



US ROCKIES REGION PLANNING

KERR MCGEE OIL & GAS ONSHORE LP

WELD_RASMUSSEN 9 PAD

P_RASMUSSEN 23-29

P_RASMUSSEN 23-29

Plan: PLAN #1 09-02-09 RHS

Standard Planning Report

02 September, 2009





P_RASMUSSEN 23-29
KERR MCGEE OIL & GAS ONSHORE LP
SECTION 29 T2N R68W
712 FSL 1962 FEL
LAT: 40° 6' 15.408 N
LONG: 105° 1' 28.992 W



Azimuths to True North
Magnetic North: 9.18°
Magnetic Field
Strength: 53153.0snT
Dip Angle: 66.84°
Date: 9/2/2009
Model: IGRF200510

WELL DETAILS: P_RASMUSSEN 23-29

+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	1281189.80	3132947.16	4934.00	40° 6' 15.408 N	105° 1' 28.992 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3856.00	4032.40	PARKMAN
4391.00	4570.56	SUSSEX TOP
4804.00	4983.56	SHANNON TOP
7222.00	7401.56	NIO A TOP
7517.00	7696.56	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	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	
1887.54	22.75	311.82	1887.89	148.63	-166.11	2.00	311.82	222.89	
3433.02	22.75	311.82	3283.11	547.16	-611.51	0.00	0.00	820.57	
4570.56	0.00	0.00	4391.00	695.79	-777.62	2.00	180.00	1043.46	
7856.56	0.00	0.00	7677.00	695.79	-777.62	0.00	0.00	1043.46	PBHL_RASMUSSEN 23-29(1400 FSL 2610 FWL)50' TGT RAD

CASING DETAILS

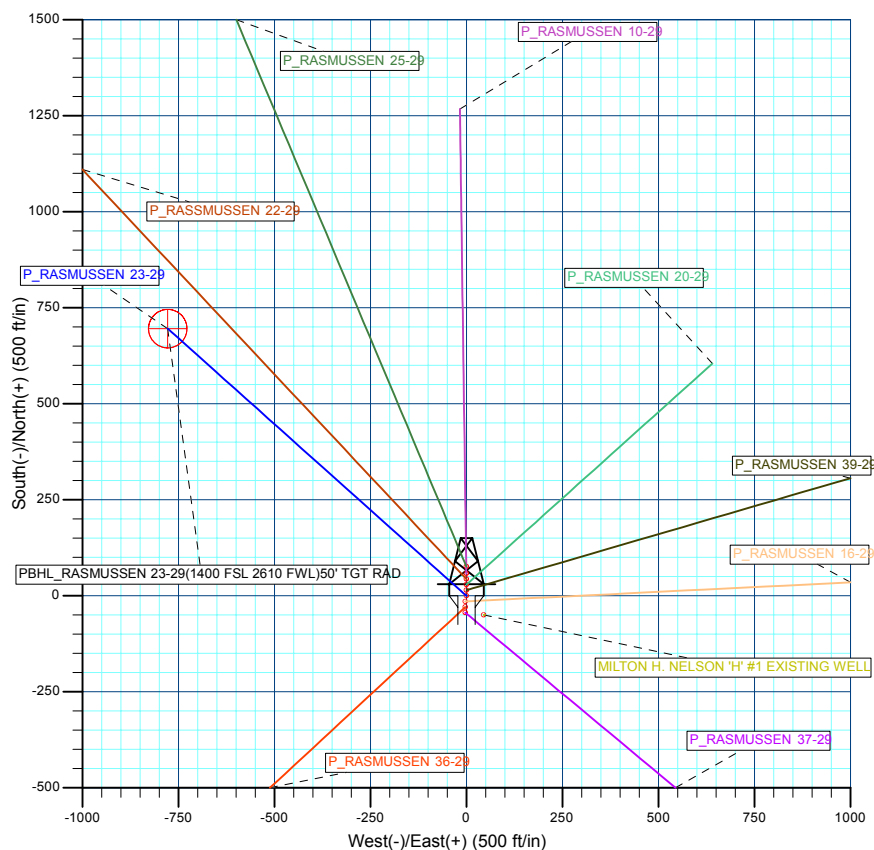
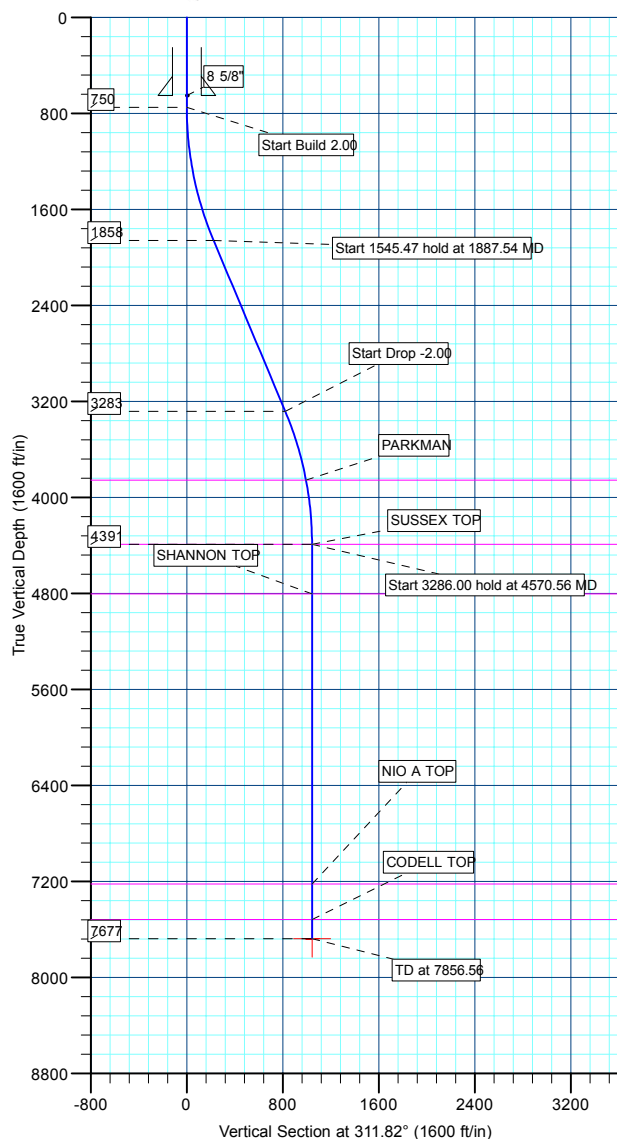
TVD	MD	Name	Size
650.00	650.00	8 5/8"	8.62

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7677.00	695.79	-777.62	1281881.42	3132165.83	40° 6' 22.284 N	105° 1' 39.000 W	Circle (Radius: 50.00)



KB ELEV: WELL @ 4949.00ft (Original Well Elev)
GRD ELEV: 4934.00



Plan: PLAN #1 09-02-09 RHS (P_RASMUSSEN 23-29/P_RASMUSSEN 23-29)

Created By: Robert H. Scott



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site:	WELD_RASMUSSEN 9 PAD	North Reference:	True
Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 23-29		
Design:	PLAN #1 09-02-09 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_RASMUSSEN 9 PAD, SECTION 29 T2N R68W											
Site Position:						Northing:			1,281,248.09 ft			Latitude:			40° 6' 15.984 N		
From:			Lat/Long			Easting:			3,132,946.85 ft			Longitude:			105° 1' 28.992 W		
Position Uncertainty:			0.00 ft			Slot Radius:			in			Grid Convergence:			0.31 °		

Well	P_RASMUSSEN 23-29					
Well Position	+N/-S	-58.29 ft	Northing:	1,281,189.80 ft	Latitude:	40° 6' 15.408 N
	+E/-W	0.00 ft	Easting:	3,132,947.16 ft	Longitude:	105° 1' 28.992 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,934.00 ft

Wellbore	P_RASMUSSEN 23-29				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/2/2009	9.18	66.84	53,153

Design	PLAN #1 09-02-09 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	311.82

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	
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,887.54	22.75	311.82	1,857.89	148.63	-166.11	2.00	2.00	0.00	311.82	
3,433.02	22.75	311.82	3,283.11	547.16	-611.51	0.00	0.00	0.00	0.00	
4,570.56	0.00	0.00	4,391.00	695.79	-777.62	2.00	-2.00	0.00	180.00	
7,856.56	0.00	0.00	7,677.00	695.79	-777.62	0.00	0.00	0.00	0.00	PBHL_RASMUSSE



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site:	WELD_RASMUSSEN 9 PAD	North Reference:	True
Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 23-29		
Design:	PLAN #1 09-02-09 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									
750.00	0.00	0.00	750.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	1.00	311.82	800.00	0.29	-0.33	0.44	2.00	2.00	0.00
900.00	3.00	311.82	899.93	2.62	-2.93	3.93	2.00	2.00	0.00
1,000.00	5.00	311.82	999.68	7.27	-8.12	10.90	2.00	2.00	0.00
1,100.00	7.00	311.82	1,099.13	14.24	-15.91	21.35	2.00	2.00	0.00
1,200.00	9.00	311.82	1,198.15	23.52	-26.28	35.27	2.00	2.00	0.00
1,300.00	11.00	311.82	1,296.63	35.10	-39.22	52.63	2.00	2.00	0.00
1,400.00	13.00	311.82	1,394.44	48.96	-54.72	73.42	2.00	2.00	0.00
1,500.00	15.00	311.82	1,491.46	65.09	-72.75	97.62	2.00	2.00	0.00
1,600.00	17.00	311.82	1,587.58	83.47	-93.29	125.18	2.00	2.00	0.00
1,700.00	19.00	311.82	1,682.68	104.07	-116.31	156.08	2.00	2.00	0.00
1,800.00	21.00	311.82	1,776.65	126.88	-141.80	190.28	2.00	2.00	0.00
Start 1545.47 hold at 1887.54 MD									
1,887.54	22.75	311.82	1,857.89	148.63	-166.11	222.89	2.00	2.00	0.00
1,900.00	22.75	311.82	1,869.37	151.84	-169.70	227.71	0.00	0.00	0.00
2,000.00	22.75	311.82	1,961.59	177.63	-198.52	266.38	0.00	0.00	0.00
2,100.00	22.75	311.82	2,053.81	203.42	-227.34	305.06	0.00	0.00	0.00
2,200.00	22.75	311.82	2,146.03	229.20	-256.16	343.73	0.00	0.00	0.00
2,300.00	22.75	311.82	2,238.25	254.99	-284.98	382.40	0.00	0.00	0.00
2,400.00	22.75	311.82	2,330.47	280.78	-313.80	421.07	0.00	0.00	0.00
2,500.00	22.75	311.82	2,422.69	306.56	-342.62	459.75	0.00	0.00	0.00
2,600.00	22.75	311.82	2,514.91	332.35	-371.44	498.42	0.00	0.00	0.00
2,700.00	22.75	311.82	2,607.13	358.14	-400.25	537.09	0.00	0.00	0.00
2,800.00	22.75	311.82	2,699.35	383.93	-429.07	575.76	0.00	0.00	0.00
2,900.00	22.75	311.82	2,791.57	409.71	-457.89	614.44	0.00	0.00	0.00
3,000.00	22.75	311.82	2,883.79	435.50	-486.71	653.11	0.00	0.00	0.00
3,100.00	22.75	311.82	2,976.01	461.29	-515.53	691.78	0.00	0.00	0.00
3,200.00	22.75	311.82	3,068.23	487.08	-544.35	730.45	0.00	0.00	0.00
3,300.00	22.75	311.82	3,160.45	512.86	-573.17	769.13	0.00	0.00	0.00
3,400.00	22.75	311.82	3,252.67	538.65	-601.99	807.80	0.00	0.00	0.00
Start Drop -2.00									
3,433.02	22.75	311.82	3,283.11	547.16	-611.51	820.57	0.00	0.00	0.00
3,500.00	21.41	311.82	3,345.18	563.95	-630.27	845.75	2.00	-2.00	0.00
3,600.00	19.41	311.82	3,438.90	587.21	-656.26	880.62	2.00	-2.00	0.00
3,700.00	17.41	311.82	3,533.78	608.27	-679.80	912.20	2.00	-2.00	0.00
3,800.00	15.41	311.82	3,629.70	627.11	-700.85	940.45	2.00	-2.00	0.00
3,900.00	13.41	311.82	3,726.54	643.70	-719.40	965.34	2.00	-2.00	0.00
4,000.00	11.41	311.82	3,824.20	658.03	-735.41	986.83	2.00	-2.00	0.00
PARKMAN									
4,032.40	10.76	311.82	3,856.00	662.19	-740.06	993.06	2.00	-2.00	0.00
4,100.00	9.41	311.82	3,922.55	670.08	-748.88	1,004.90	2.00	-2.00	0.00
4,200.00	7.41	311.82	4,021.47	679.83	-759.78	1,019.53	2.00	-2.00	0.00
4,300.00	5.41	311.82	4,120.84	687.28	-768.10	1,030.70	2.00	-2.00	0.00
4,400.00	3.41	311.82	4,220.54	692.41	-773.83	1,038.39	2.00	-2.00	0.00
4,500.00	1.41	311.82	4,320.45	695.21	-776.97	1,042.59	2.00	-2.00	0.00
Start 3286.00 hold at 4570.56 MD - SUSSEX TOP									
4,570.56	0.00	0.00	4,391.00	695.79	-777.62	1,043.46	2.00	-2.00	0.00
4,600.00	0.00	0.00	4,420.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
4,700.00	0.00	0.00	4,520.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
4,800.00	0.00	0.00	4,620.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
4,900.00	0.00	0.00	4,720.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
SHANNON TOP									



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site:	WELD_RASMUSSEN 9 PAD	North Reference:	True
Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 23-29		
Design:	PLAN #1 09-02-09 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)
4,983.56	0.00	0.00	4,804.00	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,000.00	0.00	0.00	4,820.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,100.00	0.00	0.00	4,920.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,200.00	0.00	0.00	5,020.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,300.00	0.00	0.00	5,120.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,400.00	0.00	0.00	5,220.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,500.00	0.00	0.00	5,320.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,600.00	0.00	0.00	5,420.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,700.00	0.00	0.00	5,520.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,800.00	0.00	0.00	5,620.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
5,900.00	0.00	0.00	5,720.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,000.00	0.00	0.00	5,820.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,100.00	0.00	0.00	5,920.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,200.00	0.00	0.00	6,020.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,300.00	0.00	0.00	6,120.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,400.00	0.00	0.00	6,220.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,500.00	0.00	0.00	6,320.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,600.00	0.00	0.00	6,420.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,700.00	0.00	0.00	6,520.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,800.00	0.00	0.00	6,620.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
6,900.00	0.00	0.00	6,720.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,000.00	0.00	0.00	6,820.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,100.00	0.00	0.00	6,920.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,200.00	0.00	0.00	7,020.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,300.00	0.00	0.00	7,120.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,400.00	0.00	0.00	7,220.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
NIO A TOP									
7,401.56	0.00	0.00	7,222.00	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,500.00	0.00	0.00	7,320.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,600.00	0.00	0.00	7,420.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
CODELL TOP									
7,696.56	0.00	0.00	7,517.00	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,700.00	0.00	0.00	7,520.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
7,800.00	0.00	0.00	7,620.44	695.79	-777.62	1,043.46	0.00	0.00	0.00
PBHL_RASMUSSEN 23-29(1400 FSL 2610 FWL)50' TGT RAD									
7,856.56	0.00	0.00	7,677.00	695.79	-777.62	1,043.46	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_RASMUSSEN	0.00	0.00	7,677.00	695.79	-777.62	1,281,881.42	3,132,165.83	40° 6' 22.284 N	105° 1' 39.000 W
- plan hits target center									
- Circle (radius 50.00)									



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site:	WELD_RASMUSSEN 9 PAD	North Reference:	True
Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 23-29		
Design:	PLAN #1 09-02-09 RHS		

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,032.40	3,856.00	PARKMAN				
4,570.56	4,391.00	SUSSEX TOP				
4,983.56	4,804.00	SHANNON TOP				
7,401.56	7,222.00	NIO A TOP				
7,696.56	7,517.00	CODELL TOP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
750.00	750.00	0.00	0.00	Start Build 2.00	
1,887.54	1,857.89	148.63	-166.11	Start 1545.47 hold at 1887.54 MD	
3,433.02	3,283.11	547.16	-611.51	Start Drop -2.00	
4,570.56	4,391.00	695.79	-777.62	Start 3286.00 hold at 4570.56 MD	
7,856.56	7,677.00	695.79	-777.62	TD at 7856.56	



US ROCKIES REGION PLANNING

**KERR MCGEE OIL & GAS ONSHORE LP
WELD_RASMUSSEN 9 PAD
P_RASMUSSEN 23-29**

**P_RASMUSSEN 23-29
PLAN #1 09-02-09 RHS**

Anticollision Report

02 September, 2009





Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 09-02-09 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 9/2/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	7,856.56	PLAN #1 09-02-09 RHS (P_RASMUSSEN 23-29)	MWD	MWD - Standard

Summary						
Site Name		Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design				Between Ellipses (ft)		
WELD_RASMUSSEN 9 PAD						
MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON		750.00	750.00	67.47	2.306	CC
MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON		900.00	899.93	71.38	2.009	ES
MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON		1,000.00	999.68	78.33	1.975	SF
P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN		750.00	750.00	58.29	18.726	CC
P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN		800.00	799.00	58.43	17.530	ES
P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN		1,200.00	1,189.36	73.86	14.274	SF
P_RASMUSSEN 16-29 - P_RASMUSSEN 16-29 - PLAN		750.00	750.00	14.84	4.766	CC, ES
P_RASMUSSEN 16-29 - P_RASMUSSEN 16-29 - PLAN		800.00	800.01	15.06	4.518	SF
P_RASMUSSEN 20-29 - P_RASMUSSEN 20-29 - PLAN		764.97	764.87	29.13	9.163	CC
P_RASMUSSEN 20-29 - P_RASMUSSEN 20-29 - PLAN		800.00	799.65	29.13	8.742	ES
P_RASMUSSEN 20-29 - P_RASMUSSEN 20-29 - PLAN		900.00	898.76	29.69	7.882	SF
P_RASMUSSEN 25-29 - P_RASMUSSEN 25-29 - PLAN		1,173.43	1,167.93	67.44	13.389	CC
P_RASMUSSEN 25-29 - P_RASMUSSEN 25-29 - PLAN		1,200.00	1,193.94	67.52	13.063	ES
P_RASMUSSEN 25-29 - P_RASMUSSEN 25-29 - PLAN		1,500.00	1,487.95	80.11	11.432	SF
P_RASMUSSEN 36-29 - P_RASMUSSEN 36-29 - PLAN		750.00	750.00	29.28	9.404	CC, ES
P_RASMUSSEN 36-29 - P_RASMUSSEN 36-29 - PLAN		800.00	799.85	29.59	8.885	SF
P_RASMUSSEN 37-29 - P_RASMUSSEN 37-29 - PLAN		750.00	750.00	43.80	14.070	CC, ES
P_RASMUSSEN 37-29 - P_RASMUSSEN 37-29 - PLAN		900.00	898.75	47.69	12.786	SF
P_RASMUSSEN 39-29 - P_RASMUSSEN 39-29 - PLAN		881.57	881.28	13.65	3.708	CC, ES
P_RASMUSSEN 39-29 - P_RASMUSSEN 39-29 - PLAN		900.00	899.60	13.73	3.652	SF
P_RASMUSSEN 22-29 - P_RASMUSSEN 22-29 - PLAN		1,222.15	1,219.75	34.11	6.432	CC, ES
P_RASMUSSEN 22-29 - P_RASMUSSEN 22-29 - PLAN		2,600.00	2,603.10	73.78	3.372	SF

Offset Design WELD_RASMUSSEN 9 PAD - MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON H. NELSON 'H'												
Survey Program: 0-UNKNOWN												
Reference		Offset		Semi Major Axis		Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
0.00	0.00	0.00	0.00	0.00	0.00	137.61	-49.84	45.49	67.47			
100.00	100.00	100.00	100.00	0.10	1.70	137.61	-49.84	45.49	67.47	65.68	1.80	37.579
200.00	200.00	200.00	200.00	0.32	5.70	137.61	-49.84	45.49	67.47	61.45	6.02	11.208
300.00	300.00	300.00	300.00	0.55	9.70	137.61	-49.84	45.49	67.47	57.23	10.25	6.586
400.00	400.00	400.00	400.00	0.77	13.70	137.61	-49.84	45.49	67.47	53.00	14.47	4.663
500.00	500.00	500.00	500.00	0.99	17.70	137.61	-49.84	45.49	67.47	48.78	18.69	3.609

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 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						
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
600.00	600.00	600.00	600.00	1.22	21.70	137.61	-49.84	45.49	67.47	44.55	22.92	2.944	
700.00	700.00	700.00	700.00	1.44	25.70	137.61	-49.84	45.49	67.47	40.33	27.14	2.486	
750.00	750.00	750.00	750.00	1.56	27.70	137.61	-49.84	45.49	67.47	38.22	29.26	2.306 CC	
800.00	800.00	800.00	800.00	1.67	29.70	-174.25	-49.84	45.49	67.91	36.54	31.36	2.165	
900.00	899.93	899.93	899.93	1.89	33.70	-174.52	-49.84	45.49	71.38	35.84	35.54	2.009 ES	
1,000.00	999.68	999.68	999.68	2.11	37.69	-174.99	-49.84	45.49	78.33	38.68	39.65	1.975 SF	
1,100.00	1,099.13	1,099.13	1,099.13	2.36	41.67	-175.57	-49.84	45.49	88.74	45.06	43.68	2.031	
1,200.00	1,198.15	1,198.15	1,198.15	2.63	45.63	-176.15	-49.84	45.49	102.63	55.01	47.62	2.155	
1,300.00	1,296.63	1,296.63	1,296.63	2.93	49.57	-176.69	-49.84	45.49	119.96	68.52	51.44	2.332	
1,400.00	1,394.44	1,394.44	1,394.44	3.28	53.48	-177.15	-49.84	45.49	140.72	85.59	55.12	2.553	
1,500.00	1,491.46	1,491.46	1,491.46	3.69	57.36	-177.55	-49.84	45.49	164.88	106.22	58.66	2.811	
1,600.00	1,587.58	1,587.58	1,587.58	4.15	61.20	-177.88	-49.84	45.49	192.43	130.39	62.04	3.102	
1,700.00	1,682.68	1,682.68	1,682.68	4.69	65.01	-178.15	-49.84	45.49	223.31	158.08	65.23	3.423	
1,800.00	1,776.65	1,776.65	1,776.65	5.29	68.77	-178.38	-49.84	45.49	257.50	189.27	68.23	3.774	
1,887.54	1,857.89	1,857.89	1,857.89	5.87	72.02	-178.54	-49.84	45.49	290.10	219.42	70.69	4.104	
1,900.00	1,869.37	1,869.37	1,869.37	5.96	72.47	-178.57	-49.84	45.49	294.92	223.77	71.15	4.145	
2,000.00	1,961.59	1,961.59	1,961.59	6.67	76.16	-178.73	-49.84	45.49	333.58	258.72	74.86	4.456	
2,100.00	2,053.81	2,053.81	2,053.81	7.40	79.85	-178.86	-49.84	45.49	372.25	293.67	78.57	4.738	
2,200.00	2,146.03	2,146.03	2,146.03	8.14	83.54	-178.97	-49.84	45.49	410.91	328.62	82.30	4.993	
2,300.00	2,238.25	2,238.25	2,238.25	8.89	87.23	-179.06	-49.84	45.49	449.58	363.56	86.02	5.226	
2,400.00	2,330.47	2,330.47	2,330.47	9.65	90.92	-179.13	-49.84	45.49	488.25	398.50	89.75	5.440	
2,500.00	2,422.69	2,422.69	2,422.69	10.42	94.61	-179.20	-49.84	45.49	526.92	433.44	93.48	5.637	
2,600.00	2,514.91	2,514.91	2,514.91	11.18	98.30	-179.25	-49.84	45.49	565.59	468.37	97.22	5.818	
2,700.00	2,607.13	2,607.13	2,607.13	11.96	101.99	-179.30	-49.84	45.49	604.26	503.31	100.95	5.986	
2,800.00	2,699.35	2,699.35	2,699.35	12.73	105.67	-179.34	-49.84	45.49	642.93	538.24	104.69	6.141	
2,900.00	2,791.57	2,791.57	2,791.57	13.51	109.36	-179.38	-49.84	45.49	681.60	573.17	108.43	6.286	
3,000.00	2,883.79	2,883.79	2,883.79	14.29	113.05	-179.41	-49.84	45.49	720.27	608.10	112.17	6.421	
3,100.00	2,976.01	2,976.01	2,976.01	15.07	116.74	-179.44	-49.84	45.49	758.94	643.02	115.92	6.547	
3,200.00	3,068.23	3,068.23	3,068.23	15.85	120.43	-179.47	-49.84	45.49	797.61	677.95	119.66	6.666	
3,300.00	3,160.45	3,160.45	3,160.45	16.64	124.12	-179.49	-49.84	45.49	836.28	712.88	123.41	6.777	
3,400.00	3,252.67	3,252.67	3,252.67	17.42	127.81	-179.52	-49.84	45.49	874.95	747.80	127.15	6.881	
3,433.02	3,283.11	3,283.11	3,283.11	17.68	129.02	-179.52	-49.84	45.49	887.72	759.33	128.39	6.914	
3,500.00	3,345.18	3,345.18	3,345.18	18.14	131.51	-179.54	-49.84	45.49	912.90	780.87	132.03	6.914	
3,600.00	3,438.90	3,438.90	3,438.90	18.71	135.26	-179.56	-49.84	45.49	947.77	810.35	137.42	6.897	
3,700.00	3,533.78	3,533.78	3,533.78	19.24	139.05	-179.58	-49.84	45.49	979.36	836.55	142.81	6.858	
3,800.00	3,629.70	3,629.70	3,629.70	19.72	142.89	-179.60	-49.84	45.49	1,007.61	859.47	148.14	6.802	
3,900.00	3,726.54	3,726.54	3,726.54	20.16	146.76	-179.61	-49.84	45.49	1,032.49	879.11	153.38	6.731	
4,000.00	3,824.20	3,824.20	3,824.20	20.54	150.67	-179.62	-49.84	45.49	1,053.98	895.46	158.52	6.649	
4,100.00	3,922.55	3,922.55	3,922.55	20.88	154.60	-179.63	-49.84	45.49	1,072.05	908.52	163.53	6.556	
4,200.00	4,021.47	4,021.47	4,021.47	21.16	158.56	-179.64	-49.84	45.49	1,086.68	918.28	168.40	6.453	
4,300.00	4,120.84	4,120.84	4,120.84	21.40	162.53	-179.64	-49.84	45.49	1,097.85	924.74	173.10	6.342	
4,400.00	4,220.54	4,220.54	4,220.54	21.58	166.52	-179.65	-49.84	45.49	1,105.54	927.92	177.62	6.224	
4,500.00	4,320.45	4,320.45	4,320.45	21.72	170.52	-179.65	-49.84	45.49	1,109.74	927.82	181.93	6.100	
4,570.56	4,391.00	4,391.00	4,391.00	21.79	173.34	132.17	-49.84	45.49	1,110.61	925.78	184.83	6.009	
4,600.00	4,420.44	4,420.44	4,420.44	21.82	174.52	132.17	-49.84	45.49	1,110.61	924.55	186.06	5.969	
4,700.00	4,520.44	4,520.44	4,520.44	21.91	178.52	132.17	-49.84	45.49	1,110.61	920.38	190.23	5.838	
4,800.00	4,620.44	4,620.44	4,620.44	22.01	182.52	132.17	-49.84	45.49	1,110.61	916.21	194.40	5.713	
4,900.00	4,720.44	4,720.44	4,720.44	22.11	186.52	132.17	-49.84	45.49	1,110.61	912.04	198.57	5.593	
5,000.00	4,820.44	4,820.44	4,820.44	22.21	190.52	132.17	-49.84	45.49	1,110.61	907.86	202.75	5.478	
5,100.00	4,920.44	4,920.44	4,920.44	22.31	194.52	132.17	-49.84	45.49	1,110.61	903.69	206.93	5.367	
5,200.00	5,020.44	5,020.44	5,020.44	22.41	198.52	132.17	-49.84	45.49	1,110.61	899.51	211.10	5.261	
5,300.00	5,120.44	5,120.44	5,120.44	22.52	202.52	132.17	-49.84	45.49	1,110.61	895.33	215.28	5.159	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_RASMUSSEN 9 PAD - MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON H. NELSON 'H'												Offset Well Error:	0.00 ft
Survey Program: 0-UNKNOWN													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,400.00	5,220.44	5,220.44	5,220.44	22.63	206.52	132.17	-49.84	45.49	1,110.61	891.15	219.46	5.061	
5,500.00	5,320.44	5,320.44	5,320.44	22.74	210.52	132.17	-49.84	45.49	1,110.61	886.97	223.65	4.966	
5,600.00	5,420.44	5,420.44	5,420.44	22.85	214.52	132.17	-49.84	45.49	1,110.61	882.78	227.83	4.875	
5,700.00	5,520.44	5,520.44	5,520.44	22.96	218.52	132.17	-49.84	45.49	1,110.61	878.60	232.01	4.787	
5,800.00	5,620.44	5,620.44	5,620.44	23.07	222.52	132.17	-49.84	45.49	1,110.61	874.41	236.20	4.702	
5,900.00	5,720.44	5,720.44	5,720.44	23.19	226.52	132.17	-49.84	45.49	1,110.61	870.22	240.39	4.620	
6,000.00	5,820.44	5,820.44	5,820.44	23.31	230.52	132.17	-49.84	45.49	1,110.61	866.04	244.58	4.541	
6,100.00	5,920.44	5,920.44	5,920.44	23.43	234.52	132.17	-49.84	45.49	1,110.61	861.85	248.77	4.464	
6,200.00	6,020.44	6,020.44	6,020.44	23.55	238.52	132.17	-49.84	45.49	1,110.61	857.66	252.96	4.391	
6,300.00	6,120.44	6,120.44	6,120.44	23.67	242.52	132.17	-49.84	45.49	1,110.61	853.47	257.15	4.319	
6,400.00	6,220.44	6,220.44	6,220.44	23.79	246.52	132.17	-49.84	45.49	1,110.61	849.27	261.34	4.250	
6,500.00	6,320.44	6,320.44	6,320.44	23.92	250.52	132.17	-49.84	45.49	1,110.61	845.08	265.53	4.183	
6,600.00	6,420.44	6,420.44	6,420.44	24.04	254.52	132.17	-49.84	45.49	1,110.61	840.89	269.73	4.118	
6,700.00	6,520.44	6,520.44	6,520.44	24.17	258.52	132.17	-49.84	45.49	1,110.61	836.69	273.92	4.054	
6,800.00	6,620.44	6,620.44	6,620.44	24.30	262.52	132.17	-49.84	45.49	1,110.61	832.50	278.12	3.993	
6,900.00	6,720.44	6,720.44	6,720.44	24.43	266.52	132.17	-49.84	45.49	1,110.61	828.30	282.31	3.934	
7,000.00	6,820.44	6,820.44	6,820.44	24.56	270.52	132.17	-49.84	45.49	1,110.61	824.10	286.51	3.876	
7,100.00	6,920.44	6,920.44	6,920.44	24.70	274.52	132.17	-49.84	45.49	1,110.61	819.90	290.71	3.820	
7,200.00	7,020.44	7,020.44	7,020.44	24.83	278.52	132.17	-49.84	45.49	1,110.61	815.71	294.91	3.766	
7,300.00	7,120.44	7,120.44	7,120.44	24.97	282.52	132.17	-49.84	45.49	1,110.61	811.51	299.11	3.713	
7,400.00	7,220.44	7,220.44	7,220.44	25.11	286.52	132.17	-49.84	45.49	1,110.61	807.31	303.31	3.662	
7,500.00	7,320.44	7,320.44	7,320.44	25.24	290.52	132.17	-49.84	45.49	1,110.61	803.11	307.51	3.612	
7,600.00	7,420.44	7,420.44	7,420.44	25.38	294.52	132.17	-49.84	45.49	1,110.61	798.90	311.71	3.563	
7,700.00	7,520.44	7,520.44	7,520.44	25.53	298.52	132.17	-49.84	45.49	1,110.61	794.70	315.91	3.516	
7,800.00	7,620.44	7,620.44	7,620.44	25.67	302.52	132.17	-49.84	45.49	1,110.61	790.50	320.11	3.469	
7,856.56	7,677.00	7,677.00	7,677.00	25.75	304.78	132.17	-49.84	45.49	1,110.61	788.12	322.49	3.444	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN #1 09-02-09 R													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	0.00	58.29	0.00	58.29					
100.00	100.00	100.00	100.00	0.10	0.10	0.00	58.29	0.00	58.29	58.10	0.19	305.117		
200.00	200.00	200.00	200.00	0.32	0.32	0.00	58.29	0.00	58.29	57.65	0.64	91.000		
300.00	300.00	300.00	300.00	0.55	0.55	0.00	58.29	0.00	58.29	57.20	1.09	53.474		
400.00	400.00	400.00	400.00	0.77	0.77	0.00	58.29	0.00	58.29	56.75	1.54	37.861		
500.00	500.00	500.00	500.00	0.99	0.99	0.00	58.29	0.00	58.29	56.30	1.99	29.305		
600.00	600.00	600.00	600.00	1.22	1.22	0.00	58.29	0.00	58.29	55.85	2.44	23.903		
700.00	700.00	700.00	700.00	1.44	1.44	0.00	58.29	0.00	58.29	55.40	2.89	20.183		
750.00	750.00	750.00	750.00	1.56	1.56	0.00	58.29	0.00	58.29	55.18	3.11	18.726 CC		
800.00	800.00	799.00	799.00	1.67	1.67	48.48	58.71	-0.01	58.43	55.10	3.33	17.530 ES		
900.00	899.93	896.95	896.88	1.89	1.89	50.87	62.06	-0.05	59.59	55.82	3.77	15.804		
1,000.00	999.68	994.73	994.43	2.11	2.11	55.33	68.74	-0.14	62.21	57.99	4.22	14.758		
1,100.00	1,099.13	1,092.23	1,091.42	2.36	2.34	61.27	78.71	-0.28	66.78	62.11	4.68	14.277		
1,200.00	1,198.15	1,189.36	1,187.64	2.63	2.60	67.90	91.91	-0.47	73.86	68.68	5.17	14.274 SF		
1,300.00	1,296.63	1,286.00	1,282.87	2.93	2.88	74.44	108.28	-0.69	83.85	78.12	5.72	14.646		
1,400.00	1,394.44	1,382.06	1,376.94	3.28	3.20	80.35	127.73	-0.96	96.95	90.61	6.35	15.273		
1,500.00	1,491.46	1,477.44	1,469.65	3.69	3.57	85.38	150.15	-1.27	113.22	106.16	7.06	16.041		
1,600.00	1,587.58	1,572.06	1,560.83	4.15	3.98	89.50	175.42	-1.63	132.56	124.70	7.86	16.856		
1,700.00	1,682.68	1,665.84	1,650.32	4.69	4.44	92.80	203.43	-2.01	154.86	146.09	8.77	17.654		
1,800.00	1,776.65	1,758.71	1,737.99	5.29	4.95	95.42	234.03	-2.44	179.99	170.21	9.78	18.396		
1,887.54	1,857.89	1,839.20	1,813.15	5.87	5.43	97.25	262.85	-2.84	204.22	193.46	10.76	18.987		
1,900.00	1,869.37	1,850.59	1,823.72	5.96	5.51	97.54	267.10	-2.90	207.82	196.92	10.90	19.064		
2,000.00	1,961.59	1,941.67	1,907.60	6.67	6.11	99.26	302.57	-3.39	237.91	225.81	12.10	19.665		
2,100.00	2,053.81	2,034.96	1,992.59	7.40	6.77	100.19	341.05	-3.92	269.45	256.09	13.36	20.172		
2,200.00	2,146.03	2,129.75	2,078.85	8.14	7.47	100.91	380.31	-4.47	301.15	286.49	14.66	20.545		
2,300.00	2,238.25	2,224.53	2,165.12	8.89	8.18	101.50	419.57	-5.01	332.89	316.91	15.98	20.831		
2,400.00	2,330.47	2,319.31	2,251.38	9.65	8.89	101.98	458.83	-5.56	364.65	347.33	17.32	21.054		
2,500.00	2,422.69	2,414.09	2,337.65	10.42	9.62	102.38	498.09	-6.10	396.43	377.75	18.67	21.230		
2,600.00	2,514.91	2,508.87	2,423.92	11.18	10.35	102.73	537.35	-6.65	428.22	408.19	20.04	21.373		
2,700.00	2,607.13	2,603.65	2,510.18	11.96	11.08	103.03	576.61	-7.19	460.03	438.62	21.41	21.488		
2,800.00	2,699.35	2,698.44	2,596.45	12.73	11.82	103.28	615.87	-7.74	491.84	469.06	22.79	21.584		
2,900.00	2,791.57	2,793.22	2,682.72	13.51	12.56	103.51	655.13	-8.28	523.67	499.50	24.17	21.664		
3,000.00	2,883.79	2,888.00	2,768.98	14.29	13.30	103.71	694.39	-8.83	555.50	529.94	25.56	21.731		
3,100.00	2,976.01	2,982.78	2,855.25	15.07	14.04	103.89	733.65	-9.37	587.34	560.38	26.96	21.789		
3,200.00	3,068.23	3,077.56	2,941.52	15.85	14.79	104.05	772.91	-9.92	619.18	590.82	28.35	21.838		
3,300.00	3,160.45	3,172.34	3,027.78	16.64	15.54	104.20	812.17	-10.46	651.02	621.27	29.75	21.880		
3,400.00	3,252.67	3,267.13	3,114.05	17.42	16.29	104.33	851.43	-11.01	682.87	651.71	31.16	21.917		
3,433.02	3,283.11	3,298.42	3,142.53	17.68	16.54	104.37	864.40	-11.19	693.39	661.77	31.62	21.928		
3,500.00	3,345.18	3,361.97	3,200.38	18.14	17.04	104.82	890.72	-11.55	714.54	682.00	32.54	21.958		
3,600.00	3,438.90	3,457.05	3,286.91	18.71	17.79	105.24	930.10	-12.10	745.40	711.60	33.80	22.052		
3,700.00	3,533.78	3,552.26	3,373.57	19.24	18.55	105.39	969.54	-12.65	775.42	740.40	35.02	22.144		
3,800.00	3,629.70	3,647.49	3,460.24	19.72	19.30	105.32	1,008.99	-13.19	804.63	768.45	36.18	22.241		
3,900.00	3,726.54	3,758.96	3,562.52	20.16	20.01	104.99	1,053.29	-13.81	832.18	794.94	37.24	22.346		
4,000.00	3,824.20	3,872.91	3,668.77	20.54	20.65	104.65	1,094.43	-14.38	857.03	818.84	38.19	22.443		
4,100.00	3,922.55	3,988.68	3,778.31	20.88	21.25	104.29	1,131.87	-14.90	879.08	840.04	39.05	22.513		
4,200.00	4,021.47	4,106.15	3,890.92	21.16	21.80	103.89	1,165.31	-15.36	898.27	858.46	39.81	22.563		
4,300.00	4,120.84	4,225.18	4,006.31	21.40	22.30	103.47	1,194.45	-15.77	914.52	874.05	40.47	22.597		
4,400.00	4,220.54	4,345.60	4,124.18	21.58	22.74	103.01	1,219.03	-16.11	927.78	886.75	41.03	22.615		
4,500.00	4,320.45	4,467.22	4,244.17	21.72	23.11	102.51	1,238.81	-16.38	937.98	896.51	41.47	22.618		
4,570.56	4,391.00	4,553.65	4,329.91	21.79	23.34	53.95	1,249.76	-16.53	943.32	901.61	41.71	22.614		
4,600.00	4,420.44	4,589.85	4,365.91	21.82	23.42	53.76	1,253.58	-16.59	945.13	903.33	41.80	22.611		
4,700.00	4,520.44	4,713.45	4,489.12	21.91	23.66	53.29	1,263.18	-16.72	949.67	907.60	42.07	22.575		

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN #1 09-02-09 R												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	
4,800.00	4,620.44	4,837.65	4,613.24	22.01	23.82	53.08	1,267.46	-16.78	951.70	909.39	42.30	22.496	
4,900.00	4,720.44	4,944.85	4,720.44	22.11	23.92	53.07	1,267.70	-16.78	951.81	909.30	42.51	22.389	
5,000.00	4,820.44	5,044.85	4,820.44	22.21	24.01	53.07	1,267.70	-16.78	951.81	909.10	42.71	22.283	
5,100.00	4,920.44	5,144.85	4,920.44	22.31	24.10	53.07	1,267.70	-16.78	951.81	908.89	42.92	22.175	
5,200.00	5,020.44	5,244.85	5,020.44	22.41	24.19	53.07	1,267.70	-16.78	951.81	908.68	43.13	22.067	
5,300.00	5,120.44	5,344.85	5,120.44	22.52	24.28	53.07	1,267.70	-16.78	951.81	908.46	43.35	21.958	
5,400.00	5,220.44	5,444.85	5,220.44	22.63	24.38	53.07	1,267.70	-16.78	951.81	908.25	43.56	21.848	
5,500.00	5,320.44	5,544.85	5,320.44	22.74	24.47	53.07	1,267.70	-16.78	951.81	908.02	43.79	21.738	
5,600.00	5,420.44	5,644.85	5,420.44	22.85	24.57	53.07	1,267.70	-16.78	951.81	907.80	44.01	21.626	
5,700.00	5,520.44	5,744.85	5,520.44	22.96	24.67	53.07	1,267.70	-16.78	951.81	907.57	44.24	21.515	
5,800.00	5,620.44	5,844.85	5,620.44	23.07	24.78	53.07	1,267.70	-16.78	951.81	907.34	44.47	21.403	
5,900.00	5,720.44	5,944.85	5,720.44	23.19	24.88	53.07	1,267.70	-16.78	951.81	907.10	44.71	21.290	
6,000.00	5,820.44	6,044.85	5,820.44	23.31	24.98	53.07	1,267.70	-16.78	951.81	906.87	44.95	21.177	
6,100.00	5,920.44	6,144.85	5,920.44	23.43	25.09	53.07	1,267.70	-16.78	951.81	906.62	45.19	21.064	
6,200.00	6,020.44	6,244.85	6,020.44	23.55	25.20	53.07	1,267.70	-16.78	951.81	906.38	45.43	20.951	
6,300.00	6,120.44	6,344.85	6,120.44	23.67	25.31	53.07	1,267.70	-16.78	951.81	906.13	45.68	20.837	
6,400.00	6,220.44	6,444.85	6,220.44	23.79	25.42	53.07	1,267.70	-16.78	951.81	905.88	45.93	20.723	
6,500.00	6,320.44	6,544.85	6,320.44	23.92	25.53	53.07	1,267.70	-16.78	951.81	905.63	46.18	20.609	
6,600.00	6,420.44	6,644.85	6,420.44	24.04	25.65	53.07	1,267.70	-16.78	951.81	905.37	46.44	20.495	
6,700.00	6,520.44	6,744.85	6,520.44	24.17	25.76	53.07	1,267.70	-16.78	951.81	905.11	46.70	20.381	
6,800.00	6,620.44	6,844.85	6,620.44	24.30	25.88	53.07	1,267.70	-16.78	951.81	904.85	46.96	20.267	
6,900.00	6,720.44	6,944.85	6,720.44	24.43	26.00	53.07	1,267.70	-16.78	951.81	904.58	47.23	20.153	
7,000.00	6,820.44	7,044.85	6,820.44	24.56	26.12	53.07	1,267.70	-16.78	951.81	904.31	47.50	20.039	
7,100.00	6,920.44	7,144.85	6,920.44	24.70	26.24	53.07	1,267.70	-16.78	951.81	904.04	47.77	19.926	
7,200.00	7,020.44	7,244.85	7,020.44	24.83	26.36	53.07	1,267.70	-16.78	951.81	903.77	48.04	19.812	
7,300.00	7,120.44	7,344.85	7,120.44	24.97	26.49	53.07	1,267.70	-16.78	951.81	903.49	48.32	19.699	
7,400.00	7,220.44	7,444.85	7,220.44	25.11	26.61	53.07	1,267.70	-16.78	951.81	903.21	48.60	19.586	
7,500.00	7,320.44	7,544.85	7,320.44	25.24	26.74	53.07	1,267.70	-16.78	951.81	902.93	48.88	19.473	
7,600.00	7,420.44	7,644.85	7,420.44	25.38	26.87	53.07	1,267.70	-16.78	951.81	902.65	49.16	19.361	
7,700.00	7,520.44	7,744.85	7,520.44	25.53	27.00	53.07	1,267.70	-16.78	951.81	902.36	49.45	19.248	
7,800.00	7,620.44	7,844.85	7,620.44	25.67	27.13	53.07	1,267.70	-16.78	951.81	902.07	49.74	19.137	
7,856.56	7,677.00	7,901.41	7,677.00	25.75	27.20	53.07	1,267.70	-16.78	951.81	901.91	49.90	19.074	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-169.13	-14.57	-2.80	14.84				
100.00	100.00	100.00	100.00	0.10	0.10	-169.13	-14.57	-2.80	14.84	14.65	0.19	77.661	
200.00	200.00	200.00	200.00	0.32	0.32	-169.13	-14.57	-2.80	14.84	14.20	0.64	23.162	
300.00	300.00	300.00	300.00	0.55	0.55	-169.13	-14.57	-2.80	14.84	13.75	1.09	13.611	
400.00	400.00	400.00	400.00	0.77	0.77	-169.13	-14.57	-2.80	14.84	13.30	1.54	9.637	
500.00	500.00	500.00	500.00	0.99	0.99	-169.13	-14.57	-2.80	14.84	12.85	1.99	7.459	
600.00	600.00	600.00	600.00	1.22	1.22	-169.13	-14.57	-2.80	14.84	12.40	2.44	6.084	
700.00	700.00	700.00	700.00	1.44	1.44	-169.13	-14.57	-2.80	14.84	11.95	2.89	5.137	
750.00	750.00	750.00	750.00	1.56	1.56	-169.13	-14.57	-2.80	14.84	11.72	3.11	4.766 CC, ES	
800.00	800.00	800.01	800.01	1.67	1.67	-122.44	-14.57	-2.78	15.06	11.73	3.33	4.518 SF	
900.00	899.93	899.91	899.88	1.89	1.87	-139.23	-14.47	-0.69	17.23	13.48	3.75	4.593	
1,000.00	999.68	999.00	998.82	2.11	2.08	-162.79	-14.19	4.81	25.08	20.91	4.17	6.016	
1,100.00	1,099.13	1,096.70	1,096.11	2.36	2.30	-178.29	-13.76	13.58	40.78	36.20	4.58	8.904	
1,200.00	1,198.15	1,192.43	1,191.11	2.63	2.54	173.36	-13.18	25.39	63.77	58.77	4.99	12.774	
1,300.00	1,296.63	1,285.69	1,283.22	2.93	2.81	168.66	-12.46	39.93	93.31	87.90	5.41	17.261	
1,400.00	1,394.44	1,376.02	1,371.94	3.28	3.10	165.77	-11.62	56.86	128.94	123.12	5.82	22.140	
1,500.00	1,491.46	1,463.02	1,456.85	3.69	3.42	163.82	-10.68	75.80	170.31	164.06	6.25	27.264	
1,600.00	1,587.58	1,546.38	1,537.62	4.15	3.77	162.41	-9.67	96.35	217.10	210.43	6.68	32.520	
1,700.00	1,682.68	1,625.84	1,614.03	4.69	4.14	161.31	-8.59	118.13	269.01	261.90	7.11	37.824	
1,800.00	1,776.65	1,700.00	1,684.77	5.29	4.52	160.39	-7.49	140.35	325.74	318.18	7.55	43.128	
1,887.54	1,857.89	1,763.74	1,745.10	5.87	4.89	159.67	-6.48	160.90	379.10	371.14	7.96	47.651	
1,900.00	1,869.37	1,772.38	1,753.24	5.96	4.94	159.64	-6.33	163.79	386.94	378.91	8.02	48.227	
2,000.00	1,961.59	1,840.42	1,817.04	6.67	5.37	159.37	-5.17	187.40	450.82	442.25	8.58	52.573	
2,100.00	2,053.81	1,900.00	1,872.43	7.40	5.76	159.10	-4.08	209.31	516.35	507.23	9.12	56.617	
2,200.00	2,146.03	1,969.33	1,936.31	8.14	6.26	158.76	-2.75	236.25	583.31	573.59	9.71	60.044	
2,300.00	2,238.25	2,035.22	1,996.44	8.89	6.76	158.42	-1.42	263.14	651.65	641.34	10.31	63.195	
2,400.00	2,330.47	2,107.91	2,062.67	9.65	7.33	158.10	0.06	293.05	720.27	709.32	10.94	65.826	
2,500.00	2,422.69	2,180.61	2,128.91	10.42	7.91	157.83	1.54	322.97	788.89	777.31	11.58	68.112	
2,600.00	2,514.91	2,253.30	2,195.15	11.18	8.50	157.61	3.02	352.88	857.52	845.29	12.23	70.116	
2,700.00	2,607.13	2,325.99	2,261.38	11.96	9.09	157.42	4.50	382.79	926.16	913.27	12.88	71.885	
2,800.00	2,699.35	2,398.69	2,327.62	12.73	9.69	157.26	5.98	412.71	994.80	981.26	13.54	73.454	
2,900.00	2,791.57	2,471.38	2,393.86	13.51	10.29	157.12	7.45	442.62	1,063.45	1,049.24	14.21	74.847	
3,000.00	2,883.79	2,544.07	2,460.09	14.29	10.90	156.99	8.93	472.54	1,132.09	1,117.22	14.88	76.096	
3,100.00	2,976.01	2,616.77	2,526.33	15.07	11.50	156.88	10.41	502.45	1,200.75	1,185.20	15.55	77.221	
3,200.00	3,068.23	2,689.46	2,592.57	15.85	12.11	156.78	11.89	532.36	1,269.40	1,253.17	16.23	78.236	
3,300.00	3,160.45	2,762.16	2,658.81	16.64	12.73	156.69	13.37	562.28	1,338.05	1,321.15	16.90	79.155	
3,400.00	3,252.67	2,834.85	2,725.04	17.42	13.34	156.61	14.85	592.19	1,406.71	1,389.12	17.59	79.993	
3,433.02	3,283.11	2,858.85	2,746.91	17.68	13.55	156.59	15.34	602.07	1,429.38	1,411.57	17.81	80.254	
3,500.00	3,345.18	2,908.03	2,791.72	18.14	13.96	157.01	16.34	622.31	1,474.84	1,456.49	18.35	80.368	
3,600.00	3,438.90	2,983.20	2,860.21	18.71	14.60	157.54	17.87	653.24	1,540.72	1,521.59	19.13	80.545	
3,700.00	3,533.78	3,060.39	2,930.55	19.24	15.26	157.97	19.44	685.00	1,604.15	1,584.25	19.90	80.617	
3,800.00	3,629.70	3,139.51	3,002.64	19.72	15.93	158.30	21.05	717.56	1,665.05	1,644.40	20.66	80.611	
3,900.00	3,726.54	3,220.46	3,076.41	20.16	16.62	158.56	22.70	750.88	1,723.38	1,701.98	21.40	80.547	
4,000.00	3,824.20	3,303.15	3,151.75	20.54	17.33	158.74	24.38	784.90	1,779.06	1,756.95	22.12	80.441	
4,100.00	3,922.55	3,387.46	3,228.57	20.88	18.05	158.85	26.10	819.60	1,832.06	1,809.25	22.81	80.307	
4,200.00	4,021.47	3,473.31	3,306.80	21.16	18.79	158.91	27.84	854.93	1,882.32	1,858.84	23.48	80.156	
4,300.00	4,120.84	3,560.58	3,386.31	21.40	19.54	158.92	29.62	890.84	1,929.80	1,905.68	24.12	79.997	
4,400.00	4,220.54	3,649.17	3,467.04	21.58	20.30	158.87	31.42	927.29	1,974.46	1,949.73	24.73	79.837	
4,500.00	4,320.45	3,738.97	3,548.86	21.72	21.07	158.78	33.25	964.25	2,016.28	1,990.97	25.30	79.681	
4,570.56	4,391.00	3,803.00	3,607.20	21.79	21.62	110.50	34.55	990.60	2,044.05	2,018.37	25.69	79.577	
4,600.00	4,420.44	3,856.29	3,655.87	21.82	22.03	110.25	35.62	1,012.27	2,055.26	2,029.32	25.94	79.224	
4,700.00	4,520.44	4,143.79	3,924.76	21.91	23.79	109.11	40.63	1,113.57	2,088.21	2,061.14	27.07	77.130	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 16-29 - P_RASMUSSEN 16-29 - PLAN #1 09-02-09 RI												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	
4,800.00	4,620.44	4,451.01	4,221.76	22.01	25.15	108.30	44.48	1,191.48	2,111.99	2,083.91	28.07	75.231	
4,900.00	4,720.44	4,772.38	4,539.49	22.11	26.05	107.84	46.81	1,238.52	2,125.73	2,096.82	28.90	73.545	
5,000.00	4,820.44	5,053.69	4,820.44	22.21	26.42	107.73	47.40	1,250.37	2,129.12	2,099.64	29.48	72.221	
5,100.00	4,920.44	5,153.69	4,920.44	22.31	26.51	107.73	47.40	1,250.37	2,129.12	2,099.35	29.77	71.528	
5,200.00	5,020.44	5,253.69	5,020.44	22.41	26.59	107.73	47.40	1,250.37	2,129.12	2,099.06	30.06	70.835	
5,300.00	5,120.44	5,353.69	5,120.44	22.52	26.68	107.73	47.40	1,250.37	2,129.12	2,098.77	30.35	70.147	
5,400.00	5,220.44	5,453.69	5,220.44	22.63	26.77	107.73	47.40	1,250.37	2,129.12	2,098.47	30.65	69.463	
5,500.00	5,320.44	5,553.69	5,320.44	22.74	26.86	107.73	47.40	1,250.37	2,129.12	2,098.17	30.95	68.784	
5,600.00	5,420.44	5,653.69	5,420.44	22.85	26.96	107.73	47.40	1,250.37	2,129.12	2,097.86	31.26	68.111	
5,700.00	5,520.44	5,753.69	5,520.44	22.96	27.05	107.73	47.40	1,250.37	2,129.12	2,097.55	31.57	67.444	
5,800.00	5,620.44	5,853.69	5,620.44	23.07	27.15	107.73	47.40	1,250.37	2,129.12	2,097.24	31.88	66.782	
5,900.00	5,720.44	5,953.69	5,720.44	23.19	27.25	107.73	47.40	1,250.37	2,129.12	2,096.92	32.20	66.127	
6,000.00	5,820.44	6,053.69	5,820.44	23.31	27.35	107.73	47.40	1,250.37	2,129.12	2,096.60	32.52	65.478	
6,100.00	5,920.44	6,153.69	5,920.44	23.43	27.45	107.73	47.40	1,250.37	2,129.12	2,096.28	32.84	64.836	
6,200.00	6,020.44	6,253.69	6,020.44	23.55	27.55	107.73	47.40	1,250.37	2,129.12	2,095.96	33.16	64.200	
6,300.00	6,120.44	6,353.69	6,120.44	23.67	27.66	107.73	47.40	1,250.37	2,129.12	2,095.63	33.49	63.572	
6,400.00	6,220.44	6,453.69	6,220.44	23.79	27.76	107.73	47.40	1,250.37	2,129.12	2,095.30	33.82	62.950	
6,500.00	6,320.44	6,553.69	6,320.44	23.92	27.87	107.73	47.40	1,250.37	2,129.12	2,094.96	34.16	62.335	
6,600.00	6,420.44	6,653.69	6,420.44	24.04	27.98	107.73	47.40	1,250.37	2,129.12	2,094.63	34.49	61.728	
6,700.00	6,520.44	6,753.69	6,520.44	24.17	28.09	107.73	47.40	1,250.37	2,129.12	2,094.29	34.83	61.128	
6,800.00	6,620.44	6,853.69	6,620.44	24.30	28.20	107.73	47.40	1,250.37	2,129.12	2,093.95	35.17	60.535	
6,900.00	6,720.44	6,953.69	6,720.44	24.43	28.31	107.73	47.40	1,250.37	2,129.12	2,093.61	35.52	59.950	
7,000.00	6,820.44	7,053.69	6,820.44	24.56	28.43	107.73	47.40	1,250.37	2,129.12	2,093.26	35.86	59.372	
7,100.00	6,920.44	7,153.69	6,920.44	24.70	28.54	107.73	47.40	1,250.37	2,129.12	2,092.91	36.21	58.801	
7,200.00	7,020.44	7,253.69	7,020.44	24.83	28.66	107.73	47.40	1,250.37	2,129.12	2,092.56	36.56	58.237	
7,300.00	7,120.44	7,353.69	7,120.44	24.97	28.78	107.73	47.40	1,250.37	2,129.12	2,092.21	36.91	57.681	
7,400.00	7,220.44	7,453.69	7,220.44	25.11	28.89	107.73	47.40	1,250.37	2,129.12	2,091.85	37.27	57.132	
7,500.00	7,320.44	7,553.69	7,320.44	25.24	29.02	107.73	47.40	1,250.37	2,129.12	2,091.50	37.62	56.591	
7,600.00	7,420.44	7,653.69	7,420.44	25.38	29.14	107.73	47.40	1,250.37	2,129.12	2,091.14	37.98	56.057	
7,700.00	7,520.44	7,753.69	7,520.44	25.53	29.26	107.73	47.40	1,250.37	2,129.12	2,090.78	38.34	55.530	
7,800.00	7,620.44	7,853.69	7,620.44	25.67	29.38	107.73	47.40	1,250.37	2,129.12	2,090.42	38.70	55.010	
7,856.56	7,677.00	7,910.25	7,677.00	25.75	29.45	107.73	47.40	1,250.37	2,129.12	2,090.21	38.91	54.719	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 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						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	0.00	29.13	0.00	29.13				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	29.13	0.00	29.13	28.93	0.19	152.449	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	29.13	0.00	29.13	28.48	0.64	45.467	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	29.13	0.00	29.13	28.04	1.09	26.718	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	29.13	0.00	29.13	27.59	1.54	18.917	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	29.13	0.00	29.13	27.14	1.99	14.642	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	29.13	0.00	29.13	26.69	2.44	11.943	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	29.13	0.00	29.13	26.24	2.89	10.084	
750.00	750.00	750.00	750.00	1.56	1.56	0.00	29.13	0.00	29.13	26.01	3.11	9.356	
764.97	764.97	764.87	764.87	1.59	1.59	48.29	29.15	0.03	29.13	25.95	3.18	9.163 CC	
800.00	800.00	799.65	799.65	1.67	1.67	49.44	29.41	0.32	29.13	25.80	3.33	8.742 ES	
900.00	899.93	898.76	898.70	1.89	1.88	59.38	31.71	2.87	29.69	25.92	3.77	7.882 SF	
1,000.00	999.68	997.28	996.97	2.11	2.10	76.81	36.25	7.93	33.25	29.04	4.21	7.895	
1,100.00	1,099.13	1,094.82	1,093.99	2.36	2.34	94.76	42.98	15.42	42.83	38.16	4.66	9.182	
1,200.00	1,198.15	1,191.02	1,189.28	2.63	2.59	107.91	51.77	25.20	59.39	54.26	5.13	11.582	
1,300.00	1,296.63	1,285.54	1,282.42	2.93	2.88	116.28	62.48	37.12	82.35	76.73	5.61	14.671	
1,400.00	1,394.44	1,378.06	1,373.04	3.28	3.19	121.50	74.96	51.00	110.95	104.82	6.13	18.101	
1,500.00	1,491.46	1,468.32	1,460.81	3.69	3.54	124.81	89.00	66.63	144.70	138.01	6.69	21.643	
1,600.00	1,587.58	1,556.06	1,545.47	4.15	3.93	126.94	104.42	83.79	183.22	175.93	7.29	25.147	
1,700.00	1,682.68	1,643.39	1,629.06	4.69	4.35	128.41	121.32	102.59	226.04	218.10	7.94	28.481	
1,800.00	1,776.65	1,732.11	1,713.85	5.29	4.80	129.75	138.75	122.00	271.43	262.79	8.64	31.418	
1,887.54	1,857.89	1,808.71	1,787.07	5.87	5.20	130.82	153.80	138.75	313.01	303.73	9.29	33.708	
1,900.00	1,869.37	1,819.54	1,797.42	5.96	5.26	131.07	155.93	141.12	319.06	309.67	9.39	33.996	
2,000.00	1,961.59	1,906.45	1,880.49	6.67	5.73	132.76	173.01	160.12	367.72	357.53	10.19	36.080	
2,100.00	2,053.81	1,993.36	1,963.56	7.40	6.21	134.06	190.09	179.13	416.58	405.56	11.02	37.806	
2,200.00	2,146.03	2,080.27	2,046.62	8.14	6.70	135.08	207.16	198.13	465.56	453.70	11.86	39.251	
2,300.00	2,238.25	2,167.17	2,129.69	8.89	7.19	135.91	224.24	217.14	514.63	501.92	12.72	40.474	
2,400.00	2,330.47	2,254.08	2,212.76	9.65	7.68	136.60	241.32	236.14	563.78	550.20	13.58	41.519	
2,500.00	2,422.69	2,340.99	2,295.83	10.42	8.18	137.18	258.40	255.15	612.97	598.52	14.45	42.421	
2,600.00	2,514.91	2,427.90	2,378.90	11.18	8.68	137.67	275.48	274.15	662.21	646.88	15.33	43.205	
2,700.00	2,607.13	2,514.81	2,461.96	11.96	9.19	138.09	292.55	293.16	711.47	695.26	16.21	43.892	
2,800.00	2,699.35	2,601.72	2,545.03	12.73	9.69	138.46	309.63	312.16	760.77	743.67	17.10	44.497	
2,900.00	2,791.57	2,688.63	2,628.10	13.51	10.20	138.79	326.71	331.17	810.08	792.09	17.99	45.034	
3,000.00	2,883.79	2,775.54	2,711.17	14.29	10.71	139.07	343.79	350.17	859.41	840.53	18.88	45.514	
3,100.00	2,976.01	2,862.45	2,794.24	15.07	11.22	139.33	360.86	369.18	908.76	888.98	19.78	45.944	
3,200.00	3,068.23	2,949.35	2,877.30	15.85	11.73	139.56	377.94	388.18	958.12	937.44	20.68	46.333	
3,300.00	3,160.45	3,036.26	2,960.37	16.64	12.24	139.77	395.02	407.19	1,007.49	985.91	21.58	46.685	
3,400.00	3,252.67	3,123.17	3,043.44	17.42	12.75	139.95	412.10	426.20	1,056.86	1,034.38	22.48	47.005	
3,433.02	3,283.11	3,151.87	3,070.87	17.68	12.92	140.01	417.74	432.47	1,073.17	1,050.39	22.78	47.105	
3,500.00	3,345.18	3,210.39	3,126.80	18.14	13.27	140.57	429.24	445.27	1,105.72	1,082.30	23.42	47.209	
3,600.00	3,438.90	3,298.85	3,211.35	18.71	13.79	141.25	446.62	464.61	1,152.35	1,128.02	24.32	47.375	
3,700.00	3,533.78	3,388.52	3,297.07	19.24	14.32	141.75	464.24	484.22	1,196.54	1,171.33	25.21	47.461	
3,800.00	3,629.70	3,479.30	3,383.83	19.72	14.86	142.11	482.08	504.08	1,238.28	1,212.20	26.08	47.483	
3,900.00	3,726.54	3,571.08	3,471.55	20.16	15.40	142.33	500.11	524.14	1,277.51	1,250.59	26.92	47.455	
4,000.00	3,824.20	3,663.73	3,560.11	20.54	15.95	142.43	518.32	544.41	1,314.23	1,286.50	27.73	47.388	
4,100.00	3,922.55	3,797.58	3,688.80	20.88	16.57	142.29	542.88	571.73	1,347.16	1,318.57	28.59	47.116	
4,200.00	4,021.47	3,940.35	3,827.81	21.16	17.12	142.16	564.62	595.94	1,374.32	1,344.95	29.36	46.806	
4,300.00	4,120.84	4,087.16	3,972.24	21.40	17.61	142.04	582.13	615.42	1,395.44	1,365.41	30.04	46.456	
4,400.00	4,220.54	4,237.08	4,120.93	21.58	17.99	141.96	594.88	629.60	1,410.34	1,379.75	30.60	46.093	
4,500.00	4,320.45	4,389.10	4,272.50	21.72	18.29	141.89	602.48	638.06	1,418.88	1,387.84	31.04	45.708	
4,570.56	4,391.00	4,497.03	4,380.38	21.79	18.44	93.68	604.61	640.43	1,421.02	1,389.74	31.28	45.428	
4,600.00	4,420.44	4,537.09	4,420.44	21.82	18.48	93.67	604.72	640.56	1,421.09	1,389.73	31.36	45.308	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 20-29 - P_RASMUSSEN 20-29 - PLAN #1 09-02-09 RI												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
4,700.00	4,520.44	4,637.09	4,520.44	21.91	18.59	93.67	604.72	640.56	1,421.09	1,389.48	31.61	44.952	
4,800.00	4,620.44	4,737.09	4,620.44	22.01	18.70	93.67	604.72	640.56	1,421.09	1,389.22	31.87	44.590	
4,900.00	4,720.44	4,837.09	4,720.44	22.11	18.82	93.67	604.72	640.56	1,421.09	1,388.96	32.13	44.228	
5,000.00	4,820.44	4,937.09	4,820.44	22.21	18.93	93.67	604.72	640.56	1,421.09	1,388.70	32.40	43.866	
5,100.00	4,920.44	5,037.09	4,920.44	22.31	19.05	93.67	604.72	640.56	1,421.09	1,388.43	32.66	43.505	
5,200.00	5,020.44	5,137.09	5,020.44	22.41	19.18	93.67	604.72	640.56	1,421.09	1,388.16	32.94	43.145	
5,300.00	5,120.44	5,237.09	5,120.44	22.52	19.30	93.67	604.72	640.56	1,421.09	1,387.88	33.21	42.786	
5,400.00	5,220.44	5,337.09	5,220.44	22.63	19.42	93.67	604.72	640.56	1,421.09	1,387.60	33.49	42.427	
5,500.00	5,320.44	5,437.09	5,320.44	22.74	19.55	93.67	604.72	640.56	1,421.09	1,387.31	33.78	42.071	
5,600.00	5,420.44	5,537.09	5,420.44	22.85	19.68	93.67	604.72	640.56	1,421.09	1,387.03	34.07	41.715	
5,700.00	5,520.44	5,637.09	5,520.44	22.96	19.81	93.67	604.72	640.56	1,421.09	1,386.74	34.36	41.362	
5,800.00	5,620.44	5,737.09	5,620.44	23.07	19.94	93.67	604.72	640.56	1,421.09	1,386.44	34.65	41.010	
5,900.00	5,720.44	5,837.09	5,720.44	23.19	20.07	93.67	604.72	640.56	1,421.09	1,386.14	34.95	40.661	
6,000.00	5,820.44	5,937.09	5,820.44	23.31	20.21	93.67	604.72	640.56	1,421.09	1,385.84	35.25	40.314	
6,100.00	5,920.44	6,037.09	5,920.44	23.43	20.35	93.67	604.72	640.56	1,421.09	1,385.54	35.55	39.969	
6,200.00	6,020.44	6,137.09	6,020.44	23.55	20.48	93.67	604.72	640.56	1,421.09	1,385.23	35.86	39.627	
6,300.00	6,120.44	6,237.09	6,120.44	23.67	20.62	93.67	604.72	640.56	1,421.09	1,384.92	36.17	39.287	
6,400.00	6,220.44	6,337.09	6,220.44	23.79	20.76	93.67	604.72	640.56	1,421.09	1,384.61	36.49	38.950	
6,500.00	6,320.44	6,437.09	6,320.44	23.92	20.91	93.67	604.72	640.56	1,421.09	1,384.29	36.80	38.615	
6,600.00	6,420.44	6,537.09	6,420.44	24.04	21.05	93.67	604.72	640.56	1,421.09	1,383.97	37.12	38.284	
6,700.00	6,520.44	6,637.09	6,520.44	24.17	21.20	93.67	604.72	640.56	1,421.09	1,383.65	37.44	37.955	
6,800.00	6,620.44	6,737.09	6,620.44	24.30	21.34	93.67	604.72	640.56	1,421.09	1,383.33	37.77	37.630	
6,900.00	6,720.44	6,837.09	6,720.44	24.43	21.49	93.67	604.72	640.56	1,421.09	1,383.00	38.09	37.307	
7,000.00	6,820.44	6,937.09	6,820.44	24.56	21.64	93.67	604.72	640.56	1,421.09	1,382.67	38.42	36.988	
7,100.00	6,920.44	7,037.09	6,920.44	24.70	21.79	93.67	604.72	640.56	1,421.09	1,382.34	38.75	36.672	
7,200.00	7,020.44	7,137.09	7,020.44	24.83	21.95	93.67	604.72	640.56	1,421.09	1,382.01	39.09	36.358	
7,300.00	7,120.44	7,237.09	7,120.44	24.97	22.10	93.67	604.72	640.56	1,421.09	1,381.67	39.42	36.049	
7,400.00	7,220.44	7,337.09	7,220.44	25.11	22.25	93.67	604.72	640.56	1,421.09	1,381.33	39.76	35.742	
7,500.00	7,320.44	7,437.09	7,320.44	25.24	22.41	93.67	604.72	640.56	1,421.09	1,380.99	40.10	35.438	
7,600.00	7,420.44	7,537.09	7,420.44	25.38	22.57	93.67	604.72	640.56	1,421.09	1,380.65	40.44	35.138	
7,700.00	7,520.44	7,637.09	7,520.44	25.53	22.72	93.67	604.72	640.56	1,421.09	1,380.31	40.79	34.841	
7,800.00	7,620.44	7,737.09	7,620.44	25.67	22.88	93.67	604.72	640.56	1,421.09	1,379.96	41.13	34.548	
7,856.56	7,677.00	7,793.65	7,677.00	25.75	22.97	93.67	604.72	640.56	1,421.09	1,379.76	41.33	34.383	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	0.00	76.49	0.00	76.49				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	76.49	0.00	76.49	76.30	0.19	400.387	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	76.49	0.00	76.49	75.85	0.64	119.414	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	76.49	0.00	76.49	75.40	1.09	70.171	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	76.49	0.00	76.49	74.95	1.54	49.683	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	76.49	0.00	76.49	74.51	1.99	38.455	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	76.49	0.00	76.49	74.06	2.44	31.367	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	76.49	0.00	76.49	73.61	2.89	26.485	
750.00	750.00	750.00	750.00	1.56	1.56	0.00	76.49	0.00	76.49	73.38	3.11	24.572	
800.00	800.00	800.00	800.00	1.67	1.67	48.43	76.49	0.00	76.20	72.87	3.34	22.847	
900.00	899.93	899.93	899.93	1.89	1.89	50.49	76.49	0.00	73.93	70.16	3.78	19.575	
1,000.00	999.68	998.33	998.33	2.11	2.11	54.62	77.14	-0.27	70.32	66.10	4.22	16.660	
1,100.00	1,099.13	1,096.08	1,095.99	2.36	2.33	60.11	80.67	-1.76	67.99	63.31	4.68	14.532	
1,173.43	1,171.89	1,167.93	1,167.67	2.55	2.50	64.87	85.22	-3.67	67.44	62.40	5.04	13.389 CC	
1,200.00	1,198.15	1,193.94	1,193.59	2.63	2.56	66.71	87.27	-4.53	67.52	62.35	5.17	13.063 ES	
1,300.00	1,296.63	1,291.90	1,290.97	2.93	2.79	73.92	96.96	-8.61	69.26	63.55	5.71	12.131	
1,400.00	1,394.44	1,389.91	1,388.00	3.28	3.05	81.10	109.72	-13.97	73.44	67.12	6.32	11.624	
1,500.00	1,491.46	1,487.95	1,484.52	3.69	3.33	87.70	125.53	-20.63	80.11	73.10	7.01	11.432 SF	
1,600.00	1,587.58	1,585.99	1,580.40	4.15	3.66	93.35	144.38	-28.55	89.17	81.39	7.79	11.451	
1,700.00	1,682.68	1,684.01	1,675.50	4.69	4.04	97.97	166.24	-37.75	100.44	91.78	8.66	11.593	
1,800.00	1,776.65	1,781.97	1,769.68	5.29	4.46	101.62	191.07	-48.19	113.72	104.07	9.64	11.791	
1,887.54	1,857.89	1,867.66	1,851.27	5.87	4.89	104.12	215.21	-58.34	126.84	116.25	10.60	11.972	
1,900.00	1,869.37	1,879.85	1,862.81	5.96	4.95	104.46	218.82	-59.86	128.81	118.08	10.74	11.998	
2,000.00	1,961.59	1,977.80	1,954.92	6.67	5.50	106.09	249.52	-72.77	145.00	133.06	11.93	12.150	
2,100.00	2,053.81	2,075.73	2,045.82	7.40	6.11	106.19	283.09	-86.90	161.67	148.43	13.23	12.218	
2,200.00	2,146.03	2,173.48	2,135.27	8.14	6.78	105.20	319.43	-102.18	178.79	164.17	14.62	12.227	
2,300.00	2,238.25	2,271.87	2,224.71	8.89	7.50	103.96	357.23	-118.08	196.19	180.11	16.08	12.202	
2,400.00	2,330.47	2,370.27	2,314.15	9.65	8.24	102.91	395.03	-133.98	213.67	196.12	17.55	12.173	
2,500.00	2,422.69	2,468.66	2,403.59	10.42	8.99	102.03	432.83	-149.88	231.21	212.16	19.04	12.142	
2,600.00	2,514.91	2,567.05	2,493.03	11.18	9.75	101.27	470.63	-165.77	248.79	228.25	20.54	12.112	
2,700.00	2,607.13	2,665.44	2,582.47	11.96	10.52	100.61	508.43	-181.67	266.41	244.36	22.05	12.082	
2,800.00	2,699.35	2,763.84	2,671.91	12.73	11.30	100.03	546.23	-197.57	284.06	260.49	23.57	12.054	
2,900.00	2,791.57	2,862.23	2,761.35	13.51	12.08	99.52	584.03	-213.47	301.73	276.64	25.09	12.028	
3,000.00	2,883.79	2,960.62	2,850.79	14.29	12.87	99.06	621.82	-229.37	319.43	292.81	26.61	12.003	
3,100.00	2,976.01	3,059.01	2,940.23	15.07	13.66	98.66	659.62	-245.27	337.14	309.00	28.14	11.981	
3,200.00	3,068.23	3,157.41	3,029.67	15.85	14.45	98.29	697.42	-261.16	354.86	325.19	29.67	11.960	
3,300.00	3,160.45	3,255.80	3,119.11	16.64	15.24	97.96	735.22	-277.06	372.60	341.40	31.21	11.940	
3,400.00	3,252.67	3,354.19	3,208.55	17.42	16.04	97.66	773.02	-292.96	390.35	357.61	32.74	11.922	
3,433.02	3,283.11	3,386.68	3,238.08	17.68	16.30	97.57	785.50	-298.21	396.22	362.97	33.25	11.917	
3,500.00	3,345.18	3,452.58	3,297.99	18.14	16.84	97.51	810.82	-308.86	408.01	373.79	34.23	11.921	
3,600.00	3,438.90	3,550.90	3,387.36	18.71	17.64	97.06	848.59	-324.75	425.30	389.74	35.56	11.959	
3,700.00	3,533.78	3,649.04	3,476.57	19.24	18.44	96.21	886.29	-340.60	442.29	405.46	36.83	12.007	
3,800.00	3,629.70	3,746.87	3,565.50	19.72	19.23	95.02	923.87	-356.41	459.16	421.13	38.03	12.074	
3,900.00	3,726.54	3,844.28	3,654.05	20.16	20.03	93.53	961.29	-372.15	476.13	437.00	39.13	12.167	
4,000.00	3,824.20	3,941.15	3,742.10	20.54	20.82	91.79	998.51	-387.80	493.45	453.33	40.13	12.297	
4,100.00	3,922.55	4,037.35	3,829.55	20.88	21.61	89.83	1,035.46	-403.35	511.42	470.42	41.00	12.474	
4,200.00	4,021.47	4,132.78	3,916.30	21.16	22.39	87.69	1,072.12	-418.77	530.32	488.59	41.74	12.707	
4,300.00	4,120.84	4,227.31	4,002.23	21.40	23.17	85.43	1,108.44	-434.04	550.49	508.16	42.33	13.004	
4,400.00	4,220.54	4,320.84	4,087.25	21.58	23.93	83.07	1,144.37	-449.15	572.23	529.46	42.78	13.377	
4,500.00	4,320.45	4,413.24	4,171.24	21.72	24.69	80.67	1,179.87	-464.08	595.86	552.78	43.08	13.832	
4,570.56	4,391.00	4,477.70	4,229.84	21.79	25.22	30.78	1,204.63	-474.50	613.81	570.61	43.20	14.207	
4,600.00	4,420.44	4,504.46	4,254.16	21.82	25.44	29.92	1,214.91	-478.82	621.62	578.41	43.21	14.387	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 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						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	
4,700.00	4,520.44	4,595.36	4,336.79	21.91	26.19	27.15	1,249.83	-493.51	649.15	605.95	43.20	15.027	
4,800.00	4,620.44	4,686.26	4,419.43	22.01	26.93	24.58	1,284.75	-508.20	678.13	634.97	43.16	15.712	
4,900.00	4,720.44	4,777.16	4,502.06	22.11	27.68	22.21	1,319.67	-522.89	708.38	665.28	43.11	16.434	
5,000.00	4,820.44	4,868.07	4,584.69	22.21	28.43	20.02	1,354.59	-537.57	739.74	696.70	43.04	17.186	
5,100.00	4,920.44	4,958.97	4,667.32	22.31	29.18	18.00	1,389.52	-552.26	772.08	729.10	42.98	17.963	
5,200.00	5,020.44	5,049.87	4,749.95	22.41	29.93	16.13	1,424.44	-566.95	805.27	762.34	42.93	18.758	
5,300.00	5,120.44	5,140.77	4,832.58	22.52	30.68	14.39	1,459.36	-581.64	839.23	796.34	42.89	19.567	
5,400.00	5,220.44	5,231.67	4,915.21	22.63	31.43	12.79	1,494.28	-596.33	873.85	830.98	42.87	20.385	
5,500.00	5,320.44	5,322.57	4,997.84	22.74	32.17	11.30	1,529.20	-611.01	909.06	866.20	42.86	21.210	
5,600.00	5,420.44	5,413.48	5,080.47	22.85	32.92	9.92	1,564.12	-625.70	944.80	901.93	42.87	22.036	
5,700.00	5,520.44	5,504.38	5,163.10	22.96	33.67	8.64	1,599.04	-640.39	981.01	938.10	42.91	22.863	
5,800.00	5,620.44	5,595.28	5,245.74	23.07	34.42	7.44	1,633.96	-655.08	1,017.63	974.67	42.96	23.687	
5,900.00	5,720.44	5,686.18	5,328.37	23.19	35.17	6.32	1,668.88	-669.76	1,054.64	1,011.60	43.04	24.506	
6,000.00	5,820.44	5,777.08	5,411.00	23.31	35.92	5.28	1,703.81	-684.45	1,091.97	1,048.84	43.13	25.318	
6,100.00	5,920.44	5,867.98	5,493.63	23.43	36.67	4.30	1,738.73	-699.14	1,129.62	1,086.37	43.24	26.122	
6,200.00	6,020.44	5,958.89	5,576.26	23.55	37.42	3.39	1,773.65	-713.83	1,167.53	1,124.16	43.38	26.917	
6,300.00	6,120.44	6,049.79	5,658.89	23.67	38.17	2.53	1,808.57	-728.52	1,205.70	1,162.17	43.52	27.701	
6,400.00	6,220.44	6,185.18	5,782.83	23.79	39.09	1.38	1,858.77	-749.63	1,242.90	1,199.26	43.64	28.483	
6,500.00	6,320.44	6,342.78	5,930.11	23.92	39.97	0.30	1,910.43	-771.36	1,275.83	1,232.05	43.78	29.143	
6,600.00	6,420.44	6,506.67	6,086.29	24.04	40.78	-0.59	1,956.15	-790.59	1,303.97	1,259.98	43.99	29.645	
6,700.00	6,520.44	6,676.10	6,250.46	24.17	41.48	-1.29	1,994.69	-806.80	1,326.98	1,282.74	44.24	29.995	
6,800.00	6,620.44	6,850.13	6,421.35	24.30	42.05	-1.80	2,024.88	-819.50	1,344.57	1,300.04	44.53	30.193	
6,900.00	6,720.44	7,027.61	6,597.35	24.43	42.49	-2.15	2,045.77	-828.28	1,356.52	1,311.67	44.85	30.245	
7,000.00	6,820.44	7,207.26	6,776.58	24.56	42.78	-2.32	2,056.64	-832.86	1,362.68	1,317.49	45.19	30.157	
7,100.00	6,920.44	7,351.14	6,920.44	24.70	42.90	-2.35	2,058.20	-833.51	1,363.56	1,318.06	45.50	29.970	
7,200.00	7,020.44	7,451.14	7,020.44	24.83	42.97	-2.35	2,058.20	-833.51	1,363.56	1,317.78	45.78	29.786	
7,300.00	7,120.44	7,551.14	7,120.44	24.97	43.05	-2.35	2,058.20	-833.51	1,363.56	1,317.49	46.07	29.598	
7,400.00	7,220.44	7,651.14	7,220.44	25.11	43.12	-2.35	2,058.20	-833.51	1,363.56	1,317.19	46.36	29.411	
7,500.00	7,320.44	7,751.14	7,320.44	25.24	43.20	-2.35	2,058.20	-833.51	1,363.56	1,316.90	46.66	29.226	
7,600.00	7,420.44	7,851.14	7,420.44	25.38	43.28	-2.35	2,058.20	-833.51	1,363.56	1,316.60	46.95	29.041	
7,700.00	7,520.44	7,951.14	7,520.44	25.53	43.36	-2.35	2,058.20	-833.51	1,363.56	1,316.30	47.25	28.856	
7,800.00	7,620.44	8,051.14	7,620.44	25.67	43.43	-2.35	2,058.20	-833.51	1,363.56	1,316.00	47.56	28.673	
7,856.56	7,677.00	8,107.70	7,677.00	25.75	43.48	-2.35	2,058.20	-833.51	1,363.56	1,315.83	47.73	28.570	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 36-29 - P_RASMUSSEN 36-29 - PLAN #1 09-02-09 RI													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	-174.52	-29.14	-2.80	29.28				
100.00	100.00	100.00	100.00	0.10	0.10	-174.52	-29.14	-2.80	29.28	29.09	0.19	153.238	
200.00	200.00	200.00	200.00	0.32	0.32	-174.52	-29.14	-2.80	29.28	28.64	0.64	45.702	
300.00	300.00	300.00	300.00	0.55	0.55	-174.52	-29.14	-2.80	29.28	28.19	1.09	26.856	
400.00	400.00	400.00	400.00	0.77	0.77	-174.52	-29.14	-2.80	29.28	27.74	1.54	19.015	
500.00	500.00	500.00	500.00	0.99	0.99	-174.52	-29.14	-2.80	29.28	27.29	1.99	14.718	
600.00	600.00	600.00	600.00	1.22	1.22	-174.52	-29.14	-2.80	29.28	26.84	2.44	12.005	
700.00	700.00	700.00	700.00	1.44	1.44	-174.52	-29.14	-2.80	29.28	26.39	2.89	10.136	
750.00	750.00	750.00	750.00	1.56	1.56	-174.52	-29.14	-2.80	29.28	26.16	3.11	9.404 CC, ES	
800.00	800.00	799.85	799.85	1.67	1.66	-126.92	-29.19	-2.85	29.59	26.26	3.33	8.885 SF	
900.00	899.93	898.97	898.94	1.89	1.84	-128.83	-30.82	-4.61	33.50	29.77	3.73	8.984	
1,000.00	999.68	997.68	997.47	2.11	2.04	-130.50	-34.76	-8.86	42.09	37.95	4.14	10.164	
1,100.00	1,099.13	1,095.65	1,095.01	2.36	2.25	-131.60	-40.94	-15.55	55.34	50.76	4.58	12.094	
1,200.00	1,198.15	1,192.59	1,191.16	2.63	2.49	-132.18	-49.29	-24.56	73.16	68.12	5.04	14.521	
1,300.00	1,296.63	1,288.20	1,285.54	2.93	2.76	-132.41	-59.68	-35.79	95.49	89.95	5.54	17.236	
1,400.00	1,394.44	1,382.22	1,377.79	3.28	3.07	-132.42	-71.98	-49.08	122.21	116.12	6.09	20.074	
1,500.00	1,491.46	1,474.40	1,467.62	3.69	3.42	-132.28	-86.03	-64.26	153.22	146.53	6.69	22.905	
1,600.00	1,587.58	1,564.53	1,554.76	4.15	3.81	-132.04	-101.65	-81.14	188.40	181.05	7.35	25.636	
1,700.00	1,682.68	1,652.42	1,639.00	4.69	4.24	-131.72	-118.68	-99.54	227.62	219.55	8.07	28.205	
1,800.00	1,776.65	1,737.90	1,720.15	5.29	4.70	-131.33	-136.91	-119.24	270.72	261.87	8.85	30.588	
1,887.54	1,857.89	1,815.44	1,793.36	5.87	5.16	-131.12	-154.25	-137.97	310.95	301.34	9.61	32.354	
1,900.00	1,869.37	1,826.43	1,803.75	5.96	5.23	-131.20	-156.71	-140.63	316.79	307.06	9.73	32.567	
2,000.00	1,961.59	1,914.71	1,887.10	6.67	5.76	-131.79	-176.45	-161.95	363.67	353.00	10.67	34.079	
2,100.00	2,053.81	2,002.98	1,970.46	7.40	6.31	-132.25	-196.18	-183.28	410.57	398.93	11.64	35.278	
2,200.00	2,146.03	2,091.26	2,053.82	8.14	6.87	-132.61	-215.92	-204.61	457.49	444.87	12.62	36.242	
2,300.00	2,238.25	2,179.54	2,137.17	8.89	7.44	-132.90	-235.66	-225.93	504.42	490.80	13.62	37.032	
2,400.00	2,330.47	2,267.81	2,220.53	9.65	8.01	-133.15	-255.40	-247.26	551.36	536.73	14.63	37.688	
2,500.00	2,422.69	2,356.09	2,303.89	10.42	8.58	-133.35	-275.14	-268.58	598.31	582.66	15.65	38.240	
2,600.00	2,514.91	2,444.37	2,387.24	11.18	9.16	-133.53	-294.88	-289.91	645.26	628.59	16.67	38.710	
2,700.00	2,607.13	2,532.64	2,470.60	11.96	9.74	-133.68	-314.61	-311.24	692.21	674.52	17.70	39.115	
2,800.00	2,699.35	2,620.92	2,553.96	12.73	10.33	-133.81	-334.35	-332.56	739.17	720.44	18.73	39.466	
2,900.00	2,791.57	2,709.20	2,637.31	13.51	10.91	-133.93	-354.09	-353.89	786.13	766.37	19.76	39.774	
3,000.00	2,883.79	2,797.47	2,720.67	14.29	11.50	-134.03	-373.83	-375.22	833.10	812.30	20.80	40.047	
3,100.00	2,976.01	2,885.75	2,804.03	15.07	12.09	-134.13	-393.57	-396.54	880.06	858.22	21.84	40.289	
3,200.00	3,068.23	2,974.02	2,887.38	15.85	12.68	-134.21	-413.31	-417.87	927.03	904.15	22.89	40.506	
3,300.00	3,160.45	3,062.30	2,970.74	16.64	13.27	-134.28	-433.04	-439.20	974.00	950.07	23.93	40.702	
3,400.00	3,252.67	3,150.58	3,054.09	17.42	13.86	-134.35	-452.78	-460.52	1,020.97	996.00	24.97	40.880	
3,433.02	3,283.11	3,179.72	3,081.62	17.68	14.06	-134.37	-459.30	-467.56	1,036.48	1,011.16	25.32	40.936	
3,500.00	3,345.18	3,239.11	3,137.69	18.14	14.46	-134.88	-472.58	-481.91	1,067.46	1,041.42	26.03	41.005	
3,600.00	3,438.90	3,328.68	3,222.28	18.71	15.06	-135.47	-492.61	-503.55	1,111.87	1,084.82	27.04	41.117	
3,700.00	3,533.78	3,419.25	3,307.79	19.24	15.67	-135.88	-512.86	-525.43	1,154.04	1,126.01	28.03	41.168	
3,800.00	3,629.70	3,510.70	3,394.15	19.72	16.29	-136.14	-533.30	-547.52	1,193.96	1,164.96	29.00	41.171	
3,900.00	3,726.54	3,613.44	3,491.25	20.16	16.93	-136.21	-556.09	-572.15	1,231.48	1,201.52	29.96	41.104	
4,000.00	3,824.20	3,741.19	3,613.32	20.54	17.51	-136.15	-581.65	-599.76	1,264.79	1,233.93	30.86	40.989	
4,100.00	3,922.55	3,872.82	3,740.73	20.88	18.05	-136.10	-604.10	-624.01	1,293.13	1,261.45	31.68	40.825	
4,200.00	4,021.47	4,007.82	3,872.83	21.16	18.53	-136.06	-622.96	-644.39	1,316.31	1,283.91	32.40	40.624	
4,300.00	4,120.84	4,145.61	4,008.85	21.40	18.94	-136.02	-637.83	-660.46	1,334.19	1,301.17	33.02	40.407	
4,400.00	4,220.54	4,285.50	4,147.87	21.58	19.26	-135.99	-648.37	-671.85	1,346.62	1,313.09	33.53	40.164	
4,500.00	4,320.45	4,426.76	4,288.84	21.72	19.50	-135.97	-654.32	-678.28	1,353.51	1,319.60	33.91	39.910	
4,570.56	4,391.00	4,526.85	4,388.90	21.79	19.62	175.86	-655.68	-679.75	1,355.01	1,320.90	34.12	39.716	
4,600.00	4,420.44	4,558.38	4,420.44	21.82	19.65	175.86	-655.68	-679.75	1,355.02	1,320.83	34.18	39.638	
4,700.00	4,520.44	4,658.38	4,520.44	21.91	19.75	175.86	-655.68	-679.75	1,355.02	1,320.60	34.42	39.370	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 36-29 - P_RASMUSSEN 36-29 - PLAN #1 09-02-09 RI												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
4,800.00	4,620.44	4,758.38	4,620.44	22.01	19.85	175.86	-655.68	-679.75	1,355.02	1,320.36	34.65	39.102	
4,900.00	4,720.44	4,858.38	4,720.44	22.11	19.95	175.86	-655.68	-679.75	1,355.02	1,320.12	34.89	38.832	
5,000.00	4,820.44	4,958.38	4,820.44	22.21	20.05	175.86	-655.68	-679.75	1,355.02	1,319.88	35.14	38.561	
5,100.00	4,920.44	5,058.38	4,920.44	22.31	20.15	175.86	-655.68	-679.75	1,355.02	1,319.63	35.39	38.290	
5,200.00	5,020.44	5,158.38	5,020.44	22.41	20.26	175.86	-655.68	-679.75	1,355.02	1,319.37	35.64	38.018	
5,300.00	5,120.44	5,258.38	5,120.44	22.52	20.37	175.86	-655.68	-679.75	1,355.02	1,319.12	35.90	37.746	
5,400.00	5,220.44	5,358.38	5,220.44	22.63	20.48	175.86	-655.68	-679.75	1,355.02	1,318.86	36.16	37.474	
5,500.00	5,320.44	5,458.38	5,320.44	22.74	20.59	175.86	-655.68	-679.75	1,355.02	1,318.59	36.42	37.202	
5,600.00	5,420.44	5,558.38	5,420.44	22.85	20.70	175.86	-655.68	-679.75	1,355.02	1,318.33	36.69	36.931	
5,700.00	5,520.44	5,658.38	5,520.44	22.96	20.82	175.86	-655.68	-679.75	1,355.02	1,318.05	36.96	36.660	
5,800.00	5,620.44	5,758.38	5,620.44	23.07	20.94	175.86	-655.68	-679.75	1,355.02	1,317.78	37.24	36.389	
5,900.00	5,720.44	5,858.38	5,720.44	23.19	21.05	175.86	-655.68	-679.75	1,355.02	1,317.50	37.52	36.119	
6,000.00	5,820.44	5,958.38	5,820.44	23.31	21.18	175.86	-655.68	-679.75	1,355.02	1,317.22	37.80	35.850	
6,100.00	5,920.44	6,058.38	5,920.44	23.43	21.30	175.86	-655.68	-679.75	1,355.02	1,316.94	38.08	35.582	
6,200.00	6,020.44	6,158.38	6,020.44	23.55	21.42	175.86	-655.68	-679.75	1,355.02	1,316.65	38.37	35.315	
6,300.00	6,120.44	6,258.38	6,120.44	23.67	21.55	175.86	-655.68	-679.75	1,355.02	1,316.36	38.66	35.050	
6,400.00	6,220.44	6,358.38	6,220.44	23.79	21.67	175.86	-655.68	-679.75	1,355.02	1,316.06	38.95	34.785	
6,500.00	6,320.44	6,458.38	6,320.44	23.92	21.80	175.86	-655.68	-679.75	1,355.02	1,315.77	39.25	34.522	
6,600.00	6,420.44	6,558.38	6,420.44	24.04	21.93	175.86	-655.68	-679.75	1,355.02	1,315.47	39.55	34.260	
6,700.00	6,520.44	6,658.38	6,520.44	24.17	22.07	175.86	-655.68	-679.75	1,355.02	1,315.16	39.85	34.000	
6,800.00	6,620.44	6,758.38	6,620.44	24.30	22.20	175.86	-655.68	-679.75	1,355.02	1,314.86	40.16	33.742	
6,900.00	6,720.44	6,858.38	6,720.44	24.43	22.33	175.86	-655.68	-679.75	1,355.02	1,314.55	40.47	33.485	
7,000.00	6,820.44	6,958.38	6,820.44	24.56	22.47	175.86	-655.68	-679.75	1,355.02	1,314.24	40.78	33.230	
7,100.00	6,920.44	7,058.38	6,920.44	24.70	22.61	175.86	-655.68	-679.75	1,355.02	1,313.93	41.09	32.976	
7,200.00	7,020.44	7,158.38	7,020.44	24.83	22.75	175.86	-655.68	-679.75	1,355.02	1,313.61	41.41	32.725	
7,300.00	7,120.44	7,258.38	7,120.44	24.97	22.89	175.86	-655.68	-679.75	1,355.02	1,313.29	41.72	32.475	
7,400.00	7,220.44	7,358.38	7,220.44	25.11	23.03	175.86	-655.68	-679.75	1,355.02	1,312.97	42.05	32.228	
7,500.00	7,320.44	7,458.38	7,320.44	25.24	23.17	175.86	-655.68	-679.75	1,355.02	1,312.65	42.37	31.982	
7,600.00	7,420.44	7,558.38	7,420.44	25.38	23.32	175.86	-655.68	-679.75	1,355.02	1,312.32	42.69	31.738	
7,700.00	7,520.44	7,658.38	7,520.44	25.53	23.46	175.86	-655.68	-679.75	1,355.02	1,312.00	43.02	31.497	
7,800.00	7,620.44	7,758.38	7,620.44	25.67	23.61	175.86	-655.68	-679.75	1,355.02	1,311.67	43.35	31.257	
7,856.56	7,677.00	7,814.94	7,677.00	25.75	23.69	175.86	-655.68	-679.75	1,355.02	1,311.48	43.54	31.123	



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-176.34	-43.71	-2.80	43.80				
100.00	100.00	100.00	100.00	0.10	0.10	-176.34	-43.71	-2.80	43.80	43.61	0.19	229.251	
200.00	200.00	200.00	200.00	0.32	0.32	-176.34	-43.71	-2.80	43.80	43.16	0.64	68.373	
300.00	300.00	300.00	300.00	0.55	0.55	-176.34	-43.71	-2.80	43.80	42.71	1.09	40.178	
400.00	400.00	400.00	400.00	0.77	0.77	-176.34	-43.71	-2.80	43.80	42.26	1.54	28.447	
500.00	500.00	500.00	500.00	0.99	0.99	-176.34	-43.71	-2.80	43.80	41.81	1.99	22.018	
600.00	600.00	600.00	600.00	1.22	1.22	-176.34	-43.71	-2.80	43.80	41.36	2.44	17.960	
700.00	700.00	700.00	700.00	1.44	1.44	-176.34	-43.71	-2.80	43.80	40.91	2.89	15.164	
750.00	750.00	750.00	750.00	1.56	1.56	-176.34	-43.71	-2.80	43.80	40.69	3.11	14.070 CC, ES	
800.00	800.00	799.91	799.91	1.67	1.67	-128.62	-43.72	-2.78	44.08	40.75	3.33	13.226	
900.00	899.93	898.75	898.72	1.89	1.85	-133.79	-45.03	-1.21	47.69	43.96	3.73	12.786 SF	
1,000.00	999.68	996.67	996.49	2.11	2.04	-142.76	-48.48	2.93	56.92	52.79	4.14	13.761	
1,100.00	1,099.13	1,092.99	1,092.42	2.36	2.25	-151.77	-53.96	9.50	73.09	68.54	4.54	16.085	
1,200.00	1,198.15	1,187.07	1,185.80	2.63	2.47	-158.90	-61.30	18.31	96.62	91.67	4.94	19.539	
1,300.00	1,296.63	1,278.34	1,275.98	2.93	2.73	-164.00	-70.30	29.10	127.29	121.95	5.34	23.845	
1,400.00	1,394.44	1,366.30	1,362.42	3.28	3.01	-167.56	-80.70	41.58	164.65	158.93	5.72	28.769	
1,500.00	1,491.46	1,450.54	1,444.70	3.69	3.31	-170.07	-92.25	55.44	208.27	202.17	6.10	34.141	
1,600.00	1,587.58	1,530.70	1,522.48	4.15	3.64	-171.86	-104.68	70.35	257.71	251.24	6.47	39.845	
1,700.00	1,682.68	1,606.55	1,595.54	4.69	3.99	-173.18	-117.72	85.99	312.59	305.76	6.83	45.795	
1,800.00	1,776.65	1,677.90	1,663.76	5.29	4.36	-174.16	-131.11	102.05	372.51	365.34	7.18	51.895	
1,887.54	1,857.89	1,736.59	1,719.46	5.87	4.69	-174.82	-142.94	116.24	428.83	421.35	7.48	57.334	
1,900.00	1,869.37	1,744.67	1,727.10	5.96	4.73	-174.92	-144.62	118.26	437.09	429.56	7.53	58.023	
2,000.00	1,961.59	1,808.06	1,786.77	6.67	5.11	-175.62	-158.32	134.69	504.44	496.47	7.96	63.350	
2,100.00	2,053.81	1,880.09	1,854.26	7.40	5.57	-176.26	-174.44	154.03	572.75	564.33	8.42	68.008	
2,200.00	2,146.03	1,952.98	1,922.55	8.14	6.05	-176.77	-190.76	173.60	641.10	632.21	8.89	72.113	
2,300.00	2,238.25	2,025.88	1,990.84	8.89	6.54	-177.18	-207.07	193.17	709.46	700.10	9.36	75.765	
2,400.00	2,330.47	2,098.77	2,059.14	9.65	7.03	-177.51	-223.39	212.74	777.85	768.00	9.84	79.022	
2,500.00	2,422.69	2,171.66	2,127.43	10.42	7.53	-177.80	-239.70	232.32	846.24	835.91	10.33	81.918	
2,600.00	2,514.91	2,244.55	2,195.73	11.18	8.04	-178.04	-256.02	251.89	914.65	903.83	10.82	84.527	
2,700.00	2,607.13	2,317.45	2,264.02	11.96	8.55	-178.25	-272.33	271.46	983.06	971.75	11.31	86.886	
2,800.00	2,699.35	2,390.34	2,332.32	12.73	9.06	-178.43	-288.65	291.03	1,051.48	1,039.67	11.81	89.019	
2,900.00	2,791.57	2,463.23	2,400.61	13.51	9.57	-178.59	-304.96	310.60	1,119.91	1,107.60	12.31	90.953	
3,000.00	2,883.79	2,536.12	2,468.90	14.29	10.09	-178.73	-321.28	330.17	1,188.34	1,175.52	12.82	92.722	
3,100.00	2,976.01	2,609.02	2,537.20	15.07	10.61	-178.85	-337.59	349.74	1,256.77	1,243.45	13.32	94.342	
3,200.00	3,068.23	2,681.91	2,605.49	15.85	11.13	-178.96	-353.91	369.31	1,325.20	1,311.37	13.83	95.826	
3,300.00	3,160.45	2,754.80	2,673.79	16.64	11.65	-179.06	-370.22	388.89	1,393.64	1,379.30	14.34	97.192	
3,400.00	3,252.67	2,827.69	2,742.08	17.42	12.17	-179.16	-386.54	408.46	1,462.08	1,447.23	14.85	98.455	
3,433.02	3,283.11	2,851.76	2,764.63	17.68	12.35	-179.18	-391.92	414.92	1,484.68	1,469.66	15.02	98.850	
3,500.00	3,345.18	2,901.12	2,810.87	18.14	12.70	-179.26	-402.97	428.17	1,529.94	1,514.49	15.46	98.964	
3,600.00	3,438.90	2,976.74	2,881.73	18.71	13.25	-179.35	-419.90	448.47	1,595.35	1,579.26	16.09	99.166	
3,700.00	3,533.78	3,054.60	2,954.67	19.24	13.81	-179.43	-437.32	469.38	1,658.08	1,641.38	16.70	99.275	
3,800.00	3,629.70	3,134.60	3,029.63	19.72	14.39	-179.51	-455.23	490.86	1,718.05	1,700.75	17.30	99.306	
3,900.00	3,726.54	3,216.64	3,106.50	20.16	14.98	-179.58	-473.59	512.89	1,775.20	1,757.32	17.88	99.271	
4,000.00	3,824.20	3,300.63	3,185.19	20.54	15.59	-179.63	-492.39	535.44	1,829.45	1,811.00	18.45	99.183	
4,100.00	3,922.55	3,386.47	3,265.61	20.88	16.21	-179.69	-511.60	558.48	1,880.73	1,861.74	18.99	99.047	
4,200.00	4,021.47	3,474.04	3,347.65	21.16	16.85	-179.74	-531.20	582.00	1,928.99	1,909.48	19.51	98.873	
4,300.00	4,120.84	3,563.81	3,431.79	21.40	17.48	-179.81	-556.62	624.49	1,973.53	1,953.32	20.20	97.681	
4,400.00	4,220.54	3,646.08	3,509.11	21.58	18.24	-179.91	-581.39	666.58	2,007.14	1,985.95	21.18	94.745	
4,500.00	4,320.45	3,727.15	3,586.09	21.72	19.10	-179.96	-606.86	725.54	2,026.63	2,004.55	22.08	91.777	
4,570.56	4,391.00	3,808.17	3,663.68	21.79	20.08	131.84	-659.20	735.54	2,031.31	2,008.69	22.62	89.793	
4,600.00	4,420.44	3,871.92	3,732.44	21.82	20.63	131.84	-659.33	735.70	2,031.37	2,008.62	22.76	89.259	
4,700.00	4,520.44	3,971.92	3,832.44	21.91	20.73	131.84	-659.33	735.70	2,031.37	2,008.28	23.09	87.965	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 37-29 - P_RASMUSSEN 37-29 - PLAN #1 09-02-09 RI												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	4,620.44	4,771.92	4,620.44	22.01	20.82	131.84	-659.33	735.70	2,031.37	2,007.94	23.43	86.697	
4,900.00	4,720.44	4,871.92	4,720.44	22.11	20.92	131.84	-659.33	735.70	2,031.37	2,007.60	23.77	85.451	
5,000.00	4,820.44	4,971.92	4,820.44	22.21	21.02	131.84	-659.33	735.70	2,031.37	2,007.26	24.12	84.229	
5,100.00	4,920.44	5,071.92	4,920.44	22.31	21.12	131.84	-659.33	735.70	2,031.37	2,006.91	24.47	83.029	
5,200.00	5,020.44	5,171.92	5,020.44	22.41	21.23	131.84	-659.33	735.70	2,031.37	2,006.56	24.82	81.852	
5,300.00	5,120.44	5,271.92	5,120.44	22.52	21.33	131.84	-659.33	735.70	2,031.37	2,006.20	25.17	80.698	
5,400.00	5,220.44	5,371.92	5,220.44	22.63	21.44	131.84	-659.33	735.70	2,031.37	2,005.84	25.53	79.567	
5,500.00	5,320.44	5,471.92	5,320.44	22.74	21.55	131.84	-659.33	735.70	2,031.37	2,005.48	25.89	78.458	
5,600.00	5,420.44	5,571.92	5,420.44	22.85	21.66	131.84	-659.33	735.70	2,031.37	2,005.12	26.25	77.372	
5,700.00	5,520.44	5,671.92	5,520.44	22.96	21.77	131.84	-659.33	735.70	2,031.37	2,004.75	26.62	76.308	
5,800.00	5,620.44	5,771.92	5,620.44	23.07	21.89	131.84	-659.33	735.70	2,031.37	2,004.38	26.99	75.266	
5,900.00	5,720.44	5,871.92	5,720.44	23.19	22.00	131.84	-659.33	735.70	2,031.37	2,004.01	27.36	74.245	
6,000.00	5,820.44	5,971.92	5,820.44	23.31	22.12	131.84	-659.33	735.70	2,031.37	2,003.64	27.73	73.246	
6,100.00	5,920.44	6,071.92	5,920.44	23.43	22.24	131.84	-659.33	735.70	2,031.37	2,003.26	28.11	72.267	
6,200.00	6,020.44	6,171.92	6,020.44	23.55	22.36	131.84	-659.33	735.70	2,031.37	2,002.89	28.49	71.309	
6,300.00	6,120.44	6,271.92	6,120.44	23.67	22.48	131.84	-659.33	735.70	2,031.37	2,002.51	28.87	70.371	
6,400.00	6,220.44	6,371.92	6,220.44	23.79	22.61	131.84	-659.33	735.70	2,031.37	2,002.12	29.25	69.452	
6,500.00	6,320.44	6,471.92	6,320.44	23.92	22.73	131.84	-659.33	735.70	2,031.37	2,001.74	29.63	68.553	
6,600.00	6,420.44	6,571.92	6,420.44	24.04	22.86	131.84	-659.33	735.70	2,031.37	2,001.36	30.02	67.673	
6,700.00	6,520.44	6,671.92	6,520.44	24.17	22.99	131.84	-659.33	735.70	2,031.37	2,000.97	30.40	66.811	
6,800.00	6,620.44	6,771.92	6,620.44	24.30	23.12	131.84	-659.33	735.70	2,031.37	2,000.58	30.79	65.967	
6,900.00	6,720.44	6,871.92	6,720.44	24.43	23.25	131.84	-659.33	735.70	2,031.37	2,000.19	31.18	65.141	
7,000.00	6,820.44	6,971.92	6,820.44	24.56	23.38	131.84	-659.33	735.70	2,031.37	1,999.80	31.58	64.332	
7,100.00	6,920.44	7,071.92	6,920.44	24.70	23.52	131.84	-659.33	735.70	2,031.37	1,999.40	31.97	63.540	
7,200.00	7,020.44	7,171.92	7,020.44	24.83	23.65	131.84	-659.33	735.70	2,031.37	1,999.01	32.37	62.764	
7,300.00	7,120.44	7,271.92	7,120.44	24.97	23.79	131.84	-659.33	735.70	2,031.37	1,998.61	32.76	62.004	
7,400.00	7,220.44	7,371.92	7,220.44	25.11	23.93	131.84	-659.33	735.70	2,031.37	1,998.21	33.16	61.260	
7,500.00	7,320.44	7,471.92	7,320.44	25.24	24.07	131.84	-659.33	735.70	2,031.37	1,997.81	33.56	60.532	
7,600.00	7,420.44	7,571.92	7,420.44	25.38	24.21	131.84	-659.33	735.70	2,031.37	1,997.41	33.96	59.818	
7,700.00	7,520.44	7,671.92	7,520.44	25.53	24.35	131.84	-659.33	735.70	2,031.37	1,997.01	34.36	59.119	
7,800.00	7,620.44	7,771.92	7,620.44	25.67	24.50	131.84	-659.33	735.70	2,031.37	1,996.61	34.76	58.434	
7,856.56	7,677.00	7,828.49	7,677.00	25.75	24.58	131.84	-659.33	735.70	2,031.37	1,996.38	34.99	58.052	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 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						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	0.00	14.57	0.00	14.57				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	14.57	0.00	14.57	14.38	0.19	76.246	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	14.57	0.00	14.57	13.93	0.64	22.740	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	14.57	0.00	14.57	13.48	1.09	13.363	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	14.57	0.00	14.57	13.03	1.54	9.461	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	14.57	0.00	14.57	12.58	1.99	7.323	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	14.57	0.00	14.57	12.13	2.44	5.973	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	14.57	0.00	14.57	11.68	2.89	5.044	
750.00	750.00	750.00	750.00	1.56	1.56	0.00	14.57	0.00	14.57	11.45	3.11	4.679	
800.00	800.00	799.97	799.97	1.67	1.67	49.75	14.59	0.07	14.30	10.97	3.33	4.290	
881.57	881.53	881.28	881.26	1.85	1.84	65.07	15.07	1.72	13.65	9.97	3.68	3.708 CC, ES	
900.00	899.93	899.60	899.57	1.89	1.87	70.95	15.27	2.40	13.73	9.97	3.76	3.652 SF	
1,000.00	999.68	998.51	998.29	2.11	2.09	106.91	16.90	8.00	18.83	14.64	4.19	4.495	
1,100.00	1,099.13	1,096.14	1,095.50	2.36	2.32	128.30	19.45	16.73	33.25	28.64	4.61	7.212	
1,200.00	1,198.15	1,192.00	1,190.58	2.63	2.56	137.68	22.85	28.39	55.20	50.16	5.04	10.960	
1,300.00	1,296.63	1,285.62	1,283.00	2.93	2.83	142.17	27.03	42.72	83.46	77.99	5.47	15.252	
1,400.00	1,394.44	1,376.60	1,372.29	3.28	3.13	144.53	31.90	59.42	117.51	111.59	5.92	19.846	
1,500.00	1,491.46	1,464.56	1,458.07	3.69	3.46	145.84	37.37	78.14	157.01	150.62	6.39	24.584	
1,600.00	1,587.58	1,549.22	1,540.01	4.15	3.82	146.56	43.32	98.54	201.68	194.81	6.87	29.353	
1,700.00	1,682.68	1,630.32	1,617.89	4.69	4.20	146.92	49.65	120.26	251.25	243.87	7.38	34.065	
1,800.00	1,776.65	1,707.67	1,691.55	5.29	4.60	147.03	56.27	142.93	305.45	297.55	7.90	38.652	
1,887.54	1,857.89	1,772.21	1,752.50	5.87	4.98	146.97	62.22	163.31	356.49	348.11	8.39	42.510	
1,900.00	1,869.37	1,781.17	1,760.91	5.96	5.03	147.05	63.07	166.24	364.00	355.53	8.46	43.010	
2,000.00	1,961.59	1,851.74	1,826.91	6.67	5.48	147.51	70.07	190.21	425.23	416.13	9.10	46.743	
2,100.00	2,053.81	1,920.05	1,890.20	7.40	5.94	147.74	77.27	214.90	488.12	478.37	9.75	50.073	
2,200.00	2,146.03	1,986.13	1,950.81	8.14	6.42	147.80	84.64	240.16	552.57	542.16	10.42	53.055	
2,300.00	2,238.25	2,058.98	2,017.15	8.89	6.98	147.79	93.07	269.06	618.10	606.98	11.12	55.573	
2,400.00	2,330.47	2,134.48	2,085.89	9.65	7.57	147.77	101.82	299.04	683.68	671.83	11.85	57.689	
2,500.00	2,422.69	2,209.98	2,154.62	10.42	8.17	147.76	110.57	329.03	749.25	736.66	12.59	59.512	
2,600.00	2,514.91	2,285.48	2,223.35	11.18	8.78	147.74	119.32	359.01	814.83	801.49	13.34	61.088	
2,700.00	2,607.13	2,360.97	2,292.09	11.96	9.39	147.74	128.07	389.00	880.40	866.31	14.09	62.463	
2,800.00	2,699.35	2,436.47	2,360.82	12.73	10.01	147.73	136.82	418.99	945.98	931.12	14.86	63.672	
2,900.00	2,791.57	2,511.97	2,429.55	13.51	10.64	147.72	145.57	448.97	1,011.55	995.93	15.62	64.741	
3,000.00	2,883.79	2,587.47	2,498.29	14.29	11.26	147.71	154.32	478.96	1,077.13	1,060.73	16.40	65.689	
3,100.00	2,976.01	2,662.97	2,567.02	15.07	11.89	147.71	163.07	508.95	1,142.70	1,125.53	17.17	66.536	
3,200.00	3,068.23	2,738.46	2,635.75	15.85	12.52	147.70	171.81	538.93	1,208.28	1,190.32	17.95	67.297	
3,300.00	3,160.45	2,813.96	2,704.49	16.64	13.15	147.70	180.56	568.92	1,273.85	1,255.11	18.74	67.983	
3,400.00	3,252.67	2,889.46	2,773.22	17.42	13.79	147.69	189.31	598.90	1,339.43	1,319.90	19.52	68.604	
3,433.02	3,283.11	2,914.39	2,795.91	17.68	14.00	147.69	192.20	608.81	1,361.08	1,341.29	19.78	68.796	
3,500.00	3,345.18	2,965.39	2,842.34	18.14	14.42	148.27	198.11	629.06	1,404.50	1,384.12	20.38	68.928	
3,600.00	3,438.90	3,043.08	2,913.07	18.71	15.08	149.00	207.12	659.92	1,467.41	1,446.19	21.22	69.140	
3,700.00	3,533.78	3,122.55	2,985.42	19.24	15.75	149.59	216.32	691.48	1,527.98	1,505.91	22.06	69.250	
3,800.00	3,629.70	3,203.69	3,059.30	19.72	16.44	150.06	225.73	723.71	1,586.14	1,563.25	22.89	69.285	
3,900.00	3,726.54	3,286.42	3,134.61	20.16	17.14	150.42	235.32	756.57	1,641.84	1,618.14	23.70	69.266	
4,000.00	3,824.20	3,370.63	3,211.27	20.54	17.85	150.68	245.07	790.01	1,695.04	1,670.54	24.49	69.209	
4,100.00	3,922.55	3,456.21	3,289.19	20.88	18.58	150.85	254.99	824.01	1,745.69	1,720.43	25.25	69.128	
4,200.00	4,021.47	3,543.07	3,368.26	21.16	19.32	150.94	265.06	858.50	1,793.76	1,767.77	25.98	69.033	
4,300.00	4,120.84	3,631.09	3,448.40	21.40	20.07	150.97	275.26	893.46	1,839.22	1,812.54	26.68	68.935	
4,400.00	4,220.54	3,720.18	3,529.50	21.58	20.83	150.92	285.58	928.85	1,882.06	1,854.72	27.34	68.839	
4,500.00	4,320.45	3,810.21	3,611.46	21.72	21.60	150.81	296.02	964.61	1,922.26	1,894.30	27.96	68.754	
4,570.56	4,391.00	3,874.25	3,669.77	21.79	22.14	102.51	303.44	990.04	1,949.03	1,920.66	28.37	68.702	
4,600.00	4,420.44	3,901.05	3,694.17	21.82	22.37	102.35	306.54	1,000.69	1,959.93	1,931.40	28.53	68.688	

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



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 39-29 - P_RASMUSSEN 39-29 - PLAN #1 09-02-09 RI												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	
4,700.00	4,520.44	3,992.09	3,777.05	21.91	23.15	101.79	317.09	1,036.85	1,997.08	1,967.98	29.09	68.641	
4,800.00	4,620.44	4,083.13	3,859.93	22.01	23.93	101.25	327.64	1,073.00	2,034.38	2,004.73	29.65	68.616	
4,900.00	4,720.44	4,174.17	3,942.81	22.11	24.70	100.73	338.19	1,109.16	2,071.84	2,041.64	30.20	68.610	
5,000.00	4,820.44	4,265.21	4,025.70	22.21	25.48	100.23	348.74	1,145.32	2,109.44	2,078.70	30.74	68.621	
5,100.00	4,920.44	4,356.25	4,108.58	22.31	26.26	99.75	359.29	1,181.48	2,147.19	2,115.91	31.28	68.647	
5,200.00	5,020.44	4,447.29	4,191.46	22.41	27.04	99.28	369.84	1,217.64	2,185.06	2,153.25	31.81	68.686	
5,300.00	5,120.44	4,538.33	4,274.34	22.52	27.82	98.83	380.40	1,253.80	2,223.06	2,190.72	32.34	68.737	
5,400.00	5,220.44	4,629.37	4,357.22	22.63	28.60	98.39	390.95	1,289.96	2,261.18	2,228.31	32.87	68.798	
5,500.00	5,320.44	4,720.41	4,440.11	22.74	29.38	97.96	401.50	1,326.12	2,299.41	2,266.02	33.39	68.868	
5,600.00	5,420.44	4,811.45	4,522.99	22.85	30.16	97.55	412.05	1,362.28	2,337.75	2,303.84	33.91	68.947	
5,700.00	5,520.44	4,902.49	4,605.87	22.96	30.94	97.16	422.60	1,398.43	2,376.19	2,341.77	34.42	69.032	
5,800.00	5,620.44	4,993.53	4,688.75	23.07	31.72	96.77	433.15	1,434.59	2,414.72	2,379.79	34.93	69.124	
5,900.00	5,720.44	5,084.57	4,771.63	23.19	32.50	96.40	443.70	1,470.75	2,453.35	2,417.91	35.44	69.220	
6,000.00	5,820.44	5,175.61	4,854.51	23.31	33.28	96.04	454.25	1,506.91	2,492.07	2,456.12	35.95	69.322	
6,100.00	5,920.44	5,266.65	4,937.40	23.43	34.06	95.68	464.80	1,543.07	2,530.87	2,494.42	36.45	69.427	
6,200.00	6,020.44	5,357.69	5,020.28	23.55	34.85	95.34	475.35	1,579.23	2,569.75	2,532.80	36.96	69.536	
6,300.00	6,120.44	5,448.73	5,103.16	23.67	35.63	95.01	485.90	1,615.39	2,608.71	2,571.26	37.46	69.648	
6,400.00	6,220.44	5,539.76	5,186.04	23.79	36.41	94.69	496.45	1,651.55	2,647.74	2,609.79	37.95	69.762	
6,500.00	6,320.44	5,629.97	5,268.66	23.92	37.19	94.34	507.00	1,687.70	2,686.77	2,648.82	38.44	69.877	
6,600.00	6,420.44	5,720.18	5,351.17	24.04	37.97	94.00	517.55	1,723.85	2,725.80	2,687.85	38.93	69.992	
6,700.00	6,520.44	5,810.39	5,433.17	24.17	38.75	93.66	528.10	1,760.00	2,764.83	2,726.88	39.42	70.107	
6,800.00	6,620.44	5,900.60	5,515.17	24.30	39.53	93.32	538.65	1,796.15	2,803.86	2,765.91	39.91	70.222	
6,900.00	6,720.44	5,990.81	5,600.00	24.43	40.31	92.98	549.20	1,832.30	2,842.89	2,804.94	40.40	70.337	
7,000.00	6,820.44	6,081.02	5,684.80	24.56	41.09	92.64	559.75	1,868.45	2,881.92	2,843.97	40.89	70.452	
7,100.00	6,920.44	6,171.23	5,769.59	24.70	41.87	92.30	570.30	1,904.60	2,920.95	2,883.00	41.38	70.567	
7,200.00	7,020.44	6,261.44	5,854.38	24.83	42.65	91.96	580.85	1,940.75	2,959.98	2,922.03	41.87	70.682	
7,300.00	7,120.44	6,351.65	5,939.17	24.97	43.43	91.62	591.40	1,976.90	2,999.01	2,963.06	42.36	70.797	
7,400.00	7,220.44	6,441.86	6,023.96	25.11	44.21	91.28	601.95	2,013.05	3,038.04	2,999.09	42.85	70.912	
7,500.00	7,320.44	6,532.07	6,108.75	25.24	44.99	90.94	612.50	2,049.20	3,077.07	3,037.12	43.34	71.027	
7,600.00	7,420.44	6,622.28	6,193.54	25.38	45.77	90.60	623.05	2,085.35	3,116.10	3,076.15	43.83	71.142	
7,700.00	7,520.44	6,712.49	6,278.33	25.53	46.55	90.26	633.60	2,121.50	3,155.13	3,115.18	44.32	71.257	
7,800.00	7,620.44	6,802.70	6,363.12	25.67	47.33	89.92	644.15	2,157.65	3,194.16	3,154.21	44.81	71.372	
7,856.56	7,677.00	6,856.26	6,417.70	25.75	47.75	89.64	654.70	2,193.80	3,233.19	3,193.24	45.30	71.487	



Weatherford International Ltd.
Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 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						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	0.00	43.71	0.00	43.71				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	43.71	0.00	43.71	43.52	0.19	228.783	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	43.71	0.00	43.71	43.07	0.64	68.234	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	43.71	0.00	43.71	42.62	1.09	40.096	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	43.71	0.00	43.71	42.17	1.54	28.389	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	43.71	0.00	43.71	41.72	1.99	21.974	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	43.71	0.00	43.71	41.27	2.44	17.923	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	43.71	0.00	43.71	40.82	2.89	15.134	
750.00	750.00	750.00	750.00	1.56	1.56	0.00	43.71	0.00	43.71	40.60	3.11	14.041	
800.00	800.00	800.00	800.00	1.67	1.67	48.61	43.71	0.00	43.42	40.08	3.34	13.018	
900.00	899.93	899.93	899.93	1.89	1.89	52.29	43.71	0.00	41.20	37.42	3.78	10.906	
1,000.00	999.68	999.20	999.20	2.11	2.11	59.88	44.23	-0.49	37.75	33.52	4.22	8.938	
1,100.00	1,099.13	1,098.35	1,098.26	2.36	2.33	69.33	47.11	-3.18	35.26	30.57	4.68	7.526	
1,200.00	1,198.15	1,197.71	1,197.34	2.63	2.56	80.01	52.49	-8.23	34.15	28.96	5.18	6.588	
1,222.15	1,220.01	1,219.75	1,219.28	2.69	2.61	82.47	54.03	-9.67	34.11	28.80	5.30	6.432 CC, ES	
1,300.00	1,296.63	1,297.30	1,296.33	2.93	2.80	91.04	60.40	-15.65	34.59	28.86	5.73	6.039	
1,400.00	1,394.44	1,397.10	1,395.10	3.28	3.06	101.36	70.84	-25.43	36.56	30.24	6.32	5.787	
1,500.00	1,491.46	1,497.13	1,493.52	3.69	3.36	110.22	83.81	-37.60	39.88	32.93	6.95	5.739	
1,600.00	1,587.58	1,597.37	1,591.49	4.15	3.71	117.41	99.33	-52.14	44.27	36.65	7.62	5.812	
1,700.00	1,682.68	1,697.84	1,688.85	4.69	4.10	123.03	117.37	-69.05	49.48	41.15	8.33	5.943	
1,800.00	1,776.65	1,798.52	1,785.51	5.29	4.56	127.34	137.94	-88.34	55.31	46.22	9.09	6.086	
1,887.54	1,857.89	1,886.85	1,869.43	5.87	5.02	130.25	158.02	-107.16	60.80	50.99	9.81	6.200	
1,900.00	1,869.37	1,899.43	1,881.32	5.96	5.09	130.61	161.03	-109.98	61.59	51.67	9.91	6.212	
2,000.00	1,961.59	2,000.65	1,976.24	6.67	5.68	131.79	186.65	-134.00	66.77	55.87	10.90	6.127	
2,100.00	2,053.81	2,102.03	2,070.02	7.40	6.35	130.49	214.74	-160.34	69.86	57.75	12.11	5.771	
2,200.00	2,146.03	2,203.33	2,162.30	8.14	7.09	126.92	245.22	-188.91	71.02	57.42	13.60	5.222	
2,300.00	2,238.25	2,304.29	2,252.75	8.89	7.91	120.97	277.94	-219.58	70.80	55.36	15.44	4.585	
2,400.00	2,330.47	2,404.67	2,341.05	9.65	8.79	112.40	312.76	-252.22	70.19	52.56	17.62	3.983	
2,428.23	2,356.50	2,432.87	2,365.55	9.87	9.06	109.49	322.94	-261.77	70.13	51.85	18.28	3.836	
2,500.00	2,422.69	2,504.13	2,426.95	10.42	9.74	101.35	349.33	-286.51	70.68	50.76	19.92	3.548	
2,600.00	2,514.91	2,603.10	2,512.05	11.18	10.71	90.33	386.18	-321.05	73.78	51.90	21.88	3.372 SF	
2,700.00	2,607.13	2,702.06	2,597.16	11.96	11.70	80.51	423.03	-355.60	79.40	56.03	23.37	3.397	
2,800.00	2,699.35	2,801.03	2,682.27	12.73	12.69	72.17	459.88	-390.14	87.04	62.55	24.49	3.554	
2,900.00	2,791.57	2,899.99	2,767.37	13.51	13.70	65.28	496.73	-424.69	96.23	70.88	25.34	3.797	
3,000.00	2,883.79	2,998.96	2,852.48	14.29	14.71	59.65	533.58	-459.23	106.56	80.51	26.05	4.091	
3,100.00	2,976.01	3,097.93	2,937.58	15.07	15.72	55.04	570.43	-493.78	117.73	91.05	26.68	4.412	
3,200.00	3,068.23	3,196.89	3,022.69	15.85	16.74	51.24	607.28	-528.32	129.54	102.24	27.29	4.746	
3,300.00	3,160.45	3,295.86	3,107.79	16.64	17.77	48.08	644.13	-562.87	141.81	113.91	27.90	5.083	
3,400.00	3,252.67	3,394.82	3,192.90	17.42	18.79	45.43	680.98	-597.41	154.44	125.92	28.52	5.415	
3,433.02	3,283.11	3,427.50	3,221.00	17.68	19.13	44.65	693.15	-608.82	158.67	129.94	28.73	5.523	
3,500.00	3,345.18	3,493.68	3,277.91	18.14	19.82	43.13	717.79	-631.92	167.91	138.82	29.09	5.772	
3,600.00	3,438.90	3,592.00	3,362.46	18.71	20.84	40.61	754.40	-666.24	184.10	154.73	29.37	6.268	
3,700.00	3,533.78	3,689.64	3,446.43	19.24	21.86	37.95	790.75	-700.32	203.35	173.88	29.48	6.899	
3,800.00	3,629.70	3,786.49	3,529.71	19.72	22.87	35.30	826.82	-734.13	225.81	196.36	29.45	7.668	
3,900.00	3,726.54	3,882.43	3,612.22	20.16	23.88	32.77	862.54	-767.62	251.57	222.23	29.33	8.576	
4,000.00	3,824.20	3,977.34	3,693.83	20.54	24.87	30.41	897.88	-800.75	280.70	251.52	29.17	9.621	
4,100.00	3,922.55	4,071.10	3,774.46	20.88	25.86	28.26	932.79	-833.48	313.21	284.22	28.99	10.803	
4,200.00	4,021.47	4,163.60	3,854.01	21.16	26.83	26.33	967.23	-865.77	349.11	320.28	28.83	12.111	
4,300.00	4,120.84	4,254.73	3,932.38	21.40	27.78	24.61	1,001.17	-897.58	388.34	359.68	28.66	13.550	
4,400.00	4,220.54	4,344.38	4,009.47	21.58	28.73	23.09	1,034.55	-928.87	430.87	402.37	28.49	15.121	
4,500.00	4,320.45	4,432.43	4,085.19	21.72	29.65	21.75	1,067.33	-959.60	476.63	448.30	28.33	16.825	
4,570.56	4,391.00	4,493.55	4,137.74	21.79	30.30	-27.28	1,090.09	-980.94	510.83	482.62	28.21	18.109	

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



Weatherford International Ltd.

Anticollision Report



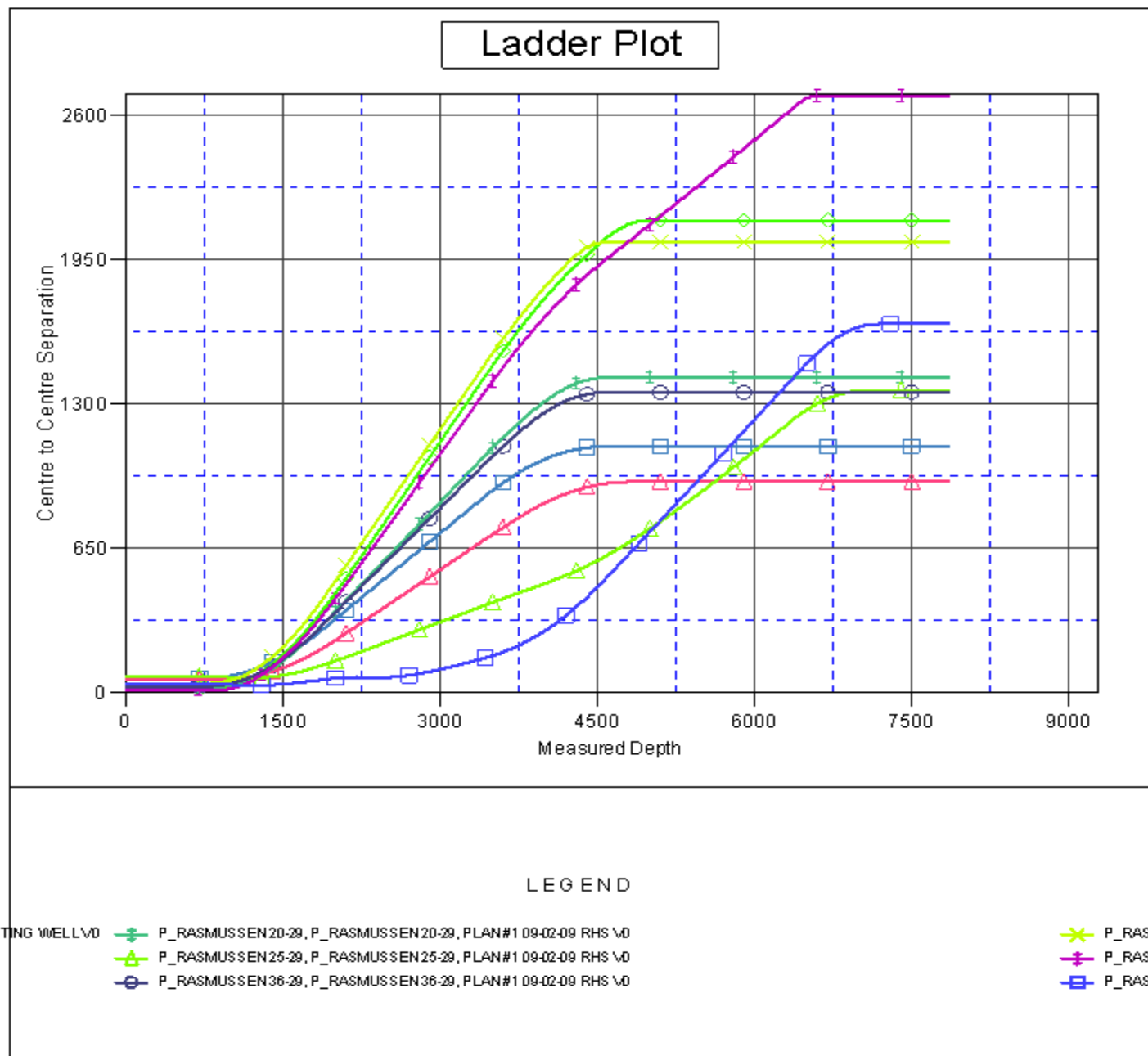
Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_RASMUSSEN 9 PAD - P_RASMUSSEN 22-29 - P_RASMUSSEN 22-29 - PLAN #1 09-02-09												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	
4,600.00	4,420.44	4,518.86	4,159.51	21.82	30.56	-27.72	1,099.51	-989.77	525.44	497.25	28.19	18.641	
4,700.00	4,520.44	4,604.86	4,233.46	21.91	31.47	-29.06	1,131.53	-1,019.79	575.22	547.02	28.20	20.400	
4,800.00	4,620.44	4,690.85	4,307.42	22.01	32.37	-30.20	1,163.55	-1,049.81	625.20	596.90	28.30	22.095	
4,900.00	4,720.44	4,776.85	4,381.37	22.11	33.28	-31.16	1,195.57	-1,079.83	675.34	646.87	28.46	23.726	
5,000.00	4,820.44	4,862.84	4,455.32	22.21	34.19	-31.99	1,227.59	-1,109.84	725.60	696.92	28.69	25.295	
5,100.00	4,920.44	4,948.84	4,529.27	22.31	35.09	-32.72	1,259.62	-1,139.86	775.97	747.02	28.95	26.804	
5,200.00	5,020.44	5,034.83	4,603.22	22.41	36.00	-33.36	1,291.64	-1,169.88	826.42	797.17	29.25	28.255	
5,300.00	5,120.44	5,120.83	4,677.17	22.52	36.91	-33.92	1,323.66	-1,199.90	876.94	847.36	29.58	29.651	
5,400.00	5,220.44	5,206.82	4,751.12	22.63	37.82	-34.43	1,355.68	-1,229.91	927.51	897.59	29.93	30.994	
5,500.00	5,320.44	5,292.82	4,825.07	22.74	38.72	-34.88	1,387.70	-1,259.93	978.13	947.84	30.29	32.288	
5,600.00	5,420.44	5,378.81	4,899.02	22.85	39.63	-35.29	1,419.72	-1,289.95	1,028.80	998.12	30.68	33.534	
5,700.00	5,520.44	5,464.81	4,972.98	22.96	40.54	-35.66	1,451.74	-1,319.97	1,079.50	1,048.42	31.08	34.735	
5,800.00	5,620.44	5,550.80	5,046.93	23.07	41.45	-35.99	1,483.76	-1,349.98	1,130.22	1,098.74	31.49	35.893	
5,900.00	5,720.44	5,636.80	5,120.88	23.19	42.36	-36.30	1,515.78	-1,380.00	1,180.98	1,149.07	31.91	37.010	
6,000.00	5,820.44	5,722.79	5,194.83	23.31	43.27	-36.58	1,547.80	-1,410.02	1,231.76	1,199.42	32.34	38.089	
6,100.00	5,920.44	5,808.79	5,268.78	23.43	44.17	-36.85	1,579.82	-1,440.04	1,282.56	1,249.78	32.78	39.130	
6,200.00	6,020.44	5,894.78	5,342.73	23.55	45.08	-37.09	1,611.84	-1,470.05	1,333.38	1,300.16	33.22	40.136	
6,300.00	6,120.44	5,980.77	5,416.68	23.67	45.99	-37.31	1,643.86	-1,500.07	1,384.21	1,350.54	33.67	41.109	
6,400.00	6,220.44	6,066.77	5,490.63	23.79	46.90	-37.52	1,675.88	-1,530.09	1,435.06	1,400.93	34.13	42.049	
6,500.00	6,320.44	6,186.01	5,593.53	23.92	48.09	-37.78	1,719.82	-1,571.28	1,485.57	1,450.89	34.68	42.832	
6,600.00	6,420.44	6,372.68	5,759.03	24.04	49.55	-38.11	1,782.77	-1,630.30	1,531.68	1,496.28	35.40	43.263	
6,700.00	6,520.44	6,571.80	5,941.36	24.17	50.90	-38.39	1,841.10	-1,684.98	1,571.74	1,535.60	36.14	43.488	
6,800.00	6,620.44	6,782.56	6,139.88	24.30	52.09	-38.61	1,892.61	-1,733.27	1,605.18	1,568.30	36.88	43.527	
6,900.00	6,720.44	7,003.53	6,353.01	24.43	53.08	-38.77	1,935.04	-1,773.04	1,631.45	1,593.86	37.59	43.403	
7,000.00	6,820.44	7,232.69	6,578.07	24.56	53.82	-38.89	1,966.25	-1,802.30	1,650.08	1,611.84	38.24	43.147	
7,100.00	6,920.44	7,467.42	6,811.40	24.70	54.30	-38.95	1,984.50	-1,819.42	1,660.73	1,621.90	38.83	42.774	
7,200.00	7,020.44	7,676.59	7,020.44	24.83	54.51	-38.97	1,989.04	-1,823.67	1,663.34	1,624.05	39.29	42.331	
7,300.00	7,120.44	7,776.59	7,120.44	24.97	54.56	-38.97	1,989.04	-1,823.67	1,663.34	1,623.72	39.62	41.980	
7,400.00	7,220.44	7,876.59	7,220.44	25.11	54.63	-38.97	1,989.04	-1,823.67	1,663.34	1,623.39	39.95	41.630	
7,500.00	7,320.44	7,976.59	7,320.44	25.24	54.69	-38.97	1,989.04	-1,823.67	1,663.34	1,623.05	40.29	41.285	
7,600.00	7,420.44	8,076.59	7,420.44	25.38	54.75	-38.97	1,989.04	-1,823.67	1,663.34	1,622.71	40.63	40.942	
7,700.00	7,520.44	8,176.59	7,520.44	25.53	54.82	-38.97	1,989.04	-1,823.67	1,663.34	1,622.38	40.97	40.604	
7,800.00	7,620.44	8,276.59	7,620.44	25.67	54.88	-38.97	1,989.04	-1,823.67	1,663.34	1,622.04	41.31	40.269	
7,856.56	7,677.00	8,333.16	7,677.00	25.75	54.92	-38.97	1,989.04	-1,823.67	1,663.34	1,621.84	41.50	40.081	



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4949.00ft (Original Well Elev) Coordinates are relative to: P_RASMUSSEN 23-29
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: 0.31°

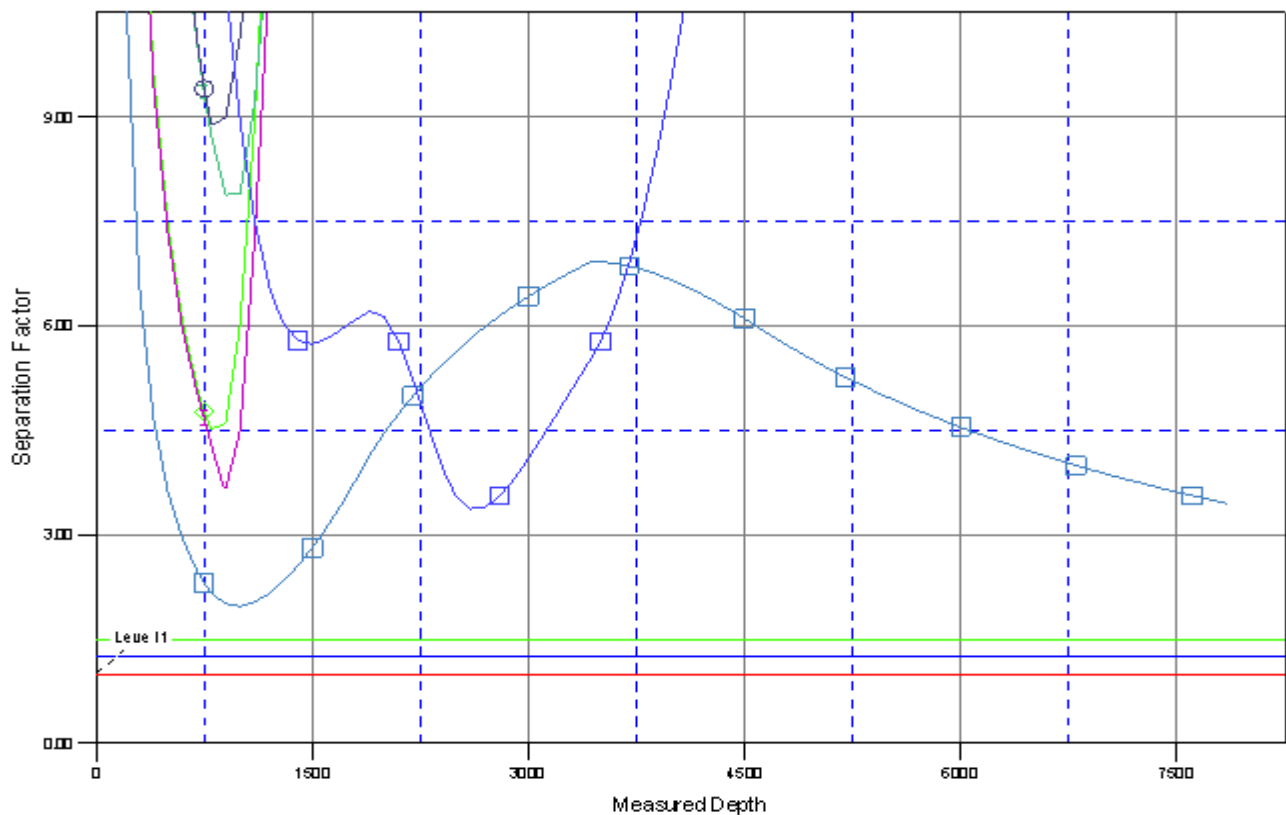




Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 23-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 23-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 23-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4949.00ft (Original Well Elev) Coordinates are relative to: P_RASMUSSEN 23-29
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: 0.31°

Separation Factor Plot



LEGEND

STING WELL VD	P_RASMUSSEN 20-29, P_RASMUSSEN 20-29, PLAN #1 09-02-09 RHS VD	P_RASML
	P_RASMUSSEN 25-29, P_RASMUSSEN 25-29, PLAN #1 09-02-09 RHS VD	P_RASML
	P_RASMUSSEN 36-29, P_RASMUSSEN 36-29, PLAN #1 09-02-09 RHS VD	P_RASML