



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_JESSER 18-2 PAD

P_BROWN 6-2

P_BROWN 6-2

Plan: PLAN #1 3-16-10 RHS

Standard Planning Report

16 March, 2010

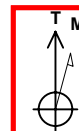




Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_JESSER 18-2 PAD
 Well: P_BROWN 6-2
 Wellbore: P_BROWN 6-2
 Section: SECTION 2 T1N R66W
 SHL: 1178 FNL 1162 FWL
 Design: PLAN #1 3-16-10 RHS
 Latitude: 40° 5' 2.659 N
 Longitude: 104° 44' 58.355 W
 GL: 5143.00
 KB: WELL @ 5158.00ft (Original Well Elev)



Weatherford



Azimuths to True North
 Magnetic North: 8.99°
 Magnetic Field
 Strength: 53095.8nT
 Dip Angle: 66.84°
 Date: 3/16/2010
 Model: IGRF2010

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4302.00	4376.83	PARKMAN
4792.00	4881.24	SUSSEX
7272.00	7391.32	NIO A
7592.00	7711.32	CODELL
8052.00	8171.32	JSAND

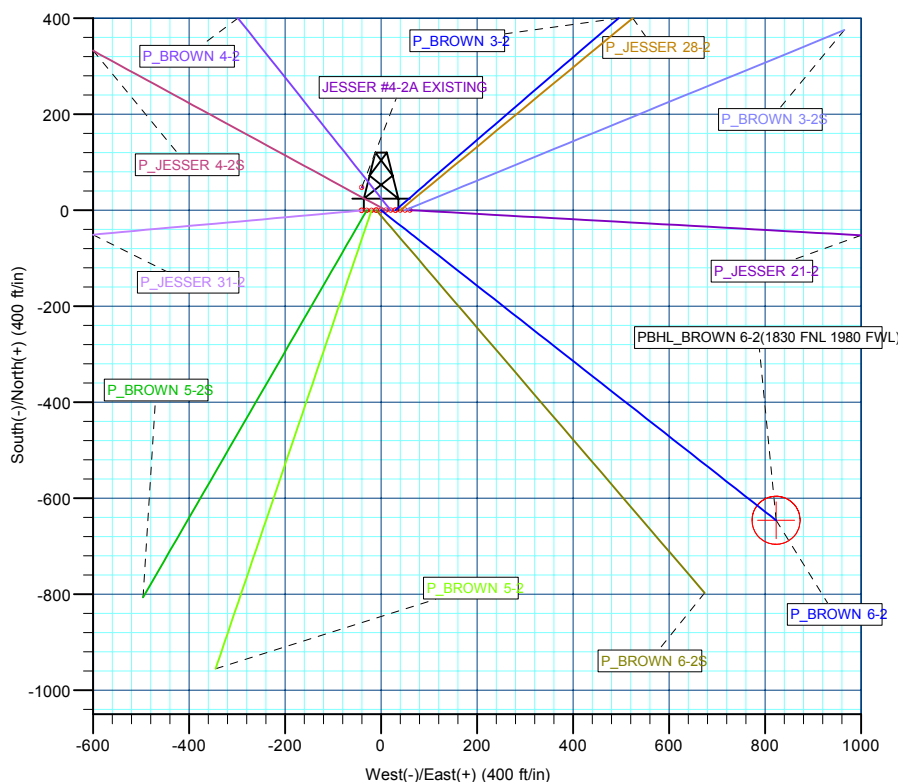
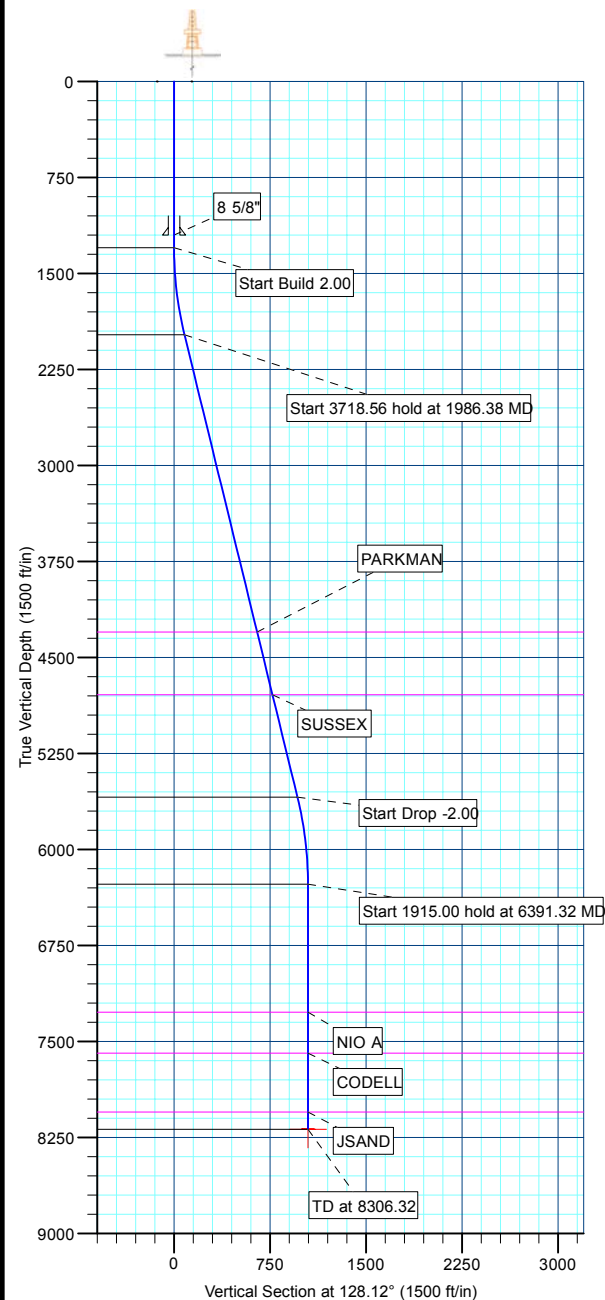
CASING DETAILS			
TVD	MD	Name	Size
1200.00	1200.00	8 5/8"	8.62

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	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1986.38	13.73	128.12	1979.83	-50.52	64.38	2.00	128.12	81.83	Start 3718.56 hold at 1986.38 MD
5704.94	13.73	128.12	5592.17	-595.31	758.56	0.00	0.00	964.27	Start Drop -2.00
6391.32	0.00	0.00	6272.00	-645.83	822.94	2.00	180.00	1046.10	Start 1915.00 hold at 6391.32 MD
8306.32	0.00	0.00	8187.00	-645.83	822.94	0.00	0.00	1046.10	TD at 8306.32

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8187.00	-645.83	822.94	40° 4' 56.276 N	104° 44' 47.767 W	Circle (Radius: 50.00)

WELL DETAILS: P_BROWN 6-2						
+N/-S	+E/-W	Northing	Ground Level: Easting	5143.00 Latitude	Longitude	Slot
0.00	0.00	1274360.73	3209981.53	40° 5' 2.659 N	104° 44' 58.355 W	

LEGEND	
JESSER #4-2A EXISTING, JESSER #4-2A EXISTING, JESSER #4-2A EXISTING V0	
P_BROWN 3-2, P_BROWN 3-2, PLAN #1 3-16-10 RHS V0	
P_BROWN 3-2S, P_BROWN 3-2S, PLAN #1 3-16-10 RHS V0	
P_BROWN 4-2, P_BROWN 4-2, PLAN #1 3-16-10 RHS V0	
P_BROWN 5-2, P_BROWN 5-2, PLAN #1 3-16-10 RHS V0	
P_BROWN 5-2S, P_BROWN 5-2S, PLAN #1 3-16-10 RHS V0	
P_BROWN 6-2S, P_BROWN 6-2S, PLAN #1 3-16-10 RHS V0	
P_JESSER 21-2, P_JESSER 21-2, PLAN #1 3-16-10 RHS V0	
P_JESSER 28-2, P_JESSER 28-2, PLAN #1 3-16-10 RHS V0	
P_JESSER 31-2, P_JESSER 31-2, PLAN #1 3-16-10 RHS V0	
P_JESSER 4-2S, P_JESSER 4-2S, PLAN #1 3-16-10 RHS V0	
PLAN #1 3-16-10 RHS	



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BROWN 6-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site:	WELD_JESSER 18-2 PAD	North Reference:	True
Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BROWN 6-2		
Design:	PLAN #1 3-16-10 RHS		

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

Site		WELD_JESSER 18-2 PAD, SECTION 2 T1N R66W			
Site Position:		Northing:	1,274,361.36 ft	Latitude:	40° 5' 2.663 N
From:	Lat/Long	Easting:	3,210,011.75 ft	Longitude:	104° 44' 57.966 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.48 °

Well	P_BROWN 6-2					
Well Position	+N/-S	-0.38 ft	Northing:	1,274,360.73 ft	Latitude:	40° 5' 2.659 N
	+E/-W	-30.22 ft	Easting:	3,209,981.53 ft	Longitude:	104° 44' 58.355 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,143.00 ft

Wellbore	P_BROWN 6-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/16/2010	9.00	66.84	53,096

Design	PLAN #1 3-16-10 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	128.12

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,986.38	13.73	128.12	1,979.83	-50.52	64.38	2.00	2.00	0.00	128.12	
5,704.94	13.73	128.12	5,592.17	-595.31	758.56	0.00	0.00	0.00	0.00	
6,391.32	0.00	0.00	6,272.00	-645.83	822.94	2.00	-2.00	0.00	180.00	
8,306.32	0.00	0.00	8,187.00	-645.83	822.94	0.00	0.00	0.00	0.00	PBHL_BROWN 6-2

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BROWN 6-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site:	WELD_JESSER 18-2 PAD	North Reference:	True
Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BROWN 6-2		
Design:	PLAN #1 3-16-10 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)
Start Build 2.00									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	2.00	128.12	1,399.98	-1.08	1.37	1.75	2.00	2.00	0.00
1,500.00	4.00	128.12	1,499.84	-4.31	5.49	6.98	2.00	2.00	0.00
1,600.00	6.00	128.12	1,599.45	-9.69	12.35	15.69	2.00	2.00	0.00
1,700.00	8.00	128.12	1,698.70	-17.21	21.93	27.88	2.00	2.00	0.00
1,800.00	10.00	128.12	1,797.47	-26.87	34.24	43.52	2.00	2.00	0.00
1,900.00	12.00	128.12	1,895.62	-38.65	49.25	62.60	2.00	2.00	0.00
Start 3718.56 hold at 1986.38 MD									
1,986.38	13.73	128.12	1,979.83	-50.52	64.38	81.83	2.00	2.00	0.00
2,000.00	13.73	128.12	1,993.06	-52.52	66.92	85.07	0.00	0.00	0.00
2,100.00	13.73	128.12	2,090.21	-67.17	85.59	108.80	0.00	0.00	0.00
2,200.00	13.73	128.12	2,187.35	-81.82	104.25	132.53	0.00	0.00	0.00
2,300.00	13.73	128.12	2,284.49	-96.47	122.92	156.26	0.00	0.00	0.00
2,400.00	13.73	128.12	2,381.64	-111.12	141.59	179.99	0.00	0.00	0.00
2,500.00	13.73	128.12	2,478.78	-125.77	160.26	203.72	0.00	0.00	0.00
2,600.00	13.73	128.12	2,575.92	-140.42	178.93	227.45	0.00	0.00	0.00
2,700.00	13.73	128.12	2,673.07	-155.07	197.60	251.18	0.00	0.00	0.00
2,800.00	13.73	128.12	2,770.21	-169.72	216.26	274.91	0.00	0.00	0.00
2,900.00	13.73	128.12	2,867.35	-184.37	234.93	298.64	0.00	0.00	0.00
3,000.00	13.73	128.12	2,964.50	-199.02	253.60	322.37	0.00	0.00	0.00
3,100.00	13.73	128.12	3,061.64	-213.67	272.27	346.10	0.00	0.00	0.00
3,200.00	13.73	128.12	3,158.78	-228.32	290.94	369.83	0.00	0.00	0.00
3,300.00	13.73	128.12	3,255.93	-242.97	309.60	393.56	0.00	0.00	0.00
3,400.00	13.73	128.12	3,353.07	-257.63	328.27	417.29	0.00	0.00	0.00
3,500.00	13.73	128.12	3,450.22	-272.28	346.94	441.02	0.00	0.00	0.00
3,600.00	13.73	128.12	3,547.36	-286.93	365.61	464.76	0.00	0.00	0.00
3,700.00	13.73	128.12	3,644.50	-301.58	384.28	488.49	0.00	0.00	0.00
3,800.00	13.73	128.12	3,741.65	-316.23	402.95	512.22	0.00	0.00	0.00
3,900.00	13.73	128.12	3,838.79	-330.88	421.61	535.95	0.00	0.00	0.00
4,000.00	13.73	128.12	3,935.93	-345.53	440.28	559.68	0.00	0.00	0.00
4,100.00	13.73	128.12	4,033.08	-360.18	458.95	583.41	0.00	0.00	0.00
4,200.00	13.73	128.12	4,130.22	-374.83	477.62	607.14	0.00	0.00	0.00
4,300.00	13.73	128.12	4,227.36	-389.48	496.29	630.87	0.00	0.00	0.00
PARKMAN									
4,376.83	13.73	128.12	4,302.00	-400.74	510.63	649.10	0.00	0.00	0.00
4,400.00	13.73	128.12	4,324.51	-404.13	514.96	654.60	0.00	0.00	0.00
4,500.00	13.73	128.12	4,421.65	-418.78	533.62	678.33	0.00	0.00	0.00
4,600.00	13.73	128.12	4,518.79	-433.43	552.29	702.06	0.00	0.00	0.00
4,700.00	13.73	128.12	4,615.94	-448.08	570.96	725.79	0.00	0.00	0.00
4,800.00	13.73	128.12	4,713.08	-462.73	589.63	749.52	0.00	0.00	0.00
SUSSEX									
4,881.24	13.73	128.12	4,792.00	-474.64	604.79	768.80	0.00	0.00	0.00
4,900.00	13.73	128.12	4,810.22	-477.38	608.30	773.25	0.00	0.00	0.00
5,000.00	13.73	128.12	4,907.37	-492.04	626.96	796.98	0.00	0.00	0.00
5,100.00	13.73	128.12	5,004.51	-506.69	645.63	820.71	0.00	0.00	0.00
5,200.00	13.73	128.12	5,101.65	-521.34	664.30	844.44	0.00	0.00	0.00
5,300.00	13.73	128.12	5,198.80	-535.99	682.97	868.18	0.00	0.00	0.00
5,400.00	13.73	128.12	5,295.94	-550.64	701.64	891.91	0.00	0.00	0.00
5,500.00	13.73	128.12	5,393.09	-565.29	720.31	915.64	0.00	0.00	0.00
5,600.00	13.73	128.12	5,490.23	-579.94	738.97	939.37	0.00	0.00	0.00
5,700.00	13.73	128.12	5,587.37	-594.59	757.64	963.10	0.00	0.00	0.00
Start Drop -2.00									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BROWN 6-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site:	WELD_JESSER 18-2 PAD	North Reference:	True
Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BROWN 6-2		
Design:	PLAN #1 3-16-10 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)
5,704.94	13.73	128.12	5,592.17	-595.31	758.56	964.27	0.00	0.00	0.00
5,800.00	11.83	128.12	5,684.87	-608.29	775.10	985.29	2.00	-2.00	0.00
5,900.00	9.83	128.12	5,783.09	-619.89	789.88	1,004.07	2.00	-2.00	0.00
6,000.00	7.83	128.12	5,881.90	-629.36	801.95	1,019.42	2.00	-2.00	0.00
6,100.00	5.83	128.12	5,981.18	-636.70	811.30	1,031.30	2.00	-2.00	0.00
6,200.00	3.83	128.12	6,080.83	-641.89	817.92	1,039.72	2.00	-2.00	0.00
6,300.00	1.83	128.12	6,180.70	-644.94	821.79	1,044.65	2.00	-2.00	0.00
Start 1915.00 hold at 6391.32 MD									
6,391.32	0.00	0.00	6,272.00	-645.83	822.94	1,046.10	2.00	-2.00	0.00
6,400.00	0.00	0.00	6,280.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
6,500.00	0.00	0.00	6,380.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
6,600.00	0.00	0.00	6,480.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
6,700.00	0.00	0.00	6,580.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
6,800.00	0.00	0.00	6,680.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
6,900.00	0.00	0.00	6,780.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,000.00	0.00	0.00	6,880.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,100.00	0.00	0.00	6,980.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,200.00	0.00	0.00	7,080.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,300.00	0.00	0.00	7,180.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
NIO A									
7,391.32	0.00	0.00	7,272.00	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,400.00	0.00	0.00	7,280.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,500.00	0.00	0.00	7,380.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,600.00	0.00	0.00	7,480.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,700.00	0.00	0.00	7,580.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
CODELL									
7,711.32	0.00	0.00	7,592.00	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,800.00	0.00	0.00	7,680.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
7,900.00	0.00	0.00	7,780.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
8,000.00	0.00	0.00	7,880.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
8,100.00	0.00	0.00	7,980.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
JSAND									
8,171.32	0.00	0.00	8,052.00	-645.83	822.94	1,046.10	0.00	0.00	0.00
8,200.00	0.00	0.00	8,080.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
8,300.00	0.00	0.00	8,180.68	-645.83	822.94	1,046.10	0.00	0.00	0.00
PBHL_BROWN 6-2(1830 FNL 1980 FWL)									
8,306.32	0.00	0.00	8,187.00	-645.83	822.94	1,046.10	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_BROWN 6-2(1	0.00	0.00	8,187.00	-645.83	822.94	1,273,721.88	3,210,809.91	40° 4' 56.276 N	104° 44' 47.767 W
- plan hits target center									
- Circle (radius 50.00)									

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BROWN 6-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site:	WELD_JESSER 18-2 PAD	North Reference:	True
Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BROWN 6-2		
Design:	PLAN #1 3-16-10 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,200.00	1,200.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,376.83	4,302.00	PARKMAN				
4,881.24	4,792.00	SUSSEX				
7,391.32	7,272.00	NIO A				
7,711.32	7,592.00	CODELL				
8,171.32	8,052.00	JSAND				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,300.00	1,300.00	0.00	0.00	Start Build 2.00	
1,986.38	1,979.83	-50.52	64.38	Start 3718.56 hold at 1986.38 MD	
5,704.94	5,592.17	-595.31	758.56	Start Drop -2.00	
6,391.32	6,272.00	-645.83	822.94	Start 1915.00 hold at 6391.32 MD	
8,306.32	8,187.00	-645.83	822.94	TD at 8306.32	



US ROCKIES REGION PLANNING

**COLORADO NORTHERN ZONE - 83
WELD_JESSER 18-2 PAD
P_BROWN 6-2**

**P_BROWN 6-2
PLAN #1 3-16-10 RHS**

Anticollision Report

16 March, 2010



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 3-16-10 RHS		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 3/16/2010				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	8,306.32	PLAN #1 3-16-10 RHS (P_BROWN 6-2)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WELD_JESSER 18-2 PAD						
JESSER #4-2A EXISTING - JESSER #4-2A EXISTING -	1,300.00	1,279.00	62.45	10.49	1.202	Level 2, CC
JESSER #4-2A EXISTING - JESSER #4-2A EXISTING -	1,400.00	1,378.98	64.16	8.03	1.143	Level 2, ES, SF
P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RHS	1,345.50	1,345.14	30.22	24.44	5.232	CC
P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RHS	1,400.00	1,399.15	30.27	24.27	5.043	ES
P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 RHS	1,500.00	1,498.01	31.35	24.95	4.900	SF
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,483.56	1,481.23	49.81	43.49	7.882	CC
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,500.00	1,497.44	49.82	43.44	7.805	ES
P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 F	1,700.00	1,693.91	53.58	46.37	7.428	SF
P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 RHS	1,503.13	1,503.01	14.20	7.77	2.208	CC, ES, SF
P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RHS	1,300.00	1,300.00	19.87	14.28	3.557	CC, ES, SF
P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 F	1,300.00	1,300.00	29.94	24.36	5.361	CC, ES
P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 F	1,400.00	1,399.56	31.97	25.99	5.345	SF
P_BROWN 6-2S - P_BROWN 6-2S - PLAN #1 3-16-10 F	1,300.00	1,300.00	9.79	4.21	1.753	CC, ES
P_BROWN 6-2S - P_BROWN 6-2S - PLAN #1 3-16-10 F	1,400.00	1,400.17	10.31	4.33	1.723	SF
P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	60.16	54.57	10.771	CC
P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 R	1,400.00	1,397.94	60.51	54.52	10.101	ES
P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 R	1,700.00	1,691.14	67.39	60.23	9.418	SF
P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 R	1,343.82	1,343.35	40.01	34.24	6.937	CC
P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 R	1,400.00	1,398.88	40.05	34.05	6.673	ES
P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 R	1,500.00	1,497.48	40.85	34.46	6.389	SF
P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 R	1,300.00	1,300.00	40.01	34.43	7.164	CC, ES, SF
P_JESSER 4-2S - P_JESSER 4-2S - PLAN #1 3-16-10 F	1,465.62	1,465.60	5.64	-0.63	0.900	Level 1, CC, ES, SF

Offset Design WELD_JESSER 18-2 PAD - JESSER #4-2A EXISTING - JESSER #4-2A EXISTING - JESSER #4-2A E											
Survey Program: 0-UNKNOWN											
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)
0.00	0.00	0.00	0.00	0.00	0.00	-40.18	47.71	-40.29	65.88		
100.00	100.00	79.00	79.00	0.10	1.58	-40.18	47.71	-40.29	62.45	60.77	1.68
200.00	200.00	179.00	179.00	0.32	5.16	-40.18	47.71	-40.29	62.45	56.97	5.48
300.00	300.00	279.00	279.00	0.55	9.16	-40.18	47.71	-40.29	62.45	52.74	9.71
400.00	400.00	379.00	379.00	0.77	13.16	-40.18	47.71	-40.29	62.45	48.52	13.93
500.00	500.00	479.00	479.00	0.99	17.16	-40.18	47.71	-40.29	62.45	44.29	18.15
											3.440

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - JESSER #4-2A EXISTING - JESSER #4-2A EXISTING - JESSER #4-2A E												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												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	
600.00	600.00	579.00	579.00	1.22	21.16	-40.18	47.71	-40.29	62.45	40.07	22.38	2.790	
700.00	700.00	679.00	679.00	1.44	25.16	-40.18	47.71	-40.29	62.45	35.84	26.60	2.347	
800.00	800.00	779.00	779.00	1.67	29.16	-40.18	47.71	-40.29	62.45	31.62	30.83	2.026	
900.00	900.00	879.00	879.00	1.89	33.16	-40.18	47.71	-40.29	62.45	27.39	35.05	1.781	
1,000.00	1,000.00	979.00	979.00	2.12	37.16	-40.18	47.71	-40.29	62.45	23.17	39.28	1.590	
1,100.00	1,100.00	1,079.00	1,079.00	2.34	41.16	-40.18	47.71	-40.29	62.45	18.94	43.50	1.435	Level 3
1,200.00	1,200.00	1,179.00	1,179.00	2.57	45.16	-40.18	47.71	-40.29	62.45	14.72	47.73	1.308	Level 3
1,300.00	1,300.00	1,279.00	1,279.00	2.79	49.16	-40.18	47.71	-40.29	62.45	10.49	51.95	1.202	Level 2, CC
1,400.00	1,399.98	1,378.98	1,378.98	3.00	53.16	-168.62	47.71	-40.29	64.16	8.03	56.13	1.143	Level 2, ES, SF
1,500.00	1,499.84	1,478.84	1,478.84	3.18	57.15	-169.45	47.71	-40.29	69.29	9.09	60.21	1.151	Level 2
1,600.00	1,599.45	1,578.45	1,578.45	3.38	61.14	-170.60	47.71	-40.29	77.88	13.69	64.19	1.213	Level 2
1,700.00	1,698.70	1,677.70	1,677.70	3.60	65.11	-171.83	47.71	-40.29	89.93	21.86	68.06	1.321	Level 3
1,800.00	1,797.47	1,776.47	1,776.47	3.85	69.06	-173.00	47.71	-40.29	105.44	33.64	71.80	1.468	Level 3
1,900.00	1,895.62	1,874.62	1,874.62	4.14	72.98	-174.03	47.71	-40.29	124.40	49.01	75.38	1.650	
1,986.38	1,979.83	1,958.83	1,958.83	4.43	76.35	-174.79	47.71	-40.29	143.54	65.20	78.35	1.832	
2,000.00	1,993.06	1,972.06	1,972.06	4.48	76.88	-174.91	47.71	-40.29	146.76	67.87	78.89	1.860	
2,100.00	2,090.21	2,069.21	2,069.21	4.85	80.77	-175.62	47.71	-40.29	170.42	87.53	82.89	2.056	
2,200.00	2,187.35	2,166.35	2,166.35	5.25	84.65	-176.15	47.71	-40.29	194.09	107.20	86.89	2.234	
2,300.00	2,284.49	2,263.49	2,263.49	5.66	88.54	-176.57	47.71	-40.29	217.78	126.88	90.90	2.396	
2,400.00	2,381.64	2,360.64	2,360.64	6.10	92.43	-176.91	47.71	-40.29	241.47	146.56	94.91	2.544	
2,500.00	2,478.78	2,457.78	2,457.78	6.54	96.31	-177.18	47.71	-40.29	265.17	166.24	98.93	2.680	
2,600.00	2,575.92	2,554.92	2,554.92	7.00	100.20	-177.42	47.71	-40.29	288.88	185.93	102.95	2.806	
2,700.00	2,673.07	2,652.07	2,652.07	7.46	104.08	-177.61	47.71	-40.29	312.59	205.61	106.98	2.922	
2,800.00	2,770.21	2,749.21	2,749.21	7.93	107.97	-177.78	47.71	-40.29	336.30	225.30	111.00	3.030	
2,900.00	2,867.35	2,846.35	2,846.35	8.40	111.85	-177.93	47.71	-40.29	360.01	244.98	115.03	3.130	
3,000.00	2,964.50	2,943.50	2,943.50	8.88	115.74	-178.05	47.71	-40.29	383.73	264.66	119.07	3.223	
3,100.00	3,061.64	3,040.64	3,040.64	9.36	119.63	-178.17	47.71	-40.29	407.45	284.35	123.10	3.310	
3,200.00	3,158.78	3,137.78	3,137.78	9.85	123.51	-178.27	47.71	-40.29	431.17	304.03	127.14	3.391	
3,300.00	3,255.93	3,234.93	3,234.93	10.34	127.40	-178.36	47.71	-40.29	454.89	323.72	131.17	3.468	
3,400.00	3,353.07	3,332.07	3,332.07	10.83	131.28	-178.44	47.71	-40.29	478.61	343.40	135.21	3.540	
3,500.00	3,450.22	3,429.22	3,429.22	11.32	135.17	-178.51	47.71	-40.29	502.33	363.08	139.25	3.607	
3,600.00	3,547.36	3,526.36	3,526.36	11.82	139.05	-178.58	47.71	-40.29	526.06	382.76	143.29	3.671	
3,700.00	3,644.50	3,623.50	3,623.50	12.32	142.94	-178.64	47.71	-40.29	549.78	402.45	147.34	3.731	
3,800.00	3,741.65	3,720.65	3,720.65	12.82	146.83	-178.70	47.71	-40.29	573.51	422.13	151.38	3.789	
3,900.00	3,838.79	3,817.79	3,817.79	13.32	150.71	-178.75	47.71	-40.29	597.23	441.81	155.42	3.843	
4,000.00	3,935.93	3,914.93	3,914.93	13.82	154.60	-178.80	47.71	-40.29	620.96	461.49	159.47	3.894	
4,100.00	4,033.08	4,012.08	4,012.08	14.32	158.48	-178.84	47.71	-40.29	644.68	481.17	163.51	3.943	
4,200.00	4,130.22	4,109.22	4,109.22	14.82	162.37	-178.88	47.71	-40.29	668.41	500.85	167.56	3.989	
4,300.00	4,227.36	4,206.36	4,206.36	15.33	166.25	-178.92	47.71	-40.29	692.14	520.53	171.60	4.033	
4,400.00	4,324.51	4,303.51	4,303.51	15.83	170.14	-178.96	47.71	-40.29	715.86	540.21	175.65	4.075	
4,500.00	4,421.65	4,400.65	4,400.65	16.34	174.03	-178.99	47.71	-40.29	739.59	559.89	179.70	4.116	
4,600.00	4,518.79	4,497.79	4,497.79	16.85	177.91	-179.02	47.71	-40.29	763.32	579.57	183.75	4.154	
4,700.00	4,615.94	4,594.94	4,594.94	17.35	181.80	-179.05	47.71	-40.29	787.04	599.25	187.79	4.191	
4,800.00	4,713.08	4,692.08	4,692.08	17.86	185.68	-179.08	47.71	-40.29	810.77	618.93	191.84	4.226	
4,900.00	4,810.22	4,789.22	4,789.22	18.37	189.57	-179.11	47.71	-40.29	834.50	638.61	195.89	4.260	
5,000.00	4,907.37	4,886.37	4,886.37	18.88	193.45	-179.13	47.71	-40.29	858.23	658.29	199.94	4.292	
5,100.00	5,004.51	4,983.51	4,983.51	19.39	197.34	-179.15	47.71	-40.29	881.96	677.97	203.99	4.324	
5,200.00	5,101.65	5,080.65	5,080.65	19.89	201.23	-179.18	47.71	-40.29	905.68	697.64	208.04	4.353	
5,300.00	5,198.80	5,177.80	5,177.80	20.40	205.11	-179.20	47.71	-40.29	929.41	717.32	212.09	4.382	
5,400.00	5,295.94	5,274.94	5,274.94	20.91	209.00	-179.22	47.71	-40.29	953.14	737.00	216.14	4.410	
5,500.00	5,393.09	5,372.09	5,372.09	21.42	212.88	-179.24	47.71	-40.29	976.87	756.68	220.19	4.436	
5,600.00	5,490.23	5,469.23	5,469.23	21.93	216.77	-179.25	47.71	-40.29	1,000.60	776.36	224.24	4.462	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - JESSER #4-2A EXISTING - JESSER #4-2A EXISTING - JESSER #4-2A E											Offset Site Error: 0.00 ft		
Survey Program: 0-UNKNOWN											Offset Well Error: 0.00 ft		
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
5,704.94	5,592.17	5,571.17	5,571.17	22.47	220.85	-179.27	47.71	-40.29	1,025.50	797.01	228.49	4.488	
5,800.00	5,684.87	5,663.87	5,663.87	22.88	224.55	-179.29	47.71	-40.29	1,046.52	812.59	233.92	4.474	
5,900.00	5,783.09	5,762.09	5,762.09	23.20	228.48	-179.31	47.71	-40.29	1,065.30	825.81	239.49	4.448	
6,000.00	5,881.90	5,860.90	5,860.90	23.48	232.44	-179.32	47.71	-40.29	1,080.64	835.81	244.83	4.414	
6,100.00	5,981.18	5,960.18	5,960.18	23.72	236.41	-179.33	47.71	-40.29	1,092.53	842.61	249.92	4.372	
6,200.00	6,080.83	6,059.83	6,059.83	23.92	240.39	-179.34	47.71	-40.29	1,100.94	846.21	254.73	4.322	
6,300.00	6,180.70	6,159.70	6,159.70	24.08	244.39	-179.34	47.71	-40.29	1,105.87	846.62	259.25	4.266	
6,391.32	6,272.00	6,251.00	6,251.00	24.19	248.04	-51.22	47.71	-40.29	1,107.33	844.22	263.11	4.209	
6,400.00	6,280.68	6,259.68	6,259.68	24.20	248.39	-51.22	47.71	-40.29	1,107.33	843.85	263.47	4.203	
6,500.00	6,380.68	6,359.68	6,359.68	24.31	252.39	-51.22	47.71	-40.29	1,107.33	839.68	267.64	4.137	
6,600.00	6,480.68	6,459.68	6,459.68	24.43	256.39	-51.22	47.71	-40.29	1,107.33	835.50	271.82	4.074	
6,700.00	6,580.68	6,559.68	6,559.68	24.54	260.39	-51.22	47.71	-40.29	1,107.33	831.33	276.00	4.012	
6,800.00	6,680.68	6,659.68	6,659.68	24.66	264.39	-51.22	47.71	-40.29	1,107.33	827.15	280.17	3.952	
6,900.00	6,780.68	6,759.68	6,759.68	24.78	268.39	-51.22	47.71	-40.29	1,107.33	822.97	284.35	3.894	
7,000.00	6,880.68	6,859.68	6,859.68	24.90	272.39	-51.22	47.71	-40.29	1,107.33	818.79	288.53	3.838	
7,100.00	6,980.68	6,959.68	6,959.68	25.02	276.39	-51.22	47.71	-40.29	1,107.33	814.61	292.72	3.783	
7,200.00	7,080.68	7,059.68	7,059.68	25.14	280.39	-51.22	47.71	-40.29	1,107.33	810.43	296.90	3.730	
7,300.00	7,180.68	7,159.68	7,159.68	25.27	284.39	-51.22	47.71	-40.29	1,107.33	806.24	301.08	3.678	
7,400.00	7,280.68	7,259.68	7,259.68	25.40	288.39	-51.22	47.71	-40.29	1,107.33	802.06	305.27	3.627	
7,500.00	7,380.68	7,359.68	7,359.68	25.52	292.39	-51.22	47.71	-40.29	1,107.33	797.87	309.45	3.578	
7,600.00	7,480.68	7,459.68	7,459.68	25.65	296.39	-51.22	47.71	-40.29	1,107.33	793.69	313.64	3.531	
7,700.00	7,580.68	7,559.68	7,559.68	25.78	300.39	-51.22	47.71	-40.29	1,107.33	789.50	317.82	3.484	
7,800.00	7,680.68	7,659.68	7,659.68	25.91	304.39	-51.22	47.71	-40.29	1,107.33	785.31	322.01	3.439	
7,900.00	7,780.68	7,759.68	7,759.68	26.05	308.39	-51.22	47.71	-40.29	1,107.33	781.12	326.20	3.395	
8,000.00	7,880.68	7,859.68	7,859.68	26.18	312.39	-51.22	47.71	-40.29	1,107.33	776.93	330.39	3.352	
8,100.00	7,980.68	7,959.68	7,959.68	26.31	316.39	-51.22	47.71	-40.29	1,107.33	772.74	334.58	3.310	
8,200.00	8,080.68	8,059.68	8,059.68	26.45	320.39	-51.22	47.71	-40.29	1,107.33	768.55	338.77	3.269	
8,306.32	8,187.00	8,166.00	8,166.00	26.60	324.64	-51.22	47.71	-40.29	1,107.33	764.10	343.23	3.226	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 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)	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	89.28	0.38	30.22	30.22				
100.00	100.00	100.00	100.00	0.10	0.10	89.28	0.38	30.22	30.22	30.03	0.19	158.187	
200.00	200.00	200.00	200.00	0.32	0.32	89.28	0.38	30.22	30.22	29.58	0.64	47.178	
300.00	300.00	300.00	300.00	0.55	0.55	89.28	0.38	30.22	30.22	29.13	1.09	27.723	
400.00	400.00	400.00	400.00	0.77	0.77	89.28	0.38	30.22	30.22	28.68	1.54	19.629	
500.00	500.00	500.00	500.00	0.99	0.99	89.28	0.38	30.22	30.22	28.23	1.99	15.193	
600.00	600.00	600.00	600.00	1.22	1.22	89.28	0.38	30.22	30.22	27.78	2.44	12.393	
700.00	700.00	700.00	700.00	1.44	1.44	89.28	0.38	30.22	30.22	27.33	2.89	10.464	
800.00	800.00	800.00	800.00	1.67	1.67	89.28	0.38	30.22	30.22	26.88	3.34	9.054	
900.00	900.00	900.00	900.00	1.89	1.89	89.28	0.38	30.22	30.22	26.43	3.79	7.980	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.28	0.38	30.22	30.22	25.98	4.24	7.133	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.28	0.38	30.22	30.22	25.54	4.69	6.449	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.28	0.38	30.22	30.22	25.09	5.14	5.884	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.28	0.38	30.22	30.22	24.64	5.59	5.411	
1,345.50	1,345.50	1,345.14	1,345.13	2.88	2.89	-39.71	0.61	30.49	30.22	24.44	5.78	5.232 CC	
1,400.00	1,399.98	1,399.15	1,399.13	3.00	3.01	-42.99	1.50	31.52	30.27	24.27	6.00	5.043 ES	
1,500.00	1,499.84	1,498.01	1,497.85	3.18	3.23	-54.99	4.84	35.40	31.35	24.95	6.40	4.900 SF	
1,600.00	1,599.45	1,596.30	1,595.77	3.38	3.45	-71.86	10.37	41.82	35.84	29.03	6.81	5.262	
1,700.00	1,698.70	1,693.75	1,692.51	3.60	3.68	-87.82	18.01	50.69	45.89	38.64	7.26	6.325	
1,800.00	1,797.47	1,790.08	1,787.70	3.85	3.93	-99.49	27.67	61.91	61.93	54.20	7.73	8.015	
1,900.00	1,895.62	1,885.06	1,881.00	4.14	4.21	-107.18	39.23	75.34	83.42	75.19	8.23	10.136	
1,986.38	1,979.83	1,965.84	1,959.86	4.43	4.47	-111.60	50.64	88.59	105.92	97.22	8.70	12.178	
2,000.00	1,993.06	1,978.47	1,972.14	4.48	4.51	-112.22	52.56	90.82	109.77	100.99	8.77	12.509	
2,100.00	2,090.21	2,073.88	2,064.88	4.85	4.86	-115.73	67.21	107.84	138.55	129.17	9.38	14.771	
2,200.00	2,187.35	2,169.38	2,157.68	5.25	5.22	-118.04	81.89	124.89	167.64	157.63	10.02	16.736	
2,300.00	2,284.49	2,264.87	2,250.49	5.66	5.60	-119.67	96.56	141.93	196.92	186.24	10.68	18.437	
2,400.00	2,381.64	2,360.36	2,343.30	6.10	6.00	-120.87	111.23	158.97	226.30	214.93	11.37	19.910	
2,500.00	2,478.78	2,455.85	2,436.10	6.54	6.40	-121.80	125.90	176.01	255.75	243.68	12.07	21.190	
2,600.00	2,575.92	2,551.34	2,528.91	7.00	6.82	-122.54	140.57	193.05	285.25	272.46	12.79	22.307	
2,700.00	2,673.07	2,646.84	2,621.72	7.46	7.24	-123.13	155.24	210.09	314.78	301.26	13.52	23.286	
2,800.00	2,770.21	2,742.33	2,714.53	7.93	7.67	-123.63	169.91	227.13	344.34	330.08	14.26	24.148	
2,900.00	2,867.35	2,837.82	2,807.33	8.40	8.10	-124.05	184.59	244.17	373.92	358.91	15.01	24.912	
3,000.00	2,964.50	2,933.31	2,900.14	8.88	8.54	-124.40	199.26	261.21	403.52	387.75	15.77	25.591	
3,100.00	3,061.64	3,028.81	2,992.95	9.36	8.98	-124.71	213.93	278.25	433.13	416.59	16.53	26.198	
3,200.00	3,158.78	3,124.30	3,085.75	9.85	9.42	-124.98	228.60	295.29	462.74	445.44	17.30	26.744	
3,300.00	3,255.93	3,219.79	3,178.56	10.34	9.87	-125.22	243.27	312.33	492.37	474.29	18.08	27.236	
3,400.00	3,353.07	3,315.28	3,271.37	10.83	10.32	-125.42	257.94	329.37	522.00	503.14	18.86	27.681	
3,500.00	3,450.22	3,410.77	3,364.17	11.32	10.77	-125.61	272.61	346.41	551.64	532.00	19.64	28.086	
3,600.00	3,547.36	3,506.27	3,456.98	11.82	11.22	-125.78	287.28	363.45	581.28	560.86	20.43	28.455	
3,700.00	3,644.50	3,601.76	3,549.79	12.32	11.68	-125.93	301.96	380.49	610.93	589.71	21.22	28.793	
3,800.00	3,741.65	3,697.25	3,642.60	12.82	12.13	-126.07	316.63	397.53	640.58	618.57	22.01	29.103	
3,900.00	3,838.79	3,792.74	3,735.40	13.32	12.59	-126.19	331.30	414.57	670.24	647.43	22.81	29.389	
4,000.00	3,935.93	3,888.24	3,828.21	13.82	13.05	-126.31	345.97	431.61	699.89	676.29	23.60	29.652	
4,100.00	4,033.08	3,983.73	3,921.02	14.32	13.51	-126.41	360.64	448.65	729.55	705.15	24.40	29.897	
4,200.00	4,130.22	4,079.22	4,013.82	14.82	13.97	-126.51	375.31	465.69	759.21	734.01	25.20	30.123	
4,300.00	4,227.36	4,174.71	4,106.63	15.33	14.43	-126.60	389.98	482.73	788.88	762.87	26.01	30.334	
4,400.00	4,324.51	4,270.21	4,199.44	15.83	14.90	-126.68	404.65	499.77	818.54	791.73	26.81	30.531	
4,500.00	4,421.65	4,365.70	4,292.25	16.34	15.36	-126.76	419.33	516.81	848.21	820.59	27.62	30.715	
4,600.00	4,518.79	4,461.19	4,385.05	16.85	15.82	-126.83	434.00	533.85	877.87	849.45	28.42	30.887	
4,700.00	4,615.94	4,556.68	4,477.86	17.35	16.29	-126.90	448.67	550.89	907.54	878.31	29.23	31.049	
4,800.00	4,713.08	4,652.17	4,570.67	17.86	16.75	-126.96	463.34	567.93	937.21	907.17	30.04	31.201	
4,900.00	4,810.22	4,747.67	4,663.47	18.37	17.22	-127.02	478.01	584.97	966.88	936.03	30.85	31.344	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 3-2 - P_BROWN 3-2 - PLAN #1 3-16-10 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	4,907.37	4,843.16	4,756.28	18.88	17.68	-127.08	492.68	602.01	996.55	964.89	31.66	31.478	
5,100.00	5,004.51	4,938.65	4,849.09	19.39	18.15	-127.13	507.35	619.05	1,026.23	993.76	32.47	31.606	
5,200.00	5,101.65	5,034.14	4,941.90	19.89	18.62	-127.18	522.02	636.09	1,055.90	1,022.62	33.28	31.726	
5,300.00	5,198.80	5,129.64	5,034.70	20.40	19.09	-127.23	536.70	653.13	1,085.57	1,051.48	34.09	31.840	
5,400.00	5,295.94	5,225.13	5,127.51	20.91	19.55	-127.27	551.37	670.17	1,115.25	1,080.34	34.91	31.948	
5,500.00	5,393.09	5,320.62	5,220.32	21.42	20.02	-127.32	566.04	687.21	1,144.92	1,109.20	35.72	32.051	
5,600.00	5,490.23	5,416.11	5,313.12	21.93	20.49	-127.36	580.71	704.26	1,174.60	1,138.06	36.54	32.149	
5,704.94	5,592.17	5,516.32	5,410.51	22.47	20.98	-127.40	596.11	722.14	1,205.74	1,168.35	37.39	32.246	
5,800.00	5,684.87	5,607.37	5,499.01	22.88	21.43	-127.82	610.09	738.39	1,233.03	1,194.82	38.21	32.273	
5,900.00	5,783.09	5,712.67	5,601.38	23.20	21.92	-128.09	626.16	757.04	1,259.65	1,220.66	39.00	32.303	
6,000.00	5,881.90	5,848.93	5,734.84	23.48	22.38	-128.24	644.07	777.84	1,282.12	1,242.39	39.73	32.275	
6,100.00	5,981.18	5,987.72	5,871.95	23.72	22.79	-128.36	658.03	794.06	1,299.44	1,259.07	40.37	32.191	
6,200.00	6,080.83	6,128.39	6,011.82	23.92	23.11	-128.45	667.74	805.34	1,311.51	1,270.61	40.90	32.064	
6,300.00	6,180.70	6,270.27	6,153.46	24.08	23.36	-128.53	672.99	811.43	1,318.25	1,276.91	41.33	31.893	
6,391.32	6,272.00	6,388.83	6,272.00	24.19	23.51	-0.45	673.94	812.54	1,319.82	1,278.19	41.63	31.704	
6,400.00	6,280.68	6,397.51	6,280.68	24.20	23.52	-0.45	673.94	812.54	1,319.82	1,278.17	41.65	31.687	
6,500.00	6,380.68	6,497.51	6,380.68	24.31	23.65	-0.45	673.94	812.54	1,319.82	1,277.89	41.93	31.477	
6,600.00	6,480.68	6,597.51	6,480.68	24.43	23.78	-0.45	673.94	812.54	1,319.82	1,277.61	42.21	31.268	
6,700.00	6,580.68	6,697.51	6,580.68	24.54	23.91	-0.45	673.94	812.54	1,319.82	1,277.33	42.49	31.059	
6,800.00	6,680.68	6,797.51	6,680.68	24.66	24.04	-0.45	673.94	812.54	1,319.82	1,277.04	42.78	30.851	
6,900.00	6,780.68	6,897.51	6,780.68	24.78	24.17	-0.45	673.94	812.54	1,319.82	1,276.75	43.07	30.644	
7,000.00	6,880.68	6,997.51	6,880.68	24.90	24.30	-0.45	673.94	812.54	1,319.82	1,276.46	43.36	30.438	
7,100.00	6,980.68	7,097.51	6,980.68	25.02	24.44	-0.45	673.94	812.54	1,319.82	1,276.16	43.66	30.233	
7,200.00	7,080.68	7,197.51	7,080.68	25.14	24.58	-0.45	673.94	812.54	1,319.82	1,275.87	43.95	30.028	
7,300.00	7,180.68	7,297.51	7,180.68	25.27	24.71	-0.45	673.94	812.54	1,319.82	1,275.57	44.25	29.825	
7,400.00	7,280.68	7,397.51	7,280.68	25.40	24.85	-0.45	673.94	812.54	1,319.82	1,275.26	44.55	29.623	
7,500.00	7,380.68	7,497.51	7,380.68	25.52	24.99	-0.45	673.94	812.54	1,319.82	1,274.96	44.86	29.421	
7,600.00	7,480.68	7,597.51	7,480.68	25.65	25.14	-0.45	673.94	812.54	1,319.82	1,274.65	45.17	29.221	
7,700.00	7,580.68	7,697.51	7,580.68	25.78	25.28	-0.45	673.94	812.54	1,319.82	1,274.34	45.48	29.022	
7,800.00	7,680.68	7,797.51	7,680.68	25.91	25.42	-0.45	673.94	812.54	1,319.82	1,274.03	45.79	28.825	
7,900.00	7,780.68	7,897.51	7,780.68	26.05	25.57	-0.45	673.94	812.54	1,319.82	1,273.72	46.10	28.628	
8,000.00	7,880.68	7,997.51	7,880.68	26.18	25.71	-0.45	673.94	812.54	1,319.82	1,273.40	46.42	28.433	
8,100.00	7,980.68	8,097.51	7,980.68	26.31	25.86	-0.45	673.94	812.54	1,319.82	1,273.08	46.74	28.240	
8,200.00	8,080.68	8,197.51	8,080.68	26.45	26.01	-0.45	673.94	812.54	1,319.82	1,272.76	47.06	28.047	
8,258.81	8,139.50	8,256.32	8,139.50	26.53	26.10	-0.45	673.94	812.54	1,319.82	1,272.57	47.25	27.935	
8,306.32	8,187.00	8,276.83	8,160.00	26.60	26.13	-0.45	673.94	812.54	1,320.09	1,272.74	47.35	27.877	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 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	89.60	0.35	50.09	50.09				
100.00	100.00	100.00	100.00	0.10	0.10	89.60	0.35	50.09	50.09	49.90	0.19	262.165	
200.00	200.00	200.00	200.00	0.32	0.32	89.60	0.35	50.09	50.09	49.45	0.64	78.190	
300.00	300.00	300.00	300.00	0.55	0.55	89.60	0.35	50.09	50.09	49.00	1.09	45.947	
400.00	400.00	400.00	400.00	0.77	0.77	89.60	0.35	50.09	50.09	48.55	1.54	32.531	
500.00	500.00	500.00	500.00	0.99	0.99	89.60	0.35	50.09	50.09	48.10	1.99	25.180	
600.00	600.00	600.00	600.00	1.22	1.22	89.60	0.35	50.09	50.09	47.65	2.44	20.538	
700.00	700.00	700.00	700.00	1.44	1.44	89.60	0.35	50.09	50.09	47.20	2.89	17.342	
800.00	800.00	800.00	800.00	1.67	1.67	89.60	0.35	50.09	50.09	46.75	3.34	15.006	
900.00	900.00	900.00	900.00	1.89	1.89	89.60	0.35	50.09	50.09	46.30	3.79	13.225	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.60	0.35	50.09	50.09	45.85	4.24	11.822	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.60	0.35	50.09	50.09	45.40	4.69	10.688	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.60	0.35	50.09	50.09	44.95	5.14	9.752	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.60	0.35	50.09	50.09	44.50	5.59	8.967	
1,400.00	1,399.98	1,398.78	1,398.77	3.00	3.01	-40.31	0.84	51.27	49.95	43.95	6.00	8.327	
1,483.56	1,483.43	1,481.23	1,481.16	3.15	3.18	-44.54	1.98	54.06	49.81	43.49	6.32	7.882 CC	
1,500.00	1,499.84	1,497.44	1,497.35	3.18	3.22	-45.67	2.29	54.81	49.82	43.44	6.38	7.805 ES	
1,600.00	1,599.45	1,595.85	1,595.56	3.38	3.43	-54.47	4.69	60.68	50.58	43.80	6.78	7.458	
1,700.00	1,698.70	1,693.91	1,693.22	3.60	3.65	-65.87	8.05	68.86	53.58	46.37	7.21	7.428 SF	
1,800.00	1,797.47	1,791.50	1,790.15	3.85	3.89	-78.10	12.32	79.31	60.17	52.48	7.69	7.823	
1,900.00	1,895.62	1,888.51	1,886.18	4.14	4.14	-89.26	17.51	91.95	71.18	62.96	8.22	8.657	
1,986.38	1,979.83	1,971.74	1,968.29	4.43	4.38	-97.21	22.69	104.60	84.33	75.61	8.72	9.671	
2,000.00	1,993.06	1,984.82	1,981.16	4.48	4.42	-98.34	23.56	106.74	86.69	77.89	8.80	9.851	
2,100.00	2,090.21	2,080.66	2,075.23	4.85	4.71	-104.49	30.49	123.65	105.88	96.46	9.42	11.240	
2,200.00	2,187.35	2,176.09	2,168.43	5.25	5.04	-107.91	38.28	142.65	127.49	117.42	10.08	12.652	
2,300.00	2,284.49	2,271.00	2,260.57	5.66	5.41	-109.62	46.89	163.67	150.95	140.17	10.78	14.008	
2,400.00	2,381.64	2,365.28	2,351.52	6.10	5.81	-110.24	56.31	186.65	175.98	164.47	11.52	15.282	
2,500.00	2,478.78	2,459.12	2,441.42	6.54	6.24	-110.18	66.52	211.57	202.49	190.20	12.29	16.477	
2,600.00	2,575.92	2,555.37	2,533.34	7.00	6.72	-109.94	77.33	237.97	229.60	216.49	13.11	17.516	
2,700.00	2,673.07	2,651.62	2,625.27	7.46	7.21	-109.75	88.15	264.37	256.71	242.77	13.94	18.410	
2,800.00	2,770.21	2,747.88	2,717.19	7.93	7.72	-109.60	98.97	290.77	283.83	269.03	14.80	19.181	
2,900.00	2,867.35	2,844.13	2,809.12	8.40	8.24	-109.47	109.79	317.17	310.94	295.28	15.66	19.850	
3,000.00	2,964.50	2,940.38	2,901.05	8.88	8.77	-109.36	120.60	343.57	338.06	321.51	16.54	20.435	
3,100.00	3,061.64	3,036.63	2,992.97	9.36	9.31	-109.27	131.42	369.97	365.17	347.74	17.43	20.949	
3,200.00	3,158.78	3,132.88	3,084.90	9.85	9.85	-109.19	142.24	396.37	392.29	373.96	18.33	21.404	
3,300.00	3,255.93	3,229.13	3,176.82	10.34	10.40	-109.12	153.05	422.78	419.41	400.18	19.23	21.807	
3,400.00	3,353.07	3,325.39	3,268.75	10.83	10.95	-109.06	163.87	449.18	446.53	426.39	20.14	22.168	
3,500.00	3,450.22	3,421.64	3,360.68	11.32	11.50	-109.01	174.69	475.58	473.65	452.59	21.06	22.491	
3,600.00	3,547.36	3,517.89	3,452.60	11.82	12.06	-108.96	185.51	501.98	500.77	478.79	21.98	22.783	
3,700.00	3,644.50	3,614.14	3,544.53	12.32	12.63	-108.92	196.32	528.38	527.89	504.98	22.91	23.047	
3,800.00	3,741.65	3,710.39	3,636.45	12.82	13.19	-108.88	207.14	554.78	555.01	531.17	23.83	23.286	
3,900.00	3,838.79	3,806.64	3,728.38	13.32	13.76	-108.85	217.96	581.18	582.13	557.36	24.77	23.505	
4,000.00	3,935.93	3,902.90	3,820.31	13.82	14.33	-108.82	228.77	607.58	609.25	583.55	25.70	23.705	
4,100.00	4,033.08	3,999.15	3,912.23	14.32	14.90	-108.79	239.59	633.98	636.37	609.73	26.64	23.888	
4,200.00	4,130.22	4,095.40	4,004.16	14.82	15.47	-108.76	250.41	660.38	663.49	635.91	27.58	24.057	
4,300.00	4,227.36	4,191.65	4,096.08	15.33	16.05	-108.74	261.23	686.78	690.61	662.09	28.52	24.214	
4,400.00	4,324.51	4,287.90	4,188.01	15.83	16.62	-108.71	272.04	713.18	717.73	688.26	29.47	24.358	
4,500.00	4,421.65	4,384.15	4,279.94	16.34	17.20	-108.69	282.86	739.58	744.85	714.44	30.41	24.492	
4,600.00	4,518.79	4,480.41	4,371.86	16.85	17.78	-108.67	293.68	765.98	771.97	740.61	31.36	24.617	
4,700.00	4,615.94	4,576.66	4,463.79	17.35	18.36	-108.66	304.49	792.38	799.09	766.79	32.31	24.733	
4,800.00	4,713.08	4,672.91	4,555.71	17.86	18.94	-108.64	315.31	818.78	826.21	792.96	33.26	24.842	
4,900.00	4,810.22	4,769.16	4,647.64	18.37	19.52	-108.62	326.13	845.18	853.34	819.13	34.21	24.944	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 3-2S - P_BROWN 3-2S - PLAN #1 3-16-10 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	4,907.37	4,865.41	4,739.57	18.88	20.10	-108.61	336.95	871.58	880.46	845.29	35.16	25.039	
5,100.00	5,004.51	4,961.66	4,831.49	19.39	20.68	-108.59	347.76	897.98	907.58	871.46	36.12	25.129	
5,200.00	5,101.65	5,057.92	4,923.42	19.89	21.26	-108.58	358.58	924.39	934.70	897.63	37.07	25.214	
5,300.00	5,198.80	5,154.17	5,015.34	20.40	21.84	-108.57	369.40	950.79	961.82	923.80	38.03	25.293	
5,400.00	5,295.94	5,206.16	5,065.00	20.91	22.16	-108.56	375.24	965.05	989.93	951.17	38.77	25.535	
5,500.00	5,393.09	5,206.16	5,065.00	21.42	22.16	-108.56	375.24	965.05	1,025.73	986.48	39.26	26.129	
5,600.00	5,490.23	5,206.16	5,065.00	21.93	22.16	-108.56	375.24	965.05	1,069.72	1,029.97	39.75	26.914	
5,704.94	5,592.17	5,206.16	5,065.00	22.47	22.16	-108.56	375.24	965.05	1,123.62	1,083.36	40.26	27.909	
5,800.00	5,684.87	5,206.16	5,065.00	22.88	22.16	-109.81	375.24	965.05	1,177.99	1,137.22	40.77	28.893	
5,900.00	5,783.09	5,206.16	5,065.00	23.20	22.16	-111.28	375.24	965.05	1,239.60	1,198.39	41.21	30.082	
6,000.00	5,881.90	5,206.16	5,065.00	23.48	22.16	-112.88	375.24	965.05	1,305.05	1,263.45	41.60	31.374	
6,100.00	5,981.18	5,206.16	5,065.00	23.72	22.16	-114.61	375.24	965.05	1,373.70	1,331.77	41.93	32.763	
6,200.00	6,080.83	5,206.16	5,065.00	23.92	22.16	-116.45	375.24	965.05	1,445.03	1,402.83	42.20	34.242	
6,300.00	6,180.70	5,206.16	5,065.00	24.08	22.16	-118.38	375.24	965.05	1,518.57	1,476.17	42.41	35.811	
6,391.32	6,272.00	5,206.16	5,065.00	24.19	22.16	7.92	375.24	965.05	1,587.34	1,544.80	42.53	37.319	
6,400.00	6,280.68	5,206.16	5,065.00	24.20	22.16	7.92	375.24	965.05	1,593.95	1,551.40	42.54	37.466	
6,500.00	6,380.68	5,206.16	5,065.00	24.31	22.16	7.92	375.24	965.05	1,671.47	1,628.80	42.67	39.173	
6,600.00	6,480.68	5,206.16	5,065.00	24.43	22.16	7.92	375.24	965.05	1,751.27	1,708.47	42.80	40.922	
6,700.00	6,580.68	5,206.16	5,065.00	24.54	22.16	7.92	375.24	965.05	1,833.05	1,790.13	42.92	42.706	
6,800.00	6,680.68	5,206.16	5,065.00	24.66	22.16	7.92	375.24	965.05	1,916.56	1,873.51	43.05	44.517	
6,900.00	6,780.68	5,206.16	5,065.00	24.78	22.16	7.92	375.24	965.05	2,001.59	1,958.41	43.18	46.352	
7,000.00	6,880.68	5,206.16	5,065.00	24.90	22.16	7.92	375.24	965.05	2,087.94	2,044.62	43.31	48.204	
7,100.00	6,980.68	5,206.16	5,065.00	25.02	22.16	7.92	375.24	965.05	2,175.46	2,132.01	43.45	50.070	
7,200.00	7,080.68	5,206.16	5,065.00	25.14	22.16	7.92	375.24	965.05	2,264.02	2,220.43	43.58	51.947	
7,300.00	7,180.68	5,206.16	5,065.00	25.27	22.16	7.92	375.24	965.05	2,353.49	2,309.77	43.72	53.831	
7,400.00	7,280.68	5,206.16	5,065.00	25.40	22.16	7.92	375.24	965.05	2,443.78	2,399.92	43.86	55.721	
7,500.00	7,380.68	5,206.16	5,065.00	25.52	22.16	7.92	375.24	965.05	2,534.79	2,490.80	44.00	57.613	
7,600.00	7,480.68	5,206.16	5,065.00	25.65	22.16	7.92	375.24	965.05	2,626.46	2,582.33	44.14	59.507	
7,700.00	7,580.68	5,206.16	5,065.00	25.78	22.16	7.92	375.24	965.05	2,718.72	2,674.44	44.28	61.400	
7,800.00	7,680.68	5,206.16	5,065.00	25.91	22.16	7.92	375.24	965.05	2,811.51	2,767.09	44.42	63.291	
7,900.00	7,780.68	5,206.16	5,065.00	26.05	22.16	7.92	375.24	965.05	2,904.78	2,860.21	44.57	65.179	
8,000.00	7,880.68	5,206.16	5,065.00	26.18	22.16	7.92	375.24	965.05	2,998.48	2,953.76	44.71	67.063	
8,100.00	7,980.68	5,206.16	5,065.00	26.31	22.16	7.92	375.24	965.05	3,092.57	3,047.71	44.86	68.941	
8,200.00	8,080.68	5,206.16	5,065.00	26.45	22.16	7.92	375.24	965.05	3,187.03	3,142.02	45.01	70.814	
8,306.32	8,187.00	5,206.16	5,065.00	26.60	22.16	7.92	375.24	965.05	3,287.81	3,242.64	45.16	72.797	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 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	90.00	0.00	20.15	20.15				
100.00	100.00	100.00	100.00	0.10	0.10	90.00	0.00	20.15	20.15	19.96	0.19	105.449	
200.00	200.00	200.00	200.00	0.32	0.32	90.00	0.00	20.15	20.15	19.51	0.64	31.450	
300.00	300.00	300.00	300.00	0.55	0.55	90.00	0.00	20.15	20.15	19.06	1.09	18.481	
400.00	400.00	400.00	400.00	0.77	0.77	90.00	0.00	20.15	20.15	18.61	1.54	13.085	
500.00	500.00	500.00	500.00	0.99	0.99	90.00	0.00	20.15	20.15	18.16	1.99	10.128	
600.00	600.00	600.00	600.00	1.22	1.22	90.00	0.00	20.15	20.15	17.71	2.44	8.261	
700.00	700.00	700.00	700.00	1.44	1.44	90.00	0.00	20.15	20.15	17.26	2.89	6.975	
800.00	800.00	800.00	800.00	1.67	1.67	90.00	0.00	20.15	20.15	16.81	3.34	6.036	
900.00	900.00	900.00	900.00	1.89	1.89	90.00	0.00	20.15	20.15	16.36	3.79	5.319	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.00	0.00	20.15	20.15	15.91	4.24	4.755	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	90.00	0.00	20.15	20.15	15.46	4.69	4.299	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	90.00	0.00	20.15	20.15	15.01	5.14	3.923	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	90.00	0.00	20.15	20.15	14.56	5.59	3.607	
1,400.00	1,399.98	1,400.32	1,400.30	3.00	3.02	-46.06	1.37	19.05	17.85	11.84	6.01	2.972	
1,500.00	1,499.84	1,499.91	1,499.75	3.18	3.24	-81.55	5.46	15.81	14.21	7.79	6.42	2.214	
1,503.13	1,502.96	1,503.01	1,502.84	3.19	3.24	-83.29	5.63	15.67	14.20	7.77	6.43	2.208 CC, ES, SF	
1,600.00	1,599.45	1,598.09	1,597.55	3.38	3.46	-132.41	12.13	10.50	21.98	15.16	6.82	3.224	
1,700.00	1,698.70	1,694.18	1,692.93	3.60	3.69	-153.30	21.19	3.30	43.08	35.89	7.18	5.996	
1,800.00	1,797.47	1,787.58	1,785.23	3.85	3.94	-161.23	32.40	-5.61	72.46	64.92	7.54	9.605	
1,900.00	1,895.62	1,879.06	1,875.17	4.14	4.20	-165.02	45.49	-16.02	108.43	100.53	7.90	13.728	
1,986.38	1,979.83	1,958.23	1,952.92	4.43	4.45	-166.96	57.18	-25.31	142.71	134.51	8.20	17.395	
2,000.00	1,993.06	1,970.63	1,965.09	4.48	4.49	-167.23	59.01	-26.77	148.31	140.05	8.26	17.954	
2,100.00	2,090.21	2,061.67	2,054.50	4.85	4.78	-168.69	72.45	-37.46	189.49	180.81	8.68	21.829	
2,200.00	2,187.35	2,152.72	2,143.91	5.25	5.09	-169.63	85.90	-48.15	230.74	221.63	9.11	25.327	
2,300.00	2,284.49	2,243.76	2,233.32	5.66	5.41	-170.28	99.34	-58.84	272.02	262.47	9.55	28.491	
2,400.00	2,381.64	2,334.81	2,322.73	6.10	5.73	-170.76	112.78	-69.52	313.33	303.33	9.99	31.359	
2,500.00	2,478.78	2,425.85	2,412.14	6.54	6.06	-171.13	126.23	-80.21	354.64	344.20	10.44	33.965	
2,600.00	2,575.92	2,516.89	2,501.55	7.00	6.40	-171.43	139.67	-90.90	395.97	385.07	10.90	36.342	
2,700.00	2,673.07	2,607.94	2,590.96	7.46	6.74	-171.66	153.12	-101.59	437.31	425.95	11.35	38.514	
2,800.00	2,770.21	2,698.98	2,680.37	7.93	7.09	-171.86	166.56	-112.28	478.64	466.83	11.82	40.504	
2,900.00	2,867.35	2,790.03	2,769.78	8.40	7.43	-172.03	180.01	-122.97	519.99	507.70	12.28	42.333	
3,000.00	2,964.50	2,881.07	2,859.18	8.88	7.79	-172.17	193.45	-133.66	561.33	548.58	12.75	44.019	
3,100.00	3,061.64	2,972.11	2,948.59	9.36	8.14	-172.29	206.89	-144.35	602.68	589.46	13.22	45.576	
3,200.00	3,158.78	3,063.16	3,038.00	9.85	8.50	-172.39	220.34	-155.04	644.03	630.34	13.70	47.019	
3,300.00	3,255.93	3,154.20	3,127.41	10.34	8.86	-172.49	233.78	-165.73	685.39	671.21	14.17	48.358	
3,400.00	3,353.07	3,245.25	3,216.82	10.83	9.22	-172.57	247.23	-176.42	726.74	712.09	14.65	49.603	
3,500.00	3,450.22	3,336.29	3,306.23	11.32	9.58	-172.64	260.67	-187.11	768.10	752.97	15.13	50.765	
3,600.00	3,547.36	3,427.33	3,395.64	11.82	9.94	-172.71	274.12	-197.79	809.45	793.84	15.61	51.850	
3,700.00	3,644.50	3,518.38	3,485.05	12.32	10.31	-172.77	287.56	-208.48	850.81	834.71	16.09	52.866	
3,800.00	3,741.65	3,609.42	3,574.46	12.82	10.68	-172.82	301.00	-219.17	892.17	875.59	16.58	53.819	
3,900.00	3,838.79	3,700.47	3,663.87	13.32	11.04	-172.87	314.45	-229.86	933.52	916.46	17.06	54.714	
4,000.00	3,935.93	3,791.51	3,753.28	13.82	11.41	-172.92	327.89	-240.55	974.88	957.33	17.55	55.556	
4,100.00	4,033.08	3,882.55	3,842.68	14.32	11.78	-172.96	341.34	-251.24	1,016.24	998.21	18.03	56.350	
4,200.00	4,130.22	3,973.60	3,932.09	14.82	12.15	-173.00	354.78	-261.93	1,057.60	1,039.08	18.52	57.099	
4,300.00	4,227.36	4,064.64	4,021.50	15.33	12.52	-173.03	368.23	-272.62	1,098.96	1,079.95	19.01	57.808	
4,400.00	4,324.51	4,155.69	4,110.91	15.83	12.89	-173.07	381.67	-283.31	1,140.32	1,120.82	19.50	58.478	
4,500.00	4,421.65	4,246.73	4,200.32	16.34	13.26	-173.10	395.11	-294.00	1,181.68	1,161.69	19.99	59.114	
4,600.00	4,518.79	4,337.77	4,289.73	16.85	13.64	-173.12	408.56	-304.69	1,223.04	1,202.56	20.48	59.718	
4,700.00	4,615.94	4,428.82	4,379.14	17.35	14.01	-173.15	422.00	-315.37	1,264.40	1,243.43	20.97	60.291	
4,800.00	4,713.08	4,519.86	4,468.55	17.86	14.38	-173.18	435.45	-326.06	1,305.76	1,284.30	21.46	60.837	
4,900.00	4,810.22	4,610.90	4,557.96	18.37	14.76	-173.20	448.89	-336.75	1,347.12	1,325.17	21.96	61.357	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 4-2 - P_BROWN 4-2 - PLAN #1 3-16-10 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	4,907.37	4,701.95	4,647.37	18.88	15.13	-173.22	462.34	-347.44	1,388.49	1,366.04	22.45	61.853	
5,100.00	5,004.51	4,792.99	4,736.78	19.39	15.50	-173.24	475.78	-358.13	1,429.85	1,406.91	22.94	62.326	
5,200.00	5,101.65	4,884.04	4,826.19	19.89	15.88	-173.26	489.23	-368.82	1,471.21	1,447.77	23.44	62.778	
5,300.00	5,198.80	4,975.08	4,915.59	20.40	16.25	-173.28	502.67	-379.51	1,512.57	1,488.64	23.93	63.210	
5,400.00	5,295.94	5,066.12	5,005.00	20.91	16.63	-173.30	516.11	-390.20	1,553.93	1,529.51	24.42	63.624	
5,500.00	5,393.09	5,157.17	5,094.41	21.42	17.01	-173.31	529.56	-400.89	1,595.30	1,570.38	24.92	64.021	
5,600.00	5,490.23	5,248.21	5,183.82	21.93	17.38	-173.33	543.00	-411.58	1,636.66	1,611.24	25.41	64.401	
5,704.94	5,592.17	5,343.75	5,277.65	22.47	17.78	-173.35	557.11	-422.79	1,680.06	1,654.13	25.93	64.784	
5,800.00	5,684.87	5,430.93	5,363.26	22.88	18.14	-173.45	569.98	-433.03	1,717.95	1,691.40	26.55	64.718	
5,900.00	5,783.09	5,523.94	5,454.60	23.20	18.52	-173.53	583.72	-443.95	1,754.68	1,727.54	27.14	64.648	
6,000.00	5,881.90	5,618.16	5,547.13	23.48	18.91	-173.59	597.63	-455.01	1,788.16	1,760.46	27.71	64.542	
6,100.00	5,981.18	5,713.48	5,640.74	23.72	19.30	-173.63	611.71	-466.20	1,818.36	1,790.12	28.23	64.405	
6,200.00	6,080.83	5,843.65	5,768.66	23.92	19.79	-173.63	630.55	-481.19	1,845.05	1,816.27	28.79	64.095	
6,300.00	6,180.70	6,119.14	6,041.95	24.08	20.49	-173.59	657.05	-502.25	1,862.12	1,832.60	29.52	63.070	
6,391.32	6,272.00	6,349.39	6,272.00	24.19	20.85	-45.46	663.37	-507.28	1,866.41	1,836.34	30.08	62.053	
6,400.00	6,280.68	6,358.07	6,280.68	24.20	20.86	-45.46	663.37	-507.28	1,866.41	1,836.31	30.11	61.990	
6,500.00	6,380.68	6,458.07	6,380.68	24.31	21.00	-45.46	663.37	-507.28	1,866.41	1,835.94	30.47	61.246	
6,600.00	6,480.68	6,558.07	6,480.68	24.43	21.15	-45.46	663.37	-507.28	1,866.41	1,835.57	30.85	60.502	
6,700.00	6,580.68	6,658.07	6,580.68	24.54	21.30	-45.46	663.37	-507.28	1,866.41	1,835.19	31.23	59.772	
6,800.00	6,680.68	6,758.07	6,680.68	24.66	21.44	-45.46	663.37	-507.28	1,866.41	1,834.81	31.60	59.055	
6,900.00	6,780.68	6,858.07	6,780.68	24.78	21.60	-45.46	663.37	-507.28	1,866.41	1,834.43	31.99	58.353	
7,000.00	6,880.68	6,958.07	6,880.68	24.90	21.75	-45.46	663.37	-507.28	1,866.41	1,834.05	32.37	57.664	
7,100.00	6,980.68	7,058.07	6,980.68	25.02	21.90	-45.46	663.37	-507.28	1,866.41	1,833.66	32.75	56.988	
7,200.00	7,080.68	7,158.07	7,080.68	25.14	22.05	-45.46	663.37	-507.28	1,866.41	1,833.28	33.14	56.324	
7,300.00	7,180.68	7,258.07	7,180.68	25.27	22.21	-45.46	663.37	-507.28	1,866.41	1,832.89	33.52	55.674	
7,400.00	7,280.68	7,358.07	7,280.68	25.40	22.37	-45.46	663.37	-507.28	1,866.41	1,832.50	33.91	55.036	
7,500.00	7,380.68	7,458.07	7,380.68	25.52	22.52	-45.46	663.37	-507.28	1,866.41	1,832.11	34.30	54.410	
7,600.00	7,480.68	7,558.07	7,480.68	25.65	22.68	-45.46	663.37	-507.28	1,866.41	1,831.72	34.69	53.796	
7,700.00	7,580.68	7,658.07	7,580.68	25.78	22.84	-45.46	663.37	-507.28	1,866.41	1,831.33	35.09	53.193	
7,800.00	7,680.68	7,758.07	7,680.68	25.91	23.00	-45.46	663.37	-507.28	1,866.41	1,830.93	35.48	52.602	
7,900.00	7,780.68	7,858.07	7,780.68	26.05	23.16	-45.46	663.37	-507.28	1,866.41	1,830.54	35.88	52.022	
8,000.00	7,880.68	7,958.07	7,880.68	26.18	23.33	-45.46	663.37	-507.28	1,866.41	1,830.14	36.27	51.453	
8,100.00	7,980.68	8,058.07	7,980.68	26.31	23.49	-45.46	663.37	-507.28	1,866.41	1,829.74	36.67	50.894	
8,200.00	8,080.68	8,158.07	8,080.68	26.45	23.66	-45.46	663.37	-507.28	1,866.41	1,829.34	37.07	50.346	
8,306.32	8,187.00	8,264.39	8,187.00	26.60	23.83	-45.46	663.37	-507.28	1,866.41	1,828.92	37.50	49.775	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												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	-91.06	-0.37	-19.87	19.87				
100.00	100.00	100.00	100.00	0.10	0.10	-91.06	-0.37	-19.87	19.87	19.68	0.19	104.003	
200.00	200.00	200.00	200.00	0.32	0.32	-91.06	-0.37	-19.87	19.87	19.23	0.64	31.018	
300.00	300.00	300.00	300.00	0.55	0.55	-91.06	-0.37	-19.87	19.87	18.78	1.09	18.227	
400.00	400.00	400.00	400.00	0.77	0.77	-91.06	-0.37	-19.87	19.87	18.33	1.54	12.905	
500.00	500.00	500.00	500.00	0.99	0.99	-91.06	-0.37	-19.87	19.87	17.88	1.99	9.989	
600.00	600.00	600.00	600.00	1.22	1.22	-91.06	-0.37	-19.87	19.87	17.43	2.44	8.148	
700.00	700.00	700.00	700.00	1.44	1.44	-91.06	-0.37	-19.87	19.87	16.98	2.89	6.880	
800.00	800.00	800.00	800.00	1.67	1.67	-91.06	-0.37	-19.87	19.87	16.53	3.34	5.953	
900.00	900.00	900.00	900.00	1.89	1.89	-91.06	-0.37	-19.87	19.87	16.08	3.79	5.246	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-91.06	-0.37	-19.87	19.87	15.63	4.24	4.690	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-91.06	-0.37	-19.87	19.87	15.18	4.69	4.240	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-91.06	-0.37	-19.87	19.87	14.73	5.14	3.869	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-91.06	-0.37	-19.87	19.87	14.28	5.59	3.557	CC, ES, SF
1,400.00	1,399.98	1,399.72	1,399.70	3.00	2.99	139.39	-2.01	-20.43	21.82	15.84	5.98	3.649	
1,500.00	1,499.84	1,499.21	1,499.05	3.18	3.16	136.31	-6.92	-22.10	27.72	21.39	6.33	4.379	
1,600.00	1,599.45	1,598.21	1,597.67	3.38	3.35	133.31	-15.05	-24.86	37.63	30.94	6.70	5.619	
1,700.00	1,698.70	1,696.50	1,695.23	3.60	3.55	131.01	-26.30	-28.69	51.55	44.46	7.09	7.269	
1,800.00	1,797.47	1,793.85	1,791.41	3.85	3.78	129.34	-40.57	-33.54	69.42	61.89	7.52	9.226	
1,900.00	1,895.62	1,890.06	1,885.89	4.14	4.04	128.11	-57.69	-39.37	91.16	83.15	8.01	11.383	
1,986.38	1,979.83	1,972.35	1,966.20	4.43	4.29	127.29	-74.69	-45.16	112.99	104.52	8.48	13.330	
2,000.00	1,993.06	1,985.48	1,978.98	4.48	4.34	127.26	-77.53	-46.12	116.63	108.07	8.56	13.628	
2,100.00	2,090.21	2,081.85	2,072.81	4.85	4.67	127.06	-98.34	-53.20	143.31	134.13	9.18	15.607	
2,200.00	2,187.35	2,178.22	2,166.64	5.25	5.03	126.93	-119.16	-60.29	169.99	160.15	9.84	17.271	
2,300.00	2,284.49	2,274.60	2,260.48	5.66	5.40	126.83	-139.98	-67.37	196.68	186.14	10.53	18.672	
2,400.00	2,381.64	2,370.97	2,354.31	6.10	5.79	126.76	-160.79	-74.45	223.36	212.11	11.25	19.859	
2,500.00	2,478.78	2,467.34	2,448.14	6.54	6.19	126.70	-181.61	-81.54	250.04	238.06	11.98	20.868	
2,600.00	2,575.92	2,563.72	2,541.97	7.00	6.60	126.66	-202.43	-88.62	276.73	264.00	12.73	21.733	
2,700.00	2,673.07	2,660.09	2,635.80	7.46	7.02	126.62	-223.24	-95.70	303.41	289.92	13.50	22.479	
2,800.00	2,770.21	2,756.47	2,729.64	7.93	7.44	126.58	-244.06	-102.79	330.10	315.82	14.27	23.126	
2,900.00	2,867.35	2,852.84	2,823.47	8.40	7.87	126.56	-264.87	-109.87	356.78	341.72	15.06	23.692	
3,000.00	2,964.50	2,949.21	2,917.30	8.88	8.31	126.53	-285.69	-116.95	383.47	367.62	15.85	24.190	
3,100.00	3,061.64	3,045.59	3,011.13	9.36	8.75	126.51	-306.51	-124.04	410.15	393.50	16.65	24.630	
3,200.00	3,158.78	3,141.96	3,104.96	9.85	9.19	126.49	-327.32	-131.12	436.84	419.38	17.46	25.021	
3,300.00	3,255.93	3,238.33	3,198.79	10.34	9.63	126.48	-348.14	-138.20	463.52	445.25	18.27	25.371	
3,400.00	3,353.07	3,334.71	3,292.63	10.83	10.08	126.46	-368.96	-145.28	490.21	471.12	19.08	25.686	
3,500.00	3,450.22	3,431.08	3,386.46	11.32	10.53	126.45	-389.77	-152.37	516.89	496.99	19.90	25.970	
3,600.00	3,547.36	3,527.46	3,480.29	11.82	10.98	126.44	-410.59	-159.45	543.58	522.85	20.73	26.263	
3,700.00	3,644.50	3,623.83	3,574.12	12.32	11.44	126.43	-431.41	-166.53	570.27	548.72	21.55	26.463	
3,800.00	3,741.65	3,720.20	3,667.95	12.82	11.89	126.42	-452.22	-173.62	596.95	574.57	22.38	26.678	
3,900.00	3,838.79	3,816.58	3,761.78	13.32	12.35	126.41	-473.04	-180.70	623.64	600.43	23.21	26.875	
4,000.00	3,935.93	3,912.95	3,855.62	13.82	12.81	126.40	-493.85	-187.78	650.32	626.29	24.04	27.056	
4,100.00	4,033.08	4,009.32	3,949.45	14.32	13.27	126.40	-514.67	-194.87	677.01	652.14	24.87	27.224	
4,200.00	4,130.22	4,105.70	4,043.28	14.82	13.72	126.39	-535.49	-201.95	703.69	677.99	25.70	27.380	
4,300.00	4,227.36	4,202.07	4,137.11	15.33	14.19	126.38	-556.30	-209.03	730.38	703.84	26.54	27.525	
4,400.00	4,324.51	4,298.44	4,230.94	15.83	14.65	126.38	-577.12	-216.12	757.06	729.69	27.37	27.660	
4,500.00	4,421.65	4,394.82	4,324.77	16.34	15.11	126.37	-597.94	-223.20	783.75	755.54	28.21	27.786	
4,600.00	4,518.79	4,491.19	4,418.61	16.85	15.57	126.37	-618.75	-230.28	810.43	781.39	29.04	27.905	
4,700.00	4,615.94	4,587.57	4,512.44	17.35	16.04	126.36	-639.57	-237.37	837.12	807.24	29.88	28.016	
4,800.00	4,713.08	4,683.94	4,606.27	17.86	16.50	126.36	-660.39	-244.45	863.80	833.09	30.72	28.121	
4,900.00	4,810.22	4,780.31	4,700.10	18.37	16.97	126.35	-681.20	-251.53	890.49	858.93	31.56	28.220	
5,000.00	4,907.37	4,876.69	4,793.93	18.88	17.43	126.35	-702.02	-258.61	917.18	884.78	32.39	28.313	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_JESSER 18-2 PAD - P_BROWN 5-2 - P_BROWN 5-2 - PLAN #1 3-16-10 RHS												Offset Well Error:	0.00 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,004.51	4,973.06	4,887.76	19.39	17.90	126.35	-722.84	-265.70	943.86	910.63	33.23	28.402	
5,200.00	5,101.65	5,069.43	4,981.60	19.89	18.36	126.34	-743.65	-272.78	970.55	936.47	34.07	28.486	
5,300.00	5,198.80	5,165.81	5,075.43	20.40	18.83	126.34	-764.47	-279.86	997.23	962.32	34.91	28.566	
5,400.00	5,295.94	5,262.18	5,169.26	20.91	19.29	126.34	-785.28	-286.95	1,023.92	988.17	35.75	28.642	
5,500.00	5,393.09	5,358.55	5,263.09	21.42	19.76	126.33	-806.10	-294.03	1,050.60	1,014.01	36.59	28.715	
5,600.00	5,490.23	5,454.93	5,356.92	21.93	20.23	126.33	-826.92	-301.11	1,077.29	1,039.86	37.43	28.784	
5,704.94	5,592.17	5,556.06	5,455.39	22.47	20.72	126.33	-848.76	-308.55	1,105.29	1,066.98	38.31	28.854	
5,800.00	5,684.87	5,647.91	5,544.81	22.88	21.17	126.67	-868.60	-315.30	1,129.75	1,090.65	39.11	28.887	
5,900.00	5,783.09	5,752.75	5,646.94	23.20	21.65	126.84	-891.04	-322.93	1,153.43	1,113.57	39.87	28.931	
6,000.00	5,881.90	5,878.67	5,770.45	23.48	22.07	126.90	-914.24	-330.83	1,173.35	1,132.80	40.55	28.935	
6,100.00	5,981.18	6,006.40	5,896.70	23.72	22.42	126.96	-932.49	-337.04	1,188.82	1,147.68	41.15	28.891	
6,200.00	6,080.83	6,135.49	6,025.04	23.92	22.70	127.00	-945.51	-341.47	1,199.78	1,158.13	41.65	28.808	
6,300.00	6,180.70	6,265.48	6,154.77	24.08	22.93	127.02	-953.08	-344.04	1,206.15	1,164.10	42.05	28.685	
6,391.32	6,272.00	6,382.73	6,272.00	24.19	23.09	-104.84	-955.12	-344.74	1,207.94	1,165.60	42.35	28.525	
6,400.00	6,280.68	6,391.42	6,280.68	24.20	23.10	-104.84	-955.12	-344.74	1,207.94	1,165.57	42.37	28.510	
6,500.00	6,380.68	6,491.42	6,380.68	24.31	23.21	-104.84	-955.12	-344.74	1,207.94	1,165.33	42.61	28.348	
6,600.00	6,480.68	6,591.42	6,480.68	24.43	23.32	-104.84	-955.12	-344.74	1,207.94	1,165.09	42.86	28.187	
6,700.00	6,580.68	6,691.42	6,580.68	24.54	23.43	-104.84	-955.12	-344.74	1,207.94	1,164.84	43.10	28.025	
6,800.00	6,680.68	6,791.42	6,680.68	24.66	23.54	-104.84	-955.12	-344.74	1,207.94	1,164.59	43.35	27.863	
6,900.00	6,780.68	6,891.42	6,780.68	24.78	23.65	-104.84	-955.12	-344.74	1,207.94	1,164.34	43.61	27.701	
7,000.00	6,880.68	6,991.42	6,880.68	24.90	23.77	-104.84	-955.12	-344.74	1,207.94	1,164.08	43.86	27.538	
7,100.00	6,980.68	7,091.42	6,980.68	25.02	23.89	-104.84	-955.12	-344.74	1,207.94	1,163.82	44.12	27.376	
7,200.00	7,080.68	7,191.42	7,080.68	25.14	24.00	-104.84	-955.12	-344.74	1,207.94	1,163.56	44.39	27.214	
7,300.00	7,180.68	7,291.42	7,180.68	25.27	24.12	-104.84	-955.12	-344.74	1,207.94	1,163.29	44.65	27.052	
7,400.00	7,280.68	7,391.42	7,280.68	25.40	24.25	-104.84	-955.12	-344.74	1,207.94	1,163.02	44.92	26.890	
7,500.00	7,380.68	7,491.42	7,380.68	25.52	24.37	-104.84	-955.12	-344.74	1,207.94	1,162.75	45.19	26.728	
7,600.00	7,480.68	7,591.42	7,480.68	25.65	24.49	-104.84	-955.12	-344.74	1,207.94	1,162.47	45.47	26.567	
7,700.00	7,580.68	7,691.42	7,580.68	25.78	24.62	-104.84	-955.12	-344.74	1,207.94	1,162.20	45.75	26.406	
7,800.00	7,680.68	7,791.42	7,680.68	25.91	24.75	-104.84	-955.12	-344.74	1,207.94	1,161.92	46.03	26.245	
7,900.00	7,780.68	7,891.42	7,780.68	26.05	24.87	-104.84	-955.12	-344.74	1,207.94	1,161.63	46.31	26.085	
8,000.00	7,880.68	7,991.42	7,880.68	26.18	25.00	-104.84	-955.12	-344.74	1,207.94	1,161.35	46.59	25.925	
8,100.00	7,980.68	8,091.42	7,980.68	26.31	25.14	-104.84	-955.12	-344.74	1,207.94	1,161.06	46.88	25.766	
8,200.00	8,080.68	8,191.42	8,080.68	26.45	25.27	-104.84	-955.12	-344.74	1,207.94	1,160.77	47.17	25.607	
8,268.76	8,149.44	8,260.17	8,149.44	26.54	25.36	-104.84	-955.12	-344.74	1,207.94	1,160.57	47.37	25.498	
8,306.32	8,187.00	8,291.73	8,181.00	26.60	25.40	-104.84	-955.12	-344.74	1,207.96	1,160.48	47.48	25.444	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 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	-90.70	-0.36	-29.94	29.94				
100.00	100.00	100.00	100.00	0.10	0.10	-90.70	-0.36	-29.94	29.94	29.75	0.19	156.721	
200.00	200.00	200.00	200.00	0.32	0.32	-90.70	-0.36	-29.94	29.94	29.30	0.64	46.741	
300.00	300.00	300.00	300.00	0.55	0.55	-90.70	-0.36	-29.94	29.94	28.85	1.09	27.467	
400.00	400.00	400.00	400.00	0.77	0.77	-90.70	-0.36	-29.94	29.94	28.40	1.54	19.447	
500.00	500.00	500.00	500.00	0.99	0.99	-90.70	-0.36	-29.94	29.94	27.95	1.99	15.052	
600.00	600.00	600.00	600.00	1.22	1.22	-90.70	-0.36	-29.94	29.94	27.50	2.44	12.278	
700.00	700.00	700.00	700.00	1.44	1.44	-90.70	-0.36	-29.94	29.94	27.05	2.89	10.367	
800.00	800.00	800.00	800.00	1.67	1.67	-90.70	-0.36	-29.94	29.94	26.60	3.34	8.971	
900.00	900.00	900.00	900.00	1.89	1.89	-90.70	-0.36	-29.94	29.94	26.15	3.79	7.906	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.70	-0.36	-29.94	29.94	25.70	4.24	7.067	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.70	-0.36	-29.94	29.94	25.26	4.69	6.389	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.70	-0.36	-29.94	29.94	24.81	5.14	5.830	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.70	-0.36	-29.94	29.94	24.36	5.59	5.361 CC, ES	
1,400.00	1,399.98	1,399.56	1,399.55	3.00	2.99	141.11	-1.49	-30.59	31.97	25.99	5.98	5.345 SF	
1,500.00	1,499.84	1,498.91	1,498.82	3.18	3.17	140.93	-4.85	-32.53	38.04	31.71	6.33	6.007	
1,600.00	1,599.45	1,597.82	1,597.52	3.38	3.35	140.71	-10.41	-35.75	48.14	41.44	6.69	7.191	
1,700.00	1,698.70	1,696.09	1,695.38	3.60	3.55	140.48	-18.13	-40.21	62.23	55.16	7.07	8.801	
1,800.00	1,797.47	1,793.51	1,792.14	3.85	3.76	140.26	-27.93	-45.87	80.29	72.82	7.47	10.747	
1,900.00	1,895.62	1,889.88	1,887.54	4.14	3.99	140.04	-39.72	-52.69	102.26	94.35	7.90	12.937	
1,986.38	1,979.83	1,972.14	1,968.67	4.43	4.21	139.84	-51.43	-59.45	124.34	116.02	8.31	14.959	
2,000.00	1,993.06	1,985.02	1,981.36	4.48	4.24	139.85	-53.40	-60.59	128.05	119.67	8.38	15.276	
2,100.00	2,090.21	2,079.22	2,073.83	4.85	4.52	139.46	-68.94	-69.57	156.03	147.10	8.93	17.464	
2,200.00	2,187.35	2,172.63	2,165.06	5.25	4.84	138.56	-86.29	-79.60	185.26	175.72	9.53	19.435	
2,300.00	2,284.49	2,265.15	2,254.91	5.66	5.18	137.37	-105.38	-90.63	215.78	205.60	10.17	21.211	
2,400.00	2,381.64	2,356.69	2,343.26	6.10	5.56	136.03	-126.11	-102.61	247.65	236.80	10.85	22.825	
2,500.00	2,478.78	2,450.65	2,433.60	6.54	5.98	134.73	-148.51	-115.56	280.42	268.84	11.57	24.228	
2,600.00	2,575.92	2,544.96	2,524.25	7.00	6.42	133.70	-171.00	-128.55	313.29	300.97	12.32	25.435	
2,700.00	2,673.07	2,639.27	2,614.91	7.46	6.88	132.86	-193.49	-141.55	346.24	333.16	13.08	26.479	
2,800.00	2,770.21	2,733.57	2,705.57	7.93	7.34	132.17	-215.97	-154.55	379.24	365.39	13.85	27.387	
2,900.00	2,867.35	2,827.88	2,796.23	8.40	7.82	131.59	-238.46	-167.55	412.28	397.65	14.63	28.180	
3,000.00	2,964.50	2,922.19	2,886.89	8.88	8.31	131.09	-260.95	-180.55	445.36	429.93	15.42	28.877	
3,100.00	3,061.64	3,016.49	2,977.55	9.36	8.80	130.66	-283.44	-193.54	478.46	462.23	16.22	29.494	
3,200.00	3,158.78	3,110.80	3,068.21	9.85	9.29	130.29	-305.93	-206.54	511.58	494.55	17.03	30.043	
3,300.00	3,255.93	3,205.11	3,158.87	10.34	9.80	129.96	-328.42	-219.54	544.72	526.88	17.84	30.533	
3,400.00	3,353.07	3,299.41	3,249.53	10.83	10.30	129.67	-350.91	-232.54	577.87	559.21	18.66	30.974	
3,500.00	3,450.22	3,393.72	3,340.18	11.32	10.81	129.42	-373.40	-245.54	611.03	591.56	19.48	31.371	
3,600.00	3,547.36	3,488.03	3,430.84	11.82	11.33	129.18	-395.89	-258.53	644.21	623.91	20.30	31.731	
3,700.00	3,644.50	3,582.33	3,521.50	12.32	11.84	128.98	-418.38	-271.53	677.39	656.26	21.13	32.059	
3,800.00	3,741.65	3,676.64	3,612.16	12.82	12.36	128.79	-440.87	-284.53	710.58	688.62	21.96	32.359	
3,900.00	3,838.79	3,770.95	3,702.82	13.32	12.88	128.61	-463.36	-297.53	743.78	720.99	22.79	32.635	
4,000.00	3,935.93	3,865.25	3,793.48	13.82	13.40	128.46	-485.85	-310.53	776.98	753.35	23.62	32.888	
4,100.00	4,033.08	3,959.56	3,884.14	14.32	13.92	128.31	-508.34	-323.52	810.19	785.73	24.46	33.123	
4,200.00	4,130.22	4,053.87	3,974.80	14.82	14.45	128.18	-530.83	-336.52	843.40	818.10	25.30	33.340	
4,300.00	4,227.36	4,148.17	4,065.45	15.33	14.97	128.06	-553.32	-349.52	876.61	850.48	26.13	33.542	
4,400.00	4,324.51	4,242.48	4,156.11	15.83	15.50	127.94	-575.81	-362.52	909.83	882.85	26.97	33.730	
4,500.00	4,421.65	4,336.79	4,246.77	16.34	16.03	127.83	-598.30	-375.51	943.05	915.24	27.81	33.906	
4,600.00	4,518.79	4,431.10	4,337.43	16.85	16.56	127.74	-620.79	-388.51	976.27	947.62	28.65	34.071	
4,700.00	4,615.94	4,525.40	4,428.09	17.35	17.09	127.64	-643.28	-401.51	1,009.50	980.00	29.49	34.226	
4,800.00	4,713.08	4,619.71	4,518.75	17.86	17.62	127.56	-665.77	-414.51	1,042.73	1,012.39	30.34	34.372	
4,900.00	4,810.22	4,714.02	4,609.41	18.37	18.15	127.48	-688.26	-427.51	1,075.96	1,044.78	31.18	34.510	
5,000.00	4,907.37	4,808.32	4,700.07	18.88	18.68	127.40	-710.75	-440.50	1,109.19	1,077.17	32.02	34.641	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 5-2S - P_BROWN 5-2S - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,004.51	4,902.63	4,790.72	19.39	19.21	127.33	-733.24	-453.50	1,142.42	1,109.56	32.86	34.764	
5,200.00	5,101.65	4,996.94	4,881.38	19.89	19.75	127.26	-755.73	-466.50	1,175.66	1,141.95	33.70	34.881	
5,300.00	5,198.80	5,091.24	4,972.04	20.40	20.28	127.20	-778.22	-479.50	1,208.89	1,174.35	34.55	34.993	
5,400.00	5,295.94	5,185.55	5,062.70	20.91	20.81	127.13	-800.71	-492.50	1,242.13	1,206.74	35.39	35.099	
5,500.00	5,393.09	5,209.79	5,086.00	21.42	20.95	127.12	-806.49	-495.84	1,277.29	1,241.34	35.95	35.528	
5,600.00	5,490.23	5,209.79	5,086.00	21.93	20.95	127.12	-806.49	-495.84	1,318.89	1,282.48	36.42	36.216	
5,704.94	5,592.17	5,209.79	5,086.00	22.47	20.95	127.12	-806.49	-495.84	1,369.06	1,332.15	36.91	37.096	
5,800.00	5,684.87	5,209.79	5,086.00	22.88	20.95	128.05	-806.49	-495.84	1,418.88	1,381.52	37.36	37.978	
5,900.00	5,783.09	5,209.79	5,086.00	23.20	20.95	129.09	-806.49	-495.84	1,474.38	1,436.66	37.72	39.084	
6,000.00	5,881.90	5,209.79	5,086.00	23.48	20.95	130.20	-806.49	-495.84	1,532.67	1,494.64	38.02	40.307	
6,100.00	5,981.18	5,209.79	5,086.00	23.72	20.95	131.35	-806.49	-495.84	1,593.36	1,555.09	38.26	41.642	
6,200.00	6,080.83	5,209.79	5,086.00	23.92	20.95	132.55	-806.49	-495.84	1,656.11	1,617.68	38.44	43.086	
6,300.00	6,180.70	5,209.79	5,086.00	24.08	20.95	133.78	-806.49	-495.84	1,720.64	1,682.10	38.55	44.637	
6,391.32	6,272.00	5,209.79	5,086.00	24.19	20.95	-96.95	-806.49	-495.84	1,780.89	1,742.27	38.62	46.114	
6,400.00	6,280.68	5,209.79	5,086.00	24.20	20.95	-96.95	-806.49	-495.84	1,786.69	1,748.05	38.63	46.250	
6,500.00	6,380.68	5,209.79	5,086.00	24.31	20.95	-96.95	-806.49	-495.84	1,855.04	1,816.28	38.76	47.860	
6,600.00	6,480.68	5,209.79	5,086.00	24.43	20.95	-96.95	-806.49	-495.84	1,926.17	1,887.28	38.89	49.528	
6,700.00	6,580.68	5,209.79	5,086.00	24.54	20.95	-96.95	-806.49	-495.84	1,999.76	1,960.74	39.02	51.246	
6,800.00	6,680.68	5,209.79	5,086.00	24.66	20.95	-96.95	-806.49	-495.84	2,075.57	2,036.41	39.16	53.007	
6,900.00	6,780.68	5,209.79	5,086.00	24.78	20.95	-96.95	-806.49	-495.84	2,153.35	2,114.06	39.29	54.804	
7,000.00	6,880.68	5,209.79	5,086.00	24.90	20.95	-96.95	-806.49	-495.84	2,232.91	2,193.48	39.43	56.632	
7,100.00	6,980.68	5,209.79	5,086.00	25.02	20.95	-96.95	-806.49	-495.84	2,314.04	2,274.48	39.57	58.484	
7,200.00	7,080.68	5,209.79	5,086.00	25.14	20.95	-96.95	-806.49	-495.84	2,396.61	2,356.90	39.71	60.358	
7,300.00	7,180.68	5,209.79	5,086.00	25.27	20.95	-96.95	-806.49	-495.84	2,480.46	2,440.61	39.85	62.248	
7,400.00	7,280.68	5,209.79	5,086.00	25.40	20.95	-96.95	-806.49	-495.84	2,565.47	2,525.47	39.99	64.151	
7,500.00	7,380.68	5,209.79	5,086.00	25.52	20.95	-96.95	-806.49	-495.84	2,651.52	2,611.38	40.13	66.065	
7,600.00	7,480.68	5,209.79	5,086.00	25.65	20.95	-96.95	-806.49	-495.84	2,738.52	2,698.24	40.28	67.986	
7,700.00	7,580.68	5,209.79	5,086.00	25.78	20.95	-96.95	-806.49	-495.84	2,826.38	2,785.95	40.43	69.913	
7,800.00	7,680.68	5,209.79	5,086.00	25.91	20.95	-96.95	-806.49	-495.84	2,915.02	2,874.45	40.58	71.842	
7,900.00	7,780.68	5,209.79	5,086.00	26.05	20.95	-96.95	-806.49	-495.84	3,004.38	2,963.65	40.72	73.773	
8,000.00	7,880.68	5,209.79	5,086.00	26.18	20.95	-96.95	-806.49	-495.84	3,094.39	3,053.51	40.88	75.703	
8,100.00	7,980.68	5,209.79	5,086.00	26.31	20.95	-96.95	-806.49	-495.84	3,184.99	3,143.96	41.03	77.632	
8,200.00	8,080.68	5,209.79	5,086.00	26.45	20.95	-96.95	-806.49	-495.84	3,276.14	3,234.96	41.18	79.556	
8,306.32	8,187.00	5,209.79	5,086.00	26.60	20.95	-96.95	-806.49	-495.84	3,373.60	3,332.26	41.34	81.598	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 6-2S - P_BROWN 6-2S - PLAN #1 3-16-10 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	-90.00	0.00	-9.79	9.79				
100.00	100.00	100.00	100.00	0.10	0.10	-90.00	0.00	-9.79	9.79	9.60	0.19	51.260	
200.00	200.00	200.00	200.00	0.32	0.32	-90.00	0.00	-9.79	9.79	9.15	0.64	15.288	
300.00	300.00	300.00	300.00	0.55	0.55	-90.00	0.00	-9.79	9.79	8.70	1.09	8.984	
400.00	400.00	400.00	400.00	0.77	0.77	-90.00	0.00	-9.79	9.79	8.25	1.54	6.361	
500.00	500.00	500.00	500.00	0.99	0.99	-90.00	0.00	-9.79	9.79	7.80	1.99	4.923	
600.00	600.00	600.00	600.00	1.22	1.22	-90.00	0.00	-9.79	9.79	7.35	2.44	4.016	
700.00	700.00	700.00	700.00	1.44	1.44	-90.00	0.00	-9.79	9.79	6.91	2.89	3.391	
800.00	800.00	800.00	800.00	1.67	1.67	-90.00	0.00	-9.79	9.79	6.46	3.34	2.934	
900.00	900.00	900.00	900.00	1.89	1.89	-90.00	0.00	-9.79	9.79	6.01	3.79	2.586	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.00	0.00	-9.79	9.79	5.56	4.24	2.311	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.00	0.00	-9.79	9.79	5.11	4.69	2.090	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.00	0.00	-9.79	9.79	4.66	5.14	1.907	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.00	0.00	-9.79	9.79	4.21	5.59	1.753 CC, ES	
1,400.00	1,399.98	1,400.17	1,400.16	3.00	2.99	142.33	-1.00	-8.94	10.31	4.33	5.98	1.723 SF	
1,500.00	1,499.84	1,500.35	1,500.26	3.18	3.17	143.45	-3.99	-6.37	11.87	5.53	6.34	1.873	
1,600.00	1,599.45	1,600.55	1,600.24	3.38	3.37	144.77	-8.97	-2.10	14.48	7.78	6.71	2.160	
1,700.00	1,698.70	1,700.78	1,700.04	3.60	3.57	145.97	-15.94	3.89	18.14	11.06	7.09	2.560	
1,800.00	1,797.47	1,801.04	1,799.61	3.85	3.79	146.95	-24.90	11.58	22.85	15.37	7.48	3.053	
1,900.00	1,895.62	1,901.36	1,898.88	4.14	4.04	147.69	-35.85	20.97	28.60	20.70	7.90	3.618	
1,986.38	1,979.83	1,988.07	1,984.35	4.43	4.28	148.18	-46.91	30.45	34.41	26.12	8.29	4.149	
2,000.00	1,993.06	2,001.75	1,997.81	4.48	4.32	148.23	-48.78	32.07	35.37	27.01	8.36	4.230	
2,100.00	2,090.21	2,102.30	2,096.42	4.85	4.63	147.11	-63.71	44.87	41.33	32.42	8.91	4.638	
2,200.00	2,187.35	2,202.99	2,194.61	5.25	4.99	143.92	-80.63	59.39	45.47	35.91	9.55	4.761	
2,300.00	2,284.49	2,303.68	2,292.17	5.66	5.39	138.86	-99.50	75.58	48.05	37.74	10.32	4.659	
2,400.00	2,381.64	2,404.21	2,388.90	6.10	5.83	131.80	-120.29	93.42	49.57	38.32	11.25	4.407	
2,500.00	2,478.78	2,504.47	2,484.60	6.54	6.33	122.57	-142.93	112.85	50.76	38.38	12.38	4.101	
2,600.00	2,575.92	2,604.08	2,579.19	7.00	6.86	112.27	-166.63	133.19	52.82	39.21	13.61	3.881	
2,700.00	2,673.07	2,703.62	2,673.70	7.46	7.42	102.98	-190.34	153.53	56.45	41.65	14.79	3.816	
2,800.00	2,770.21	2,803.16	2,768.21	7.93	7.99	94.99	-214.05	173.87	61.37	45.49	15.88	3.865	
2,900.00	2,867.35	2,902.70	2,862.72	8.40	8.57	88.29	-237.76	194.22	67.30	50.43	16.87	3.990	
3,000.00	2,964.50	3,002.24	2,957.23	8.88	9.16	82.73	-261.47	214.56	74.00	56.22	17.78	4.162	
3,100.00	3,061.64	3,101.78	3,051.74	9.36	9.76	78.12	-285.18	234.91	81.29	62.65	18.64	4.362	
3,200.00	3,158.78	3,201.32	3,146.25	9.85	10.37	74.29	-308.89	255.25	89.00	69.55	19.45	4.575	
3,300.00	3,255.93	3,300.86	3,240.77	10.34	10.98	71.08	-332.60	275.59	97.05	76.81	20.25	4.793	
3,400.00	3,353.07	3,400.40	3,335.28	10.83	11.60	68.37	-356.31	295.94	105.36	84.33	21.03	5.011	
3,500.00	3,450.22	3,499.94	3,429.79	11.32	12.22	66.06	-380.02	316.28	113.87	92.07	21.80	5.224	
3,600.00	3,547.36	3,599.48	3,524.30	11.82	12.85	64.07	-403.73	336.63	122.54	99.97	22.56	5.430	
3,700.00	3,644.50	3,699.02	3,618.81	12.32	13.48	62.35	-427.44	356.97	131.33	108.00	23.33	5.630	
3,800.00	3,741.65	3,798.56	3,713.32	12.82	14.11	60.84	-451.15	377.31	140.23	116.13	24.09	5.821	
3,900.00	3,838.79	3,898.10	3,807.83	13.32	14.74	59.51	-474.86	397.66	149.21	124.35	24.85	6.003	
4,000.00	3,935.93	3,997.64	3,902.34	13.82	15.38	58.34	-498.57	418.00	158.26	132.64	25.62	6.178	
4,100.00	4,033.08	4,097.18	3,996.85	14.32	16.01	57.29	-522.28	438.34	167.37	140.99	26.38	6.344	
4,200.00	4,130.22	4,196.72	4,091.36	14.82	16.65	56.35	-545.99	458.69	176.53	149.38	27.15	6.502	
4,300.00	4,227.36	4,296.26	4,185.87	15.33	17.29	55.50	-569.70	479.03	185.73	157.82	27.92	6.653	
4,400.00	4,324.51	4,395.80	4,280.38	15.83	17.93	54.74	-593.41	499.38	194.97	166.29	28.69	6.797	
4,500.00	4,421.65	4,495.34	4,374.89	16.34	18.57	54.04	-617.11	519.72	204.24	174.79	29.46	6.934	
4,600.00	4,518.79	4,594.88	4,469.40	16.85	19.22	53.40	-640.82	540.06	213.54	183.31	30.23	7.064	
4,700.00	4,615.94	4,694.42	4,563.91	17.35	19.86	52.82	-664.53	560.41	222.87	191.86	31.00	7.188	
4,800.00	4,713.08	4,793.96	4,658.42	17.86	20.50	52.28	-688.24	580.75	232.21	200.43	31.78	7.307	
4,900.00	4,810.22	4,893.50	4,752.93	18.37	21.15	51.79	-711.95	601.09	241.57	209.02	32.56	7.420	
5,000.00	4,907.37	4,993.04	4,847.44	18.88	21.80	51.33	-735.66	621.44	250.95	217.62	33.33	7.528	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_BROWN 6-2S - P_BROWN 6-2S - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,004.51	5,092.58	4,941.95	19.39	22.44	50.90	-759.37	641.78	260.34	226.23	34.11	7.632	
5,200.00	5,101.65	5,192.12	5,036.46	19.89	23.09	50.51	-783.08	662.13	269.75	234.86	34.89	7.731	
5,300.00	5,198.80	5,250.61	5,092.00	20.40	23.47	50.29	-797.01	674.08	282.17	246.64	35.53	7.942	
5,400.00	5,295.94	5,250.61	5,092.00	20.91	23.47	50.29	-797.01	674.08	321.02	285.07	35.95	8.929	
5,500.00	5,393.09	5,250.61	5,092.00	21.42	23.47	50.29	-797.01	674.08	382.73	346.36	36.38	10.521	
5,600.00	5,490.23	5,250.61	5,092.00	21.93	23.47	50.29	-797.01	674.08	458.17	421.37	36.80	12.449	
5,704.94	5,592.17	5,250.61	5,092.00	22.47	23.47	50.29	-797.01	674.08	545.88	508.63	37.25	14.654	
5,800.00	5,684.87	5,250.61	5,092.00	22.88	23.47	53.19	-797.01	674.08	630.33	591.83	38.50	16.371	
5,900.00	5,783.09	5,250.61	5,092.00	23.20	23.47	57.19	-797.01	674.08	722.76	682.76	40.01	18.067	
6,000.00	5,881.90	5,250.61	5,092.00	23.48	23.47	62.35	-797.01	674.08	817.56	775.81	41.74	19.586	
6,100.00	5,981.18	5,250.61	5,092.00	23.72	23.47	68.90	-797.01	674.08	913.88	870.24	43.64	20.941	
6,200.00	6,080.83	5,250.61	5,092.00	23.92	23.47	77.01	-797.01	674.08	1,011.20	965.70	45.50	22.224	
6,300.00	6,180.70	5,250.61	5,092.00	24.08	23.47	86.64	-797.01	674.08	1,109.15	1,062.20	46.95	23.626	
6,391.32	6,272.00	5,250.61	5,092.00	24.19	23.47	-135.44	-797.01	674.08	1,198.92	1,151.41	47.51	25.233	
6,400.00	6,280.68	5,250.61	5,092.00	24.20	23.47	-135.44	-797.01	674.08	1,207.47	1,159.94	47.52	25.407	
6,500.00	6,380.68	5,250.61	5,092.00	24.31	23.47	-135.44	-797.01	674.08	1,306.03	1,258.39	47.64	27.416	
6,600.00	6,480.68	5,250.61	5,092.00	24.43	23.47	-135.44	-797.01	674.08	1,404.80	1,357.05	47.75	29.419	
6,700.00	6,580.68	5,250.61	5,092.00	24.54	23.47	-135.44	-797.01	674.08	1,503.73	1,455.86	47.87	31.415	
6,800.00	6,680.68	5,250.61	5,092.00	24.66	23.47	-135.44	-797.01	674.08	1,602.79	1,554.80	47.98	33.402	
6,900.00	6,780.68	5,250.61	5,092.00	24.78	23.47	-135.44	-797.01	674.08	1,701.96	1,653.86	48.10	35.382	
7,000.00	6,880.68	5,250.61	5,092.00	24.90	23.47	-135.44	-797.01	674.08	1,801.22	1,753.00	48.22	37.352	
7,100.00	6,980.68	5,250.61	5,092.00	25.02	23.47	-135.44	-797.01	674.08	1,900.56	1,852.22	48.34	39.313	
7,200.00	7,080.68	5,250.61	5,092.00	25.14	23.47	-135.44	-797.01	674.08	1,999.97	1,951.50	48.47	41.264	
7,300.00	7,180.68	5,250.61	5,092.00	25.27	23.47	-135.44	-797.01	674.08	2,099.43	2,050.84	48.59	43.206	
7,400.00	7,280.68	5,250.61	5,092.00	25.40	23.47	-135.44	-797.01	674.08	2,198.94	2,150.22	48.72	45.137	
7,500.00	7,380.68	5,250.61	5,092.00	25.52	23.47	-135.44	-797.01	674.08	2,298.50	2,249.65	48.84	47.057	
7,600.00	7,480.68	5,250.61	5,092.00	25.65	23.47	-135.44	-797.01	674.08	2,398.09	2,349.11	48.97	48.967	
7,700.00	7,580.68	5,250.61	5,092.00	25.78	23.47	-135.44	-797.01	674.08	2,497.71	2,448.61	49.10	50.867	
7,800.00	7,680.68	5,250.61	5,092.00	25.91	23.47	-135.44	-797.01	674.08	2,597.36	2,548.13	49.23	52.755	
7,900.00	7,780.68	5,250.61	5,092.00	26.05	23.47	-135.44	-797.01	674.08	2,697.04	2,647.67	49.37	54.633	
8,000.00	7,880.68	5,250.61	5,092.00	26.18	23.47	-135.44	-797.01	674.08	2,796.74	2,747.24	49.50	56.500	
8,100.00	7,980.68	5,250.61	5,092.00	26.31	23.47	-135.44	-797.01	674.08	2,896.46	2,846.83	49.63	58.355	
8,200.00	8,080.68	5,250.61	5,092.00	26.45	23.47	-135.44	-797.01	674.08	2,996.20	2,946.43	49.77	60.200	
8,306.32	8,187.00	5,250.61	5,092.00	26.60	23.47	-135.44	-797.01	674.08	3,102.26	3,052.35	49.92	62.148	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 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)		Distance Between Centres (ft)		Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.65	0.36	60.16	60.16				
100.00	100.00	100.00	100.00	0.10	0.10	89.65	0.36	60.16	60.16	59.97	0.19	314.889	
200.00	200.00	200.00	200.00	0.32	0.32	89.65	0.36	60.16	60.16	59.52	0.64	93.914	
300.00	300.00	300.00	300.00	0.55	0.55	89.65	0.36	60.16	60.16	59.07	1.09	55.187	
400.00	400.00	400.00	400.00	0.77	0.77	89.65	0.36	60.16	60.16	58.62	1.54	39.074	
500.00	500.00	500.00	500.00	0.99	0.99	89.65	0.36	60.16	60.16	58.17	1.99	30.244	
600.00	600.00	600.00	600.00	1.22	1.22	89.65	0.36	60.16	60.16	57.72	2.44	24.669	
700.00	700.00	700.00	700.00	1.44	1.44	89.65	0.36	60.16	60.16	57.27	2.89	20.829	
800.00	800.00	800.00	800.00	1.67	1.67	89.65	0.36	60.16	60.16	56.82	3.34	18.024	
900.00	900.00	900.00	900.00	1.89	1.89	89.65	0.36	60.16	60.16	56.37	3.79	15.885	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.65	0.36	60.16	60.16	55.92	4.24	14.199	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.65	0.36	60.16	60.16	55.47	4.69	12.837	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.65	0.36	60.16	60.16	55.02	5.14	11.714	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.65	0.36	60.16	60.16	54.57	5.59	10.771 CC	
1,400.00	1,399.98	1,397.94	1,397.92	3.00	3.00	-39.38	0.27	61.83	60.51	54.52	5.99	10.101 ES	
1,500.00	1,499.84	1,495.81	1,495.66	3.18	3.20	-42.02	-0.01	66.84	61.64	55.28	6.36	9.689	
1,600.00	1,599.45	1,593.57	1,593.05	3.38	3.41	-46.19	-0.47	75.16	63.81	57.07	6.75	9.459	
1,700.00	1,698.70	1,691.14	1,689.93	3.60	3.63	-51.51	-1.12	86.78	67.39	60.23	7.15	9.418 SF	
1,800.00	1,797.47	1,788.48	1,786.12	3.85	3.89	-57.47	-1.95	101.64	72.75	65.14	7.61	9.563	
1,900.00	1,895.62	1,885.52	1,881.46	4.14	4.17	-63.55	-2.96	119.69	80.23	72.10	8.13	9.872	
1,986.38	1,979.83	1,969.07	1,963.01	4.43	4.45	-68.55	-3.97	137.81	88.56	79.91	8.65	10.241	
2,000.00	1,993.06	1,982.22	1,975.79	4.48	4.49	-69.31	-4.15	140.88	90.05	81.31	8.74	10.307	
2,100.00	2,090.21	2,078.58	2,069.03	4.85	4.86	-73.54	-5.50	165.14	102.86	93.44	9.43	10.914	
2,200.00	2,187.35	2,174.46	2,160.94	5.25	5.29	-75.75	-7.02	192.38	118.57	108.40	10.16	11.666	
2,300.00	2,284.49	2,270.75	2,252.34	5.66	5.77	-76.56	-8.71	222.63	136.66	125.72	10.94	12.489	
2,400.00	2,381.64	2,368.99	2,345.36	6.10	6.30	-77.01	-10.48	254.18	155.31	143.54	11.77	13.196	
2,500.00	2,478.78	2,467.23	2,438.38	6.54	6.85	-77.37	-12.24	285.73	173.97	161.34	12.63	13.777	
2,600.00	2,575.92	2,565.47	2,531.40	7.00	7.43	-77.65	-14.00	317.28	192.63	179.12	13.51	14.258	
2,700.00	2,673.07	2,663.71	2,624.42	7.46	8.01	-77.89	-15.76	348.82	211.29	196.88	14.41	14.660	
2,800.00	2,770.21	2,761.95	2,717.44	7.93	8.61	-78.08	-17.53	380.37	229.96	214.62	15.33	14.997	
2,900.00	2,867.35	2,860.19	2,810.46	8.40	9.22	-78.25	-19.29	411.92	248.62	232.36	16.27	15.283	
3,000.00	2,964.50	2,958.43	2,903.48	8.88	9.83	-78.39	-21.05	443.46	267.29	250.08	17.21	15.528	
3,100.00	3,061.64	3,056.67	2,996.50	9.36	10.45	-78.52	-22.81	475.01	285.97	267.80	18.17	15.738	
3,200.00	3,158.78	3,154.91	3,089.52	9.85	11.07	-78.63	-24.58	506.56	304.64	285.50	19.13	15.921	
3,300.00	3,255.93	3,253.15	3,182.54	10.34	11.70	-78.72	-26.34	538.11	323.31	303.20	20.11	16.080	
3,400.00	3,353.07	3,351.39	3,275.56	10.83	12.34	-78.81	-28.10	569.65	341.99	320.90	21.08	16.220	
3,500.00	3,450.22	3,449.63	3,368.58	11.32	12.97	-78.89	-29.86	601.20	360.66	338.59	22.07	16.343	
3,600.00	3,547.36	3,547.87	3,461.60	11.82	13.61	-78.96	-31.63	632.75	379.34	356.28	23.06	16.452	
3,700.00	3,644.50	3,646.10	3,554.62	12.32	14.25	-79.02	-33.39	664.29	398.01	373.96	24.05	16.550	
3,800.00	3,741.65	3,744.34	3,647.64	12.82	14.89	-79.08	-35.15	695.84	416.69	391.64	25.05	16.637	
3,900.00	3,838.79	3,842.58	3,740.66	13.32	15.54	-79.13	-36.91	727.39	435.37	409.32	26.04	16.716	
4,000.00	3,935.93	3,940.82	3,833.68	13.82	16.19	-79.18	-38.68	758.94	454.04	427.00	27.05	16.787	
4,100.00	4,033.08	4,039.06	3,926.70	14.32	16.83	-79.22	-40.44	790.48	472.72	444.67	28.05	16.852	
4,200.00	4,130.22	4,137.30	4,019.72	14.82	17.48	-79.26	-42.20	822.03	491.40	462.34	29.06	16.910	
4,300.00	4,227.36	4,235.54	4,112.74	15.33	18.13	-79.30	-43.96	853.58	510.08	480.01	30.07	16.964	
4,400.00	4,324.51	4,333.78	4,205.76	15.83	18.78	-79.34	-45.73	885.13	528.76	497.68	31.08	17.013	
4,500.00	4,421.65	4,432.02	4,298.78	16.34	19.43	-79.37	-47.49	916.67	547.43	515.34	32.09	17.058	
4,600.00	4,518.79	4,530.26	4,391.80	16.85	20.09	-79.40	-49.25	948.22	566.11	533.01	33.11	17.100	
4,700.00	4,615.94	4,628.50	4,484.82	17.35	20.74	-79.43	-51.01	979.77	584.79	550.67	34.12	17.138	
4,800.00	4,713.08	4,726.74	4,577.84	17.86	21.39	-79.46	-52.78	1,011.31	603.47	568.33	35.14	17.174	
4,900.00	4,810.22	4,824.98	4,670.86	18.37	22.05	-79.48	-54.54	1,042.86	622.15	585.99	36.16	17.207	
5,000.00	4,907.37	4,923.22	4,763.87	18.88	22.70	-79.51	-56.30	1,074.41	640.83	603.65	37.18	17.237	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 21-2 - P_JESSER 21-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,004.51	5,021.46	4,856.89	19.39	23.36	-79.53	-58.06	1,105.96	659.51	621.31	38.20	17.266	
5,200.00	5,101.65	5,119.70	4,949.91	19.89	24.02	-79.55	-59.83	1,137.50	678.19	638.97	39.22	17.293	
5,300.00	5,198.80	5,217.94	5,042.93	20.40	24.67	-79.57	-61.59	1,169.05	696.87	656.63	40.24	17.318	
5,400.00	5,295.94	5,316.18	5,135.95	20.91	25.33	-79.59	-63.35	1,200.60	715.55	674.28	41.26	17.341	
5,500.00	5,393.09	5,414.42	5,228.97	21.42	25.99	-79.61	-65.11	1,232.15	734.23	691.94	42.29	17.363	
5,600.00	5,490.23	5,512.66	5,321.99	21.93	26.64	-79.62	-66.88	1,263.69	752.91	709.60	43.31	17.384	
5,704.94	5,592.17	5,630.33	5,433.75	22.47	27.33	-79.70	-68.93	1,300.47	771.91	727.51	44.40	17.386	
5,800.00	5,684.87	5,746.01	5,544.91	22.88	27.86	-80.17	-70.71	1,332.40	786.87	741.55	45.31	17.366	
5,900.00	5,783.09	5,868.57	5,663.99	23.20	28.35	-80.57	-72.33	1,361.30	800.33	754.22	46.11	17.358	
6,000.00	5,881.90	5,991.90	5,784.97	23.48	28.77	-80.89	-73.67	1,385.22	811.42	764.62	46.80	17.339	
6,100.00	5,981.18	6,115.87	5,907.48	23.72	29.12	-81.12	-74.72	1,404.01	820.10	772.72	47.38	17.309	
6,200.00	6,080.83	6,240.32	6,031.18	23.92	29.40	-81.29	-75.47	1,417.53	826.34	778.49	47.85	17.269	
6,300.00	6,180.70	6,365.10	6,155.69	24.08	29.61	-81.37	-75.93	1,425.69	830.11	781.90	48.22	17.217	
6,391.32	6,272.00	6,479.20	6,269.75	24.19	29.74	46.74	-76.08	1,428.41	831.39	782.93	48.46	17.155	
6,400.00	6,280.68	6,490.05	6,280.60	24.20	29.75	46.74	-76.08	1,428.43	831.41	782.92	48.49	17.147	
6,500.00	6,380.68	6,590.13	6,380.68	24.31	29.85	46.74	-76.08	1,428.43	831.41	782.69	48.72	17.066	
6,600.00	6,480.68	6,690.13	6,480.68	24.43	29.96	46.74	-76.08	1,428.43	831.41	782.46	48.95	16.985	
6,700.00	6,580.68	6,790.13	6,580.68	24.54	30.06	46.74	-76.08	1,428.43	831.41	782.22	49.18	16.904	
6,800.00	6,680.68	6,890.13	6,680.68	24.66	30.16	46.74	-76.08	1,428.43	831.41	781.98	49.42	16.822	
6,900.00	6,780.68	6,990.13	6,780.68	24.78	30.27	46.74	-76.08	1,428.43	831.41	781.74	49.66	16.740	
7,000.00	6,880.68	7,090.13	6,880.68	24.90	30.37	46.74	-76.08	1,428.43	831.41	781.50	49.91	16.658	
7,100.00	6,980.68	7,190.13	6,980.68	25.02	30.48	46.74	-76.08	1,428.43	831.41	781.25	50.16	16.576	
7,200.00	7,080.68	7,290.13	7,080.68	25.14	30.59	46.74	-76.08	1,428.43	831.41	781.00	50.41	16.494	
7,300.00	7,180.68	7,390.13	7,180.68	25.27	30.70	46.74	-76.08	1,428.43	831.41	780.75	50.66	16.412	
7,400.00	7,280.68	7,490.13	7,280.68	25.40	30.81	46.74	-76.08	1,428.43	831.41	780.49	50.92	16.329	
7,500.00	7,380.68	7,590.13	7,380.68	25.52	30.93	46.74	-76.08	1,428.43	831.41	780.23	51.17	16.247	
7,600.00	7,480.68	7,690.13	7,480.68	25.65	31.04	46.74	-76.08	1,428.43	831.41	779.97	51.43	16.164	
7,700.00	7,580.68	7,790.13	7,580.68	25.78	31.16	46.74	-76.08	1,428.43	831.41	779.71	51.70	16.082	
7,800.00	7,680.68	7,890.13	7,680.68	25.91	31.27	46.74	-76.08	1,428.43	831.41	779.44	51.96	16.000	
7,900.00	7,780.68	7,990.13	7,780.68	26.05	31.39	46.74	-76.08	1,428.43	831.41	779.17	52.23	15.917	
8,000.00	7,880.68	8,090.13	7,880.68	26.18	31.51	46.74	-76.08	1,428.43	831.41	778.90	52.50	15.835	
8,100.00	7,980.68	8,190.13	7,980.68	26.31	31.63	46.74	-76.08	1,428.43	831.41	778.63	52.78	15.753	
8,200.00	8,080.68	8,290.13	8,080.68	26.45	31.75	46.74	-76.08	1,428.43	831.41	778.35	53.05	15.671	
8,306.32	8,187.00	8,396.45	8,187.00	26.60	31.88	46.74	-76.08	1,428.43	831.41	778.06	53.35	15.584	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 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)	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	89.50	0.35	40.01	40.01				
100.00	100.00	100.00	100.00	0.10	0.10	89.50	0.35	40.01	40.01	39.82	0.19	209.442	
200.00	200.00	200.00	200.00	0.32	0.32	89.50	0.35	40.01	40.01	39.37	0.64	62.465	
300.00	300.00	300.00	300.00	0.55	0.55	89.50	0.35	40.01	40.01	38.92	1.09	36.706	
400.00	400.00	400.00	400.00	0.77	0.77	89.50	0.35	40.01	40.01	38.47	1.54	25.989	
500.00	500.00	500.00	500.00	0.99	0.99	89.50	0.35	40.01	40.01	38.03	1.99	20.116	
600.00	600.00	600.00	600.00	1.22	1.22	89.50	0.35	40.01	40.01	37.58	2.44	16.408	
700.00	700.00	700.00	700.00	1.44	1.44	89.50	0.35	40.01	40.01	37.13	2.89	13.854	
800.00	800.00	800.00	800.00	1.67	1.67	89.50	0.35	40.01	40.01	36.68	3.34	11.988	
900.00	900.00	900.00	900.00	1.89	1.89	89.50	0.35	40.01	40.01	36.23	3.79	10.565	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.50	0.35	40.01	40.01	35.78	4.24	9.444	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.50	0.35	40.01	40.01	35.33	4.69	8.538	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.50	0.35	40.01	40.01	34.88	5.14	7.791	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.50	0.35	40.01	40.01	34.43	5.59	7.164	
1,343.82	1,343.82	1,343.35	1,343.35	2.88	2.89	-39.22	0.56	40.27	40.01	34.24	5.77	6.937 CC	
1,400.00	1,399.98	1,398.88	1,398.86	3.00	3.01	-41.71	1.44	41.33	40.05	34.05	6.00	6.673 ES	
1,500.00	1,499.84	1,497.48	1,497.32	3.18	3.23	-50.74	4.68	45.26	40.85	34.46	6.39	6.389 SF	
1,600.00	1,599.45	1,595.53	1,595.00	3.38	3.45	-64.30	10.05	51.76	44.30	37.50	6.80	6.511	
1,700.00	1,698.70	1,692.76	1,691.53	3.60	3.68	-78.93	17.47	60.74	52.54	45.29	7.25	7.251	
1,800.00	1,797.47	1,788.91	1,786.54	3.85	3.93	-91.25	26.85	72.10	66.63	58.91	7.72	8.630	
1,900.00	1,895.62	1,883.75	1,879.72	4.14	4.21	-100.24	38.09	85.71	86.44	78.21	8.23	10.501	
1,986.38	1,979.83	1,964.44	1,958.50	4.43	4.47	-105.74	49.19	99.16	107.74	99.03	8.71	12.372	
2,000.00	1,993.06	1,977.06	1,970.77	4.48	4.51	-106.51	51.06	101.42	111.42	102.64	8.79	12.681	
2,100.00	2,090.21	2,069.03	2,059.82	4.85	4.85	-110.51	65.68	119.13	140.34	130.96	9.39	14.947	
2,200.00	2,187.35	2,159.72	2,146.87	5.25	5.24	-112.52	81.87	138.74	172.11	162.08	10.03	17.156	
2,300.00	2,284.49	2,248.97	2,231.71	5.66	5.66	-113.39	99.52	160.11	206.35	195.64	10.71	19.264	
2,400.00	2,381.64	2,336.67	2,314.19	6.10	6.13	-113.58	118.48	183.07	242.87	231.45	11.42	21.262	
2,500.00	2,478.78	2,422.67	2,394.16	6.54	6.63	-113.36	138.64	207.48	281.60	269.44	12.16	23.156	
2,600.00	2,575.92	2,506.90	2,471.51	7.00	7.17	-112.89	159.84	233.16	322.49	309.57	12.92	24.959	
2,700.00	2,673.07	2,594.68	2,551.32	7.46	7.79	-112.29	183.13	261.36	365.06	351.34	13.72	26.600	
2,800.00	2,770.21	2,685.05	2,633.40	7.93	8.45	-111.79	207.19	290.50	407.78	393.23	14.56	28.014	
2,900.00	2,867.35	2,775.41	2,715.49	8.40	9.12	-111.38	231.24	319.63	450.53	435.13	15.40	29.252	
3,000.00	2,964.50	2,865.77	2,797.57	8.88	9.81	-111.05	255.30	348.76	493.29	477.03	16.26	30.340	
3,100.00	3,061.64	2,956.13	2,879.66	9.36	10.50	-110.76	279.36	377.90	536.06	518.93	17.13	31.301	
3,200.00	3,158.78	3,046.50	2,961.74	9.85	11.21	-110.52	303.42	407.03	578.84	560.84	18.00	32.155	
3,300.00	3,255.93	3,136.86	3,043.82	10.34	11.92	-110.32	327.47	436.16	621.62	602.74	18.88	32.917	
3,400.00	3,353.07	3,227.22	3,125.91	10.83	12.64	-110.13	351.53	465.30	664.42	644.64	19.77	33.601	
3,500.00	3,450.22	3,317.58	3,207.99	11.32	13.36	-109.98	375.59	494.43	707.21	686.54	20.67	34.216	
3,600.00	3,547.36	3,407.95	3,290.08	11.82	14.09	-109.83	399.64	523.56	750.01	728.45	21.57	34.772	
3,700.00	3,644.50	3,498.31	3,372.16	12.32	14.82	-109.71	423.70	552.70	792.82	770.35	22.47	35.277	
3,800.00	3,741.65	3,588.67	3,454.25	12.82	15.55	-109.60	447.76	581.83	835.63	812.24	23.38	35.736	
3,900.00	3,838.79	3,679.04	3,536.33	13.32	16.29	-109.49	471.82	610.97	878.44	854.14	24.30	36.156	
4,000.00	3,935.93	3,769.40	3,618.42	13.82	17.03	-109.40	495.87	640.10	921.25	896.04	25.21	36.542	
4,100.00	4,033.08	3,859.76	3,700.50	14.32	17.77	-109.32	519.93	669.23	964.06	937.93	26.13	36.896	
4,200.00	4,130.22	3,950.12	3,782.59	14.82	18.51	-109.24	543.99	698.37	1,006.88	979.83	27.05	37.224	
4,300.00	4,227.36	4,040.49	3,864.67	15.33	19.26	-109.17	568.04	727.50	1,049.69	1,021.72	27.97	37.526	
4,400.00	4,324.51	4,130.85	3,946.76	15.83	20.00	-109.11	592.10	756.63	1,092.51	1,063.62	28.90	37.807	
4,500.00	4,421.65	4,221.21	4,028.84	16.34	20.75	-109.04	616.16	785.77	1,135.33	1,105.51	29.82	38.068	
4,600.00	4,518.79	4,311.57	4,110.93	16.85	21.50	-108.99	640.22	814.90	1,178.15	1,147.40	30.75	38.312	
4,700.00	4,615.94	4,401.94	4,193.01	17.35	22.25	-108.94	664.27	844.04	1,220.97	1,189.29	31.68	38.539	
4,800.00	4,713.08	4,492.30	4,275.09	17.86	22.99	-108.89	688.33	873.17	1,263.79	1,231.18	32.61	38.752	
4,900.00	4,810.22	4,582.66	4,357.18	18.37	23.75	-108.84	712.39	902.30	1,306.62	1,273.07	33.55	38.951	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 28-2 - P_JESSER 28-2 - PLAN #1 3-16-10 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	4,907.37	4,673.02	4,439.26	18.88	24.50	-108.80	736.44	931.44	1,349.44	1,314.96	34.48	39.138	
5,100.00	5,004.51	4,763.39	4,521.35	19.39	25.25	-108.76	760.50	960.57	1,392.26	1,356.85	35.41	39.314	
5,200.00	5,101.65	4,853.75	4,603.43	19.89	26.00	-108.72	784.56	989.70	1,435.09	1,398.74	36.35	39.480	
5,300.00	5,198.80	4,944.11	4,685.52	20.40	26.75	-108.69	808.62	1,018.84	1,477.91	1,440.62	37.29	39.637	
5,400.00	5,295.94	5,034.48	4,767.60	20.91	27.51	-108.66	832.67	1,047.97	1,520.74	1,482.51	38.22	39.785	
5,500.00	5,393.09	5,124.84	4,849.69	21.42	28.26	-108.62	856.73	1,077.11	1,563.56	1,524.40	39.16	39.926	
5,600.00	5,490.23	5,215.20	4,931.77	21.93	29.02	-108.59	880.79	1,106.24	1,606.39	1,566.29	40.10	40.059	
5,704.94	5,592.17	5,310.02	5,017.91	22.47	29.81	-108.56	906.03	1,136.81	1,651.33	1,610.24	41.09	40.191	
5,800.00	5,684.87	5,396.11	5,096.11	22.88	30.53	-109.32	928.95	1,164.57	1,691.58	1,649.45	42.13	40.148	
5,900.00	5,783.09	5,487.01	5,178.68	23.20	31.29	-109.98	953.15	1,193.87	1,732.91	1,689.78	43.12	40.184	
6,000.00	5,881.90	5,599.77	5,281.24	23.48	32.19	-110.42	982.99	1,230.01	1,773.05	1,728.92	44.13	40.173	
6,100.00	5,981.18	5,795.29	5,462.58	23.72	33.36	-110.48	1,029.47	1,286.30	1,808.51	1,763.28	45.22	39.991	
6,200.00	6,080.83	6,000.45	5,657.75	23.92	34.40	-110.42	1,069.65	1,334.96	1,837.31	1,791.13	46.18	39.783	
6,300.00	6,180.70	6,213.86	5,865.01	24.08	35.27	-110.28	1,101.90	1,374.02	1,859.05	1,812.06	46.98	39.568	
6,391.32	6,272.00	6,414.38	6,062.68	24.19	35.88	18.06	1,123.18	1,399.78	1,872.42	1,824.86	47.56	39.370	
6,400.00	6,280.68	6,433.66	6,081.80	24.20	35.93	18.10	1,124.76	1,401.69	1,873.37	1,825.77	47.60	39.359	
6,500.00	6,380.68	6,657.69	6,304.94	24.31	36.36	18.42	1,137.09	1,416.63	1,880.70	1,832.69	48.02	39.167	
6,600.00	6,480.68	6,833.49	6,480.68	24.43	36.54	18.47	1,139.15	1,419.13	1,881.92	1,833.58	48.34	38.934	
6,700.00	6,580.68	6,933.49	6,580.68	24.54	36.62	18.47	1,139.15	1,419.13	1,881.92	1,833.34	48.58	38.739	
6,800.00	6,680.68	7,033.49	6,680.68	24.66	36.71	18.47	1,139.15	1,419.13	1,881.92	1,833.09	48.83	38.544	
6,900.00	6,780.68	7,133.49	6,780.68	24.78	36.79	18.47	1,139.15	1,419.13	1,881.92	1,832.84	49.07	38.349	
7,000.00	6,880.68	7,233.49	6,880.68	24.90	36.88	18.47	1,139.15	1,419.13	1,881.92	1,832.59	49.33	38.153	
7,100.00	6,980.68	7,333.49	6,980.68	25.02	36.97	18.47	1,139.15	1,419.13	1,881.92	1,832.34	49.58	37.957	
7,200.00	7,080.68	7,433.49	7,080.68	25.14	37.06	18.47	1,139.15	1,419.13	1,881.92	1,832.08	49.84	37.761	
7,300.00	7,180.68	7,533.49	7,180.68	25.27	37.15	18.47	1,139.15	1,419.13	1,881.92	1,831.82	50.10	37.566	
7,400.00	7,280.68	7,633.49	7,280.68	25.40	37.24	18.47	1,139.15	1,419.13	1,881.92	1,831.56	50.36	37.370	
7,500.00	7,380.68	7,733.49	7,380.68	25.52	37.33	18.47	1,139.15	1,419.13	1,881.92	1,831.29	50.62	37.174	
7,600.00	7,480.68	7,833.49	7,480.68	25.65	37.42	18.47	1,139.15	1,419.13	1,881.92	1,831.03	50.89	36.979	
7,700.00	7,580.68	7,933.49	7,580.68	25.78	37.52	18.47	1,139.15	1,419.13	1,881.92	1,830.76	51.16	36.783	
7,800.00	7,680.68	8,033.49	7,680.68	25.91	37.61	18.47	1,139.15	1,419.13	1,881.92	1,830.48	51.44	36.588	
7,900.00	7,780.68	8,133.49	7,780.68	26.05	37.71	18.47	1,139.15	1,419.13	1,881.92	1,830.21	51.71	36.393	
8,000.00	7,880.68	8,233.49	7,880.68	26.18	37.81	18.47	1,139.15	1,419.13	1,881.92	1,829.93	51.99	36.199	
8,100.00	7,980.68	8,333.49	7,980.68	26.31	37.91	18.47	1,139.15	1,419.13	1,881.92	1,829.65	52.27	36.005	
8,200.00	8,080.68	8,433.49	8,080.68	26.45	38.01	18.47	1,139.15	1,419.13	1,881.92	1,829.37	52.55	35.811	
8,256.29	8,136.97	8,489.78	8,136.97	26.53	38.07	18.47	1,139.15	1,419.13	1,881.92	1,829.21	52.71	35.703	
8,306.32	8,187.00	8,508.80	8,156.00	26.60	38.08	18.47	1,139.15	1,419.13	1,882.17	1,829.36	52.81	35.641	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 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	-90.52	-0.36	-40.01	40.01				
100.00	100.00	100.00	100.00	0.10	0.10	-90.52	-0.36	-40.01	40.01	39.82	0.19	209.443	
200.00	200.00	200.00	200.00	0.32	0.32	-90.52	-0.36	-40.01	40.01	39.37	0.64	62.465	
300.00	300.00	300.00	300.00	0.55	0.55	-90.52	-0.36	-40.01	40.01	38.92	1.09	36.706	
400.00	400.00	400.00	400.00	0.77	0.77	-90.52	-0.36	-40.01	40.01	38.47	1.54	25.989	
500.00	500.00	500.00	500.00	0.99	0.99	-90.52	-0.36	-40.01	40.01	38.03	1.99	20.116	
600.00	600.00	600.00	600.00	1.22	1.22	-90.52	-0.36	-40.01	40.01	37.58	2.44	16.408	
700.00	700.00	700.00	700.00	1.44	1.44	-90.52	-0.36	-40.01	40.01	37.13	2.89	13.854	
800.00	800.00	800.00	800.00	1.67	1.67	-90.52	-0.36	-40.01	40.01	36.68	3.34	11.988	
900.00	900.00	900.00	900.00	1.89	1.89	-90.52	-0.36	-40.01	40.01	36.23	3.79	10.565	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.52	-0.36	-40.01	40.01	35.78	4.24	9.444	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.52	-0.36	-40.01	40.01	35.33	4.69	8.538	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.52	-0.36	-40.01	40.01	34.88	5.14	7.791	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-90.52	-0.36	-40.01	40.01	34.43	5.59	7.164 CC, ES, SF	
1,400.00	1,399.98	1,398.52	1,398.51	3.00	3.00	142.56	-0.52	-41.70	43.10	37.11	5.99	7.195	
1,500.00	1,499.84	1,496.44	1,496.29	3.18	3.20	145.32	-0.97	-46.72	52.44	46.08	6.36	8.247	
1,600.00	1,599.45	1,593.15	1,592.64	3.38	3.41	148.19	-1.70	-54.94	68.10	61.37	6.73	10.124	
1,700.00	1,698.70	1,688.11	1,686.92	3.60	3.63	150.46	-2.71	-66.16	90.05	82.95	7.09	12.692	
1,800.00	1,797.47	1,780.77	1,778.52	3.85	3.86	152.08	-3.96	-80.10	118.14	110.67	7.46	15.828	
1,900.00	1,895.62	1,870.69	1,866.93	4.14	4.13	153.18	-5.43	-96.44	152.16	144.32	7.84	19.419	
1,986.38	1,979.83	1,945.85	1,940.39	4.43	4.37	153.81	-6.84	-112.22	186.14	177.98	8.16	22.812	
2,000.00	1,993.06	1,957.48	1,951.72	4.48	4.41	153.94	-7.08	-114.83	191.85	183.63	8.22	23.344	
2,100.00	2,090.21	2,044.31	2,036.02	4.85	4.73	154.60	-8.94	-135.54	235.00	226.34	8.66	27.134	
2,200.00	2,187.35	2,134.29	2,123.27	5.25	5.08	155.05	-10.90	-157.44	278.60	269.47	9.13	30.521	
2,300.00	2,284.49	2,224.26	2,210.52	5.66	5.46	155.37	-12.86	-179.33	322.21	312.60	9.61	33.527	
2,400.00	2,381.64	2,314.24	2,297.77	6.10	5.84	155.62	-14.83	-201.23	365.83	355.72	10.11	36.201	
2,500.00	2,478.78	2,404.22	2,385.02	6.54	6.24	155.81	-16.79	-223.13	409.45	398.84	10.61	38.585	
2,600.00	2,575.92	2,494.19	2,472.27	7.00	6.66	155.97	-18.76	-245.02	453.08	441.95	11.13	40.716	
2,700.00	2,673.07	2,584.17	2,559.52	7.46	7.07	156.10	-20.72	-266.92	496.70	485.05	11.65	42.629	
2,800.00	2,770.21	2,674.14	2,646.77	7.93	7.50	156.21	-22.69	-288.81	540.33	528.15	12.18	44.351	
2,900.00	2,867.35	2,764.12	2,734.02	8.40	7.93	156.30	-24.65	-310.71	583.96	571.24	12.72	45.907	
3,000.00	2,964.50	2,854.10	2,821.27	8.88	8.37	156.38	-26.62	-332.60	627.59	614.33	13.26	47.318	
3,100.00	3,061.64	2,944.07	2,908.52	9.36	8.81	156.45	-28.58	-354.50	671.22	657.41	13.81	48.601	
3,200.00	3,158.78	3,034.05	2,995.77	9.85	9.25	156.51	-30.55	-376.39	714.86	700.49	14.36	49.772	
3,300.00	3,255.93	3,124.03	3,083.02	10.34	9.70	156.56	-32.51	-398.29	758.49	743.57	14.92	50.843	
3,400.00	3,353.07	3,214.00	3,170.27	10.83	10.14	156.61	-34.47	-420.19	802.12	786.65	15.48	51.825	
3,500.00	3,450.22	3,303.98	3,257.52	11.32	10.59	156.65	-36.44	-442.08	845.76	829.72	16.04	52.730	
3,600.00	3,547.36	3,393.96	3,344.77	11.82	11.05	156.69	-38.40	-463.98	889.39	872.79	16.60	53.564	
3,700.00	3,644.50	3,483.93	3,432.02	12.32	11.50	156.73	-40.37	-485.87	933.03	915.86	17.17	54.335	
3,800.00	3,741.65	3,573.91	3,519.27	12.82	11.96	156.76	-42.33	-507.77	976.66	958.92	17.74	55.050	
3,900.00	3,838.79	3,663.89	3,606.52	13.32	12.42	156.79	-44.30	-529.66	1,020.30	1,001.98	18.31	55.715	
4,000.00	3,935.93	3,753.86	3,693.77	13.82	12.88	156.81	-46.26	-551.56	1,063.93	1,045.05	18.89	56.334	
4,100.00	4,033.08	3,843.84	3,781.02	14.32	13.34	156.84	-48.23	-573.45	1,107.57	1,088.11	19.46	56.911	
4,200.00	4,130.22	3,933.81	3,868.26	14.82	13.80	156.86	-50.19	-595.35	1,151.20	1,131.17	20.04	57.452	
4,300.00	4,227.36	4,023.79	3,955.51	15.33	14.26	156.88	-52.16	-617.24	1,194.84	1,174.22	20.62	57.958	
4,400.00	4,324.51	4,113.77	4,042.76	15.83	14.72	156.90	-54.12	-639.14	1,238.48	1,217.28	21.19	58.433	
4,500.00	4,421.65	4,203.74	4,130.01	16.34	15.19	156.92	-56.08	-661.04	1,282.11	1,260.34	21.78	58.879	
4,600.00	4,518.79	4,293.72	4,217.26	16.85	15.65	156.94	-58.05	-682.93	1,325.75	1,303.39	22.36	59.299	
4,700.00	4,615.94	4,383.70	4,304.51	17.35	16.11	156.95	-60.01	-704.83	1,369.39	1,346.45	22.94	59.696	
4,800.00	4,713.08	4,473.67	4,391.76	17.86	16.58	156.97	-61.98	-726.72	1,413.02	1,389.50	23.52	60.070	
4,900.00	4,810.22	4,563.65	4,479.01	18.37	17.05	156.98	-63.94	-748.62	1,456.66	1,432.55	24.11	60.424	
5,000.00	4,907.37	4,653.63	4,566.26	18.88	17.51	157.00	-65.91	-770.51	1,500.29	1,475.60	24.69	60.759	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 31-2 - P_JESSER 31-2 - PLAN #1 3-16-10 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,100.00	5,004.51	4,743.60	4,653.51	19.39	17.98	157.01	-67.87	-792.41	1,543.93	1,518.65	25.28	61.077	
5,200.00	5,101.65	4,833.58	4,740.76	19.89	18.45	157.02	-69.84	-814.30	1,587.57	1,561.70	25.86	61.379	
5,300.00	5,198.80	4,923.56	4,828.01	20.40	18.91	157.03	-71.80	-836.20	1,631.20	1,604.75	26.45	61.667	
5,400.00	5,295.94	5,013.53	4,915.26	20.91	19.38	157.04	-73.77	-858.10	1,674.84	1,647.80	27.04	61.940	
5,500.00	5,393.09	5,103.51	5,002.51	21.42	19.85	157.05	-75.73	-879.99	1,718.48	1,690.85	27.63	62.200	
5,600.00	5,490.23	5,193.48	5,089.76	21.93	20.32	157.06	-77.69	-901.89	1,762.12	1,733.90	28.22	62.448	
5,704.94	5,592.17	5,287.90	5,181.31	22.47	20.81	157.07	-79.76	-924.86	1,807.91	1,779.07	28.84	62.697	
5,800.00	5,684.87	5,374.06	5,264.86	22.88	21.26	157.40	-81.64	-945.83	1,848.07	1,818.54	29.53	62.580	
5,900.00	5,783.09	5,465.95	5,353.97	23.20	21.74	157.67	-83.64	-968.19	1,887.46	1,857.26	30.20	62.493	
6,000.00	5,881.90	5,559.04	5,444.23	23.48	22.23	157.87	-85.68	-990.84	1,923.86	1,893.02	30.84	62.380	
6,100.00	5,981.18	5,653.20	5,535.54	23.72	22.72	158.00	-87.73	-1,013.76	1,957.24	1,925.80	31.44	62.248	
6,200.00	6,080.83	5,838.52	5,716.02	23.92	23.52	157.93	-91.48	-1,055.57	1,986.45	1,954.23	32.22	61.662	
6,300.00	6,180.70	6,119.34	5,993.61	24.08	24.29	157.79	-95.21	-1,097.11	2,004.84	1,971.82	33.02	60.709	
6,391.32	6,272.00	6,382.99	6,256.79	24.19	24.72	-74.14	-96.49	-1,111.31	2,010.81	1,977.17	33.64	59.779	
6,400.00	6,280.68	6,406.89	6,280.68	24.20	24.75	-74.15	-96.49	-1,111.40	2,010.84	1,977.15	33.69	59.689	
6,500.00	6,380.68	6,506.89	6,380.68	24.31	24.86	-74.15	-96.49	-1,111.40	2,010.84	1,976.83	34.00	59.137	
6,600.00	6,480.68	6,606.89	6,480.68	24.43	24.98	-74.15	-96.49	-1,111.40	2,010.84	1,976.51	34.32	58.586	
6,700.00	6,580.68	6,706.89	6,580.68	24.54	25.10	-74.15	-96.49	-1,111.40	2,010.84	1,976.19	34.65	58.039	
6,800.00	6,680.68	6,806.89	6,680.68	24.66	25.23	-74.15	-96.49	-1,111.40	2,010.84	1,975.86	34.97	57.499	
6,900.00	6,780.68	6,906.89	6,780.68	24.78	25.35	-74.15	-96.49	-1,111.40	2,010.84	1,975.54	35.30	56.964	
7,000.00	6,880.68	7,006.89	6,880.68	24.90	25.48	-74.15	-96.49	-1,111.40	2,010.84	1,975.20	35.63	56.434	
7,100.00	6,980.68	7,106.89	6,980.68	25.02	25.60	-74.15	-96.49	-1,111.40	2,010.84	1,974.87	35.97	55.910	
7,200.00	7,080.68	7,206.89	7,080.68	25.14	25.73	-74.15	-96.49	-1,111.40	2,010.84	1,974.53	36.30	55.392	
7,300.00	7,180.68	7,306.89	7,180.68	25.27	25.86	-74.15	-96.49	-1,111.40	2,010.84	1,974.20	36.64	54.880	
7,400.00	7,280.68	7,406.89	7,280.68	25.40	25.99	-74.15	-96.49	-1,111.40	2,010.84	1,973.85	36.98	54.374	
7,500.00	7,380.68	7,506.89	7,380.68	25.52	26.12	-74.15	-96.49	-1,111.40	2,010.84	1,973.51	37.32	53.874	
7,600.00	7,480.68	7,606.89	7,480.68	25.65	26.26	-74.15	-96.49	-1,111.40	2,010.84	1,973.17	37.67	53.380	
7,700.00	7,580.68	7,706.89	7,580.68	25.78	26.39	-74.15	-96.49	-1,111.40	2,010.84	1,972.82	38.02	52.892	
7,800.00	7,680.68	7,806.89	7,680.68	25.91	26.53	-74.15	-96.49	-1,111.40	2,010.84	1,972.47	38.37	52.409	
7,900.00	7,780.68	7,906.89	7,780.68	26.05	26.67	-74.15	-96.49	-1,111.40	2,010.84	1,972.12	38.72	51.933	
8,000.00	7,880.68	8,006.89	7,880.68	26.18	26.80	-74.15	-96.49	-1,111.40	2,010.84	1,971.76	39.07	51.463	
8,100.00	7,980.68	8,106.89	7,980.68	26.31	26.94	-74.15	-96.49	-1,111.40	2,010.84	1,971.41	39.43	50.998	
8,200.00	8,080.68	8,206.89	8,080.68	26.45	27.08	-74.15	-96.49	-1,111.40	2,010.84	1,971.05	39.79	50.539	
8,306.32	8,187.00	8,313.21	8,187.00	26.60	27.23	-74.15	-96.49	-1,111.40	2,010.84	1,970.67	40.17	50.058	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 4-2S - P_JESSER 4-2S - PLAN #1 3-16-10 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	90.00	0.00	10.07	10.07				
100.00	100.00	100.00	100.00	0.10	0.10	90.00	0.00	10.07	10.07	9.88	0.19	52.725	
200.00	200.00	200.00	200.00	0.32	0.32	90.00	0.00	10.07	10.07	9.43	0.64	15.725	
300.00	300.00	300.00	300.00	0.55	0.55	90.00	0.00	10.07	10.07	8.98	1.09	9.240	
400.00	400.00	400.00	400.00	0.77	0.77	90.00	0.00	10.07	10.07	8.53	1.54	6.542	
500.00	500.00	500.00	500.00	0.99	0.99	90.00	0.00	10.07	10.07	8.08	1.99	5.064	
600.00	600.00	600.00	600.00	1.22	1.22	90.00	0.00	10.07	10.07	7.63	2.44	4.131	
700.00	700.00	700.00	700.00	1.44	1.44	90.00	0.00	10.07	10.07	7.18	2.89	3.488	
800.00	800.00	800.00	800.00	1.67	1.67	90.00	0.00	10.07	10.07	6.74	3.34	3.018	
900.00	900.00	900.00	900.00	1.89	1.89	90.00	0.00	10.07	10.07	6.29	3.79	2.660	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	90.00	0.00	10.07	10.07	5.84	4.24	2.378	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	90.00	0.00	10.07	10.07	5.39	4.69	2.149	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	90.00	0.00	10.07	10.07	4.94	5.14	1.961	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	90.00	0.00	10.07	10.07	4.49	5.59	1.803	
1,400.00	1,399.98	1,400.14	1,400.13	3.00	3.01	-50.91	0.63	8.92	7.74	1.74	6.00	1.289 Level 3	
1,465.62	1,465.52	1,465.60	1,465.55	3.12	3.15	-94.09	1.72	6.92	5.64	-0.63	6.27	0.900 Level 1, CC, ES, SF	
1,500.00	1,499.84	1,499.76	1,499.67	3.18	3.22	-127.99	2.50	5.49	6.81	0.41	6.40	1.064 Level 2	
1,600.00	1,599.45	1,598.32	1,598.02	3.38	3.44	-167.27	5.57	-0.15	19.78	13.01	6.77	2.922	
1,700.00	1,698.70	1,695.35	1,694.64	3.60	3.67	-175.86	9.78	-7.88	40.42	33.28	7.14	5.663	
1,800.00	1,797.47	1,790.36	1,789.01	3.85	3.90	-179.09	15.04	-17.53	67.14	59.64	7.50	8.951	
1,900.00	1,895.62	1,882.92	1,880.66	4.14	4.14	179.30	21.24	-28.91	99.60	91.74	7.86	12.677	
1,986.38	1,979.83	1,960.61	1,957.32	4.43	4.36	178.48	27.27	-39.96	132.08	123.92	8.16	16.194	
2,000.00	1,993.06	1,972.67	1,969.20	4.48	4.40	178.38	28.27	-41.80	137.54	129.32	8.21	16.750	
2,100.00	2,090.21	2,060.15	2,055.15	4.85	4.67	177.78	36.08	-56.12	178.80	170.18	8.62	20.740	
2,200.00	2,187.35	2,145.82	2,138.92	5.25	4.95	177.34	44.63	-71.82	222.12	213.08	9.03	24.586	
2,300.00	2,284.49	2,235.21	2,226.12	5.66	5.28	177.00	54.06	-89.13	266.52	257.05	9.47	28.157	
2,400.00	2,381.64	2,324.80	2,313.50	6.10	5.62	176.76	63.52	-106.47	310.93	301.02	9.90	31.397	
2,500.00	2,478.78	2,414.40	2,400.89	6.54	5.97	176.57	72.97	-123.82	355.34	344.99	10.35	34.341	
2,600.00	2,575.92	2,503.99	2,488.28	7.00	6.33	176.43	82.43	-141.16	399.75	388.95	10.80	37.023	
2,700.00	2,673.07	2,593.58	2,575.66	7.46	6.70	176.31	91.88	-158.51	444.17	432.91	11.25	39.473	
2,800.00	2,770.21	2,683.17	2,663.05	7.93	7.07	176.22	101.33	-175.86	488.58	476.87	11.71	41.715	
2,900.00	2,867.35	2,772.76	2,750.44	8.40	7.45	176.14	110.79	-193.20	533.00	520.82	12.18	43.775	
3,000.00	2,964.50	2,862.36	2,837.83	8.88	7.84	176.08	120.24	-210.55	577.42	564.77	12.64	45.672	
3,100.00	3,061.64	2,951.95	2,925.21	9.36	8.23	176.02	129.69	-227.90	621.83	608.72	13.11	47.422	
3,200.00	3,158.78	3,041.54	3,012.60	9.85	8.62	175.97	139.15	-245.24	666.25	652.67	13.59	49.042	
3,300.00	3,255.93	3,131.13	3,099.99	10.34	9.01	175.93	148.60	-262.59	710.67	696.61	14.06	50.544	
3,400.00	3,353.07	3,220.73	3,187.37	10.83	9.41	175.89	158.06	-279.93	755.09	740.55	14.54	51.939	
3,500.00	3,450.22	3,310.32	3,274.76	11.32	9.82	175.86	167.51	-297.28	799.51	784.49	15.02	53.239	
3,600.00	3,547.36	3,399.91	3,362.15	11.82	10.22	175.83	176.96	-314.63	843.93	828.43	15.50	54.453	
3,700.00	3,644.50	3,489.50	3,449.53	12.32	10.62	175.80	186.42	-331.97	888.35	872.37	15.98	55.586	
3,800.00	3,741.65	3,579.09	3,536.92	12.82	11.03	175.77	195.87	-349.32	932.77	916.30	16.47	56.648	
3,900.00	3,838.79	3,668.69	3,624.31	13.32	11.44	175.75	205.33	-366.66	977.19	960.24	16.95	57.645	
4,000.00	3,935.93	3,758.28	3,711.70	13.82	11.85	175.73	214.78	-384.01	1,021.61	1,004.17	17.44	58.582	
4,100.00	4,033.08	3,847.87	3,799.08	14.32	12.26	175.71	224.23	-401.36	1,066.03	1,048.10	17.93	59.464	
4,200.00	4,130.22	3,937.46	3,886.47	14.82	12.67	175.70	233.69	-418.70	1,110.45	1,092.03	18.42	60.297	
4,300.00	4,227.36	4,027.05	3,973.86	15.33	13.09	175.68	243.14	-436.05	1,154.87	1,135.96	18.91	61.082	
4,400.00	4,324.51	4,116.65	4,061.24	15.83	13.50	175.67	252.59	-453.40	1,199.29	1,179.89	19.40	61.826	
4,500.00	4,421.65	4,206.24	4,148.63	16.34	13.92	175.65	262.05	-470.74	1,243.71	1,223.82	19.89	62.530	
4,600.00	4,518.79	4,295.83	4,236.02	16.85	14.33	175.64	271.50	-488.09	1,288.13	1,267.75	20.38	63.197	
4,700.00	4,615.94	4,385.42	4,323.40	17.35	14.75	175.63	280.96	-505.43	1,332.55	1,311.68	20.88	63.831	
4,800.00	4,713.08	4,475.02	4,410.79	17.86	15.16	175.62	290.41	-522.78	1,376.97	1,355.60	21.37	64.433	
4,900.00	4,810.22	4,564.61	4,498.18	18.37	15.58	175.61	299.86	-540.13	1,421.39	1,399.53	21.87	65.006	

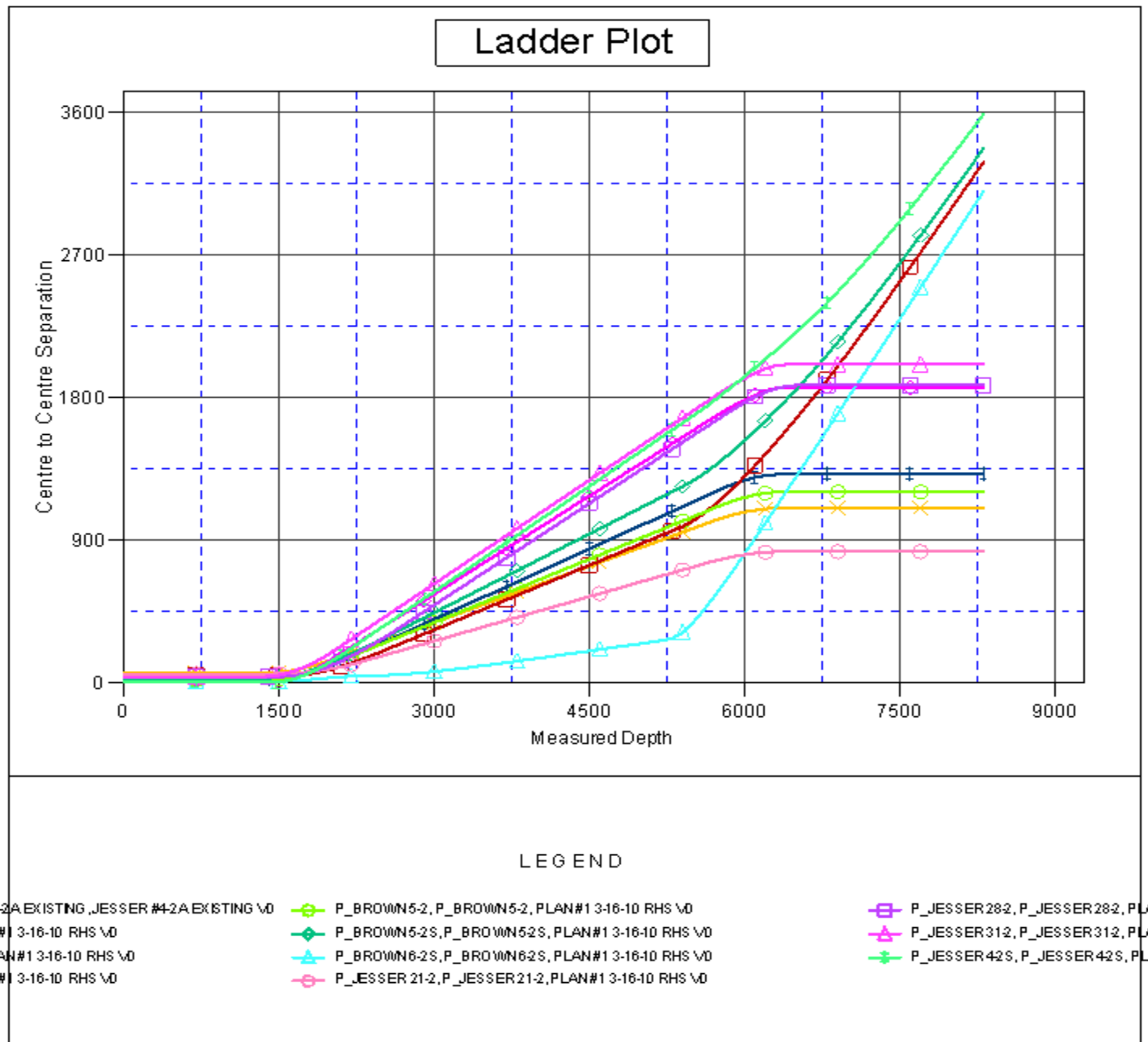
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_JESSER 18-2 PAD - P_JESSER 4-2S - P_JESSER 4-2S - PLAN #1 3-16-10 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	4,907.37	4,654.20	4,585.56	18.88	16.00	175.60	309.32	-557.47	1,465.82	1,443.45	22.36	65.552	
5,100.00	5,004.51	4,743.79	4,672.95	19.39	16.42	175.59	318.77	-574.82	1,510.24	1,487.38	22.86	66.073	
5,200.00	5,101.65	4,833.38	4,760.34	19.89	16.84	175.58	328.22	-592.17	1,554.66	1,531.30	23.35	66.570	
5,300.00	5,198.80	4,922.98	4,847.73	20.40	17.26	175.57	337.68	-609.51	1,599.08	1,575.23	23.85	67.046	
5,400.00	5,295.94	5,012.57	4,935.11	20.91	17.68	175.56	347.13	-626.86	1,643.50	1,619.15	24.35	67.500	
5,500.00	5,393.09	5,102.16	5,022.50	21.42	18.10	175.56	356.59	-644.20	1,687.92	1,663.07	24.85	67.936	
5,600.00	5,490.23	5,158.04	5,077.00	21.93	18.36	175.55	362.48	-655.02	1,732.67	1,707.41	25.26	68.589	
5,704.94	5,592.17	5,158.04	5,077.00	22.47	18.36	175.55	362.48	-655.02	1,783.53	1,757.98	25.55	69.793	
5,800.00	5,684.87	5,158.04	5,077.00	22.88	18.36	175.64	362.48	-655.02	1,832.26	1,806.30	25.96	70.579	
5,900.00	5,783.09	5,158.04	5,077.00	23.20	18.36	175.73	362.48	-655.02	1,884.50	1,858.17	26.33	71.575	
6,000.00	5,881.90	5,158.04	5,077.00	23.48	18.36	175.82	362.48	-655.02	1,937.62	1,910.96	26.66	72.688	
6,100.00	5,981.18	5,158.04	5,077.00	23.72	18.36	175.91	362.48	-655.02	1,991.48	1,964.54	26.94	73.919	
6,200.00	6,080.83	5,158.04	5,077.00	23.92	18.36	176.01	362.48	-655.02	2,045.97	2,018.78	27.18	75.265	
6,300.00	6,180.70	5,158.04	5,077.00	24.08	18.36	176.10	362.48	-655.02	2,100.96	2,073.58	27.38	76.727	
6,391.32	6,272.00	5,158.04	5,077.00	24.19	18.36	-55.70	362.48	-655.02	2,151.53	2,124.00	27.53	78.141	
6,400.00	6,280.68	5,158.04	5,077.00	24.20	18.36	-55.70	362.48	-655.02	2,156.37	2,128.82	27.55	78.273	
6,500.00	6,380.68	5,158.04	5,077.00	24.31	18.36	-55.70	362.48	-655.02	2,213.74	2,186.02	27.72	79.855	
6,600.00	6,480.68	5,158.04	5,077.00	24.43	18.36	-55.70	362.48	-655.02	2,274.07	2,246.18	27.90	81.520	
6,700.00	6,580.68	5,158.04	5,077.00	24.54	18.36	-55.70	362.48	-655.02	2,337.12	2,309.05	28.07	83.257	
6,800.00	6,680.68	5,158.04	5,077.00	24.66	18.36	-55.70	362.48	-655.02	2,402.68	2,374.43	28.25	85.057	
6,900.00	6,780.68	5,158.04	5,077.00	24.78	18.36	-55.70	362.48	-655.02	2,470.55	2,442.12	28.43	86.913	
7,000.00	6,880.68	5,158.04	5,077.00	24.90	18.36	-55.70	362.48	-655.02	2,540.54	2,511.94	28.60	88.817	
7,100.00	6,980.68	5,158.04	5,077.00	25.02	18.36	-55.70	362.48	-655.02	2,612.49	2,583.70	28.78	90.761	
7,200.00	7,080.68	5,158.04	5,077.00	25.14	18.36	-55.70	362.48	-655.02	2,686.23	2,657.26	28.97	92.739	
7,300.00	7,180.68	5,158.04	5,077.00	25.27	18.36	-55.70	362.48	-655.02	2,761.62	2,732.47	29.15	94.746	
7,400.00	7,280.68	5,158.04	5,077.00	25.40	18.36	-55.70	362.48	-655.02	2,838.54	2,809.21	29.33	96.777	
7,500.00	7,380.68	5,158.04	5,077.00	25.52	18.36	-55.70	362.48	-655.02	2,916.85	2,887.34	29.51	98.826	
7,600.00	7,480.68	5,158.04	5,077.00	25.65	18.36	-55.70	362.48	-655.02	2,996.46	2,966.76	29.70	100.891	
7,700.00	7,580.68	5,158.04	5,077.00	25.78	18.36	-55.70	362.48	-655.02	3,077.26	3,047.37	29.89	102.966	
7,800.00	7,680.68	5,158.04	5,077.00	25.91	18.36	-55.70	362.48	-655.02	3,159.15	3,129.08	30.07	105.049	
7,900.00	7,780.68	5,158.04	5,077.00	26.05	18.36	-55.70	362.48	-655.02	3,242.06	3,211.80	30.26	107.137	
8,000.00	7,880.68	5,158.04	5,077.00	26.18	18.36	-55.70	362.48	-655.02	3,325.92	3,295.47	30.45	109.227	
8,100.00	7,980.68	5,158.04	5,077.00	26.31	18.36	-55.70	362.48	-655.02	3,410.64	3,380.00	30.64	111.316	
8,200.00	8,080.68	5,158.04	5,077.00	26.45	18.36	-55.70	362.48	-655.02	3,496.17	3,465.34	30.83	113.404	
8,306.32	8,187.00	5,158.04	5,077.00	26.60	18.36	-55.70	362.48	-655.02	3,587.92	3,556.89	31.03	115.618	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

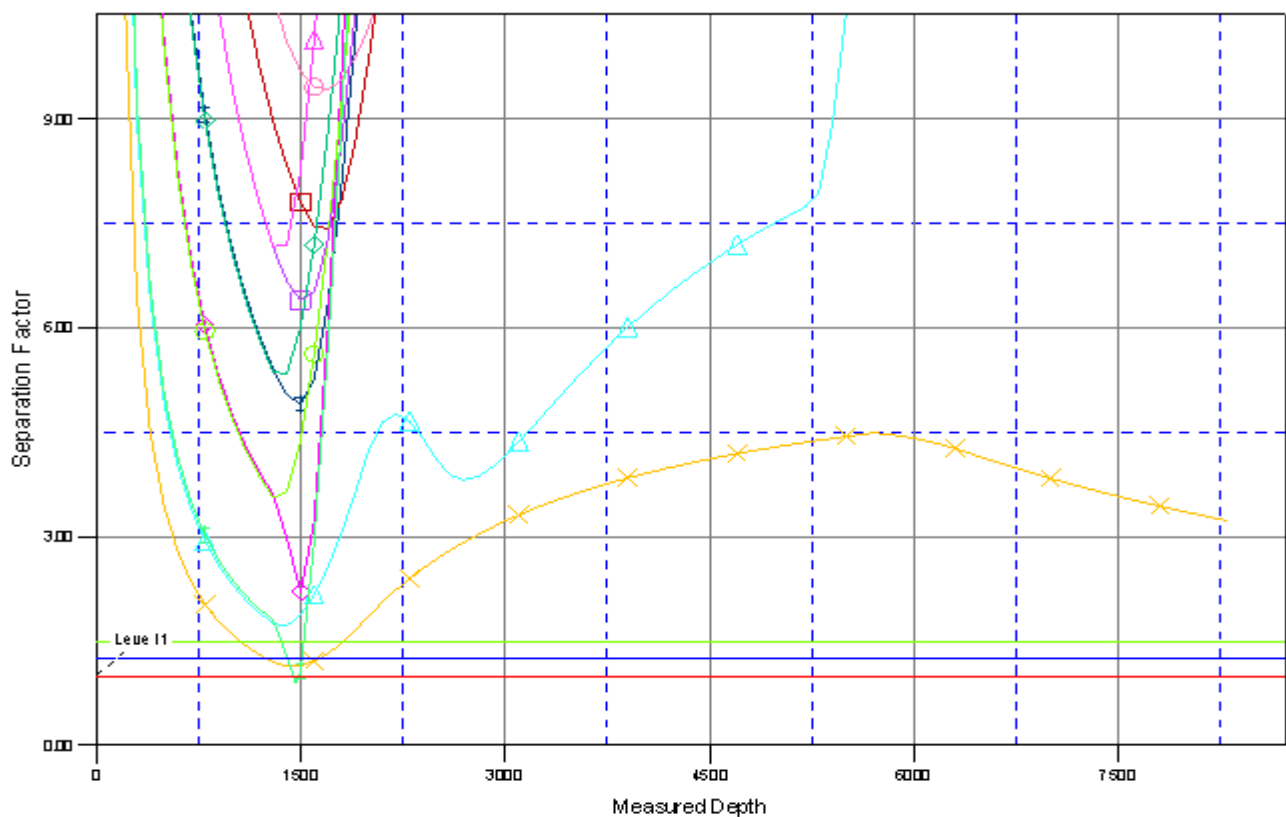
Reference Depths are relative to WELL @ 5158.00ft (Original Well Elev) Coordinates are relative to: P_BROWN 6-2
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.48°



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_BROWN 6-2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	WELL @ 5158.00ft (Original Well Elev)
Reference Site:	WELD_JESSER 18-2 PAD	MD Reference:	WELL @ 5158.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_BROWN 6-2	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_BROWN 6-2	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 3-16-10 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5158.00ft (Original Well Elev) Coordinates are relative to: P_BROWN 6-2
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: 0.48°

Separation Factor Plot



LEGEND

42A EXISTING, JESSER #42A EXISTING \D	P_BROWN 5-2, P_BROWN 5-2, PLAN#1 3-16-10 RHS \D	P_JESSER 28-2, P_JESSER 28-2, PLAN#1 3-16-10 RHS \D
PLAN#1 3-16-10 RHS \D	P_BROWN 5-2S, P_BROWN 5-2S, PLAN#1 3-16-10 RHS \D	P_JESSER 31-2, P_JESSER 31-2, PLAN#1 3-16-10 RHS \D
PLAN#1 3-16-10 RHS \D	P_BROWN 6-2S, P_BROWN 6-2S, PLAN#1 3-16-10 RHS \D	P_JESSER 42-2, P_JESSER 42-2, PLAN#1 3-16-10 RHS \D
PLAN#1 3-16-10 RHS \D	P_JESSER 21-2, P_JESSER 21-2, PLAN#1 3-16-10 RHS \D	