



US ROCKIES REGION PLANNING

KERR MCGEE OIL & GAS ONSHORE LP

WELD_DRY CREEK PAD 7

P_DRY CREEK 4-27

P_DRY CREEK 4-27

Plan: PLAN #1 10-26-09 RHS

Standard Planning Report

26 October, 2009





P_DRY CREEK 4-27
KERR MCGEE OIL & GAS ONSHORE LP
SECTION 27 T1N R67W
1169 FNL 1213 FWL
LAT: 40° 1' 34.068 N
LONG: 104° 52' 54.408 W



Azimuths to Grid North
True North: -0.40°
Magnetic North: 8.68°

Magnetic Field
Strength: 53111.5nT
Dip Angle: 66.79°
Date: 10/26/2009
Model: IGRF200510

WELL DETAILS: P_DRY CREEK 4-27

+N/-S	+E/-W	Northing	Ground Level: Easting	5008.00 Latitude	Longitude	Slot
0.00	0.00	1252968.82	3173128.79	40° 1' 34.068 N	104° 52' 54.408 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3165.00	3253.57	PARKMAN TOP
4767.00	4923.36	SUSSEX TOP
7349.00	7505.36	NIO A TOP
7749.00	7905.36	CODELL TOP

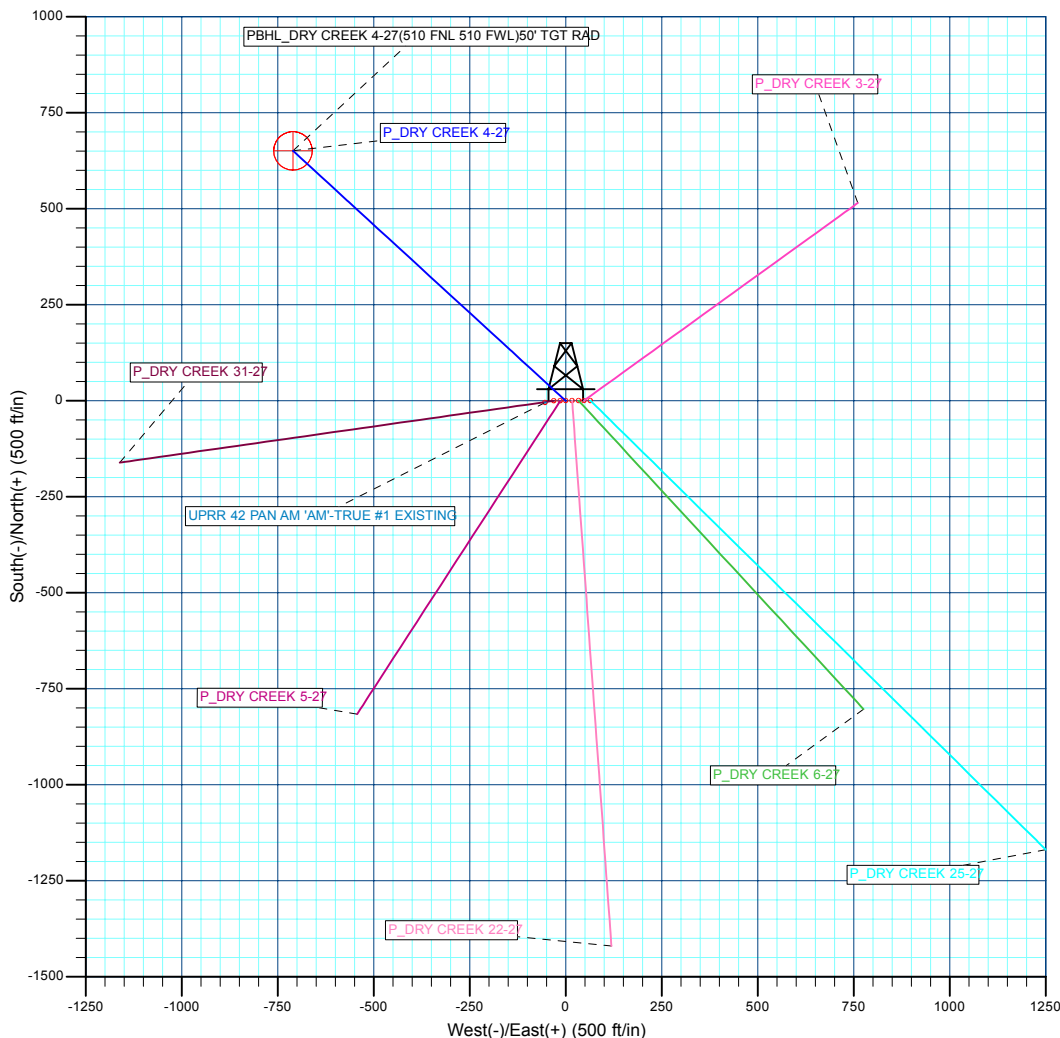
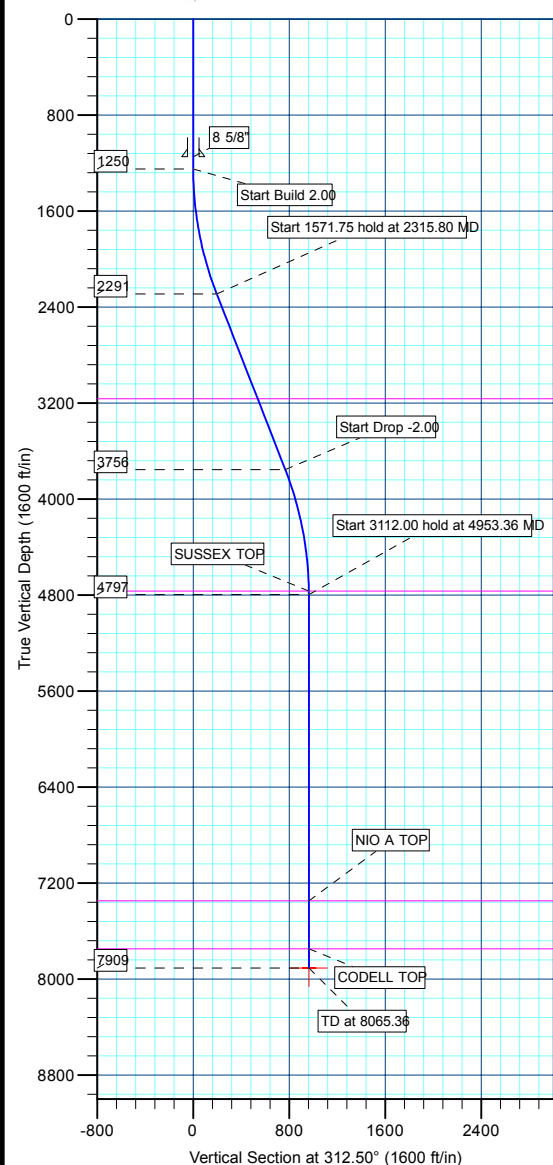
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	0.00	0.00	
2315.80	21.32	312.50	2291.39	132.40	-144.50	2.00	312.50	195.98	
3887.55	21.32	312.50	3755.61	518.38	-565.76	0.00	0.00	767.33	
4953.36	0.00	0.00	4797.00	650.78	-710.25	2.00	180.00	963.32	
8065.36	0.00	0.00	7909.00	650.78	-710.25	0.00	0.00	963.32	PBHL_DRY CREEK 4-27(510 FNL 510 FWL)50' TGT RAD

CASING DETAILS

TVD	MD	Name	Size
1150.00	1150.00	8 5/8"	8.62

KB ELEV: WELL @ 5023.00ft (Original Well Elev)
GRD ELEV: 5008.00



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7909.00	650.78	-710.25	1253619.60	3172418.54	40° 1' 40.548 N	104° 53' 3.480 W	Circle (Radius: 50.00)

Plan: PLAN #1 10-26-09 RHS (P_DRY CREEK 4-27/P_DRY CREEK 4-27)

Created By: Robert H. Scott

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 4-27		
Design:	PLAN #1 10-26-09 RHS		

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

Site						WELD_DRY CREEK PAD 7, SECTION 27 T1N R67W					
Site Position:				Northing:		1,252,969.16 ft		Latitude:		40° 1' 34.068 N	
From:		Lat/Long		Easting:		3,173,176.40 ft		Longitude:		104° 52' 53.796 W	
Position Uncertainty:		0.00 ft		Slot Radius:		in		Grid Convergence:		0.40 °	

Well	P_DRY CREEK 4-27					
Well Position	+N/-S	-0.34 ft	Northing:	1,252,968.82 ft	Latitude:	40° 1' 34.068 N
	+E/-W	-47.61 ft	Easting:	3,173,128.79 ft	Longitude:	104° 52' 54.408 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,008.00 ft

Wellbore	P_DRY CREEK 4-27				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/26/2009	9.08	66.79	53,112

Design	PLAN #1 10-26-09 RHS			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	312.50

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,315.80	21.32	312.50	2,291.39	132.40	-144.50	2.00	2.00	0.00	312.50	
3,887.55	21.32	312.50	3,755.61	518.38	-565.76	0.00	0.00	0.00	0.00	
4,953.36	0.00	0.00	4,797.00	650.78	-710.25	2.00	-2.00	0.00	180.00	
8,065.36	0.00	0.00	7,909.00	650.78	-710.25	0.00	0.00	0.00	0.00	PBHL_DRY CREEK

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 4-27		
Design:	PLAN #1 10-26-09 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start Build 2.00									
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	1.00	312.50	1,300.00	0.29	-0.32	0.44	2.00	2.00	0.00
1,400.00	3.00	312.50	1,399.93	2.65	-2.89	3.93	2.00	2.00	0.00
1,500.00	5.00	312.50	1,499.68	7.36	-8.04	10.90	2.00	2.00	0.00
1,600.00	7.00	312.50	1,599.13	14.43	-15.74	21.35	2.00	2.00	0.00
1,700.00	9.00	312.50	1,698.15	23.83	-26.00	35.27	2.00	2.00	0.00
1,800.00	11.00	312.50	1,796.63	35.56	-38.81	52.63	2.00	2.00	0.00
1,900.00	13.00	312.50	1,894.44	49.60	-54.14	73.42	2.00	2.00	0.00
2,000.00	15.00	312.50	1,991.46	65.95	-71.97	97.62	2.00	2.00	0.00
2,100.00	17.00	312.50	2,087.58	84.57	-92.29	125.18	2.00	2.00	0.00
2,200.00	19.00	312.50	2,182.68	105.44	-115.08	156.08	2.00	2.00	0.00
2,300.00	21.00	312.50	2,276.65	128.55	-140.29	190.28	2.00	2.00	0.00
Start 1571.75 hold at 2315.80 MD									
2,315.80	21.32	312.50	2,291.39	132.40	-144.50	195.98	2.00	2.00	0.00
2,400.00	21.32	312.50	2,369.82	153.08	-167.06	226.59	0.00	0.00	0.00
2,500.00	21.32	312.50	2,462.98	177.63	-193.87	262.94	0.00	0.00	0.00
2,600.00	21.32	312.50	2,556.14	202.19	-220.67	299.29	0.00	0.00	0.00
2,700.00	21.32	312.50	2,649.30	226.75	-247.47	335.64	0.00	0.00	0.00
2,800.00	21.32	312.50	2,742.46	251.31	-274.27	371.99	0.00	0.00	0.00
2,900.00	21.32	312.50	2,835.62	275.86	-301.07	408.35	0.00	0.00	0.00
3,000.00	21.32	312.50	2,928.78	300.42	-327.87	444.70	0.00	0.00	0.00
3,100.00	21.32	312.50	3,021.94	324.98	-354.68	481.05	0.00	0.00	0.00
3,200.00	21.32	312.50	3,115.09	349.54	-381.48	517.40	0.00	0.00	0.00
PARKMAN TOP									
3,253.57	21.32	312.50	3,165.00	362.69	-395.84	536.87	0.00	0.00	0.00
3,300.00	21.32	312.50	3,208.25	374.09	-408.28	553.75	0.00	0.00	0.00
3,400.00	21.32	312.50	3,301.41	398.65	-435.08	590.10	0.00	0.00	0.00
3,500.00	21.32	312.50	3,394.57	423.21	-461.88	626.45	0.00	0.00	0.00
3,600.00	21.32	312.50	3,487.73	447.77	-488.69	662.80	0.00	0.00	0.00
3,700.00	21.32	312.50	3,580.89	472.33	-515.49	699.16	0.00	0.00	0.00
3,800.00	21.32	312.50	3,674.05	496.88	-542.29	735.51	0.00	0.00	0.00
Start Drop -2.00									
3,887.55	21.32	312.50	3,755.61	518.38	-565.76	767.33	0.00	0.00	0.00
3,900.00	21.07	312.50	3,767.22	521.42	-569.07	771.83	2.00	-2.00	0.00
4,000.00	19.07	312.50	3,861.14	544.60	-594.37	806.14	2.00	-2.00	0.00
4,100.00	17.07	312.50	3,956.21	565.55	-617.23	837.15	2.00	-2.00	0.00
4,200.00	15.07	312.50	4,052.29	584.25	-637.64	864.83	2.00	-2.00	0.00
4,300.00	13.07	312.50	4,149.29	600.67	-655.56	889.13	2.00	-2.00	0.00
4,400.00	11.07	312.50	4,247.08	614.79	-670.97	910.04	2.00	-2.00	0.00
4,500.00	9.07	312.50	4,345.53	626.60	-683.86	927.52	2.00	-2.00	0.00
4,600.00	7.07	312.50	4,444.54	636.08	-694.21	941.55	2.00	-2.00	0.00
4,700.00	5.07	312.50	4,543.97	643.22	-702.00	952.12	2.00	-2.00	0.00
4,800.00	3.07	312.50	4,643.71	648.01	-707.23	959.21	2.00	-2.00	0.00
4,900.00	1.07	312.50	4,743.64	650.45	-709.89	962.82	2.00	-2.00	0.00
SUSSEX TOP									
4,923.36	0.60	312.50	4,767.00	650.68	-710.14	963.16	2.00	-2.00	0.00
Start 3112.00 hold at 4953.36 MD									
4,953.36	0.00	0.00	4,797.00	650.78	-710.25	963.32	2.00	-2.00	158.34
5,000.00	0.00	0.00	4,843.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,100.00	0.00	0.00	4,943.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,200.00	0.00	0.00	5,043.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,300.00	0.00	0.00	5,143.64	650.78	-710.25	963.32	0.00	0.00	0.00

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 4-27		
Design:	PLAN #1 10-26-09 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	0.00	0.00	5,243.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,500.00	0.00	0.00	5,343.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,600.00	0.00	0.00	5,443.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,700.00	0.00	0.00	5,543.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,800.00	0.00	0.00	5,643.64	650.78	-710.25	963.32	0.00	0.00	0.00
5,900.00	0.00	0.00	5,743.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,000.00	0.00	0.00	5,843.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,100.00	0.00	0.00	5,943.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,200.00	0.00	0.00	6,043.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,300.00	0.00	0.00	6,143.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,400.00	0.00	0.00	6,243.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,500.00	0.00	0.00	6,343.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,600.00	0.00	0.00	6,443.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,700.00	0.00	0.00	6,543.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,800.00	0.00	0.00	6,643.64	650.78	-710.25	963.32	0.00	0.00	0.00
6,900.00	0.00	0.00	6,743.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,000.00	0.00	0.00	6,843.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,100.00	0.00	0.00	6,943.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,200.00	0.00	0.00	7,043.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,300.00	0.00	0.00	7,143.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,400.00	0.00	0.00	7,243.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,500.00	0.00	0.00	7,343.64	650.78	-710.25	963.32	0.00	0.00	0.00
NIO A TOP									
7,505.36	0.00	0.00	7,349.00	650.78	-710.25	963.32	0.00	0.00	0.00
7,600.00	0.00	0.00	7,443.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,700.00	0.00	0.00	7,543.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,800.00	0.00	0.00	7,643.64	650.78	-710.25	963.32	0.00	0.00	0.00
7,900.00	0.00	0.00	7,743.64	650.78	-710.25	963.32	0.00	0.00	0.00
CODELL TOP									
7,905.36	0.00	0.00	7,749.00	650.78	-710.25	963.32	0.00	0.00	0.00
8,000.00	0.00	0.00	7,843.64	650.78	-710.25	963.32	0.00	0.00	0.00
PBHL_DRY CREEK 4-27(510 FNL 510 FWL)50' TGT RAD									
8,065.36	0.00	0.00	7,909.00	650.78	-710.25	963.32	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_DRY CREEK 4	0.00	0.00	7,909.00	650.78	-710.25	1,253,619.60	3,172,418.54	40° 1' 40.548 N	104° 53' 3.480 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,150.00	1,150.00	8 5/8"	8.62	11.00	

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site:	WELD_DRY CREEK PAD 7	North Reference:	Grid
Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_DRY CREEK 4-27		
Design:	PLAN #1 10-26-09 RHS		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,253.57	3,165.00	PARKMAN TOP				
4,923.36	4,767.00	SUSSEX TOP				
7,505.36	7,349.00	NIO A TOP				
7,905.36	7,749.00	CODELL TOP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,250.00	1,250.00	0.00	0.00	Start Build 2.00	
2,315.80	2,291.39	132.40	-144.50	Start 1571.75 hold at 2315.80 MD	
3,887.55	3,755.61	518.38	-565.76	Start Drop -2.00	
4,953.36	4,797.00	650.78	-710.25	Start 3112.00 hold at 4953.36 MD	
8,065.36	7,909.00	650.78	-710.25	TD at 8065.36	



US ROCKIES REGION PLANNING

**KERR MCGEE OIL & GAS ONSHORE LP
WELD_DRY CREEK PAD 7
P_DRY CREEK 4-27**

**P_DRY CREEK 4-27
PLAN #1 10-26-09 RHS**

Anticollision Report

26 October, 2009



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 10-26-09 RHS		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 10/26/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	8,065.36	PLAN #1 10-26-09 RHS (P_DRY CREEK	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WELD_DRY CREEK PAD 7						
P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #	1,250.00	1,250.00	16.80	11.44	3.134	CC, ES
P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #	1,300.00	1,299.97	17.17	11.60	3.083	SF
P_DRY CREEK 25-27 - P_DRY CREEK 25-27 - PLAN #	1,250.00	1,250.00	64.41	59.05	12.015	CC, ES
P_DRY CREEK 25-27 - P_DRY CREEK 25-27 - PLAN #	1,300.00	1,299.20	65.04	59.47	11.680	SF
P_DRY CREEK 31-27 - P_DRY CREEK 31-27 - PLAN #	1,250.00	1,250.00	30.81	27.48	9.259	CC
P_DRY CREEK 31-27 - P_DRY CREEK 31-27 - PLAN #	1,300.00	1,299.47	30.92	27.45	8.928	ES
P_DRY CREEK 31-27 - P_DRY CREEK 31-27 - PLAN #	1,400.00	1,398.35	31.94	28.21	8.565	SF
P_DRY CREEK 3-27 - P_DRY CREEK 3-27 - PLAN #1 1	1,250.00	1,250.00	47.61	42.25	8.881	CC, ES
P_DRY CREEK 3-27 - P_DRY CREEK 3-27 - PLAN #1 1	1,300.00	1,299.32	48.28	42.70	8.655	SF
P_DRY CREEK 5-27 - P_DRY CREEK 5-27 - PLAN #1 1	1,329.59	1,329.34	13.90	8.22	2.445	CC, ES
P_DRY CREEK 5-27 - P_DRY CREEK 5-27 - PLAN #1 1	1,400.00	1,399.36	14.55	8.59	2.441	SF
P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 1	1,250.00	1,250.00	33.61	28.24	6.269	CC, ES
P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 1	1,300.00	1,299.59	34.22	28.65	6.145	SF
UPRR 42 PAN AM 'AM-TRUE #1 EXISTING - UPRR 42	1,707.25	1,705.31	39.80	-29.88	0.571	Level 1, CC, SF
UPRR 42 PAN AM 'AM-TRUE #1 EXISTING - UPRR 42	1,800.00	1,796.63	42.98	-30.45	0.585	Level 1, ES

Offset Design		WELD_DRY CREEK PAD 7 - P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #1 10-26-09 RHS										Offset Site Error:		0.00 ft
Survey Program:		0-MWD										Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	0.00	0.00	0.00	89.61	0.11	16.80	16.80					
100.00	100.00	100.00	100.00	0.10	0.10	89.61	0.11	16.80	16.80	16.61	0.19	87.949		
200.00	200.00	200.00	200.00	0.32	0.32	89.61	0.11	16.80	16.80	16.16	0.64	26.230		
300.00	300.00	300.00	300.00	0.55	0.55	89.61	0.11	16.80	16.80	15.71	1.09	15.414		
400.00	400.00	400.00	400.00	0.77	0.77	89.61	0.11	16.80	16.80	15.26	1.54	10.913		
500.00	500.00	500.00	500.00	0.99	0.99	89.61	0.11	16.80	16.80	14.81	1.99	8.447		
600.00	600.00	600.00	600.00	1.22	1.22	89.61	0.11	16.80	16.80	14.36	2.44	6.890		
700.00	700.00	700.00	700.00	1.44	1.44	89.61	0.11	16.80	16.80	13.91	2.89	5.818		
800.00	800.00	800.00	800.00	1.67	1.67	89.61	0.11	16.80	16.80	13.47	3.34	5.034		
900.00	900.00	900.00	900.00	1.89	1.89	89.61	0.11	16.80	16.80	13.02	3.79	4.437		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.61	0.11	16.80	16.80	12.57	4.24	3.966		
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.61	0.11	16.80	16.80	12.12	4.69	3.585		
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.61	0.11	16.80	16.80	11.67	5.14	3.272		

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	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
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.61	0.11	16.80	16.80	11.44	5.36	3.134 CC, ES	
1,300.00	1,300.00	1,299.97	1,299.97	2.79	2.78	139.55	-0.32	16.83	17.17	11.60	5.57	3.083 SF	
1,400.00	1,399.93	1,399.59	1,399.52	3.01	2.95	155.30	-3.78	17.08	20.99	15.05	5.95	3.530	
1,500.00	1,499.68	1,498.28	1,497.97	3.23	3.13	172.50	-10.61	17.58	31.34	25.01	6.33	4.954	
1,600.00	1,599.13	1,595.43	1,594.60	3.47	3.32	-176.59	-20.63	18.30	49.08	42.37	6.71	7.319	
1,700.00	1,698.15	1,690.50	1,688.77	3.72	3.53	-170.42	-33.60	19.23	73.70	66.62	7.09	10.401	
1,800.00	1,796.63	1,782.99	1,779.92	4.00	3.76	-166.78	-49.20	20.36	104.70	97.23	7.47	14.019	
1,900.00	1,894.44	1,872.43	1,867.55	4.32	4.02	-164.45	-67.07	21.64	141.69	133.84	7.85	18.043	
2,000.00	1,991.46	1,958.47	1,951.27	4.69	4.31	-162.85	-86.82	23.07	184.35	176.11	8.24	22.374	
2,100.00	2,087.58	2,040.78	2,030.78	5.11	4.62	-161.66	-108.06	24.60	232.37	223.74	8.63	26.929	
2,200.00	2,182.68	2,119.14	2,105.87	5.59	4.96	-160.71	-130.38	26.21	285.44	276.42	9.02	31.637	
2,300.00	2,276.65	2,193.37	2,176.41	6.14	5.31	-159.90	-153.41	27.87	343.26	333.84	9.42	36.433	
2,315.80	2,291.39	2,209.24	2,191.42	6.23	5.38	-159.77	-158.58	28.24	352.84	343.35	9.50	37.161	
2,400.00	2,369.82	2,270.98	2,249.72	6.75	5.71	-159.59	-178.81	29.70	404.09	394.16	9.93	40.704	
2,500.00	2,462.98	2,350.28	2,324.62	7.38	6.14	-159.41	-204.80	31.57	465.00	454.53	10.47	44.410	
2,600.00	2,556.14	2,429.58	2,399.52	8.03	6.58	-159.28	-230.80	33.44	525.91	514.88	11.03	47.687	
2,700.00	2,649.30	2,508.89	2,474.42	8.69	7.03	-159.17	-256.79	35.31	586.82	575.22	11.60	50.594	
2,800.00	2,742.46	2,588.19	2,549.32	9.37	7.50	-159.09	-282.78	37.19	647.73	635.55	12.18	53.175	
2,900.00	2,835.62	2,667.49	2,624.22	10.06	7.97	-159.01	-308.78	39.06	708.65	695.88	12.77	55.478	
3,000.00	2,928.78	2,746.80	2,699.12	10.76	8.45	-158.95	-334.77	40.93	769.56	756.19	13.37	57.542	
3,100.00	3,021.94	2,826.10	2,774.02	11.46	8.93	-158.90	-360.76	42.81	830.48	816.50	13.98	59.399	
3,200.00	3,115.09	2,905.40	2,848.91	12.17	9.42	-158.86	-386.75	44.68	891.40	876.80	14.60	61.075	
3,300.00	3,208.25	2,984.70	2,923.81	12.88	9.92	-158.82	-412.75	46.55	952.31	937.10	15.22	62.590	
3,400.00	3,301.41	3,064.01	2,998.71	13.60	10.41	-158.79	-438.74	48.43	1,013.23	997.39	15.84	63.967	
3,500.00	3,394.57	3,143.31	3,073.61	14.31	10.91	-158.76	-464.73	50.30	1,074.15	1,057.68	16.47	65.222	
3,600.00	3,487.73	3,222.61	3,148.51	15.04	11.41	-158.73	-490.73	52.17	1,135.06	1,117.96	17.10	66.370	
3,700.00	3,580.89	3,301.92	3,223.41	15.76	11.92	-158.70	-516.72	54.05	1,195.98	1,178.24	17.74	67.423	
3,800.00	3,674.05	3,381.22	3,298.31	16.49	12.42	-158.68	-542.71	55.92	1,256.90	1,238.52	18.38	68.390	
3,887.55	3,755.61	3,450.65	3,363.88	17.12	12.87	-158.66	-565.47	57.56	1,310.23	1,291.29	18.94	69.174	
3,900.00	3,767.22	3,460.54	3,373.22	17.20	12.93	-158.73	-568.71	57.79	1,317.79	1,298.76	19.04	69.227	
4,000.00	3,861.14	3,541.05	3,449.26	17.75	13.45	-159.20	-595.10	59.69	1,377.08	1,357.33	19.76	69.704	
4,100.00	3,956.21	3,623.43	3,527.07	18.26	13.98	-159.57	-622.10	61.64	1,433.72	1,413.25	20.47	70.047	
4,200.00	4,052.29	3,707.57	3,606.53	18.73	14.52	-159.85	-649.68	63.63	1,487.63	1,466.47	21.17	70.280	
4,300.00	4,149.29	3,793.38	3,687.57	19.15	15.08	-160.05	-677.80	65.65	1,538.77	1,516.92	21.85	70.426	
4,400.00	4,247.08	3,880.74	3,770.08	19.53	15.65	-160.19	-706.44	67.72	1,587.08	1,564.57	22.51	70.500	
4,500.00	4,345.53	3,969.55	3,853.96	19.86	16.22	-160.26	-735.55	69.81	1,632.52	1,609.36	23.15	70.518	
4,600.00	4,444.54	4,059.71	3,939.11	20.14	16.81	-160.28	-765.10	71.94	1,675.03	1,651.27	23.76	70.491	
4,700.00	4,543.97	4,151.09	4,025.43	20.37	17.41	-160.24	-795.05	74.10	1,714.60	1,690.25	24.35	70.429	
4,800.00	4,643.71	4,243.60	4,112.80	20.56	18.01	-160.14	-825.37	76.29	1,751.18	1,726.28	24.90	70.339	
4,900.00	4,743.64	4,337.12	4,201.12	20.70	18.62	-160.00	-856.02	78.50	1,784.75	1,759.34	25.41	70.228	
4,953.36	4,797.00	4,387.40	4,248.60	20.76	18.95	152.59	-872.50	79.68	1,801.43	1,775.75	25.68	70.162	
5,000.00	4,843.64	4,431.45	4,290.21	20.80	19.24	152.78	-886.94	80.72	1,815.63	1,789.72	25.91	70.076	
5,100.00	4,943.64	4,525.89	4,379.41	20.91	19.86	153.18	-917.90	82.95	1,846.16	1,819.73	26.42	69.869	
5,200.00	5,043.64	4,620.34	4,468.61	21.03	20.48	153.56	-948.85	85.18	1,876.76	1,849.82	26.93	69.678	
5,300.00	5,143.64	4,714.79	4,557.81	21.14	21.10	153.93	-979.81	87.42	1,907.43	1,879.99	27.44	69.501	
5,400.00	5,243.64	4,809.23	4,647.01	21.25	21.72	154.29	-1,010.77	89.65	1,938.18	1,910.23	27.95	69.337	
5,500.00	5,343.64	4,903.68	4,736.21	21.37	22.34	154.64	-1,041.72	91.88	1,969.00	1,940.54	28.46	69.185	
5,600.00	5,443.64	4,998.12	4,825.42	21.49	22.96	154.98	-1,072.68	94.11	1,999.88	1,970.92	28.97	69.043	
5,700.00	5,543.64	5,092.57	4,914.62	21.61	23.58	155.31	-1,103.64	96.34	2,030.82	2,001.35	29.47	68.912	
5,800.00	5,643.64	5,187.02	5,003.82	21.73	24.20	155.63	-1,134.59	98.57	2,061.83	2,031.86	29.97	68.790	
5,900.00	5,743.64	5,281.46	5,093.02	21.86	24.83	155.94	-1,165.55	100.80	2,092.89	2,062.41	30.47	68.677	
6,000.00	5,843.64	5,375.91	5,182.22	21.98	25.45	156.24	-1,196.51	103.03	2,124.00	2,093.03	30.98	68.571	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 22-27 - P_DRY CREEK 22-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
6,100.00	5,943.64	5,470.36	5,271.42	22.11	26.07	156.53	-1,227.46	105.26	2,155.17	2,123.69	31.47	68.473	
6,200.00	6,043.64	5,564.80	5,360.62	22.24	26.70	156.81	-1,258.42	107.49	2,186.38	2,154.41	31.97	68.381	
6,300.00	6,143.64	5,658.88	5,451.56	22.37	28.13	157.61	-1,350.27	114.11	2,212.99	2,179.93	33.05	66.953	
6,400.00	6,243.64	5,752.22	5,544.09	22.50	29.17	158.08	-1,408.45	118.30	2,227.75	2,193.71	34.04	65.449	
6,500.00	6,343.64	5,846.11	5,633.64	22.63	29.56	158.17	-1,419.87	119.13	2,230.58	2,195.89	34.69	64.308	
6,600.00	6,443.64	5,939.11	5,726.64	22.76	29.65	158.17	-1,419.87	119.13	2,230.58	2,195.57	35.01	63.715	
6,700.00	6,543.64	6,032.11	5,819.64	22.90	29.73	158.17	-1,419.87	119.13	2,230.58	2,195.25	35.33	63.133	
6,800.00	6,643.64	6,125.11	5,912.64	23.04	29.82	158.17	-1,419.87	119.13	2,230.58	2,194.92	35.66	62.557	
6,900.00	6,743.64	6,218.11	6,005.64	23.18	29.91	158.17	-1,419.87	119.13	2,230.58	2,194.59	35.98	61.987	
7,000.00	6,843.64	6,311.11	6,098.64	23.32	30.00	158.17	-1,419.87	119.13	2,230.58	2,194.26	36.32	61.423	
7,100.00	6,943.64	6,404.11	6,191.64	23.46	30.09	158.17	-1,419.87	119.13	2,230.58	2,193.93	36.65	60.864	
7,200.00	7,043.64	6,497.11	6,284.64	23.60	30.18	158.17	-1,419.87	119.13	2,230.58	2,193.59	36.98	60.312	
7,300.00	7,143.64	6,590.11	6,377.64	23.74	30.28	158.17	-1,419.87	119.13	2,230.58	2,193.26	37.32	59.766	
7,400.00	7,243.64	6,683.11	6,470.64	23.89	30.37	158.17	-1,419.87	119.13	2,230.58	2,192.92	37.66	59.227	
7,500.00	7,343.64	6,776.11	6,563.64	24.03	30.47	158.17	-1,419.87	119.13	2,230.58	2,192.57	38.00	58.693	
7,600.00	7,443.64	6,869.11	6,656.64	24.18	30.56	158.17	-1,419.87	119.13	2,230.58	2,192.23	38.35	58.166	
7,700.00	7,543.64	6,962.11	6,749.64	24.33	30.66	158.17	-1,419.87	119.13	2,230.58	2,191.88	38.70	57.645	
7,800.00	7,643.64	7,055.11	6,842.64	24.48	30.76	158.17	-1,419.87	119.13	2,230.58	2,191.53	39.04	57.130	
7,900.00	7,743.64	7,148.11	6,935.64	24.63	30.87	158.17	-1,419.87	119.13	2,230.58	2,191.18	39.39	56.621	
8,000.00	7,843.64	7,241.11	7,028.64	24.78	30.97	158.17	-1,419.87	119.13	2,230.58	2,190.83	39.75	56.119	
8,065.36	7,909.00	7,306.47	7,094.00	24.88	31.04	158.17	-1,419.87	119.13	2,230.58	2,190.60	39.98	55.794	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 25-27 - P_DRY CREEK 25-27 - PLAN #1 10-26-09 RHS													Offset Site Error: 0.00 ft
Survey Program: 0-MWMD													Offset Well Error: 0.00 ft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	89.60	0.45	64.41	64.41				
100.00	100.00	100.00	100.00	0.10	0.10	89.60	0.45	64.41	64.41	64.22	0.19	337.139	
200.00	200.00	200.00	200.00	0.32	0.32	89.60	0.45	64.41	64.41	63.77	0.64	100.550	
300.00	300.00	300.00	300.00	0.55	0.55	89.60	0.45	64.41	64.41	63.32	1.09	59.086	
400.00	400.00	400.00	400.00	0.77	0.77	89.60	0.45	64.41	64.41	62.87	1.54	41.835	
500.00	500.00	500.00	500.00	0.99	0.99	89.60	0.45	64.41	64.41	62.42	1.99	32.381	
600.00	600.00	600.00	600.00	1.22	1.22	89.60	0.45	64.41	64.41	61.97	2.44	26.412	
700.00	700.00	700.00	700.00	1.44	1.44	89.60	0.45	64.41	64.41	61.52	2.89	22.301	
800.00	800.00	800.00	800.00	1.67	1.67	89.60	0.45	64.41	64.41	61.07	3.34	19.298	
900.00	900.00	900.00	900.00	1.89	1.89	89.60	0.45	64.41	64.41	60.62	3.79	17.007	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.60	0.45	64.41	64.41	60.17	4.24	15.203	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.60	0.45	64.41	64.41	59.72	4.69	13.744	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.60	0.45	64.41	64.41	59.27	5.14	12.541	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.60	0.45	64.41	64.41	59.05	5.36	12.015 CC, ES	
1,300.00	1,300.00	1,299.20	1,299.20	2.79	2.78	137.61	0.15	64.71	65.04	59.47	5.57	11.680 SF	
1,400.00	1,399.93	1,397.26	1,397.19	3.01	2.96	141.36	-2.21	67.10	70.22	64.26	5.96	11.791	
1,500.00	1,499.68	1,494.26	1,493.97	3.23	3.14	147.31	-6.86	71.82	81.31	74.97	6.34	12.825	
1,600.00	1,599.13	1,589.57	1,588.77	3.47	3.34	153.56	-13.66	78.72	99.10	92.38	6.72	14.744	
1,700.00	1,698.15	1,682.54	1,680.90	3.72	3.56	158.97	-22.43	87.62	123.89	116.79	7.09	17.465	
1,800.00	1,796.63	1,772.64	1,769.75	4.00	3.79	163.21	-32.93	98.26	155.57	148.11	7.46	20.866	
1,900.00	1,894.44	1,859.39	1,854.81	4.32	4.05	166.40	-44.89	110.39	193.82	186.01	7.81	24.829	
2,000.00	1,991.46	1,942.38	1,935.66	4.69	4.33	168.79	-58.01	123.70	238.26	230.11	8.14	29.252	
2,100.00	2,087.58	2,021.30	2,012.02	5.11	4.63	170.58	-72.01	137.90	288.47	280.00	8.47	34.056	
2,200.00	2,182.68	2,100.00	2,087.58	5.59	4.97	172.00	-87.44	153.54	344.10	335.31	8.79	39.146	
2,300.00	2,276.65	2,166.05	2,150.52	6.14	5.29	172.96	-101.51	167.81	404.67	395.59	9.09	44.532	
2,315.80	2,291.39	2,176.72	2,160.64	6.23	5.35	173.10	-103.88	170.21	414.69	405.55	9.13	45.403	
2,400.00	2,369.82	2,232.32	2,213.19	6.75	5.64	173.90	-116.65	183.16	468.98	459.51	9.47	49.502	
2,500.00	2,462.98	2,300.00	2,276.65	7.38	6.03	174.71	-133.15	199.90	535.12	525.24	9.89	54.129	
2,600.00	2,556.14	2,357.24	2,329.88	8.03	6.39	175.28	-147.93	214.88	602.89	592.60	10.29	58.578	
2,700.00	2,649.30	2,416.09	2,384.15	8.69	6.78	175.78	-163.89	231.08	672.24	661.54	10.70	62.809	
2,800.00	2,742.46	2,472.63	2,435.86	9.37	7.18	176.20	-179.97	247.38	743.05	731.93	11.12	66.839	
2,900.00	2,835.62	2,526.98	2,485.11	10.06	7.59	176.55	-196.09	263.73	815.23	803.70	11.53	70.700	
3,000.00	2,928.78	2,579.22	2,532.03	10.76	8.01	176.85	-212.21	280.07	888.70	876.76	11.94	74.406	
3,100.00	3,021.94	2,629.42	2,576.73	11.46	8.42	177.12	-228.26	296.35	963.39	951.03	12.36	77.958	
3,200.00	3,115.09	2,677.69	2,619.33	12.17	8.84	177.34	-244.21	312.52	1,039.21	1,026.44	12.77	81.382	
3,300.00	3,208.25	2,728.09	2,663.40	12.88	9.30	177.56	-261.37	329.93	1,116.08	1,102.90	13.19	84.629	
3,400.00	3,301.41	2,791.59	2,718.78	13.60	9.88	177.81	-283.17	352.04	1,193.28	1,179.64	13.64	87.503	
3,500.00	3,394.57	2,855.08	2,774.17	14.31	10.48	178.02	-304.97	374.15	1,270.48	1,256.38	14.09	90.155	
3,600.00	3,487.73	2,918.58	2,829.55	15.04	11.08	178.21	-326.78	396.26	1,347.68	1,333.14	14.55	92.638	
3,700.00	3,580.89	2,982.07	2,884.93	15.76	11.69	178.38	-348.58	418.37	1,424.90	1,409.89	15.01	94.943	
3,800.00	3,674.05	3,045.56	2,940.32	16.49	12.31	178.53	-370.38	440.48	1,502.11	1,486.64	15.47	97.088	
3,887.55	3,755.61	3,101.16	2,988.81	17.12	12.85	178.65	-389.47	459.84	1,569.72	1,553.85	15.88	98.863	
3,900.00	3,767.22	3,109.08	2,995.72	17.20	12.92	178.67	-392.19	462.60	1,579.32	1,563.36	15.96	98.979	
4,000.00	3,861.14	3,174.24	3,052.56	17.75	13.56	178.85	-414.56	485.29	1,655.13	1,638.58	16.56	99.959	
4,100.00	3,956.21	3,242.00	3,111.66	18.26	14.23	178.99	-437.83	508.89	1,728.63	1,711.48	17.15	100.789	
4,200.00	4,052.29	3,312.29	3,172.98	18.73	14.92	179.12	-461.96	533.36	1,799.73	1,781.99	17.73	101.490	
4,300.00	4,149.29	3,385.02	3,236.41	19.15	15.65	179.24	-486.94	558.69	1,868.32	1,850.02	18.30	102.067	
4,400.00	4,247.08	3,460.10	3,301.90	19.53	16.39	179.34	-512.72	584.83	1,934.34	1,915.47	18.86	102.536	
4,500.00	4,345.53	3,537.44	3,369.36	19.86	17.17	179.43	-539.27	611.76	1,997.70	1,978.29	19.41	102.914	
4,600.00	4,444.54	3,616.94	3,438.71	20.14	17.96	179.51	-566.57	639.45	2,058.32	2,038.38	19.94	103.208	
4,700.00	4,543.97	3,698.51	3,509.86	20.37	18.78	179.58	-594.57	667.85	2,116.13	2,095.67	20.46	103.425	
4,800.00	4,643.71	3,782.04	3,582.72	20.56	19.63	179.65	-623.26	696.94	2,171.06	2,150.10	20.96	103.569	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 25-27 - P_DRY CREEK 25-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,743.64	3,867.45	3,657.21	20.70	20.49	179.71	-652.58	726.68	2,223.05	2,201.60	21.45	103.651	
4,953.36	4,797.00	3,913.74	3,697.60	20.76	20.96	132.24	-668.48	742.80	2,249.56	2,227.86	21.70	103.672	
5,000.00	4,843.64	3,954.43	3,733.09	20.80	21.37	132.26	-682.45	756.97	2,272.35	2,250.44	21.91	103.691	
5,100.00	4,943.64	4,041.65	3,809.17	20.91	22.25	132.31	-712.40	787.34	2,321.22	2,298.83	22.39	103.671	
5,200.00	5,043.64	4,128.88	3,885.25	21.03	23.14	132.36	-742.35	817.72	2,370.10	2,347.23	22.87	103.641	
5,300.00	5,143.64	4,216.11	3,961.34	21.14	24.02	132.40	-772.30	848.09	2,418.97	2,395.62	23.35	103.600	
5,400.00	5,243.64	4,303.33	4,037.42	21.25	24.91	132.45	-802.25	878.46	2,467.85	2,444.02	23.83	103.551	
5,500.00	5,343.64	4,390.56	4,113.51	21.37	25.80	132.49	-832.20	908.84	2,516.73	2,492.41	24.32	103.494	
5,600.00	5,443.64	4,477.79	4,189.59	21.49	26.69	132.53	-862.15	939.21	2,565.61	2,540.80	24.81	103.430	
5,700.00	5,543.64	4,565.01	4,265.68	21.61	27.58	132.57	-892.10	969.59	2,614.49	2,589.19	25.29	103.362	
5,800.00	5,643.64	4,652.24	4,341.76	21.73	28.47	132.60	-922.05	999.96	2,663.37	2,637.58	25.79	103.288	
5,900.00	5,743.64	4,739.46	4,417.85	21.86	29.36	132.64	-952.00	1,030.33	2,712.25	2,685.97	26.28	103.211	
6,000.00	5,843.64	4,826.69	4,493.93	21.98	30.25	132.67	-981.95	1,060.71	2,761.13	2,734.36	26.77	103.130	
6,100.00	5,943.64	4,913.92	4,570.01	22.11	31.14	132.71	-1,011.90	1,091.08	2,810.01	2,782.74	27.27	103.046	
6,200.00	6,043.64	5,001.14	4,646.10	22.24	32.03	132.74	-1,041.85	1,121.46	2,858.90	2,831.13	27.77	102.960	
6,300.00	6,143.64	5,088.37	4,722.18	22.37	32.93	132.77	-1,071.80	1,151.83	2,907.78	2,879.52	28.27	102.872	
6,400.00	6,243.64	5,175.60	4,798.27	22.50	33.82	132.80	-1,101.75	1,182.20	2,956.67	2,927.90	28.77	102.782	
6,500.00	6,343.64	5,262.82	4,874.35	22.63	34.72	132.83	-1,131.70	1,212.58	3,005.55	2,976.28	29.27	102.690	
6,600.00	6,443.64	6,901.68	6,443.64	22.76	41.80	133.06	-1,406.61	1,491.37	3,013.31	2,979.83	33.48	90.002	
6,700.00	6,543.64	7,001.68	6,543.64	22.90	41.86	133.06	-1,406.61	1,491.37	3,013.31	2,979.49	33.82	89.094	
6,800.00	6,643.64	7,101.68	6,643.64	23.04	41.93	133.06	-1,406.61	1,491.37	3,013.31	2,979.15	34.16	88.199	
6,900.00	6,743.64	7,201.68	6,743.64	23.18	42.00	133.06	-1,406.61	1,491.37	3,013.31	2,978.80	34.51	87.317	
7,000.00	6,843.64	7,301.68	6,843.64	23.32	42.07	133.06	-1,406.61	1,491.37	3,013.31	2,978.45	34.86	86.446	
7,100.00	6,943.64	7,401.68	6,943.64	23.46	42.14	133.06	-1,406.61	1,491.37	3,013.31	2,978.10	35.21	85.587	
7,200.00	7,043.64	7,501.68	7,043.64	23.60	42.22	133.06	-1,406.61	1,491.37	3,013.31	2,977.75	35.56	84.740	
7,300.00	7,143.64	7,601.68	7,143.64	23.74	42.29	133.06	-1,406.61	1,491.37	3,013.31	2,977.40	35.91	83.904	
7,400.00	7,243.64	7,701.68	7,243.64	23.89	42.37	133.06	-1,406.61	1,491.37	3,013.31	2,977.04	36.27	83.081	
7,500.00	7,343.64	7,801.68	7,343.64	24.03	42.44	133.06	-1,406.61	1,491.37	3,013.31	2,976.68	36.63	82.269	
7,600.00	7,443.64	7,901.68	7,443.64	24.18	42.52	133.06	-1,406.61	1,491.37	3,013.31	2,976.32	36.99	81.469	
7,700.00	7,543.64	8,001.68	7,543.64	24.33	42.60	133.06	-1,406.61	1,491.37	3,013.31	2,975.96	37.35	80.680	
7,800.00	7,643.64	8,101.68	7,643.64	24.48	42.68	133.06	-1,406.61	1,491.37	3,013.31	2,975.60	37.71	79.903	
7,900.00	7,743.64	8,201.68	7,743.64	24.63	42.76	133.06	-1,406.61	1,491.37	3,013.31	2,975.23	38.08	79.137	
8,000.00	7,843.64	8,301.68	7,843.64	24.78	42.84	133.06	-1,406.61	1,491.37	3,013.31	2,974.87	38.44	78.382	
8,065.36	7,909.00	8,367.04	7,909.00	24.88	42.89	133.06	-1,406.61	1,491.37	3,013.31	2,974.63	38.68	77.894	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-Good_gyro												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	-90.40	-0.21	-30.80	30.81				
100.00	100.00	100.00	100.00	0.10	0.04	-90.40	-0.21	-30.80	30.81	30.67	0.14	219.987	
200.00	200.00	200.00	200.00	0.32	0.10	-90.40	-0.21	-30.80	30.81	30.39	0.42	73.845	
300.00	300.00	300.00	300.00	0.55	0.15	-90.40	-0.21	-30.80	30.81	30.11	0.69	44.370	
400.00	400.00	400.00	400.00	0.77	0.20	-90.40	-0.21	-30.80	30.81	29.83	0.97	31.712	
500.00	500.00	500.00	500.00	0.99	0.25	-90.40	-0.21	-30.80	30.81	29.56	1.25	24.673	
600.00	600.00	600.00	600.00	1.22	0.31	-90.40	-0.21	-30.80	30.81	29.28	1.53	20.191	
700.00	700.00	700.00	700.00	1.44	0.36	-90.40	-0.21	-30.80	30.81	29.00	1.80	17.088	
800.00	800.00	800.00	800.00	1.67	0.41	-90.40	-0.21	-30.80	30.81	28.73	2.08	14.811	
900.00	900.00	900.00	900.00	1.89	0.46	-90.40	-0.21	-30.80	30.81	28.45	2.36	13.069	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	0.52	-90.40	-0.21	-30.80	30.81	28.17	2.63	11.694	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	0.57	-90.40	-0.21	-30.80	30.81	27.89	2.91	10.581	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	0.62	-90.40	-0.21	-30.80	30.81	27.62	3.19	9.662	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	0.65	-90.40	-0.21	-30.80	30.81	27.48	3.33	9.259 CC	
1,300.00	1,300.00	1,299.47	1,299.47	2.79	0.67	-43.55	-0.27	-31.23	30.92	27.45	3.46	8.928 ES	
1,400.00	1,399.93	1,398.35	1,398.28	3.01	0.72	-48.55	-0.76	-34.61	31.94	28.21	3.73	8.565 SF	
1,500.00	1,499.68	1,497.03	1,496.72	3.23	0.78	-57.48	-1.71	-41.34	34.65	30.65	4.00	8.663	
1,600.00	1,599.13	1,595.39	1,594.55	3.47	0.85	-68.13	-3.14	-51.39	40.01	35.72	4.29	9.332	
1,700.00	1,698.15	1,693.31	1,691.54	3.72	0.93	-78.15	-5.04	-64.69	48.72	44.11	4.62	10.556	
1,800.00	1,796.63	1,790.67	1,787.46	4.00	1.04	-86.27	-7.38	-81.17	61.01	56.00	5.01	12.189	
1,900.00	1,894.44	1,887.35	1,882.10	4.32	1.17	-92.36	-10.16	-100.71	76.76	71.30	5.46	14.051	
2,000.00	1,991.46	1,983.25	1,975.27	4.69	1.33	-96.79	-13.36	-123.20	95.79	89.80	6.00	15.975	
2,100.00	2,087.58	2,080.61	2,069.44	5.11	1.52	-100.68	-16.84	-147.67	116.96	110.34	6.62	17.677	
2,200.00	2,182.68	2,177.58	2,163.23	5.59	1.72	-104.64	-20.31	-172.04	139.42	132.11	7.31	19.068	
2,300.00	2,276.65	2,273.97	2,256.47	6.14	1.93	-108.52	-23.76	-196.27	163.52	155.45	8.07	20.255	
2,315.80	2,291.39	2,289.15	2,271.15	6.23	1.96	-109.12	-24.30	-200.09	167.50	159.30	8.20	20.431	
2,400.00	2,369.82	2,369.95	2,349.30	6.75	2.14	-112.32	-27.19	-220.40	189.11	180.24	8.87	21.313	
2,500.00	2,462.98	2,465.91	2,442.12	7.38	2.35	-115.28	-30.63	-244.52	215.34	205.66	9.68	22.249	
2,600.00	2,556.14	2,561.88	2,534.94	8.03	2.57	-117.60	-34.06	-268.64	242.00	231.51	10.49	23.071	
2,700.00	2,649.30	2,657.84	2,627.76	8.69	2.79	-119.47	-37.49	-292.76	268.96	257.65	11.30	23.794	
2,800.00	2,742.46	2,753.81	2,720.58	9.37	3.01	-120.99	-40.92	-316.88	296.13	284.01	12.12	24.431	
2,900.00	2,835.62	2,849.77	2,813.40	10.06	3.23	-122.26	-44.36	-341.00	323.46	310.52	12.94	24.994	
3,000.00	2,928.78	2,945.74	2,906.22	10.76	3.45	-123.33	-47.79	-365.12	350.92	337.16	13.76	25.495	
3,100.00	3,021.94	3,041.70	2,999.04	11.46	3.67	-124.24	-51.22	-389.24	378.48	363.89	14.59	25.942	
3,200.00	3,115.09	3,137.67	3,091.86	12.17	3.90	-125.03	-54.65	-413.36	406.11	390.69	15.42	26.344	
3,300.00	3,208.25	3,233.63	3,184.68	12.88	4.12	-125.72	-58.08	-437.49	433.81	417.56	16.24	26.705	
3,400.00	3,301.41	3,329.60	3,277.50	13.60	4.35	-126.33	-61.52	-461.61	461.55	444.48	17.07	27.032	
3,500.00	3,394.57	3,425.56	3,370.32	14.31	4.57	-126.87	-64.95	-485.73	489.34	471.44	17.91	27.329	
3,600.00	3,487.73	3,521.53	3,463.14	15.04	4.80	-127.35	-68.38	-509.85	517.17	498.43	18.74	27.600	
3,700.00	3,580.89	3,617.49	3,555.97	15.76	5.02	-127.78	-71.81	-533.97	545.02	525.45	19.57	27.849	
3,800.00	3,674.05	3,713.46	3,648.79	16.49	5.25	-128.17	-75.25	-558.09	572.90	552.50	20.41	28.076	
3,887.55	3,755.61	3,797.48	3,730.05	17.12	5.45	-128.49	-78.25	-579.21	597.33	576.20	21.14	28.261	
3,900.00	3,767.22	3,809.43	3,741.61	17.20	5.48	-128.58	-78.68	-582.21	600.79	579.57	21.23	28.306	
4,000.00	3,861.14	3,905.80	3,834.83	17.75	5.71	-129.17	-82.13	-606.44	627.40	605.53	21.87	28.693	
4,100.00	3,956.21	4,002.75	3,928.60	18.26	5.94	-129.47	-85.59	-630.80	651.87	629.38	22.49	28.979	
4,200.00	4,052.29	4,100.15	4,022.81	18.73	6.17	-129.50	-89.08	-655.29	674.20	651.09	23.11	29.174	
4,300.00	4,149.29	4,197.89	4,117.34	19.15	6.40	-129.28	-92.57	-679.85	694.40	670.69	23.71	29.288	
4,400.00	4,247.08	4,295.84	4,212.08	19.53	6.63	-128.85	-96.08	-704.47	712.52	688.22	24.29	29.331	
4,500.00	4,345.53	4,393.88	4,306.92	19.86	6.86	-128.20	-99.58	-729.12	728.62	703.76	24.86	29.313	
4,600.00	4,444.54	4,491.91	4,401.73	20.14	7.10	-127.36	-103.09	-753.75	742.80	717.40	25.40	29.246	
4,700.00	4,543.97	4,589.79	4,496.40	20.37	7.33	-126.32	-106.59	-778.36	755.19	729.27	25.92	29.139	
4,800.00	4,643.71	4,687.40	4,590.82	20.56	7.56	-125.09	-110.08	-802.89	765.93	739.52	26.41	29.003	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-Good_gyro												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis					Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,900.00	4,743.64	4,784.64	4,684.87	20.70	7.79	-123.69	-113.56	-827.33	775.21	748.34	26.87	28.849	
4,953.36	4,797.00	4,836.33	4,734.87	20.76	7.91	-170.37	-115.41	-840.32	779.63	752.53	27.10	28.764	
5,000.00	4,843.64	4,881.44	4,778.50	20.80	8.02	-169.56	-117.02	-851.66	783.43	756.08	27.35	28.646	
5,100.00	4,943.64	4,978.16	4,872.06	20.91	8.25	-167.87	-120.48	-875.98	792.11	764.24	27.87	28.426	
5,200.00	5,043.64	5,074.89	4,965.61	21.03	8.48	-166.22	-123.94	-900.29	801.50	773.14	28.36	28.260	
5,300.00	5,143.64	5,171.61	5,059.16	21.14	8.71	-164.60	-127.40	-924.60	811.57	782.74	28.84	28.145	
5,400.00	5,243.64	5,268.33	5,152.72	21.25	8.94	-163.02	-130.86	-948.91	822.31	793.02	29.29	28.075	
5,500.00	5,343.64	5,365.06	5,246.27	21.37	9.17	-161.48	-134.32	-973.22	833.68	803.95	29.72	28.049	
5,600.00	5,443.64	5,461.78	5,339.83	21.49	9.40	-159.98	-137.78	-997.53	845.66	815.52	30.14	28.061	
5,700.00	5,543.64	5,558.51	5,433.38	21.61	9.63	-158.52	-141.24	-1,021.84	858.22	827.69	30.53	28.109	
5,800.00	5,643.64	5,655.23	5,526.94	21.73	9.86	-157.11	-144.70	-1,046.16	871.34	840.43	30.91	28.190	
5,900.00	5,743.64	5,753.81	5,622.29	21.86	10.10	-155.71	-148.22	-1,070.91	884.99	853.72	31.27	28.297	
6,000.00	5,843.64	5,871.54	5,736.85	21.98	10.35	-154.24	-152.04	-1,097.75	897.82	866.18	31.64	28.375	
6,100.00	5,943.64	5,991.38	5,854.51	22.11	10.57	-153.04	-155.24	-1,120.25	908.69	876.73	31.96	28.431	
6,200.00	6,043.64	6,112.97	5,974.74	22.24	10.74	-152.12	-157.78	-1,138.09	917.37	885.13	32.24	28.456	
6,300.00	6,143.64	6,235.89	6,096.97	22.37	10.87	-151.46	-159.61	-1,150.97	923.66	891.18	32.48	28.442	
6,400.00	6,243.64	6,359.71	6,220.54	22.50	10.95	-151.08	-160.71	-1,158.68	927.44	894.76	32.68	28.379	
6,500.00	6,343.64	6,482.85	6,343.64	22.63	11.00	-150.95	-161.05	-1,161.11	928.63	895.77	32.86	28.263	
6,600.00	6,443.64	6,582.85	6,443.64	22.76	11.01	-150.95	-161.05	-1,161.11	928.63	895.62	33.01	28.130	
6,700.00	6,543.64	6,682.85	6,543.64	22.90	11.03	-150.95	-161.05	-1,161.11	928.63	895.46	33.17	27.996	
6,800.00	6,643.64	6,782.85	6,643.64	23.04	11.05	-150.95	-161.05	-1,161.11	928.63	895.30	33.33	27.863	
6,900.00	6,743.64	6,882.85	6,743.64	23.18	11.06	-150.95	-161.05	-1,161.11	928.63	895.14	33.49	27.729	
7,000.00	6,843.64	6,982.85	6,843.64	23.32	11.08	-150.95	-161.05	-1,161.11	928.63	894.98	33.65	27.595	
7,100.00	6,943.64	7,082.85	6,943.64	23.46	11.10	-150.95	-161.05	-1,161.11	928.63	894.81	33.82	27.462	
7,200.00	7,043.64	7,182.85	7,043.64	23.60	11.12	-150.95	-161.05	-1,161.11	928.63	894.65	33.98	27.328	
7,300.00	7,143.64	7,282.85	7,143.64	23.74	11.13	-150.95	-161.05	-1,161.11	928.63	894.48	34.15	27.194	
7,400.00	7,243.64	7,382.85	7,243.64	23.89	11.15	-150.95	-161.05	-1,161.11	928.63	894.31	34.32	27.061	
7,500.00	7,343.64	7,482.85	7,343.64	24.03	11.17	-150.95	-161.05	-1,161.11	928.63	894.14	34.49	26.928	
7,600.00	7,443.64	7,582.85	7,443.64	24.18	11.19	-150.95	-161.05	-1,161.11	928.63	893.97	34.66	26.795	
7,700.00	7,543.64	7,682.85	7,543.64	24.33	11.21	-150.95	-161.05	-1,161.11	928.63	893.80	34.83	26.662	
7,800.00	7,643.64	7,782.85	7,643.64	24.48	11.23	-150.95	-161.05	-1,161.11	928.63	893.62	35.00	26.529	
7,900.00	7,743.64	7,882.85	7,743.64	24.63	11.25	-150.95	-161.05	-1,161.11	928.63	893.45	35.18	26.397	
8,000.00	7,843.64	7,982.85	7,843.64	24.78	11.27	-150.95	-161.05	-1,161.11	928.63	893.27	35.36	26.265	
8,065.36	7,909.00	8,048.21	7,909.00	24.88	11.28	-150.95	-161.05	-1,161.11	928.63	893.16	35.47	26.179	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 3-27 - P_DRY CREEK 3-27 - PLAN #1 10-26-09 RHS													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.59	0.34	47.61	47.61					
100.00	100.00	100.00	100.00	0.10	0.10	89.59	0.34	47.61	47.61	47.42	0.19	249.189		
200.00	200.00	200.00	200.00	0.32	0.32	89.59	0.34	47.61	47.61	46.97	0.64	74.320		
300.00	300.00	300.00	300.00	0.55	0.55	89.59	0.34	47.61	47.61	46.52	1.09	43.672		
400.00	400.00	400.00	400.00	0.77	0.77	89.59	0.34	47.61	47.61	46.07	1.54	30.921		
500.00	500.00	500.00	500.00	0.99	0.99	89.59	0.34	47.61	47.61	45.62	1.99	23.933		
600.00	600.00	600.00	600.00	1.22	1.22	89.59	0.34	47.61	47.61	45.17	2.44	19.522		
700.00	700.00	700.00	700.00	1.44	1.44	89.59	0.34	47.61	47.61	44.72	2.89	16.483		
800.00	800.00	800.00	800.00	1.67	1.67	89.59	0.34	47.61	47.61	44.27	3.34	14.263		
900.00	900.00	900.00	900.00	1.89	1.89	89.59	0.34	47.61	47.61	43.82	3.79	12.570		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.59	0.34	47.61	47.61	43.37	4.24	11.237		
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.59	0.34	47.61	47.61	42.92	4.69	10.159		
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.59	0.34	47.61	47.61	42.47	5.14	9.270		
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.59	0.34	47.61	47.61	42.25	5.36	8.881 CC, ES		
1,300.00	1,300.00	1,299.32	1,299.32	2.79	2.79	137.13	0.59	47.95	48.28	42.70	5.58	8.655 SF		
1,400.00	1,399.93	1,397.76	1,397.69	3.01	3.00	137.46	2.57	50.70	53.64	47.64	6.00	8.941		
1,500.00	1,499.68	1,495.56	1,495.26	3.23	3.22	137.93	6.50	56.13	64.33	57.91	6.42	10.023		
1,600.00	1,599.13	1,592.31	1,591.50	3.47	3.44	138.37	12.30	64.17	80.30	73.47	6.84	11.744		
1,700.00	1,698.15	1,687.64	1,685.94	3.72	3.68	138.68	19.87	74.66	101.48	94.21	7.26	13.971		
1,800.00	1,796.63	1,781.18	1,778.14	4.00	3.94	138.85	29.09	87.42	127.74	120.04	7.70	16.589		
1,900.00	1,894.44	1,872.60	1,867.71	4.32	4.22	138.90	39.79	102.24	158.95	150.80	8.15	19.492		
2,000.00	1,991.46	1,961.60	1,954.31	4.69	4.53	138.83	51.81	118.90	194.96	186.33	8.63	22.585		
2,100.00	2,087.58	2,047.95	2,037.67	5.11	4.87	138.67	64.97	137.13	235.60	226.46	9.14	25.780		
2,200.00	2,182.68	2,131.41	2,117.57	5.59	5.24	138.43	79.09	156.68	280.69	271.01	9.68	29.000		
2,300.00	2,276.65	2,212.58	2,194.58	6.14	5.63	138.11	94.11	177.48	330.00	319.75	10.26	32.178		
2,315.80	2,291.39	2,226.14	2,207.39	6.23	5.70	138.07	96.70	181.07	338.12	327.77	10.35	32.655		
2,400.00	2,369.82	2,298.25	2,275.54	6.75	6.08	138.48	110.49	200.17	381.53	370.59	10.94	34.886		
2,500.00	2,462.98	2,383.90	2,356.49	7.38	6.55	138.87	126.86	222.85	433.09	421.44	11.66	37.152		
2,600.00	2,556.14	2,469.54	2,437.44	8.03	7.04	139.17	143.23	245.53	484.67	472.27	12.40	39.080		
2,700.00	2,649.30	2,555.19	2,518.39	8.69	7.53	139.41	159.61	268.21	536.26	523.09	13.17	40.728		
2,800.00	2,742.46	2,640.84	2,599.34	9.37	8.04	139.62	175.98	290.89	587.85	573.90	13.95	42.146		
2,900.00	2,835.62	2,726.48	2,680.29	10.06	8.56	139.78	192.36	313.57	639.45	624.70	14.74	43.372		
3,000.00	2,928.78	2,812.13	2,761.24	10.76	9.08	139.93	208.73	336.26	691.05	675.49	15.55	44.440		
3,100.00	3,021.94	2,897.78	2,842.19	11.46	9.60	140.05	225.11	358.94	742.65	726.28	16.37	45.373		
3,200.00	3,115.09	2,983.42	2,923.14	12.17	10.13	140.16	241.48	381.62	794.25	777.06	17.19	46.193		
3,300.00	3,208.25	3,069.07	3,004.09	12.88	10.67	140.25	257.85	404.30	845.86	827.83	18.03	46.919		
3,400.00	3,301.41	3,154.72	3,085.04	13.60	11.21	140.34	274.23	426.98	897.47	878.60	18.87	47.565		
3,500.00	3,394.57	3,240.37	3,165.99	14.31	11.75	140.41	290.60	449.66	949.08	929.36	19.71	48.142		
3,600.00	3,487.73	3,326.01	3,246.94	15.04	12.29	140.48	306.98	472.34	1,000.69	980.12	20.56	48.661		
3,700.00	3,580.89	3,411.66	3,327.89	15.76	12.84	140.54	323.35	495.02	1,052.30	1,030.88	21.42	49.128		
3,800.00	3,674.05	3,497.31	3,408.84	16.49	13.39	140.59	339.73	517.70	1,103.91	1,081.63	22.28	49.550		
3,887.55	3,755.61	3,572.29	3,479.72	17.12	13.87	140.64	354.06	537.56	1,149.10	1,126.06	23.03	49.887		
3,900.00	3,767.22	3,582.97	3,489.80	17.20	13.94	140.74	356.10	540.39	1,155.50	1,132.35	23.15	49.911		
4,000.00	3,861.14	3,669.47	3,571.56	17.75	14.50	141.44	372.64	563.30	1,205.66	1,181.61	24.05	50.130		
4,100.00	3,956.21	3,757.27	3,654.55	18.26	15.06	141.97	389.43	586.55	1,253.44	1,228.50	24.94	50.263		
4,200.00	4,052.29	3,846.26	3,738.66	18.73	15.64	142.35	406.44	610.11	1,298.80	1,272.99	25.81	50.330		
4,300.00	4,149.29	3,937.17	3,824.58	19.15	16.23	142.61	423.82	634.19	1,341.70	1,315.05	26.65	50.341		
4,400.00	4,247.08	4,079.44	3,960.18	19.53	16.95	142.61	448.99	669.05	1,380.38	1,352.79	27.59	50.024		
4,500.00	4,345.53	4,227.92	4,103.80	19.86	17.58	142.62	471.02	699.56	1,412.98	1,384.53	28.44	49.674		
4,600.00	4,444.54	4,381.79	4,254.47	20.14	18.14	142.63	489.22	724.78	1,439.17	1,409.96	29.21	49.270		
4,700.00	4,543.97	4,540.00	4,410.91	20.37	18.60	142.65	502.97	743.83	1,458.69	1,428.82	29.87	48.835		
4,800.00	4,643.71	4,701.35	4,571.53	20.56	18.96	142.69	511.77	756.01	1,471.34	1,440.92	30.42	48.369		

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,743.64	4,864.47	4,734.52	20.70	19.19	142.74	515.27	760.86	1,476.97	1,446.14	30.84	47.893	
4,953.36	4,797.00	4,926.95	4,797.00	20.76	19.27	95.26	515.33	760.94	1,477.41	1,446.42	30.99	47.668	
5,000.00	4,843.64	4,973.59	4,843.64	20.80	19.32	95.26	515.33	760.94	1,477.41	1,446.29	31.12	47.474	
5,100.00	4,943.64	5,073.59	4,943.64	20.91	19.44	95.26	515.33	760.94	1,477.41	1,446.01	31.40	47.048	
5,200.00	5,043.64	5,173.59	5,043.64	21.03	19.56	95.26	515.33	760.94	1,477.41	1,445.73	31.69	46.624	
5,300.00	5,143.64	5,273.59	5,143.64	21.14	19.68	95.26	515.33	760.94	1,477.41	1,445.44	31.98	46.202	
5,400.00	5,243.64	5,373.59	5,243.64	21.25	19.80	95.26	515.33	760.94	1,477.41	1,445.14	32.27	45.783	
5,500.00	5,343.64	5,473.59	5,343.64	21.37	19.93	95.26	515.33	760.94	1,477.41	1,444.85	32.57	45.366	
5,600.00	5,443.64	5,573.59	5,443.64	21.49	20.06	95.26	515.33	760.94	1,477.41	1,444.55	32.87	44.952	
5,700.00	5,543.64	5,673.59	5,543.64	21.61	20.19	95.26	515.33	760.94	1,477.41	1,444.24	33.17	44.541	
5,800.00	5,643.64	5,773.59	5,643.64	21.73	20.32	95.26	515.33	760.94	1,477.41	1,443.94	33.48	44.133	
5,900.00	5,743.64	5,873.59	5,743.64	21.86	20.45	95.26	515.33	760.94	1,477.41	1,443.63	33.79	43.728	
6,000.00	5,843.64	5,973.59	5,843.64	21.98	20.58	95.26	515.33	760.94	1,477.41	1,443.32	34.10	43.327	
6,100.00	5,943.64	6,073.59	5,943.64	22.11	20.72	95.26	515.33	760.94	1,477.41	1,443.00	34.41	42.929	
6,200.00	6,043.64	6,173.59	6,043.64	22.24	20.85	95.26	515.33	760.94	1,477.41	1,442.68	34.73	42.535	
6,300.00	6,143.64	6,273.59	6,143.64	22.37	20.99	95.26	515.33	760.94	1,477.41	1,442.36	35.06	42.145	
6,400.00	6,243.64	6,373.59	6,243.64	22.50	21.13	95.26	515.33	760.94	1,477.41	1,442.03	35.38	41.758	
6,500.00	6,343.64	6,473.59	6,343.64	22.63	21.27	95.26	515.33	760.94	1,477.41	1,441.71	35.71	41.376	
6,600.00	6,443.64	6,573.59	6,443.64	22.76	21.42	95.26	515.33	760.94	1,477.41	1,441.38	36.04	40.997	
6,700.00	6,543.64	6,673.59	6,543.64	22.90	21.56	95.26	515.33	760.94	1,477.41	1,441.04	36.37	40.622	
6,800.00	6,643.64	6,773.59	6,643.64	23.04	21.71	95.26	515.33	760.94	1,477.41	1,440.71	36.70	40.251	
6,900.00	6,743.64	6,873.59	6,743.64	23.18	21.85	95.26	515.33	760.94	1,477.41	1,440.37	37.04	39.885	
7,000.00	6,843.64	6,973.59	6,843.64	23.32	22.00	95.26	515.33	760.94	1,477.41	1,440.03	37.38	39.522	
7,100.00	6,943.64	7,073.59	6,943.64	23.46	22.15	95.26	515.33	760.94	1,477.41	1,439.69	37.72	39.164	
7,200.00	7,043.64	7,173.59	7,043.64	23.60	22.30	95.26	515.33	760.94	1,477.41	1,439.35	38.07	38.810	
7,300.00	7,143.64	7,273.59	7,143.64	23.74	22.45	95.26	515.33	760.94	1,477.41	1,439.00	38.41	38.460	
7,400.00	7,243.64	7,373.59	7,243.64	23.89	22.61	95.26	515.33	760.94	1,477.41	1,438.65	38.76	38.114	
7,500.00	7,343.64	7,473.59	7,343.64	24.03	22.76	95.26	515.33	760.94	1,477.41	1,438.30	39.11	37.772	
7,600.00	7,443.64	7,573.59	7,443.64	24.18	22.92	95.26	515.33	760.94	1,477.41	1,437.95	39.47	37.435	
7,700.00	7,543.64	7,673.59	7,543.64	24.33	23.07	95.26	515.33	760.94	1,477.41	1,437.59	39.82	37.101	
7,800.00	7,643.64	7,773.59	7,643.64	24.48	23.23	95.26	515.33	760.94	1,477.41	1,437.24	40.18	36.772	
7,900.00	7,743.64	7,873.59	7,743.64	24.63	23.39	95.26	515.33	760.94	1,477.41	1,436.88	40.54	36.447	
8,000.00	7,843.64	7,973.59	7,843.64	24.78	23.55	95.26	515.33	760.94	1,477.41	1,436.52	40.90	36.126	
8,040.09	7,883.73	8,013.68	7,883.73	24.84	23.61	95.26	515.33	760.94	1,477.41	1,436.37	41.04	35.999	
8,065.36	7,909.00	8,029.95	7,909.00	24.88	23.64	95.26	515.33	760.94	1,477.44	1,436.33	41.12	35.934	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 5-27 - P_DRY CREEK 5-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.43	-0.11	-14.00	14.00				
100.00	100.00	100.00	100.00	0.10	0.10	-90.43	-0.11	-14.00	14.00	13.81	0.19	73.291	
200.00	200.00	200.00	200.00	0.32	0.32	-90.43	-0.11	-14.00	14.00	13.36	0.64	21.859	
300.00	300.00	300.00	300.00	0.55	0.55	-90.43	-0.11	-14.00	14.00	12.91	1.09	12.845	
400.00	400.00	400.00	400.00	0.77	0.77	-90.43	-0.11	-14.00	14.00	12.46	1.54	9.095	
500.00	500.00	500.00	500.00	0.99	0.99	-90.43	-0.11	-14.00	14.00	12.01	1.99	7.039	
600.00	600.00	600.00	600.00	1.22	1.22	-90.43	-0.11	-14.00	14.00	11.56	2.44	5.742	
700.00	700.00	700.00	700.00	1.44	1.44	-90.43	-0.11	-14.00	14.00	11.11	2.89	4.848	
800.00	800.00	800.00	800.00	1.67	1.67	-90.43	-0.11	-14.00	14.00	10.66	3.34	4.195	
900.00	900.00	900.00	900.00	1.89	1.89	-90.43	-0.11	-14.00	14.00	10.22	3.79	3.697	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-90.43	-0.11	-14.00	14.00	9.77	4.24	3.305	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-90.43	-0.11	-14.00	14.00	9.32	4.69	2.988	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	-90.43	-0.11	-14.00	14.00	8.87	5.14	2.726	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	-90.43	-0.11	-14.00	14.00	8.64	5.36	2.612	
1,300.00	1,300.00	1,299.86	1,299.85	2.79	2.78	-45.64	-0.47	-14.24	13.94	8.37	5.57	2.503	
1,329.59	1,329.58	1,329.34	1,329.33	2.86	2.83	-49.82	-1.03	-14.60	13.90	8.22	5.68	2.445 CC, ES	
1,400.00	1,399.93	1,399.36	1,399.29	3.01	2.95	-66.89	-3.37	-16.12	14.55	8.59	5.96	2.441 SF	
1,500.00	1,499.68	1,498.23	1,497.92	3.23	3.14	-96.42	-9.12	-19.85	20.36	13.99	6.36	3.199	
1,600.00	1,599.13	1,596.07	1,595.23	3.47	3.34	-114.89	-17.62	-25.36	33.69	26.91	6.78	4.970	
1,700.00	1,698.15	1,692.49	1,690.73	3.72	3.55	-124.01	-28.72	-32.56	53.47	46.27	7.20	7.424	
1,800.00	1,796.63	1,787.13	1,783.99	4.00	3.80	-128.73	-42.23	-41.32	78.85	71.20	7.65	10.313	
1,900.00	1,894.44	1,879.66	1,874.60	4.32	4.08	-131.35	-57.93	-51.50	109.38	101.26	8.11	13.479	
2,000.00	1,991.46	1,969.79	1,962.25	4.69	4.39	-132.87	-75.58	-62.95	144.79	136.17	8.62	16.805	
2,100.00	2,087.58	2,057.28	2,046.64	5.11	4.73	-133.76	-94.91	-75.48	184.85	175.70	9.15	20.196	
2,200.00	2,182.68	2,141.91	2,127.57	5.59	5.11	-134.23	-115.66	-88.94	229.36	219.63	9.73	23.574	
2,300.00	2,276.65	2,223.50	2,204.87	6.14	5.52	-134.42	-137.55	-103.14	278.10	267.75	10.35	26.877	
2,315.80	2,291.39	2,236.10	2,216.75	6.23	5.59	-134.43	-141.10	-105.44	286.18	275.73	10.45	27.386	
2,400.00	2,369.82	2,300.00	2,276.65	6.75	5.94	-134.98	-159.75	-117.54	330.14	319.10	11.04	29.906	
2,500.00	2,462.98	2,379.67	2,350.62	7.38	6.42	-135.27	-184.56	-133.63	383.98	372.18	11.80	32.550	
2,600.00	2,556.14	2,463.42	2,427.99	8.03	6.96	-135.39	-211.47	-151.08	438.61	426.01	12.60	34.812	
2,700.00	2,649.30	2,547.17	2,505.36	8.69	7.52	-135.49	-238.38	-168.53	493.24	479.82	13.42	36.747	
2,800.00	2,742.46	2,630.93	2,582.73	9.37	8.09	-135.57	-265.28	-185.98	547.88	533.61	14.27	38.406	
2,900.00	2,835.62	2,714.68	2,660.11	10.06	8.67	-135.64	-292.19	-203.43	602.51	587.39	15.12	39.836	
3,000.00	2,928.78	2,798.44	2,737.48	10.76	9.26	-135.69	-319.09	-220.88	657.14	641.15	16.00	41.078	
3,100.00	3,021.94	2,882.19	2,814.85	11.46	9.86	-135.73	-346.00	-238.33	711.78	694.90	16.88	42.160	
3,200.00	3,115.09	2,965.95	2,892.22	12.17	10.46	-135.77	-372.90	-255.78	766.41	748.64	17.78	43.112	
3,300.00	3,208.25	3,049.70	2,969.60	12.88	11.07	-135.81	-399.81	-273.23	821.05	802.37	18.68	43.953	
3,400.00	3,301.41	3,133.46	3,046.97	13.60	11.68	-135.84	-426.71	-290.68	875.68	856.09	19.59	44.701	
3,500.00	3,394.57	3,217.21	3,124.34	14.31	12.30	-135.86	-453.62	-308.13	930.32	909.81	20.51	45.369	
3,600.00	3,487.73	3,300.97	3,201.72	15.04	12.92	-135.89	-480.52	-325.57	984.95	963.53	21.43	45.968	
3,700.00	3,580.89	3,384.72	3,279.09	15.76	13.54	-135.91	-507.43	-343.02	1,039.59	1,017.24	22.35	46.507	
3,800.00	3,674.05	3,468.48	3,356.46	16.49	14.17	-135.93	-534.33	-360.47	1,094.22	1,070.94	23.28	46.995	
3,887.55	3,755.61	3,541.81	3,424.20	17.12	14.71	-135.94	-557.89	-375.75	1,142.06	1,117.96	24.10	47.385	
3,900.00	3,767.22	3,552.24	3,433.84	17.20	14.79	-136.05	-561.24	-377.93	1,148.84	1,124.62	24.23	47.421	
4,000.00	3,861.14	3,636.84	3,511.99	17.75	15.43	-136.85	-588.42	-395.55	1,202.15	1,176.99	25.16	47.772	
4,100.00	3,956.21	3,722.69	3,591.30	18.26	16.07	-137.47	-616.00	-413.44	1,253.29	1,227.20	26.09	48.035	
4,200.00	4,052.29	3,827.85	3,688.62	18.73	16.78	-137.87	-649.41	-435.10	1,301.99	1,274.95	27.04	48.142	
4,300.00	4,149.29	3,966.61	3,818.94	19.15	17.50	-138.11	-689.37	-461.02	1,345.80	1,317.79	28.01	48.046	
4,400.00	4,247.08	4,112.20	3,957.97	19.53	18.19	-138.31	-725.56	-484.49	1,383.79	1,354.87	28.93	47.834	
4,500.00	4,345.53	4,263.95	4,105.03	19.86	18.81	-138.48	-756.92	-504.83	1,415.63	1,385.85	29.78	47.541	
4,600.00	4,444.54	4,420.99	4,259.08	20.14	19.37	-138.62	-782.45	-521.39	1,441.00	1,410.46	30.54	47.185	
4,700.00	4,543.97	4,582.24	4,418.74	20.37	19.82	-138.75	-801.25	-533.58	1,459.64	1,428.44	31.20	46.789	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 5-27 - P_DRY CREEK 5-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,800.00	4,643.71	4,746.44	4,582.36	20.56	20.15	-138.87	-812.63	-540.96	1,471.35	1,439.62	31.73	46.367	
4,900.00	4,743.64	4,907.80	4,743.64	20.70	20.37	-138.98	-816.13	-543.23	1,476.02	1,443.88	32.14	45.922	
4,953.36	4,797.00	4,961.16	4,797.00	20.76	20.42	173.50	-816.13	-543.23	1,476.39	1,444.11	32.28	45.739	
5,000.00	4,843.64	5,007.80	4,843.64	20.80	20.47	173.50	-816.13	-543.23	1,476.39	1,444.00	32.40	45.572	
5,100.00	4,943.64	5,107.80	4,943.64	20.91	20.57	173.50	-816.13	-543.23	1,476.39	1,443.73	32.67	45.196	
5,200.00	5,043.64	5,207.80	5,043.64	21.03	20.68	173.50	-816.13	-543.23	1,476.39	1,443.45	32.94	44.821	
5,300.00	5,143.64	5,307.80	5,143.64	21.14	20.78	173.50	-816.13	-543.23	1,476.39	1,443.17	33.22	44.447	
5,400.00	5,243.64	5,407.80	5,243.64	21.25	20.89	173.50	-816.13	-543.23	1,476.39	1,442.89	33.50	44.074	
5,500.00	5,343.64	5,507.80	5,343.64	21.37	21.00	173.50	-816.13	-543.23	1,476.39	1,442.61	33.78	43.703	
5,600.00	5,443.64	5,607.80	5,443.64	21.49	21.11	173.50	-816.13	-543.23	1,476.39	1,442.32	34.07	43.333	
5,700.00	5,543.64	5,707.80	5,543.64	21.61	21.22	173.50	-816.13	-543.23	1,476.39	1,442.03	34.36	42.965	
5,800.00	5,643.64	5,807.80	5,643.64	21.73	21.34	173.50	-816.13	-543.23	1,476.39	1,441.73	34.66	42.600	
5,900.00	5,743.64	5,907.80	5,743.64	21.86	21.45	173.50	-816.13	-543.23	1,476.39	1,441.44	34.96	42.236	
6,000.00	5,843.64	6,007.80	5,843.64	21.98	21.57	173.50	-816.13	-543.23	1,476.39	1,441.13	35.26	41.875	
6,100.00	5,943.64	6,107.80	5,943.64	22.11	21.69	173.50	-816.13	-543.23	1,476.39	1,440.83	35.56	41.516	
6,200.00	6,043.64	6,207.80	6,043.64	22.24	21.81	173.50	-816.13	-543.23	1,476.39	1,440.52	35.87	41.160	
6,300.00	6,143.64	6,307.80	6,143.64	22.37	21.93	173.50	-816.13	-543.23	1,476.39	1,440.21	36.18	40.807	
6,400.00	6,243.64	6,407.80	6,243.64	22.50	22.06	173.50	-816.13	-543.23	1,476.39	1,439.90	36.49	40.456	
6,500.00	6,343.64	6,507.80	6,343.64	22.63	22.18	173.50	-816.13	-543.23	1,476.39	1,439.58	36.81	40.108	
6,600.00	6,443.64	6,607.80	6,443.64	22.76	22.31	173.50	-816.13	-543.23	1,476.39	1,439.26	37.13	39.763	
6,700.00	6,543.64	6,707.80	6,543.64	22.90	22.44	173.50	-816.13	-543.23	1,476.39	1,438.94	37.45	39.422	
6,800.00	6,643.64	6,807.80	6,643.64	23.04	22.57	173.50	-816.13	-543.23	1,476.39	1,438.62	37.78	39.083	
6,900.00	6,743.64	6,907.80	6,743.64	23.18	22.70	173.50	-816.13	-543.23	1,476.39	1,438.29	38.10	38.748	
7,000.00	6,843.64	7,007.80	6,843.64	23.32	22.84	173.50	-816.13	-543.23	1,476.39	1,437.96	38.43	38.416	
7,100.00	6,943.64	7,107.80	6,943.64	23.46	22.97	173.50	-816.13	-543.23	1,476.39	1,437.63	38.76	38.087	
7,200.00	7,043.64	7,207.80	7,043.64	23.60	23.11	173.50	-816.13	-543.23	1,476.39	1,437.29	39.10	37.761	
7,300.00	7,143.64	7,307.80	7,143.64	23.74	23.25	173.50	-816.13	-543.23	1,476.39	1,436.96	39.43	37.439	
7,400.00	7,243.64	7,407.80	7,243.64	23.89	23.39	173.50	-816.13	-543.23	1,476.39	1,436.62	39.77	37.120	
7,500.00	7,343.64	7,507.80	7,343.64	24.03	23.53	173.50	-816.13	-543.23	1,476.39	1,436.28	40.11	36.805	
7,600.00	7,443.64	7,607.80	7,443.64	24.18	23.67	173.50	-816.13	-543.23	1,476.39	1,435.93	40.46	36.493	
7,700.00	7,543.64	7,707.80	7,543.64	24.33	23.81	173.50	-816.13	-543.23	1,476.39	1,435.59	40.80	36.184	
7,800.00	7,643.64	7,807.80	7,643.64	24.48	23.95	173.50	-816.13	-543.23	1,476.39	1,435.24	41.15	35.879	
7,900.00	7,743.64	7,907.80	7,743.64	24.63	24.10	173.50	-816.13	-543.23	1,476.39	1,434.89	41.50	35.577	
8,000.00	7,843.64	8,007.80	7,843.64	24.78	24.25	173.50	-816.13	-543.23	1,476.39	1,434.54	41.85	35.278	
8,025.09	7,868.73	8,032.89	7,868.73	24.82	24.28	173.50	-816.13	-543.23	1,476.39	1,434.45	41.94	35.204	
8,065.36	7,909.00	8,043.16	7,879.00	24.88	24.30	173.50	-816.13	-543.23	1,476.70	1,434.67	42.03	35.136	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.60	0.23	33.60	33.61				
100.00	100.00	100.00	100.00	0.10	0.10	89.60	0.23	33.60	33.61	33.41	0.19	175.898	
200.00	200.00	200.00	200.00	0.32	0.32	89.60	0.23	33.60	33.61	32.97	0.64	52.461	
300.00	300.00	300.00	300.00	0.55	0.55	89.60	0.23	33.60	33.61	32.52	1.09	30.828	
400.00	400.00	400.00	400.00	0.77	0.77	89.60	0.23	33.60	33.61	32.07	1.54	21.827	
500.00	500.00	500.00	500.00	0.99	0.99	89.60	0.23	33.60	33.61	31.62	1.99	16.894	
600.00	600.00	600.00	600.00	1.22	1.22	89.60	0.23	33.60	33.61	31.17	2.44	13.780	
700.00	700.00	700.00	700.00	1.44	1.44	89.60	0.23	33.60	33.61	30.72	2.89	11.635	
800.00	800.00	800.00	800.00	1.67	1.67	89.60	0.23	33.60	33.61	30.27	3.34	10.068	
900.00	900.00	900.00	900.00	1.89	1.89	89.60	0.23	33.60	33.61	29.82	3.79	8.873	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.60	0.23	33.60	33.61	29.37	4.24	7.932	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.60	0.23	33.60	33.61	28.92	4.69	7.171	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	2.57	89.60	0.23	33.60	33.61	28.47	5.14	6.543	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	2.68	89.60	0.23	33.60	33.61	28.24	5.36	6.269 CC, ES	
1,300.00	1,300.00	1,299.59	1,299.59	2.79	2.78	138.12	-0.08	33.90	34.22	28.65	5.57	6.145 SF	
1,400.00	1,399.93	1,398.42	1,398.36	3.01	2.96	145.03	-2.59	36.21	39.49	33.53	5.96	6.631	
1,500.00	1,499.68	1,496.19	1,495.89	3.23	3.14	154.22	-7.53	40.78	51.18	44.84	6.34	8.073	
1,600.00	1,599.13	1,592.22	1,591.41	3.47	3.34	161.92	-14.76	47.46	70.04	63.33	6.72	10.429	
1,700.00	1,698.15	1,685.90	1,684.22	3.72	3.56	167.34	-24.08	56.06	96.04	88.96	7.09	13.555	
1,800.00	1,796.63	1,776.65	1,773.69	4.00	3.80	170.97	-35.23	66.36	128.83	121.38	7.45	17.303	
1,900.00	1,894.44	1,864.01	1,859.32	4.32	4.06	173.43	-47.92	78.08	168.00	160.21	7.79	21.554	
2,000.00	1,991.46	1,947.55	1,940.68	4.69	4.34	175.14	-61.84	90.94	213.19	205.06	8.13	26.215	
2,100.00	2,087.58	2,026.98	2,017.48	5.11	4.65	176.36	-76.69	104.66	264.02	255.56	8.46	31.217	
2,200.00	2,182.68	2,100.00	2,087.58	5.59	4.96	177.23	-91.72	118.54	320.14	311.38	8.76	36.527	
2,300.00	2,276.65	2,172.56	2,156.70	6.14	5.32	177.94	-107.95	133.53	381.18	372.10	9.07	42.015	
2,315.80	2,291.39	2,183.29	2,166.86	6.23	5.37	178.03	-110.46	135.84	391.25	382.13	9.12	42.909	
2,400.00	2,369.82	2,239.18	2,219.64	6.75	5.67	178.50	-123.98	148.33	445.85	436.39	9.46	47.121	
2,500.00	2,462.98	2,300.00	2,276.65	7.38	6.02	178.93	-139.54	162.71	512.32	502.45	9.86	51.944	
2,600.00	2,556.14	2,364.69	2,336.78	8.03	6.43	179.31	-157.07	178.90	580.38	570.10	10.29	56.429	
2,700.00	2,649.30	2,423.79	2,391.22	8.69	6.82	179.61	-173.95	194.49	650.00	639.30	10.70	60.750	
2,800.00	2,742.46	2,480.56	2,443.07	9.37	7.23	179.86	-190.95	210.19	721.06	709.94	11.12	64.872	
2,900.00	2,835.62	2,535.11	2,492.44	10.06	7.64	-179.92	-207.98	225.92	793.47	781.94	11.53	68.804	
3,000.00	2,928.78	2,587.52	2,539.46	10.76	8.05	-179.74	-224.99	241.64	867.17	855.22	11.95	72.584	
3,100.00	3,021.94	2,639.34	2,585.52	11.46	8.48	-179.57	-242.43	257.75	942.06	929.70	12.36	76.191	
3,200.00	3,115.09	2,702.94	2,641.78	12.17	9.03	-179.39	-264.21	277.86	1,017.57	1,004.76	12.81	79.424	
3,300.00	3,208.25	2,768.46	2,699.75	12.88	9.61	-179.23	-286.65	298.59	1,093.08	1,079.81	13.27	82.374	
3,400.00	3,301.41	2,833.99	2,757.72	13.60	10.19	-179.09	-309.09	319.32	1,168.60	1,154.87	13.73	85.116	
3,500.00	3,394.57	2,899.52	2,815.70	14.31	10.78	-178.97	-331.53	340.04	1,244.12	1,229.92	14.19	87.669	
3,600.00	3,487.73	2,965.05	2,873.67	15.04	11.38	-178.86	-353.97	360.77	1,319.64	1,304.98	14.66	90.016	
3,700.00	3,580.89	3,030.58	2,931.64	15.76	11.98	-178.76	-376.42	381.50	1,395.16	1,380.03	15.13	92.210	
3,800.00	3,674.05	3,096.11	2,989.61	16.49	12.58	-178.67	-398.86	402.23	1,470.68	1,455.08	15.60	94.260	
3,887.55	3,755.61	3,153.48	3,040.37	17.12	13.11	-178.60	-418.50	420.37	1,536.81	1,520.79	16.02	95.930	
3,900.00	3,767.22	3,161.66	3,047.60	17.20	13.19	-178.60	-421.30	422.96	1,546.19	1,530.09	16.10	96.039	
4,000.00	3,861.14	3,228.81	3,107.01	17.75	13.81	-178.58	-444.30	444.20	1,620.27	1,603.55	16.71	96.945	
4,100.00	3,956.21	3,298.51	3,168.67	18.26	14.47	-178.56	-468.17	466.25	1,691.96	1,674.64	17.32	97.705	
4,200.00	4,052.29	3,370.66	3,232.51	18.73	15.14	-178.54	-492.88	489.07	1,761.17	1,743.26	17.91	98.324	
4,300.00	4,149.29	3,445.18	3,298.43	19.15	15.85	-178.51	-518.40	512.64	1,827.83	1,809.34	18.49	98.833	
4,400.00	4,247.08	3,521.98	3,366.37	19.53	16.57	-178.49	-544.70	536.93	1,891.85	1,872.78	19.06	99.243	
4,500.00	4,345.53	3,670.29	3,498.41	19.86	17.28	-178.41	-574.30	582.75	1,952.57	1,932.76	19.81	98.571	
4,600.00	4,444.54	3,946.47	3,752.56	20.14	19.59	-178.28	-673.51	655.91	2,004.16	1,983.27	20.89	95.953	
4,700.00	4,543.97	4,258.85	4,050.98	20.37	21.21	-178.19	-740.96	718.21	2,043.52	2,021.52	22.00	92.874	
4,800.00	4,643.71	4,600.72	4,386.86	20.56	22.42	-178.13	-786.95	760.69	2,068.79	2,045.73	23.06	89.704	

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

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - P_DRY CREEK 6-27 - P_DRY CREEK 6-27 - PLAN #1 10-26-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,743.64	4,958.43	4,743.64	20.70	23.05	-178.12	-803.28	775.77	2,078.58	2,054.62	23.96	86.762	
4,953.36	4,797.00	5,011.79	4,797.00	20.76	23.10	134.38	-803.28	775.77	2,079.08	2,054.93	24.15	86.106	
5,000.00	4,843.64	5,058.43	4,843.64	20.80	23.14	134.38	-803.28	775.77	2,079.08	2,054.78	24.30	85.550	
5,100.00	4,943.64	5,158.43	4,943.64	20.91	23.23	134.38	-803.28	775.77	2,079.08	2,054.43	24.65	84.334	
5,200.00	5,043.64	5,258.43	5,043.64	21.03	23.33	134.38	-803.28	775.77	2,079.08	2,054.07	25.01	83.142	
5,300.00	5,143.64	5,358.43	5,143.64	21.14	23.43	134.38	-803.28	775.77	2,079.08	2,053.72	25.36	81.974	
5,400.00	5,243.64	5,458.43	5,243.64	21.25	23.52	134.38	-803.28	775.77	2,079.08	2,053.36	25.72	80.828	
5,500.00	5,343.64	5,558.43	5,343.64	21.37	23.62	134.38	-803.28	775.77	2,079.08	2,052.99	26.08	79.706	
5,600.00	5,443.64	5,658.43	5,443.64	21.49	23.73	134.38	-803.28	775.77	2,079.08	2,052.63	26.45	78.607	
5,700.00	5,543.64	5,758.43	5,543.64	21.61	23.83	134.38	-803.28	775.77	2,079.08	2,052.26	26.82	77.530	
5,800.00	5,643.64	5,858.43	5,643.64	21.73	23.94	134.38	-803.28	775.77	2,079.08	2,051.89	27.19	76.475	
5,900.00	5,743.64	5,958.43	5,743.64	21.86	24.04	134.38	-803.28	775.77	2,079.08	2,051.52	27.56	75.442	
6,000.00	5,843.64	6,058.43	5,843.64	21.98	24.15	134.38	-803.28	775.77	2,079.08	2,051.15	27.93	74.430	
6,100.00	5,943.64	6,158.43	5,943.64	22.11	24.26	134.38	-803.28	775.77	2,079.08	2,050.77	28.31	73.440	
6,200.00	6,043.64	6,258.43	6,043.64	22.24	24.37	134.38	-803.28	775.77	2,079.08	2,050.39	28.69	72.470	
6,300.00	6,143.64	6,358.43	6,143.64	22.37	24.49	134.38	-803.28	775.77	2,079.08	2,050.01	29.07	71.521	
6,400.00	6,243.64	6,458.43	6,243.64	22.50	24.60	134.38	-803.28	775.77	2,079.08	2,049.63	29.45	70.592	
6,500.00	6,343.64	6,558.43	6,343.64	22.63	24.72	134.38	-803.28	775.77	2,079.08	2,049.24	29.84	69.682	
6,600.00	6,443.64	6,658.43	6,443.64	22.76	24.84	134.38	-803.28	775.77	2,079.08	2,048.86	30.22	68.791	
6,700.00	6,543.64	6,758.43	6,543.64	22.90	24.96	134.38	-803.28	775.77	2,079.08	2,048.47	30.61	67.919	
6,800.00	6,643.64	6,858.43	6,643.64	23.04	25.08	134.38	-803.28	775.77	2,079.08	2,048.08	31.00	67.065	
6,900.00	6,743.64	6,958.43	6,743.64	23.18	25.20	134.38	-803.28	775.77	2,079.08	2,047.69	31.39	66.229	
7,000.00	6,843.64	7,058.43	6,843.64	23.32	25.32	134.38	-803.28	775.77	2,079.08	2,047.29	31.79	65.410	
7,100.00	6,943.64	7,158.43	6,943.64	23.46	25.45	134.38	-803.28	775.77	2,079.08	2,046.90	32.18	64.609	
7,200.00	7,043.64	7,258.43	7,043.64	23.60	25.58	134.38	-803.28	775.77	2,079.08	2,046.50	32.58	63.824	
7,300.00	7,143.64	7,358.43	7,143.64	23.74	25.70	134.38	-803.28	775.77	2,079.08	2,046.11	32.97	63.055	
7,400.00	7,243.64	7,458.43	7,243.64	23.89	25.83	134.38	-803.28	775.77	2,079.08	2,045.71	33.37	62.302	
7,500.00	7,343.64	7,558.43	7,343.64	24.03	25.96	134.38	-803.28	775.77	2,079.08	2,045.31	33.77	61.564	
7,600.00	7,443.64	7,658.43	7,443.64	24.18	26.09	134.38	-803.28	775.77	2,079.08	2,044.91	34.17	60.842	
7,700.00	7,543.64	7,758.43	7,543.64	24.33	26.23	134.38	-803.28	775.77	2,079.08	2,044.50	34.57	60.134	
7,800.00	7,643.64	7,858.43	7,643.64	24.48	26.36	134.38	-803.28	775.77	2,079.08	2,044.10	34.98	59.441	
7,900.00	7,743.64	7,958.43	7,743.64	24.63	26.50	134.38	-803.28	775.77	2,079.08	2,043.70	35.38	58.761	
8,000.00	7,843.64	8,058.43	7,843.64	24.78	26.63	134.38	-803.28	775.77	2,079.08	2,043.29	35.79	58.095	
8,030.93	7,874.57	8,089.36	7,874.57	24.83	26.68	134.38	-803.28	775.77	2,079.08	2,043.17	35.91	57.892	
8,065.36	7,909.00	8,099.79	7,885.00	24.88	26.69	134.38	-803.28	775.77	2,079.22	2,043.21	36.00	57.748	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												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	
0.00	0.00	0.00	0.00	0.00	0.00	-95.05	-4.75	-53.74	53.95				
100.00	100.00	100.00	100.00	0.10	1.70	-95.05	-4.75	-53.74	53.95	52.15	1.80	30.045	
200.00	200.00	200.00	200.00	0.32	5.70	-95.05	-4.75	-53.74	53.95	47.93	6.02	8.961	
300.00	300.00	300.00	300.00	0.55	9.70	-95.05	-4.75	-53.74	53.95	43.70	10.25	5.266	
400.00	400.00	400.00	400.00	0.77	13.70	-95.05	-4.75	-53.74	53.95	39.48	14.47	3.728	
500.00	500.00	500.00	500.00	0.99	17.70	-95.05	-4.75	-53.74	53.95	35.25	18.69	2.886	
600.00	600.00	600.00	600.00	1.22	21.70	-95.05	-4.75	-53.74	53.95	31.03	22.92	2.354	
700.00	700.00	700.00	700.00	1.44	25.70	-95.05	-4.75	-53.74	53.95	26.80	27.14	1.987	
800.00	800.00	800.00	800.00	1.67	29.70	-95.05	-4.75	-53.74	53.95	22.58	31.37	1.720	
900.00	900.00	900.00	900.00	1.89	33.70	-95.05	-4.75	-53.74	53.95	18.35	35.59	1.516	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	37.70	-95.05	-4.75	-53.74	53.95	14.13	39.82	1.355 Level 3	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	41.70	-95.05	-4.75	-53.74	53.95	9.90	44.04	1.225 Level 2	
1,200.00	1,200.00	1,200.00	1,200.00	2.57	45.70	-95.05	-4.75	-53.74	53.95	5.68	48.27	1.118 Level 2	
1,250.00	1,250.00	1,250.00	1,250.00	2.68	47.70	-95.05	-4.75	-53.74	53.95	3.57	50.38	1.071 Level 2	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	49.70	-47.89	-4.75	-53.74	53.65	1.17	52.49	1.022 Level 2	
1,400.00	1,399.93	1,399.93	1,399.93	3.01	53.70	-50.82	-4.75	-53.74	51.38	-5.29	56.67	0.907 Level 1	
1,500.00	1,499.68	1,499.68	1,499.68	3.23	57.69	-57.44	-4.75	-53.74	47.28	-13.57	60.85	0.777 Level 1	
1,600.00	1,599.13	1,599.13	1,599.13	3.47	61.67	-69.42	-4.75	-53.74	42.56	-22.51	65.06	0.654 Level 1	
1,700.00	1,698.15	1,698.15	1,698.15	3.72	65.63	-88.37	-4.75	-53.74	39.82	-29.54	69.36	0.574 Level 1	
1,707.25	1,705.31	1,705.31	1,705.31	3.74	65.91	-90.00	-4.75	-53.74	39.80	-29.88	69.68	0.571 Level 1, CC, SF	
1,800.00	1,796.63	1,796.63	1,796.63	4.00	69.57	-111.80	-4.75	-53.74	42.98	-30.45	73.43	0.585 Level 1, ES	
1,900.00	1,894.44	1,894.44	1,894.44	4.32	73.48	-132.18	-4.75	-53.74	54.35	-22.60	76.95	0.706 Level 1	
2,000.00	1,991.46	1,991.46	1,991.46	4.69	77.36	-146.05	-4.75	-53.74	73.01	-7.10	80.10	0.911 Level 1	
2,100.00	2,087.58	2,087.58	2,087.58	5.11	81.20	-154.88	-4.75	-53.74	97.28	14.19	83.09	1.171 Level 2	
2,200.00	2,182.68	2,182.68	2,182.68	5.59	85.01	-160.62	-4.75	-53.74	126.11	40.20	85.91	1.468 Level 3	
2,300.00	2,276.65	2,276.65	2,276.65	6.14	88.77	-164.51	-4.75	-53.74	158.93	70.37	88.56	1.795	
2,315.80	2,291.39	2,291.39	2,291.39	6.23	89.36	-165.01	-4.75	-53.74	164.46	75.49	88.96	1.849	
2,400.00	2,369.82	2,369.82	2,369.82	6.75	92.49	-167.34	-4.75	-53.74	194.30	102.29	92.01	2.112	
2,500.00	2,462.98	2,462.98	2,462.98	7.38	96.22	-169.32	-4.75	-53.74	230.00	134.32	95.68	2.404	
2,600.00	2,556.14	2,556.14	2,556.14	8.03	99.95	-170.77	-4.75	-53.74	265.87	166.49	99.38	2.675	
2,700.00	2,649.30	2,649.30	2,649.30	8.69	103.67	-171.87	-4.75	-53.74	301.86	198.75	103.11	2.927	
2,800.00	2,742.46	2,742.46	2,742.46	9.37	107.40	-172.74	-4.75	-53.74	337.93	231.07	106.86	3.162	
2,900.00	2,835.62	2,835.62	2,835.62	10.06	111.12	-173.45	-4.75	-53.74	374.05	263.44	110.61	3.382	
3,000.00	2,928.78	2,928.78	2,928.78	10.76	114.85	-174.03	-4.75	-53.74	410.22	295.84	114.38	3.587	
3,100.00	3,021.94	3,021.94	3,021.94	11.46	118.58	-174.51	-4.75	-53.74	446.41	328.26	118.15	3.778	
3,200.00	3,115.09	3,115.09	3,115.09	12.17	122.30	-174.92	-4.75	-53.74	482.63	360.71	121.92	3.959	
3,300.00	3,208.25	3,208.25	3,208.25	12.88	126.03	-175.28	-4.75	-53.74	518.87	393.16	125.70	4.128	
3,400.00	3,301.41	3,301.41	3,301.41	13.60	129.76	-175.59	-4.75	-53.74	555.12	425.63	129.48	4.287	
3,500.00	3,394.57	3,394.57	3,394.57	14.31	133.48	-175.86	-4.75	-53.74	591.38	458.11	133.27	4.437	
3,600.00	3,487.73	3,487.73	3,487.73	15.04	137.21	-176.10	-4.75	-53.74	627.65	490.60	137.06	4.579	
3,700.00	3,580.89	3,580.89	3,580.89	15.76	140.94	-176.31	-4.75	-53.74	663.94	523.09	140.85	4.714	
3,800.00	3,674.05	3,674.05	3,674.05	16.49	144.66	-176.50	-4.75	-53.74	700.22	555.59	144.64	4.841	
3,887.55	3,755.61	3,755.61	3,755.61	17.12	147.92	-176.65	-4.75	-53.74	732.00	584.04	147.96	4.947	
3,900.00	3,767.22	3,767.22	3,767.22	17.20	148.39	-176.68	-4.75	-53.74	736.50	587.84	148.66	4.954	
4,000.00	3,861.14	3,861.14	3,861.14	17.75	152.15	-176.87	-4.75	-53.74	770.76	616.54	154.22	4.998	
4,100.00	3,956.21	3,956.21	3,956.21	18.26	155.95	-177.02	-4.75	-53.74	801.73	642.03	159.70	5.020	
4,200.00	4,052.29	4,052.29	4,052.29	18.73	159.79	-177.15	-4.75	-53.74	829.37	664.27	165.10	5.023	
4,300.00	4,149.29	4,149.29	4,149.29	19.15	163.67	-177.26	-4.75	-53.74	853.65	683.17	170.47	5.007	
4,400.00	4,247.08	4,247.08	4,247.08	19.53	167.58	-177.34	-4.75	-53.74	874.53	698.81	175.72	4.977	
4,500.00	4,345.53	4,345.53	4,345.53	19.86	171.52	-177.41	-4.75	-53.74	891.99	711.17	180.82	4.933	
4,600.00	4,444.54	4,444.54	4,444.54	20.14	175.48	-177.46	-4.75	-53.74	906.01	720.26	185.75	4.878	
4,700.00	4,543.97	4,543.97	4,543.97	20.37	179.46	-177.50	-4.75	-53.74	916.57	726.07	190.50	4.811	

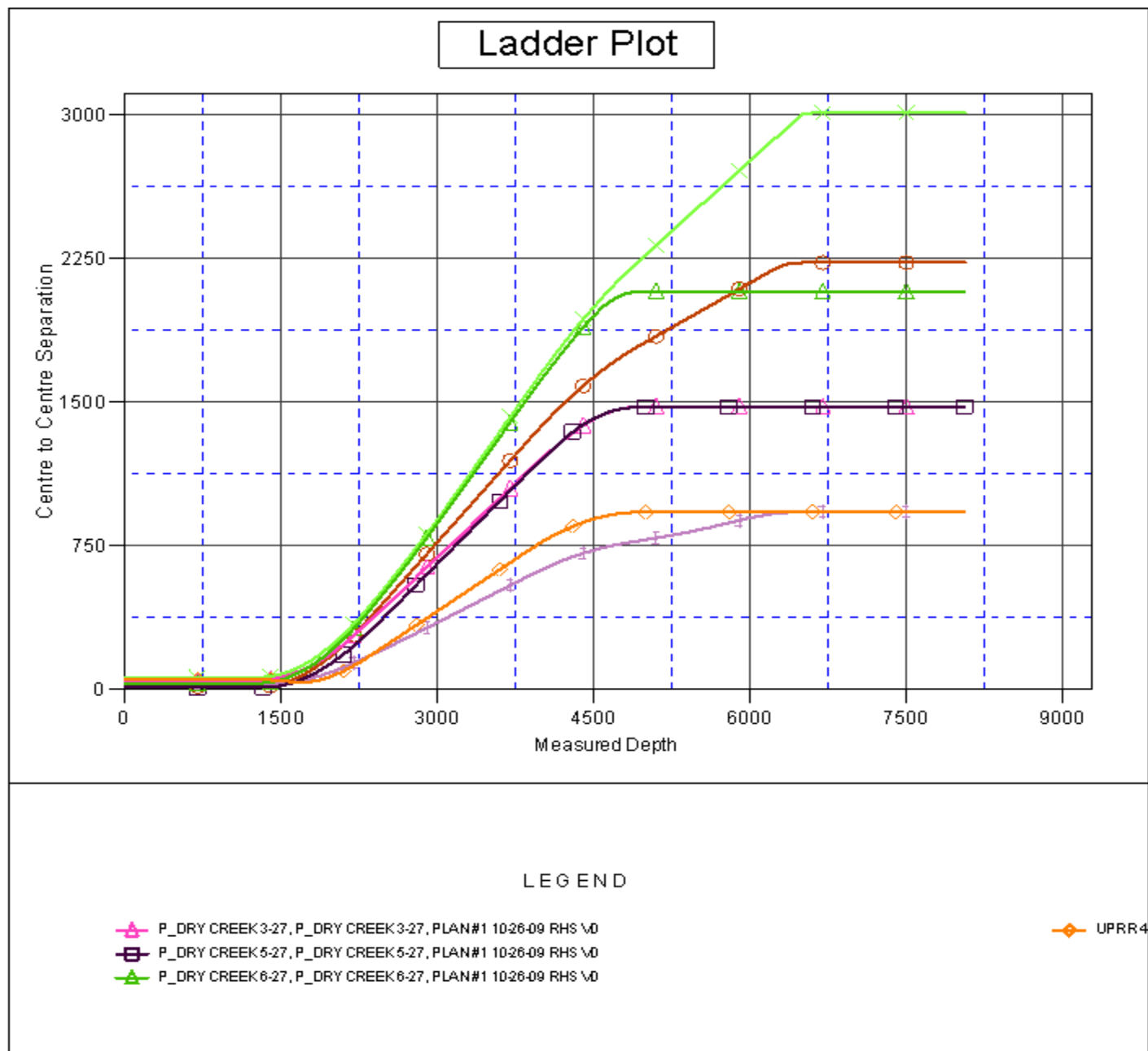
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_DRY CREEK PAD 7 - UPRR 42 PAN AM 'AM-TRUE #1 EXISTING - UPRR 42 PAN AM 'AM-TR												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,800.00	4,643.71	4,643.71	4,643.71	20.56	183.45	-177.53	-4.75	-53.74	923.66	728.62	195.04	4.736	
4,900.00	4,743.64	4,743.64	4,743.64	20.70	187.45	-177.54	-4.75	-53.74	927.26	727.91	199.35	4.651	
4,953.36	4,797.00	4,797.00	4,797.00	20.76	189.58	134.96	-4.75	-53.74	927.76	726.21	201.55	4.603	
5,000.00	4,843.64	4,843.64	4,843.64	20.80	191.45	134.96	-4.75	-53.74	927.76	724.26	203.49	4.559	
5,100.00	4,943.64	4,943.64	4,943.64	20.91	195.45	134.96	-4.75	-53.74	927.76	720.08	207.68	4.467	
5,200.00	5,043.64	5,043.64	5,043.64	21.03	199.45	134.96	-4.75	-53.74	927.76	715.90	211.86	4.379	
5,300.00	5,143.64	5,143.64	5,143.64	21.14	203.45	134.96	-4.75	-53.74	927.76	711.71	216.04	4.294	
5,400.00	5,243.64	5,243.64	5,243.64	21.25	207.45	134.96	-4.75	-53.74	927.76	707.53	220.23	4.213	
5,500.00	5,343.64	5,343.64	5,343.64	21.37	211.45	134.96	-4.75	-53.74	927.76	703.34	224.42	4.134	
5,600.00	5,443.64	5,443.64	5,443.64	21.49	215.45	134.96	-4.75	-53.74	927.76	699.15	228.60	4.058	
5,700.00	5,543.64	5,543.64	5,543.64	21.61	219.45	134.96	-4.75	-53.74	927.76	694.96	232.79	3.985	
5,800.00	5,643.64	5,643.64	5,643.64	21.73	223.45	134.96	-4.75	-53.74	927.76	690.77	236.98	3.915	
5,900.00	5,743.64	5,743.64	5,743.64	21.86	227.45	134.96	-4.75	-53.74	927.76	686.58	241.18	3.847	
6,000.00	5,843.64	5,843.64	5,843.64	21.98	231.45	134.96	-4.75	-53.74	927.76	682.39	245.37	3.781	
6,100.00	5,943.64	5,943.64	5,943.64	22.11	235.45	134.96	-4.75	-53.74	927.76	678.20	249.56	3.718	
6,200.00	6,043.64	6,043.64	6,043.64	22.24	239.45	134.96	-4.75	-53.74	927.76	674.00	253.76	3.656	
6,300.00	6,143.64	6,143.64	6,143.64	22.37	243.45	134.96	-4.75	-53.74	927.76	669.81	257.95	3.597	
6,400.00	6,243.64	6,243.64	6,243.64	22.50	247.45	134.96	-4.75	-53.74	927.76	665.61	262.15	3.539	
6,500.00	6,343.64	6,343.64	6,343.64	22.63	251.45	134.96	-4.75	-53.74	927.76	661.41	266.34	3.483	
6,600.00	6,443.64	6,443.64	6,443.64	22.76	255.45	134.96	-4.75	-53.74	927.76	657.22	270.54	3.429	
6,700.00	6,543.64	6,543.64	6,543.64	22.90	259.45	134.96	-4.75	-53.74	927.76	653.02	274.74	3.377	
6,800.00	6,643.64	6,643.64	6,643.64	23.04	263.45	134.96	-4.75	-53.74	927.76	648.82	278.94	3.326	
6,900.00	6,743.64	6,743.64	6,743.64	23.18	267.45	134.96	-4.75	-53.74	927.76	644.62	283.14	3.277	
7,000.00	6,843.64	6,843.64	6,843.64	23.32	271.45	134.96	-4.75	-53.74	927.76	640.42	287.34	3.229	
7,100.00	6,943.64	6,943.64	6,943.64	23.46	275.45	134.96	-4.75	-53.74	927.76	636.22	291.54	3.182	
7,200.00	7,043.64	7,043.64	7,043.64	23.60	279.45	134.96	-4.75	-53.74	927.76	632.02	295.74	3.137	
7,300.00	7,143.64	7,143.64	7,143.64	23.74	283.45	134.96	-4.75	-53.74	927.76	627.81	299.94	3.093	
7,400.00	7,243.64	7,243.64	7,243.64	23.89	287.45	134.96	-4.75	-53.74	927.76	623.61	304.15	3.050	
7,500.00	7,343.64	7,343.64	7,343.64	24.03	291.45	134.96	-4.75	-53.74	927.76	619.41	308.35	3.009	
7,600.00	7,443.64	7,443.64	7,443.64	24.18	295.45	134.96	-4.75	-53.74	927.76	615.20	312.55	2.968	
7,700.00	7,543.64	7,543.64	7,543.64	24.33	299.45	134.96	-4.75	-53.74	927.76	611.00	316.76	2.929	
7,800.00	7,643.64	7,643.64	7,643.64	24.48	303.45	134.96	-4.75	-53.74	927.76	606.79	320.96	2.891	
7,900.00	7,743.64	7,743.64	7,743.64	24.63	307.45	134.96	-4.75	-53.74	927.76	602.59	325.17	2.853	
8,000.00	7,843.64	7,843.64	7,843.64	24.78	311.45	134.96	-4.75	-53.74	927.76	598.38	329.37	2.817	
8,065.36	7,909.00	7,909.00	7,909.00	24.88	314.06	134.96	-4.75	-53.74	927.76	595.63	332.12	2.793	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
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Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5023.00ft (Original Well Elev) Coordinates are relative to: P_DRY CREEK 4-27
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.40°



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_DRY CREEK 4-27
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 5023.00ft (Original Well Elev)
Reference Site:	WELD_DRY CREEK PAD 7	MD Reference:	WELL @ 5023.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	Grid
Reference Well:	P_DRY CREEK 4-27	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_DRY CREEK 4-27	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 10-26-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5023.00ft (Original Well Elev) Coordinates are relative to: P_DRY CREEK 4-27
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Northern Zone
Central Meridian is 105° 30' 0.000 W ° Grid Convergence at Surface is: 0.40°

