,766.38	7,499.33	7,416.38	24.58	23.93	-132.38	-492.89	-832.03	1,893.81	1,857.72	36.09	52.475	
7,900.00	7,803.02	7,536.97	7,453.02	24.63	23.97	-132.38	-492.89	-832.03	1,893.83	1,857.62	36.22	52.293	
7,911.98	7,815.00	7,548.94	7,465.00	24.65	23.97	-132.38	-492.89	-832.03	1,893.93	1,857.69	36.24	52.261	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-89.38	1.08	-99.69	99.69				
100.00	100.00	100.00	100.00	0.10	0.10	-89.38	1.08	-99.69	99.69	99.50	0.19	521.809	
200.00	200.00	200.00	200.00	0.32	0.32	-89.38	1.08	-99.69	99.69	99.05	0.64	155.627	
300.00	300.00	300.00	300.00	0.55	0.55	-89.38	1.08	-99.69	99.69	98.60	1.09	91.451 CC, ES	
400.00	400.00	396.68	396.67	0.77	0.75	-89.59	0.73	-101.28	101.34	99.82	1.52	66.776	
500.00	500.00	493.15	493.00	0.99	0.96	-90.18	-0.33	-106.04	106.27	104.33	1.94	54.741	
600.00	600.00	589.18	588.69	1.22	1.19	-91.04	-2.06	-113.93	114.51	112.13	2.38	48.203	
700.00	700.00	684.56	683.40	1.44	1.45	-92.05	-4.48	-124.85	126.03	123.21	2.82	44.684	
750.00	750.00	731.94	730.31	1.56	1.60	-92.58	-5.92	-131.43	133.02	129.98	3.05	43.636	
800.00	800.00	779.04	776.81	1.67	1.75	-129.00	-7.53	-138.71	141.10	137.85	3.25	43.425 SF	
900.00	899.93	871.96	868.17	1.89	2.09	-130.60	-11.18	-155.26	161.37	157.68	3.68	43.798	
1,000.00	999.68	962.80	956.90	2.12	2.47	-132.54	-15.37	-174.23	187.18	183.07	4.12	45.457	
1,100.00	1,099.13	1,051.09	1,042.52	2.36	2.89	-134.51	-20.01	-195.29	218.58	214.03	4.55	48.029	
1,200.00	1,198.15	1,136.44	1,124.60	2.62	3.34	-136.31	-25.04	-218.08	255.52	250.53	4.99	51.240	
1,300.00	1,296.63	1,218.50	1,202.84	2.92	3.82	-137.87	-30.37	-242.25	297.84	292.41	5.43	54.883	
1,348.16	1,343.82	1,256.77	1,239.08	3.08	4.07	-138.52	-33.02	-254.26	320.09	314.44	5.64	56.733	
1,400.00	1,394.54	1,300.00	1,279.82	3.26	4.34	-139.54	-36.14	-268.40	345.05	339.16	5.89	58.547	
1,500.00	1,492.37	1,373.42	1,348.48	3.63	4.86	-140.96	-41.74	-293.78	395.14	388.77	6.37	62.027	
1,600.00	1,590.19	1,447.34	1,416.91	4.01	5.42	-142.08	-47.76	-321.06	447.66	440.80	6.86	65.246	
1,700.00	1,688.02	1,520.26	1,483.70	4.41	5.99	-142.94	-54.06	-349.64	502.42	495.06	7.36	68.271	
1,800.00	1,785.85	1,603.12	1,559.26	4.81	6.68	-143.73	-61.39	-382.85	558.08	550.18	7.89	70.689	
1,900.00	1,883.68	1,685.98	1,634.82	5.22	7.38	-144.38	-68.71	-416.05	613.80	605.36	8.44	72.731	
2,000.00	1,981.51	1,768.83	1,710.38	5.64	8.07	-144.91	-76.04	-449.26	669.56	660.57	8.99	74.474	
2,100.00	2,079.33	1,851.69	1,785.94	6.06	8.78	-145.37	-83.36	-482.46	725.36	715.81	9.55	75.974	
2,200.00	2,177.16	1,934.55	1,861.50	6.48	9.48	-145.76	-90.69	-515.67	781.18	771.08	10.11	77.275	
2,300.00	2,274.99	2,017.41	1,937.05	6.91	10.19	-146.10	-98.01	-548.87	837.03	826.36	10.67	78.411	
2,400.00	2,372.82	2,100.26	2,012.61	7.33	10.90	-146.40	-105.34	-582.08	892.90	881.65	11.24	79.409	
2,500.00	2,470.65	2,183.12	2,088.17	7.76	11.61	-146.66	-112.66	-615.28	948.78	936.96	11.82	80.288	
2,600.00	2,568.47	2,265.98	2,163.73	8.20	12.32	-146.89	-119.99	-648.48	1,004.67	992.28	12.39	81.071	
2,700.00	2,666.30	2,348.83	2,239.29	8.63	13.04	-147.10	-127.31	-681.69	1,060.57	1,047.60	12.97	81.771	
2,800.00	2,764.13	2,431.69	2,314.85	9.07	13.75	-147.28	-134.64	-714.89	1,116.48	1,102.93	13.55	82.400	
2,900.00	2,861.96	2,514.55	2,390.41	9.50	14.47	-147.45	-141.96	-748.10	1,172.40	1,158.27	14.13	82.967	
3,000.00	2,959.79	2,597.41	2,465.97	9.94	15.19	-147.61	-149.29	-781.30	1,228.32	1,213.61	14.71	83.481	
3,100.00	3,057.62	2,680.26	2,541.53	10.38	15.90	-147.75	-156.61	-814.51	1,284.25	1,268.95	15.30	83.949	
3,200.00	3,155.44	2,763.12	2,617.08	10.81	16.62	-147.88	-163.94	-847.71	1,340.19	1,324.30	15.88	84.375	
3,300.00	3,253.27	2,845.98	2,692.64	11.25	17.34	-147.99	-171.26	-880.92	1,396.13	1,379.66	16.47	84.766	
3,400.00	3,351.10	2,928.84	2,768.20	11.69	18.06	-148.10	-178.59	-914.12	1,452.07	1,435.01	17.06	85.126	
3,500.00	3,448.93	3,011.69	2,843.76	12.13	18.77	-148.21	-185.91	-947.32	1,508.01	1,490.37	17.65	85.457	
3,600.00	3,546.76	3,094.55	2,919.32	12.57	19.49	-148.30	-193.24	-980.53	1,563.96	1,545.73	18.24	85.763	
3,700.00	3,644.58	3,177.41	2,994.88	13.01	20.21	-148.39	-200.56	-1,013.73	1,619.92	1,601.09	18.83	86.047	
3,800.00	3,742.41	3,260.27	3,070.44	13.46	20.93	-148.47	-207.89	-1,046.94	1,675.87	1,656.45	19.42	86.311	
3,900.00	3,840.24	3,343.12	3,146.00	13.90	21.65	-148.54	-215.21	-1,080.14	1,731.83	1,711.82	20.01	86.556	
4,000.00	3,938.07	3,425.98	3,221.56	14.34	22.37	-148.62	-222.54	-1,113.35	1,787.78	1,767.18	20.60	86.786	
4,100.00	4,035.90	3,508.84	3,297.11	14.78	23.09	-148.68	-229.86	-1,146.55	1,843.74	1,822.55	21.19	87.000	
4,200.00	4,133.72	3,591.69	3,372.67	15.22	23.81	-148.75	-237.19	-1,179.76	1,899.71	1,877.92	21.79	87.201	
4,300.00	4,231.55	3,674.55	3,448.23	15.66	24.53	-148.81	-244.51	-1,212.96	1,955.67	1,933.29	22.38	87.390	
4,400.00	4,329.38	3,757.41	3,523.79	16.11	25.25	-148.86	-251.84	-1,246.16	2,011.63	1,988.66	22.97	87.567	
4,500.00	4,427.21	3,840.27	3,599.35	16.55	25.97	-148.92	-259.16	-1,279.37	2,067.60	2,044.03	23.57	87.734	
4,600.00	4,525.04	3,923.12	3,674.91	16.99	26.69	-148.97	-266.49	-1,312.57	2,123.57	2,099.41	24.16	87.892	
4,700.00	4,622.86	4,005.98	3,750.47	17.44	27.41	-149.01	-273.81	-1,345.78	2,179.54	2,154.78	24.76	88.042	
4,800.00	4,720.69	4,088.84	3,826.03	17.88	28.13	-149.06	-281.14	-1,378.98	2,235.50	2,210.15	25.35	88.183	
4,900.00	4,818.52	4,171.70	3,901.59	18.32	28.85	-149.10	-288.46	-1,412.19	2,291.47	2,265.53	25.95	88.316	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 12-12 - P_MIRACLE 12-12 - PLAN #1 3-23-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,916.35	4,254.55	3,977.14	18.77	29.57	-149.14	-295.79	-1,445.39	2,347.45	2,320.90	26.54	88.443	
5,100.00	5,014.18	4,337.41	4,052.70	19.21	30.30	-149.18	-303.11	-1,478.60	2,403.42	2,376.28	27.14	88.564	
5,200.00	5,112.01	4,420.27	4,128.26	19.65	31.02	-149.22	-310.44	-1,511.80	2,459.39	2,431.66	27.73	88.679	
5,300.00	5,209.83	4,503.13	4,203.82	20.10	31.74	-149.26	-317.76	-1,545.00	2,515.36	2,487.03	28.33	88.788	
5,400.00	5,307.66	4,585.98	4,279.38	20.54	32.46	-149.29	-325.09	-1,578.21	2,571.34	2,542.41	28.93	88.892	
5,413.82	5,321.18	4,597.43	4,289.82	20.60	32.56	-149.30	-326.10	-1,582.80	2,579.07	2,550.06	29.01	88.906	
5,500.00	5,405.75	4,669.46	4,355.51	20.93	33.19	-149.88	-332.47	-1,611.66	2,626.38	2,596.63	29.75	88.289	
5,600.00	5,504.44	4,754.55	4,433.10	21.22	33.93	-150.47	-339.99	-1,645.76	2,678.90	2,648.35	30.55	87.681	
5,700.00	5,603.64	4,841.14	4,512.06	21.48	34.68	-150.96	-347.65	-1,680.46	2,728.82	2,697.49	31.33	87.111	
5,800.00	5,703.22	4,929.15	4,592.32	21.70	35.45	-151.37	-355.43	-1,715.73	2,776.07	2,744.01	32.06	86.587	
5,900.00	5,803.05	5,018.46	4,673.76	21.87	36.22	-151.70	-363.32	-1,751.52	2,820.62	2,787.86	32.75	86.115	
6,000.00	5,903.02	5,108.96	4,756.29	22.00	37.01	-151.96	-371.32	-1,787.79	2,862.41	2,829.01	33.40	85.699	
6,011.98	5,915.00	5,119.87	4,766.24	22.02	37.11	-116.10	-372.29	-1,792.16	2,867.23	2,833.75	33.48	85.652	
6,100.00	6,003.02	5,200.15	4,839.44	22.12	37.81	-115.94	-379.38	-1,824.33	2,902.50	2,868.61	33.89	85.635	
6,200.00	6,103.02	5,291.34	4,922.60	22.25	38.60	-115.75	-387.45	-1,860.87	2,942.61	2,908.22	34.38	85.587	
6,300.00	6,203.02	5,382.53	5,005.76	22.38	39.39	-115.57	-395.51	-1,897.42	2,982.73	2,947.86	34.87	85.540	
6,400.00	6,303.02	5,473.72	5,088.92	22.51	40.19	-115.39	-403.57	-1,933.96	3,022.88	2,987.53	35.36	85.496	
6,500.00	6,403.02	5,564.91	5,172.08	22.64	40.98	-115.21	-411.62	-1,970.49	3,062.99	3,027.64	35.85	85.452	
6,600.00	6,503.02	5,656.10	5,255.23	22.77	41.77	-115.03	-419.67	-2,007.02	3,103.10	3,067.75	36.34	85.408	
6,700.00	6,603.02	5,747.29	5,338.37	22.91	42.56	-114.85	-427.72	-2,042.55	3,143.21	3,107.86	36.83	85.364	
6,800.00	6,703.02	5,838.48	5,421.51	23.05	43.35	-114.67	-435.77	-2,078.08	3,183.32	3,147.97	37.32	85.320	
6,900.00	6,803.02	5,929.67	5,504.65	23.18	44.14	-114.49	-443.82	-2,113.61	3,223.43	3,188.08	37.81	85.276	
7,000.00	6,903.02	6,020.86	5,587.79	23.32	44.93	-114.31	-451.87	-2,149.14	3,263.54	3,228.19	38.30	85.232	
7,100.00	7,003.02	6,112.05	5,670.93	23.46	45.72	-114.13	-459.92	-2,184.67	3,303.65	3,268.30	38.79	85.188	
7,200.00	7,103.02	6,203.24	5,754.07	23.61	46.51	-113.95	-467.97	-2,220.20	3,343.76	3,308.41	39.28	85.144	
7,300.00	7,203.02	6,294.43	5,837.21	23.75	47.30	-113.77	-476.02	-2,255.73	3,383.87	3,348.52	39.77	85.100	
7,400.00	7,303.02	6,385.62	5,920.35	23.89	48.09	-113.59	-484.07	-2,291.26	3,423.98	3,388.63	40.26	85.056	
7,500.00	7,403.02	6,476.81	6,003.49	24.04	48.88	-113.41	-492.12	-2,326.79	3,464.09	3,428.74	40.75	85.012	
7,600.00	7,503.02	6,568.00	6,086.63	24.19	49.67	-113.23	-500.17	-2,362.32	3,504.20	3,468.85	41.24	84.968	
7,700.00	7,603.02	6,659.19	6,169.77	24.33	50.46	-113.05	-508.22	-2,397.85	3,544.31	3,508.96	41.73	84.924	
7,800.00	7,703.02	6,750.38	6,252.91	24.48	51.25	-112.87	-516.27	-2,433.38	3,584.42	3,549.07	42.22	84.880	
7,861.23	7,764.25	6,803.57	6,306.05	24.58	51.99	-112.69	-524.32	-2,468.91	3,624.53	3,589.18	42.71	84.836	
7,900.00	7,803.02	6,894.76	6,389.19	24.63	52.78	-112.51	-532.37	-2,504.44	3,664.64	3,629.29	43.20	84.792	
7,911.98	7,815.00	6,906.95	6,401.38	24.65	52.99	-112.49	-534.41	-2,508.97	3,669.17	3,633.82	43.24	84.795	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 13-12 - P_MIRACLE 13-12 - PLAN #1 3-23-10 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	-89.18	0.72	-49.84	49.85					
100.00	100.00	100.00	100.00	0.10	0.10	-89.18	0.72	-49.84	49.85	49.66	0.19	260.916		
200.00	200.00	200.00	200.00	0.32	0.32	-89.18	0.72	-49.84	49.85	49.21	0.64	77.817		
233.48	233.48	233.48	233.48	0.40	0.40	-89.18	0.72	-49.84	49.85	49.06	0.79	63.011 CC, ES		
300.00	300.00	299.34	299.34	0.55	0.53	-89.49	0.45	-50.17	50.18	49.10	1.08	46.556		
400.00	400.00	397.90	397.83	0.77	0.73	-91.84	-1.70	-52.80	52.87	51.38	1.50	35.333		
500.00	500.00	496.11	495.80	0.99	0.96	-95.87	-5.96	-58.03	58.48	56.56	1.93	30.330		
600.00	600.00	593.74	592.92	1.22	1.21	-100.60	-12.31	-65.80	67.31	64.95	2.37	28.420		
700.00	700.00	690.58	688.84	1.44	1.51	-105.20	-20.67	-76.04	79.58	76.76	2.82	28.237 SF		
750.00	750.00	738.63	736.27	1.56	1.68	-107.31	-25.57	-82.05	87.03	83.98	3.05	28.539		
800.00	800.00	786.33	783.21	1.67	1.85	-145.18	-30.94	-88.62	95.71	92.42	3.29	29.061		
900.00	899.93	880.19	875.12	1.89	2.23	-149.11	-42.94	-103.32	117.89	114.16	3.74	31.558		
1,000.00	999.68	971.50	963.90	2.12	2.65	-152.55	-56.44	-119.85	146.55	142.38	4.17	35.150		
1,100.00	1,099.13	1,059.77	1,049.03	2.36	3.11	-155.35	-71.18	-137.91	181.57	176.97	4.59	39.524		
1,200.00	1,198.15	1,144.57	1,130.10	2.62	3.59	-157.53	-86.89	-157.17	222.69	217.68	5.01	44.459		
1,300.00	1,296.63	1,225.54	1,206.80	2.92	4.10	-159.20	-103.31	-177.28	269.61	264.20	5.41	49.799		
1,348.16	1,343.82	1,263.08	1,242.10	3.08	4.35	-159.85	-111.39	-187.17	294.18	288.57	5.61	52.472		
1,400.00	1,394.54	1,300.00	1,276.65	3.26	4.60	-160.61	-119.61	-197.24	321.63	315.81	5.82	55.220		
1,500.00	1,492.37	1,376.98	1,348.13	3.63	5.16	-161.89	-137.66	-219.36	376.36	370.09	6.27	59.993		
1,600.00	1,590.19	1,448.80	1,414.12	4.01	5.72	-162.81	-155.60	-241.33	433.32	426.60	6.72	64.511		
1,700.00	1,688.02	1,518.14	1,477.12	4.41	6.29	-163.51	-173.90	-263.75	492.36	485.20	7.16	68.768		
1,800.00	1,785.85	1,585.04	1,537.24	4.81	6.87	-164.06	-192.47	-286.49	553.35	545.74	7.60	72.786		
1,900.00	1,883.68	1,649.57	1,594.55	5.22	7.46	-164.50	-211.21	-309.45	616.17	608.13	8.04	76.597		
2,000.00	1,981.51	1,711.78	1,649.17	5.64	8.05	-164.85	-230.05	-332.53	680.72	672.24	8.48	80.259		
2,100.00	2,079.33	1,776.94	1,705.72	6.06	8.69	-165.17	-250.52	-357.61	746.81	737.88	8.93	83.612		
2,200.00	2,177.16	1,851.60	1,770.35	6.48	9.45	-165.47	-274.15	-386.56	813.27	803.85	9.41	86.397		
2,300.00	2,274.99	1,926.27	1,834.99	6.91	10.20	-165.72	-297.79	-415.51	879.73	869.83	9.90	88.895		
2,400.00	2,372.82	2,000.93	1,899.63	7.33	10.96	-165.94	-321.42	-444.46	946.20	935.82	10.38	91.137		
2,500.00	2,470.65	2,075.59	1,964.27	7.76	11.72	-166.13	-345.06	-473.41	1,012.68	1,001.81	10.87	93.146		
2,600.00	2,568.47	2,150.26	2,028.90	8.20	12.48	-166.30	-368.69	-502.37	1,079.16	1,067.80	11.36	94.968		
2,700.00	2,666.30	2,224.92	2,093.54	8.63	13.24	-166.45	-392.32	-531.32	1,145.65	1,133.79	11.86	96.626		
2,800.00	2,764.13	2,299.59	2,158.18	9.07	14.00	-166.58	-415.96	-560.27	1,212.14	1,199.79	12.35	98.139		
2,900.00	2,861.96	2,374.25	2,222.82	9.50	14.77	-166.70	-439.59	-589.22	1,278.64	1,265.79	12.85	99.519		
3,000.00	2,959.79	2,448.91	2,287.45	9.94	15.53	-166.80	-463.22	-618.17	1,345.13	1,331.79	13.35	100.788		
3,100.00	3,057.62	2,523.58	2,352.09	10.38	16.30	-166.90	-486.86	-647.12	1,411.63	1,397.79	13.85	101.958		
3,200.00	3,155.44	2,598.24	2,416.73	10.81	17.07	-166.99	-510.49	-676.07	1,478.14	1,463.79	14.35	103.039		
3,300.00	3,253.27	2,672.91	2,481.37	11.25	17.84	-167.07	-534.12	-705.02	1,544.64	1,529.79	14.85	104.038		
3,400.00	3,351.10	2,747.57	2,546.00	11.69	18.61	-167.14	-557.76	-733.97	1,611.15	1,595.80	15.35	104.967		
3,500.00	3,448.93	2,822.23	2,610.64	12.13	19.37	-167.21	-581.39	-762.92	1,677.65	1,661.80	15.85	105.833		
3,600.00	3,546.76	2,896.90	2,675.28	12.57	20.14	-167.27	-605.02	-791.88	1,744.16	1,727.81	16.36	106.641		
3,700.00	3,644.58	2,971.56	2,739.92	13.01	20.91	-167.33	-628.66	-820.83	1,810.67	1,793.81	16.86	107.395		
3,800.00	3,742.41	3,046.23	2,804.55	13.46	21.68	-167.38	-652.29	-849.78	1,877.18	1,859.82	17.36	108.102		
3,900.00	3,840.24	3,120.89	2,869.19	13.90	22.45	-167.43	-675.92	-878.73	1,943.69	1,925.82	17.87	108.766		
4,000.00	3,938.07	3,195.56	2,933.83	14.34	23.22	-167.48	-699.56	-907.68	2,010.20	1,991.83	18.38	109.391		
4,100.00	4,035.90	3,270.22	2,998.47	14.78	24.00	-167.53	-723.19	-936.63	2,076.72	2,057.83	18.88	109.979		
4,200.00	4,133.72	3,344.88	3,063.11	15.22	24.77	-167.57	-746.82	-965.58	2,143.23	2,123.84	19.39	110.534		
4,300.00	4,231.55	3,419.55	3,127.74	15.66	25.54	-167.61	-770.46	-994.53	2,209.74	2,189.85	19.90	111.059		
4,400.00	4,329.38	3,494.21	3,192.38	16.11	26.31	-167.64	-794.09	-1,023.48	2,276.26	2,255.85	20.40	111.556		
4,500.00	4,427.21	3,568.88	3,257.02	16.55	27.08	-167.68	-817.72	-1,052.43	2,342.77	2,321.86	20.91	112.026		
4,600.00	4,525.04	3,643.54	3,321.66	16.99	27.85	-167.71	-841.36	-1,081.39	2,409.29	2,387.87	21.42	112.473		
4,700.00	4,622.86	3,718.20	3,386.29	17.44	28.63	-167.74	-864.99	-1,110.34	2,475.80	2,453.87	21.93	112.897		
4,800.00	4,720.69	3,792.87	3,450.93	17.88	29.40	-167.77	-888.62	-1,139.29	2,542.32	2,519.88	22.44	113.301		

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 13-12 - P_MIRACLE 13-12 - PLAN #1 3-23-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,818.52	3,867.53	3,515.57	18.32	30.17	-167.80	-912.26	-1,168.24	2,608.83	2,585.89	22.95	113.686	
5,000.00	4,916.35	3,942.20	3,580.21	18.77	30.94	-167.82	-935.89	-1,197.19	2,675.35	2,651.89	23.46	114.052	
5,100.00	5,014.18	4,016.86	3,644.84	19.21	31.71	-167.85	-959.52	-1,226.14	2,741.87	2,717.90	23.97	114.403	
5,200.00	5,112.01	4,091.52	3,709.48	19.65	32.49	-167.87	-983.16	-1,255.09	2,808.39	2,783.91	24.48	114.737	
5,300.00	5,209.83	4,166.19	3,774.12	20.10	33.26	-167.89	-1,006.79	-1,284.04	2,874.90	2,849.92	24.99	115.057	
5,400.00	5,307.66	4,240.85	3,838.76	20.54	34.03	-167.92	-1,030.42	-1,312.99	2,941.42	2,915.92	25.50	115.364	
5,413.82	5,321.18	4,251.17	3,847.69	20.60	34.14	-167.92	-1,033.69	-1,316.99	2,950.61	2,925.04	25.57	115.405	
5,500.00	5,405.75	4,316.35	3,904.12	20.93	34.81	-168.24	-1,054.32	-1,342.27	3,006.98	2,980.73	26.25	114.550	
5,600.00	5,504.44	4,394.03	3,971.36	21.22	35.62	-168.56	-1,078.91	-1,372.39	3,069.95	3,042.95	27.00	113.683	
5,700.00	5,603.64	4,473.81	4,040.43	21.48	36.44	-168.84	-1,104.16	-1,403.32	3,130.23	3,102.49	27.74	112.844	
5,800.00	5,703.22	4,555.60	4,111.24	21.70	37.29	-169.07	-1,130.05	-1,435.04	3,187.74	3,159.29	28.45	112.038	
5,900.00	5,803.05	4,639.29	4,183.69	21.87	38.16	-169.27	-1,156.54	-1,467.49	3,242.41	3,213.27	29.14	111.268	
6,000.00	5,903.02	4,724.79	4,257.71	22.00	39.04	-169.43	-1,183.61	-1,500.64	3,294.19	3,264.38	29.80	110.536	
6,011.98	5,915.00	4,735.15	4,266.68	22.02	39.15	-133.57	-1,186.88	-1,504.66	3,300.19	3,270.31	29.88	110.450	
6,100.00	6,003.02	4,811.35	4,332.65	22.12	39.94	-133.51	-1,211.01	-1,534.21	3,344.15	3,313.85	30.31	110.339	
6,200.00	6,103.02	4,897.92	4,407.59	22.25	40.84	-133.45	-1,238.41	-1,567.77	3,394.11	3,363.29	30.81	110.156	
6,300.00	6,203.02	4,984.50	4,482.54	22.38	41.73	-133.39	-1,265.81	-1,601.34	3,444.06	3,412.74	31.32	109.976	
6,400.00	6,303.02	5,071.07	4,557.48	22.51	42.63	-133.33	-1,293.21	-1,634.91	3,494.02	3,462.19	31.82	109.800	
6,500.00	6,403.02	5,157.64	4,632.43	22.64	43.53	-133.27	-1,320.61	-1,668.48	3,543.98	3,511.65	32.33	109.626	
6,600.00	6,503.02	5,244.21	4,707.38	22.77	44.42	-133.21	-1,348.02	-1,702.05	3,593.94	3,561.10	32.83	109.455	
6,700.00	6,603.02	5,330.78	4,782.32	22.91	45.32	-133.16	-1,375.42	-1,735.61	3,643.90	3,610.56	33.34	109.286	
6,800.00	6,703.02	5,417.35	4,857.27	23.05	46.22	-133.10	-1,402.82	-1,769.18	3,693.87	3,660.02	33.85	109.121	
6,900.00	6,803.02	5,503.92	4,932.21	23.18	47.11	-133.05	-1,430.22	-1,802.75	3,743.84	3,709.48	34.36	108.958	
7,000.00	6,903.02	5,590.49	5,007.16	23.32	48.01	-133.00	-1,457.63	-1,836.32	3,793.81	3,758.94	34.87	108.798	
7,100.00	7,003.02	5,676.93	5,082.10	23.46	48.91	-132.94	-1,485.03	-1,869.79	3,844.78	3,810.00	35.38	108.638	
7,200.00	7,103.02	5,763.36	5,157.04	23.61	49.81	-132.89	-1,512.43	-1,902.86	3,895.75	3,860.02	35.89	108.478	
7,300.00	7,203.02	5,849.79	5,232.08	23.75	50.71	-132.84	-1,539.83	-1,939.93	3,946.72	3,910.00	36.40	108.318	
7,400.00	7,303.02	5,936.22	5,307.12	23.89	51.61	-132.79	-1,567.23	-1,977.00	3,997.69	3,960.00	36.91	108.158	
7,500.00	7,403.02	6,022.65	5,382.16	24.04	52.51	-132.74	-1,594.63	-2,014.07	4,048.66	4,000.00	37.42	107.998	
7,600.00	7,503.02	6,109.08	5,457.20	24.19	53.41	-132.69	-1,622.03	-2,051.14	4,099.63	4,050.00	37.93	107.838	
7,700.00	7,603.02	6,195.51	5,532.24	24.33	54.31	-132.64	-1,649.43	-2,088.21	4,150.60	4,100.00	38.44	107.678	
7,800.00	7,703.02	6,281.94	5,607.28	24.48	55.21	-132.59	-1,676.83	-2,125.28	4,201.57	4,150.00	38.95	107.518	
7,853.04	7,756.06	6,368.37	5,682.32	24.56	55.74	-132.54	-1,704.23	-2,162.35	4,252.54	4,200.00	39.46	107.358	
7,900.00	7,803.02	6,454.80	5,757.36	24.63	56.27	-132.49	-1,731.63	-2,199.42	4,303.51	4,250.00	39.97	107.198	
7,911.98	7,815.00	6,461.31	5,774.00	24.65	57.75	-132.49	-1,786.06	-2,238.65	4,304.74	4,250.00	40.00	107.198	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-89.50	0.35	-39.82	39.82				
100.00	100.00	100.00	100.00	0.10	0.10	-89.50	0.35	-39.82	39.82	39.63	0.19	208.428	
200.00	200.00	200.00	200.00	0.32	0.32	-89.50	0.35	-39.82	39.82	39.18	0.64	62.163	
300.00	300.00	300.00	300.00	0.55	0.55	-89.50	0.35	-39.82	39.82	38.73	1.09	36.529 CC, ES	
400.00	400.00	399.40	399.38	0.77	0.74	-91.73	-1.22	-40.53	40.55	39.04	1.51	26.791	
500.00	500.00	498.56	498.41	0.99	0.94	-97.90	-5.92	-42.65	43.09	41.16	1.93	22.329	
600.00	600.00	597.25	596.72	1.22	1.17	-106.52	-13.69	-46.17	48.27	45.91	2.36	20.459	
700.00	700.00	695.24	693.99	1.44	1.44	-115.61	-24.46	-51.03	56.91	54.11	2.80	20.358 SF	
750.00	750.00	743.90	742.13	1.56	1.59	-119.82	-30.93	-53.96	62.69	59.67	3.02	20.773	
800.00	800.00	792.23	789.81	1.67	1.75	-159.62	-38.09	-57.20	69.87	66.59	3.29	21.261	
900.00	899.93	887.41	883.31	1.89	2.10	-166.45	-54.34	-64.54	89.74	86.01	3.73	24.065	
1,000.00	999.68	980.13	973.76	2.12	2.49	-171.54	-72.87	-72.92	116.78	112.62	4.16	28.061	
1,100.00	1,099.13	1,069.86	1,060.62	2.36	2.93	-175.13	-93.34	-82.17	150.64	146.05	4.59	32.853	
1,200.00	1,198.15	1,156.12	1,143.43	2.62	3.38	-177.66	-115.35	-92.12	190.87	185.87	5.00	38.186	
1,300.00	1,296.63	1,238.55	1,221.85	2.92	3.87	-179.46	-138.49	-102.59	237.08	231.68	5.40	43.899	
1,348.16	1,343.82	1,276.79	1,257.97	3.08	4.10	179.85	-149.93	-107.75	261.35	255.77	5.59	46.758	
1,400.00	1,394.54	1,317.07	1,295.84	3.26	4.36	179.22	-162.44	-113.41	288.48	282.67	5.82	49.590	
1,500.00	1,492.37	1,392.81	1,366.50	3.63	4.87	178.24	-187.29	-124.64	342.58	336.32	6.26	54.732	
1,600.00	1,590.19	1,465.98	1,434.05	4.01	5.41	177.47	-212.90	-136.22	398.87	392.17	6.70	59.493	
1,700.00	1,688.02	1,542.49	1,504.04	4.41	5.99	176.82	-241.08	-148.96	456.97	449.81	7.16	63.784	
1,800.00	1,785.85	1,623.61	1,578.15	4.81	6.62	176.27	-271.13	-162.55	515.32	507.68	7.64	67.429	
1,900.00	1,883.68	1,704.73	1,652.26	5.22	7.26	175.83	-301.18	-176.13	573.70	565.58	8.13	70.606	
2,000.00	1,981.51	1,785.86	1,726.38	5.64	7.90	175.48	-331.24	-189.72	632.10	623.49	8.61	73.387	
2,100.00	2,079.33	1,866.98	1,800.49	6.06	8.54	175.18	-361.29	-203.31	690.51	681.40	9.10	75.843	
2,200.00	2,177.16	1,948.10	1,874.61	6.48	9.19	174.94	-391.34	-216.89	748.93	739.33	9.60	78.026	
2,300.00	2,274.99	2,029.22	1,948.72	6.91	9.83	174.72	-421.39	-230.48	807.36	797.26	10.09	79.978	
2,400.00	2,372.82	2,110.34	2,022.83	7.33	10.48	174.54	-451.45	-244.06	865.79	855.20	10.59	81.732	
2,500.00	2,470.65	2,191.46	2,096.95	7.76	11.13	174.38	-481.50	-257.65	924.23	913.14	11.09	83.314	
2,600.00	2,568.47	2,272.58	2,171.06	8.20	11.78	174.24	-511.55	-271.24	982.67	971.08	11.60	84.746	
2,700.00	2,666.30	2,353.70	2,245.18	8.63	12.43	174.11	-541.61	-284.82	1,041.12	1,029.02	12.10	86.051	
2,800.00	2,764.13	2,434.83	2,319.29	9.07	13.08	174.00	-571.66	-298.41	1,099.57	1,086.97	12.60	87.243	
2,900.00	2,861.96	2,515.95	2,393.41	9.50	13.73	173.90	-601.71	-312.00	1,158.02	1,144.92	13.11	88.337	
3,000.00	2,959.79	2,597.07	2,467.52	9.94	14.38	173.80	-631.76	-325.58	1,216.48	1,202.86	13.62	89.343	
3,100.00	3,057.62	2,678.19	2,541.63	10.38	15.04	173.72	-661.82	-339.17	1,274.94	1,260.81	14.12	90.271	
3,200.00	3,155.44	2,759.31	2,615.75	10.81	15.69	173.65	-691.87	-352.75	1,333.39	1,318.76	14.63	91.130	
3,300.00	3,253.27	2,840.43	2,689.86	11.25	16.34	173.58	-721.92	-366.34	1,391.85	1,376.71	15.14	91.927	
3,400.00	3,351.10	2,921.55	2,763.98	11.69	17.00	173.51	-751.98	-379.93	1,450.32	1,434.66	15.65	92.669	
3,500.00	3,448.93	3,002.67	2,838.09	12.13	17.65	173.45	-782.03	-393.51	1,508.78	1,492.62	16.16	93.361	
3,600.00	3,546.76	3,083.80	2,912.20	12.57	18.31	173.40	-812.08	-407.10	1,567.24	1,550.57	16.67	94.007	
3,700.00	3,644.58	3,164.92	2,986.32	13.01	18.96	173.35	-842.13	-420.68	1,625.70	1,608.52	17.18	94.613	
3,800.00	3,742.41	3,246.04	3,060.43	13.46	19.62	173.30	-872.19	-434.27	1,684.17	1,666.47	17.69	95.181	
3,900.00	3,840.24	3,327.16	3,134.55	13.90	20.27	173.26	-902.24	-447.86	1,742.63	1,724.43	18.21	95.715	
4,000.00	3,938.07	3,408.28	3,208.66	14.34	20.93	173.22	-932.29	-461.44	1,801.10	1,782.38	18.72	96.218	
4,100.00	4,035.90	3,489.40	3,282.78	14.78	21.58	173.18	-962.35	-475.03	1,859.57	1,840.34	19.23	96.693	
4,200.00	4,133.72	3,570.52	3,356.89	15.22	22.24	173.14	-992.40	-488.62	1,918.03	1,898.29	19.74	97.141	
4,300.00	4,231.55	3,651.65	3,431.00	15.66	22.89	173.11	-1,022.45	-502.20	1,976.50	1,956.24	20.26	97.566	
4,400.00	4,329.38	3,732.77	3,505.12	16.11	23.55	173.08	-1,052.50	-515.79	2,034.97	2,014.20	20.77	97.968	
4,500.00	4,427.21	3,813.89	3,579.23	16.55	24.20	173.05	-1,082.56	-529.37	2,093.44	2,072.15	21.29	98.350	
4,600.00	4,525.04	3,895.01	3,653.35	16.99	24.86	173.02	-1,112.61	-542.96	2,151.91	2,130.11	21.80	98.713	
4,700.00	4,622.86	3,976.13	3,727.46	17.44	25.52	172.99	-1,142.66	-556.55	2,210.38	2,188.06	22.31	99.058	
4,800.00	4,720.69	4,057.25	3,801.57	17.88	26.17	172.96	-1,172.72	-570.13	2,268.85	2,246.02	22.83	99.386	
4,900.00	4,818.52	4,138.37	3,875.69	18.32	26.83	172.94	-1,202.77	-583.72	2,327.32	2,303.97	23.34	99.700	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 14-12 - P_MIRACLE 14-12 - PLAN #1 3-23-10 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
5,000.00	4,916.35	4,219.49	3,949.80	18.77	27.48	172.92	-1,232.82	-597.31	2,385.79	2,361.93	23.86	99.999	
5,100.00	5,014.18	4,300.62	4,023.92	19.21	28.14	172.89	-1,262.87	-610.89	2,444.26	2,419.88	24.37	100.285	
5,200.00	5,112.01	4,381.74	4,098.03	19.65	28.80	172.87	-1,292.93	-624.48	2,502.73	2,477.84	24.89	100.558	
5,300.00	5,209.83	4,462.86	4,172.14	20.10	29.45	172.85	-1,322.98	-638.06	2,561.20	2,535.79	25.40	100.820	
5,400.00	5,307.66	4,543.98	4,246.26	20.54	30.11	172.83	-1,353.03	-651.65	2,619.67	2,593.75	25.92	101.071	
5,413.82	5,321.18	4,555.19	4,256.50	20.60	30.20	172.83	-1,357.19	-653.53	2,627.75	2,601.76	25.99	101.104	
5,500.00	5,405.75	4,625.84	4,321.05	20.93	30.77	172.96	-1,383.36	-665.36	2,677.09	2,650.44	26.65	100.450	
5,600.00	5,504.44	4,709.62	4,397.59	21.22	31.45	173.09	-1,414.40	-679.39	2,731.67	2,704.30	27.37	99.810	
5,700.00	5,603.64	4,795.23	4,475.80	21.48	32.14	173.19	-1,446.11	-693.73	2,783.31	2,755.25	28.06	99.192	
5,800.00	5,703.22	4,882.57	4,555.60	21.70	32.85	173.27	-1,478.47	-708.36	2,831.96	2,803.23	28.72	98.596	
5,900.00	5,803.05	4,971.53	4,636.88	21.87	33.57	173.33	-1,511.43	-723.26	2,877.55	2,848.19	29.36	98.023	
6,000.00	5,903.02	5,062.00	4,719.53	22.00	34.30	173.38	-1,544.94	-738.41	2,920.03	2,890.07	29.96	97.473	
6,011.98	5,915.00	5,072.93	4,729.52	22.02	34.39	-150.73	-1,548.99	-740.24	2,924.90	2,894.88	30.03	97.408	
6,100.00	6,003.02	5,153.35	4,803.00	22.12	35.04	-150.79	-1,578.79	-753.71	2,960.58	2,930.13	30.45	97.229	
6,200.00	6,103.02	6,489.75	6,103.02	22.25	39.22	-151.21	-1,811.28	-858.81	2,960.77	2,927.25	33.52	88.318	
6,300.00	6,203.02	6,589.75	6,203.02	22.38	39.28	-151.21	-1,811.28	-858.81	2,960.77	2,926.93	33.84	87.485	
6,400.00	6,303.02	6,689.75	6,303.02	22.51	39.34	-151.21	-1,811.28	-858.81	2,960.77	2,926.60	34.17	86.660	
6,500.00	6,403.02	6,789.75	6,403.02	22.64	39.40	-151.21	-1,811.28	-858.81	2,960.77	2,926.28	34.49	85.844	
6,600.00	6,503.02	6,889.75	6,503.02	22.77	39.46	-151.21	-1,811.28	-858.81	2,960.77	2,925.95	34.82	85.037	
6,700.00	6,603.02	6,989.75	6,603.02	22.91	39.53	-151.21	-1,811.28	-858.81	2,960.77	2,925.62	35.15	84.239	
6,800.00	6,703.02	7,089.75	6,703.02	23.05	39.59	-151.21	-1,811.28	-858.81	2,960.77	2,925.29	35.48	83.450	
6,900.00	6,803.02	7,189.75	6,803.02	23.18	39.66	-151.21	-1,811.28	-858.81	2,960.77	2,924.96	35.81	82.671	
7,000.00	6,903.02	7,289.75	6,903.02	23.32	39.73	-151.21	-1,811.28	-858.81	2,960.77	2,924.62	36.15	81.900	
7,100.00	7,003.02	7,389.75	7,003.02	23.46	39.79	-151.21	-1,811.28	-858.81	2,960.77	2,924.28	36.49	81.139	
7,200.00	7,103.02	7,489.75	7,103.02	23.61	39.86	-151.21	-1,811.28	-858.81	2,960.77	2,923.94	36.83	80.387	
7,300.00	7,203.02	7,589.75	7,203.02	23.75	39.93	-151.21	-1,811.28	-858.81	2,960.77	2,923.59	37.17	79.645	
7,400.00	7,303.02	7,689.75	7,303.02	23.89	40.01	-151.21	-1,811.28	-858.81	2,960.77	2,923.25	37.52	78.911	
7,500.00	7,403.02	7,789.75	7,403.02	24.04	40.08	-151.21	-1,811.28	-858.81	2,960.77	2,922.90	37.87	78.187	
7,600.00	7,503.02	7,889.75	7,503.02	24.19	40.15	-151.21	-1,811.28	-858.81	2,960.77	2,922.55	38.22	77.472	
7,700.00	7,603.02	7,989.75	7,603.02	24.33	40.23	-151.21	-1,811.28	-858.81	2,960.77	2,922.20	38.57	76.766	
7,800.00	7,703.02	8,089.75	7,703.02	24.48	40.30	-151.21	-1,811.28	-858.81	2,960.77	2,921.85	38.92	76.069	
7,859.34	7,762.36	8,149.09	7,762.36	24.57	40.35	-151.21	-1,811.28	-858.81	2,960.77	2,921.64	39.13	75.659	
7,900.00	7,803.02	8,171.73	7,785.00	24.63	40.37	-151.21	-1,811.28	-858.81	2,960.82	2,921.57	39.25	75.435	
7,911.98	7,815.00	8,171.73	7,785.00	24.65	40.37	-151.21	-1,811.28	-858.81	2,960.92	2,921.65	39.27	75.390	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-88.99	0.35	-19.77	19.77				
100.00	100.00	100.00	100.00	0.10	0.10	-88.99	0.35	-19.77	19.77	19.58	0.19	103.497	
200.00	200.00	200.00	200.00	0.32	0.32	-88.99	0.35	-19.77	19.77	19.13	0.64	30.868	
300.00	300.00	300.00	300.00	0.55	0.55	-88.99	0.35	-19.77	19.77	18.68	1.09	18.139	
400.00	400.00	400.16	400.14	0.77	0.75	-93.95	-1.33	-19.28	19.33	17.81	1.52	12.756	
483.37	483.37	483.49	483.37	0.96	0.91	-106.27	-5.29	-18.12	18.88	17.01	1.87	10.117 CC	
500.00	500.00	500.08	499.92	0.99	0.94	-109.64	-6.36	-17.81	18.91	16.98	1.94	9.770 ES	
600.00	600.00	599.52	598.97	1.22	1.17	-133.63	-14.67	-15.39	21.28	18.91	2.37	8.987 SF	
700.00	700.00	698.24	696.96	1.44	1.44	-155.33	-26.18	-12.03	28.97	26.17	2.80	10.347	
750.00	750.00	747.26	745.44	1.56	1.60	-163.18	-33.10	-10.01	34.88	31.85	3.02	11.538	
800.00	800.00	795.96	793.49	1.67	1.76	155.09	-40.76	-7.77	42.39	39.11	3.28	12.918	
900.00	899.93	892.08	887.88	1.89	2.12	148.42	-58.18	-2.68	62.73	59.01	3.72	16.851	
1,000.00	999.68	986.06	979.52	2.12	2.52	145.50	-78.13	3.14	89.33	85.16	4.17	21.419	
1,100.00	1,099.13	1,077.45	1,067.95	2.36	2.97	144.24	-100.30	9.61	121.70	117.07	4.63	26.304	
1,200.00	1,198.15	1,165.87	1,152.75	2.62	3.45	143.71	-124.31	16.62	159.54	154.44	5.09	31.337	
1,300.00	1,296.63	1,250.98	1,233.61	2.92	3.95	143.49	-149.78	24.06	202.60	197.03	5.56	36.408	
1,348.16	1,343.82	1,290.71	1,271.08	3.08	4.20	143.42	-162.46	27.76	225.12	219.33	5.79	38.849	
1,400.00	1,394.54	1,332.69	1,310.47	3.26	4.48	143.65	-176.40	31.83	250.31	244.24	6.07	41.237	
1,500.00	1,492.37	1,411.86	1,384.15	3.63	5.03	143.86	-204.18	39.94	300.64	294.04	6.61	45.511	
1,600.00	1,590.19	1,490.16	1,456.23	4.01	5.61	143.88	-233.54	48.51	353.17	346.01	7.16	49.355	
1,700.00	1,688.02	1,574.79	1,533.84	4.41	6.27	143.86	-265.95	57.98	406.43	398.69	7.74	52.517	
1,800.00	1,785.85	1,659.43	1,611.46	4.81	6.93	143.85	-298.35	67.44	459.69	451.35	8.33	55.178	
1,900.00	1,883.68	1,744.07	1,689.07	5.22	7.59	143.84	-330.76	76.90	512.95	504.02	8.93	57.437	
2,000.00	1,981.51	1,828.70	1,766.68	5.64	8.25	143.83	-363.17	86.36	566.21	556.67	9.54	59.375	
2,100.00	2,079.33	1,913.34	1,844.29	6.06	8.92	143.82	-395.57	95.82	619.47	609.32	10.15	61.050	
2,200.00	2,177.16	1,997.98	1,921.90	6.48	9.59	143.81	-427.98	105.28	672.73	661.96	10.76	62.512	
2,300.00	2,274.99	2,082.61	1,999.52	6.91	10.26	143.81	-460.39	114.74	725.99	714.61	11.38	63.794	
2,400.00	2,372.82	2,167.25	2,077.13	7.33	10.94	143.80	-492.79	124.20	779.25	767.25	12.00	64.928	
2,500.00	2,470.65	2,251.89	2,154.74	7.76	11.61	143.80	-525.20	133.67	832.51	819.88	12.63	65.938	
2,600.00	2,568.47	2,336.52	2,232.35	8.20	12.28	143.80	-557.61	143.13	885.77	872.52	13.25	66.843	
2,700.00	2,666.30	2,421.16	2,309.96	8.63	12.96	143.79	-590.02	152.59	939.03	925.15	13.88	67.656	
2,800.00	2,764.13	2,505.80	2,387.58	9.07	13.64	143.79	-622.42	162.05	992.29	977.78	14.51	68.392	
2,900.00	2,861.96	2,590.43	2,465.19	9.50	14.31	143.79	-654.83	171.51	1,045.55	1,030.41	15.14	69.059	
3,000.00	2,959.79	2,675.07	2,542.80	9.94	14.99	143.79	-687.24	180.97	1,098.81	1,083.04	15.77	69.668	
3,100.00	3,057.62	2,759.71	2,620.41	10.38	15.67	143.78	-719.64	190.43	1,152.07	1,135.66	16.41	70.225	
3,200.00	3,155.44	2,844.34	2,698.02	10.81	16.35	143.78	-752.05	199.89	1,205.33	1,188.29	17.04	70.736	
3,300.00	3,253.27	2,928.98	2,775.64	11.25	17.03	143.78	-784.46	209.36	1,258.59	1,240.91	17.67	71.208	
3,400.00	3,351.10	3,013.62	2,853.25	11.69	17.70	143.78	-816.86	218.82	1,311.85	1,293.54	18.31	71.643	
3,500.00	3,448.93	3,098.25	2,930.86	12.13	18.38	143.78	-849.27	228.28	1,365.11	1,346.16	18.95	72.047	
3,600.00	3,546.76	3,182.89	3,008.47	12.57	19.06	143.78	-881.68	237.74	1,418.37	1,398.79	19.58	72.422	
3,700.00	3,644.58	3,267.53	3,086.08	13.01	19.74	143.77	-914.08	247.20	1,471.63	1,451.41	20.22	72.771	
3,800.00	3,742.41	3,352.16	3,163.70	13.46	20.42	143.77	-946.49	256.66	1,524.89	1,504.03	20.86	73.097	
3,900.00	3,840.24	3,436.80	3,241.31	13.90	21.10	143.77	-978.90	266.12	1,578.15	1,556.65	21.50	73.403	
4,000.00	3,938.07	3,521.44	3,318.92	14.34	21.78	143.77	-1,011.30	275.58	1,631.41	1,609.27	22.14	73.689	
4,100.00	4,035.90	3,606.07	3,396.53	14.78	22.46	143.77	-1,043.71	285.05	1,684.67	1,661.89	22.78	73.957	
4,200.00	4,133.72	3,690.71	3,474.14	15.22	23.14	143.77	-1,076.12	294.51	1,737.93	1,714.51	23.42	74.210	
4,300.00	4,231.55	3,775.34	3,551.76	15.66	23.82	143.77	-1,108.52	303.97	1,791.19	1,767.13	24.06	74.449	
4,400.00	4,329.38	3,859.98	3,629.37	16.11	24.50	143.77	-1,140.93	313.43	1,844.45	1,819.75	24.70	74.674	
4,500.00	4,427.21	3,944.62	3,706.98	16.55	25.18	143.77	-1,173.34	322.89	1,897.71	1,872.37	25.34	74.887	
4,600.00	4,525.04	4,029.25	3,784.59	16.99	25.86	143.77	-1,205.75	332.35	1,950.97	1,924.99	25.98	75.088	
4,700.00	4,622.86	4,113.89	3,862.20	17.44	26.55	143.77	-1,238.15	341.81	2,004.23	1,977.61	26.62	75.279	
4,800.00	4,720.69	4,198.53	3,939.82	17.88	27.23	143.76	-1,270.56	351.27	2,057.49	2,030.23	27.27	75.461	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 15-12 - P_MIRACLE 15-12 - PLAN #1 3-23-10 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
4,900.00	4,818.52	4,283.16	4,017.43	18.32	27.91	143.76	-1,302.97	360.74	2,110.75	2,082.85	27.91	75.633	
5,000.00	4,916.35	4,367.80	4,095.04	18.77	28.59	143.76	-1,335.37	370.20	2,164.01	2,135.46	28.55	75.798	
5,100.00	5,014.18	4,452.44	4,172.65	19.21	29.27	143.76	-1,367.78	379.66	2,217.27	2,188.08	29.19	75.954	
5,200.00	5,112.01	4,537.07	4,250.26	19.65	29.95	143.76	-1,400.19	389.12	2,270.53	2,240.70	29.83	76.104	
5,300.00	5,209.83	4,621.71	4,327.88	20.10	30.63	143.76	-1,432.59	398.58	2,323.79	2,293.32	30.48	76.246	
5,400.00	5,307.66	4,706.35	4,405.49	20.54	31.31	143.76	-1,465.00	408.04	2,377.05	2,345.93	31.12	76.383	
5,413.82	5,321.18	4,718.04	4,416.21	20.60	31.41	143.76	-1,469.48	409.35	2,384.41	2,353.20	31.21	76.401	
5,500.00	5,405.75	4,791.53	4,483.60	20.93	32.00	144.36	-1,497.62	417.56	2,429.42	2,397.43	31.99	75.940	
5,600.00	5,504.44	4,878.11	4,562.99	21.22	32.70	144.95	-1,530.77	427.24	2,479.38	2,446.55	32.83	75.525	
5,700.00	5,603.64	4,965.99	4,643.58	21.48	33.40	145.44	-1,564.42	437.07	2,526.85	2,493.22	33.63	75.146	
5,800.00	5,703.22	5,055.07	4,725.26	21.70	34.12	145.84	-1,598.52	447.02	2,571.78	2,537.40	34.38	74.810	
5,900.00	5,803.05	5,621.15	5,262.12	21.87	36.86	145.38	-1,768.09	496.53	2,607.59	2,571.30	36.29	71.858	
6,000.00	5,903.02	6,267.07	5,903.02	22.00	38.16	145.24	-1,833.87	515.74	2,617.97	2,580.29	37.67	69.490	
6,011.98	5,915.00	6,279.04	5,915.00	22.02	38.17	-178.88	-1,833.87	515.74	2,617.99	2,580.27	37.72	69.412	
6,100.00	6,003.02	6,367.07	6,003.02	22.12	38.22	-178.88	-1,833.87	515.74	2,617.99	2,580.04	37.95	68.991	
6,200.00	6,103.02	6,467.07	6,103.02	22.25	38.28	-178.88	-1,833.87	515.74	2,617.99	2,579.76	38.23	68.486	
6,300.00	6,203.02	6,567.07	6,203.02	22.38	38.34	-178.88	-1,833.87	515.74	2,617.99	2,579.48	38.51	67.983	
6,400.00	6,303.02	6,667.07	6,303.02	22.51	38.41	-178.88	-1,833.87	515.74	2,617.99	2,579.19	38.80	67.482	
6,500.00	6,403.02	6,767.07	6,403.02	22.64	38.47	-178.88	-1,833.87	515.74	2,617.99	2,578.90	39.08	66.983	
6,600.00	6,503.02	6,867.07	6,503.02	22.77	38.53	-178.88	-1,833.87	515.74	2,617.99	2,578.61	39.38	66.487	
6,700.00	6,603.02	6,967.07	6,603.02	22.91	38.60	-178.88	-1,833.87	515.74	2,617.99	2,578.32	39.67	65.993	
6,800.00	6,703.02	7,067.07	6,703.02	23.05	38.67	-178.88	-1,833.87	515.74	2,617.99	2,578.02	39.97	65.502	
6,900.00	6,803.02	7,167.07	6,803.02	23.18	38.73	-178.88	-1,833.87	515.74	2,617.99	2,577.72	40.27	65.014	
7,000.00	6,903.02	7,267.07	6,903.02	23.32	38.80	-178.88	-1,833.87	515.74	2,617.99	2,577.42	40.57	64.529	
7,100.00	7,003.02	7,367.07	7,003.02	23.46	38.87	-178.88	-1,833.87	515.74	2,617.99	2,577.11	40.88	64.046	
7,200.00	7,103.02	7,467.07	7,103.02	23.61	38.94	-178.88	-1,833.87	515.74	2,617.99	2,576.80	41.18	63.568	
7,300.00	7,203.02	7,567.07	7,203.02	23.75	39.02	-178.88	-1,833.87	515.74	2,617.99	2,576.49	41.49	63.092	
7,400.00	7,303.02	7,667.07	7,303.02	23.89	39.09	-178.88	-1,833.87	515.74	2,617.99	2,576.18	41.81	62.620	
7,500.00	7,403.02	7,767.07	7,403.02	24.04	39.17	-178.88	-1,833.87	515.74	2,617.99	2,575.86	42.12	62.151	
7,600.00	7,503.02	7,867.07	7,503.02	24.19	39.24	-178.88	-1,833.87	515.74	2,617.99	2,575.55	42.44	61.686	
7,700.00	7,603.02	7,967.07	7,603.02	24.33	39.32	-178.88	-1,833.87	515.74	2,617.99	2,575.23	42.76	61.224	
7,800.00	7,703.02	8,067.07	7,703.02	24.48	39.40	-178.88	-1,833.87	515.74	2,617.99	2,574.90	43.08	60.766	
7,859.34	7,762.36	8,126.41	7,762.36	24.57	39.44	-178.88	-1,833.87	515.74	2,617.99	2,574.71	43.28	60.496	
7,900.00	7,803.02	8,149.04	7,785.00	24.63	39.46	-178.88	-1,833.87	515.74	2,618.05	2,574.67	43.38	60.349	
7,911.98	7,815.00	8,149.04	7,785.00	24.65	39.46	-178.88	-1,833.87	515.74	2,618.16	2,574.75	43.40	60.321	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 19-12 - P_MIRACLE 19-12 - PLAN #1 3-23-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-89.11	1.08	-69.89	69.90				
100.00	100.00	100.00	100.00	0.10	0.10	-89.11	1.08	-69.89	69.90	69.71	0.19	365.872	
200.00	200.00	200.00	200.00	0.32	0.32	-89.11	1.08	-69.89	69.90	69.26	0.64	109.120	
300.00	300.00	300.00	300.00	0.55	0.55	-89.11	1.08	-69.89	69.90	68.81	1.09	64.122	
400.00	400.00	400.00	400.00	0.77	0.77	-89.11	1.08	-69.89	69.90	68.36	1.54	45.400	
500.00	500.00	500.00	500.00	0.99	0.99	-89.11	1.08	-69.89	69.90	67.91	1.99	35.140	
600.00	600.00	600.00	600.00	1.22	1.22	-89.11	1.08	-69.89	69.90	67.46	2.44	28.663	
700.00	700.00	700.00	700.00	1.44	1.44	-89.11	1.08	-69.89	69.90	67.01	2.89	24.202	
750.00	750.00	750.00	750.00	1.56	1.56	-89.11	1.08	-69.89	69.90	66.79	3.11	22.454 CC, ES	
800.00	800.00	799.05	799.05	1.67	1.66	-125.49	0.82	-70.22	70.49	67.16	3.32	21.216	
900.00	899.93	896.81	896.75	1.89	1.84	-129.10	-1.23	-72.86	75.36	71.64	3.72	20.257 SF	
1,000.00	999.68	993.55	993.26	2.12	2.03	-134.99	-5.26	-78.06	85.86	81.74	4.12	20.819	
1,100.00	1,099.13	1,088.63	1,087.84	2.36	2.25	-141.37	-11.18	-85.68	102.87	98.33	4.53	22.700	
1,200.00	1,198.15	1,181.45	1,179.82	2.62	2.49	-147.03	-18.81	-95.50	126.80	121.86	4.94	25.680	
1,300.00	1,296.63	1,271.45	1,268.58	2.92	2.75	-151.57	-27.94	-107.27	157.63	152.29	5.34	29.521	
1,348.16	1,343.82	1,313.66	1,310.03	3.08	2.88	-153.35	-32.82	-113.55	174.86	169.33	5.53	31.617	
1,400.00	1,394.54	1,358.36	1,353.80	3.26	3.04	-155.15	-38.39	-120.72	194.67	188.92	5.75	33.842	
1,500.00	1,492.37	1,442.89	1,436.15	3.63	3.37	-157.79	-50.06	-135.75	235.34	229.16	6.18	38.074	
1,600.00	1,590.19	1,525.12	1,515.69	4.01	3.73	-159.68	-62.84	-152.21	278.98	272.36	6.61	42.191	
1,700.00	1,688.02	1,600.00	1,587.58	4.41	4.09	-160.99	-75.69	-168.76	325.39	318.36	7.03	46.265	
1,800.00	1,785.85	1,682.54	1,666.16	4.81	4.54	-162.11	-91.19	-188.72	374.26	366.78	7.48	50.029	
1,900.00	1,883.68	1,757.71	1,737.06	5.22	4.99	-162.91	-106.50	-208.45	425.57	417.65	7.92	53.745	
2,000.00	1,981.51	1,830.53	1,805.09	5.64	5.46	-163.53	-122.42	-228.95	479.14	470.78	8.35	57.351	
2,100.00	2,079.33	1,900.00	1,869.36	6.06	5.93	-164.02	-138.59	-249.77	534.84	526.05	8.79	60.876	
2,200.00	2,177.16	1,970.23	1,933.66	6.48	6.46	-164.42	-155.90	-272.07	592.56	583.33	9.23	64.228	
2,300.00	2,274.99	2,049.84	2,006.16	6.91	7.08	-164.79	-176.07	-298.05	651.29	641.59	9.70	67.171	
2,400.00	2,372.82	2,130.70	2,079.80	7.33	7.72	-165.11	-196.57	-324.44	710.04	699.87	10.17	69.808	
2,500.00	2,470.65	2,211.57	2,153.44	7.76	8.37	-165.38	-217.06	-350.83	768.80	758.15	10.65	72.183	
2,600.00	2,568.47	2,292.44	2,227.08	8.20	9.03	-165.61	-237.55	-377.22	827.56	816.43	11.13	74.323	
2,700.00	2,666.30	2,373.30	2,300.73	8.63	9.69	-165.81	-258.04	-403.61	886.34	874.72	11.62	76.258	
2,800.00	2,764.13	2,454.17	2,374.37	9.07	10.35	-165.99	-278.53	-430.00	945.12	933.01	12.11	78.021	
2,900.00	2,861.96	2,535.04	2,448.01	9.50	11.02	-166.14	-299.02	-456.39	1,003.91	991.31	12.61	79.632	
3,000.00	2,959.79	2,615.90	2,521.65	9.94	11.69	-166.28	-319.51	-482.78	1,062.70	1,049.60	13.10	81.109	
3,100.00	3,057.62	2,696.77	2,595.29	10.38	12.36	-166.40	-340.01	-509.18	1,121.50	1,107.90	13.60	82.465	
3,200.00	3,155.44	2,777.64	2,668.93	10.81	13.04	-166.52	-360.50	-535.57	1,180.30	1,166.20	14.10	83.711	
3,300.00	3,253.27	2,858.50	2,742.57	11.25	13.72	-166.62	-380.99	-561.96	1,239.10	1,224.50	14.60	84.863	
3,400.00	3,351.10	2,939.37	2,816.21	11.69	14.40	-166.71	-401.48	-588.35	1,297.91	1,282.80	15.10	85.930	
3,500.00	3,448.93	3,020.24	2,889.86	12.13	15.08	-166.79	-421.97	-614.74	1,356.71	1,341.10	15.61	86.923	
3,600.00	3,546.76	3,101.10	2,963.50	12.57	15.76	-166.87	-442.46	-641.13	1,415.52	1,399.41	16.11	87.846	
3,700.00	3,644.58	3,181.97	3,037.14	13.01	16.44	-166.94	-462.95	-667.52	1,474.33	1,457.71	16.62	88.706	
3,800.00	3,742.41	3,262.84	3,110.78	13.46	17.12	-167.00	-483.45	-693.91	1,533.14	1,516.01	17.13	89.509	
3,900.00	3,840.24	3,343.70	3,184.42	13.90	17.80	-167.06	-503.94	-720.30	1,591.95	1,574.31	17.64	90.263	
4,000.00	3,938.07	3,424.57	3,258.06	14.34	18.49	-167.12	-524.43	-746.69	1,650.76	1,632.62	18.15	90.970	
4,100.00	4,035.90	3,505.44	3,331.70	14.78	19.17	-167.17	-544.92	-773.08	1,709.58	1,690.92	18.66	91.635	
4,200.00	4,133.72	3,586.30	3,405.34	15.22	19.86	-167.22	-565.41	-799.47	1,768.39	1,749.22	19.17	92.260	
4,300.00	4,231.55	3,667.17	3,478.99	15.66	20.54	-167.27	-585.90	-825.87	1,827.21	1,807.53	19.68	92.849	
4,400.00	4,329.38	3,748.04	3,552.63	16.11	21.23	-167.31	-606.39	-852.26	1,886.02	1,865.83	20.19	93.407	
4,500.00	4,427.21	3,828.90	3,626.27	16.55	21.91	-167.35	-626.89	-878.65	1,944.84	1,924.14	20.70	93.934	
4,600.00	4,525.04	3,909.77	3,699.91	16.99	22.60	-167.39	-647.38	-905.04	2,003.66	1,982.44	21.22	94.433	
4,700.00	4,622.86	3,990.64	3,773.55	17.44	23.29	-167.42	-667.87	-931.43	2,062.48	2,040.74	21.73	94.907	
4,800.00	4,720.69	4,071.50	3,847.19	17.88	23.98	-167.46	-688.36	-957.82	2,121.29	2,099.05	22.25	95.356	
4,900.00	4,818.52	4,152.37	3,920.83	18.32	24.66	-167.49	-708.85	-984.21	2,180.11	2,157.35	22.76	95.784	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 19-12 - P_MIRACLE 19-12 - PLAN #1 3-23-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,916.35	4,233.23	3,994.47	18.77	25.35	-167.52	-729.34	-1,010.60	2,238.93	2,215.66	23.28	96.191	
5,100.00	5,014.18	4,314.10	4,068.12	19.21	26.04	-167.55	-749.83	-1,036.99	2,297.75	2,273.96	23.79	96.579	
5,200.00	5,112.01	4,394.97	4,141.76	19.65	26.73	-167.58	-770.33	-1,063.38	2,356.57	2,332.27	24.31	96.950	
5,300.00	5,209.83	4,475.83	4,215.40	20.10	27.42	-167.60	-790.82	-1,089.77	2,415.39	2,390.57	24.82	97.303	
5,400.00	5,307.66	4,556.70	4,289.04	20.54	28.10	-167.63	-811.31	-1,116.16	2,474.21	2,448.87	25.34	97.641	
5,413.82	5,321.18	4,567.87	4,299.21	20.60	28.20	-167.63	-814.14	-1,119.81	2,482.34	2,456.93	25.41	97.687	
5,500.00	5,405.75	4,638.30	4,363.35	20.93	28.80	-167.90	-831.99	-1,142.80	2,532.00	2,505.96	26.04	97.227	
5,600.00	5,504.44	4,721.82	4,439.40	21.22	29.51	-168.17	-853.15	-1,170.05	2,587.00	2,560.27	26.73	96.779	
5,700.00	5,603.64	4,807.15	4,517.11	21.48	30.24	-168.39	-874.77	-1,197.90	2,639.11	2,611.72	27.40	96.332	
5,800.00	5,703.22	4,894.21	4,596.39	21.70	30.98	-168.58	-896.83	-1,226.31	2,688.28	2,660.24	28.04	95.890	
5,900.00	5,803.05	4,982.89	4,677.14	21.87	31.74	-168.73	-919.30	-1,255.25	2,734.44	2,705.79	28.65	95.457	
6,000.00	5,903.02	5,073.07	4,759.27	22.00	32.51	-168.85	-942.15	-1,284.68	2,777.54	2,748.31	29.23	95.036	
6,011.98	5,915.00	5,083.96	4,769.19	22.02	32.60	-132.98	-944.91	-1,288.24	2,782.49	2,753.20	29.29	94.986	
6,100.00	6,003.02	5,164.12	4,842.19	22.12	33.28	-132.91	-965.23	-1,314.40	2,818.74	2,789.03	29.71	94.862	
6,200.00	6,103.02	5,247.23	4,923.02	22.25	33.84	-132.41	-1,138.39	-1,537.41	2,849.96	2,817.00	32.96	86.462	
6,300.00	6,203.02	5,327.23	5,003.02	22.38	34.30	-132.41	-1,138.39	-1,537.41	2,849.96	2,816.67	33.29	85.608	
6,400.00	6,303.02	5,407.23	5,083.02	22.51	34.77	-132.41	-1,138.39	-1,537.41	2,849.96	2,816.34	33.62	84.767	
6,500.00	6,403.02	5,487.23	5,163.02	22.64	35.24	-132.41	-1,138.39	-1,537.41	2,849.96	2,816.01	33.95	83.936	
6,600.00	6,503.02	5,567.23	5,243.02	22.77	35.71	-132.41	-1,138.39	-1,537.41	2,849.96	2,815.67	34.29	83.115	
6,700.00	6,603.02	5,647.23	5,323.02	22.91	36.18	-132.41	-1,138.39	-1,537.41	2,849.96	2,815.33	34.63	82.305	
6,800.00	6,703.02	5,727.23	5,403.02	23.05	36.65	-132.41	-1,138.39	-1,537.41	2,849.96	2,814.99	34.97	81.504	
6,900.00	6,803.02	5,807.23	5,483.02	23.18	37.12	-132.41	-1,138.39	-1,537.41	2,849.96	2,814.65	35.31	80.713	
7,000.00	6,903.02	5,887.23	5,563.02	23.32	37.59	-132.41	-1,138.39	-1,537.41	2,849.96	2,814.31	35.65	79.932	
7,100.00	7,003.02	5,967.23	5,643.02	23.46	38.06	-132.41	-1,138.39	-1,537.41	2,849.96	2,813.96	36.00	79.162	
7,200.00	7,103.02	6,047.23	5,723.02	23.61	38.53	-132.41	-1,138.39	-1,537.41	2,849.96	2,813.61	36.35	78.401	
7,300.00	7,203.02	6,127.23	5,803.02	23.75	39.00	-132.41	-1,138.39	-1,537.41	2,849.96	2,813.26	36.70	77.651	
7,400.00	7,303.02	6,207.23	5,883.02	23.89	39.47	-132.41	-1,138.39	-1,537.41	2,849.96	2,812.91	37.06	76.911	
7,500.00	7,403.02	6,287.23	5,963.02	24.04	39.94	-132.41	-1,138.39	-1,537.41	2,849.96	2,812.55	37.41	76.180	
7,600.00	7,503.02	6,367.23	6,043.02	24.19	40.41	-132.41	-1,138.39	-1,537.41	2,849.96	2,812.19	37.77	75.460	
7,700.00	7,603.02	6,447.23	6,123.02	24.33	40.88	-132.41	-1,138.39	-1,537.41	2,849.96	2,811.83	38.13	74.749	
7,800.00	7,703.02	6,527.23	6,203.02	24.48	41.35	-132.41	-1,138.39	-1,537.41	2,849.96	2,811.47	38.49	74.048	
7,858.84	7,761.86	6,586.06	6,261.86	24.57	41.82	-132.41	-1,138.39	-1,537.41	2,849.96	2,811.26	38.70	73.640	
7,900.00	7,803.02	6,667.23	6,343.02	24.63	42.29	-132.41	-1,138.39	-1,537.41	2,850.02	2,811.20	38.82	73.417	
7,911.98	7,815.00	6,679.20	6,355.00	24.65	42.31	-132.41	-1,138.39	-1,537.41	2,850.13	2,811.29	38.84	73.374	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-89.31	1.08	-89.66	89.67				
100.00	100.00	100.00	100.00	0.10	0.10	-89.31	1.08	-89.66	89.67	89.48	0.19	469.343	
200.00	200.00	200.00	200.00	0.32	0.32	-89.31	1.08	-89.66	89.67	89.03	0.64	139.980	
300.00	300.00	300.00	300.00	0.55	0.55	-89.31	1.08	-89.66	89.67	88.58	1.09	82.256	
400.00	400.00	400.00	400.00	0.77	0.77	-89.31	1.08	-89.66	89.67	88.13	1.54	58.240	
500.00	500.00	500.00	500.00	0.99	0.99	-89.31	1.08	-89.66	89.67	87.68	1.99	45.078	
600.00	600.00	600.00	600.00	1.22	1.22	-89.31	1.08	-89.66	89.67	87.23	2.44	36.769	
700.00	700.00	700.00	700.00	1.44	1.44	-89.31	1.08	-89.66	89.67	86.78	2.89	31.046	
750.00	750.00	750.00	750.00	1.56	1.56	-89.31	1.08	-89.66	89.67	86.56	3.11	28.804 CC, ES	
800.00	800.00	798.49	798.49	1.67	1.66	-125.36	1.15	-90.07	90.34	87.01	3.33	27.154	
900.00	899.93	895.23	895.17	1.89	1.86	-126.61	1.71	-93.29	95.72	91.98	3.74	25.578 SF	
1,000.00	999.68	991.24	990.95	2.12	2.07	-128.70	2.83	-99.66	106.58	102.42	4.16	25.615	
1,100.00	1,099.13	1,086.05	1,085.28	2.36	2.30	-131.10	4.47	-109.05	123.03	118.44	4.59	26.830	
1,200.00	1,198.15	1,179.22	1,177.62	2.62	2.55	-133.39	6.61	-121.28	145.10	140.08	5.02	28.905	
1,300.00	1,296.63	1,270.34	1,267.49	2.92	2.82	-135.35	9.20	-136.08	172.73	167.26	5.47	31.588	
1,348.16	1,343.82	1,313.39	1,309.76	3.08	2.96	-136.16	10.60	-144.05	187.97	182.28	5.69	33.038	
1,400.00	1,394.54	1,359.18	1,354.60	3.26	3.12	-137.10	12.20	-153.22	205.45	199.50	5.94	34.564	
1,500.00	1,492.37	1,446.22	1,439.38	3.63	3.46	-138.31	15.59	-172.59	241.25	234.81	6.45	37.414	
1,600.00	1,590.19	1,531.45	1,521.79	4.01	3.83	-138.97	19.34	-194.00	279.67	272.70	6.97	40.127	
1,700.00	1,688.02	1,614.78	1,601.71	4.41	4.24	-139.27	23.41	-217.26	320.56	313.06	7.51	42.705	
1,800.00	1,785.85	1,700.00	1,682.68	4.81	4.71	-139.32	27.99	-243.40	363.84	355.77	8.07	45.097	
1,900.00	1,883.68	1,778.31	1,756.40	5.22	5.19	-139.21	32.54	-269.41	409.26	400.63	8.63	47.430	
2,000.00	1,981.51	1,867.08	1,839.78	5.64	5.76	-139.08	37.79	-299.42	455.29	446.06	9.24	49.299	
2,100.00	2,079.33	1,955.85	1,923.16	6.06	6.34	-138.97	43.05	-329.44	501.33	491.48	9.85	50.887	
2,200.00	2,177.16	2,044.62	2,006.54	6.48	6.93	-138.88	48.30	-359.45	547.36	536.88	10.48	52.246	
2,300.00	2,274.99	2,133.39	2,089.92	6.91	7.53	-138.81	53.55	-389.46	593.40	582.29	11.11	53.417	
2,400.00	2,372.82	2,222.16	2,173.30	7.33	8.13	-138.74	58.81	-419.47	639.43	627.68	11.75	54.434	
2,500.00	2,470.65	2,310.94	2,256.68	7.76	8.75	-138.69	64.06	-449.49	685.47	673.08	12.39	55.324	
2,600.00	2,568.47	2,399.71	2,340.06	8.20	9.36	-138.64	69.31	-479.50	731.50	718.47	13.04	56.107	
2,700.00	2,666.30	2,488.48	2,423.43	8.63	9.98	-138.59	74.57	-509.51	777.54	763.85	13.69	56.800	
2,800.00	2,764.13	2,577.25	2,506.81	9.07	10.60	-138.56	79.82	-539.52	823.58	809.23	14.34	57.417	
2,900.00	2,861.96	2,666.02	2,590.19	9.50	11.23	-138.52	85.07	-569.54	869.62	854.61	15.00	57.970	
3,000.00	2,959.79	2,754.79	2,673.57	9.94	11.86	-138.49	90.33	-599.55	915.65	899.99	15.66	58.467	
3,100.00	3,057.62	2,843.56	2,756.95	10.38	12.48	-138.46	95.58	-629.56	961.69	945.37	16.32	58.917	
3,200.00	3,155.44	2,932.34	2,840.33	10.81	13.11	-138.44	100.83	-659.57	1,007.73	990.74	16.99	59.325	
3,300.00	3,253.27	3,021.11	2,923.71	11.25	13.74	-138.41	106.09	-689.59	1,053.77	1,036.12	17.65	59.697	
3,400.00	3,351.10	3,109.88	3,007.08	11.69	14.38	-138.39	111.34	-719.60	1,099.81	1,081.49	18.32	60.038	
3,500.00	3,448.93	3,198.65	3,090.46	12.13	15.01	-138.37	116.59	-749.61	1,145.84	1,126.86	18.99	60.350	
3,600.00	3,546.76	3,287.42	3,173.84	12.57	15.64	-138.36	121.85	-779.63	1,191.88	1,172.23	19.66	60.637	
3,700.00	3,644.58	3,376.19	3,257.22	13.01	16.28	-138.34	127.10	-809.64	1,237.92	1,217.60	20.33	60.901	
3,800.00	3,742.41	3,464.96	3,340.60	13.46	16.91	-138.32	132.35	-839.65	1,283.96	1,262.96	21.00	61.147	
3,900.00	3,840.24	3,553.73	3,423.98	13.90	17.55	-138.31	137.60	-869.66	1,330.00	1,308.33	21.67	61.374	
4,000.00	3,938.07	3,642.51	3,507.36	14.34	18.18	-138.30	142.86	-899.68	1,376.04	1,353.69	22.34	61.586	
4,100.00	4,035.90	3,731.28	3,590.73	14.78	18.82	-138.28	148.11	-929.69	1,422.08	1,399.06	23.02	61.783	
4,200.00	4,133.72	3,820.05	3,674.11	15.22	19.46	-138.27	153.36	-959.70	1,468.12	1,444.42	23.69	61.968	
4,300.00	4,231.55	3,908.82	3,757.49	15.66	20.09	-138.26	158.62	-989.71	1,514.15	1,489.79	24.37	62.141	
4,400.00	4,329.38	3,997.59	3,840.87	16.11	20.73	-138.25	163.87	-1,019.73	1,560.19	1,535.15	25.04	62.303	
4,500.00	4,427.21	4,086.36	3,924.25	16.55	21.37	-138.24	169.12	-1,049.74	1,606.23	1,580.51	25.72	62.455	
4,600.00	4,525.04	4,175.13	4,007.63	16.99	22.01	-138.23	174.38	-1,079.75	1,652.27	1,625.88	26.39	62.598	
4,700.00	4,622.86	4,263.90	4,091.01	17.44	22.65	-138.22	179.63	-1,109.76	1,698.31	1,671.24	27.07	62.733	
4,800.00	4,720.69	4,352.68	4,174.38	17.88	23.28	-138.21	184.88	-1,139.78	1,744.35	1,716.60	27.75	62.861	
4,900.00	4,818.52	4,441.45	4,257.76	18.32	23.92	-138.21	190.14	-1,169.79	1,790.39	1,761.96	28.43	62.982	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 22-12 - P_MIRACLE 22-12 - PLAN #1 3-23-10 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						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,000.00	4,916.35	4,530.22	4,341.14	18.77	24.56	-138.20	195.39	-1,199.80	1,836.43	1,807.32	29.11	63.096	
5,100.00	5,014.18	4,618.99	4,424.52	19.21	25.20	-138.19	200.64	-1,229.81	1,882.47	1,852.68	29.78	63.205	
5,200.00	5,112.01	4,707.76	4,507.90	19.65	25.84	-138.19	205.90	-1,259.83	1,928.51	1,898.04	30.46	63.308	
5,300.00	5,209.83	4,796.53	4,591.28	20.10	26.48	-138.18	211.15	-1,289.84	1,974.55	1,943.41	31.14	63.406	
5,400.00	5,307.66	4,885.30	4,674.66	20.54	27.12	-138.17	216.40	-1,319.85	2,020.59	1,988.77	31.82	63.499	
5,413.82	5,321.18	4,897.57	4,686.18	20.60	27.21	-138.17	217.13	-1,324.00	2,026.95	1,995.03	31.91	63.511	
5,500.00	5,405.75	4,974.51	4,758.44	20.93	27.76	-138.72	221.68	-1,350.01	2,065.76	2,033.10	32.67	63.237	
5,600.00	5,504.44	5,064.80	4,843.24	21.22	28.42	-139.24	227.03	-1,380.54	2,108.61	2,075.14	33.47	62.999	
5,700.00	5,603.64	5,172.97	4,944.88	21.48	29.17	-139.62	233.41	-1,417.01	2,149.03	2,114.75	34.28	62.683	
5,800.00	5,703.22	5,279.12	5,038.26	21.70	30.64	-139.57	248.41	-1,502.72	2,181.80	2,146.27	35.53	61.405	
5,900.00	5,803.05	5,386.33	5,146.14	21.87	31.67	-139.54	258.38	-1,559.69	2,202.27	2,165.70	36.57	60.225	
6,000.00	5,903.02	5,495.30	5,255.26	22.00	32.18	-139.54	261.97	-1,580.20	2,209.56	2,172.23	37.33	59.197	
6,011.98	5,915.00	5,507.03	5,267.00	22.02	32.20	-103.66	261.98	-1,580.21	2,209.58	2,172.21	37.37	59.129	
6,100.00	6,003.02	5,605.06	5,365.02	22.12	32.27	-103.66	261.98	-1,580.21	2,209.58	2,171.97	37.61	58.749	
6,200.00	6,103.02	5,705.06	5,465.02	22.25	32.36	-103.66	261.98	-1,580.21	2,209.58	2,171.68	37.90	58.301	
6,300.00	6,203.02	5,805.06	5,565.02	22.38	32.45	-103.66	261.98	-1,580.21	2,209.58	2,171.39	38.19	57.856	
6,400.00	6,303.02	5,905.06	5,665.02	22.51	32.54	-103.66	261.98	-1,580.21	2,209.58	2,171.09	38.49	57.412	
6,500.00	6,403.02	6,005.06	5,765.02	22.64	32.64	-103.66	261.98	-1,580.21	2,209.58	2,170.80	38.78	56.971	
6,600.00	6,503.02	6,105.06	5,865.02	22.77	32.73	-103.66	261.98	-1,580.21	2,209.58	2,170.49	39.09	56.533	
6,700.00	6,603.02	6,205.06	5,965.02	22.91	32.83	-103.66	261.98	-1,580.21	2,209.58	2,170.19	39.39	56.097	
6,800.00	6,703.02	6,305.06	6,065.02	23.05	32.92	-103.66	261.98	-1,580.21	2,209.58	2,169.88	39.70	55.664	
6,900.00	6,803.02	6,405.06	6,165.02	23.18	33.02	-103.66	261.98	-1,580.21	2,209.58	2,169.58	40.00	55.234	
7,000.00	6,903.02	6,505.06	6,265.02	23.32	33.12	-103.66	261.98	-1,580.21	2,209.58	2,169.26	40.32	54.807	
7,100.00	7,003.02	6,605.06	6,365.02	23.46	33.22	-103.66	261.98	-1,580.21	2,209.58	2,168.95	40.63	54.383	
7,200.00	7,103.02	6,705.06	6,465.02	23.61	33.33	-103.66	261.98	-1,580.21	2,209.58	2,168.63	40.95	53.962	
7,300.00	7,203.02	6,805.06	6,565.02	23.75	33.43	-103.66	261.98	-1,580.21	2,209.58	2,168.31	41.27	53.544	
7,400.00	7,303.02	6,905.06	6,665.02	23.89	33.53	-103.66	261.98	-1,580.21	2,209.58	2,167.99	41.59	53.130	
7,500.00	7,403.02	7,005.06	6,765.02	24.04	33.64	-103.66	261.98	-1,580.21	2,209.58	2,167.67	41.91	52.719	
7,600.00	7,503.02	7,105.06	6,865.02	24.19	33.75	-103.66	261.98	-1,580.21	2,209.58	2,167.34	42.24	52.312	
7,700.00	7,603.02	7,205.06	6,965.02	24.33	33.85	-103.66	261.98	-1,580.21	2,209.58	2,167.01	42.57	51.908	
7,800.00	7,703.02	7,305.06	7,065.02	24.48	33.96	-103.66	261.98	-1,580.21	2,209.58	2,166.68	42.90	51.508	
7,900.00	7,803.02	7,405.06	7,165.02	24.63	34.07	-103.66	261.98	-1,580.21	2,209.58	2,166.35	43.23	51.112	
7,911.98	7,815.00	7,417.03	7,177.00	24.65	34.08	-103.66	261.98	-1,580.21	2,209.60	2,166.35	43.25	51.084	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-89.32	0.35	-29.79	29.80				
100.00	100.00	100.00	100.00	0.10	0.10	-89.32	0.35	-29.79	29.80	29.61	0.19	155.961	
200.00	200.00	200.00	200.00	0.32	0.32	-89.32	0.35	-29.79	29.80	29.16	0.64	46.515	
300.00	300.00	300.00	300.00	0.55	0.55	-89.32	0.35	-29.79	29.80	28.71	1.09	27.333	
400.00	400.00	400.00	400.00	0.77	0.77	-89.32	0.35	-29.79	29.80	28.26	1.54	19.353	
500.00	500.00	500.00	500.00	0.99	0.99	-89.32	0.35	-29.79	29.80	27.81	1.99	14.979	
600.00	600.00	600.00	600.00	1.22	1.22	-89.32	0.35	-29.79	29.80	27.36	2.44	12.218	
700.00	700.00	700.00	700.00	1.44	1.44	-89.32	0.35	-29.79	29.80	26.91	2.89	10.317	
750.00	750.00	750.00	750.00	1.56	1.56	-89.32	0.35	-29.79	29.80	26.68	3.11	9.572 CC, ES	
800.00	800.00	799.86	799.85	1.67	1.65	-126.67	-0.07	-29.91	30.17	26.84	3.32	9.082 SF	
900.00	899.93	899.22	899.15	1.89	1.83	-137.04	-3.40	-30.80	33.76	30.05	3.71	9.093	
1,000.00	999.68	997.54	997.24	2.12	2.02	-151.43	-9.97	-32.56	43.32	39.21	4.11	10.538	
1,100.00	1,099.13	1,094.17	1,093.34	2.36	2.23	-163.32	-19.59	-35.14	60.55	56.04	4.51	13.421	
1,200.00	1,198.15	1,188.47	1,186.76	2.62	2.46	-171.28	-32.00	-38.47	85.42	80.51	4.91	17.399	
1,300.00	1,296.63	1,279.92	1,276.90	2.92	2.72	-176.38	-46.85	-42.45	117.35	112.05	5.30	22.124	
1,348.16	1,343.82	1,322.79	1,318.98	3.08	2.86	-178.16	-54.77	-44.57	135.09	129.60	5.49	24.591	
1,400.00	1,394.54	1,368.20	1,363.41	3.26	3.02	-179.73	-63.82	-47.00	155.38	149.66	5.72	27.181	
1,500.00	1,492.37	1,454.03	1,446.97	3.63	3.35	177.96	-82.79	-52.08	196.71	190.56	6.15	31.975	
1,600.00	1,590.19	1,537.93	1,528.03	4.01	3.70	176.26	-103.64	-57.68	240.79	234.20	6.59	36.529	
1,700.00	1,688.02	1,626.91	1,613.71	4.41	4.12	174.92	-126.82	-63.89	286.09	279.04	7.06	40.547	
1,800.00	1,785.85	1,715.89	1,699.40	4.81	4.55	173.95	-150.00	-70.11	331.49	323.96	7.53	44.044	
1,900.00	1,883.68	1,804.87	1,785.08	5.22	5.00	173.21	-173.18	-76.32	376.95	368.94	8.00	47.100	
2,000.00	1,981.51	1,893.85	1,870.76	5.64	5.45	172.63	-196.36	-82.53	422.44	413.95	8.49	49.782	
2,100.00	2,079.33	1,982.83	1,956.45	6.06	5.91	172.17	-219.54	-88.75	467.96	458.99	8.97	52.151	
2,200.00	2,177.16	2,071.81	2,042.13	6.48	6.38	171.78	-242.71	-94.96	513.50	504.04	9.46	54.257	
2,300.00	2,274.99	2,160.79	2,127.81	6.91	6.85	171.46	-265.89	-101.18	559.06	549.10	9.96	56.139	
2,400.00	2,372.82	2,249.77	2,213.49	7.33	7.33	171.19	-289.07	-107.39	604.63	594.17	10.46	57.830	
2,500.00	2,470.65	2,338.74	2,299.18	7.76	7.81	170.95	-312.25	-113.61	650.20	639.25	10.95	59.354	
2,600.00	2,568.47	2,427.72	2,384.86	8.20	8.29	170.75	-335.43	-119.82	695.79	684.33	11.46	60.735	
2,700.00	2,666.30	2,516.70	2,470.54	8.63	8.78	170.57	-358.61	-126.03	741.38	729.42	11.96	61.992	
2,800.00	2,764.13	2,605.68	2,556.23	9.07	9.26	170.41	-381.79	-132.25	786.98	774.51	12.46	63.139	
2,900.00	2,861.96	2,694.66	2,641.91	9.50	9.75	170.27	-404.97	-138.46	832.58	819.61	12.97	64.189	
3,000.00	2,959.79	2,783.64	2,727.59	9.94	10.24	170.15	-428.14	-144.68	878.18	864.70	13.48	65.155	
3,100.00	3,057.62	2,872.62	2,813.27	10.38	10.73	170.03	-451.32	-150.89	923.79	909.80	13.99	66.045	
3,200.00	3,155.44	2,961.60	2,898.96	10.81	11.22	169.93	-474.50	-157.11	969.40	954.90	14.50	66.868	
3,300.00	3,253.27	3,050.58	2,984.64	11.25	11.71	169.84	-497.68	-163.32	1,015.01	1,000.01	15.01	67.632	
3,400.00	3,351.10	3,139.56	3,070.32	11.69	12.20	169.75	-520.86	-169.53	1,060.63	1,045.11	15.52	68.342	
3,500.00	3,448.93	3,228.54	3,156.01	12.13	12.69	169.67	-544.04	-175.75	1,106.24	1,090.21	16.03	69.003	
3,600.00	3,546.76	3,317.52	3,241.69	12.57	13.19	169.60	-567.22	-181.96	1,151.86	1,135.32	16.54	69.621	
3,700.00	3,644.58	3,406.50	3,327.37	13.01	13.68	169.53	-590.39	-188.18	1,197.48	1,180.42	17.06	70.199	
3,800.00	3,742.41	3,495.48	3,413.06	13.46	14.17	169.47	-613.57	-194.39	1,243.10	1,225.53	17.57	70.741	
3,900.00	3,840.24	3,584.46	3,498.74	13.90	14.67	169.41	-636.75	-200.61	1,288.72	1,270.63	18.09	71.250	
4,000.00	3,938.07	3,673.44	3,584.42	14.34	15.16	169.36	-659.93	-206.82	1,334.34	1,315.74	18.60	71.729	
4,100.00	4,035.90	3,762.42	3,670.10	14.78	15.66	169.31	-683.11	-213.04	1,379.97	1,360.85	19.12	72.181	
4,200.00	4,133.72	3,851.40	3,755.79	15.22	16.16	169.26	-706.29	-219.25	1,425.59	1,405.96	19.63	72.608	
4,300.00	4,231.55	3,940.38	3,841.47	15.66	16.65	169.22	-729.47	-225.46	1,471.21	1,451.06	20.15	73.011	
4,400.00	4,329.38	4,029.36	3,927.15	16.11	17.15	169.18	-752.64	-231.68	1,516.84	1,496.17	20.67	73.393	
4,500.00	4,427.21	4,118.34	4,012.84	16.55	17.64	169.14	-775.82	-237.89	1,562.46	1,541.28	21.18	73.756	
4,600.00	4,525.04	4,207.32	4,098.52	16.99	18.14	169.10	-799.00	-244.11	1,608.09	1,586.39	21.70	74.100	
4,700.00	4,622.86	4,296.30	4,184.20	17.44	18.64	169.07	-822.18	-250.32	1,653.72	1,631.50	22.22	74.427	
4,800.00	4,720.69	4,385.28	4,269.88	17.88	19.13	169.03	-845.36	-256.54	1,699.34	1,676.61	22.74	74.739	
4,900.00	4,818.52	4,474.26	4,355.57	18.32	19.63	169.00	-868.54	-262.75	1,744.97	1,721.72	23.26	75.036	

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_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 23-12 - P_MIRACLE 23-12 - PLAN #1 3-23-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,916.35	4,563.24	4,441.25	18.77	20.13	168.97	-891.72	-268.96	1,790.60	1,766.83	23.77	75.319	
5,100.00	5,014.18	4,652.22	4,526.93	19.21	20.63	168.94	-914.89	-275.18	1,836.23	1,811.94	24.29	75.590	
5,200.00	5,112.01	4,741.20	4,612.62	19.65	21.12	168.92	-938.07	-281.39	1,881.86	1,857.05	24.81	75.849	
5,300.00	5,209.83	4,830.18	4,698.30	20.10	21.62	168.89	-961.25	-287.61	1,927.49	1,902.16	25.33	76.096	
5,400.00	5,307.66	4,919.16	4,783.98	20.54	22.12	168.87	-984.43	-293.82	1,973.12	1,947.27	25.85	76.333	
5,413.82	5,321.18	4,931.46	4,795.82	20.60	22.19	168.87	-987.63	-294.68	1,979.42	1,953.50	25.92	76.365	
5,500.00	5,405.75	5,008.71	4,870.21	20.93	22.62	169.00	-1,007.76	-300.08	2,017.61	1,991.10	26.50	76.122	
5,600.00	5,504.44	5,099.70	4,957.83	21.22	23.13	169.12	-1,031.46	-306.43	2,059.04	2,031.91	27.13	75.902	
5,700.00	5,603.64	5,192.05	5,046.76	21.48	23.65	169.21	-1,055.52	-312.88	2,097.32	2,069.60	27.72	75.665	
5,800.00	5,703.22	5,326.94	5,176.80	21.70	24.32	169.23	-1,090.14	-322.16	2,132.28	2,103.90	28.37	75.147	
5,900.00	5,803.05	5,696.50	5,539.52	21.87	25.45	169.09	-1,157.12	-340.12	2,156.25	2,126.80	29.45	73.227	
6,000.00	5,903.02	6,060.91	5,903.02	22.00	26.03	169.06	-1,178.50	-345.85	2,164.01	2,133.72	30.30	71.429	
6,011.98	5,915.00	6,072.89	5,915.00	22.02	26.04	-155.05	-1,178.50	-345.85	2,164.04	2,133.70	30.34	71.333	
6,100.00	6,003.02	6,160.91	6,003.02	22.12	26.12	-155.05	-1,178.50	-345.85	2,164.04	2,133.41	30.62	70.667	
6,200.00	6,103.02	6,260.91	6,103.02	22.25	26.21	-155.05	-1,178.50	-345.85	2,164.04	2,133.07	30.96	69.887	
6,300.00	6,203.02	6,360.91	6,203.02	22.38	26.30	-155.05	-1,178.50	-345.85	2,164.04	2,132.73	31.31	69.118	
6,400.00	6,303.02	6,460.91	6,303.02	22.51	26.39	-155.05	-1,178.50	-345.85	2,164.04	2,132.38	31.66	68.360	
6,500.00	6,403.02	6,560.91	6,403.02	22.64	26.48	-155.05	-1,178.50	-345.85	2,164.04	2,132.03	32.01	67.613	
6,600.00	6,503.02	6,660.91	6,503.02	22.77	26.58	-155.05	-1,178.50	-345.85	2,164.04	2,131.68	32.36	66.878	
6,700.00	6,603.02	6,760.91	6,603.02	22.91	26.67	-155.05	-1,178.50	-345.85	2,164.04	2,131.32	32.71	66.153	
6,800.00	6,703.02	6,860.91	6,703.02	23.05	26.77	-155.05	-1,178.50	-345.85	2,164.04	2,130.97	33.07	65.440	
6,900.00	6,803.02	6,960.91	6,803.02	23.18	26.87	-155.05	-1,178.50	-345.85	2,164.04	2,130.61	33.43	64.738	
7,000.00	6,903.02	7,060.91	6,903.02	23.32	26.97	-155.05	-1,178.50	-345.85	2,164.04	2,130.25	33.79	64.046	
7,100.00	7,003.02	7,160.91	7,003.02	23.46	27.07	-155.05	-1,178.50	-345.85	2,164.04	2,129.88	34.15	63.365	
7,200.00	7,103.02	7,260.91	7,103.02	23.61	27.18	-155.05	-1,178.50	-345.85	2,164.04	2,129.52	34.52	62.695	
7,300.00	7,203.02	7,360.91	7,203.02	23.75	27.28	-155.05	-1,178.50	-345.85	2,164.04	2,129.15	34.88	62.036	
7,400.00	7,303.02	7,460.91	7,303.02	23.89	27.39	-155.05	-1,178.50	-345.85	2,164.04	2,128.78	35.25	61.387	
7,500.00	7,403.02	7,560.91	7,403.02	24.04	27.50	-155.05	-1,178.50	-345.85	2,164.04	2,128.41	35.62	60.748	
7,600.00	7,503.02	7,660.91	7,503.02	24.19	27.60	-155.05	-1,178.50	-345.85	2,164.04	2,128.04	36.00	60.120	
7,700.00	7,603.02	7,760.91	7,603.02	24.33	27.72	-155.05	-1,178.50	-345.85	2,164.04	2,127.67	36.37	59.501	
7,800.00	7,703.02	7,860.91	7,703.02	24.48	27.83	-155.05	-1,178.50	-345.85	2,164.04	2,127.29	36.75	58.893	
7,863.76	7,766.78	7,924.67	7,766.78	24.58	27.90	-155.05	-1,178.50	-345.85	2,164.04	2,127.05	36.99	58.510	
7,900.00	7,803.02	7,952.89	7,795.00	24.63	27.93	-155.05	-1,178.50	-345.85	2,164.05	2,126.94	37.11	58.317	
7,911.98	7,815.00	7,952.89	7,795.00	24.65	27.93	-155.05	-1,178.50	-345.85	2,164.13	2,127.00	37.13	58.281	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 25-12 - P_MIRACLE 25-12 - PLAN #1 3-23-10 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
0.00	0.00	0.00	0.00	0.00	0.00	-89.32	0.71	-59.87	59.87				
100.00	100.00	100.00	100.00	0.10	0.10	-89.32	0.71	-59.87	59.87	59.68	0.19	313.381	
200.00	200.00	200.00	200.00	0.32	0.32	-89.32	0.71	-59.87	59.87	59.23	0.64	93.464	
300.00	300.00	300.00	300.00	0.55	0.55	-89.32	0.71	-59.87	59.87	58.78	1.09	54.922	
400.00	400.00	400.00	400.00	0.77	0.77	-89.32	0.71	-59.87	59.87	58.33	1.54	38.887	
500.00	500.00	500.00	500.00	0.99	0.99	-89.32	0.71	-59.87	59.87	57.88	1.99	30.099	
600.00	600.00	600.00	600.00	1.22	1.22	-89.32	0.71	-59.87	59.87	57.43	2.44	24.551	
700.00	700.00	700.00	700.00	1.44	1.44	-89.32	0.71	-59.87	59.87	56.98	2.89	20.729	
750.00	750.00	750.00	750.00	1.56	1.56	-89.32	0.71	-59.87	59.87	56.76	3.11	19.233 CC	
800.00	800.00	800.28	800.28	1.67	1.67	-125.14	1.14	-59.75	60.01	56.67	3.34	17.987 ES	
900.00	899.93	900.71	900.65	1.89	1.89	-124.69	4.45	-58.79	61.11	57.33	3.78	16.176	
1,000.00	999.68	1,000.66	1,000.49	2.12	2.12	-125.85	8.81	-57.53	63.92	59.70	4.22	15.139	
1,100.00	1,099.13	1,100.45	1,100.18	2.36	2.35	-129.20	13.17	-56.27	68.92	64.24	4.67	14.745 SF	
1,200.00	1,198.15	1,199.97	1,199.59	2.62	2.57	-133.97	17.51	-55.01	76.51	71.37	5.13	14.910	
1,300.00	1,296.63	1,299.08	1,298.60	2.92	2.80	-139.34	21.83	-53.76	87.16	81.57	5.59	15.591	
1,348.16	1,343.82	1,346.64	1,346.11	3.08	2.91	-141.93	23.91	-53.16	93.50	87.69	5.81	16.091	
1,400.00	1,394.54	1,397.76	1,397.18	3.26	3.03	-144.56	26.14	-52.52	100.87	94.81	6.06	16.651	
1,500.00	1,492.37	1,496.37	1,495.69	3.63	3.26	-148.69	30.44	-51.28	115.57	109.03	6.54	17.681	
1,600.00	1,590.19	1,594.99	1,594.20	4.01	3.49	-151.87	34.75	-50.03	130.72	123.70	7.02	18.633	
1,700.00	1,688.02	1,693.60	1,692.72	4.41	3.72	-154.39	39.05	-48.79	146.19	138.69	7.50	19.502	
1,800.00	1,785.85	1,792.21	1,791.23	4.81	3.95	-156.42	43.36	-47.54	161.88	153.90	7.98	20.293	
1,900.00	1,883.68	1,890.83	1,889.74	5.22	4.18	-158.10	47.66	-46.30	177.73	169.27	8.46	21.011	
2,000.00	1,981.51	1,989.44	1,988.25	5.64	4.42	-159.50	51.96	-45.06	193.71	184.77	8.94	21.664	
2,100.00	2,079.33	2,088.05	2,086.76	6.06	4.65	-160.69	56.27	-43.81	209.79	200.36	9.43	22.258	
2,200.00	2,177.16	2,186.67	2,185.27	6.48	4.88	-161.70	60.57	-42.57	225.94	216.03	9.91	22.801	
2,300.00	2,274.99	2,285.28	2,283.78	6.91	5.11	-162.59	64.87	-41.33	242.15	231.76	10.39	23.297	
2,400.00	2,372.82	2,383.89	2,382.30	7.33	5.34	-163.36	69.18	-40.08	258.41	247.53	10.88	23.752	
2,500.00	2,470.65	2,482.51	2,480.81	7.76	5.58	-164.04	73.48	-38.84	274.71	263.34	11.37	24.171	
2,600.00	2,568.47	2,581.12	2,579.32	8.20	5.81	-164.64	77.78	-37.59	291.04	279.19	11.85	24.558	
2,700.00	2,666.30	2,679.73	2,677.83	8.63	6.04	-165.18	82.09	-36.35	307.40	295.07	12.34	24.915	
2,800.00	2,764.13	2,778.35	2,776.34	9.07	6.28	-165.66	86.39	-35.11	323.79	310.96	12.83	25.246	
2,900.00	2,861.96	2,876.96	2,874.85	9.50	6.51	-166.10	90.69	-33.86	340.20	326.88	13.31	25.554	
3,000.00	2,959.79	2,975.57	2,973.36	9.94	6.74	-166.50	95.00	-32.62	356.62	342.82	13.80	25.841	
3,100.00	3,057.62	3,074.19	3,071.88	10.38	6.98	-166.86	99.30	-31.38	373.06	358.77	14.29	26.108	
3,200.00	3,155.44	3,172.80	3,170.39	10.81	7.21	-167.20	103.61	-30.13	389.51	374.73	14.78	26.359	
3,300.00	3,253.27	3,271.41	3,268.90	11.25	7.44	-167.50	107.91	-28.89	405.97	390.71	15.27	26.593	
3,400.00	3,351.10	3,370.03	3,367.41	11.69	7.68	-167.78	112.21	-27.65	422.45	406.69	15.76	26.813	
3,500.00	3,448.93	3,468.64	3,465.92	12.13	7.91	-168.04	116.52	-26.40	438.93	422.69	16.24	27.021	
3,600.00	3,546.76	3,567.25	3,564.43	12.57	8.14	-168.29	120.82	-25.16	455.42	438.69	16.73	27.216	
3,700.00	3,644.58	3,665.86	3,662.94	13.01	8.38	-168.51	125.12	-23.91	471.92	454.70	17.22	27.400	
3,800.00	3,742.41	3,764.48	3,761.46	13.46	8.61	-168.72	129.43	-22.67	488.43	470.71	17.71	27.575	
3,900.00	3,840.24	3,863.09	3,859.97	13.90	8.84	-168.92	133.73	-21.43	504.94	486.73	18.20	27.739	
4,000.00	3,938.07	3,961.70	3,958.48	14.34	9.08	-169.10	138.03	-20.18	521.45	502.76	18.69	27.896	
4,100.00	4,035.90	4,060.32	4,056.99	14.78	9.31	-169.27	142.34	-18.94	537.98	518.79	19.18	28.044	
4,200.00	4,133.72	4,158.93	4,155.50	15.22	9.54	-169.43	146.64	-17.70	554.50	534.83	19.67	28.185	
4,300.00	4,231.55	4,257.54	4,254.01	15.66	9.78	-169.59	150.95	-16.45	571.03	550.87	20.16	28.319	
4,400.00	4,329.38	4,356.16	4,352.52	16.11	10.01	-169.73	155.25	-15.21	587.57	566.91	20.65	28.447	
4,500.00	4,427.21	4,454.77	4,451.04	16.55	10.24	-169.87	159.55	-13.97	604.10	582.96	21.15	28.569	
4,600.00	4,525.04	4,553.38	4,549.55	16.99	10.48	-169.99	163.86	-12.72	620.64	599.01	21.64	28.686	
4,700.00	4,622.86	4,652.00	4,648.06	17.44	10.71	-170.12	168.16	-11.48	637.19	615.06	22.13	28.797	
4,800.00	4,720.69	4,750.61	4,746.57	17.88	10.95	-170.23	172.46	-10.23	653.73	631.11	22.62	28.903	
4,900.00	4,818.52	4,849.22	4,845.08	18.32	11.18	-170.34	176.77	-8.99	670.28	647.17	23.11	29.005	

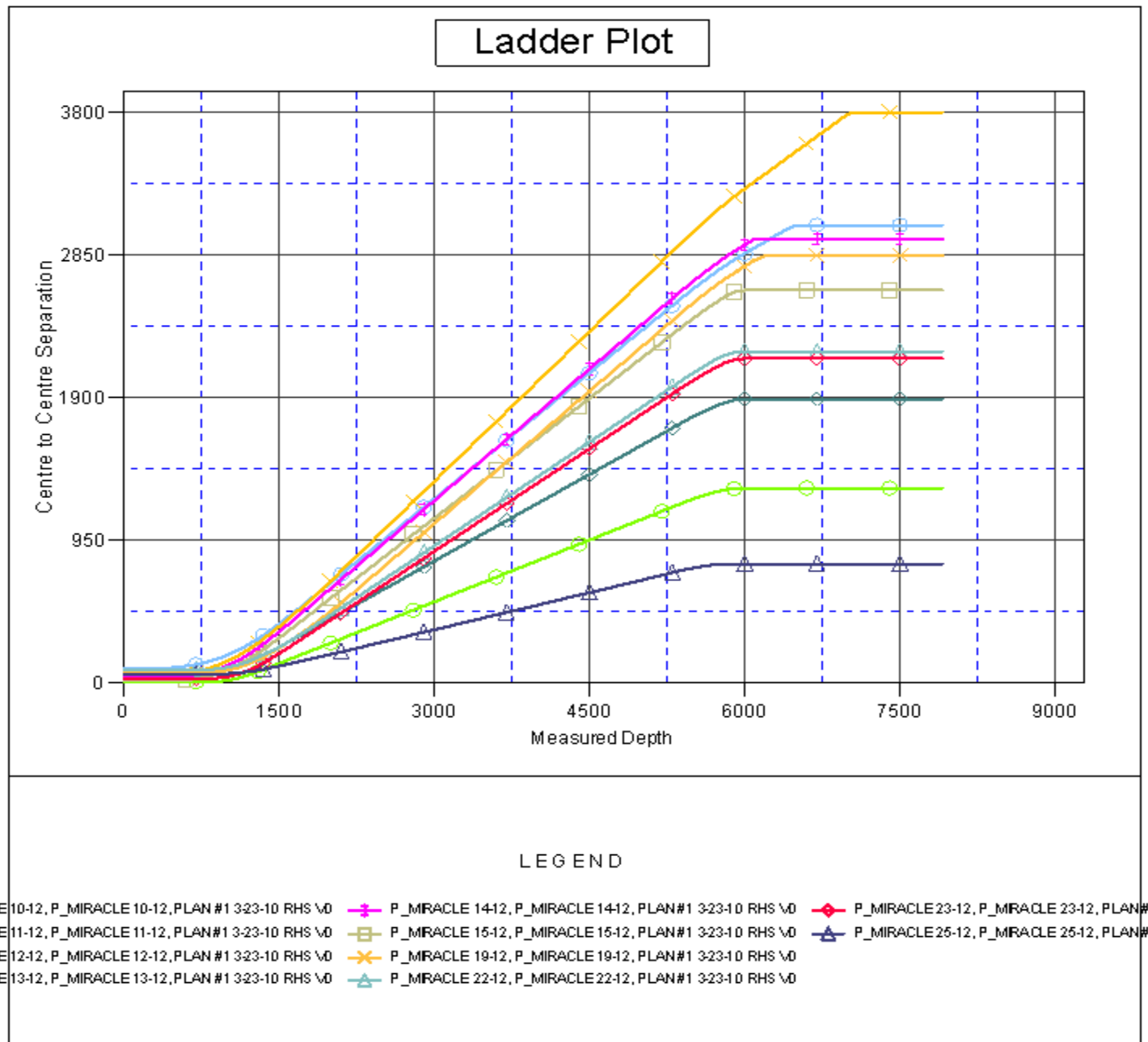
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design		LARIMER_MIRACLE 25-12 PAD - P_MIRACLE 25-12 - P_MIRACLE 25-12 - PLAN #1 3-23-10 RHS											Offset Site Error:		0.00 ft
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,000.00	4,916.35	4,947.84	4,943.59	18.77	11.41	-170.45	181.07	-7.75	686.83	663.23	23.60	29.103			
5,100.00	5,014.18	5,046.45	5,042.10	19.21	11.65	-170.55	185.37	-6.50	703.38	679.29	24.09	29.197			
5,200.00	5,112.01	5,145.06	5,140.62	19.65	11.88	-170.64	189.68	-5.26	719.94	695.36	24.58	29.287			
5,300.00	5,209.83	5,243.68	5,239.13	20.10	12.12	-170.73	193.98	-4.02	736.50	711.42	25.07	29.373			
5,400.00	5,307.66	5,342.29	5,337.64	20.54	12.35	-170.82	198.28	-2.77	753.05	727.49	25.57	29.456			
5,413.82	5,321.18	5,355.92	5,351.25	20.60	12.38	-170.83	198.88	-2.60	755.34	729.71	25.63	29.468			
5,500.00	5,405.75	5,441.10	5,436.35	20.93	12.58	-170.93	202.60	-1.53	768.35	742.26	26.09	29.449			
5,600.00	5,504.44	5,540.39	5,535.53	21.22	12.82	-170.99	206.93	-0.27	780.26	753.70	26.56	29.372			
5,700.00	5,603.64	5,640.02	5,635.06	21.48	13.06	-171.00	211.28	0.98	788.75	761.75	27.00	29.211			
5,800.00	5,703.22	5,739.89	5,734.82	21.70	13.29	-170.97	215.64	2.24	793.79	766.39	27.40	28.969			
5,900.00	5,803.05	5,828.92	5,823.79	21.87	13.48	-170.90	219.18	3.27	795.78	768.07	27.71	28.715			
6,000.00	5,903.02	5,909.35	5,904.19	22.00	13.62	-170.88	220.40	3.62	796.54	768.61	27.93	28.516			
6,011.98	5,915.00	5,920.15	5,915.00	22.02	13.64	-135.00	220.40	3.62	796.56	768.60	27.96	28.489			
6,100.00	6,003.02	6,008.18	6,003.02	22.12	13.81	-135.00	220.40	3.62	796.56	768.28	28.28	28.163			
6,200.00	6,103.02	6,108.18	6,103.02	22.25	14.02	-135.00	220.40	3.62	796.56	767.87	28.69	27.761			
6,300.00	6,203.02	6,208.18	6,203.02	22.38	14.23	-135.00	220.40	3.62	796.56	767.46	29.10	27.369			
6,400.00	6,303.02	6,308.18	6,303.02	22.51	14.45	-135.00	220.40	3.62	796.56	767.04	29.52	26.987			
6,500.00	6,403.02	6,408.18	6,403.02	22.64	14.66	-135.00	220.40	3.62	796.56	766.63	29.93	26.615			
6,600.00	6,503.02	6,508.18	6,503.02	22.77	14.87	-135.00	220.40	3.62	796.56	766.22	30.34	26.252			
6,700.00	6,603.02	6,608.18	6,603.02	22.91	15.09	-135.00	220.40	3.62	796.56	765.80	30.76	25.898			
6,800.00	6,703.02	6,708.18	6,703.02	23.05	15.30	-135.00	220.40	3.62	796.56	765.39	31.17	25.553			
6,900.00	6,803.02	6,808.18	6,803.02	23.18	15.52	-135.00	220.40	3.62	796.56	764.97	31.59	25.216			
7,000.00	6,903.02	6,908.18	6,903.02	23.32	15.73	-135.00	220.40	3.62	796.56	764.55	32.01	24.888			
7,100.00	7,003.02	7,008.18	7,003.02	23.46	15.95	-135.00	220.40	3.62	796.56	764.14	32.42	24.567			
7,200.00	7,103.02	7,108.18	7,103.02	23.61	16.17	-135.00	220.40	3.62	796.56	763.72	32.84	24.253			
7,300.00	7,203.02	7,208.18	7,203.02	23.75	16.38	-135.00	220.40	3.62	796.56	763.30	33.26	23.947			
7,400.00	7,303.02	7,308.18	7,303.02	23.89	16.60	-135.00	220.40	3.62	796.56	762.88	33.68	23.648			
7,500.00	7,403.02	7,408.18	7,403.02	24.04	16.82	-135.00	220.40	3.62	796.56	762.46	34.10	23.356			
7,600.00	7,503.02	7,508.18	7,503.02	24.19	17.03	-135.00	220.40	3.62	796.56	762.03	34.53	23.071			
7,700.00	7,603.02	7,608.18	7,603.02	24.33	17.25	-135.00	220.40	3.62	796.56	761.61	34.95	22.792			
7,800.00	7,703.02	7,708.18	7,703.02	24.48	17.47	-135.00	220.40	3.62	796.56	761.19	35.37	22.519			
7,900.00	7,803.02	7,808.18	7,803.02	24.63	17.68	-135.00	220.40	3.62	796.56	760.76	35.80	22.253			
7,900.98	7,804.00	7,809.15	7,804.00	24.64	17.69	-135.00	220.40	3.62	796.56	760.76	35.80	22.250			
7,911.98	7,815.00	7,814.15	7,809.00	24.65	17.70	-135.00	220.40	3.62	796.58	760.75	35.83	22.230			

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4978.00ft (Original Well Elev) Coordinates are relative to: P\_MIRACLE 7-12  
Offset Depths are relative to Offset Datum  
Central Meridian is 105° 30' 0.000 W °  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.35°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_MIRACLE 7-12
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Reference Site:</b>	LARIMER_MIRACLE 25-12 PAD	<b>MD Reference:</b>	WELL @ 4978.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_MIRACLE 7-12	<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_MIRACLE 7-12	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 3-23-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4978.00ft (Original Well Elev) Coordinates are relative to: P\_MIRACLE 7-12  
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: 0.35°

