



US ROCKIES REGION PLANNING

KERR MCGEE OIL & GAS ONSHORE LP

WELD_RASMUSSEN 9 PAD

P_RASMUSSEN 39-29

P_RASMUSSEN 39-29

Plan: PLAN #1 09-02-09 RHS

Standard Planning Report

02 September, 2009





P_RASMUSSEN 39-29
KERR MCGEE OIL & GAS ONSHORE LP
SECTION 29 T2N R68W
727 FSL 1962 FEL
LAT: 40° 6' 15.552 N
LONG: 105° 1' 28.992 W



Azimuths to True North
Magnetic North: 9.18°
Magnetic Field
Strength: 53153.1snT
Dip Angle: 66.84°
Date: 9/2/2009
Model: IGRF200510

WELL DETAILS: P_RASMUSSEN 39-29

+N/-S	+E/-W	Northing	Easting	Ground Level:	Latitude	Longitude	Slot
0.00	0.00	1281204.37	3132947.08	4934.00	40° 6' 15.552 N	105° 1' 28.992 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3886.00	4111.77	PARKMAN
4421.00	4699.42	SUSSEX TOP
4834.00	5153.07	SHANNON TOP
7252.00	7645.27	NIO A TOP
7547.00	7940.27	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	
780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	
2002.00	24.44	73.73	1965.28	71.90	246.42	2.00	73.73	256.70	
5571.27	24.44	73.73	5214.72	485.53	1664.06	0.00	0.00	1733.45	
6793.27	0.00	0.00	6400.00	557.43	1910.48	2.00	180.00	1990.14	
8100.27	0.00	0.00	7707.00	557.43	1910.48	0.00	0.00	1990.14	PBHL_RASMUSSEN 39-29(1300 FSL 50 FEL)50' TGT RAD

CASING DETAILS

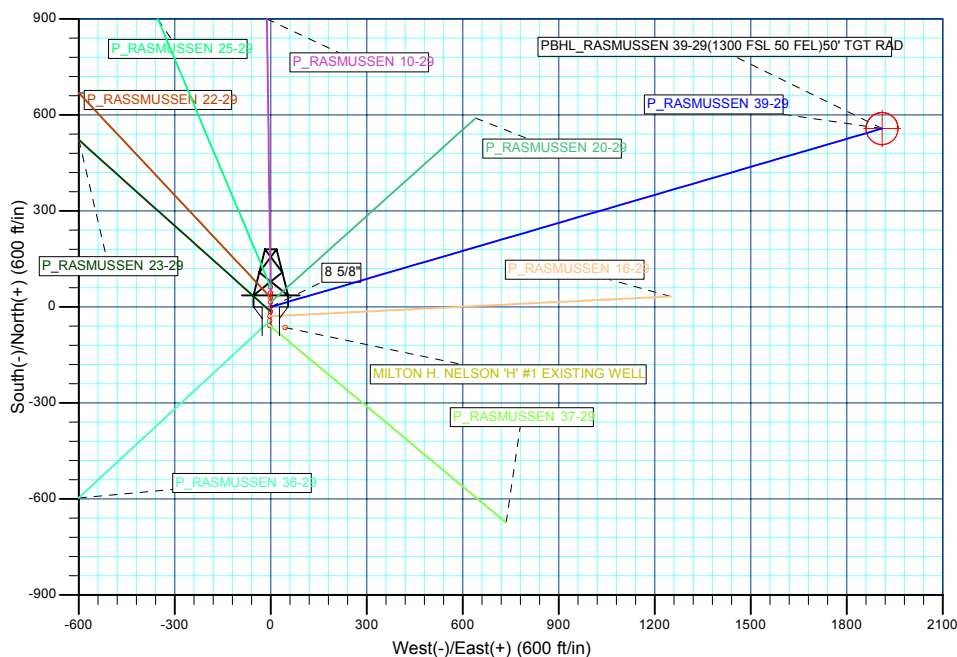
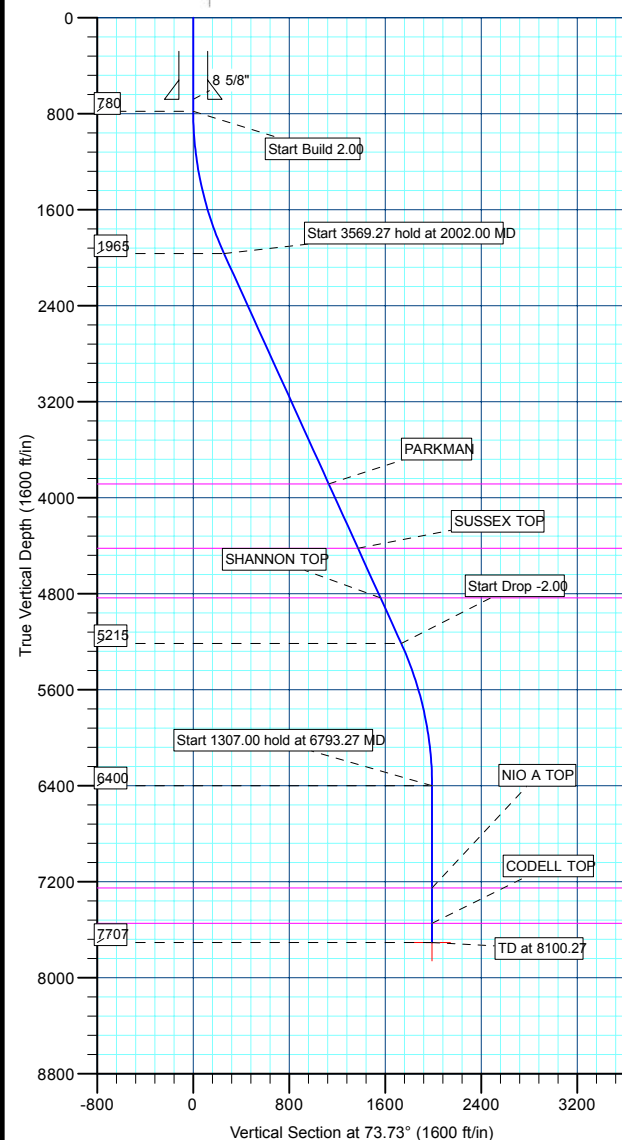
TVD	MD	Name	Size
680.00	680.00	8 5/8"	8.62

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7707.00	557.43	1910.48	1281772.03	3134854.55	40° 6' 21.060 N	105° 1' 4.404 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 39-29/P_RASMUSSEN 39-29)

Created By: Robert H. Scott



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 39-29		
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 39-29					
Well Position	+N/-S	-43.73 ft	Northing:	1,281,204.37 ft	Latitude:	40° 6' 15.552 N
	+E/-W	0.00 ft	Easting:	3,132,947.08 ft	Longitude:	105° 1' 28.992 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,934.00 ft

Wellbore	P_RASMUSSEN 39-29				
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	73.73

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	
780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,002.00	24.44	73.73	1,965.28	71.90	246.42	2.00	2.00	0.00	73.73	
5,571.27	24.44	73.73	5,214.72	485.53	1,664.06	0.00	0.00	0.00	0.00	
6,793.27	0.00	0.00	6,400.00	557.43	1,910.48	2.00	-2.00	0.00	180.00	
8,100.27	0.00	0.00	7,707.00	557.43	1,910.48	0.00	0.00	0.00	0.00	PBHL_RASMUSSE



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 39-29		
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									
780.00	0.00	0.00	780.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.40	73.73	800.00	0.02	0.07	0.07	2.00	2.00	0.00
900.00	2.40	73.73	899.96	0.70	2.41	2.51	2.00	2.00	0.00
1,000.00	4.40	73.73	999.78	2.36	8.11	8.44	2.00	2.00	0.00
1,100.00	6.40	73.73	1,099.33	5.00	17.14	17.85	2.00	2.00	0.00
1,200.00	8.40	73.73	1,198.50	8.61	29.50	30.73	2.00	2.00	0.00
1,300.00	10.40	73.73	1,297.15	13.18	45.18	47.06	2.00	2.00	0.00
1,400.00	12.40	73.73	1,395.17	18.72	64.15	66.83	2.00	2.00	0.00
1,500.00	14.40	73.73	1,492.44	25.21	86.40	90.00	2.00	2.00	0.00
1,600.00	16.40	73.73	1,588.85	32.65	111.89	116.56	2.00	2.00	0.00
1,700.00	18.40	73.73	1,684.27	41.02	140.60	146.46	2.00	2.00	0.00
1,800.00	20.40	73.73	1,778.59	50.33	172.48	179.67	2.00	2.00	0.00
1,900.00	22.40	73.73	1,871.69	60.55	207.51	216.16	2.00	2.00	0.00
2,000.00	24.40	73.73	1,963.46	71.67	245.63	255.87	2.00	2.00	0.00
Start 3569.27 hold at 2002.00 MD									
2,002.00	24.44	73.73	1,965.28	71.90	246.42	256.70	2.00	2.00	0.00
2,100.00	24.44	73.73	2,054.50	83.26	285.35	297.25	0.00	0.00	0.00
2,200.00	24.44	73.73	2,145.54	94.85	325.07	338.62	0.00	0.00	0.00
2,300.00	24.44	73.73	2,236.58	106.43	364.78	379.99	0.00	0.00	0.00
2,400.00	24.44	73.73	2,327.62	118.02	404.50	421.37	0.00	0.00	0.00
2,500.00	24.44	73.73	2,418.65	129.61	444.22	462.74	0.00	0.00	0.00
2,600.00	24.44	73.73	2,509.69	141.20	483.94	504.12	0.00	0.00	0.00
2,700.00	24.44	73.73	2,600.73	152.79	523.65	545.49	0.00	0.00	0.00
2,800.00	24.44	73.73	2,691.77	164.38	563.37	586.86	0.00	0.00	0.00
2,900.00	24.44	73.73	2,782.81	175.97	603.09	628.24	0.00	0.00	0.00
3,000.00	24.44	73.73	2,873.85	187.56	642.81	669.61	0.00	0.00	0.00
3,100.00	24.44	73.73	2,964.89	199.14	682.53	710.99	0.00	0.00	0.00
3,200.00	24.44	73.73	3,055.93	210.73	722.24	752.36	0.00	0.00	0.00
3,300.00	24.44	73.73	3,146.97	222.32	761.96	793.73	0.00	0.00	0.00
3,400.00	24.44	73.73	3,238.01	233.91	801.68	835.11	0.00	0.00	0.00
3,500.00	24.44	73.73	3,329.05	245.50	841.40	876.48	0.00	0.00	0.00
3,600.00	24.44	73.73	3,420.09	257.09	881.11	917.85	0.00	0.00	0.00
3,700.00	24.44	73.73	3,511.13	268.68	920.83	959.23	0.00	0.00	0.00
3,800.00	24.44	73.73	3,602.17	280.27	960.55	1,000.60	0.00	0.00	0.00
3,900.00	24.44	73.73	3,693.21	291.85	1,000.27	1,041.98	0.00	0.00	0.00
4,000.00	24.44	73.73	3,784.25	303.44	1,039.99	1,083.35	0.00	0.00	0.00
4,100.00	24.44	73.73	3,875.29	315.03	1,079.70	1,124.72	0.00	0.00	0.00
PARKMAN									
4,111.77	24.44	73.73	3,886.00	316.40	1,084.38	1,129.59	0.00	0.00	0.00
4,200.00	24.44	73.73	3,966.33	326.62	1,119.42	1,166.10	0.00	0.00	0.00
4,300.00	24.44	73.73	4,057.37	338.21	1,159.14	1,207.47	0.00	0.00	0.00
4,400.00	24.44	73.73	4,148.41	349.80	1,198.86	1,248.85	0.00	0.00	0.00
4,500.00	24.44	73.73	4,239.45	361.39	1,238.58	1,290.22	0.00	0.00	0.00
4,600.00	24.44	73.73	4,330.49	372.98	1,278.29	1,331.59	0.00	0.00	0.00
SUSSEX TOP									
4,699.42	24.44	73.73	4,421.00	384.50	1,317.78	1,372.73	0.00	0.00	0.00
4,700.00	24.44	73.73	4,421.52	384.56	1,318.01	1,372.97	0.00	0.00	0.00
4,800.00	24.44	73.73	4,512.56	396.15	1,357.73	1,414.34	0.00	0.00	0.00
4,900.00	24.44	73.73	4,603.60	407.74	1,397.45	1,455.72	0.00	0.00	0.00
5,000.00	24.44	73.73	4,694.64	419.33	1,437.16	1,497.09	0.00	0.00	0.00
5,100.00	24.44	73.73	4,785.68	430.92	1,476.88	1,538.46	0.00	0.00	0.00
SHANNON TOP									



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 39-29		
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)
5,153.07	24.44	73.73	4,834.00	437.07	1,497.96	1,560.42	0.00	0.00	0.00
5,200.00	24.44	73.73	4,876.72	442.51	1,516.60	1,579.84	0.00	0.00	0.00
5,300.00	24.44	73.73	4,967.76	454.10	1,556.32	1,621.21	0.00	0.00	0.00
5,400.00	24.44	73.73	5,058.80	465.68	1,596.04	1,662.59	0.00	0.00	0.00
5,500.00	24.44	73.73	5,149.84	477.27	1,635.75	1,703.96	0.00	0.00	0.00
Start Drop -2.00									
5,571.27	24.44	73.73	5,214.72	485.53	1,664.06	1,733.45	0.00	0.00	0.00
5,600.00	23.87	73.73	5,240.94	488.83	1,675.34	1,745.20	2.00	-2.00	0.00
5,700.00	21.87	73.73	5,333.08	499.71	1,712.64	1,784.06	2.00	-2.00	0.00
5,800.00	19.87	73.73	5,426.51	509.68	1,746.83	1,819.67	2.00	-2.00	0.00
5,900.00	17.87	73.73	5,521.14	518.74	1,777.87	1,852.01	2.00	-2.00	0.00
6,000.00	15.87	73.73	5,616.83	526.87	1,805.72	1,881.02	2.00	-2.00	0.00
6,100.00	13.87	73.73	5,713.48	534.05	1,830.35	1,906.67	2.00	-2.00	0.00
6,200.00	11.87	73.73	5,810.96	540.29	1,851.72	1,928.93	2.00	-2.00	0.00
6,300.00	9.87	73.73	5,909.17	545.57	1,869.82	1,947.78	2.00	-2.00	0.00
6,400.00	7.87	73.73	6,007.97	549.88	1,884.61	1,963.19	2.00	-2.00	0.00
6,500.00	5.87	73.73	6,107.25	553.23	1,896.09	1,975.15	2.00	-2.00	0.00
6,600.00	3.87	73.73	6,206.88	555.61	1,904.23	1,983.63	2.00	-2.00	0.00
6,700.00	1.87	73.73	6,306.75	557.01	1,909.03	1,988.63	2.00	-2.00	0.00
Start 1307.00 hold at 6793.27 MD									
6,793.27	0.00	0.00	6,400.00	557.43	1,910.48	1,990.14	2.00	-2.00	0.00
6,800.00	0.00	0.00	6,406.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
6,900.00	0.00	0.00	6,506.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,000.00	0.00	0.00	6,606.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,100.00	0.00	0.00	6,706.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,200.00	0.00	0.00	6,806.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,300.00	0.00	0.00	6,906.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,400.00	0.00	0.00	7,006.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,500.00	0.00	0.00	7,106.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,600.00	0.00	0.00	7,206.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
NIO A TOP									
7,645.27	0.00	0.00	7,252.00	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,700.00	0.00	0.00	7,306.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,800.00	0.00	0.00	7,406.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
7,900.00	0.00	0.00	7,506.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
CODELL TOP									
7,940.27	0.00	0.00	7,547.00	557.43	1,910.48	1,990.14	0.00	0.00	0.00
8,000.00	0.00	0.00	7,606.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
8,100.00	0.00	0.00	7,706.73	557.43	1,910.48	1,990.14	0.00	0.00	0.00
PBHL_RASMUSSEN 39-29(1300 FSL 50 FEL)50' TGT RAD									
8,100.27	0.00	0.00	7,707.00	557.43	1,910.48	1,990.14	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	7,707.00	557.43	1,910.48	1,281,772.03	3,134,854.55	40° 6' 21.060 N	105° 1' 4.404 W
- plan hits target center									
- Circle (radius 50.00)									



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_RASMUSSEN 39-29		
Design:	PLAN #1 09-02-09 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
680.00	680.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,111.77	3,886.00	PARKMAN				
4,699.42	4,421.00	SUSSEX TOP				
5,153.07	4,834.00	SHANNON TOP				
7,645.27	7,252.00	NIO A TOP				
7,940.27	7,547.00	CODELL TOP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
780.00	780.00	0.00	0.00	Start Build 2.00	
2,002.00	1,965.28	71.90	246.42	Start 3569.27 hold at 2002.00 MD	
5,571.27	5,214.72	485.53	1,664.06	Start Drop -2.00	
6,793.27	6,400.00	557.43	1,910.48	Start 1307.00 hold at 6793.27 MD	
8,100.27	7,707.00	557.43	1,910.48	TD at 8100.27	



US ROCKIES REGION PLANNING

**KERR MCGEE OIL & GAS ONSHORE LP
WELD_RASMUSSEN 9 PAD
P_RASMUSSEN 39-29**

**P_RASMUSSEN 39-29
PLAN #1 09-02-09 RHS**

Anticollision Report

02 September, 2009





Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	8,100.27	PLAN #1 09-02-09 RHS (P_RASMUSSEN	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
WELD_RASMUSSEN 9 PAD						
MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON	1,163.47	1,162.32	74.57	27.87	1.597	CC
MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON	1,300.00	1,297.15	77.59	25.16	1.480	Level 3, ES, SF
P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN	737.33	737.33	43.73	40.67	14.308	CC
P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN	780.00	779.55	43.88	40.63	13.516	ES
P_RASMUSSEN 10-29 - P_RASMUSSEN 10-29 - PLAN	900.00	897.61	46.95	43.19	12.477	SF
P_RASMUSSEN 16-29 - P_RASMUSSEN 16-29 - PLAN	780.00	780.00	29.27	26.02	9.013	CC
P_RASMUSSEN 16-29 - P_RASMUSSEN 16-29 - PLAN	800.00	800.01	29.30	25.96	8.786	ES
P_RASMUSSEN 16-29 - P_RASMUSSEN 16-29 - PLAN	3,900.00	3,891.24	271.39	227.05	6.121	SF
P_RASMUSSEN 20-29 - P_RASMUSSEN 20-29 - PLAN	737.44	737.44	14.56	11.50	4.763	CC
P_RASMUSSEN 20-29 - P_RASMUSSEN 20-29 - PLAN	780.00	779.90	14.66	11.42	4.517	ES
P_RASMUSSEN 20-29 - P_RASMUSSEN 20-29 - PLAN	900.00	899.44	16.48	12.72	4.384	SF
P_RASMUSSEN 23-29 - P_RASMUSSEN 23-29 - PLAN	881.28	881.57	13.65	9.97	3.708	CC, ES
P_RASMUSSEN 23-29 - P_RASMUSSEN 23-29 - PLAN	900.00	900.27	13.73	9.97	3.652	SF
P_RASMUSSEN 25-29 - P_RASMUSSEN 25-29 - PLAN	971.86	970.99	60.66	56.58	14.855	CC, ES
P_RASMUSSEN 25-29 - P_RASMUSSEN 25-29 - PLAN	1,100.00	1,095.84	64.04	59.39	13.755	SF
P_RASMUSSEN 36-29 - P_RASMUSSEN 36-29 - PLAN	780.00	780.00	43.80	40.55	13.485	CC
P_RASMUSSEN 36-29 - P_RASMUSSEN 36-29 - PLAN	800.00	799.78	43.87	40.54	13.174	ES
P_RASMUSSEN 36-29 - P_RASMUSSEN 36-29 - PLAN	900.00	898.49	46.63	42.91	12.542	SF
P_RASMUSSEN 37-29 - P_RASMUSSEN 37-29 - PLAN	780.00	780.00	58.34	55.10	17.964	CC
P_RASMUSSEN 37-29 - P_RASMUSSEN 37-29 - PLAN	800.00	799.88	58.38	55.04	17.514	ES
P_RASMUSSEN 37-29 - P_RASMUSSEN 37-29 - PLAN	1,000.00	997.21	65.70	61.57	15.906	SF
P_RASMUSSEN 22-29 - P_RASMUSSEN 22-29 - PI	955.61	955.33	28.18	24.16	7.021	CC, ES
P_RASMUSSEN 22-29 - P_RASMUSSEN 22-29 - PI	1,000.00	999.21	28.63	24.42	6.807	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	144.77	-64.40	45.49	78.85			
100.00	100.00	100.00	100.00	0.10	1.70	144.77	-64.40	45.49	78.85	77.05	1.80	43.913
200.00	200.00	200.00	200.00	0.32	5.70	144.77	-64.40	45.49	78.85	72.83	6.02	13.097
300.00	300.00	300.00	300.00	0.55	9.70	144.77	-64.40	45.49	78.85	68.60	10.25	7.696
400.00	400.00	400.00	400.00	0.77	13.70	144.77	-64.40	45.49	78.85	64.38	14.47	5.449

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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						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	
500.00	500.00	500.00	500.00	0.99	17.70	144.77	-64.40	45.49	78.85	60.15	18.69	4.218	
600.00	600.00	600.00	600.00	1.22	21.70	144.77	-64.40	45.49	78.85	55.93	22.92	3.440	
700.00	700.00	700.00	700.00	1.44	25.70	144.77	-64.40	45.49	78.85	51.70	27.14	2.905	
780.00	780.00	780.00	780.00	1.62	28.90	144.77	-64.40	45.49	78.85	48.32	30.52	2.583	
800.00	800.00	800.00	800.00	1.67	29.70	71.08	-64.40	45.49	78.82	47.46	31.37	2.513	
900.00	899.96	899.96	899.96	1.87	33.70	72.79	-64.40	45.49	78.07	42.50	35.57	2.195	
1,000.00	999.78	999.78	999.78	2.09	37.69	77.06	-64.40	45.49	76.52	36.74	39.78	1.924	
1,100.00	1,099.33	1,099.33	1,099.33	2.33	41.67	84.09	-64.40	45.49	74.97	30.97	44.00	1.704	
1,163.47	1,162.32	1,162.32	1,162.32	2.49	44.19	90.00	-64.40	45.49	74.57	27.87	46.70	1.597 CC	
1,200.00	1,198.50	1,198.50	1,198.50	2.58	45.64	93.88	-64.40	45.49	74.74	26.50	48.24	1.549	
1,300.00	1,297.15	1,297.15	1,297.15	2.87	49.59	105.79	-64.40	45.49	77.59	25.16	52.43	1.480 Level 3, ES, SF	
1,400.00	1,395.17	1,395.17	1,395.17	3.21	53.51	118.35	-64.40	45.49	85.19	28.74	56.45	1.509	
1,500.00	1,492.44	1,492.44	1,492.44	3.60	57.40	129.90	-64.40	45.49	98.51	38.31	60.20	1.636	
1,600.00	1,588.85	1,588.85	1,588.85	4.05	61.25	139.48	-64.40	45.49	117.59	53.94	63.65	1.847	
1,700.00	1,684.27	1,684.27	1,684.27	4.56	65.07	146.96	-64.40	45.49	141.99	75.13	66.86	2.124	
1,800.00	1,778.59	1,778.59	1,778.59	5.14	68.84	152.69	-64.40	45.49	171.15	101.30	69.84	2.450	
1,900.00	1,871.69	1,871.69	1,871.69	5.80	72.57	157.06	-64.40	45.49	204.60	131.98	72.62	2.817	
2,002.00	1,965.28	1,965.28	1,965.28	6.54	76.31	160.48	-64.40	45.49	242.80	167.57	75.24	3.227	
2,100.00	2,054.50	2,054.50	2,054.50	7.30	79.88	163.22	-64.40	45.49	281.67	203.05	78.62	3.583	
2,200.00	2,145.54	2,145.54	2,145.54	8.09	83.52	165.34	-64.40	45.49	321.75	239.63	82.13	3.918	
2,300.00	2,236.58	2,236.58	2,236.58	8.90	87.16	166.99	-64.40	45.49	362.13	276.45	85.67	4.227	
2,400.00	2,327.62	2,327.62	2,327.62	9.71	90.80	168.31	-64.40	45.49	402.70	313.45	89.25	4.512	
2,500.00	2,418.65	2,418.65	2,418.65	10.54	94.45	169.39	-64.40	45.49	443.43	350.58	92.85	4.776	
2,600.00	2,509.69	2,509.69	2,509.69	11.36	98.09	170.29	-64.40	45.49	484.26	387.81	96.46	5.020	
2,700.00	2,600.73	2,600.73	2,600.73	12.20	101.73	171.05	-64.40	45.49	525.18	425.10	100.08	5.248	
2,800.00	2,691.77	2,691.77	2,691.77	13.03	105.37	171.70	-64.40	45.49	566.17	462.46	103.71	5.459	
2,900.00	2,782.81	2,782.81	2,782.81	13.87	109.01	172.26	-64.40	45.49	607.21	499.86	107.35	5.656	
3,000.00	2,873.85	2,873.85	2,873.85	14.72	112.65	172.75	-64.40	45.49	648.29	537.29	110.99	5.841	
3,100.00	2,964.89	2,964.89	2,964.89	15.56	116.30	173.19	-64.40	45.49	689.40	574.76	114.64	6.014	
3,200.00	3,055.93	3,055.93	3,055.93	16.41	119.94	173.57	-64.40	45.49	730.55	612.25	118.29	6.176	
3,300.00	3,146.97	3,146.97	3,146.97	17.25	123.58	173.91	-64.40	45.49	771.72	649.77	121.95	6.328	
3,400.00	3,238.01	3,238.01	3,238.01	18.10	127.22	174.22	-64.40	45.49	812.91	687.30	125.61	6.472	
3,500.00	3,329.05	3,329.05	3,329.05	18.95	130.86	174.50	-64.40	45.49	854.12	724.85	129.27	6.607	
3,600.00	3,420.09	3,420.09	3,420.09	19.80	134.50	174.76	-64.40	45.49	895.34	762.41	132.93	6.735	
3,700.00	3,511.13	3,511.13	3,511.13	20.66	138.15	174.99	-64.40	45.49	936.58	799.98	136.60	6.857	
3,800.00	3,602.17	3,602.17	3,602.17	21.51	141.79	175.20	-64.40	45.49	977.82	837.56	140.26	6.971	
3,900.00	3,693.21	3,693.21	3,693.21	22.36	145.43	175.39	-64.40	45.49	1,019.08	875.15	143.93	7.080	
4,000.00	3,784.25	3,784.25	3,784.25	23.22	149.07	175.57	-64.40	45.49	1,060.35	912.75	147.60	7.184	
4,100.00	3,875.29	3,875.29	3,875.29	24.07	152.71	175.74	-64.40	45.49	1,101.62	950.35	151.27	7.282	
4,200.00	3,966.33	3,966.33	3,966.33	24.93	156.35	175.89	-64.40	45.49	1,142.91	987.97	154.94	7.376	
4,300.00	4,057.37	4,057.37	4,057.37	25.78	159.99	176.04	-64.40	45.49	1,184.20	1,025.58	158.61	7.466	
4,400.00	4,148.41	4,148.41	4,148.41	26.64	163.64	176.17	-64.40	45.49	1,225.49	1,063.20	162.29	7.551	
4,500.00	4,239.45	4,239.45	4,239.45	27.49	167.28	176.29	-64.40	45.49	1,266.79	1,100.83	165.96	7.633	
4,600.00	4,330.49	4,330.49	4,330.49	28.35	170.92	176.41	-64.40	45.49	1,308.09	1,138.46	169.64	7.711	
4,700.00	4,421.52	4,421.52	4,421.52	29.21	174.56	176.52	-64.40	45.49	1,349.40	1,176.09	173.31	7.786	
4,800.00	4,512.56	4,512.56	4,512.56	30.06	178.20	176.62	-64.40	45.49	1,390.72	1,213.73	176.99	7.858	
4,900.00	4,603.60	4,603.60	4,603.60	30.92	181.84	176.72	-64.40	45.49	1,432.03	1,251.37	180.66	7.927	
5,000.00	4,694.64	4,694.64	4,694.64	31.78	185.49	176.81	-64.40	45.49	1,473.35	1,289.01	184.34	7.993	
5,100.00	4,785.68	4,785.68	4,785.68	32.63	189.13	176.90	-64.40	45.49	1,514.67	1,326.66	188.02	8.056	
5,200.00	4,876.72	4,876.72	4,876.72	33.49	192.77	176.98	-64.40	45.49	1,556.00	1,364.31	191.69	8.117	
5,300.00	4,967.76	4,967.76	4,967.76	34.35	196.41	177.06	-64.40	45.49	1,597.33	1,401.96	195.37	8.176	
5,400.00	5,058.80	5,058.80	5,058.80	35.21	200.05	177.14	-64.40	45.49	1,638.66	1,439.61	199.05	8.232	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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 - MILTON H. NELSON 'H' #1 EXISTING WELL - MILTON H. NELSON 'H'										Offset Site Error:		0.00 ft	
Survey Program: 0-UNKNOWN										Offset Well Error:		0.00 ft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Separation Factor
5,500.00	5,149.84	5,149.84	5,149.84	36.07	203.69	177.21	-64.40	45.49	1,679.99	1,477.26	202.73	8.287	
5,571.27	5,214.72	5,214.72	5,214.72	36.68	206.29	177.25	-64.40	45.49	1,709.45	1,504.10	205.35	8.325	
5,600.00	5,240.94	5,240.94	5,240.94	36.90	207.34	177.29	-64.40	45.49	1,721.19	1,513.97	207.22	8.306	
5,700.00	5,333.08	5,333.08	5,333.08	37.55	211.02	177.38	-64.40	45.49	1,760.01	1,546.38	213.63	8.238	
5,800.00	5,426.51	5,426.51	5,426.51	38.14	214.76	177.47	-64.40	45.49	1,795.59	1,575.64	219.96	8.163	
5,900.00	5,521.14	5,521.14	5,521.14	38.69	218.55	177.54	-64.40	45.49	1,827.90	1,601.66	226.24	8.080	
6,000.00	5,616.83	5,616.83	5,616.83	39.18	222.37	177.61	-64.40	45.49	1,856.89	1,624.54	232.35	7.992	
6,100.00	5,713.48	5,713.48	5,713.48	39.61	226.24	177.66	-64.40	45.49	1,882.52	1,644.24	238.28	7.901	
6,200.00	5,810.96	5,810.96	5,810.96	40.00	230.14	177.71	-64.40	45.49	1,904.77	1,660.77	243.99	7.807	
6,300.00	5,909.17	5,909.17	5,909.17	40.33	234.07	177.75	-64.40	45.49	1,923.60	1,674.12	249.48	7.710	
6,400.00	6,007.97	6,007.97	6,007.97	40.61	238.02	177.78	-64.40	45.49	1,939.00	1,684.28	254.72	7.612	
6,500.00	6,107.25	6,107.25	6,107.25	40.84	241.99	177.80	-64.40	45.49	1,950.95	1,691.25	259.70	7.512	
6,600.00	6,206.88	6,206.88	6,206.88	41.02	245.98	177.81	-64.40	45.49	1,959.42	1,695.04	264.38	7.411	
6,700.00	6,306.75	6,306.75	6,306.75	41.15	249.97	177.82	-64.40	45.49	1,964.42	1,695.67	268.75	7.309	
6,793.27	6,400.00	6,400.00	6,400.00	41.23	253.70	-108.44	-64.40	45.49	1,965.93	1,693.40	272.53	7.214	
6,800.00	6,406.73	6,406.73	6,406.73	41.23	253.97	-108.44	-64.40	45.49	1,965.93	1,693.12	272.81	7.206	
6,900.00	6,506.73	6,506.73	6,506.73	41.30	257.97	-108.44	-64.40	45.49	1,965.93	1,688.97	276.96	7.098	
7,000.00	6,606.73	6,606.73	6,606.73	41.38	261.97	-108.44	-64.40	45.49	1,965.93	1,684.83	281.11	6.994	
7,100.00	6,706.73	6,706.73	6,706.73	41.46	265.97	-108.44	-64.40	45.49	1,965.93	1,680.68	285.26	6.892	
7,200.00	6,806.73	6,806.73	6,806.73	41.53	269.97	-108.44	-64.40	45.49	1,965.93	1,676.53	289.41	6.793	
7,300.00	6,906.73	6,906.73	6,906.73	41.61	273.97	-108.44	-64.40	45.49	1,965.93	1,672.38	293.56	6.697	
7,400.00	7,006.73	7,006.73	7,006.73	41.69	277.97	-108.44	-64.40	45.49	1,965.93	1,668.22	297.71	6.604	
7,500.00	7,106.73	7,106.73	7,106.73	41.77	281.97	-108.44	-64.40	45.49	1,965.93	1,664.07	301.87	6.513	
7,600.00	7,206.73	7,206.73	7,206.73	41.86	285.97	-108.44	-64.40	45.49	1,965.93	1,659.91	306.02	6.424	
7,700.00	7,306.73	7,306.73	7,306.73	41.94	289.97	-108.44	-64.40	45.49	1,965.93	1,655.75	310.18	6.338	
7,800.00	7,406.73	7,406.73	7,406.73	42.02	293.97	-108.44	-64.40	45.49	1,965.93	1,651.60	314.34	6.254	
7,900.00	7,506.73	7,506.73	7,506.73	42.11	297.97	-108.44	-64.40	45.49	1,965.93	1,647.44	318.50	6.173	
8,000.00	7,606.73	7,606.73	7,606.73	42.19	301.97	-108.44	-64.40	45.49	1,965.93	1,643.28	322.66	6.093	
8,100.27	7,707.00	7,707.00	7,707.00	42.28	305.98	-108.44	-64.40	45.49	1,965.93	1,639.10	326.83	6.015	



Weatherford International Ltd.
Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	43.73	0.00	43.73				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	43.73	0.00	43.73	43.53	0.19	228.871	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	43.73	0.00	43.73	43.09	0.64	68.260	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	43.73	0.00	43.73	42.64	1.09	40.111	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	43.73	0.00	43.73	42.19	1.54	28.400	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	43.73	0.00	43.73	41.74	1.99	21.982	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	43.73	0.00	43.73	41.29	2.44	17.930	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	43.73	0.00	43.73	40.84	2.89	15.139	
737.33	737.33	737.33	737.33	1.53	1.53	0.00	43.73	0.00	43.73	40.67	3.06	14.308 CC	
780.00	780.00	779.55	779.55	1.62	1.62	0.00	43.88	0.00	43.88	40.63	3.25	13.516 ES	
800.00	800.00	799.24	799.24	1.67	1.67	-73.82	44.15	-0.01	44.14	40.80	3.33	13.238	
900.00	899.96	897.61	897.55	1.87	1.89	-76.64	47.53	-0.05	46.95	43.19	3.76	12.477 SF	
1,000.00	999.78	995.62	995.32	2.09	2.11	-82.42	54.25	-0.15	52.72	48.52	4.20	12.551	
1,100.00	1,099.33	1,093.00	1,092.18	2.33	2.34	-89.38	64.23	-0.28	62.15	57.50	4.65	13.356	
1,200.00	1,198.50	1,189.52	1,187.80	2.58	2.60	-96.02	77.37	-0.47	75.77	70.64	5.13	14.764	
1,300.00	1,297.15	1,284.95	1,281.85	2.87	2.88	-101.57	93.52	-0.69	93.77	88.12	5.65	16.605	
1,400.00	1,395.17	1,379.08	1,374.04	3.21	3.19	-105.90	112.51	-0.95	116.12	109.91	6.21	18.699	
1,500.00	1,492.44	1,471.70	1,464.09	3.60	3.54	-109.17	134.14	-1.25	142.67	135.84	6.83	20.886	
1,600.00	1,588.85	1,562.64	1,551.79	4.05	3.94	-111.60	158.20	-1.59	173.25	165.73	7.52	23.049	
1,700.00	1,684.27	1,651.74	1,636.93	4.56	4.37	-113.38	184.46	-1.95	207.70	199.42	8.27	25.108	
1,800.00	1,778.59	1,738.86	1,719.34	5.14	4.83	-114.66	212.69	-2.34	245.84	236.74	9.10	27.015	
1,900.00	1,871.69	1,823.87	1,798.90	5.80	5.34	-115.55	242.63	-2.76	287.52	277.52	10.00	28.749	
2,002.00	1,965.28	1,908.32	1,877.02	6.54	5.88	-116.15	274.70	-3.21	333.52	322.52	10.99	30.336	
2,100.00	2,054.50	1,988.90	1,950.66	7.30	6.44	-117.24	307.40	-3.66	380.19	368.16	12.04	31.590	
2,200.00	2,145.54	2,076.34	2,030.24	8.09	7.08	-118.08	343.62	-4.16	428.45	415.29	13.16	32.561	
2,300.00	2,236.58	2,163.77	2,109.82	8.90	7.72	-118.75	379.83	-4.66	476.77	462.46	14.30	33.330	
2,400.00	2,327.62	2,251.20	2,189.39	9.71	8.38	-119.29	416.05	-5.17	525.12	509.65	15.47	33.947	
2,500.00	2,418.65	2,338.63	2,268.97	10.54	9.04	-119.74	452.27	-5.67	573.51	556.86	16.65	34.450	
2,600.00	2,509.69	2,426.06	2,348.55	11.36	9.71	-120.12	488.48	-6.17	621.91	604.08	17.84	34.865	
2,700.00	2,600.73	2,513.50	2,428.13	12.20	10.38	-120.45	524.70	-6.67	670.34	651.30	19.04	35.211	
2,800.00	2,691.77	2,600.93	2,507.70	13.03	11.06	-120.74	560.91	-7.18	718.78	698.54	20.25	35.503	
2,900.00	2,782.81	2,688.36	2,587.28	13.87	11.74	-120.98	597.13	-7.68	767.24	745.78	21.46	35.752	
3,000.00	2,873.85	2,775.79	2,666.86	14.72	12.42	-121.20	633.35	-8.18	815.70	793.02	22.68	35.966	
3,100.00	2,964.89	2,863.23	2,746.44	15.56	13.11	-121.39	669.56	-8.68	864.17	840.26	23.90	36.152	
3,200.00	3,055.93	2,950.66	2,826.01	16.41	13.79	-121.57	705.78	-9.19	912.65	887.51	25.13	36.314	
3,300.00	3,146.97	3,038.09	2,905.59	17.25	14.48	-121.72	742.00	-9.69	961.13	934.77	26.36	36.457	
3,400.00	3,238.01	3,125.52	2,985.17	18.10	15.17	-121.86	778.21	-10.19	1,009.62	982.02	27.60	36.583	
3,500.00	3,329.05	3,212.96	3,064.75	18.95	15.86	-121.99	814.43	-10.69	1,058.11	1,029.27	28.83	36.695	
3,600.00	3,420.09	3,300.39	3,144.32	19.80	16.55	-122.11	850.64	-11.20	1,106.61	1,076.53	30.07	36.796	
3,700.00	3,511.13	3,387.82	3,223.90	20.66	17.24	-122.22	886.86	-11.70	1,155.10	1,123.79	31.32	36.886	
3,800.00	3,602.17	3,475.25	3,303.48	21.51	17.94	-122.31	923.08	-12.20	1,203.61	1,171.05	32.56	36.968	
3,900.00	3,693.21	3,562.69	3,383.06	22.36	18.63	-122.40	959.29	-12.71	1,252.11	1,218.31	33.80	37.042	
4,000.00	3,784.25	3,650.12	3,462.63	23.22	19.33	-122.49	995.51	-13.21	1,300.62	1,265.57	35.05	37.110	
4,100.00	3,875.29	3,711.33	3,573.98	24.07	20.09	-122.69	1,043.39	-13.87	1,348.04	1,311.69	36.35	37.083	
4,200.00	3,966.33	3,895.65	3,690.17	24.93	20.78	-123.08	1,087.57	-14.49	1,393.22	1,355.62	37.60	37.053	
4,300.00	4,057.37	4,022.43	3,810.52	25.78	21.41	-123.64	1,127.39	-15.04	1,436.11	1,397.31	38.81	37.007	
4,400.00	4,148.41	4,151.25	3,934.50	26.64	22.00	-124.35	1,162.35	-15.52	1,476.73	1,436.76	39.96	36.954	
4,500.00	4,239.45	4,281.63	4,061.44	27.49	22.51	-125.22	1,192.03	-15.93	1,515.07	1,474.02	41.05	36.904	
4,600.00	4,330.49	4,413.03	4,190.61	28.35	22.96	-126.23	1,216.06	-16.27	1,551.21	1,509.14	42.07	36.871	
4,700.00	4,421.52	4,544.93	4,321.24	29.21	23.32	-127.36	1,234.21	-16.52	1,585.22	1,542.22	43.00	36.868	
4,800.00	4,512.56	4,676.76	4,452.50	30.06	23.60	-128.62	1,246.32	-16.69	1,617.22	1,573.39	43.83	36.899	
4,900.00	4,603.60	4,807.96	4,583.56	30.92	23.79	-129.99	1,252.36	-16.77	1,647.36	1,602.81	44.56	36.973	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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
5,000.00	4,694.64	4,919.06	4,694.64	31.78	23.90	-131.22	1,253.13	-16.78	1,676.06	1,630.87	45.19	37.086	
5,100.00	4,785.68	5,010.10	4,785.68	32.63	23.98	-132.22	1,253.13	-16.78	1,705.01	1,659.20	45.82	37.214	
5,200.00	4,876.72	5,101.14	4,876.72	33.49	24.06	-133.18	1,253.13	-16.78	1,734.47	1,688.04	46.42	37.363	
5,300.00	4,967.76	5,192.17	4,967.76	34.35	24.14	-134.12	1,253.13	-16.78	1,764.40	1,717.39	47.01	37.531	
5,400.00	5,058.80	5,283.21	5,058.80	35.21	24.22	-135.03	1,253.13	-16.78	1,794.79	1,747.20	47.59	37.716	
5,500.00	5,149.84	5,374.25	5,149.84	36.07	24.31	-135.90	1,253.13	-16.78	1,825.60	1,777.46	48.15	37.916	
5,571.27	5,214.72	5,439.14	5,214.72	36.68	24.37	-136.51	1,253.13	-16.78	1,847.82	1,799.28	48.54	38.067	
5,600.00	5,240.94	5,465.35	5,240.94	36.90	24.40	-136.88	1,253.13	-16.78	1,856.73	1,808.01	48.73	38.104	
5,700.00	5,333.08	5,557.49	5,333.08	37.55	24.49	-138.08	1,253.13	-16.78	1,886.42	1,837.11	49.30	38.263	
5,800.00	5,426.51	5,650.93	5,426.51	38.14	24.58	-139.15	1,253.13	-16.78	1,913.91	1,864.08	49.83	38.406	
5,900.00	5,521.14	5,745.55	5,521.14	38.69	24.67	-140.09	1,253.13	-16.78	1,939.10	1,888.78	50.33	38.531	
6,000.00	5,616.83	5,841.24	5,616.83	39.18	24.77	-140.92	1,253.13	-16.78	1,961.88	1,911.11	50.78	38.636	
6,100.00	5,713.48	5,937.89	5,713.48	39.61	24.87	-141.64	1,253.13	-16.78	1,982.16	1,930.97	51.19	38.721	
6,200.00	5,810.96	6,035.38	5,810.96	40.00	24.97	-142.25	1,253.13	-16.78	1,999.86	1,948.30	51.56	38.784	
6,300.00	5,909.17	6,133.58	5,909.17	40.33	25.08	-142.77	1,253.13	-16.78	2,014.92	1,963.02	51.90	38.825	
6,400.00	6,007.97	6,232.38	6,007.97	40.61	25.19	-143.18	1,253.13	-16.78	2,027.28	1,975.08	52.19	38.841	
6,500.00	6,107.25	6,331.66	6,107.25	40.84	25.29	-143.49	1,253.13	-16.78	2,036.89	1,984.44	52.45	38.834	
6,600.00	6,206.88	6,431.29	6,206.88	41.02	25.40	-143.72	1,253.13	-16.78	2,043.73	1,991.05	52.67	38.801	
6,700.00	6,306.75	6,531.16	6,306.75	41.15	25.52	-143.85	1,253.13	-16.78	2,047.76	1,994.90	52.86	38.741	
6,793.27	6,400.00	6,624.41	6,400.00	41.23	25.62	-70.15	1,253.13	-16.78	2,048.99	1,995.99	53.00	38.661	
6,800.00	6,406.73	6,631.15	6,406.73	41.23	25.63	-70.15	1,253.13	-16.78	2,048.99	1,995.97	53.01	38.651	
6,900.00	6,506.73	6,731.15	6,506.73	41.30	25.75	-70.15	1,253.13	-16.78	2,048.99	1,995.76	53.23	38.492	
7,000.00	6,606.73	6,831.15	6,606.73	41.38	25.86	-70.15	1,253.13	-16.78	2,048.99	1,995.53	53.45	38.332	
7,100.00	6,706.73	6,931.15	6,706.73	41.46	25.98	-70.15	1,253.13	-16.78	2,048.99	1,995.31	53.68	38.172	
7,200.00	6,806.73	7,031.15	6,806.73	41.53	26.10	-70.15	1,253.13	-16.78	2,048.99	1,995.08	53.90	38.011	
7,300.00	6,906.73	7,131.15	6,906.73	41.61	26.22	-70.15	1,253.13	-16.78	2,048.99	1,994.85	54.13	37.850	
7,400.00	7,006.73	7,231.15	7,006.73	41.69	26.35	-70.15	1,253.13	-16.78	2,048.99	1,994.62	54.37	37.688	
7,500.00	7,106.73	7,331.15	7,106.73	41.77	26.47	-70.15	1,253.13	-16.78	2,048.99	1,994.39	54.60	37.526	
7,600.00	7,206.73	7,431.15	7,206.73	41.86	26.59	-70.15	1,253.13	-16.78	2,048.99	1,994.15	54.84	37.363	
7,700.00	7,306.73	7,531.15	7,306.73	41.94	26.72	-70.15	1,253.13	-16.78	2,048.99	1,993.91	55.08	37.200	
7,800.00	7,406.73	7,631.15	7,406.73	42.02	26.85	-70.15	1,253.13	-16.78	2,048.99	1,993.66	55.32	37.036	
7,900.00	7,506.73	7,731.15	7,506.73	42.11	26.98	-70.15	1,253.13	-16.78	2,048.99	1,993.42	55.57	36.872	
8,000.00	7,606.73	7,831.15	7,606.73	42.19	27.11	-70.15	1,253.13	-16.78	2,048.99	1,993.17	55.82	36.708	
8,100.27	7,707.00	7,931.41	7,707.00	42.28	27.24	-70.15	1,253.13	-16.78	2,048.99	1,992.92	56.07	36.544	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	-174.52	-29.14	-2.80	29.27				
100.00	100.00	100.00	100.00	0.10	0.10	-174.52	-29.14	-2.80	29.27	29.08	0.19	153.216	
200.00	200.00	200.00	200.00	0.32	0.32	-174.52	-29.14	-2.80	29.27	28.63	0.64	45.696	
300.00	300.00	300.00	300.00	0.55	0.55	-174.52	-29.14	-2.80	29.27	28.18	1.09	26.852	
400.00	400.00	400.00	400.00	0.77	0.77	-174.52	-29.14	-2.80	29.27	27.73	1.54	19.012	
500.00	500.00	500.00	500.00	0.99	0.99	-174.52	-29.14	-2.80	29.27	27.28	1.99	14.716	
600.00	600.00	600.00	600.00	1.22	1.22	-174.52	-29.14	-2.80	29.27	26.83	2.44	12.003	
700.00	700.00	700.00	700.00	1.44	1.44	-174.52	-29.14	-2.80	29.27	26.38	2.89	10.135	
780.00	780.00	780.00	780.00	1.62	1.62	-174.52	-29.14	-2.80	29.27	26.02	3.25	9.013 CC	
800.00	800.00	800.01	800.01	1.67	1.67	111.84	-29.14	-2.78	29.30	25.96	3.33	8.786 ES	
900.00	899.96	900.17	900.14	1.87	1.87	112.20	-29.03	-0.68	29.90	26.15	3.74	7.986	
1,000.00	999.78	1,000.32	1,000.13	2.09	2.08	112.11	-28.76	4.91	31.29	27.11	4.17	7.498	
1,100.00	1,099.33	1,100.46	1,099.86	2.33	2.31	111.64	-28.31	13.99	33.46	28.83	4.63	7.223	
1,200.00	1,198.50	1,200.59	1,199.18	2.58	2.56	110.87	-27.69	26.54	36.42	31.28	5.14	7.087	
1,300.00	1,297.15	1,300.68	1,297.98	2.87	2.85	109.93	-26.90	42.54	40.17	34.46	5.71	7.033	
1,400.00	1,395.17	1,400.74	1,396.12	3.21	3.19	108.89	-25.94	61.98	44.72	38.35	6.37	7.018	
1,500.00	1,492.44	1,500.74	1,493.47	3.60	3.57	107.83	-24.81	84.81	50.05	42.92	7.13	7.016	
1,600.00	1,588.85	1,600.69	1,589.91	4.05	4.01	106.80	-23.51	111.01	56.17	48.16	8.02	7.009	
1,700.00	1,684.27	1,700.57	1,685.32	4.56	4.53	105.83	-22.05	140.53	63.08	54.06	9.03	6.989	
1,800.00	1,778.59	1,800.38	1,779.56	5.14	5.10	104.92	-20.43	173.32	70.77	60.59	10.17	6.956	
1,900.00	1,871.69	1,900.11	1,872.53	5.80	5.76	104.08	-18.65	209.35	79.22	67.75	11.46	6.910	
2,002.00	1,965.28	2,001.73	1,965.92	6.54	6.50	103.29	-16.67	249.36	88.62	75.69	12.93	6.852	
2,100.00	2,054.50	2,099.28	2,054.81	7.30	7.26	102.71	-14.68	289.50	98.03	83.59	14.45	6.786	
2,200.00	2,145.54	2,198.81	2,145.50	8.09	8.06	102.22	-12.66	330.46	107.64	91.62	16.02	6.718	
2,300.00	2,236.58	2,298.35	2,236.19	8.90	8.86	101.81	-10.63	371.42	117.26	99.63	17.63	6.652	
2,400.00	2,327.62	2,397.88	2,326.89	9.71	9.68	101.47	-8.61	412.38	126.88	107.63	19.25	6.591	
2,500.00	2,418.65	2,497.41	2,417.58	10.54	10.51	101.17	-6.58	453.34	136.50	115.62	20.89	6.536	
2,600.00	2,509.69	2,596.95	2,508.27	11.36	11.34	100.91	-4.56	494.29	146.13	123.60	22.54	6.485	
2,700.00	2,600.73	2,696.48	2,598.96	12.20	12.17	100.68	-2.53	535.25	155.76	131.57	24.19	6.438	
2,800.00	2,691.77	2,796.01	2,689.66	13.03	13.01	100.48	-0.51	576.21	165.40	139.54	25.86	6.396	
2,900.00	2,782.81	2,895.55	2,780.35	13.87	13.86	100.30	1.52	617.17	175.03	147.50	27.53	6.358	
3,000.00	2,873.85	2,995.08	2,871.04	14.72	14.70	100.14	3.54	658.13	184.67	155.46	29.21	6.323	
3,100.00	2,964.89	3,094.61	2,961.74	15.56	15.55	100.00	5.57	699.09	194.31	163.42	30.89	6.291	
3,200.00	3,055.93	3,194.15	3,052.43	16.41	16.40	99.87	7.59	740.05	203.95	171.38	32.57	6.262	
3,300.00	3,146.97	3,293.68	3,143.12	17.25	17.25	99.75	9.62	781.01	213.59	179.33	34.26	6.235	
3,400.00	3,238.01	3,393.21	3,233.81	18.10	18.10	99.64	11.65	821.96	223.23	187.28	35.95	6.210	
3,500.00	3,329.05	3,492.75	3,324.51	18.95	18.95	99.54	13.67	862.92	232.87	195.23	37.64	6.187	
3,600.00	3,420.09	3,592.28	3,415.20	19.80	19.81	99.45	15.70	903.88	242.51	203.18	39.33	6.166	
3,700.00	3,511.13	3,691.81	3,505.89	20.66	20.66	99.37	17.72	944.84	252.16	211.13	41.03	6.146	
3,800.00	3,602.17	3,791.35	3,596.58	21.51	21.52	99.29	19.75	985.80	261.80	219.08	42.72	6.128	
3,900.00	3,693.21	3,891.24	3,687.99	22.36	22.30	99.42	21.74	1,026.02	271.39	227.05	44.34	6.121 SF	
4,000.00	3,784.25	3,991.13	3,780.71	23.22	22.93	100.23	23.57	1,063.13	280.85	235.06	45.79	6.133	
4,100.00	3,875.29	4,090.65	3,874.32	24.07	23.50	101.68	25.24	1,096.88	290.30	243.16	47.14	6.158	
4,200.00	3,966.33	4,189.58	3,968.47	24.93	24.02	103.67	26.74	1,127.19	299.99	251.62	48.37	6.202	
4,300.00	4,057.37	4,287.67	4,062.81	25.78	24.49	106.15	28.06	1,154.01	310.23	260.79	49.44	6.275	
4,400.00	4,148.41	4,384.72	4,157.00	26.64	24.90	109.03	29.22	1,177.37	321.41	271.10	50.31	6.389	
4,500.00	4,239.45	4,480.53	4,250.70	27.49	25.25	112.23	30.20	1,197.28	333.94	282.99	50.95	6.555	
4,600.00	4,330.49	4,574.90	4,343.60	28.35	25.56	115.65	31.02	1,213.83	348.22	296.89	51.33	6.783	
4,700.00	4,421.52	4,667.67	4,435.41	29.21	25.81	119.21	31.68	1,227.11	364.67	313.21	51.46	7.086	
4,800.00	4,512.56	4,758.69	4,525.86	30.06	26.02	122.82	32.18	1,237.24	383.63	332.28	51.35	7.471	
4,900.00	4,603.60	4,847.83	4,614.71	30.92	26.18	126.41	32.53	1,244.38	405.38	354.36	51.02	7.945	
5,000.00	4,694.64	4,934.99	4,701.76	31.78	26.31	129.91	32.75	1,248.69	430.14	379.62	50.52	8.515	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	
5,100.00	4,785.68	5,020.07	4,786.81	32.63	26.40	133.27	32.83	1,250.34	458.04	408.15	49.88	9.182	
5,200.00	4,876.72	5,109.97	4,876.72	33.49	26.47	136.61	32.83	1,250.37	488.58	439.48	49.10	9.950	
5,300.00	4,967.76	5,201.01	4,967.76	34.35	26.55	139.62	32.83	1,250.37	520.64	472.28	48.36	10.765	
5,400.00	5,058.80	5,292.05	5,058.80	35.21	26.63	142.31	32.83	1,250.37	553.94	506.24	47.70	11.613	
5,500.00	5,149.84	5,383.09	5,149.84	36.07	26.71	144.70	32.83	1,250.37	588.26	541.14	47.12	12.485	
5,571.27	5,214.72	5,447.97	5,214.72	36.68	26.77	146.25	32.83	1,250.37	613.25	566.50	46.76	13.116	
5,600.00	5,240.94	5,474.19	5,240.94	36.90	26.79	146.95	32.83	1,250.37	623.33	576.75	46.57	13.384	
5,700.00	5,333.08	5,566.33	5,333.08	37.55	26.88	149.13	32.83	1,250.37	657.02	611.04	45.98	14.289	
5,800.00	5,426.51	5,659.77	5,426.51	38.14	26.96	150.95	32.83	1,250.37	688.38	642.86	45.52	15.122	
5,900.00	5,521.14	5,754.39	5,521.14	38.69	27.05	152.47	32.83	1,250.37	717.19	672.02	45.18	15.875	
6,000.00	5,616.83	5,850.08	5,616.83	39.18	27.15	153.74	32.83	1,250.37	743.29	698.38	44.92	16.548	
6,100.00	5,713.48	5,946.73	5,713.48	39.61	27.24	154.79	32.83	1,250.37	766.55	721.82	44.73	17.138	
6,200.00	5,810.96	6,044.22	5,810.96	40.00	27.34	155.64	32.83	1,250.37	786.85	742.26	44.59	17.647	
6,300.00	5,909.17	6,142.42	5,909.17	40.33	27.44	156.34	32.83	1,250.37	804.12	759.63	44.49	18.074	
6,400.00	6,007.97	6,241.22	6,007.97	40.61	27.54	156.88	32.83	1,250.37	818.29	773.87	44.42	18.421	
6,500.00	6,107.25	6,340.50	6,107.25	40.84	27.64	157.29	32.83	1,250.37	829.32	784.94	44.38	18.689	
6,600.00	6,206.88	6,440.13	6,206.88	41.02	27.75	157.58	32.83	1,250.37	837.15	792.81	44.35	18.878	
6,700.00	6,306.75	6,540.00	6,306.75	41.15	27.86	157.74	32.83	1,250.37	841.78	797.45	44.33	18.989	
6,793.27	6,400.00	6,633.25	6,400.00	41.23	27.96	-128.47	32.83	1,250.37	843.18	798.85	44.33	19.021	
6,800.00	6,406.73	6,639.98	6,406.73	41.23	27.96	-128.47	32.83	1,250.37	843.18	798.84	44.35	19.014	
6,900.00	6,506.73	6,739.98	6,506.73	41.30	28.07	-128.47	32.83	1,250.37	843.18	798.57	44.61	18.902	
7,000.00	6,606.73	6,839.98	6,606.73	41.38	28.18	-128.47	32.83	1,250.37	843.18	798.31	44.87	18.791	
7,100.00	6,706.73	6,939.98	6,706.73	41.46	28.30	-128.47	32.83	1,250.37	843.18	798.04	45.14	18.679	
7,200.00	6,806.73	7,039.98	6,806.73	41.53	28.41	-128.47	32.83	1,250.37	843.18	797.77	45.41	18.568	
7,300.00	6,906.73	7,139.98	6,906.73	41.61	28.53	-128.47	32.83	1,250.37	843.18	797.50	45.68	18.457	
7,400.00	7,006.73	7,239.98	7,006.73	41.69	28.64	-128.47	32.83	1,250.37	843.18	797.22	45.96	18.346	
7,500.00	7,106.73	7,339.98	7,106.73	41.77	28.76	-128.47	32.83	1,250.37	843.18	796.94	46.24	18.236	
7,600.00	7,206.73	7,439.98	7,206.73	41.86	28.88	-128.47	32.83	1,250.37	843.18	796.66	46.52	18.125	
7,700.00	7,306.73	7,539.98	7,306.73	41.94	29.00	-128.47	32.83	1,250.37	843.18	796.38	46.80	18.015	
7,800.00	7,406.73	7,639.98	7,406.73	42.02	29.12	-128.47	32.83	1,250.37	843.18	796.09	47.09	17.906	
7,900.00	7,506.73	7,739.98	7,506.73	42.11	29.24	-128.47	32.83	1,250.37	843.18	795.80	47.38	17.796	
8,000.00	7,606.73	7,839.98	7,606.73	42.19	29.37	-128.47	32.83	1,250.37	843.18	795.51	47.67	17.687	
8,100.27	7,707.00	7,940.25	7,707.00	42.28	29.49	-128.47	32.83	1,250.37	843.18	795.22	47.97	17.579	



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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						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	14.56	0.00	14.56				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	14.56	0.00	14.56	14.37	0.19	76.203	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	14.56	0.00	14.56	13.92	0.64	22.727	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	14.56	0.00	14.56	13.47	1.09	13.355	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	14.56	0.00	14.56	13.02	1.54	9.456	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	14.56	0.00	14.56	12.57	1.99	7.319	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	14.56	0.00	14.56	12.12	2.44	5.970	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	14.56	0.00	14.56	11.67	2.89	5.041	
737.44	737.44	737.44	737.44	1.53	1.53	0.00	14.56	0.00	14.56	11.50	3.06	4.763 CC	
780.00	780.00	779.90	779.90	1.62	1.62	0.45	14.66	0.12	14.66	11.42	3.25	4.517 ES	
800.00	800.00	799.83	799.82	1.67	1.67	-72.74	14.85	0.32	14.83	11.50	3.33	4.450	
900.00	899.96	899.44	899.37	1.87	1.88	-71.97	17.16	2.90	16.48	12.72	3.76	4.384 SF	
1,000.00	999.78	998.97	998.66	2.09	2.11	-73.72	21.79	8.04	19.45	15.25	4.20	4.633	
1,100.00	1,099.33	1,098.38	1,097.53	2.33	2.35	-76.72	28.70	15.74	23.81	19.14	4.67	5.102	
1,200.00	1,198.50	1,197.65	1,195.83	2.58	2.61	-79.98	37.89	25.96	29.61	24.43	5.18	5.717	
1,300.00	1,297.15	1,296.73	1,293.42	2.87	2.91	-82.97	49.32	38.69	36.91	31.15	5.76	6.411	
1,400.00	1,395.17	1,395.59	1,390.14	3.21	3.25	-85.52	62.97	53.88	45.71	39.29	6.42	7.122	
1,500.00	1,492.44	1,494.21	1,485.87	3.60	3.64	-87.61	78.81	71.50	56.02	48.84	7.18	7.804	
1,600.00	1,588.85	1,592.55	1,580.46	4.05	4.09	-89.30	96.78	91.50	67.81	59.77	8.05	8.425	
1,700.00	1,684.27	1,691.56	1,675.09	4.56	4.59	-91.54	116.21	113.13	80.58	71.54	9.04	8.918	
1,800.00	1,778.59	1,790.51	1,769.67	5.14	5.11	-95.21	135.66	134.77	93.72	83.60	10.12	9.260	
1,900.00	1,871.69	1,889.16	1,863.97	5.80	5.64	-99.72	155.04	156.34	107.74	96.46	11.28	9.554	
2,002.00	1,965.28	1,989.35	1,959.73	6.54	6.19	-104.77	174.73	178.25	123.50	111.01	12.49	9.888	
2,100.00	2,054.50	2,085.38	2,051.51	7.30	6.73	-109.43	193.60	199.25	139.99	126.34	13.65	10.254	
2,200.00	2,145.54	2,183.36	2,145.16	8.09	7.28	-113.17	212.85	220.68	157.55	142.73	14.82	10.631	
2,300.00	2,236.58	2,281.33	2,238.81	8.90	7.84	-116.15	232.11	242.10	175.64	159.67	15.97	10.995	
2,400.00	2,327.62	2,379.31	2,332.46	9.71	8.40	-118.57	251.36	263.53	194.10	176.98	17.12	11.337	
2,500.00	2,418.65	2,477.29	2,426.11	10.54	8.97	-120.57	270.61	284.95	212.84	194.58	18.26	11.655	
2,600.00	2,509.69	2,575.27	2,519.75	11.36	9.54	-122.25	289.87	306.38	231.80	212.40	19.40	11.949	
2,700.00	2,600.73	2,673.25	2,613.40	12.20	10.11	-123.67	309.12	327.81	250.91	230.38	20.53	12.219	
2,800.00	2,691.77	2,771.23	2,707.05	13.03	10.68	-124.90	328.37	349.23	270.15	248.49	21.67	12.467	
2,900.00	2,782.81	2,869.21	2,800.70	13.87	11.26	-125.96	347.63	370.66	289.50	266.70	22.80	12.696	
3,000.00	2,873.85	2,967.19	2,894.35	14.72	11.83	-126.88	366.88	392.08	308.93	285.00	23.94	12.906	
3,100.00	2,964.89	3,065.17	2,988.00	15.56	12.41	-127.70	386.13	413.51	328.43	303.36	25.07	13.101	
3,200.00	3,055.93	3,163.14	3,081.65	16.41	12.99	-128.43	405.39	434.94	347.99	321.79	26.20	13.280	
3,300.00	3,146.97	3,261.12	3,175.30	17.25	13.57	-129.08	424.64	456.36	367.59	340.26	27.34	13.447	
3,400.00	3,238.01	3,359.10	3,268.94	18.10	14.15	-129.66	443.89	477.79	387.24	358.77	28.47	13.601	
3,500.00	3,329.05	3,457.08	3,362.59	18.95	14.73	-130.19	463.15	499.22	406.92	377.31	29.61	13.745	
3,600.00	3,420.09	3,555.06	3,456.24	19.80	15.31	-130.66	482.40	520.64	426.63	395.89	30.74	13.879	
3,700.00	3,511.13	3,653.04	3,549.89	20.66	15.89	-131.10	501.65	542.07	446.37	414.49	31.87	14.004	
3,800.00	3,602.17	3,747.34	3,640.30	21.51	16.36	-131.60	519.56	562.00	466.43	433.55	32.88	14.186	
3,900.00	3,693.21	3,840.06	3,729.99	22.36	16.74	-132.39	535.26	579.47	487.51	453.78	33.73	14.453	
4,000.00	3,784.25	3,931.89	3,819.53	23.22	17.09	-133.44	548.90	594.65	509.73	475.26	34.46	14.790	
4,100.00	3,875.29	4,022.66	3,908.62	24.07	17.41	-134.69	560.48	607.54	533.20	498.12	35.08	15.199	
4,200.00	3,966.33	4,112.21	3,997.01	24.93	17.68	-136.10	570.05	618.19	558.06	522.48	35.58	15.683	
4,300.00	4,057.37	4,200.00	4,084.06	25.78	17.91	-137.62	577.64	626.63	584.47	548.49	35.98	16.244	
4,400.00	4,148.41	4,287.06	4,170.69	26.64	18.10	-139.25	583.40	633.05	612.54	576.27	36.27	16.888	
4,500.00	4,239.45	4,372.11	4,255.54	27.49	18.26	-140.92	587.33	637.42	642.42	605.94	36.47	17.613	
4,600.00	4,330.49	4,455.45	4,338.81	28.35	18.38	-142.62	589.54	639.88	674.20	637.60	36.60	18.421	
4,700.00	4,421.52	4,538.18	4,421.52	29.21	18.48	-144.35	590.15	640.56	707.96	671.31	36.66	19.314	
4,800.00	4,512.56	4,629.22	4,512.56	30.06	18.58	-146.16	590.15	640.56	742.95	706.30	36.65	20.273	
4,900.00	4,603.60	4,720.26	4,603.60	30.92	18.68	-147.81	590.15	640.56	778.56	741.89	36.67	21.233	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,694.64	4,811.29	4,694.64	31.78	18.79	-149.33	590.15	640.56	814.72	778.00	36.72	22.189	
5,100.00	4,785.68	4,902.33	4,785.68	32.63	18.89	-150.72	590.15	640.56	851.35	814.55	36.80	23.138	
5,200.00	4,876.72	4,993.37	4,876.72	33.49	19.00	-152.00	590.15	640.56	888.40	851.50	36.90	24.076	
5,300.00	4,967.76	5,084.41	4,967.76	34.35	19.11	-153.18	590.15	640.56	925.81	888.78	37.03	25.002	
5,400.00	5,058.80	5,175.45	5,058.80	35.21	19.22	-154.27	590.15	640.56	963.55	926.37	37.18	25.913	
5,500.00	5,149.84	5,266.49	5,149.84	36.07	19.33	-155.28	590.15	640.56	1,001.58	964.22	37.36	26.807	
5,571.27	5,214.72	5,331.38	5,214.72	36.68	19.42	-155.96	590.15	640.56	1,028.84	991.33	37.50	27.434	
5,600.00	5,240.94	5,357.59	5,240.94	36.90	19.45	-156.31	590.15	640.56	1,039.74	1,002.18	37.56	27.684	
5,700.00	5,333.08	5,449.73	5,333.08	37.55	19.57	-157.44	590.15	640.56	1,075.90	1,038.16	37.74	28.508	
5,800.00	5,426.51	5,543.17	5,426.51	38.14	19.69	-158.40	590.15	640.56	1,109.20	1,071.26	37.94	29.232	
5,900.00	5,521.14	5,637.79	5,521.14	38.69	19.81	-159.22	590.15	640.56	1,139.56	1,101.40	38.16	29.863	
6,000.00	5,616.83	5,733.48	5,616.83	39.18	19.94	-159.92	590.15	640.56	1,166.88	1,128.51	38.38	30.406	
6,100.00	5,713.48	5,830.13	5,713.48	39.61	20.06	-160.51	590.15	640.56	1,191.11	1,152.53	38.59	30.866	
6,200.00	5,810.96	5,927.62	5,810.96	40.00	20.20	-161.00	590.15	640.56	1,212.19	1,173.40	38.79	31.250	
6,300.00	5,909.17	6,025.82	5,909.17	40.33	20.33	-161.40	590.15	640.56	1,230.07	1,191.09	38.98	31.560	
6,400.00	6,007.97	6,124.62	6,007.97	40.61	20.47	-161.72	590.15	640.56	1,244.71	1,205.56	39.14	31.800	
6,500.00	6,107.25	6,223.90	6,107.25	40.84	20.61	-161.96	590.15	640.56	1,256.07	1,216.79	39.29	31.972	
6,600.00	6,206.88	6,323.53	6,206.88	41.02	20.75	-162.13	590.15	640.56	1,264.14	1,224.74	39.41	32.080	
6,700.00	6,306.75	6,423.40	6,306.75	41.15	20.89	-162.23	590.15	640.56	1,268.90	1,229.40	39.50	32.124	
6,793.27	6,400.00	6,516.65	6,400.00	41.23	21.02	-88.52	590.15	640.56	1,270.35	1,230.78	39.57	32.107	
6,800.00	6,406.73	6,523.38	6,406.73	41.23	21.03	-88.52	590.15	640.56	1,270.35	1,230.76	39.59	32.091	
6,900.00	6,506.73	6,623.38	6,506.73	41.30	21.18	-88.52	590.15	640.56	1,270.35	1,230.47	39.88	31.855	
7,000.00	6,606.73	6,723.38	6,606.73	41.38	21.32	-88.52	590.15	640.56	1,270.35	1,230.17	40.17	31.621	
7,100.00	6,706.73	6,823.38	6,706.73	41.46	21.47	-88.52	590.15	640.56	1,270.35	1,229.88	40.47	31.388	
7,200.00	6,806.73	6,923.38	6,806.73	41.53	21.62	-88.52	590.15	640.56	1,270.35	1,229.57	40.77	31.156	
7,300.00	6,906.73	7,023.38	6,906.73	41.61	21.77	-88.52	590.15	640.56	1,270.35	1,229.27	41.08	30.926	
7,400.00	7,006.73	7,123.38	7,006.73	41.69	21.92	-88.52	590.15	640.56	1,270.35	1,228.96	41.38	30.697	
7,500.00	7,106.73	7,223.38	7,106.73	41.77	22.08	-88.52	590.15	640.56	1,270.35	1,228.66	41.69	30.469	
7,600.00	7,206.73	7,323.38	7,206.73	41.86	22.23	-88.52	590.15	640.56	1,270.35	1,228.34	42.00	30.243	
7,700.00	7,306.73	7,423.38	7,306.73	41.94	22.39	-88.52	590.15	640.56	1,270.35	1,228.03	42.32	30.019	
7,800.00	7,406.73	7,523.38	7,406.73	42.02	22.54	-88.52	590.15	640.56	1,270.35	1,227.71	42.63	29.796	
7,900.00	7,506.73	7,623.38	7,506.73	42.11	22.70	-88.52	590.15	640.56	1,270.35	1,227.40	42.95	29.575	
8,000.00	7,606.73	7,723.38	7,606.73	42.19	22.86	-88.52	590.15	640.56	1,270.35	1,227.07	43.27	29.356	
8,100.27	7,707.00	7,823.65	7,707.00	42.28	23.02	-88.52	590.15	640.56	1,270.35	1,226.75	43.60	29.138	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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 23-29 - P_RASMUSSEN 23-29 - 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 Tooface (")	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	-180.00	-14.57	0.00	14.57				
100.00	100.00	100.00	100.00	0.10	0.10	-180.00	-14.57	0.00	14.57	14.38	0.19	76.246	
200.00	200.00	200.00	200.00	0.32	0.32	-180.00	-14.57	0.00	14.57	13.93	0.64	22.740	
300.00	300.00	300.00	300.00	0.55	0.55	-180.00	-14.57	0.00	14.57	13.48	1.09	13.363	
400.00	400.00	400.00	400.00	0.77	0.77	-180.00	-14.57	0.00	14.57	13.03	1.54	9.461	
500.00	500.00	500.00	500.00	0.99	0.99	-180.00	-14.57	0.00	14.57	12.58	1.99	7.323	
600.00	600.00	600.00	600.00	1.22	1.22	-180.00	-14.57	0.00	14.57	12.13	2.44	5.973	
700.00	700.00	700.00	700.00	1.44	1.44	-180.00	-14.57	0.00	14.57	11.68	2.89	5.044	
780.00	780.00	780.10	780.10	1.62	1.62	-179.53	-14.46	-0.12	14.46	11.22	3.25	4.455	
800.00	800.00	800.16	800.16	1.67	1.67	-107.85	-14.27	-0.33	14.30	10.97	3.33	4.289	
881.28	881.26	881.57	881.52	1.84	1.85	123.19	-12.55	-2.25	13.65	9.97	3.68	3.708 CC, ES	
900.00	899.96	900.27	900.20	1.87	1.89	129.20	-11.94	-2.94	13.73	9.97	3.76	3.652 SF	
1,000.00	999.78	999.61	999.29	2.09	2.11	165.33	-7.32	-8.10	18.88	14.70	4.18	4.515	
1,100.00	1,099.33	1,097.65	1,096.80	2.33	2.35	-173.17	-0.52	-15.70	33.40	28.80	4.60	7.259	
1,200.00	1,198.50	1,193.89	1,192.12	2.58	2.61	-163.59	8.32	-25.58	55.45	50.42	5.03	11.034	
1,300.00	1,297.15	1,287.86	1,284.70	2.87	2.89	-158.83	19.00	-37.52	83.83	78.37	5.46	15.357	
1,400.00	1,395.17	1,379.14	1,374.10	3.21	3.21	-156.10	31.31	-51.28	118.01	112.11	5.90	19.986	
1,500.00	1,492.44	1,467.38	1,459.90	3.60	3.56	-154.34	45.01	-66.59	157.66	151.29	6.37	24.769	
1,600.00	1,588.85	1,552.27	1,541.82	4.05	3.93	-153.08	59.85	-83.17	202.49	195.64	6.84	29.594	
1,700.00	1,684.27	1,633.57	1,619.63	4.56	4.33	-152.09	75.57	-100.74	252.22	244.88	7.34	34.376	
1,800.00	1,778.59	1,711.10	1,693.17	5.14	4.75	-151.25	91.93	-119.02	306.60	298.74	7.85	39.050	
1,900.00	1,871.69	1,784.72	1,762.37	5.80	5.19	-150.47	108.69	-137.75	365.33	356.94	8.39	43.542	
2,002.00	1,965.28	1,855.70	1,828.45	6.54	5.66	-149.70	125.96	-157.05	429.46	420.49	8.97	47.900	
2,100.00	2,054.50	1,925.65	1,893.03	7.30	6.14	-149.75	143.89	-177.09	493.55	483.93	9.63	51.262	
2,200.00	2,145.54	2,001.15	1,962.65	8.09	6.68	-149.77	163.36	-198.85	559.13	548.79	10.34	54.096	
2,300.00	2,236.58	2,076.64	2,032.27	8.90	7.23	-149.79	182.83	-220.61	624.70	613.64	11.06	56.471	
2,400.00	2,327.62	2,152.14	2,101.90	9.71	7.79	-149.81	202.29	-242.36	690.28	678.48	11.80	58.495	
2,500.00	2,418.65	2,227.64	2,171.52	10.54	8.35	-149.82	221.76	-264.12	755.85	743.30	12.55	60.232	
2,600.00	2,509.69	2,303.14	2,241.15	11.36	8.92	-149.83	241.23	-285.88	821.43	808.12	13.31	61.734	
2,700.00	2,600.73	2,378.64	2,310.77	12.20	9.49	-149.84	260.70	-307.64	887.00	872.93	14.07	63.036	
2,800.00	2,691.77	2,454.13	2,380.39	13.03	10.06	-149.85	280.17	-329.40	952.58	937.73	14.84	64.177	
2,900.00	2,782.81	2,529.63	2,450.02	13.87	10.64	-149.86	299.64	-351.16	1,018.15	1,002.53	15.62	65.185	
3,000.00	2,873.85	2,605.13	2,519.64	14.72	11.22	-149.86	319.11	-372.91	1,083.73	1,067.33	16.40	66.080	
3,100.00	2,964.89	2,680.63	2,589.26	15.56	11.81	-149.87	338.58	-394.67	1,149.30	1,132.12	17.19	66.875	
3,200.00	3,055.93	2,756.13	2,658.89	16.41	12.39	-149.87	358.05	-416.43	1,214.88	1,196.90	17.97	67.589	
3,300.00	3,146.97	2,831.63	2,728.51	17.25	12.98	-149.88	377.51	-438.19	1,280.45	1,261.68	18.77	68.232	
3,400.00	3,238.01	2,907.12	2,798.14	18.10	13.56	-149.88	396.98	-459.95	1,346.02	1,326.46	19.56	68.814	
3,500.00	3,329.05	2,982.62	2,867.76	18.95	14.15	-149.89	416.45	-481.71	1,411.60	1,391.24	20.36	69.341	
3,600.00	3,420.09	3,058.12	2,937.38	19.80	14.74	-149.89	435.92	-503.46	1,477.17	1,456.02	21.16	69.822	
3,700.00	3,511.13	3,133.62	3,007.01	20.66	15.33	-149.89	455.39	-525.22	1,542.75	1,520.79	21.96	70.262	
3,800.00	3,602.17	3,209.12	3,076.63	21.51	15.92	-149.89	474.86	-546.98	1,608.32	1,585.56	22.76	70.667	
3,900.00	3,693.21	3,284.61	3,146.26	22.36	16.52	-149.90	494.33	-568.74	1,673.90	1,650.34	23.56	71.038	
4,000.00	3,784.25	3,360.11	3,215.88	23.22	17.11	-149.90	513.80	-590.50	1,739.47	1,715.10	24.37	71.381	
4,100.00	3,875.29	3,438.56	3,288.23	24.07	17.72	-149.90	534.02	-613.10	1,805.05	1,779.86	25.18	71.673	
4,200.00	3,966.33	3,516.99	3,361.49	24.93	18.33	-150.02	554.18	-635.99	1,868.62	1,842.38	26.00	72.013	
4,300.00	4,057.37	3,599.19	3,439.28	25.78	18.94	-150.34	574.31	-658.70	1,928.13	1,900.87	26.84	72.307	
4,400.00	4,148.41	3,685.28	3,520.78	26.64	19.55	-150.88	594.44	-681.42	1,983.09	1,954.86	27.69	72.554	
4,500.00	4,239.45	3,771.86	3,606.38	27.49	20.16	-151.64	614.57	-704.13	2,033.04	2,003.91	28.54	72.761	
4,600.00	4,330.49	3,858.94	3,693.41	28.35	20.77	-152.64	634.70	-726.84	2,077.53	2,047.60	29.39	72.928	
4,700.00	4,421.52	3,946.01	3,780.44	29.21	21.38	-153.60	654.83	-749.55	2,116.52	2,085.93	30.24	73.055	
4,800.00	4,512.56	4,033.05	3,867.48	30.06	21.99	-154.08	674.96	-772.26	2,154.29	2,123.14	31.09	73.141	
4,900.00	4,603.60	4,119.19	3,954.52	30.92	22.60	-154.54	695.09	-794.97	2,192.19	2,160.48	31.94	73.187	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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 23-29 - P_RASMUSSEN 23-29 - 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	
5,000.00	4,694.64	4,874.21	4,694.64	31.78	22.08	-154.99	681.23	-777.62	2,230.21	2,197.95	32.26	69.138	
5,100.00	4,785.68	4,965.24	4,785.68	32.63	22.17	-155.43	681.23	-777.62	2,268.35	2,235.54	32.81	69.144	
5,200.00	4,876.72	5,056.28	4,876.72	33.49	22.27	-155.85	681.23	-777.62	2,306.60	2,273.25	33.35	69.161	
5,300.00	4,967.76	5,147.32	4,967.76	34.35	22.36	-156.26	681.23	-777.62	2,344.96	2,311.07	33.89	69.187	
5,400.00	5,058.80	5,238.36	5,058.80	35.21	22.45	-156.65	681.23	-777.62	2,383.42	2,348.99	34.43	69.222	
5,500.00	5,149.84	5,329.40	5,149.84	36.07	22.55	-157.03	681.23	-777.62	2,421.97	2,387.00	34.97	69.263	
5,571.27	5,214.72	5,394.29	5,214.72	36.68	22.62	-157.30	681.23	-777.62	2,449.51	2,414.16	35.35	69.296	
5,600.00	5,240.94	5,420.50	5,240.94	36.90	22.65	-157.50	681.23	-777.62	2,460.49	2,424.92	35.57	69.167	
5,700.00	5,333.08	5,512.64	5,333.08	37.55	22.75	-158.13	681.23	-777.62	2,496.87	2,460.56	36.30	68.778	
5,800.00	5,426.51	5,606.08	5,426.51	38.14	22.85	-158.68	681.23	-777.62	2,530.27	2,493.28	36.99	68.405	
5,900.00	5,521.14	5,700.70	5,521.14	38.69	22.96	-159.17	681.23	-777.62	2,560.65	2,523.02	37.63	68.049	
6,000.00	5,616.83	5,796.39	5,616.83	39.18	23.07	-159.60	681.23	-777.62	2,587.95	2,549.72	38.22	67.708	
6,100.00	5,713.48	5,893.04	5,713.48	39.61	23.18	-159.96	681.23	-777.62	2,612.11	2,573.35	38.76	67.384	
6,200.00	5,810.96	5,990.53	5,810.96	40.00	23.30	-160.28	681.23	-777.62	2,633.11	2,593.86	39.26	67.074	
6,300.00	5,909.17	6,088.73	5,909.17	40.33	23.41	-160.53	681.23	-777.62	2,650.91	2,611.21	39.70	66.779	
6,400.00	6,007.97	6,187.53	6,007.97	40.61	23.53	-160.74	681.23	-777.62	2,665.46	2,625.38	40.08	66.498	
6,500.00	6,107.25	6,286.81	6,107.25	40.84	23.65	-160.90	681.23	-777.62	2,676.76	2,636.35	40.42	66.228	
6,600.00	6,206.88	6,386.44	6,206.88	41.02	23.78	-161.01	681.23	-777.62	2,684.78	2,644.09	40.70	65.968	
6,700.00	6,306.75	6,486.31	6,306.75	41.15	23.90	-161.08	681.23	-777.62	2,689.51	2,648.59	40.93	65.717	
6,793.27	6,400.00	6,579.56	6,400.00	41.23	24.02	-87.36	681.23	-777.62	2,690.95	2,649.86	41.09	65.486	
6,800.00	6,406.73	6,586.30	6,406.73	41.23	24.03	-87.36	681.23	-777.62	2,690.95	2,649.84	41.11	65.457	
6,900.00	6,506.73	6,686.30	6,506.73	41.30	24.15	-87.36	681.23	-777.62	2,690.95	2,649.56	41.39	65.015	
7,000.00	6,606.73	6,786.30	6,606.73	41.38	24.28	-87.36	681.23	-777.62	2,690.95	2,649.28	41.67	64.574	
7,100.00	6,706.73	6,886.30	6,706.73	41.46	24.41	-87.36	681.23	-777.62	2,690.95	2,648.99	41.96	64.134	
7,200.00	6,806.73	6,986.30	6,806.73	41.53	24.55	-87.36	681.23	-777.62	2,690.95	2,648.70	42.25	63.697	
7,300.00	6,906.73	7,086.30	6,906.73	41.61	24.68	-87.36	681.23	-777.62	2,690.95	2,648.41	42.54	63.261	
7,400.00	7,006.73	7,186.30	7,006.73	41.69	24.81	-87.36	681.23	-777.62	2,690.95	2,648.12	42.83	62.827	
7,500.00	7,106.73	7,286.30	7,106.73	41.77	24.95	-87.36	681.23	-777.62	2,690.95	2,647.82	43.13	62.396	
7,600.00	7,206.73	7,386.30	7,206.73	41.86	25.09	-87.36	681.23	-777.62	2,690.95	2,647.52	43.43	61.966	
7,700.00	7,306.73	7,486.30	7,306.73	41.94	25.23	-87.36	681.23	-777.62	2,690.95	2,647.22	43.73	61.539	
7,800.00	7,406.73	7,586.30	7,406.73	42.02	25.36	-87.36	681.23	-777.62	2,690.95	2,646.92	44.03	61.114	
7,900.00	7,506.73	7,686.30	7,506.73	42.11	25.51	-87.36	681.23	-777.62	2,690.95	2,646.61	44.34	60.691	
8,000.00	7,606.73	7,786.30	7,606.73	42.19	25.65	-87.36	681.23	-777.62	2,690.95	2,646.30	44.65	60.272	
8,052.57	7,659.31	7,838.87	7,659.31	42.24	25.72	-87.36	681.23	-777.62	2,690.95	2,646.14	44.81	60.052	
8,100.27	7,707.00	7,856.56	7,677.00	42.28	25.75	-87.36	681.23	-777.62	2,691.11	2,646.21	44.91	59.925	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	61.93	0.00	61.93				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	61.93	0.00	61.93	61.74	0.19	324.140	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	61.93	0.00	61.93	61.29	0.64	96.673	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	61.93	0.00	61.93	60.84	1.09	56.808	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	61.93	0.00	61.93	60.39	1.54	40.222	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	61.93	0.00	61.93	59.94	1.99	31.132	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	61.93	0.00	61.93	59.49	2.44	25.393	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	61.93	0.00	61.93	59.04	2.89	21.441	
780.00	780.00	780.00	780.00	1.62	1.62	0.00	61.93	0.00	61.93	58.68	3.25	19.067	
800.00	800.00	800.00	800.00	1.67	1.67	-73.80	61.93	0.00	61.91	58.57	3.34	18.559	
900.00	899.96	899.96	899.96	1.87	1.89	-76.00	61.93	0.00	61.27	57.50	3.77	16.260	
971.86	971.72	970.99	970.99	2.03	2.05	-79.63	62.14	-0.09	60.66	56.58	4.08	14.855 CC, ES	
1,000.00	999.78	998.49	998.48	2.09	2.11	-81.59	62.58	-0.27	60.80	56.60	4.21	14.455	
1,100.00	1,099.33	1,095.84	1,095.76	2.33	2.33	-90.55	66.09	-1.75	64.04	59.39	4.66	13.755 SF	
1,200.00	1,198.50	1,192.35	1,192.00	2.58	2.55	-100.85	72.57	-4.48	72.72	67.60	5.12	14.202	
1,300.00	1,297.15	1,287.63	1,286.74	2.87	2.78	-110.19	81.91	-8.40	87.77	82.17	5.60	15.679	
1,400.00	1,395.17	1,381.36	1,379.56	3.21	3.02	-117.47	93.92	-13.45	109.19	103.10	6.09	17.929	
1,500.00	1,492.44	1,473.22	1,470.06	3.60	3.29	-122.72	108.39	-19.54	136.55	129.94	6.61	20.672	
1,600.00	1,588.85	1,562.92	1,557.90	4.05	3.58	-126.37	125.11	-26.57	169.35	162.20	7.15	23.676	
1,700.00	1,684.27	1,650.22	1,642.81	4.56	3.90	-128.87	143.80	-34.43	207.17	199.43	7.74	26.766	
1,800.00	1,778.59	1,734.89	1,724.54	5.14	4.25	-130.55	164.20	-43.01	249.65	241.28	8.37	29.821	
1,900.00	1,871.69	1,816.76	1,802.91	5.80	4.63	-131.64	186.03	-52.20	296.52	287.47	9.05	32.760	
2,002.00	1,965.28	1,900.00	1,881.85	6.54	5.05	-132.37	210.33	-62.42	348.58	338.78	9.80	35.557	
2,100.00	2,054.50	1,972.21	1,949.70	7.30	5.47	-133.40	233.12	-72.01	401.43	390.84	10.59	37.917	
2,200.00	2,145.54	2,046.98	2,019.27	8.09	5.92	-134.05	258.37	-82.63	457.05	445.63	11.43	40.004	
2,300.00	2,236.58	2,119.96	2,086.46	8.90	6.40	-134.39	284.62	-93.67	514.26	501.97	12.29	41.844	
2,400.00	2,327.62	2,194.68	2,154.54	9.71	6.93	-134.51	313.01	-105.61	572.88	559.68	13.20	43.414	
2,500.00	2,418.65	2,275.47	2,227.98	10.54	7.53	-134.59	344.05	-118.66	631.80	617.65	14.15	44.652	
2,600.00	2,509.69	2,356.26	2,301.42	11.36	8.13	-134.66	375.08	-131.72	690.73	675.61	15.12	45.693	
2,700.00	2,600.73	2,437.05	2,374.86	12.20	8.75	-134.71	406.12	-144.77	749.66	733.56	16.10	46.574	
2,800.00	2,691.77	2,517.84	2,448.30	13.03	9.37	-134.76	437.16	-157.82	808.59	791.50	17.09	47.326	
2,900.00	2,782.81	2,598.64	2,521.74	13.87	10.00	-134.80	468.20	-170.88	867.52	849.43	18.08	47.973	
3,000.00	2,873.85	2,679.43	2,595.18	14.72	10.63	-134.84	499.23	-183.93	926.44	907.36	19.09	48.531	
3,100.00	2,964.89	2,760.22	2,668.62	15.56	11.27	-134.87	530.27	-196.99	985.37	965.27	20.10	49.019	
3,200.00	3,055.93	2,841.01	2,742.06	16.41	11.91	-134.90	561.31	-210.04	1,044.30	1,023.18	21.12	49.448	
3,300.00	3,146.97	2,921.80	2,815.50	17.25	12.56	-134.92	592.34	-223.09	1,103.23	1,081.09	22.14	49.827	
3,400.00	3,238.01	3,002.59	2,888.94	18.10	13.20	-134.94	623.38	-236.15	1,162.16	1,139.00	23.17	50.164	
3,500.00	3,329.05	3,083.38	2,962.38	18.95	13.85	-134.96	654.42	-249.20	1,221.09	1,196.90	24.20	50.465	
3,600.00	3,420.09	3,164.17	3,035.82	19.80	14.50	-134.98	685.45	-262.26	1,280.02	1,254.79	25.23	50.734	
3,700.00	3,511.13	3,244.96	3,109.26	20.66	15.15	-135.00	716.49	-275.31	1,338.95	1,312.69	26.27	50.978	
3,800.00	3,602.17	3,325.75	3,182.70	21.51	15.81	-135.01	747.53	-288.37	1,397.88	1,370.58	27.30	51.199	
3,900.00	3,693.21	3,406.54	3,256.14	22.36	16.46	-135.03	778.56	-301.42	1,456.81	1,428.47	28.34	51.399	
4,000.00	3,784.25	3,487.33	3,329.58	23.22	17.12	-135.04	809.60	-314.47	1,515.74	1,486.36	29.39	51.582	
4,100.00	3,875.29	3,568.12	3,403.02	24.07	17.78	-135.05	840.64	-327.53	1,574.67	1,544.25	30.43	51.749	
4,200.00	3,966.33	3,648.91	3,476.46	24.93	18.43	-135.07	871.67	-340.58	1,633.61	1,602.13	31.47	51.903	
4,300.00	4,057.37	3,729.71	3,549.90	25.78	19.09	-135.08	902.71	-353.64	1,692.54	1,660.01	32.52	52.044	
4,400.00	4,148.41	3,810.50	3,623.34	26.64	19.75	-135.09	933.75	-366.69	1,751.47	1,717.90	33.57	52.175	
4,500.00	4,239.45	3,891.29	3,696.78	27.49	20.41	-135.09	964.78	-379.74	1,810.40	1,775.78	34.62	52.296	
4,600.00	4,330.49	3,972.08	3,770.22	28.35	21.07	-135.10	995.82	-392.80	1,869.33	1,833.66	35.67	52.408	
4,700.00	4,421.52	4,052.87	3,843.66	29.21	21.74	-135.11	1,026.86	-405.85	1,928.26	1,891.54	36.72	52.513	
4,800.00	4,512.56	4,133.66	3,917.10	30.06	22.40	-135.12	1,057.90	-418.91	1,987.19	1,949.42	37.77	52.610	
4,900.00	4,603.60	4,214.45	3,990.54	30.92	23.06	-135.13	1,088.93	-431.96	2,046.12	2,007.29	38.82	52.701	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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 25-29 - P_RASMUSSEN 25-29 - 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
5,000.00	4,694.64	4,295.24	4,063.98	31.78	23.72	-135.13	1,119.97	-445.02	2,105.05	2,065.17	39.88	52.787	
5,100.00	4,785.68	4,376.03	4,137.42	32.63	24.39	-135.14	1,151.01	-458.07	2,163.98	2,123.05	40.93	52.867	
5,200.00	4,876.72	4,456.82	4,210.86	33.49	25.05	-135.14	1,182.04	-471.12	2,222.91	2,180.92	41.99	52.942	
5,300.00	4,967.76	4,537.61	4,284.30	34.35	25.71	-135.15	1,213.08	-484.18	2,281.84	2,238.80	43.04	53.013	
5,400.00	5,058.80	4,618.40	4,357.74	35.21	26.38	-135.16	1,244.12	-497.23	2,340.77	2,296.67	44.10	53.079	
5,500.00	5,149.84	4,699.19	4,431.18	36.07	27.04	-135.16	1,275.15	-510.29	2,399.70	2,354.55	45.16	53.142	
5,571.27	5,214.72	4,756.77	4,483.52	36.68	27.51	-135.16	1,297.27	-519.59	2,441.70	2,395.79	45.91	53.185	
5,600.00	5,240.94	4,780.05	4,504.67	36.90	27.71	-135.46	1,306.21	-523.35	2,458.55	2,412.30	46.25	53.153	
5,700.00	5,333.08	4,861.95	4,579.13	37.55	28.38	-136.38	1,337.68	-536.59	2,515.88	2,468.49	47.39	53.085	
5,800.00	5,426.51	4,945.20	4,654.80	38.14	29.07	-137.18	1,369.66	-550.04	2,571.13	2,522.62	48.51	53.001	
5,900.00	5,521.14	5,029.68	4,731.59	38.69	29.76	-137.85	1,402.11	-563.69	2,624.24	2,574.63	49.60	52.905	
6,000.00	5,616.83	5,115.28	4,809.41	39.18	30.47	-138.42	1,435.00	-577.52	2,675.16	2,624.49	50.66	52.802	
6,100.00	5,713.48	5,201.92	4,888.17	39.61	31.18	-138.89	1,468.28	-591.52	2,723.85	2,672.16	51.69	52.698	
6,200.00	5,810.96	5,289.48	4,967.76	40.00	31.90	-139.27	1,501.92	-605.67	2,770.29	2,717.62	52.67	52.596	
6,300.00	5,909.17	5,377.85	5,048.09	40.33	32.63	-139.56	1,535.87	-619.94	2,814.44	2,760.83	53.61	52.498	
6,400.00	6,007.97	5,466.93	5,129.06	40.61	33.36	-139.77	1,570.09	-634.34	2,856.29	2,801.79	54.50	52.409	
6,500.00	6,107.25	5,556.61	5,210.58	40.84	34.10	-139.91	1,604.54	-648.83	2,895.83	2,840.49	55.34	52.330	
6,600.00	6,206.88	5,646.77	5,292.54	41.02	34.85	-139.97	1,639.18	-663.40	2,933.06	2,876.94	56.12	52.263	
6,700.00	6,306.75	5,737.32	5,374.85	41.15	35.59	-139.97	1,673.96	-678.03	2,967.97	2,911.13	56.85	52.211	
6,793.27	6,400.00	5,822.01	5,451.84	41.23	36.29	-66.17	1,706.50	-691.71	2,998.46	2,941.00	57.47	52.177	
6,800.00	6,406.73	5,828.13	5,457.40	41.23	36.34	-66.14	1,708.85	-692.70	3,000.59	2,943.08	57.51	52.173	
6,900.00	6,506.73	5,919.03	5,540.03	41.30	37.09	-65.62	1,743.77	-707.39	3,032.35	2,974.17	58.19	52.115	
7,000.00	6,606.73	6,009.94	5,622.67	41.38	37.84	-65.11	1,778.69	-722.08	3,064.35	3,005.50	58.85	52.069	
7,100.00	6,706.73	6,239.32	5,833.08	41.46	39.40	-63.93	1,862.79	-757.45	3,095.98	3,035.84	60.14	51.480	
7,200.00	6,806.73	6,855.65	6,426.80	41.53	42.07	-61.97	2,011.12	-819.84	3,116.44	3,054.12	62.32	50.008	
7,300.00	6,906.73	7,337.43	6,906.73	41.61	42.89	-61.56	2,043.64	-833.51	3,120.63	3,057.46	63.17	49.399	
7,400.00	7,006.73	7,437.43	7,006.73	41.69	42.96	-61.56	2,043.64	-833.51	3,120.63	3,057.26	63.36	49.250	
7,500.00	7,106.73	7,537.43	7,106.73	41.77	43.04	-61.56	2,043.64	-833.51	3,120.63	3,057.07	63.56	49.098	
7,600.00	7,206.73	7,637.43	7,206.73	41.86	43.11	-61.56	2,043.64	-833.51	3,120.63	3,056.87	63.76	48.944	
7,700.00	7,306.73	7,737.43	7,306.73	41.94	43.19	-61.56	2,043.64	-833.51	3,120.63	3,056.67	63.96	48.790	
7,800.00	7,406.73	7,837.43	7,406.73	42.02	43.27	-61.56	2,043.64	-833.51	3,120.63	3,056.46	64.16	48.635	
7,900.00	7,506.73	7,937.43	7,506.73	42.11	43.34	-61.56	2,043.64	-833.51	3,120.63	3,056.26	64.37	48.479	
8,000.00	7,606.73	8,037.43	7,606.73	42.19	43.42	-61.56	2,043.64	-833.51	3,120.63	3,056.05	64.58	48.322	
8,066.51	7,673.24	8,103.94	7,673.24	42.25	43.48	-61.56	2,043.64	-833.51	3,120.63	3,055.91	64.72	48.217	
8,100.27	7,707.00	8,136.70	7,706.00	42.28	43.50	-61.56	2,043.64	-833.51	3,120.63	3,055.84	64.79	48.164	



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	-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	
780.00	780.00	780.00	780.00	1.62	1.62	-176.34	-43.71	-2.80	43.80	40.55	3.25	13.485 CC	
800.00	800.00	799.78	799.78	1.67	1.66	110.07	-43.76	-2.85	43.87	40.54	3.33	13.174 ES	
900.00	899.96	898.49	898.46	1.87	1.84	114.82	-45.37	-4.60	46.63	42.91	3.72	12.542 SF	
1,000.00	999.78	996.40	996.19	2.09	2.04	124.07	-49.26	-8.79	54.44	50.32	4.12	13.214	
1,100.00	1,099.33	1,092.85	1,092.23	2.33	2.24	133.90	-55.30	-15.32	68.85	64.32	4.53	15.208	
1,200.00	1,198.50	1,187.25	1,185.88	2.58	2.47	141.88	-63.34	-24.01	90.55	85.61	4.93	18.349	
1,300.00	1,297.15	1,279.04	1,276.52	2.87	2.73	147.61	-73.16	-34.62	119.36	114.03	5.34	22.355	
1,400.00	1,395.17	1,367.74	1,363.62	3.21	3.02	151.56	-84.52	-46.89	154.87	149.12	5.74	26.967	
1,500.00	1,492.44	1,452.92	1,446.75	3.60	3.33	154.29	-97.15	-60.53	196.59	190.45	6.15	31.988	
1,600.00	1,588.85	1,534.26	1,525.57	4.05	3.67	156.17	-110.76	-75.25	244.12	237.57	6.55	37.274	
1,700.00	1,684.27	1,611.48	1,599.86	4.56	4.03	157.47	-125.10	-90.73	297.04	290.09	6.95	42.721	
1,800.00	1,778.59	1,684.41	1,669.46	5.14	4.41	158.36	-139.88	-106.70	355.01	347.64	7.36	48.225	
1,900.00	1,871.69	1,754.64	1,735.96	5.80	4.80	158.97	-155.22	-123.28	417.61	409.83	7.78	53.687	
2,002.00	1,965.28	1,831.08	1,808.14	6.54	5.26	159.52	-172.31	-141.75	484.78	476.54	8.23	58.877	
2,100.00	2,054.50	1,903.38	1,876.41	7.30	5.69	160.46	-188.48	-159.22	550.63	541.88	8.75	62.954	
2,200.00	2,145.54	1,977.16	1,946.08	8.09	6.15	161.22	-204.98	-177.04	617.89	608.61	9.28	66.568	
2,300.00	2,236.58	2,050.94	2,015.74	8.90	6.62	161.83	-221.47	-194.86	685.20	675.37	9.82	69.742	
2,400.00	2,327.62	2,124.72	2,085.41	9.71	7.09	162.33	-237.97	-212.69	752.54	742.17	10.37	72.545	
2,500.00	2,418.65	2,198.50	2,155.08	10.54	7.56	162.74	-254.47	-230.51	819.91	808.98	10.93	75.033	
2,600.00	2,509.69	2,272.28	2,224.75	11.36	8.04	163.10	-270.96	-248.34	887.30	875.81	11.49	77.245	
2,700.00	2,600.73	2,346.06	2,294.41	12.20	8.52	163.40	-287.46	-266.16	954.70	942.66	12.05	79.231	
2,800.00	2,691.77	2,419.84	2,364.08	13.03	9.00	163.67	-303.96	-283.99	1,022.12	1,009.51	12.62	81.023	
2,900.00	2,782.81	2,493.62	2,433.75	13.87	9.49	163.90	-320.45	-301.81	1,089.55	1,076.37	13.18	82.645	
3,000.00	2,873.85	2,567.39	2,503.41	14.72	9.97	164.11	-336.95	-319.63	1,156.99	1,143.23	13.75	84.114	
3,100.00	2,964.89	2,641.17	2,573.08	15.56	10.46	164.29	-353.45	-337.46	1,224.43	1,210.10	14.33	85.416	
3,200.00	3,055.93	2,714.95	2,642.75	16.41	10.95	164.45	-369.94	-355.28	1,291.89	1,276.97	14.92	86.604	
3,300.00	3,146.97	2,788.73	2,712.42	17.25	11.44	164.60	-386.44	-373.11	1,359.34	1,343.84	15.50	87.690	
3,400.00	3,238.01	2,862.51	2,782.08	18.10	11.94	164.73	-402.94	-390.93	1,426.80	1,410.71	16.09	88.684	
3,500.00	3,329.05	2,936.29	2,851.75	18.95	12.43	164.86	-419.43	-408.75	1,494.27	1,477.59	16.68	89.601	
3,600.00	3,420.09	3,010.07	2,921.42	19.80	12.92	164.97	-435.93	-426.58	1,561.73	1,544.47	17.27	90.447	
3,700.00	3,511.13	3,083.85	2,991.08	20.66	13.42	165.07	-452.43	-444.40	1,629.20	1,611.35	17.86	91.230	
3,800.00	3,602.17	3,157.63	3,060.75	21.51	13.91	165.16	-468.93	-462.23	1,696.68	1,678.23	18.45	91.955	
3,900.00	3,693.21	3,231.41	3,130.42	22.36	14.41	165.25	-485.42	-480.05	1,764.15	1,745.11	19.05	92.631	
4,000.00	3,784.25	3,305.18	3,200.09	23.22	14.90	165.33	-501.92	-497.87	1,831.63	1,811.99	19.64	93.260	
4,100.00	3,875.29	3,378.96	3,269.75	24.07	15.40	165.40	-518.42	-515.70	1,899.11	1,878.87	20.24	93.848	
4,200.00	3,966.33	3,452.74	3,339.42	24.93	15.90	165.47	-534.91	-533.52	1,966.59	1,945.76	20.83	94.398	
4,300.00	4,057.37	3,526.52	3,409.09	25.78	16.40	165.54	-551.41	-551.35	2,034.07	2,012.64	21.43	94.914	
4,400.00	4,148.41	3,600.30	3,482.39	26.64	16.90	165.61	-567.91	-567.85	2,101.55	2,078.96	22.03	95.430	
4,500.00	4,239.45	3,674.08	3,555.26	27.50	17.40	165.68	-584.41	-584.35	2,168.03	2,144.37	22.63	95.946	
4,600.00	4,330.49	3,747.86	3,628.13	28.36	17.90	165.75	-600.91	-600.85	2,234.51	2,209.71	23.23	96.462	
4,700.00	4,421.53	3,821.64	3,701.00	29.22	18.40	165.82	-617.41	-617.35	2,301.00	2,275.10	23.83	96.978	
4,800.00	4,512.57	3,895.42	3,773.87	30.08	18.90	165.89	-633.91	-633.85	2,367.48	2,341.59	24.43	97.494	
4,900.00	4,603.61	3,969.20	3,846.74	30.94	19.40	165.96	-650.41	-650.35	2,433.96	2,406.97	25.03	98.010	
5,000.00	4,694.65	4,042.98	3,919.61	31.80	19.90	166.03	-666.91	-666.85	2,500.44	2,472.35	25.63	98.526	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	
5,100.00	4,785.68	4,923.63	4,785.68	32.63	20.01	168.18	-670.25	-679.75	2,421.50	2,394.52	26.98	89.761	
5,200.00	4,876.72	5,014.67	4,876.72	33.49	20.11	168.38	-670.25	-679.75	2,462.15	2,434.65	27.50	89.543	
5,300.00	4,967.76	5,105.71	4,967.76	34.35	20.20	168.57	-670.25	-679.75	2,502.83	2,474.81	28.02	89.333	
5,400.00	5,058.80	5,196.75	5,058.80	35.21	20.30	168.76	-670.25	-679.75	2,543.53	2,515.00	28.54	89.130	
5,500.00	5,149.84	5,287.79	5,149.84	36.07	20.40	168.93	-670.25	-679.75	2,584.26	2,555.20	29.06	88.933	
5,571.27	5,214.72	5,352.67	5,214.72	36.68	20.47	169.06	-670.25	-679.75	2,613.29	2,583.86	29.43	88.797	
5,600.00	5,240.94	5,378.88	5,240.94	36.90	20.50	169.15	-670.25	-679.75	2,624.87	2,595.22	29.65	88.532	
5,700.00	5,333.08	5,471.02	5,333.08	37.55	20.60	169.46	-670.25	-679.75	2,663.15	2,632.79	30.36	87.716	
5,800.00	5,426.51	5,564.46	5,426.51	38.14	20.71	169.74	-670.25	-679.75	2,698.25	2,667.22	31.03	86.945	
5,900.00	5,521.14	5,659.08	5,521.14	38.69	20.82	169.97	-670.25	-679.75	2,730.13	2,698.47	31.67	86.219	
6,000.00	5,616.83	5,754.78	5,616.83	39.18	20.93	170.18	-670.25	-679.75	2,758.74	2,726.49	32.25	85.537	
6,100.00	5,713.48	5,851.42	5,713.48	39.61	21.05	170.36	-670.25	-679.75	2,784.05	2,751.26	32.79	84.897	
6,200.00	5,810.96	5,948.91	5,810.96	40.00	21.16	170.51	-670.25	-679.75	2,806.02	2,772.74	33.29	84.298	
6,300.00	5,909.17	6,047.11	5,909.17	40.33	21.28	170.63	-670.25	-679.75	2,824.63	2,790.90	33.73	83.738	
6,400.00	6,007.97	6,145.91	6,007.97	40.61	21.41	170.73	-670.25	-679.75	2,839.84	2,805.71	34.13	83.216	
6,500.00	6,107.25	6,245.19	6,107.25	40.84	21.53	170.81	-670.25	-679.75	2,851.64	2,817.17	34.47	82.729	
6,600.00	6,206.88	6,344.82	6,206.88	41.02	21.66	170.87	-670.25	-679.75	2,860.01	2,825.25	34.76	82.277	
6,700.00	6,306.75	6,444.69	6,306.75	41.15	21.79	170.90	-670.25	-679.75	2,864.95	2,829.95	35.00	81.857	
6,793.27	6,400.00	6,537.94	6,400.00	41.23	21.91	-115.36	-670.25	-679.75	2,866.45	2,831.27	35.18	81.487	
6,800.00	6,406.73	6,544.68	6,406.73	41.23	21.92	-115.36	-670.25	-679.75	2,866.45	2,831.25	35.20	81.438	
6,900.00	6,506.73	6,644.68	6,506.73	41.30	22.05	-115.36	-670.25	-679.75	2,866.45	2,830.93	35.52	80.699	
7,000.00	6,606.73	6,744.68	6,606.73	41.38	22.18	-115.36	-670.25	-679.75	2,866.45	2,830.60	35.85	79.967	
7,100.00	6,706.73	6,844.68	6,706.73	41.46	22.32	-115.36	-670.25	-679.75	2,866.45	2,830.27	36.17	79.242	
7,200.00	6,806.73	6,944.68	6,806.73	41.53	22.45	-115.36	-670.25	-679.75	2,866.45	2,829.94	36.50	78.525	
7,300.00	6,906.73	7,044.68	6,906.73	41.61	22.59	-115.36	-670.25	-679.75	2,866.45	2,829.61	36.84	77.816	
7,400.00	7,006.73	7,144.68	7,006.73	41.69	22.73	-115.36	-670.25	-679.75	2,866.45	2,829.28	37.17	77.115	
7,500.00	7,106.73	7,244.68	7,106.73	41.77	22.87	-115.36	-670.25	-679.75	2,866.45	2,828.94	37.51	76.421	
7,600.00	7,206.73	7,344.68	7,206.73	41.86	23.01	-115.36	-670.25	-679.75	2,866.45	2,828.60	37.85	75.736	
7,700.00	7,306.73	7,444.68	7,306.73	41.94	23.15	-115.36	-670.25	-679.75	2,866.45	2,828.26	38.19	75.058	
7,800.00	7,406.73	7,544.68	7,406.73	42.02	23.30	-115.36	-670.25	-679.75	2,866.45	2,827.91	38.53	74.388	
7,900.00	7,506.73	7,644.68	7,506.73	42.11	23.44	-115.36	-670.25	-679.75	2,866.45	2,827.57	38.88	73.726	
8,000.00	7,606.73	7,744.68	7,606.73	42.19	23.59	-115.36	-670.25	-679.75	2,866.45	2,827.22	39.23	73.072	
8,055.74	7,662.48	7,800.42	7,662.48	42.24	23.67	-115.36	-670.25	-679.75	2,866.45	2,827.03	39.42	72.711	
8,100.27	7,707.00	7,819.94	7,682.00	42.28	23.70	-115.36	-670.25	-679.75	2,866.56	2,827.03	39.53	72.516	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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	-177.25	-58.28	-2.80	58.34				
100.00	100.00	100.00	100.00	0.10	0.10	-177.25	-58.28	-2.80	58.34	58.15	0.19	305.380	
200.00	200.00	200.00	200.00	0.32	0.32	-177.25	-58.28	-2.80	58.34	57.70	0.64	91.078	
300.00	300.00	300.00	300.00	0.55	0.55	-177.25	-58.28	-2.80	58.34	57.25	1.09	53.520	
400.00	400.00	400.00	400.00	0.77	0.77	-177.25	-58.28	-2.80	58.34	56.80	1.54	37.894	
500.00	500.00	500.00	500.00	0.99	0.99	-177.25	-58.28	-2.80	58.34	56.35	1.99	29.330	
600.00	600.00	600.00	600.00	1.22	1.22	-177.25	-58.28	-2.80	58.34	55.90	2.44	23.924	
700.00	700.00	700.00	700.00	1.44	1.44	-177.25	-58.28	-2.80	58.34	55.46	2.89	20.200	
780.00	780.00	780.00	780.00	1.62	1.62	-177.25	-58.28	-2.80	58.34	55.10	3.25	17.964 CC	
800.00	800.00	799.88	799.88	1.67	1.67	109.06	-58.29	-2.78	58.38	55.04	3.33	17.514 ES	
900.00	899.96	898.63	898.61	1.87	1.85	109.64	-59.59	-1.22	60.42	56.70	3.72	16.236	
1,000.00	999.78	997.21	997.03	2.09	2.04	110.54	-63.07	2.96	65.70	61.57	4.13	15.906 SF	
1,100.00	1,099.33	1,095.47	1,094.90	2.33	2.25	111.55	-68.69	9.70	74.20	69.64	4.57	16.247	
1,200.00	1,198.50	1,193.26	1,191.93	2.58	2.49	112.51	-76.42	18.97	85.93	80.88	5.04	17.035	
1,300.00	1,297.15	1,290.43	1,287.88	2.87	2.76	113.33	-86.19	30.69	100.85	95.28	5.58	18.087	
1,400.00	1,395.17	1,386.83	1,382.53	3.21	3.08	113.96	-97.94	44.78	118.93	112.76	6.18	19.259	
1,500.00	1,492.44	1,482.35	1,475.63	3.60	3.44	114.42	-111.59	61.15	140.12	133.26	6.85	20.443	
1,600.00	1,588.85	1,576.86	1,567.01	4.05	3.85	114.71	-127.04	79.69	164.36	156.73	7.62	21.565	
1,700.00	1,684.27	1,670.25	1,656.47	4.56	4.32	114.87	-144.19	100.26	191.58	183.10	8.48	22.582	
1,800.00	1,778.59	1,762.42	1,743.85	5.14	4.84	114.91	-162.94	122.76	221.72	212.28	9.44	23.477	
1,900.00	1,871.69	1,854.92	1,830.68	5.80	5.41	114.93	-183.38	147.27	254.57	244.07	10.50	24.234	
2,002.00	1,965.28	1,950.52	1,920.24	6.54	6.04	115.36	-204.77	172.94	289.79	278.10	11.69	24.799	
2,100.00	2,054.50	2,042.02	2,005.97	7.30	6.65	116.49	-225.25	197.51	324.42	311.53	12.90	25.156	
2,200.00	2,145.54	2,135.39	2,093.45	8.09	7.28	117.43	-246.15	222.58	359.86	345.70	14.15	25.423	
2,300.00	2,236.58	2,228.75	2,180.92	8.90	7.93	118.19	-267.05	247.64	395.36	379.93	15.43	25.622	
2,400.00	2,327.62	2,322.12	2,268.40	9.71	8.58	118.83	-287.95	272.71	430.91	414.19	16.72	25.775	
2,500.00	2,418.65	2,415.49	2,355.88	10.54	9.24	119.37	-308.84	297.78	466.51	448.49	18.02	25.893	
2,600.00	2,509.69	2,508.85	2,443.35	11.36	9.90	119.84	-329.74	322.85	502.13	482.81	19.32	25.988	
2,700.00	2,600.73	2,602.22	2,530.83	12.20	10.56	120.24	-350.64	347.92	537.78	517.15	20.63	26.064	
2,800.00	2,691.77	2,695.59	2,618.31	13.03	11.23	120.59	-371.54	372.99	573.45	551.50	21.95	26.127	
2,900.00	2,782.81	2,788.95	2,705.79	13.87	11.90	120.91	-392.43	398.06	609.14	585.87	23.27	26.179	
3,000.00	2,873.85	2,882.32	2,793.26	14.72	12.57	121.18	-413.33	423.12	644.84	620.25	24.59	26.223	
3,100.00	2,964.89	2,975.69	2,880.74	15.56	13.24	121.43	-434.23	448.19	680.55	654.64	25.92	26.260	
3,200.00	3,055.93	3,069.05	2,968.22	16.41	13.91	121.66	-455.12	473.26	716.28	689.04	27.24	26.293	
3,300.00	3,146.97	3,162.42	3,055.69	17.25	14.59	121.86	-476.02	498.33	752.01	723.44	28.57	26.321	
3,400.00	3,238.01	3,255.79	3,143.17	18.10	15.26	122.04	-496.92	523.40	787.75	757.85	29.90	26.347	
3,500.00	3,329.05	3,349.15	3,230.65	18.95	15.94	122.21	-517.82	548.47	823.49	792.27	31.23	26.369	
3,600.00	3,420.09	3,442.52	3,318.12	19.80	16.62	122.36	-538.71	573.53	859.25	826.69	32.56	26.389	
3,700.00	3,511.13	3,536.64	3,406.31	20.66	17.29	122.51	-559.77	598.80	895.00	861.11	33.89	26.409	
3,800.00	3,602.17	3,641.39	3,505.19	21.51	17.90	122.79	-581.91	625.35	930.11	894.96	35.15	26.458	
3,900.00	3,693.21	3,746.68	3,605.78	22.36	18.41	123.28	-601.81	649.22	964.11	927.79	36.33	26.541	
4,000.00	3,784.25	3,852.23	3,707.70	23.22	18.87	123.95	-619.37	670.29	997.05	959.62	37.43	26.636	
4,100.00	3,875.29	3,957.75	3,810.52	24.07	19.28	124.80	-634.51	688.45	1,029.03	990.56	38.47	26.749	
4,200.00	3,966.33	4,062.94	3,913.84	24.93	19.64	125.79	-647.18	703.65	1,060.15	1,020.72	39.43	26.888	
4,300.00	4,057.37	4,167.55	4,017.22	25.78	19.94	126.91	-657.36	715.86	1,090.54	1,050.23	40.30	27.058	
4,400.00	4,148.41	4,271.28	4,120.25	26.64	20.19	128.16	-665.07	725.11	1,120.35	1,079.26	41.09	27.267	
4,500.00	4,239.45	4,373.90	4,222.53	27.49	20.38	129.50	-670.33	731.42	1,149.75	1,107.97	41.78	27.518	
4,600.00	4,330.49	4,475.14	4,323.67	28.35	20.53	130.93	-673.23	734.90	1,178.93	1,136.54	42.38	27.817	
4,700.00	4,421.52	4,573.01	4,421.52	29.21	20.64	132.40	-673.90	735.70	1,208.07	1,165.17	42.90	28.161	
4,800.00	4,512.56	4,664.05	4,512.56	30.06	20.72	133.75	-673.90	735.70	1,237.71	1,194.33	43.39	28.529	
4,900.00	4,603.60	4,755.09	4,603.60	30.92	20.81	135.04	-673.90	735.70	1,268.01	1,224.16	43.85	28.915	
5,000.00	4,694.64	4,846.13	4,694.64	31.78	20.90	136.27	-673.90	735.70	1,298.92	1,254.62	44.30	29.319	

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 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,785.68	4,937.17	4,785.68	32.63	20.99	137.46	-673.90	735.70	1,330.40	1,285.66	44.74	29.738	
5,200.00	4,876.72	5,028.21	4,876.72	33.49	21.08	138.59	-673.90	735.70	1,362.41	1,317.25	45.16	30.169	
5,300.00	4,967.76	5,119.25	4,967.76	34.35	21.17	139.67	-673.90	735.70	1,394.91	1,349.34	45.57	30.610	
5,400.00	5,058.80	5,210.29	5,058.80	35.21	21.27	140.71	-673.90	735.70	1,427.87	1,381.90	45.97	31.060	
5,500.00	5,149.84	5,301.33	5,149.84	36.07	21.36	141.70	-673.90	735.70	1,461.26	1,414.90	46.36	31.517	
5,571.27	5,214.72	5,366.21	5,214.72	36.68	21.43	142.38	-673.90	735.70	1,485.30	1,438.66	46.64	31.846	
5,600.00	5,240.94	5,392.43	5,240.94	36.90	21.46	142.77	-673.90	735.70	1,494.94	1,448.19	46.75	31.976	
5,700.00	5,333.08	5,484.56	5,333.08	37.55	21.56	144.03	-673.90	735.70	1,527.01	1,479.94	47.07	32.441	
5,800.00	5,426.51	5,578.00	5,426.51	38.14	21.67	145.14	-673.90	735.70	1,556.68	1,509.31	47.37	32.859	
5,900.00	5,521.14	5,672.62	5,521.14	38.69	21.77	146.12	-673.90	735.70	1,583.83	1,536.17	47.66	33.232	
6,000.00	5,616.83	5,768.32	5,616.83	39.18	21.88	146.96	-673.90	735.70	1,608.35	1,560.42	47.93	33.557	
6,100.00	5,713.48	5,864.97	5,713.48	39.61	21.99	147.69	-673.90	735.70	1,630.15	1,581.98	48.18	33.837	
6,200.00	5,810.96	5,962.45	5,810.96	40.00	22.11	148.30	-673.90	735.70	1,649.17	1,600.76	48.40	34.070	
6,300.00	5,909.17	6,060.65	5,909.17	40.33	22.23	148.81	-673.90	735.70	1,665.33	1,616.72	48.61	34.258	
6,400.00	6,007.97	6,159.45	6,007.97	40.61	22.35	149.22	-673.90	735.70	1,678.58	1,629.79	48.80	34.401	
6,500.00	6,107.25	6,258.73	6,107.25	40.84	22.47	149.53	-673.90	735.70	1,688.89	1,639.93	48.96	34.498	
6,600.00	6,206.88	6,358.37	6,206.88	41.02	22.59	149.75	-673.90	735.70	1,696.21	1,647.12	49.09	34.550	
6,700.00	6,306.75	6,458.24	6,306.75	41.15	22.72	149.88	-673.90	735.70	1,700.54	1,651.33	49.21	34.556	
6,793.27	6,400.00	6,551.49	6,400.00	41.23	22.83	-136.35	-673.90	735.70	1,701.85	1,652.55	49.30	34.520	
6,800.00	6,406.73	6,558.22	6,406.73	41.23	22.84	-136.35	-673.90	735.70	1,701.85	1,652.53	49.32	34.509	
6,900.00	6,506.73	6,658.22	6,506.73	41.30	22.97	-136.35	-673.90	735.70	1,701.85	1,652.30	49.55	34.344	
7,000.00	6,606.73	6,758.22	6,606.73	41.38	23.10	-136.35	-673.90	735.70	1,701.85	1,652.06	49.79	34.178	
7,100.00	6,706.73	6,858.22	6,706.73	41.46	23.23	-136.35	-673.90	735.70	1,701.85	1,651.81	50.04	34.012	
7,200.00	6,806.73	6,958.22	6,806.73	41.53	23.37	-136.35	-673.90	735.70	1,701.85	1,651.57	50.28	33.846	
7,300.00	6,906.73	7,058.22	6,906.73	41.61	23.50	-136.35	-673.90	735.70	1,701.85	1,651.32	50.53	33.679	
7,400.00	7,006.73	7,158.22	7,006.73	41.69	23.64	-136.35	-673.90	735.70	1,701.85	1,651.07	50.78	33.513	
7,500.00	7,106.73	7,258.22	7,106.73	41.77	23.77	-136.35	-673.90	735.70	1,701.85	1,650.81	51.04	33.346	
7,600.00	7,206.73	7,358.22	7,206.73	41.86	23.91	-136.35	-673.90	735.70	1,701.85	1,650.56	51.29	33.179	
7,700.00	7,306.73	7,458.22	7,306.73	41.94	24.05	-136.35	-673.90	735.70	1,701.85	1,650.30	51.55	33.012	
7,800.00	7,406.73	7,558.22	7,406.73	42.02	24.19	-136.35	-673.90	735.70	1,701.85	1,650.03	51.81	32.845	
7,900.00	7,506.73	7,658.22	7,506.73	42.11	24.33	-136.35	-673.90	735.70	1,701.85	1,649.77	52.08	32.678	
8,000.00	7,606.73	7,758.22	7,606.73	42.19	24.48	-136.35	-673.90	735.70	1,701.85	1,649.50	52.35	32.511	
8,058.52	7,665.25	7,816.74	7,665.25	42.25	24.56	-136.35	-673.90	735.70	1,701.85	1,649.35	52.50	32.414	
8,100.27	7,707.00	7,838.49	7,687.00	42.28	24.59	-136.35	-673.90	735.70	1,701.97	1,649.38	52.59	32.364	



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
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 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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
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	29.14	0.00	29.14					
100.00	100.00	100.00	100.00	0.10	0.10	0.00	29.14	0.00	29.14	28.95	0.19	152.537		
200.00	200.00	200.00	200.00	0.32	0.32	0.00	29.14	0.00	29.14	28.50	0.64	45.493		
300.00	300.00	300.00	300.00	0.55	0.55	0.00	29.14	0.00	29.14	28.05	1.09	26.733		
400.00	400.00	400.00	400.00	0.77	0.77	0.00	29.14	0.00	29.14	27.60	1.54	18.928		
500.00	500.00	500.00	500.00	0.99	0.99	0.00	29.14	0.00	29.14	27.15	1.99	14.650		
600.00	600.00	600.00	600.00	1.22	1.22	0.00	29.14	0.00	29.14	26.70	2.44	11.950		
700.00	700.00	700.00	700.00	1.44	1.44	0.00	29.14	0.00	29.14	26.25	2.89	10.090		
780.00	780.00	780.00	780.00	1.62	1.62	0.00	29.14	0.00	29.14	25.89	3.25	8.973		
800.00	800.00	800.00	800.00	1.67	1.67	-73.87	29.14	0.00	29.12	25.79	3.34	8.731		
900.00	899.96	899.96	899.96	1.87	1.89	-78.59	29.14	0.00	28.54	24.77	3.77	7.574		
955.61	955.50	955.33	955.33	2.00	2.02	-84.39	29.19	-0.05	28.18	24.16	4.01	7.021 CC, ES		
1,000.00	999.78	999.21	999.21	2.09	2.11	-91.12	29.67	-0.49	28.63	24.42	4.21	6.807 SF		
1,100.00	1,099.33	1,097.49	1,097.41	2.33	2.33	-109.70	32.50	-3.15	34.23	29.59	4.64	7.371		
1,200.00	1,198.50	1,194.59	1,194.23	2.58	2.55	-125.03	37.72	-8.04	47.69	42.62	5.08	9.395		
1,300.00	1,297.15	1,290.02	1,289.11	2.87	2.78	-134.40	45.17	-15.03	68.65	63.14	5.51	12.464		
1,400.00	1,395.17	1,383.35	1,381.52	3.21	3.03	-139.71	54.69	-23.95	96.13	90.19	5.95	16.167		
1,500.00	1,492.44	1,474.18	1,471.01	3.60	3.29	-142.74	66.05	-34.60	129.49	123.09	6.40	20.235		
1,600.00	1,588.85	1,562.18	1,557.18	4.05	3.59	-144.50	79.03	-46.77	168.30	161.43	6.87	24.490		
1,700.00	1,684.27	1,647.03	1,639.72	4.56	3.90	-145.50	93.37	-60.21	212.24	204.87	7.37	28.805		
1,800.00	1,778.59	1,728.51	1,718.40	5.14	4.24	-146.03	108.81	-74.68	261.02	253.13	7.89	33.083		
1,900.00	1,871.69	1,806.42	1,793.04	5.80	4.60	-146.24	125.09	-89.95	314.37	305.93	8.44	37.254		
2,002.00	1,965.28	1,882.06	1,864.91	6.54	4.99	-146.21	142.31	-106.09	373.23	364.19	9.03	41.314		
2,100.00	2,054.50	1,951.83	1,930.61	7.30	5.39	-146.74	159.42	-122.13	432.65	422.96	9.69	44.669		
2,200.00	2,145.54	2,020.90	1,995.08	8.09	5.81	-147.00	177.50	-139.08	494.87	484.50	10.37	47.718		
2,300.00	2,236.58	2,087.84	2,056.98	8.90	6.25	-147.08	196.10	-156.52	558.61	547.54	11.08	50.435		
2,400.00	2,327.62	2,152.69	2,116.35	9.71	6.72	-147.04	215.12	-174.35	623.80	612.00	11.80	52.859		
2,500.00	2,418.65	2,215.48	2,173.26	10.54	7.19	-146.91	234.46	-192.48	690.36	677.82	12.54	55.071		
2,600.00	2,509.69	2,276.24	2,227.78	11.36	7.68	-146.73	254.05	-210.84	758.24	744.95	13.29	57.074		
2,700.00	2,600.73	2,335.03	2,279.96	12.20	8.18	-146.52	273.79	-229.35	827.38	813.33	14.04	58.913		
2,800.00	2,691.77	2,400.00	2,336.98	13.03	8.75	-146.24	296.52	-250.65	897.76	882.92	14.84	60.497		
2,900.00	2,782.81	2,446.85	2,377.65	13.87	9.19	-146.02	313.49	-266.56	969.21	953.63	15.58	62.209		
3,000.00	2,873.85	2,509.24	2,431.35	14.72	9.79	-145.72	336.67	-288.29	1,041.63	1,025.23	16.40	63.531		
3,100.00	2,964.89	2,577.98	2,490.46	15.56	10.46	-145.43	362.26	-312.29	1,114.16	1,096.91	17.25	64.598		
3,200.00	3,055.93	2,646.73	2,549.57	16.41	11.15	-145.17	387.86	-336.28	1,186.69	1,168.59	18.10	65.546		
3,300.00	3,146.97	2,715.47	2,608.69	17.25	11.83	-144.94	413.45	-360.27	1,259.24	1,240.28	18.97	66.398		
3,400.00	3,238.01	2,784.21	2,667.80	18.10	12.52	-144.73	439.05	-384.27	1,331.80	1,311.97	19.83	67.158		
3,500.00	3,329.05	2,852.95	2,726.91	18.95	13.22	-144.55	464.64	-408.26	1,404.37	1,383.67	20.70	67.841		
3,600.00	3,420.09	2,921.69	2,786.02	19.80	13.92	-144.39	490.24	-432.26	1,476.94	1,455.37	21.57	68.462		
3,700.00	3,511.13	2,990.43	2,845.14	20.66	14.62	-144.24	515.83	-456.25	1,549.52	1,527.07	22.45	69.026		
3,800.00	3,602.17	3,059.17	2,904.25	21.51	15.32	-144.10	541.43	-480.25	1,622.10	1,598.77	23.33	69.537		
3,900.00	3,693.21	3,127.91	2,963.36	22.36	16.03	-143.98	567.02	-504.24	1,694.68	1,670.47	24.21	70.007		
4,000.00	3,784.25	3,196.65	3,022.48	23.22	16.74	-143.86	592.62	-528.24	1,767.27	1,742.18	25.09	70.438		
4,100.00	3,875.29	3,265.39	3,081.59	24.07	17.45	-143.76	618.22	-552.23	1,839.86	1,813.89	25.97	70.833		
4,200.00	3,966.33	3,334.13	3,140.70	24.93	18.16	-143.66	643.81	-576.23	1,912.46	1,885.60	26.86	71.199		
4,300.00	4,057.37	3,402.87	3,199.82	25.78	18.88	-143.57	669.41	-600.22	1,985.05	1,957.30	27.75	71.538		
4,400.00	4,148.41	3,471.61	3,258.93	26.64	19.59	-143.48	695.00	-624.22	2,057.65	2,029.01	28.64	71.851		
4,500.00	4,239.45	3,540.35	3,318.04	27.49	20.31	-143.41	720.60	-648.21	2,130.25	2,100.72	29.53	72.142		
4,600.00	4,330.49	3,609.09	3,377.16	28.35	21.02	-143.33	746.19	-672.21	2,202.86	2,172.44	30.42	72.415		
4,700.00	4,421.52	3,677.83	3,436.27	29.21	21.74	-143.26	771.79	-696.20	2,275.46	2,244.15	31.31	72.668		
4,800.00	4,512.56	3,746.57	3,495.38	30.06	22.46	-143.20	797.38	-720.19	2,348.07	2,315.86	32.21	72.905		
4,900.00	4,603.60	3,815.31	3,554.49	30.92	23.18	-143.14	822.98	-744.19	2,420.67	2,387.57	33.10	73.129		

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



Weatherford International Ltd.

Anticollision Report



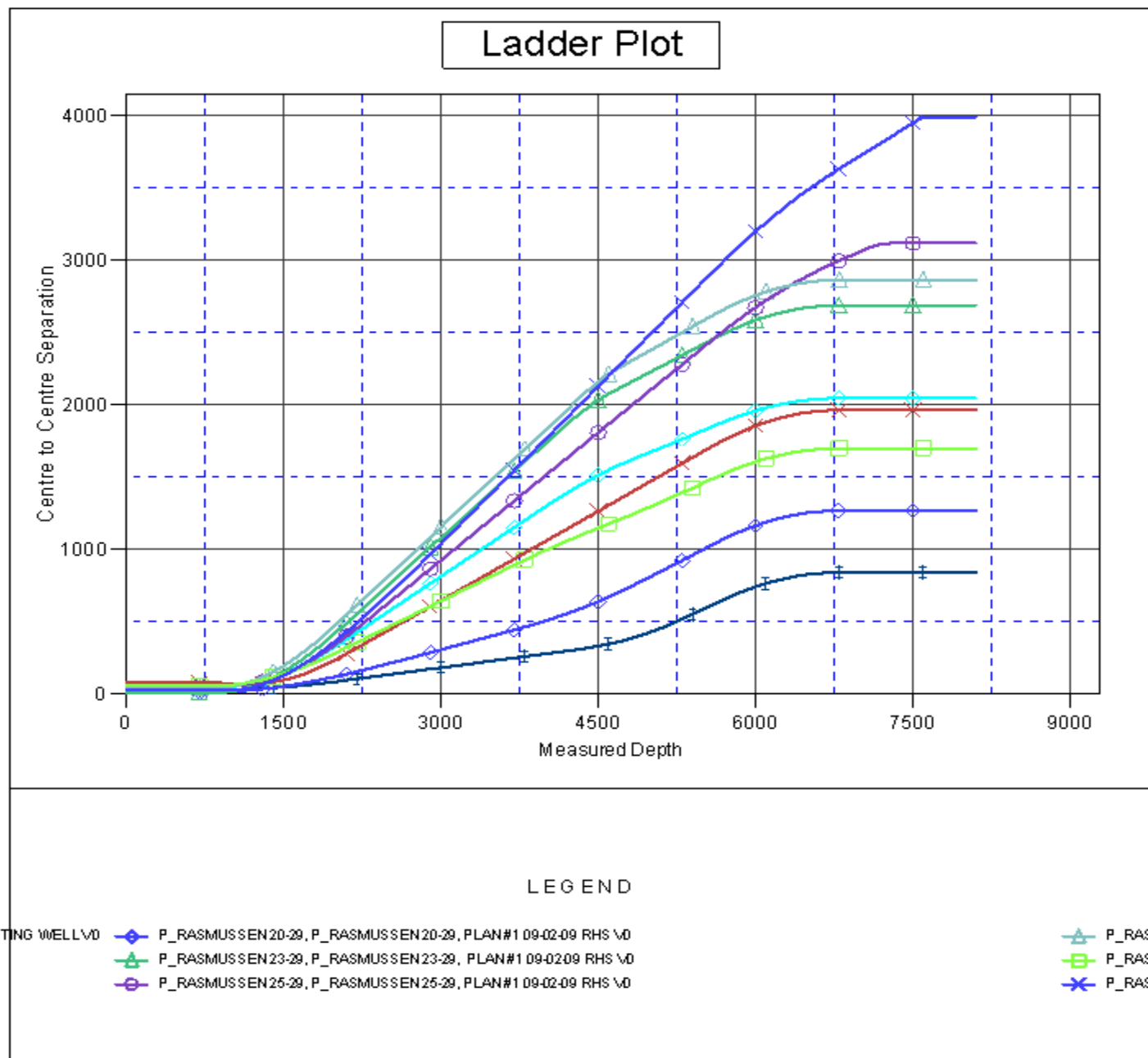
Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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_RASSMUSSEN 22-29 - P_RASSMUSSEN 22-29 - PLAN #1 09-02-01												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,694.64	3,884.05	3,613.61	31.78	23.90	-143.08	848.57	-768.18	2,493.28	2,459.28	34.00	73.338	
5,100.00	4,785.68	3,952.79	3,672.72	32.63	24.62	-143.03	874.17	-792.18	2,565.89	2,531.00	34.89	73.534	
5,200.00	4,876.72	4,021.53	3,731.83	33.49	25.34	-142.98	899.77	-816.17	2,638.50	2,602.71	35.79	73.720	
5,300.00	4,967.76	4,090.27	3,790.95	34.35	26.06	-142.93	925.36	-840.17	2,711.11	2,674.42	36.69	73.895	
5,400.00	5,058.80	4,159.01	3,850.06	35.21	26.78	-142.88	950.96	-864.16	2,783.72	2,746.14	37.59	74.061	
5,500.00	5,149.84	4,227.75	3,909.17	36.07	27.50	-142.84	976.55	-888.16	2,856.34	2,817.85	38.49	74.217	
5,571.27	5,214.72	4,276.74	3,951.30	36.68	28.02	-142.81	994.79	-905.26	2,908.09	2,868.96	39.13	74.324	
5,600.00	5,240.94	4,296.57	3,968.36	36.90	28.22	-143.16	1,002.18	-912.18	2,928.87	2,889.43	39.44	74.265	
5,700.00	5,333.08	4,366.84	4,028.78	37.55	28.96	-144.27	1,028.34	-936.71	2,999.95	2,959.47	40.48	74.108	
5,800.00	5,426.51	4,438.97	4,090.81	38.14	29.72	-145.24	1,055.20	-961.89	3,069.02	3,027.50	41.52	73.917	
5,900.00	5,521.14	4,512.88	4,154.37	38.69	30.50	-146.08	1,082.72	-987.68	3,135.99	3,093.45	42.55	73.708	
6,000.00	5,616.83	4,588.48	4,219.38	39.18	31.30	-146.81	1,110.87	-1,014.07	3,200.81	3,157.26	43.55	73.493	
6,100.00	5,713.48	4,665.67	4,285.76	39.61	32.11	-147.43	1,139.61	-1,041.02	3,263.41	3,218.88	44.53	73.281	
6,200.00	5,810.96	4,744.36	4,353.43	40.00	32.94	-147.96	1,168.91	-1,068.49	3,323.73	3,278.25	45.48	73.081	
6,300.00	5,909.17	4,824.46	4,422.31	40.33	33.78	-148.41	1,198.74	-1,096.45	3,381.73	3,335.34	46.39	72.897	
6,400.00	6,007.97	4,905.87	4,492.32	40.61	34.64	-148.77	1,229.05	-1,124.86	3,437.35	3,390.09	47.26	72.735	
6,500.00	6,107.25	4,988.48	4,563.36	40.84	35.51	-149.07	1,259.81	-1,153.70	3,490.56	3,442.48	48.08	72.598	
6,600.00	6,206.88	5,072.20	4,635.36	41.02	36.40	-149.30	1,290.98	-1,182.92	3,541.32	3,492.47	48.85	72.490	
6,700.00	6,306.75	5,156.93	4,708.22	41.15	37.29	-149.47	1,322.53	-1,212.50	3,589.60	3,540.03	49.57	72.414	
6,793.27	6,400.00	5,236.77	4,776.88	41.23	38.13	-75.84	1,352.26	-1,240.37	3,632.37	3,582.18	50.19	72.373	
6,800.00	6,406.73	5,242.56	4,781.86	41.23	38.19	-75.81	1,354.42	-1,242.39	3,635.38	3,585.15	50.23	72.371	
6,900.00	6,506.73	5,328.56	4,855.81	41.30	39.10	-75.40	1,386.44	-1,272.41	3,680.16	3,629.28	50.88	72.334	
7,000.00	6,606.73	5,414.55	4,929.76	41.38	40.01	-75.00	1,418.46	-1,302.43	3,725.10	3,673.59	51.51	72.313	
7,100.00	6,706.73	5,500.55	5,003.71	41.46	40.92	-74.60	1,450.48	-1,332.44	3,770.20	3,718.05	52.14	72.304	
7,200.00	6,806.73	5,586.54	5,077.66	41.53	41.83	-74.22	1,482.50	-1,362.46	3,815.44	3,762.67	52.77	72.308	
7,300.00	6,906.73	5,672.54	5,151.61	41.61	42.73	-73.84	1,514.52	-1,392.48	3,860.83	3,807.45	53.38	72.323	
7,400.00	7,006.73	5,758.53	5,225.56	41.69	43.64	-73.47	1,546.54	-1,422.50	3,906.36	3,852.37	53.99	72.349	
7,500.00	7,106.73	5,844.53	5,299.52	41.77	44.55	-73.11	1,578.56	-1,452.51	3,952.02	3,897.42	54.60	72.385	
7,600.00	7,206.73	5,930.53	5,373.48	41.85	45.46	-72.74	1,610.58	-1,482.52	3,997.54	3,942.94	55.21	72.421	
7,700.00	7,306.73	6,016.53	5,447.43	41.93	46.37	-72.37	1,642.60	-1,512.53	4,043.06	3,993.46	55.82	72.457	
7,800.00	7,406.73	6,102.53	5,521.38	42.01	47.28	-72.00	1,674.62	-1,542.54	4,093.58	4,043.98	56.43	72.493	
7,900.00	7,506.73	6,188.53	5,595.33	42.09	48.19	-71.63	1,706.64	-1,572.55	4,144.10	4,094.50	57.04	72.529	
8,000.00	7,606.73	6,274.53	5,669.28	42.17	49.10	-71.26	1,738.66	-1,602.56	4,194.62	4,145.02	57.65	72.565	
8,055.14	7,661.88	6,318.03	5,661.88	42.24	50.01	-70.89	1,770.68	-1,632.57	4,245.14	4,195.54	58.26	72.601	
8,100.27	7,707.00	6,337.16	5,681.00	42.28	50.92	-70.52	1,802.70	-1,662.58	4,295.66	4,246.06	58.87	72.637	



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Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	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 39-29
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°

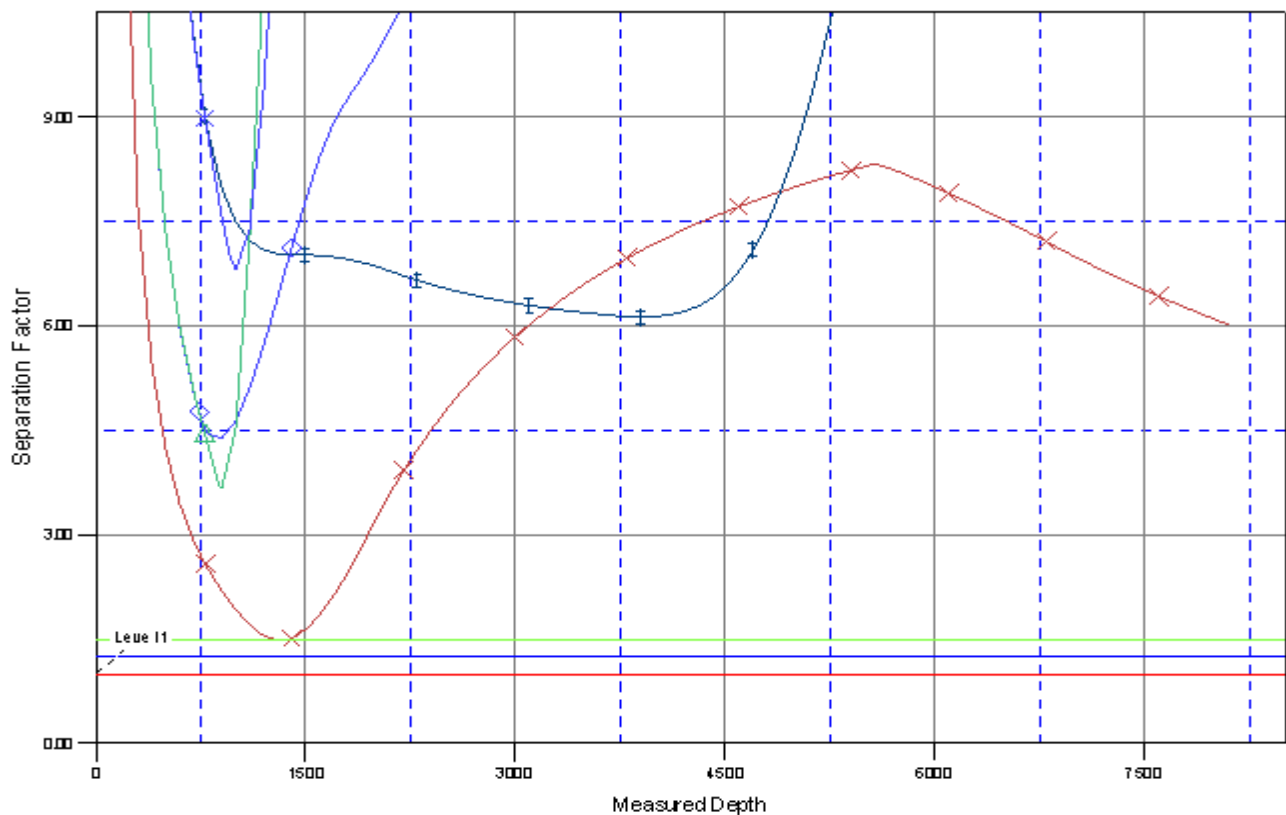




Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_RASMUSSEN 39-29
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4949.00ft (Original Well Elev)
Reference Site:	WELD_RASMUSSEN 9 PAD	MD Reference:	WELL @ 4949.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_RASMUSSEN 39-29	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_RASMUSSEN 39-29	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

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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 23-29, P_RASMUSSEN 23-29, 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