



US ROCKIES REGION PLANNING

KERR MCGEE OIL & GAS ONSHORE LP

WELD_WHISTON 3 PAD

P_WHISTON 25-4

P_WHISTON 25-4

Plan: PLAN #1 09-02-09 RHS

Standard Planning Report

02 September, 2009





P_WHISTON 25-4
KERR MCGEE OIL & GAS ONSHORE LP
SECTION 4 T2N R67W
1639 FNL 1437 FEL
LAT: 40° 10' 13.620 N
LONG: 104° 53' 27.240 W



Azimuths to True North
Magnetic North: 9.11°
Magnetic Field
Strength: 53203.1snT
Dip Angle: 66.91°
Date: 9/2/2009
Model: IGRF200510

WELL DETAILS: P_WHISTON 25-4

+N/-S	+E/-W	Northing	Ground Level: Easting	4892.00 Latitude	Longitude	Slot
0.00	0.00	1305522.50	3170213.72	40° 10' 13.620 N	104° 53' 27.240 W	

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3948.00	4170.90	PARKMAN
4484.00	4758.99	SUSSEX TOP
4911.00	5206.84	SHANNON TOP
7164.00	7465.26	NIO A TOP
7424.00	7725.26	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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
2130.72	24.61	226.01	2093.21	-180.80	-187.28	2.00	226.01	260.32	
4620.55	24.61	226.01	4356.79	-901.08	-933.37	0.00	0.00	1297.35	
5851.26	0.00	0.00	5550.00	-1081.88	-1120.66	2.00	180.00	1557.67	
7885.26	0.00	0.00	7584.00	-1081.88	-1120.66	0.00	0.00	1557.67	PBHL_WHISTON 24-4(2750 FNL 2550 FEL)50' TGT RAD

CASING DETAILS

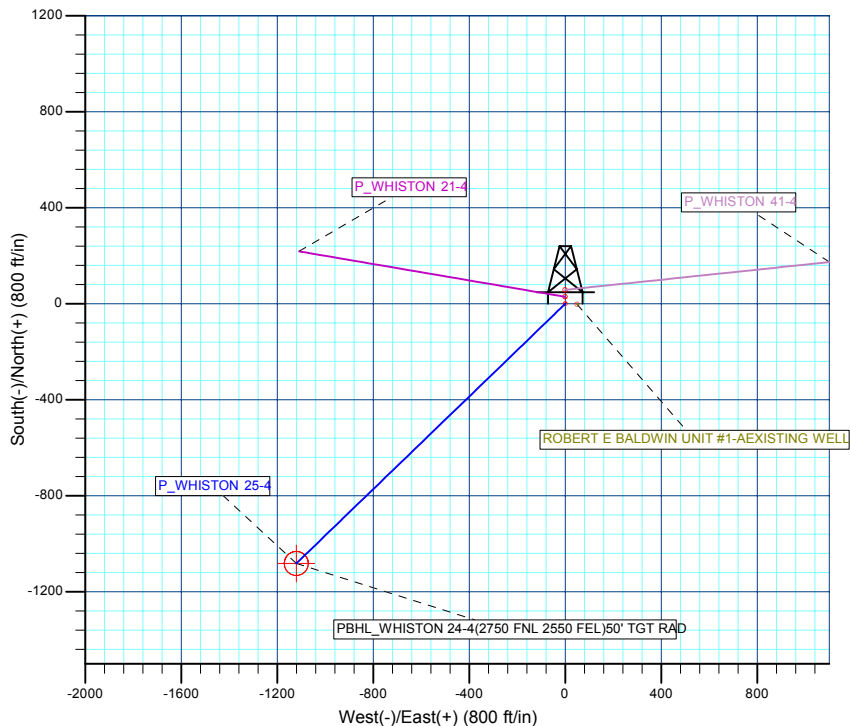
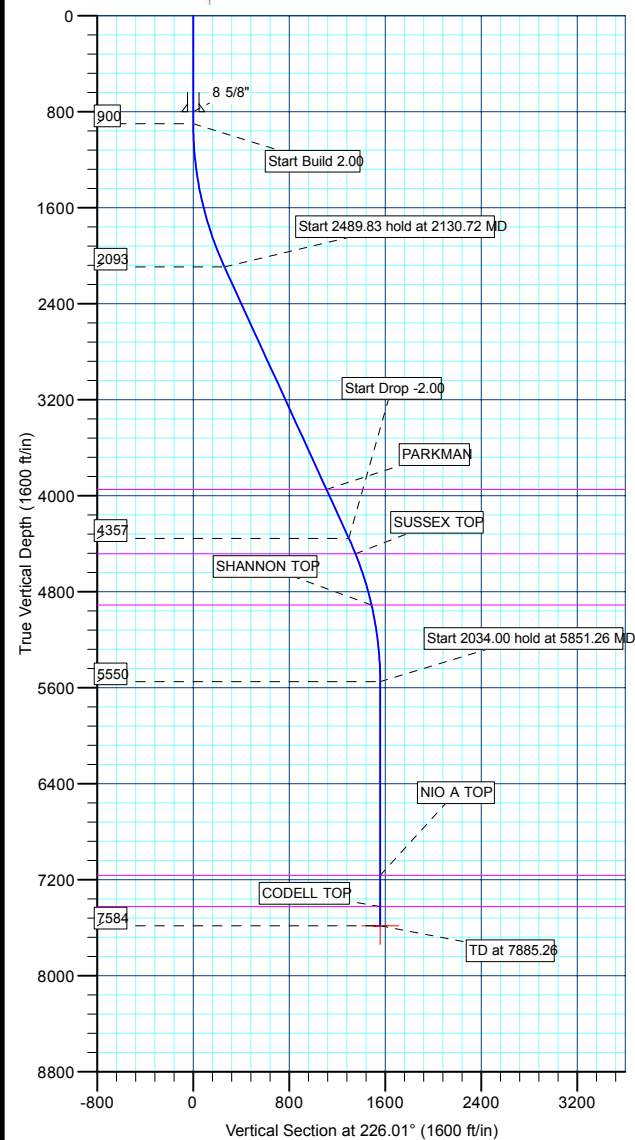
TVD	MD	Name	Size
800.00	800.00	8 5/8"	8.62

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7584.00	-1081.88	-1120.66	1304432.95	3169100.52	40° 10' 2.928 N	104° 53' 41.676 W	Circle (Radius: 50.00)



KB ELEV: WELL @ 4907.00ft (Original Well Elev)
GRD ELEV: 4892.00



Plan: PLAN #1 09-02-09 RHS (P_WHISTON 25-4/P_WHISTON 25-4)

Created By: Robert H. Scott



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 25-4		
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_WHISTON 3 PAD, SECTION 4 T2N R67W			
Site Position:		Northing:	1,305,551.65 ft	Latitude: 40° 10' 13.908 N
From:	Lat/Long	Easting:	3,170,213.52 ft	Longitude: 104° 53' 27.240 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence: 0.39 °

Well	P_WHISTON 25-4			
Well Position	+N/-S	-29.16 ft	Northing:	1,305,522.50 ft
	+E/-W	0.00 ft	Easting:	3,170,213.72 ft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
			Ground Level:	4,892.00 ft

Wellbore	P_WHISTON 25-4				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/2/2009	9.12	66.91	53,203

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	226.01

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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,130.72	24.61	226.01	2,093.21	-180.80	-187.28	2.00	2.00	0.00	226.01	
4,620.55	24.61	226.01	4,356.79	-901.08	-933.37	0.00	0.00	0.00	0.00	
5,851.26	0.00	0.00	5,550.00	-1,081.88	-1,120.66	2.00	-2.00	0.00	180.00	
7,885.26	0.00	0.00	7,584.00	-1,081.88	-1,120.66	0.00	0.00	0.00	0.00	PBHL_WHISTON 2



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 25-4		
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									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	2.00	226.01	999.98	-1.21	-1.26	1.75	2.00	2.00	0.00
1,100.00	4.00	226.01	1,099.84	-4.85	-5.02	6.98	2.00	2.00	0.00
1,200.00	6.00	226.01	1,199.45	-10.90	-11.29	15.69	2.00	2.00	0.00
1,300.00	8.00	226.01	1,298.70	-19.36	-20.06	27.88	2.00	2.00	0.00
1,400.00	10.00	226.01	1,397.47	-30.23	-31.31	43.52	2.00	2.00	0.00
1,500.00	12.00	226.01	1,495.62	-43.48	-45.04	62.60	2.00	2.00	0.00
1,600.00	14.00	226.01	1,593.06	-59.10	-61.22	85.10	2.00	2.00	0.00
1,700.00	16.00	226.01	1,689.64	-77.08	-79.84	110.98	2.00	2.00	0.00
1,800.00	18.00	226.01	1,785.27	-97.38	-100.88	140.21	2.00	2.00	0.00
1,900.00	20.00	226.01	1,879.82	-120.00	-124.30	172.77	2.00	2.00	0.00
2,000.00	22.00	226.01	1,973.17	-144.89	-150.08	208.60	2.00	2.00	0.00
2,100.00	24.00	226.01	2,065.21	-172.02	-178.19	247.67	2.00	2.00	0.00
Start 2489.83 hold at 2130.72 MD									
2,130.72	24.61	226.01	2,093.21	-180.80	-187.28	260.32	2.00	2.00	0.00
2,200.00	24.61	226.01	2,156.20	-200.85	-208.05	289.17	0.00	0.00	0.00
2,300.00	24.61	226.01	2,247.11	-229.77	-238.01	330.83	0.00	0.00	0.00
2,400.00	24.61	226.01	2,338.02	-258.70	-267.98	372.48	0.00	0.00	0.00
2,500.00	24.61	226.01	2,428.94	-287.63	-297.94	414.13	0.00	0.00	0.00
2,600.00	24.61	226.01	2,519.85	-316.56	-327.91	455.78	0.00	0.00	0.00
2,700.00	24.61	226.01	2,610.76	-345.49	-357.87	497.43	0.00	0.00	0.00
2,800.00	24.61	226.01	2,701.67	-374.42	-387.84	539.08	0.00	0.00	0.00
2,900.00	24.61	226.01	2,792.59	-403.35	-417.80	580.73	0.00	0.00	0.00
3,000.00	24.61	226.01	2,883.50	-432.28	-447.77	622.38	0.00	0.00	0.00
3,100.00	24.61	226.01	2,974.41	-461.20	-477.74	664.03	0.00	0.00	0.00
3,200.00	24.61	226.01	3,065.33	-490.13	-507.70	705.68	0.00	0.00	0.00
3,300.00	24.61	226.01	3,156.24	-519.06	-537.67	747.33	0.00	0.00	0.00
3,400.00	24.61	226.01	3,247.15	-547.99	-567.63	788.99	0.00	0.00	0.00
3,500.00	24.61	226.01	3,338.07	-576.92	-597.60	830.64	0.00	0.00	0.00
3,600.00	24.61	226.01	3,428.98	-605.85	-627.56	872.29	0.00	0.00	0.00
3,700.00	24.61	226.01	3,519.89	-634.78	-657.53	913.94	0.00	0.00	0.00
3,800.00	24.61	226.01	3,610.81	-663.70	-687.49	955.59	0.00	0.00	0.00
3,900.00	24.61	226.01	3,701.72	-692.63	-717.46	997.24	0.00	0.00	0.00
4,000.00	24.61	226.01	3,792.63	-721.56	-747.42	1,038.89	0.00	0.00	0.00
4,100.00	24.61	226.01	3,883.55	-750.49	-777.39	1,080.54	0.00	0.00	0.00
PARKMAN									
4,170.90	24.61	226.01	3,948.00	-771.00	-798.63	1,110.07	0.00	0.00	0.00
4,200.00	24.61	226.01	3,974.46	-779.42	-807.36	1,122.19	0.00	0.00	0.00
4,300.00	24.61	226.01	4,065.37	-808.35	-837.32	1,163.84	0.00	0.00	0.00
4,400.00	24.61	226.01	4,156.29	-837.28	-867.29	1,205.49	0.00	0.00	0.00
4,500.00	24.61	226.01	4,247.20	-866.20	-897.25	1,247.15	0.00	0.00	0.00
4,600.00	24.61	226.01	4,338.11	-895.13	-927.22	1,288.80	0.00	0.00	0.00
Start Drop -2.00									
4,620.55	24.61	226.01	4,356.79	-901.08	-933.37	1,297.35	0.00	0.00	0.00
4,700.00	23.03	226.01	4,429.47	-923.36	-956.46	1,329.44	2.00	-2.00	0.00
SUSSEX TOP									
4,758.99	21.85	226.01	4,484.00	-939.00	-972.66	1,351.95	2.00	-2.00	0.00
4,800.00	21.03	226.01	4,522.17	-949.41	-983.44	1,366.94	2.00	-2.00	0.00
4,900.00	19.03	226.01	4,616.12	-973.19	-1,008.07	1,401.18	2.00	-2.00	0.00
5,000.00	17.03	226.01	4,711.21	-994.68	-1,030.33	1,432.12	2.00	-2.00	0.00
5,100.00	15.03	226.01	4,807.32	-1,013.85	-1,050.19	1,459.73	2.00	-2.00	0.00
5,200.00	13.03	226.01	4,904.33	-1,030.69	-1,067.63	1,483.96	2.00	-2.00	0.00



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 25-4		
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)
SHANNON TOP									
5,206.84	12.89	226.01	4,911.00	-1,031.75	-1,068.73	1,485.50	2.00	-2.00	0.00
5,300.00	11.03	226.01	5,002.13	-1,045.16	-1,082.62	1,504.80	2.00	-2.00	0.00
5,400.00	9.03	226.01	5,100.60	-1,057.25	-1,095.14	1,522.20	2.00	-2.00	0.00
5,500.00	7.03	226.01	5,199.62	-1,066.94	-1,105.19	1,536.16	2.00	-2.00	0.00
5,600.00	5.03	226.01	5,299.06	-1,074.23	-1,112.74	1,546.66	2.00	-2.00	0.00
5,700.00	3.03	226.01	5,398.81	-1,079.11	-1,117.79	1,553.68	2.00	-2.00	0.00
5,800.00	1.03	226.01	5,498.74	-1,081.56	-1,120.33	1,557.21	2.00	-2.00	0.00
Start 2034.00 hold at 5851.26 MD									
5,851.26	0.00	0.00	5,550.00	-1,081.88	-1,120.66	1,557.67	2.00	-2.00	0.00
5,900.00	0.00	0.00	5,598.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,000.00	0.00	0.00	5,698.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,100.00	0.00	0.00	5,798.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,200.00	0.00	0.00	5,898.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,300.00	0.00	0.00	5,998.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,400.00	0.00	0.00	6,098.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,500.00	0.00	0.00	6,198.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,600.00	0.00	0.00	6,298.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,700.00	0.00	0.00	6,398.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,800.00	0.00	0.00	6,498.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
6,900.00	0.00	0.00	6,598.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,000.00	0.00	0.00	6,698.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,100.00	0.00	0.00	6,798.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,200.00	0.00	0.00	6,898.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,300.00	0.00	0.00	6,998.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,400.00	0.00	0.00	7,098.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
NIO A TOP									
7,465.26	0.00	0.00	7,164.00	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,500.00	0.00	0.00	7,198.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,600.00	0.00	0.00	7,298.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,700.00	0.00	0.00	7,398.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
CODELL TOP									
7,725.26	0.00	0.00	7,424.00	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
7,800.00	0.00	0.00	7,498.74	-1,081.88	-1,120.66	1,557.67	0.00	0.00	0.00
PBHL_WHISTON 24-4(2750 FNL 2550 FEL)50' TGT RAD									
7,885.26	0.00	0.00	7,584.00	-1,081.88	-1,120.66	1,557.67	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_WHISTON 24- - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,584.00	-1,081.88	-1,120.66	1,304,432.95	3,169,100.52	40° 10' 2.928 N	104° 53' 41.676 W



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Project:	KERR MCGEE OIL & GAS ONSHORE LP	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site:	WELD_WHISTON 3 PAD	North Reference:	True
Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_WHISTON 25-4		
Design:	PLAN #1 09-02-09 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (in)	Hole Diameter (in)
800.00	800.00	8 5/8"		8.62	11.00

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,170.90	3,948.00	PARKMAN				
4,758.99	4,484.00	SUSSEX TOP				
5,206.84	4,911.00	SHANNON TOP				
7,465.26	7,164.00	NIO A TOP				
7,725.26	7,424.00	CODELL TOP				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
900.00	900.00	0.00	0.00	Start Build 2.00	
2,130.72	2,093.21	-180.80	-187.28	Start 2489.83 hold at 2130.72 MD	
4,620.55	4,356.79	-901.08	-933.37	Start Drop -2.00	
5,851.26	5,550.00	-1,081.88	-1,120.66	Start 2034.00 hold at 5851.26 MD	
7,885.26	7,584.00	-1,081.88	-1,120.66	TD at 7885.26	



US ROCKIES REGION PLANNING

**KERR MCGEE OIL & GAS ONSHORE LP
WELD_WHISTON 3 PAD
P_WHISTON 25-4**

**P_WHISTON 25-4
PLAN #1 09-02-09 RHS**

Anticollision Report

02 September, 2009





Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Reference	PLAN #1 09-02-09 RHS		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 9/2/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	7,885.26	PLAN #1 09-02-09 RHS (P_WHISTON 25	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_WHISTON 3 PAD						
P_WHISTON 21-4 - P_WHISTON 21-4 - PLAN #1 09-02	900.00	900.00	29.16	25.37	7.698	CC, ES
P_WHISTON 21-4 - P_WHISTON 21-4 - PLAN #1 09-02	1,000.00	999.80	30.66	26.46	7.298	SF
P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02	900.00	900.00	58.28	54.49	15.389	CC, ES
P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02	1,100.00	1,098.71	64.95	60.37	14.159	SF
ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROI	900.00	900.00	49.00	13.40	1.377	Level 3, CC
ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROI	1,100.00	1,099.84	54.07	10.15	1.231	Level 2, ES, SF

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 21-4 - P_WHISTON 21-4 - PLAN #1 09-02-09 RHS												
Survey Program: 0-MWD												
Reference												
Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
0.00	0.00	0.00	0.00	0.00	0.00	0.00	29.16	0.00	29.16			
100.00	100.00	100.00	100.00	0.10	0.10	0.00	29.16	0.00	29.16	28.96	0.19	152.603
200.00	200.00	200.00	200.00	0.32	0.32	0.00	29.16	0.00	29.16	28.51	0.64	45.513
300.00	300.00	300.00	300.00	0.55	0.55	0.00	29.16	0.00	29.16	28.06	1.09	26.745
400.00	400.00	400.00	400.00	0.77	0.77	0.00	29.16	0.00	29.16	27.62	1.54	18.936
500.00	500.00	500.00	500.00	0.99	0.99	0.00	29.16	0.00	29.16	27.17	1.99	14.657
600.00	600.00	600.00	600.00	1.22	1.22	0.00	29.16	0.00	29.16	26.72	2.44	11.955
700.00	700.00	700.00	700.00	1.44	1.44	0.00	29.16	0.00	29.16	26.27	2.89	10.094
800.00	800.00	800.00	800.00	1.67	1.67	0.00	29.16	0.00	29.16	25.82	3.34	8.735
900.00	900.00	900.00	900.00	1.89	1.89	0.00	29.16	0.00	29.16	25.37	3.79	7.698 CC, ES
1,000.00	999.98	999.80	999.78	2.10	2.11	133.11	29.45	-1.71	30.66	26.46	4.20	7.298 SF
1,100.00	1,099.84	1,099.46	1,099.30	2.28	2.32	130.91	30.32	-6.84	35.22	30.63	4.59	7.665
1,200.00	1,199.45	1,198.82	1,198.28	2.49	2.54	128.28	31.78	-15.35	42.88	37.87	5.01	8.553
1,300.00	1,298.70	1,297.75	1,296.47	2.72	2.79	125.83	33.80	-27.17	53.68	48.21	5.47	9.812
1,400.00	1,397.47	1,396.10	1,393.62	2.98	3.06	123.79	36.37	-42.24	67.60	61.62	5.98	11.304
1,500.00	1,495.62	1,493.74	1,489.50	3.29	3.37	122.16	39.47	-60.43	84.59	78.04	6.56	12.901
1,600.00	1,593.06	1,590.55	1,583.88	3.66	3.73	120.85	43.10	-81.64	104.62	97.41	7.21	14.503
1,700.00	1,689.64	1,686.40	1,676.56	4.08	4.14	119.79	47.21	-105.73	127.63	119.67	7.96	16.030
1,800.00	1,785.27	1,781.20	1,767.37	4.57	4.60	118.88	51.79	-132.54	153.54	144.74	8.81	17.436
1,900.00	1,879.82	1,874.85	1,856.15	5.13	5.11	118.10	56.81	-161.93	182.31	172.55	9.75	18.695
2,000.00	1,973.17	1,967.25	1,942.74	5.76	5.69	117.38	62.23	-193.71	213.84	203.04	10.80	19.802

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_WHISTON 25-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 21-4 - P_WHISTON 21-4 - PLAN #1 09-02-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
2,100.00	2,065.21	2,058.34	2,027.03	6.46	6.31	116.72	68.04	-227.71	248.07	236.13	11.95	20.765	
2,130.72	2,093.21	2,086.04	2,052.45	6.69	6.51	116.52	69.90	-238.58	259.12	246.80	12.31	21.042	
2,200.00	2,156.20	2,148.63	2,109.48	7.22	6.99	116.42	74.23	-263.98	284.57	271.37	13.20	21.552	
2,300.00	2,247.11	2,241.53	2,193.86	8.00	7.73	116.20	80.78	-302.28	321.57	307.02	14.55	22.094	
2,400.00	2,338.02	2,334.43	2,278.25	8.79	8.48	116.01	87.32	-340.58	358.57	342.64	15.93	22.508	
2,500.00	2,428.94	2,427.32	2,362.63	9.60	9.25	115.87	93.86	-378.88	395.58	378.25	17.33	22.830	
2,600.00	2,519.85	2,520.22	2,447.01	10.41	10.03	115.74	100.40	-417.18	432.58	413.84	18.74	23.083	
2,700.00	2,610.76	2,613.12	2,531.39	11.22	10.81	115.64	106.94	-455.48	469.59	449.43	20.17	23.287	
2,800.00	2,701.67	2,706.01	2,615.77	12.05	11.60	115.55	113.48	-493.79	506.60	485.00	21.60	23.453	
2,900.00	2,792.59	2,798.91	2,700.15	12.87	12.39	115.48	120.02	-532.09	543.61	520.57	23.04	23.591	
3,000.00	2,883.50	2,891.81	2,784.53	13.70	13.19	115.41	126.56	-570.39	580.62	556.13	24.49	23.706	
3,100.00	2,974.41	2,984.70	2,868.91	14.53	13.99	115.35	133.10	-608.69	617.63	591.69	25.95	23.803	
3,200.00	3,065.33	3,077.60	2,953.29	15.37	14.80	115.30	139.64	-646.99	654.65	627.24	27.41	23.887	
3,300.00	3,156.24	3,170.50	3,037.68	16.21	15.61	115.25	146.18	-685.29	691.66	662.79	28.87	23.959	
3,400.00	3,247.15	3,263.39	3,122.06	17.04	16.41	115.21	152.72	-723.59	728.67	698.34	30.33	24.022	
3,500.00	3,338.07	3,356.29	3,206.44	17.88	17.22	115.17	159.26	-761.89	765.69	733.88	31.80	24.078	
3,600.00	3,428.98	3,449.19	3,290.82	18.72	18.04	115.14	165.80	-800.19	802.70	769.43	33.27	24.127	
3,700.00	3,519.89	3,542.08	3,375.20	19.57	18.85	115.11	172.34	-838.49	839.71	804.97	34.74	24.171	
3,800.00	3,610.81	3,644.16	3,468.29	20.41	19.62	115.14	179.38	-879.74	876.39	840.22	36.18	24.226	
3,900.00	3,701.72	3,751.37	3,567.56	21.25	20.31	115.39	186.20	-919.66	911.72	874.18	37.54	24.288	
4,000.00	3,792.63	3,859.43	3,669.07	22.10	20.94	115.87	192.44	-956.17	945.64	906.78	38.85	24.338	
4,100.00	3,883.55	3,968.03	3,772.42	22.94	21.52	116.54	198.05	-989.03	978.19	938.08	40.11	24.386	
4,200.00	3,974.46	4,076.87	3,877.18	23.79	22.04	117.39	203.00	-1,018.06	1,009.46	968.15	41.31	24.438	
4,300.00	4,065.37	4,185.62	3,982.91	24.63	22.50	118.40	207.29	-1,043.13	1,039.55	997.12	42.43	24.501	
4,400.00	4,156.29	4,293.97	4,089.14	25.48	22.89	119.55	210.88	-1,064.16	1,068.59	1,025.12	43.47	24.583	
4,500.00	4,247.20	4,401.63	4,195.41	26.33	23.22	120.84	213.77	-1,081.12	1,096.74	1,052.32	44.42	24.689	
4,600.00	4,338.11	4,508.30	4,301.26	27.18	23.48	122.24	215.98	-1,094.03	1,124.17	1,078.89	45.28	24.828	
4,620.55	4,356.79	4,530.06	4,322.92	27.35	23.52	122.54	216.35	-1,096.18	1,129.73	1,084.29	45.44	24.863	
4,700.00	4,429.47	4,614.16	4,406.72	27.92	23.69	124.05	217.51	-1,102.99	1,150.47	1,104.42	46.04	24.987	
4,800.00	4,522.17	4,719.97	4,512.40	28.50	23.84	125.86	218.38	-1,108.10	1,174.46	1,127.85	46.61	25.196	
4,900.00	4,616.12	4,823.70	4,616.12	29.04	23.94	127.56	218.61	-1,109.42	1,196.10	1,149.02	47.08	25.407	
5,000.00	4,711.21	4,918.79	4,711.21	29.53	24.02	129.00	218.61	-1,109.42	1,215.86	1,168.37	47.49	25.603	
5,100.00	4,807.32	5,014.90	4,807.32	29.98	24.11	130.25	218.61	-1,109.42	1,233.88	1,186.02	47.87	25.777	
5,200.00	4,904.33	5,111.91	4,904.33	30.39	24.20	131.33	218.61	-1,109.42	1,249.99	1,201.78	48.21	25.928	
5,300.00	5,002.13	5,209.71	5,002.13	30.74	24.30	132.24	218.61	-1,109.42	1,264.05	1,215.53	48.52	26.052	
5,400.00	5,100.60	5,308.18	5,100.60	31.05	24.39	132.99	218.61	-1,109.42	1,275.93	1,227.13	48.80	26.146	
5,500.00	5,199.62	5,407.20	5,199.62	31.31	24.49	133.59	218.61	-1,109.42	1,285.56	1,236.50	49.05	26.208	
5,600.00	5,299.06	5,506.64	5,299.06	31.52	24.59	134.03	218.61	-1,109.42	1,292.84	1,243.57	49.28	26.237	
5,700.00	5,398.81	5,606.39	5,398.81	31.69	24.69	134.32	218.61	-1,109.42	1,297.74	1,248.27	49.48	26.230	
5,800.00	5,498.74	5,706.32	5,498.74	31.80	24.80	134.47	218.61	-1,109.42	1,300.21	1,250.56	49.65	26.187	
5,851.26	5,550.00	5,757.58	5,550.00	31.85	24.85	0.50	218.61	-1,109.42	1,300.54	1,250.80	49.73	26.150	
5,900.00	5,598.74	5,806.32	5,598.74	31.88	24.90	0.50	218.61	-1,109.42	1,300.54	1,250.71	49.83	26.099	
6,000.00	5,698.74	5,906.32	5,698.74	31.96	25.01	0.50	218.61	-1,109.42	1,300.54	1,250.50	50.03	25.993	
6,100.00	5,798.74	6,006.32	5,798.74	32.03	25.12	0.50	218.61	-1,109.42	1,300.54	1,250.29	50.24	25.886	
6,200.00	5,898.74	6,106.32	5,898.74	32.11	25.23	0.50	218.61	-1,109.42	1,300.54	1,250.08	50.45	25.778	
6,300.00	5,998.74	6,206.32	5,998.74	32.19	25.34	0.50	218.61	-1,109.42	1,300.54	1,249.87	50.67	25.669	
6,400.00	6,098.74	6,306.32	6,098.74	32.27	25.45	0.50	218.61	-1,109.42	1,300.54	1,249.65	50.88	25.560	
6,500.00	6,198.74	6,406.32	6,198.74	32.35	25.57	0.50	218.61	-1,109.42	1,300.54	1,249.43	51.10	25.450	
6,600.00	6,298.74	6,506.32	6,298.74	32.43	25.68	0.50	218.61	-1,109.42	1,300.54	1,249.21	51.32	25.340	
6,700.00	6,398.74	6,606.32	6,398.74	32.52	25.80	0.50	218.61	-1,109.42	1,300.54	1,248.99	51.55	25.229	
6,800.00	6,498.74	6,706.32	6,498.74	32.60	25.92	0.50	218.61	-1,109.42	1,300.54	1,248.76	51.78	25.117	
6,900.00	6,598.74	6,806.32	6,598.74	32.69	26.04	0.50	218.61	-1,109.42	1,300.54	1,248.53	52.01	25.006	

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_WHISTON 25-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 21-4 - P_WHISTON 21-4 - PLAN #1 09-02-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
7,000.00	6,698.74	6,906.32	6,698.74	32.78	26.16	0.50	218.61	-1,109.42	1,300.54	1,248.29	52.24	24.894	
7,100.00	6,798.74	7,006.32	6,798.74	32.87	26.28	0.50	218.61	-1,109.42	1,300.54	1,248.05	52.48	24.781	
7,200.00	6,898.74	7,106.32	6,898.74	32.96	26.41	0.50	218.61	-1,109.42	1,300.54	1,247.81	52.72	24.668	
7,300.00	6,998.74	7,206.32	6,998.74	33.05	26.53	0.50	218.61	-1,109.42	1,300.54	1,247.57	52.96	24.555	
7,400.00	7,098.74	7,306.32	7,098.74	33.14	26.66	0.50	218.61	-1,109.42	1,300.54	1,247.33	53.21	24.442	
7,500.00	7,198.74	7,406.32	7,198.74	33.24	26.79	0.50	218.61	-1,109.42	1,300.54	1,247.08	53.46	24.329	
7,600.00	7,298.74	7,506.32	7,298.74	33.33	26.92	0.50	218.61	-1,109.42	1,300.54	1,246.83	53.71	24.216	
7,700.00	7,398.74	7,606.32	7,398.74	33.43	27.05	0.50	218.61	-1,109.42	1,300.54	1,246.58	53.96	24.102	
7,800.00	7,498.74	7,706.32	7,498.74	33.53	27.18	0.50	218.61	-1,109.42	1,300.54	1,246.32	54.22	23.988	
7,850.77	7,549.51	7,757.09	7,549.51	33.58	27.25	0.50	218.61	-1,109.42	1,300.54	1,246.19	54.35	23.931	
7,885.26	7,584.00	7,776.58	7,569.00	33.61	27.28	0.50	218.61	-1,109.42	1,300.62	1,246.21	54.42	23.902	



Weatherford International Ltd.

Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWMD												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	58.28	0.00	58.28				
100.00	100.00	100.00	100.00	0.10	0.10	0.00	58.28	0.00	58.28	58.09	0.19	305.054	
200.00	200.00	200.00	200.00	0.32	0.32	0.00	58.28	0.00	58.28	57.64	0.64	90.981	
300.00	300.00	300.00	300.00	0.55	0.55	0.00	58.28	0.00	58.28	57.19	1.09	53.463	
400.00	400.00	400.00	400.00	0.77	0.77	0.00	58.28	0.00	58.28	56.74	1.54	37.853	
500.00	500.00	500.00	500.00	0.99	0.99	0.00	58.28	0.00	58.28	56.29	1.99	29.299	
600.00	600.00	600.00	600.00	1.22	1.22	0.00	58.28	0.00	58.28	55.84	2.44	23.898	
700.00	700.00	700.00	700.00	1.44	1.44	0.00	58.28	0.00	58.28	55.39	2.89	20.179	
800.00	800.00	800.00	800.00	1.67	1.67	0.00	58.28	0.00	58.28	54.94	3.34	17.461	
900.00	900.00	900.00	900.00	1.89	1.89	0.00	58.28	0.00	58.28	54.49	3.79	15.389 CC, ES	
1,000.00	999.98	999.68	999.66	2.10	2.11	136.83	58.46	1.72	59.75	55.55	4.20	14.225	
1,100.00	1,099.84	1,098.71	1,098.55	2.28	2.31	144.41	59.00	6.85	64.95	60.37	4.59	14.159 SF	
1,200.00	1,199.45	1,196.47	1,195.94	2.49	2.53	154.30	59.88	15.24	75.67	70.69	4.98	15.184	
1,300.00	1,298.70	1,292.36	1,291.14	2.72	2.77	163.82	61.08	26.68	93.34	87.96	5.38	17.345	
1,400.00	1,397.47	1,385.84	1,383.51	2.98	3.02	171.57	62.57	40.87	118.39	112.62	5.78	20.496	
1,500.00	1,495.62	1,476.41	1,472.53	3.29	3.31	177.41	64.31	57.48	150.54	144.37	6.17	24.403	
1,600.00	1,593.06	1,563.67	1,557.75	3.66	3.62	-178.27	66.27	76.11	189.28	182.72	6.56	28.852	
1,700.00	1,689.64	1,647.25	1,638.81	4.08	3.95	-175.06	68.40	96.38	234.09	227.14	6.95	33.675	
1,800.00	1,785.27	1,726.90	1,715.46	4.57	4.31	-172.60	70.65	117.87	284.53	277.18	7.34	38.746	
1,900.00	1,879.82	1,800.00	1,785.27	5.13	4.67	-170.73	72.92	139.45	340.17	332.44	7.73	44.013	
2,000.00	1,973.17	1,873.60	1,854.96	5.76	5.08	-169.11	75.38	162.96	400.60	392.46	8.14	49.223	
2,100.00	2,065.21	1,940.44	1,917.71	6.46	5.48	-167.79	77.79	185.84	465.49	456.94	8.55	54.456	
2,130.72	2,093.21	1,960.09	1,936.06	6.69	5.61	-167.42	78.52	192.85	486.26	477.59	8.67	56.053	
2,200.00	2,156.20	2,000.00	1,973.17	7.22	5.86	-166.94	80.06	207.46	533.90	524.87	9.03	59.115	
2,300.00	2,247.11	2,063.80	2,032.05	8.00	6.31	-166.24	82.62	231.89	603.86	594.27	9.59	62.982	
2,400.00	2,338.02	2,121.95	2,085.23	8.79	6.74	-165.66	85.07	255.27	675.19	665.05	10.14	66.582	
2,500.00	2,428.94	2,189.30	2,146.47	9.60	7.26	-165.06	88.00	283.14	747.36	736.62	10.74	69.593	
2,600.00	2,519.85	2,258.30	2,209.22	10.41	7.81	-164.55	91.00	311.70	819.57	808.22	11.35	72.190	
2,700.00	2,610.76	2,327.31	2,271.96	11.22	8.36	-164.12	93.99	340.27	891.81	879.84	11.97	74.476	
2,800.00	2,701.67	2,396.31	2,334.71	12.05	8.92	-163.76	96.99	368.83	964.07	951.47	12.60	76.496	
2,900.00	2,792.59	2,465.32	2,397.45	12.87	9.48	-163.44	99.99	397.39	1,036.35	1,023.11	13.24	78.284	
3,000.00	2,883.50	2,534.32	2,460.20	13.70	10.05	-163.17	102.99	425.95	1,108.64	1,094.76	13.88	79.884	
3,100.00	2,974.41	2,603.33	2,522.95	14.53	10.63	-162.93	105.98	454.52	1,180.94	1,166.42	14.52	81.321	
3,200.00	3,065.33	2,672.34	2,585.69	15.37	11.20	-162.72	108.98	483.08	1,253.25	1,238.08	15.17	82.614	
3,300.00	3,156.24	2,741.34	2,648.44	16.21	11.78	-162.53	111.98	511.64	1,325.57	1,309.74	15.82	83.787	
3,400.00	3,247.15	2,810.35	2,711.18	17.04	12.37	-162.36	114.98	540.20	1,397.89	1,381.41	16.47	84.855	
3,500.00	3,338.07	2,879.35	2,773.93	17.88	12.95	-162.21	117.98	568.77	1,470.22	1,453.09	17.13	85.830	
3,600.00	3,428.98	2,948.36	2,836.67	18.72	13.54	-162.07	120.97	597.33	1,542.55	1,524.76	17.79	86.724	
3,700.00	3,519.89	3,017.36	2,899.42	19.57	14.13	-161.95	123.97	625.89	1,614.88	1,596.44	18.45	87.547	
3,800.00	3,610.81	3,086.37	2,962.16	20.41	14.71	-161.83	126.97	654.45	1,687.22	1,668.12	19.11	88.308	
3,900.00	3,701.72	3,155.37	3,024.91	21.25	15.31	-161.73	129.97	683.02	1,759.57	1,739.80	19.77	89.012	
4,000.00	3,792.63	3,224.38	3,087.65	22.10	15.90	-161.63	132.96	711.58	1,831.91	1,811.48	20.43	89.668	
4,100.00	3,883.55	3,293.39	3,150.40	22.94	16.49	-161.54	135.96	740.14	1,904.26	1,883.17	21.09	90.279	
4,200.00	3,974.46	3,362.39	3,213.14	23.79	17.08	-161.46	138.96	768.70	1,976.61	1,954.85	21.76	90.850	
4,300.00	4,065.37	3,431.40	3,275.89	24.63	17.68	-161.38	141.96	797.26	2,048.96	2,026.54	22.42	91.386	
4,400.00	4,156.29	3,500.40	3,338.63	25.48	18.27	-161.31	144.96	825.83	2,121.31	2,098.23	23.09	91.889	
4,500.00	4,247.20	3,569.41	3,401.38	26.33	18.87	-161.24	147.95	854.39	2,193.67	2,169.92	23.75	92.363	
4,600.00	4,338.11	3,638.41	3,464.13	27.18	19.46	-161.18	150.95	882.95	2,266.02	2,241.61	24.42	92.811	
4,620.55	4,356.79	3,652.59	3,477.02	27.35	19.58	-161.16	151.57	888.82	2,280.89	2,256.34	24.55	92.900	
4,700.00	4,429.47	3,708.16	3,527.54	27.92	20.07	-161.62	153.98	911.82	2,337.65	2,312.44	25.21	92.711	
4,800.00	4,522.17	3,780.15	3,593.00	28.50	20.69	-162.12	157.11	941.62	2,406.98	2,380.98	26.00	92.561	
4,900.00	4,616.12	3,854.34	3,660.47	29.04	21.33	-162.53	160.33	972.33	2,473.89	2,447.07	26.82	92.228	

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



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - P_WHISTON 41-4 - P_WHISTON 41-4 - PLAN #1 09-02-09 RHS												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,000.00	4,711.21	3,930.66	3,729.86	29.53	21.99	-162.88	163.65	1,003.91	2,538.30	2,510.67	27.63	91.873	
5,100.00	4,807.32	4,008.99	3,801.09	29.98	22.67	-163.16	167.05	1,036.34	2,600.13	2,571.72	28.41	91.515	
5,200.00	4,904.33	4,089.26	3,874.07	30.39	23.37	-163.39	170.54	1,069.56	2,659.32	2,630.15	29.17	91.164	
5,300.00	5,002.13	4,171.35	3,948.72	30.74	24.08	-163.56	174.10	1,103.54	2,715.80	2,685.90	29.90	90.826	
5,400.00	5,100.60	4,249.62	4,186.13	31.05	25.95	-163.28	184.70	1,204.48	2,768.92	2,737.74	31.18	88.793	
5,500.00	5,199.62	5,461.57	5,195.63	31.31	29.37	-162.89	204.05	1,388.87	2,799.24	2,765.45	33.79	82.841	
5,600.00	5,299.06	5,565.00	5,299.06	31.52	29.46	-163.01	204.05	1,388.87	2,809.28	2,775.08	34.20	82.144	
5,700.00	5,398.81	5,664.75	5,398.81	31.69	29.54	-163.09	204.05	1,388.87	2,816.00	2,781.45	34.55	81.507	
5,800.00	5,498.74	5,764.68	5,498.74	31.80	29.63	-163.13	204.05	1,388.87	2,819.38	2,784.54	34.84	80.918	
5,851.26	5,550.00	5,815.94	5,550.00	31.85	29.67	62.87	204.05	1,388.87	2,819.82	2,784.84	34.97	80.625	
5,900.00	5,598.74	5,864.68	5,598.74	31.88	29.72	62.87	204.05	1,388.87	2,819.82	2,784.71	35.11	80.321	
6,000.00	5,698.74	5,964.68	5,698.74	31.96	29.81	62.87	204.05	1,388.87	2,819.82	2,784.44	35.38	79.710	
6,100.00	5,798.74	6,064.68	5,798.74	32.03	29.90	62.87	204.05	1,388.87	2,819.82	2,784.17	35.65	79.100	
6,200.00	5,898.74	6,164.68	5,898.74	32.11	29.99	62.87	204.05	1,388.87	2,819.82	2,783.89	35.92	78.492	
6,300.00	5,998.74	6,264.68	5,998.74	32.19	30.08	62.87	204.05	1,388.87	2,819.82	2,783.61	36.20	77.886	
6,400.00	6,098.74	6,364.68	6,098.74	32.27	30.18	62.87	204.05	1,388.87	2,819.82	2,783.33	36.49	77.282	
6,500.00	6,198.74	6,464.68	6,198.74	32.35	30.28	62.87	204.05	1,388.87	2,819.82	2,783.04	36.77	76.681	
6,600.00	6,298.74	6,564.68	6,298.74	32.43	30.37	62.87	204.05	1,388.87	2,819.82	2,782.76	37.06	76.081	
6,700.00	6,398.74	6,664.68	6,398.74	32.52	30.47	62.87	204.05	1,388.87	2,819.82	2,782.46	37.36	75.485	
6,800.00	6,498.74	6,764.68	6,498.74	32.60	30.57	62.87	204.05	1,388.87	2,819.82	2,782.17	37.65	74.892	
6,900.00	6,598.74	6,864.68	6,598.74	32.69	30.68	62.87	204.05	1,388.87	2,819.82	2,781.87	37.95	74.303	
7,000.00	6,698.74	6,964.68	6,698.74	32.78	30.78	62.87	204.05	1,388.87	2,819.82	2,781.57	38.25	73.716	
7,100.00	6,798.74	7,064.68	6,798.74	32.87	30.88	62.87	204.05	1,388.87	2,819.82	2,781.26	38.56	73.134	
7,200.00	6,898.74	7,164.68	6,898.74	32.96	30.99	62.87	204.05	1,388.87	2,819.82	2,780.95	38.86	72.555	
7,300.00	6,998.74	7,264.68	6,998.74	33.05	31.10	62.87	204.05	1,388.87	2,819.82	2,780.64	39.17	71.981	
7,400.00	7,098.74	7,364.68	7,098.74	33.14	31.20	62.87	204.05	1,388.87	2,819.82	2,780.33	39.49	71.411	
7,500.00	7,198.74	7,464.68	7,198.74	33.24	31.31	62.87	204.05	1,388.87	2,819.82	2,780.02	39.80	70.845	
7,600.00	7,298.74	7,564.68	7,298.74	33.33	31.43	62.87	204.05	1,388.87	2,819.82	2,779.70	40.12	70.283	
7,700.00	7,398.74	7,664.68	7,398.74	33.43	31.54	62.87	204.05	1,388.87	2,819.82	2,779.38	40.44	69.726	
7,800.00	7,498.74	7,764.68	7,498.74	33.53	31.65	62.87	204.05	1,388.87	2,819.82	2,779.05	40.76	69.173	
7,853.07	7,551.80	7,817.74	7,551.80	33.58	31.71	62.87	204.05	1,388.87	2,819.82	2,778.88	40.94	68.882	
7,885.26	7,584.00	7,839.94	7,574.00	33.61	31.74	62.87	204.05	1,388.87	2,819.84	2,778.81	41.02	68.735	



Weatherford International Ltd.
Anticollision Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design WELD_WHISTON 3 PAD - ROBERT E BALDWIN UNIT #1-AEXISTING WELL - ROBERT E BALDWIN												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	92.09	-1.79	48.97	49.00				
100.00	100.00	100.00	100.00	0.10	1.70	92.09	-1.79	48.97	49.00	47.20	1.80	27.289	
200.00	200.00	200.00	200.00	0.32	5.70	92.09	-1.79	48.97	49.00	42.98	6.02	8.139	
300.00	300.00	300.00	300.00	0.55	9.70	92.09	-1.79	48.97	49.00	38.75	10.25	4.783	
400.00	400.00	400.00	400.00	0.77	13.70	92.09	-1.79	48.97	49.00	34.53	14.47	3.386	
500.00	500.00	500.00	500.00	0.99	17.70	92.09	-1.79	48.97	49.00	30.30	18.69	2.621	
600.00	600.00	600.00	600.00	1.22	21.70	92.09	-1.79	48.97	49.00	26.08	22.92	2.138	
700.00	700.00	700.00	700.00	1.44	25.70	92.09	-1.79	48.97	49.00	21.85	27.14	1.805	
800.00	800.00	800.00	800.00	1.67	29.70	92.09	-1.79	48.97	49.00	17.63	31.37	1.562	
900.00	900.00	900.00	900.00	1.89	33.70	92.09	-1.79	48.97	49.00	13.40	35.59	1.377 Level 3, CC	
1,000.00	999.98	999.98	999.98	2.10	37.70	-135.33	-1.79	48.97	50.22	10.44	39.78	1.262 Level 3	
1,100.00	1,099.84	1,099.84	1,099.84	2.28	41.69	-139.18	-1.79	48.97	54.07	10.15	43.92	1.231 Level 2, ES, SF	
1,200.00	1,199.45	1,199.45	1,199.45	2.49	45.68	-144.46	-1.79	48.97	60.94	12.95	47.99	1.270 Level 3	
1,300.00	1,298.70	1,298.70	1,298.70	2.72	49.65	-150.05	-1.79	48.97	71.23	19.25	51.97	1.370 Level 3	
1,400.00	1,397.47	1,397.47	1,397.47	2.98	53.60	-155.18	-1.79	48.97	85.17	29.34	55.83	1.525	
1,500.00	1,495.62	1,495.62	1,495.62	3.29	57.52	-159.52	-1.79	48.97	102.84	43.29	59.55	1.727	
1,600.00	1,593.06	1,593.06	1,593.06	3.66	61.42	-163.01	-1.79	48.97	124.20	61.10	63.11	1.968	
1,700.00	1,689.64	1,689.64	1,689.64	4.08	65.29	-165.79	-1.79	48.97	149.20	82.70	66.50	2.244	
1,800.00	1,785.27	1,785.27	1,785.27	4.57	69.11	-167.97	-1.79	48.97	177.74	108.03	69.71	2.550	
1,900.00	1,879.82	1,879.82	1,879.82	5.13	72.89	-169.70	-1.79	48.97	209.74	137.01	72.73	2.884	
2,000.00	1,973.17	1,973.17	1,973.17	5.76	76.63	-171.08	-1.79	48.97	245.14	169.60	75.54	3.245	
2,100.00	2,065.21	2,065.21	2,065.21	6.46	80.31	-172.19	-1.79	48.97	283.86	205.72	78.14	3.633	
2,130.72	2,093.21	2,093.21	2,093.21	6.69	81.43	-172.49	-1.79	48.97	296.41	217.52	78.89	3.757	
2,200.00	2,156.20	2,156.20	2,156.20	7.22	83.95	-173.15	-1.79	48.97	325.08	243.70	81.38	3.995	
2,300.00	2,247.11	2,247.11	2,247.11	8.00	87.58	-173.93	-1.79	48.97	366.52	281.53	84.98	4.313	
2,400.00	2,338.02	2,338.02	2,338.02	8.79	91.22	-174.54	-1.79	48.97	407.99	319.39	88.60	4.605	
2,500.00	2,428.94	2,428.94	2,428.94	9.60	94.86	-175.05	-1.79	48.97	449.50	357.27	92.23	4.874	
2,600.00	2,519.85	2,519.85	2,519.85	10.41	98.49	-175.47	-1.79	48.97	491.03	395.17	95.86	5.122	
2,700.00	2,610.76	2,610.76	2,610.76	11.22	102.13	-175.82	-1.79	48.97	532.59	433.09	99.50	5.353	
2,800.00	2,701.67	2,701.67	2,701.67	12.05	105.77	-176.12	-1.79	48.97	574.15	471.01	103.14	5.567	
2,900.00	2,792.59	2,792.59	2,792.59	12.87	109.40	-176.39	-1.79	48.97	615.73	508.94	106.79	5.766	
3,000.00	2,883.50	2,883.50	2,883.50	13.70	113.04	-176.62	-1.79	48.97	657.32	546.88	110.44	5.952	
3,100.00	2,974.41	2,974.41	2,974.41	14.53	116.68	-176.82	-1.79	48.97	698.91	584.82	114.09	6.126	
3,200.00	3,065.33	3,065.33	3,065.33	15.37	120.31	-177.00	-1.79	48.97	740.51	622.76	117.75	6.289	
3,300.00	3,156.24	3,156.24	3,156.24	16.21	123.95	-177.16	-1.79	48.97	782.12	660.71	121.41	6.442	
3,400.00	3,247.15	3,247.15	3,247.15	17.04	127.59	-177.30	-1.79	48.97	823.73	698.66	125.07	6.586	
3,500.00	3,338.07	3,338.07	3,338.07	17.88	131.22	-177.43	-1.79	48.97	865.34	736.62	128.73	6.722	
3,600.00	3,428.98	3,428.98	3,428.98	18.72	134.86	-177.55	-1.79	48.97	906.96	774.57	132.39	6.851	
3,700.00	3,519.89	3,519.89	3,519.89	19.57	138.50	-177.65	-1.79	48.97	948.58	812.53	136.05	6.972	
3,800.00	3,610.81	3,610.81	3,610.81	20.41	142.13	-177.75	-1.79	48.97	990.20	850.49	139.72	7.087	
3,900.00	3,701.72	3,701.72	3,701.72	21.25	145.77	-177.84	-1.79	48.97	1,031.83	888.45	143.38	7.196	
4,000.00	3,792.63	3,792.63	3,792.63	22.10	149.41	-177.93	-1.79	48.97	1,073.46	926.41	147.05	7.300	
4,100.00	3,883.55	3,883.55	3,883.55	22.94	153.04	-178.01	-1.79	48.97	1,115.09	964.37	150.71	7.399	
4,200.00	3,974.46	3,974.46	3,974.46	23.79	156.68	-178.08	-1.79	48.97	1,156.72	1,002.34	154.38	7.493	
4,300.00	4,065.37	4,065.37	4,065.37	24.63	160.31	-178.14	-1.79	48.97	1,198.35	1,040.30	158.05	7.582	
4,400.00	4,156.29	4,156.29	4,156.29	25.48	163.95	-178.21	-1.79	48.97	1,239.98	1,078.27	161.72	7.668	
4,500.00	4,247.20	4,247.20	4,247.20	26.33	167.59	-178.26	-1.79	48.97	1,281.62	1,116.23	165.39	7.749	
4,600.00	4,338.11	4,338.11	4,338.11	27.18	171.22	-178.32	-1.79	48.97	1,323.25	1,154.20	169.06	7.827	
4,620.55	4,356.79	4,356.79	4,356.79	27.35	171.97	-178.33	-1.79	48.97	1,331.81	1,162.00	169.81	7.843	
4,700.00	4,429.47	4,429.47	4,429.47	27.92	174.88	-178.39	-1.79	48.97	1,363.88	1,189.25	174.63	7.810	
4,800.00	4,522.17	4,522.17	4,522.17	28.50	178.59	-178.45	-1.79	48.97	1,401.37	1,220.76	180.61	7.759	
4,900.00	4,616.12	4,616.12	4,616.12	29.04	182.34	-178.51	-1.79	48.97	1,435.60	1,249.02	186.59	7.694	

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



Weatherford International Ltd.

Anticollision Report



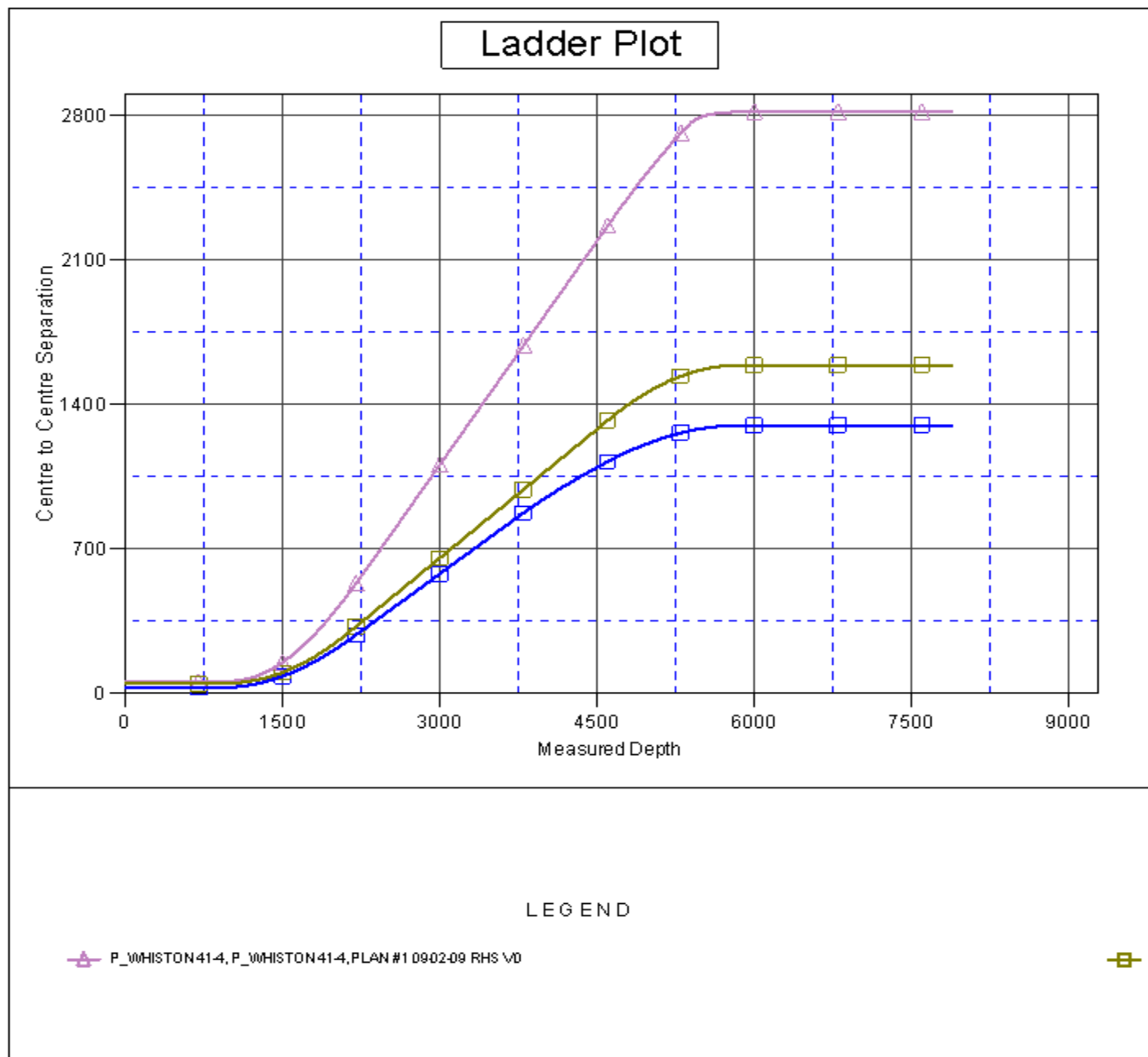
Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well P_WHISTON 25-4
Project:	KERR MCGEE OIL & GAS ONSHORE LP	TVD Reference:	WELL @ 4907.00ft (Original Well Elev)
Reference Site:	WELD_WHISTON 3 PAD	MD Reference:	WELL @ 4907.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	Database:	EDM 2003.21 Single User Db
Reference Design:	PLAN #1 09-02-09 RHS	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-UNKNOWN												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,711.21	4,711.21	4,711.21	29.53	186.15	-178.56	-1.79	48.97	1,466.54	1,274.08	192.46	7.620	
5,100.00	4,807.32	4,807.32	4,807.32	29.98	189.99	-178.60	-1.79	48.97	1,494.13	1,295.93	198.20	7.538	
5,200.00	4,904.33	4,904.33	4,904.33	30.39	193.87	-178.63	-1.79	48.97	1,518.36	1,314.57	203.79	7.451	
5,300.00	5,002.13	5,002.13	5,002.13	30.74	197.79	-178.66	-1.79	48.97	1,539.19	1,329.98	209.21	7.357	
5,400.00	5,100.60	5,100.60	5,100.60	31.05	201.72	-178.68	-1.79	48.97	1,556.59	1,342.15	214.44	7.259	
5,500.00	5,199.62	5,199.62	5,199.62	31.31	205.68	-178.70	-1.79	48.97	1,570.55	1,351.09	219.45	7.157	
5,600.00	5,299.06	5,299.06	5,299.06	31.52	209.66	-178.72	-1.79	48.97	1,581.04	1,356.80	224.24	7.051	
5,700.00	5,398.81	5,398.81	5,398.81	31.69	213.65	-178.72	-1.79	48.97	1,588.06	1,359.29	228.77	6.942	
5,800.00	5,498.74	5,498.74	5,498.74	31.80	217.65	-178.73	-1.79	48.97	1,591.59	1,358.56	233.03	6.830	
5,851.26	5,550.00	5,550.00	5,550.00	31.85	219.70	47.28	-1.79	48.97	1,592.05	1,356.95	235.10	6.772	
5,900.00	5,598.74	5,598.74	5,598.74	31.88	221.65	47.28	-1.79	48.97	1,592.05	1,354.93	237.12	6.714	
6,000.00	5,698.74	5,698.74	5,698.74	31.96	225.65	47.28	-1.79	48.97	1,592.05	1,350.78	241.27	6.599	
6,100.00	5,798.74	5,798.74	5,798.74	32.03	229.65	47.28	-1.79	48.97	1,592.05	1,346.63	245.42	6.487	
6,200.00	5,898.74	5,898.74	5,898.74	32.11	233.65	47.28	-1.79	48.97	1,592.05	1,342.48	249.57	6.379	
6,300.00	5,998.74	5,998.74	5,998.74	32.19	237.65	47.28	-1.79	48.97	1,592.05	1,338.33	253.72	6.275	
6,400.00	6,098.74	6,098.74	6,098.74	32.27	241.65	47.28	-1.79	48.97	1,592.05	1,334.17	257.88	6.174	
6,500.00	6,198.74	6,198.74	6,198.74	32.35	245.65	47.28	-1.79	48.97	1,592.05	1,330.02	262.03	6.076	
6,600.00	6,298.74	6,298.74	6,298.74	32.43	249.65	47.28	-1.79	48.97	1,592.05	1,325.86	266.19	5.981	
6,700.00	6,398.74	6,398.74	6,398.74	32.52	253.65	47.28	-1.79	48.97	1,592.05	1,321.70	270.35	5.889	
6,800.00	6,498.74	6,498.74	6,498.74	32.60	257.65	47.28	-1.79	48.97	1,592.05	1,317.54	274.51	5.800	
6,900.00	6,598.74	6,598.74	6,598.74	32.69	261.65	47.28	-1.79	48.97	1,592.05	1,313.38	278.67	5.713	
7,000.00	6,698.74	6,698.74	6,698.74	32.78	265.65	47.28	-1.79	48.97	1,592.05	1,309.21	282.84	5.629	
7,100.00	6,798.74	6,798.74	6,798.74	32.87	269.65	47.28	-1.79	48.97	1,592.05	1,305.05	287.00	5.547	
7,200.00	6,898.74	6,898.74	6,898.74	32.96	273.65	47.28	-1.79	48.97	1,592.05	1,300.88	291.17	5.468	
7,300.00	6,998.74	6,998.74	6,998.74	33.05	277.65	47.28	-1.79	48.97	1,592.05	1,296.71	295.33	5.391	
7,400.00	7,098.74	7,098.74	7,098.74	33.14	281.65	47.28	-1.79	48.97	1,592.05	1,292.55	299.50	5.316	
7,500.00	7,198.74	7,198.74	7,198.74	33.24	285.65	47.28	-1.79	48.97	1,592.05	1,288.38	303.67	5.243	
7,600.00	7,298.74	7,298.74	7,298.74	33.33	289.65	47.28	-1.79	48.97	1,592.05	1,284.20	307.84	5.172	
7,700.00	7,398.74	7,398.74	7,398.74	33.43	293.65	47.28	-1.79	48.97	1,592.05	1,280.03	312.02	5.102	
7,800.00	7,498.74	7,498.74	7,498.74	33.53	297.65	47.28	-1.79	48.97	1,592.05	1,275.86	316.19	5.035	
7,885.26	7,584.00	7,584.00	7,584.00	33.61	301.06	47.28	-1.79	48.97	1,592.05	1,272.30	319.75	4.979	



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Site Error:	0.00ft	North Reference:	True
Reference Well:	P_WHISTON 25-4	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	P_WHISTON 25-4	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 @ 4907.00ft (Original Well Elev) Coordinates are relative to: P_WHISTON 25-4
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: 0.39°

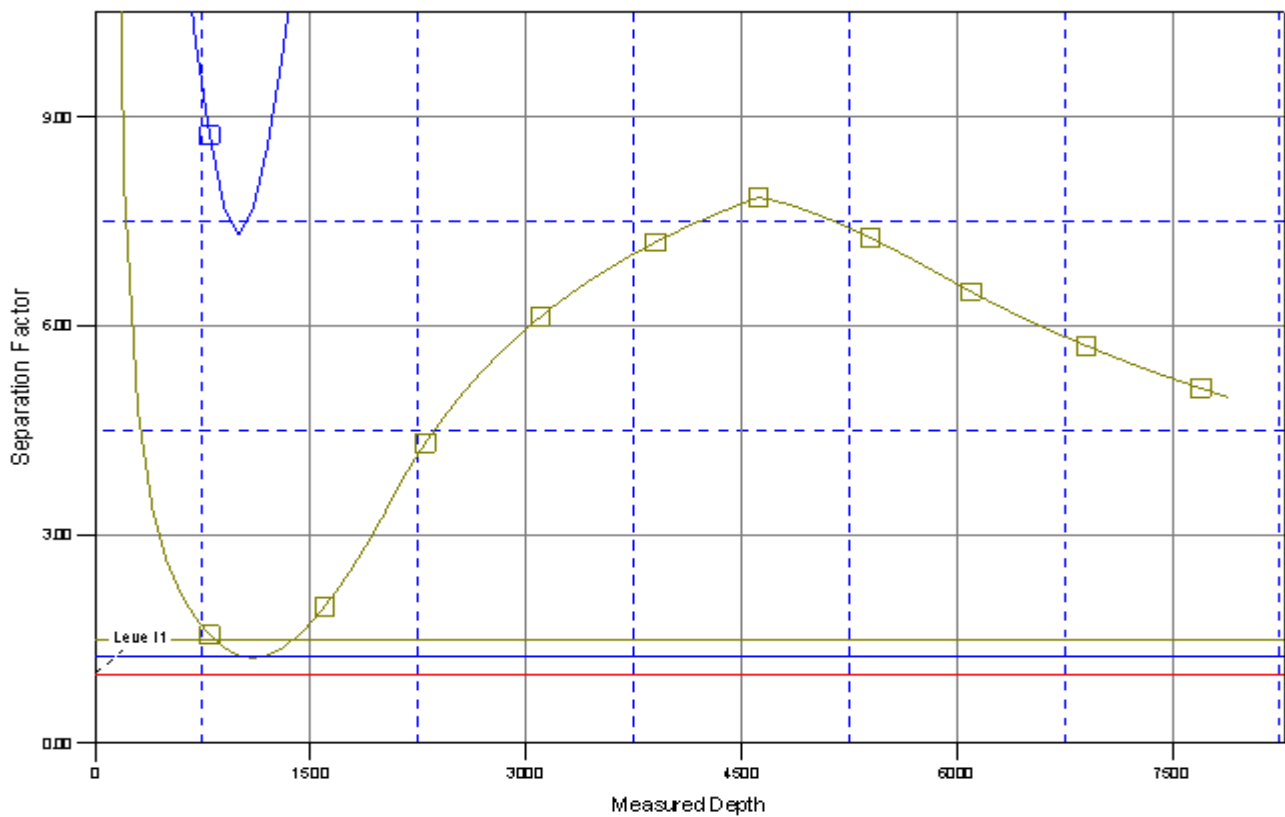




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Well Error:	0.00ft	Output errors are at	2.00 sigma
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Offset Depths are relative to Offset Datum
Central Meridian is 105° 30' 0.000 W °
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

P_WHISTON414, P_WHISTON414, PLAN #1 0902-09 RHS V0

RC