



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_KERR MCGEE 19-3 PAD**

**P\_KERR-MCGEE 35-3**

**P\_KERR-MCGEE 35-3**

**Plan: PLAN #1 1-15-10 RHS**

## **Standard Planning Report**

**15 January, 2010**





P\_KERR-MCGEE 35-3  
COLORADO NORTHERN ZONE - 83  
SECTION 3 T1N R68W  
1690 FSL 1130 FWL  
LAT: 40° 4' 39.597 N  
LONG: 104° 59' 41.644 W



Azimuths to True North  
Magnetic North: 9.15°  
Magnetic Field  
Strength: 53083.2aT  
Dip Angle: 66.80°  
Date: 1/15/2010  
Model: IGRF2010

WELL DETAILS: P\_KERR-MCGEE 35-3

+N/-S	+E/-W	Northing	Ground Level: Easting	5042.00 Latitude	Longitude	Slot
0.00	0.00	1271541.17	3141343.38	40° 4' 39.597 N	104° 59' 41.644 W	

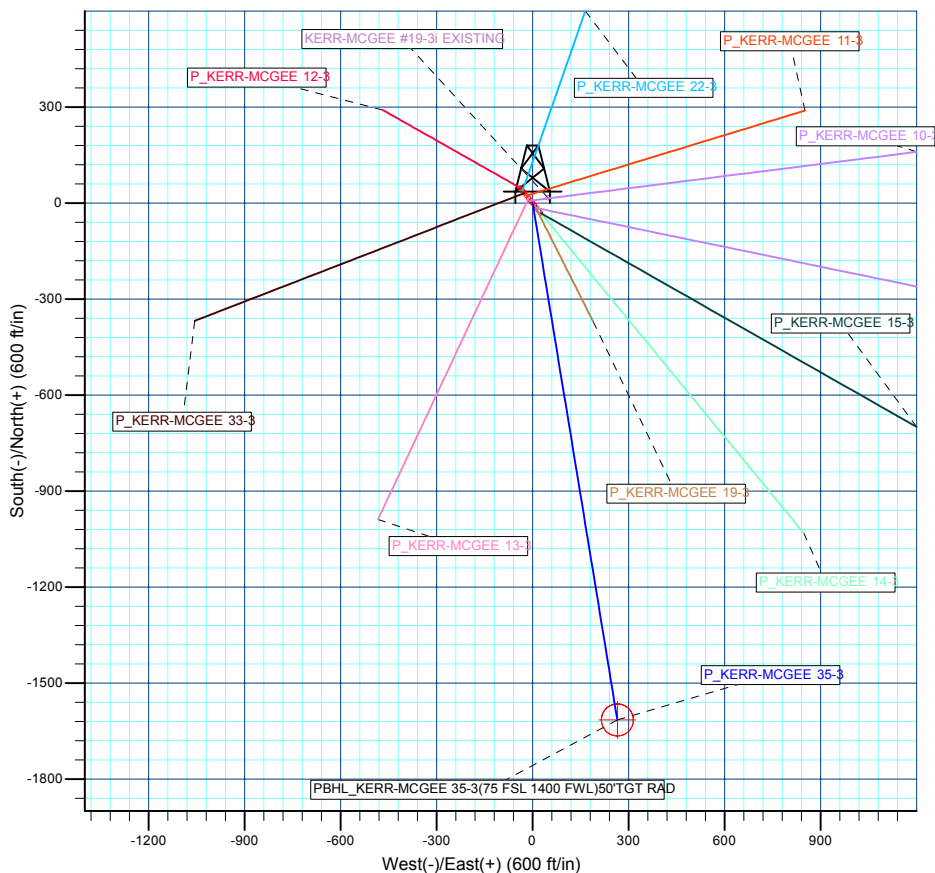
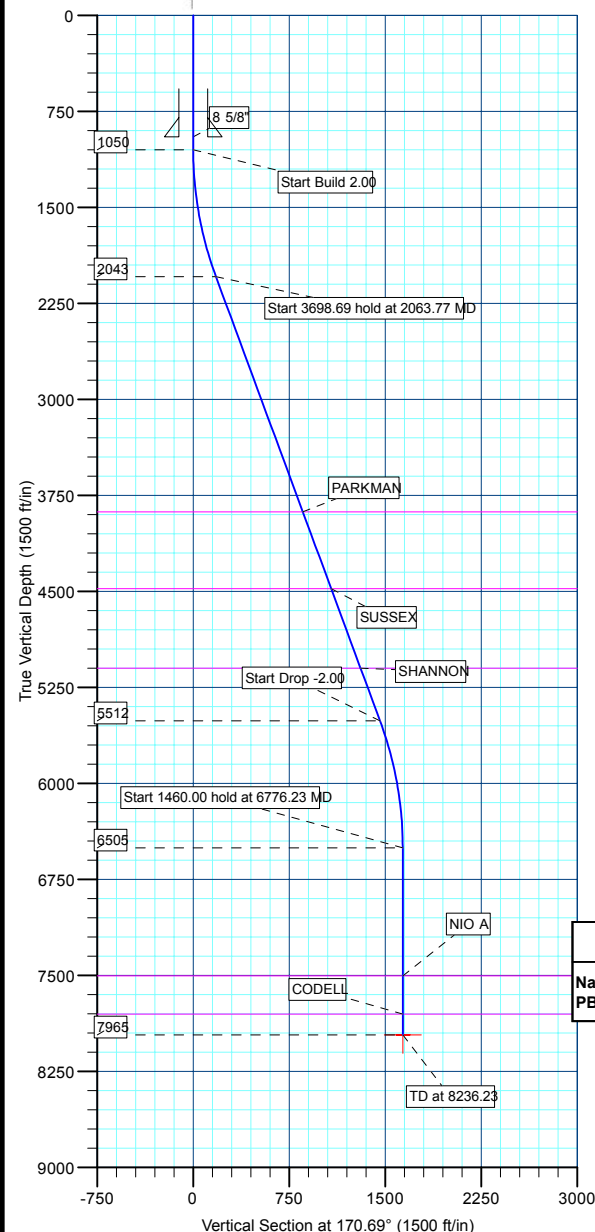
SECTION DETAILS

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	
1050.00	0.00	0.00	1050.00	0.00	0.00	0.00	0.00	0.00	
2063.77	20.28	170.69	2042.74	-175.17	28.71	2.00	170.69	177.51	
5762.46	20.28	170.69	5512.26	-1440.01	236.03	0.00	0.00	1459.23	
6776.23	0.00	0.00	6505.00	-1615.18	264.74	2.00	180.00	1636.73	
8236.23	0.00	0.00	7965.00	-1615.18	264.74	0.00	0.00	1636.73	PBHL_KERR-MCGEE 35-3(75 FSL 1400 FWL)50'TGT RAD

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3880.00	4022.39	PARKMAN
4480.00	4662.02	SUSSEX
5100.00	5322.97	SHANNON
7505.00	7776.23	NIO A
7804.00	8075.23	CODELL

KB ELEV:WELL @ 5057.00ft (Original Well Elev)  
3RD ELEV: 5042.00



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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7965.00	-1615.18	264.74	1269927.53	3141617.32	40° 4' 23.635 N	104° 59' 38.238 W	Circle (Radius: 50.00)

CASING DETAILS

TVD	MD	Name	Size
950.00	950.00	8 5/8"	8.62

Plan: PLAN #1 1-15-10 RHS (P\_KERR-MCGEE 35-3/P\_KERR-MCGEE 35-3)

Created By: Robert H. Scott

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 35-3		
<b>Design:</b>	PLAN #1 1-15-10 RHS		

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

Site						WELD_KERR MCGEE 19-3 PAD, SECTION 3 T1N R68W							
Site Position:						Northing:		1,271,548.81 ft		Latitude:		40° 4' 39.673 N	
From:			Lat/Long			Easting:		3,141,336.90ft		Longitude:		104° 59' 41.726 W	
Position Uncertainty:			0.00 ft			Slot Radius:		in		Grid Convergence:		0.33 °	

Well	P_KERR-MCGEE 35-3					
Well Position	+N/-S	-7.68 ft	Northing:	1,271,541.17 ft	Latitude:	40° 4' 39.597 N
	+E/-W	6.44 ft	Easting:	3,141,343.38 ft	Longitude:	104° 59' 41.644 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,042.00 ft

<b>Wellbore</b>	P_KERR-MCGEE 35-3				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	1/15/2010	9.15	66.80	53,083

<b>Design</b>	PLAN #1 1-15-10 RHS			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	170.69

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,063.77	20.28	170.69	2,042.74	-175.17	28.71	2.00	2.00	0.00	170.69	
5,762.46	20.28	170.69	5,512.26	-1,440.01	236.03	0.00	0.00	0.00	0.00	
6,776.23	0.00	0.00	6,505.00	-1,615.18	264.74	2.00	-2.00	0.00	180.00	
8,236.23	0.00	0.00	7,965.00	-1,615.18	264.74	0.00	0.00	0.00	0.00	PBHL_KERR-MCG

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 35-3		
<b>Design:</b>	PLAN #1 1-15-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
<b>Start Build 2.00</b>									
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	1.00	170.69	1,100.00	-0.43	0.07	0.44	2.00	2.00	0.00
1,200.00	3.00	170.69	1,199.93	-3.87	0.64	3.93	2.00	2.00	0.00
1,300.00	5.00	170.69	1,299.68	-10.76	1.76	10.90	2.00	2.00	0.00
1,400.00	7.00	170.69	1,399.13	-21.07	3.45	21.35	2.00	2.00	0.00
1,500.00	9.00	170.69	1,498.15	-34.81	5.70	35.27	2.00	2.00	0.00
1,600.00	11.00	170.69	1,596.63	-51.94	8.51	52.63	2.00	2.00	0.00
1,700.00	13.00	170.69	1,694.44	-72.46	11.88	73.42	2.00	2.00	0.00
1,800.00	15.00	170.69	1,791.46	-96.33	15.79	97.62	2.00	2.00	0.00
1,900.00	17.00	170.69	1,887.58	-123.53	20.25	125.18	2.00	2.00	0.00
2,000.00	19.00	170.69	1,982.68	-154.02	25.25	156.08	2.00	2.00	0.00
<b>Start 3698.69 hold at 2063.77 MD</b>									
2,063.77	20.28	170.69	2,042.74	-175.17	28.71	177.51	2.00	2.00	0.00
2,100.00	20.28	170.69	2,076.73	-187.56	30.74	190.06	0.00	0.00	0.00
2,200.00	20.28	170.69	2,170.53	-221.76	36.35	224.72	0.00	0.00	0.00
2,300.00	20.28	170.69	2,264.34	-255.95	41.95	259.37	0.00	0.00	0.00
2,400.00	20.28	170.69	2,358.14	-290.15	47.56	294.02	0.00	0.00	0.00
2,500.00	20.28	170.69	2,451.94	-324.35	53.16	328.68	0.00	0.00	0.00
2,600.00	20.28	170.69	2,545.75	-358.55	58.77	363.33	0.00	0.00	0.00
2,700.00	20.28	170.69	2,639.55	-392.74	64.37	397.98	0.00	0.00	0.00
2,800.00	20.28	170.69	2,733.36	-426.94	69.98	432.64	0.00	0.00	0.00
2,900.00	20.28	170.69	2,827.16	-461.14	75.58	467.29	0.00	0.00	0.00
3,000.00	20.28	170.69	2,920.96	-495.33	81.19	501.94	0.00	0.00	0.00
3,100.00	20.28	170.69	3,014.77	-529.53	86.79	536.60	0.00	0.00	0.00
3,200.00	20.28	170.69	3,108.57	-563.73	92.40	571.25	0.00	0.00	0.00
3,300.00	20.28	170.69	3,202.37	-597.92	98.00	605.90	0.00	0.00	0.00
3,400.00	20.28	170.69	3,296.18	-632.12	103.61	640.56	0.00	0.00	0.00
3,500.00	20.28	170.69	3,389.98	-666.32	109.21	675.21	0.00	0.00	0.00
3,600.00	20.28	170.69	3,483.79	-700.51	114.82	709.86	0.00	0.00	0.00
3,700.00	20.28	170.69	3,577.59	-734.71	120.43	744.52	0.00	0.00	0.00
3,800.00	20.28	170.69	3,671.39	-768.91	126.03	779.17	0.00	0.00	0.00
3,900.00	20.28	170.69	3,765.20	-803.11	131.64	813.82	0.00	0.00	0.00
4,000.00	20.28	170.69	3,859.00	-837.30	137.24	848.47	0.00	0.00	0.00
<b>PARKMAN</b>									
4,022.39	20.28	170.69	3,880.00	-844.96	138.50	856.23	0.00	0.00	0.00
4,100.00	20.28	170.69	3,952.80	-871.50	142.85	883.13	0.00	0.00	0.00
4,200.00	20.28	170.69	4,046.61	-905.70	148.45	917.78	0.00	0.00	0.00
4,300.00	20.28	170.69	4,140.41	-939.89	154.06	952.43	0.00	0.00	0.00
4,400.00	20.28	170.69	4,234.22	-974.09	159.66	987.09	0.00	0.00	0.00
4,500.00	20.28	170.69	4,328.02	-1,008.29	165.27	1,021.74	0.00	0.00	0.00
4,600.00	20.28	170.69	4,421.82	-1,042.48	170.87	1,056.39	0.00	0.00	0.00
<b>SUSSEX</b>									
4,662.02	20.28	170.69	4,480.00	-1,063.69	174.35	1,077.89	0.00	0.00	0.00
4,700.00	20.28	170.69	4,515.63	-1,076.68	176.48	1,091.05	0.00	0.00	0.00
4,800.00	20.28	170.69	4,609.43	-1,110.88	182.08	1,125.70	0.00	0.00	0.00
4,900.00	20.28	170.69	4,703.24	-1,145.07	187.69	1,160.35	0.00	0.00	0.00
5,000.00	20.28	170.69	4,797.04	-1,179.27	193.29	1,195.01	0.00	0.00	0.00
5,100.00	20.28	170.69	4,890.84	-1,213.47	198.90	1,229.66	0.00	0.00	0.00
5,200.00	20.28	170.69	4,984.65	-1,247.66	204.50	1,264.31	0.00	0.00	0.00
5,300.00	20.28	170.69	5,078.45	-1,281.86	210.11	1,298.97	0.00	0.00	0.00
<b>SHANNON</b>									
5,322.97	20.28	170.69	5,100.00	-1,289.72	211.40	1,306.93	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 35-3		
<b>Design:</b>	PLAN #1 1-15-10 RHS		

#### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,400.00	20.28	170.69	5,172.25	-1,316.06	215.71	1,333.62	0.00	0.00	0.00
5,500.00	20.28	170.69	5,266.06	-1,350.26	221.32	1,368.27	0.00	0.00	0.00
5,600.00	20.28	170.69	5,359.86	-1,384.45	226.92	1,402.93	0.00	0.00	0.00
5,700.00	20.28	170.69	5,453.67	-1,418.65	232.53	1,437.58	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,762.46	20.28	170.69	5,512.26	-1,440.01	236.03	1,459.23	0.00	0.00	0.00
5,800.00	19.52	170.69	5,547.55	-1,452.62	238.10	1,472.00	2.00	-2.00	0.00
5,900.00	17.52	170.69	5,642.37	-1,483.97	243.23	1,503.77	2.00	-2.00	0.00
6,000.00	15.52	170.69	5,738.23	-1,512.04	247.84	1,532.21	2.00	-2.00	0.00
6,100.00	13.52	170.69	5,835.03	-1,536.78	251.89	1,557.29	2.00	-2.00	0.00
6,200.00	11.52	170.69	5,932.65	-1,558.18	255.40	1,578.98	2.00	-2.00	0.00
6,300.00	9.52	170.69	6,030.96	-1,576.21	258.35	1,597.24	2.00	-2.00	0.00
6,400.00	7.52	170.69	6,129.85	-1,590.84	260.75	1,612.06	2.00	-2.00	0.00
6,500.00	5.52	170.69	6,229.20	-1,602.05	262.59	1,623.43	2.00	-2.00	0.00
6,600.00	3.52	170.69	6,328.88	-1,609.83	263.86	1,631.31	2.00	-2.00	0.00
6,700.00	1.52	170.69	6,428.78	-1,614.18	264.58	1,635.72	2.00	-2.00	0.00
<b>Start 1460.00 hold at 6776.23 MD</b>									
6,776.23	0.00	0.00	6,505.00	-1,615.18	264.74	1,636.73	2.00	-2.00	-223.91
6,800.00	0.00	0.00	6,528.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
6,900.00	0.00	0.00	6,628.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,000.00	0.00	0.00	6,728.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,100.00	0.00	0.00	6,828.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,200.00	0.00	0.00	6,928.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,300.00	0.00	0.00	7,028.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,400.00	0.00	0.00	7,128.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,500.00	0.00	0.00	7,228.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,600.00	0.00	0.00	7,328.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,700.00	0.00	0.00	7,428.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
<b>NIO A</b>									
7,776.23	0.00	0.00	7,505.00	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,800.00	0.00	0.00	7,528.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
7,900.00	0.00	0.00	7,628.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
8,000.00	0.00	0.00	7,728.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
<b>CODELL</b>									
8,075.23	0.00	0.00	7,804.00	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
8,100.00	0.00	0.00	7,828.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
8,200.00	0.00	0.00	7,928.77	-1,615.18	264.74	1,636.73	0.00	0.00	0.00
<b>PBHL_KERR-MCGEE 35-3(75 FSL 1400 FWL)50'TGT RAD</b>									
8,236.23	0.00	0.00	7,965.00	-1,615.18	264.74	1,636.73	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_KERR-MCGEE	0.00	0.00	7,965.00	-1,615.18	264.74	1,269,927.53	3,141,617.32	40° 4' 23.635 N	104° 59' 38.238 W
- plan hits target center									
- Circle (radius 50.00)									

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>North Reference:</b>	True
<b>Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	P_KERR-MCGEE 35-3		
<b>Design:</b>	PLAN #1 1-15-10 RHS		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
950.00	950.00	8 5/8"	8.62	11.00	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,022.39	3,880.00	PARKMAN				
4,662.02	4,480.00	SUSSEX				
5,322.97	5,100.00	SHANNON				
7,776.23	7,505.00	NIO A				
8,075.23	7,804.00	CODELL				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,050.00	1,050.00	0.00	0.00	Start Build 2.00	
2,063.77	2,042.74	-175.17	28.71	Start 3698.69 hold at 2063.77 MD	
5,762.46	5,512.26	-1,440.01	236.03	Start Drop -2.00	
6,776.23	6,505.00	-1,615.18	264.74	Start 1460.00 hold at 6776.23 MD	
8,236.23	7,965.00	-1,615.18	264.74	TD at 8236.23	



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83  
WELD\_KERR MCGEE 19-3 PAD  
P\_KERR-MCGEE 35-3**

**P\_KERR-MCGEE 35-3  
PLAN #1 1-15-10 RHS**

## **Anticollision Report**

**15 January, 2010**



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #1 1-15-10 RHS		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	0.00 to 20,000.00ft	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 10,000.00ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>	<b>Date</b>	1/15/2010		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	8,236.23	PLAN #1 1-15-10 RHS (P_KERR-MCGEE	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_KERR MCGEE 19-3 PAD						
KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3	1,050.00	1,044.00	50.47	8.48	1.202	Level 2, CC
KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3	1,300.00	1,293.68	53.31	0.90	1.017	Level 2, ES, SF
P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN	1,050.00	1,050.00	10.02	-31.91	0.239	Level 1, CC
P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN	1,100.00	1,100.09	10.17	-32.99	0.236	Level 1, ES, SF
P_KERR-MCGEE 11-3 - P_KERR-MCGEE 11-3 - PLAN	1,050.00	1,050.00	30.10	25.64	6.746	CC, ES
P_KERR-MCGEE 11-3 - P_KERR-MCGEE 11-3 - PLAN	1,200.00	1,200.36	32.50	27.46	6.445	SF
P_KERR-MCGEE 12-3 - P_KERR-MCGEE 12-3 - PLAN	1,050.00	1,050.00	60.48	56.01	13.555	CC, ES
P_KERR-MCGEE 12-3 - P_KERR-MCGEE 12-3 - PLAN	1,100.00	1,099.02	61.25	56.59	13.129	SF
P_KERR-MCGEE 13-3 - P_KERR-MCGEE 13-3 - PLAN	1,050.00	1,050.00	19.82	15.36	4.442	CC
P_KERR-MCGEE 13-3 - P_KERR-MCGEE 13-3 - PLAN	1,100.00	1,100.15	20.01	15.35	4.296	ES, SF
P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN	1,050.00	1,050.00	29.91	25.45	6.703	CC
P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN	1,100.00	1,099.48	29.96	25.30	6.433	ES
P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN	1,300.00	1,297.29	31.68	26.32	5.909	SF
P_KERR-MCGEE 15-3 - P_KERR-MCGEE 15-3 - PLAN	1,050.00	1,050.00	40.00	35.54	8.966	CC
P_KERR-MCGEE 15-3 - P_KERR-MCGEE 15-3 - PLAN	1,200.00	1,198.01	40.31	35.30	8.044	ES
P_KERR-MCGEE 15-3 - P_KERR-MCGEE 15-3 - PLAN	1,300.00	1,296.46	41.52	36.14	7.721	SF
P_KERR-MCGEE 19-3 - P_KERR-MCGEE 19-3 - PLAN	1,050.00	1,050.00	9.81	5.35	2.199	CC
P_KERR-MCGEE 19-3 - P_KERR-MCGEE 19-3 - PLAN	1,100.00	1,099.83	9.86	5.20	2.116	ES
P_KERR-MCGEE 19-3 - P_KERR-MCGEE 19-3 - PLAN	1,400.00	1,399.14	11.41	5.65	1.980	SF
P_KERR-MCGEE 22-3 - P_KERR-MCGEE 22-3 - PLAN	1,050.00	1,050.00	50.20	45.74	11.251	CC, ES
P_KERR-MCGEE 22-3 - P_KERR-MCGEE 22-3 - PLAN	1,100.00	1,099.53	50.81	46.14	10.880	SF
P_KERR-MCGEE 23-3 - P_KERR-MCGEE 23-3 - PLAN	1,151.76	1,151.18	19.81	14.96	4.084	CC
P_KERR-MCGEE 23-3 - P_KERR-MCGEE 23-3 - PLAN	1,200.00	1,199.08	19.95	14.93	3.971	ES, SF
P_KERR-MCGEE 33-3 - P_KERR-MCGEE 33-3 - PLAN	1,050.00	1,050.00	40.20	35.74	9.011	CC, ES
P_KERR-MCGEE 33-3 - P_KERR-MCGEE 33-3 - PLAN	1,100.00	1,099.78	40.71	36.05	8.735	SF

<b>Offset Design</b>	WELD_KERR MCGEE 19-3 PAD - KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3i EXISTING										<b>Offset Site Error:</b>	0.00 ft
<b>Survey Program:</b>	0-UNKNOWN										<b>Offset Well Error:</b>	0.00 ft
Reference	Offset	Semi Major Axis		Distance								
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	71.47	16.04	47.85	50.82					
100.00	100.00	94.00	94.00	71.47	16.04	47.85	50.47	48.49	1.98	25.546		
200.00	200.00	194.00	194.00	71.47	16.04	47.85	50.47	44.39	6.08	8.300		

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



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	
300.00	300.00	294.00	294.00	0.55	9.76	71.47	16.04	47.85	50.47	40.16	10.31	4.897	
400.00	400.00	394.00	394.00	0.77	13.76	71.47	16.04	47.85	50.47	35.94	14.53	3.473	
500.00	500.00	494.00	494.00	0.99	17.76	71.47	16.04	47.85	50.47	31.71	18.75	2.691	
600.00	600.00	594.00	594.00	1.22	21.76	71.47	16.04	47.85	50.47	27.49	22.98	2.196	
700.00	700.00	694.00	694.00	1.44	25.76	71.47	16.04	47.85	50.47	23.26	27.20	1.855	
800.00	800.00	794.00	794.00	1.67	29.76	71.47	16.04	47.85	50.47	19.04	31.43	1.606	
900.00	900.00	894.00	894.00	1.89	33.76	71.47	16.04	47.85	50.47	14.81	35.65	1.415	Level 3
1,000.00	1,000.00	994.00	994.00	2.12	37.76	71.47	16.04	47.85	50.47	10.59	39.88	1.266	Level 3
1,050.00	1,050.00	1,044.00	1,044.00	2.23	39.76	71.47	16.04	47.85	50.47	8.48	41.99	1.202	Level 2, CC
1,100.00	1,100.00	1,094.00	1,094.00	2.33	41.76	-99.71	16.04	47.85	50.54	6.45	44.09	1.146	Level 2
1,200.00	1,199.93	1,193.93	1,193.93	2.50	45.76	-103.54	16.04	47.85	51.24	2.99	48.26	1.062	Level 2
1,300.00	1,299.68	1,293.68	1,293.68	2.69	49.75	-110.79	16.04	47.85	53.31	0.90	52.41	1.017	Level 2, ES, SF
1,400.00	1,399.13	1,393.13	1,393.13	2.89	53.73	-120.39	16.04	47.85	57.86	1.35	56.51	1.024	Level 2
1,500.00	1,498.15	1,492.15	1,492.15	3.12	57.69	-130.68	16.04	47.85	66.04	5.55	60.49	1.092	Level 2
1,600.00	1,596.63	1,590.63	1,590.63	3.39	61.63	-140.11	16.04	47.85	78.54	14.25	64.29	1.222	Level 2
1,700.00	1,694.44	1,688.44	1,688.44	3.71	65.54	-147.90	16.04	47.85	95.53	27.64	67.89	1.407	Level 3
1,800.00	1,791.46	1,785.46	1,785.46	4.08	69.42	-153.99	16.04	47.85	116.85	45.56	71.29	1.639	
1,900.00	1,887.58	1,881.58	1,881.58	4.51	73.26	-158.65	16.04	47.85	142.27	67.77	74.50	1.910	
2,000.00	1,982.68	1,976.68	1,976.68	5.01	77.07	-162.21	16.04	47.85	171.56	94.04	77.51	2.213	
2,063.77	2,042.74	2,036.74	2,036.74	5.36	79.47	-164.03	16.04	47.85	192.16	112.84	79.33	2.422	
2,100.00	2,076.73	2,070.73	2,070.73	5.57	80.83	-165.00	16.04	47.85	204.31	123.66	80.66	2.533	
2,200.00	2,170.53	2,164.53	2,164.53	6.16	84.58	-167.15	16.04	47.85	238.07	153.71	84.37	2.822	
2,300.00	2,264.34	2,258.34	2,258.34	6.78	88.33	-168.77	16.04	47.85	272.06	183.95	88.11	3.088	
2,400.00	2,358.14	2,352.14	2,352.14	7.41	92.09	-170.03	16.04	47.85	306.19	214.32	91.87	3.333	
2,500.00	2,451.94	2,445.94	2,445.94	8.05	95.84	-171.04	16.04	47.85	340.43	244.77	95.65	3.559	
2,600.00	2,545.75	2,539.75	2,539.75	8.70	99.59	-171.86	16.04	47.85	374.74	275.30	99.44	3.768	
2,700.00	2,639.55	2,633.55	2,633.55	9.36	103.34	-172.55	16.04	47.85	409.11	305.87	103.24	3.963	
2,800.00	2,733.36	2,727.36	2,727.36	10.03	107.09	-173.13	16.04	47.85	443.53	336.48	107.05	4.143	
2,900.00	2,827.16	2,821.16	2,821.16	10.70	110.85	-173.63	16.04	47.85	477.98	367.11	110.86	4.311	
3,000.00	2,920.96	2,914.96	2,914.96	11.37	114.60	-174.06	16.04	47.85	512.46	397.77	114.68	4.469	
3,100.00	3,014.77	3,008.77	3,008.77	12.05	118.35	-174.43	16.04	47.85	546.95	428.45	118.50	4.616	
3,200.00	3,108.57	3,102.57	3,102.57	12.72	122.10	-174.76	16.04	47.85	581.47	459.15	122.33	4.753	
3,300.00	3,202.37	3,196.37	3,196.37	13.41	125.85	-175.06	16.04	47.85	616.01	489.85	126.15	4.883	
3,400.00	3,296.18	3,290.18	3,290.18	14.09	129.61	-175.32	16.04	47.85	650.55	520.57	129.98	5.005	
3,500.00	3,389.98	3,383.98	3,383.98	14.77	133.36	-175.56	16.04	47.85	685.11	551.29	133.81	5.120	
3,600.00	3,483.79	3,477.79	3,477.79	15.46	137.11	-175.77	16.04	47.85	719.67	582.03	137.65	5.228	
3,700.00	3,577.59	3,571.59	3,571.59	16.15	140.86	-175.96	16.04	47.85	754.25	612.77	141.48	5.331	
3,800.00	3,671.39	3,665.39	3,665.39	16.84	144.62	-176.14	16.04	47.85	788.83	643.51	145.32	5.428	
3,900.00	3,765.20	3,759.20	3,759.20	17.53	148.37	-176.30	16.04	47.85	823.42	674.26	149.16	5.521	
4,000.00	3,859.00	3,853.00	3,853.00	18.22	152.12	-176.45	16.04	47.85	858.01	705.01	152.99	5.608	
4,100.00	3,952.80	3,946.80	3,946.80	18.91	155.87	-176.59	16.04	47.85	892.60	735.77	156.83	5.691	
4,200.00	4,046.61	4,040.61	4,040.61	19.60	159.62	-176.72	16.04	47.85	927.21	766.53	160.67	5.771	
4,300.00	4,140.41	4,134.41	4,134.41	20.29	163.38	-176.84	16.04	47.85	961.81	797.30	164.51	5.846	
4,400.00	4,234.22	4,228.22	4,228.22	20.99	167.13	-176.95	16.04	47.85	996.42	828.06	168.36	5.919	
4,500.00	4,328.02	4,322.02	4,322.02	21.68	170.88	-177.05	16.04	47.85	1,031.03	858.83	172.20	5.987	
4,600.00	4,421.82	4,415.82	4,415.82	22.37	174.63	-177.14	16.04	47.85	1,065.64	889.60	176.04	6.053	
4,700.00	4,515.63	4,509.63	4,509.63	23.07	178.39	-177.23	16.04	47.85	1,100.26	920.38	179.89	6.116	
4,800.00	4,609.43	4,603.43	4,603.43	23.76	182.14	-177.32	16.04	47.85	1,134.88	951.15	183.73	6.177	
4,900.00	4,703.24	4,697.24	4,697.24	24.46	185.89	-177.40	16.04	47.85	1,169.50	981.93	187.57	6.235	
5,000.00	4,797.04	4,791.04	4,791.04	25.15	189.64	-177.47	16.04	47.85	1,204.12	1,012.70	191.42	6.290	
5,100.00	4,890.84	4,884.84	4,884.84	25.85	193.39	-177.54	16.04	47.85	1,238.75	1,043.48	195.26	6.344	
5,200.00	4,984.65	4,978.65	4,978.65	26.55	197.15	-177.61	16.04	47.85	1,273.37	1,074.26	199.11	6.395	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_KERR MCGEE 19-3 PAD - KERR-MCGEE #19-3i EXISTING - KERR-MCGEE #19-3i EXISTING												Offset Well Error:	0.00 ft
Survey Program: 0-UNKNOWN													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,300.00	5,078.45	5,072.45	5,072.45	27.24	200.90	-177.67	16.04	47.85	1,308.00	1,105.04	202.96	6.445	
5,400.00	5,172.25	5,166.25	5,166.25	27.94	204.65	-177.73	16.04	47.85	1,342.63	1,135.83	206.80	6.492	
5,500.00	5,266.06	5,260.06	5,260.06	28.64	208.40	-177.79	16.04	47.85	1,377.26	1,166.61	210.65	6.538	
5,600.00	5,359.86	5,353.86	5,353.86	29.33	212.15	-177.84	16.04	47.85	1,411.89	1,197.39	214.50	6.582	
5,700.00	5,453.67	5,447.67	5,447.67	30.03	215.91	-177.90	16.04	47.85	1,446.52	1,228.18	218.34	6.625	
5,762.46	5,512.26	5,506.26	5,506.26	30.47	218.25	-177.93	16.04	47.85	1,468.16	1,247.41	220.75	6.651	
5,800.00	5,547.55	5,541.55	5,541.55	30.69	219.66	-177.95	16.04	47.85	1,480.93	1,257.80	223.12	6.637	
5,900.00	5,642.37	5,636.37	5,636.37	31.15	223.45	-178.02	16.04	47.85	1,512.68	1,283.24	229.44	6.593	
6,000.00	5,738.23	5,732.23	5,732.23	31.59	227.29	-178.08	16.04	47.85	1,541.10	1,305.49	235.62	6.541	
6,100.00	5,835.03	5,829.03	5,829.03	31.98	231.16	-178.13	16.04	47.85	1,566.17	1,324.57	241.60	6.482	
6,200.00	5,932.65	5,926.65	5,926.65	32.33	235.07	-178.17	16.04	47.85	1,587.84	1,340.47	247.37	6.419	
6,300.00	6,030.96	6,024.96	6,024.96	32.63	239.00	-178.20	16.04	47.85	1,606.10	1,353.19	252.91	6.351	
6,400.00	6,129.85	6,123.85	6,123.85	32.90	242.95	-178.22	16.04	47.85	1,620.91	1,362.72	258.19	6.278	
6,500.00	6,229.20	6,223.20	6,223.20	33.12	246.93	-178.24	16.04	47.85	1,632.27	1,369.07	263.20	6.202	
6,600.00	6,328.88	6,322.88	6,322.88	33.29	250.92	-178.26	16.04	47.85	1,640.16	1,372.24	267.91	6.122	
6,700.00	6,428.78	6,422.78	6,422.78	33.42	254.91	-178.26	16.04	47.85	1,644.56	1,372.25	272.31	6.039	
6,776.23	6,505.00	6,499.00	6,499.00	33.50	257.96	-7.57	16.04	47.85	1,645.57	1,370.12	275.45	5.974	
6,800.00	6,528.77	6,522.77	6,522.77	33.52	258.91	-7.57	16.04	47.85	1,645.57	1,369.14	276.44	5.953	
6,900.00	6,628.77	6,622.77	6,622.77	33.60	262.91	-7.57	16.04	47.85	1,645.57	1,364.99	280.59	5.865	
7,000.00	6,728.77	6,722.77	6,722.77	33.67	266.91	-7.57	16.04	47.85	1,645.57	1,360.84	284.73	5.779	
7,100.00	6,828.77	6,822.77	6,822.77	33.75	270.91	-7.57	16.04	47.85	1,645.57	1,356.69	288.89	5.696	
7,200.00	6,928.77	6,922.77	6,922.77	33.83	274.91	-7.57	16.04	47.85	1,645.57	1,352.53	293.04	5.616	
7,300.00	7,028.77	7,022.77	7,022.77	33.91	278.91	-7.57	16.04	47.85	1,645.57	1,348.38	297.19	5.537	
7,400.00	7,128.77	7,122.77	7,122.77	33.99	282.91	-7.57	16.04	47.85	1,645.57	1,344.22	301.35	5.461	
7,500.00	7,228.77	7,222.77	7,222.77	34.08	286.91	-7.57	16.04	47.85	1,645.57	1,340.07	305.50	5.386	
7,600.00	7,328.77	7,322.77	7,322.77	34.16	290.91	-7.57	16.04	47.85	1,645.57	1,335.91	309.66	5.314	
7,700.00	7,428.77	7,422.77	7,422.77	34.24	294.91	-7.57	16.04	47.85	1,645.57	1,331.75	313.82	5.244	
7,800.00	7,528.77	7,522.77	7,522.77	34.33	298.91	-7.57	16.04	47.85	1,645.57	1,327.59	317.98	5.175	
7,900.00	7,628.77	7,622.77	7,622.77	34.42	302.91	-7.57	16.04	47.85	1,645.57	1,323.43	322.15	5.108	
8,000.00	7,728.77	7,722.77	7,722.77	34.51	306.91	-7.57	16.04	47.85	1,645.57	1,319.26	326.31	5.043	
8,100.00	7,828.77	7,822.77	7,822.77	34.60	310.91	-7.57	16.04	47.85	1,645.57	1,315.10	330.47	4.979	
8,200.00	7,928.77	7,922.77	7,922.77	34.69	314.91	-7.57	16.04	47.85	1,645.57	1,310.93	334.64	4.917	
8,236.23	7,965.00	7,959.00	7,959.00	34.72	316.36	-7.57	16.04	47.85	1,645.57	1,309.42	336.15	4.895	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN #1 1-15-10												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	-39.98	7.68	-6.44	10.02				
100.00	100.00	100.00	100.00	0.10	1.70	-39.98	7.68	-6.44	10.02	8.22	1.80	5.579	
200.00	200.00	200.00	200.00	0.32	5.70	-39.98	7.68	-6.44	10.02	4.00	6.02	1.664	
300.00	300.00	300.00	300.00	0.55	9.70	-39.98	7.68	-6.44	10.02	-0.23	10.25	0.978 Level 1	
400.00	400.00	400.00	400.00	0.77	13.70	-39.98	7.68	-6.44	10.02	-4.45	14.47	0.692 Level 1	
500.00	500.00	500.00	500.00	0.99	17.70	-39.98	7.68	-6.44	10.02	-8.68	18.69	0.536 Level 1	
600.00	600.00	600.00	600.00	1.22	21.70	-39.98	7.68	-6.44	10.02	-12.90	22.92	0.437 Level 1	
700.00	700.00	700.00	700.00	1.44	25.70	-39.98	7.68	-6.44	10.02	-17.13	27.14	0.369 Level 1	
800.00	800.00	800.00	800.00	1.67	29.70	-39.98	7.68	-6.44	10.02	-21.35	31.37	0.319 Level 1	
900.00	900.00	900.00	900.00	1.89	33.70	-39.98	7.68	-6.44	10.02	-25.58	35.59	0.281 Level 1	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	37.70	-39.98	7.68	-6.44	10.02	-29.80	39.82	0.252 Level 1	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	39.70	-39.98	7.68	-6.44	10.02	-31.91	41.93	0.239 Level 1, CC	
1,100.00	1,100.00	1,100.09	1,100.08	2.33	40.84	152.65	7.73	-6.00	10.17	-32.99	43.16	0.236 Level 1, ES, SF	
1,200.00	1,199.93	1,200.09	1,200.02	2.50	41.63	174.55	8.17	-2.54	12.45	-31.62	44.07	0.283 Level 1	
1,300.00	1,299.68	1,299.56	1,299.24	2.69	42.78	-163.18	9.03	4.34	19.96	-25.32	45.28	0.441 Level 1	
1,400.00	1,399.13	1,398.16	1,397.31	2.89	44.28	-150.89	10.32	14.53	33.34	-13.45	46.79	0.712 Level 1	
1,500.00	1,498.15	1,495.58	1,493.78	3.12	46.10	-144.58	12.00	27.87	51.98	3.42	48.55	1.071 Level 2	
1,600.00	1,596.63	1,591.49	1,588.28	3.39	48.21	-141.01	14.06	44.19	75.49	24.98	50.51	1.495 Level 3	
1,700.00	1,694.44	1,685.63	1,680.43	3.71	50.59	-138.77	16.47	63.24	103.64	51.03	52.61	1.970	
1,800.00	1,791.46	1,777.74	1,769.94	4.08	53.20	-137.22	19.19	84.78	136.26	81.44	54.82	2.486	
1,900.00	1,887.58	1,867.59	1,856.53	4.51	56.01	-136.04	22.18	108.53	173.17	116.09	57.09	3.034	
2,000.00	1,982.68	1,954.99	1,940.01	5.01	59.00	-135.07	25.42	134.21	214.23	154.84	59.39	3.607	
2,063.77	2,042.74	2,009.36	1,991.53	5.36	60.96	-134.51	27.60	151.45	242.49	181.65	60.84	3.986	
2,100.00	2,076.73	2,039.84	2,020.26	5.57	62.14	-134.44	28.87	161.54	259.11	197.24	61.87	4.188	
2,200.00	2,170.53	2,122.80	2,097.90	6.16	65.41	-134.03	32.53	190.53	306.12	241.40	64.72	4.730	
2,300.00	2,264.34	2,203.98	2,173.02	6.78	68.82	-133.39	36.38	221.05	354.79	287.13	67.66	5.244	
2,400.00	2,358.14	2,284.47	2,246.63	7.41	72.43	-132.63	40.46	253.36	405.08	334.38	70.71	5.729	
2,500.00	2,451.94	2,370.41	2,324.88	8.05	76.46	-131.90	44.91	288.61	455.99	381.96	74.03	6.159	
2,600.00	2,545.75	2,456.35	2,403.13	8.70	80.59	-131.32	49.35	323.86	506.95	429.51	77.44	6.547	
2,700.00	2,639.55	2,542.28	2,481.38	9.36	84.83	-130.84	53.80	359.12	557.94	477.03	80.91	6.896	
2,800.00	2,733.36	2,628.22	2,559.63	10.03	89.14	-130.44	58.25	394.37	608.95	524.50	84.45	7.211	
2,900.00	2,827.16	2,714.16	2,637.88	10.70	93.53	-130.10	62.70	429.62	659.98	571.93	88.05	7.495	
3,000.00	2,920.96	2,800.10	2,716.13	11.37	97.99	-129.82	67.15	464.88	711.03	619.32	91.70	7.753	
3,100.00	3,014.77	2,886.04	2,794.38	12.05	102.51	-129.57	71.60	500.13	762.08	666.67	95.41	7.987	
3,200.00	3,108.57	2,971.98	2,872.63	12.72	107.08	-129.35	76.05	535.38	813.15	713.98	99.16	8.200	
3,300.00	3,202.37	3,057.92	2,950.88	13.41	111.69	-129.16	80.49	570.63	864.22	761.27	102.95	8.394	
3,400.00	3,296.18	3,143.86	3,029.13	14.09	116.33	-128.98	84.94	605.89	915.30	808.53	106.77	8.572	
3,500.00	3,389.98	3,229.80	3,107.38	14.77	121.01	-128.83	89.39	641.14	966.39	855.76	110.62	8.736	
3,600.00	3,483.79	3,315.74	3,185.63	15.46	125.72	-128.69	93.84	676.39	1,017.48	902.98	114.50	8.886	
3,700.00	3,577.59	3,401.68	3,263.88	16.15	130.45	-128.57	98.29	711.65	1,068.57	950.17	118.41	9.025	
3,800.00	3,671.39	3,487.62	3,342.13	16.84	135.22	-128.46	102.74	746.90	1,119.67	997.33	122.34	9.152	
3,900.00	3,765.20	3,573.56	3,420.38	17.53	140.00	-128.35	107.18	782.15	1,170.77	1,044.48	126.29	9.271	
4,000.00	3,859.00	3,659.50	3,498.63	18.22	144.80	-128.26	111.63	817.41	1,221.87	1,091.62	130.26	9.381	
4,100.00	3,952.80	3,745.44	3,576.88	18.91	149.62	-128.17	116.08	852.66	1,272.98	1,138.74	134.24	9.483	
4,200.00	4,046.61	3,831.38	3,655.13	19.60	154.45	-128.09	120.53	887.91	1,324.09	1,185.84	138.24	9.578	
4,300.00	4,140.41	3,917.32	3,733.38	20.29	159.30	-128.02	124.98	923.17	1,375.19	1,232.94	142.26	9.667	
4,400.00	4,234.22	4,003.26	3,811.63	20.99	164.16	-127.95	129.43	958.42	1,426.30	1,280.02	146.29	9.750	
4,500.00	4,328.02	4,089.20	3,889.88	21.68	169.03	-127.88	133.88	993.67	1,477.42	1,327.09	150.33	9.828	
4,600.00	4,421.82	4,175.14	3,968.13	22.37	173.92	-127.82	138.32	1,028.92	1,528.53	1,374.14	154.39	9.901	
4,700.00	4,515.63	4,261.08	4,046.38	23.07	178.81	-127.77	142.77	1,064.18	1,579.64	1,421.19	158.45	9.969	
4,800.00	4,609.43	4,347.02	4,124.63	23.76	183.72	-127.72	147.22	1,099.43	1,630.76	1,468.23	162.53	10.034	
4,900.00	4,703.24	4,432.96	4,202.88	24.46	188.63	-127.67	151.67	1,134.68	1,681.88	1,515.27	166.61	10.095	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 10-3 - P_KERR-MCGEE 10-3 - PLAN #1 1-15-10												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-UNKNOWN												<b>Offset Well Error:</b>	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	4,797.04	4,518.89	4,281.13	25.15	193.55	-127.62	156.12	1,169.94	1,732.99	1,562.29	170.70	10.152	
5,100.00	4,890.84	4,604.83	4,359.38	25.85	198.48	-127.58	160.57	1,205.19	1,784.11	1,609.31	174.80	10.207	
5,200.00	4,984.65	4,690.77	4,437.63	26.55	203.41	-127.53	165.02	1,240.44	1,835.23	1,656.32	178.91	10.258	
5,300.00	5,078.45	4,776.71	4,515.88	27.24	208.35	-127.50	169.46	1,275.70	1,886.35	1,703.33	183.02	10.307	
5,400.00	5,172.25	4,862.65	4,594.12	27.94	213.30	-127.46	173.91	1,310.95	1,937.47	1,750.33	187.14	10.353	
5,500.00	5,266.06	4,948.59	4,672.37	28.64	218.25	-127.42	178.36	1,346.20	1,988.59	1,797.32	191.27	10.397	
5,600.00	5,359.86	5,034.53	4,750.62	29.33	223.21	-127.39	182.81	1,381.46	2,039.71	1,844.31	195.40	10.438	
5,700.00	5,453.67	5,120.47	4,828.87	30.03	228.17	-127.36	187.26	1,416.71	2,090.83	1,891.29	199.54	10.478	
5,762.46	5,512.26	5,174.15	4,877.75	30.47	231.27	-127.34	190.04	1,438.73	2,122.77	1,920.64	202.13	10.502	
5,800.00	5,547.55	5,206.48	4,907.19	30.69	233.14	-127.67	191.71	1,451.99	2,141.83	1,937.13	204.70	10.463	
5,900.00	5,642.37	5,293.30	4,986.24	31.15	238.16	-128.47	196.20	1,487.60	2,191.33	1,979.83	211.50	10.361	
6,000.00	5,738.23	5,381.02	5,066.11	31.59	243.24	-129.14	200.74	1,523.59	2,238.95	2,020.65	218.30	10.256	
6,100.00	5,835.03	5,469.54	5,146.71	31.98	248.37	-129.68	205.33	1,559.90	2,284.65	2,059.60	225.05	10.152	
6,200.00	5,932.65	5,558.75	5,227.94	32.33	253.54	-130.12	209.94	1,596.49	2,328.40	2,096.69	231.71	10.049	
6,300.00	6,030.96	5,648.55	5,309.70	32.63	258.75	-130.46	214.59	1,633.33	2,370.18	2,131.94	238.23	9.949	
6,400.00	6,129.85	5,738.82	5,391.89	32.90	263.99	-130.70	219.27	1,670.36	2,409.99	2,165.39	244.60	9.853	
6,500.00	6,229.20	5,829.45	5,474.41	33.12	269.26	-130.85	223.96	1,707.54	2,447.83	2,197.06	250.77	9.761	
6,600.00	6,328.88	5,920.33	5,557.17	33.29	274.54	-130.91	228.66	1,744.82	2,483.71	2,226.98	256.73	9.674	
6,700.00	6,428.78	6,011.36	5,640.05	33.42	279.83	-130.90	233.37	1,782.16	2,517.66	2,255.21	262.44	9.593	
6,776.23	6,505.00	6,080.78	5,703.25	33.50	283.87	39.85	236.97	1,810.63	2,542.25	2,275.61	266.63	9.535	
6,800.00	6,528.77	6,102.42	5,722.96	33.52	285.13	39.99	238.09	1,819.51	2,549.75	2,282.26	267.49	9.532	
6,900.00	6,628.77	6,193.47	5,805.86	33.60	290.43	40.59	242.80	1,856.86	2,581.49	2,310.41	271.09	9.523	
7,000.00	6,728.77	6,284.52	5,888.77	33.67	295.73	41.18	247.51	1,894.21	2,613.50	2,338.85	274.66	9.516	
7,100.00	6,828.77	6,375.57	5,971.67	33.75	301.03	41.75	252.23	1,931.56	2,645.77	2,367.57	278.20	9.510	
7,200.00	6,928.77	6,587.30	6,166.30	33.83	313.06	42.97	262.65	2,014.16	2,677.32	2,391.10	286.22	9.354	
7,300.00	7,028.77	6,958.57	6,520.26	33.91	331.69	44.51	276.57	2,124.47	2,701.09	2,401.20	299.88	9.007	
7,400.00	7,128.77	7,354.77	6,910.41	33.99	347.99	45.39	284.97	2,191.08	2,714.60	2,400.44	314.15	8.641	
7,500.00	7,228.77	7,673.62	7,228.77	34.08	357.41	45.58	286.81	2,205.63	2,717.47	2,393.34	324.13	8.384	
7,600.00	7,328.77	7,773.62	7,328.77	34.16	358.28	45.58	286.81	2,205.63	2,717.47	2,392.32	325.15	8.358	
7,700.00	7,428.77	7,873.62	7,428.77	34.24	359.20	45.58	286.81	2,205.63	2,717.47	2,391.25	326.21	8.330	
7,800.00	7,528.77	7,973.62	7,528.77	34.33	360.15	45.58	286.81	2,205.63	2,717.47	2,390.13	327.33	8.302	
7,900.00	7,628.77	8,073.62	7,628.77	34.42	361.15	45.58	286.81	2,205.63	2,717.47	2,388.96	328.51	8.272	
8,000.00	7,728.77	8,173.62	7,728.77	34.51	362.18	45.58	286.81	2,205.63	2,717.47	2,387.74	329.73	8.242	
8,100.00	7,828.77	8,273.62	7,828.77	34.60	363.26	45.58	286.81	2,205.63	2,717.47	2,386.47	331.00	8.210	
8,200.00	7,928.77	8,373.62	7,928.77	34.69	364.38	45.58	286.81	2,205.63	2,717.47	2,385.14	332.33	8.177	
8,236.23	7,965.00	8,409.85	7,965.00	34.72	364.80	45.58	286.81	2,205.63	2,717.47	2,384.65	332.82	8.165	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 11-3 - P_KERR-MCGEE 11-3 - PLAN #1 1-15-10													Offset Site Error: 0.00 ft
Survey Program: 0-MWD													Offset Well Error: 0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-39.21	23.32	-19.03	30.10				
100.00	100.00	100.00	100.00	0.10	0.10	-39.21	23.32	-19.03	30.10	29.91	0.19	157.550	
200.00	200.00	200.00	200.00	0.32	0.32	-39.21	23.32	-19.03	30.10	29.46	0.64	46.989	
300.00	300.00	300.00	300.00	0.55	0.55	-39.21	23.32	-19.03	30.10	29.01	1.09	27.612	
400.00	400.00	400.00	400.00	0.77	0.77	-39.21	23.32	-19.03	30.10	28.56	1.54	19.550	
500.00	500.00	500.00	500.00	0.99	0.99	-39.21	23.32	-19.03	30.10	28.11	1.99	15.132	
600.00	600.00	600.00	600.00	1.22	1.22	-39.21	23.32	-19.03	30.10	27.66	2.44	12.343	
700.00	700.00	700.00	700.00	1.44	1.44	-39.21	23.32	-19.03	30.10	27.21	2.89	10.422	
800.00	800.00	800.00	800.00	1.67	1.67	-39.21	23.32	-19.03	30.10	26.76	3.34	9.018	
900.00	900.00	900.00	900.00	1.89	1.89	-39.21	23.32	-19.03	30.10	26.31	3.79	7.948	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-39.21	23.32	-19.03	30.10	25.86	4.24	7.104	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-39.21	23.32	-19.03	30.10	25.64	4.46	6.746 CC, ES	
1,100.00	1,100.00	1,100.19	1,100.19	2.33	2.34	151.28	23.45	-18.61	30.32	25.65	4.67	6.497	
1,200.00	1,199.93	1,200.36	1,200.30	2.50	2.55	160.02	24.47	-15.26	32.50	27.46	5.04	6.445 SF	
1,300.00	1,299.68	1,299.92	1,299.60	2.69	2.77	173.73	26.50	-8.61	38.68	33.25	5.43	7.125	
1,400.00	1,399.13	1,398.45	1,397.59	2.89	2.99	-173.15	29.50	1.21	50.65	44.82	5.83	8.691	
1,500.00	1,498.15	1,495.57	1,493.78	3.12	3.24	-163.36	33.42	14.05	68.87	62.63	6.25	11.028	
1,600.00	1,596.63	1,591.24	1,588.04	3.39	3.52	-156.70	38.19	29.67	92.98	86.29	6.69	13.903	
1,700.00	1,694.44	1,686.93	1,682.14	3.71	3.82	-152.94	43.26	46.27	121.34	114.18	7.16	16.952	
1,800.00	1,791.46	1,781.76	1,775.39	4.08	4.13	-151.11	48.28	62.73	152.88	145.23	7.65	19.988	
1,900.00	1,887.58	1,875.62	1,867.69	4.51	4.45	-150.32	53.25	79.01	187.35	179.19	8.16	22.960	
2,000.00	1,982.68	1,968.39	1,958.93	5.01	4.77	-150.10	58.16	95.11	224.65	215.96	8.69	25.853	
2,063.77	2,042.74	2,026.93	2,016.50	5.36	4.98	-150.13	61.27	105.27	249.90	240.87	9.04	27.656	
2,100.00	2,076.73	2,060.05	2,049.07	5.57	5.10	-150.33	63.02	111.01	264.57	255.31	9.26	28.567	
2,200.00	2,170.53	2,151.46	2,138.96	6.16	5.43	-150.78	67.86	126.87	305.07	295.18	9.89	30.831	
2,300.00	2,264.34	2,242.87	2,228.85	6.78	5.77	-151.12	72.70	142.73	345.59	335.04	10.54	32.776	
2,400.00	2,358.14	2,334.28	2,318.75	7.41	6.12	-151.39	77.55	158.59	386.11	374.91	11.21	34.458	
2,500.00	2,451.94	2,425.69	2,408.64	8.05	6.46	-151.60	82.39	174.45	426.64	414.76	11.88	35.922	
2,600.00	2,545.75	2,517.09	2,498.53	8.70	6.81	-151.78	87.23	190.31	467.17	454.61	12.56	37.205	
2,700.00	2,639.55	2,608.50	2,588.42	9.36	7.16	-151.94	92.07	206.17	507.70	494.46	13.24	38.335	
2,800.00	2,733.36	2,699.91	2,678.31	10.03	7.52	-152.06	96.91	222.03	548.24	534.31	13.94	39.337	
2,900.00	2,827.16	2,791.32	2,768.20	10.70	7.87	-152.18	101.75	237.89	588.78	574.15	14.64	40.230	
3,000.00	2,920.96	2,882.73	2,858.10	11.37	8.23	-152.27	106.60	253.75	629.32	613.99	15.34	41.029	
3,100.00	3,014.77	2,974.14	2,947.99	12.05	8.59	-152.36	111.44	269.61	669.87	653.82	16.04	41.749	
3,200.00	3,108.57	3,065.55	3,037.88	12.72	8.95	-152.43	116.28	285.47	710.41	693.65	16.75	42.400	
3,300.00	3,202.37	3,156.95	3,127.77	13.41	9.31	-152.50	121.12	301.33	750.95	733.49	17.47	42.991	
3,400.00	3,296.18	3,248.36	3,217.66	14.09	9.67	-152.56	125.96	317.19	791.50	773.32	18.18	43.530	
3,500.00	3,389.98	3,339.77	3,307.55	14.77	10.04	-152.62	130.80	333.05	832.05	813.15	18.90	44.022	
3,600.00	3,483.79	3,431.18	3,397.45	15.46	10.40	-152.67	135.65	348.91	872.59	852.97	19.62	44.474	
3,700.00	3,577.59	3,522.59	3,487.34	16.15	10.77	-152.71	140.49	364.77	913.14	892.80	20.34	44.890	
3,800.00	3,671.39	3,614.00	3,577.23	16.84	11.13	-152.75	145.33	380.63	953.69	932.62	21.06	45.275	
3,900.00	3,765.20	3,705.41	3,667.12	17.53	11.50	-152.79	150.17	396.50	994.23	972.45	21.79	45.630	
4,000.00	3,859.00	3,796.81	3,757.01	18.22	11.86	-152.83	155.01	412.36	1,034.78	1,012.27	22.51	45.960	
4,100.00	3,952.80	3,888.22	3,846.91	18.91	12.23	-152.86	159.85	428.22	1,075.33	1,052.09	23.24	46.268	
4,200.00	4,046.61	3,979.63	3,936.80	19.60	12.60	-152.89	164.70	444.08	1,115.88	1,091.91	23.97	46.554	
4,300.00	4,140.41	4,071.04	4,026.69	20.29	12.97	-152.92	169.54	459.94	1,156.43	1,131.73	24.70	46.822	
4,400.00	4,234.22	4,162.45	4,116.58	20.99	13.33	-152.94	174.38	475.80	1,196.98	1,171.55	25.43	47.073	
4,500.00	4,328.02	4,253.86	4,206.47	21.68	13.70	-152.97	179.22	491.66	1,237.53	1,211.37	26.16	47.308	
4,600.00	4,421.82	4,345.27	4,296.36	22.37	14.07	-152.99	184.06	507.52	1,278.08	1,251.19	26.89	47.530	
4,700.00	4,515.63	4,436.67	4,386.26	23.07	14.44	-153.01	188.90	523.38	1,318.63	1,291.01	27.62	47.738	
4,800.00	4,609.43	4,528.08	4,476.15	23.76	14.81	-153.03	193.75	539.24	1,359.18	1,330.82	28.35	47.935	
4,900.00	4,703.24	4,619.49	4,566.04	24.46	15.18	-153.05	198.59	555.10	1,399.73	1,370.64	29.09	48.120	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	
5,000.00	4,797.04	4,710.90	4,655.93	25.15	15.55	-153.07	203.43	570.96	1,440.28	1,410.46	29.82	48.296	
5,100.00	4,890.84	4,802.31	4,745.82	25.85	15.92	-153.08	208.27	586.82	1,480.83	1,450.27	30.56	48.462	
5,200.00	4,984.65	4,893.72	4,835.72	26.55	16.29	-153.10	213.11	602.68	1,521.38	1,490.09	31.29	48.620	
5,300.00	5,078.45	4,985.12	4,925.61	27.24	16.66	-153.11	217.95	618.54	1,561.93	1,529.90	32.03	48.770	
5,400.00	5,172.25	5,076.53	5,015.50	27.94	17.03	-153.13	222.80	634.40	1,602.48	1,569.72	32.76	48.913	
5,500.00	5,266.06	5,167.94	5,105.39	28.64	17.40	-153.14	227.64	650.26	1,643.03	1,609.53	33.50	49.049	
5,600.00	5,359.86	5,259.35	5,195.28	29.33	17.77	-153.16	232.48	666.12	1,683.58	1,649.35	34.23	49.179	
5,700.00	5,453.67	5,350.76	5,285.17	30.03	18.14	-153.17	237.32	681.98	1,724.13	1,689.16	34.97	49.302	
5,762.46	5,512.26	5,407.86	5,341.32	30.47	18.37	-153.18	240.34	691.88	1,749.46	1,714.03	35.43	49.377	
5,800.00	5,547.55	5,442.26	5,375.15	30.69	18.51	-153.32	242.17	697.85	1,764.48	1,728.73	35.75	49.354	
5,900.00	5,642.37	5,534.73	5,466.09	31.15	18.89	-153.65	247.06	713.90	1,802.52	1,765.97	36.55	49.312	
6,000.00	5,738.23	5,628.31	5,558.12	31.59	19.27	-153.90	252.02	730.14	1,837.65	1,800.32	37.33	49.227	
6,100.00	5,835.03	5,722.90	5,651.14	31.98	19.65	-154.06	257.03	746.55	1,869.83	1,831.76	38.08	49.105	
6,200.00	5,932.65	5,818.37	5,745.03	32.33	20.04	-154.15	262.09	763.11	1,899.04	1,860.25	38.79	48.952	
6,300.00	6,030.96	5,914.61	5,839.67	32.63	20.43	-154.17	267.19	779.81	1,925.26	1,885.78	39.47	48.773	
6,400.00	6,129.85	6,011.50	5,934.95	32.90	20.83	-154.12	272.32	796.62	1,948.46	1,908.34	40.12	48.571	
6,500.00	6,229.20	6,137.47	6,059.00	33.12	21.27	-153.94	278.71	817.56	1,968.30	1,927.53	40.77	48.279	
6,600.00	6,328.88	6,297.77	6,217.96	33.29	21.68	-153.72	284.70	837.18	1,982.48	1,941.14	41.34	47.951	
6,700.00	6,428.78	6,460.47	6,380.22	33.42	21.99	-153.61	288.11	848.37	1,990.45	1,948.68	41.77	47.653	
6,776.23	6,505.00	6,585.29	6,505.00	33.50	22.17	17.11	288.91	850.97	1,992.29	1,950.28	42.01	47.429	
6,800.00	6,528.77	6,609.06	6,528.77	33.52	22.20	17.11	288.91	850.97	1,992.29	1,950.22	42.07	47.356	
6,900.00	6,628.77	6,709.06	6,628.77	33.60	22.34	17.11	288.91	850.97	1,992.29	1,949.95	42.34	47.052	
7,000.00	6,728.77	6,809.06	6,728.77	33.67	22.48	17.11	288.91	850.97	1,992.29	1,949.67	42.62	46.748	
7,100.00	6,828.77	6,909.06	6,828.77	33.75	22.63	17.11	288.91	850.97	1,992.29	1,949.39	42.90	46.445	
7,200.00	6,928.77	7,009.06	6,928.77	33.83	22.77	17.11	288.91	850.97	1,992.29	1,949.11	43.18	46.143	
7,300.00	7,028.77	7,109.06	7,028.77	33.91	22.91	17.11	288.91	850.97	1,992.29	1,948.83	43.46	45.842	
7,400.00	7,128.77	7,209.06	7,128.77	33.99	23.06	17.11	288.91	850.97	1,992.29	1,948.54	43.75	45.542	
7,500.00	7,228.77	7,309.06	7,228.77	34.08	23.21	17.11	288.91	850.97	1,992.29	1,948.25	44.04	45.243	
7,600.00	7,328.77	7,409.06	7,328.77	34.16	23.36	17.11	288.91	850.97	1,992.29	1,947.96	44.33	44.945	
7,700.00	7,428.77	7,509.06	7,428.77	34.24	23.51	17.11	288.91	850.97	1,992.29	1,947.67	44.62	44.648	
7,800.00	7,528.77	7,609.06	7,528.77	34.33	23.66	17.11	288.91	850.97	1,992.29	1,947.37	44.92	44.353	
7,900.00	7,628.77	7,709.06	7,628.77	34.42	23.81	17.11	288.91	850.97	1,992.29	1,947.07	45.22	44.059	
8,000.00	7,728.77	7,809.06	7,728.77	34.51	23.96	17.11	288.91	850.97	1,992.29	1,946.77	45.52	43.767	
8,100.00	7,828.77	7,909.06	7,828.77	34.60	24.12	17.11	288.91	850.97	1,992.29	1,946.46	45.82	43.476	
8,200.00	7,928.77	8,009.06	7,928.77	34.69	24.27	17.11	288.91	850.97	1,992.29	1,946.16	46.13	43.187	
8,236.23	7,965.00	8,045.29	7,965.00	34.72	24.33	17.11	288.91	850.97	1,992.29	1,946.05	46.24	43.083	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	-39.00	47.00	-38.06	60.48				
100.00	100.00	100.00	100.00	0.10	0.10	-39.00	47.00	-38.06	60.48	60.29	0.19	316.545	
200.00	200.00	200.00	200.00	0.32	0.32	-39.00	47.00	-38.06	60.48	59.84	0.64	94.408	
300.00	300.00	300.00	300.00	0.55	0.55	-39.00	47.00	-38.06	60.48	59.39	1.09	55.477	
400.00	400.00	400.00	400.00	0.77	0.77	-39.00	47.00	-38.06	60.48	58.94	1.54	39.279	
500.00	500.00	500.00	500.00	0.99	0.99	-39.00	47.00	-38.06	60.48	58.49	1.99	30.403	
600.00	600.00	600.00	600.00	1.22	1.22	-39.00	47.00	-38.06	60.48	58.04	2.44	24.799	
700.00	700.00	700.00	700.00	1.44	1.44	-39.00	47.00	-38.06	60.48	57.59	2.89	20.939	
800.00	800.00	800.00	800.00	1.67	1.67	-39.00	47.00	-38.06	60.48	57.14	3.34	18.119	
900.00	900.00	900.00	900.00	1.89	1.89	-39.00	47.00	-38.06	60.48	56.69	3.79	15.968	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-39.00	47.00	-38.06	60.48	56.24	4.24	14.274	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-39.00	47.00	-38.06	60.48	56.01	4.46	13.555 CC, ES	
1,100.00	1,100.00	1,099.02	1,099.02	2.33	2.34	150.36	47.21	-38.42	61.25	56.59	4.67	13.129 SF	
1,200.00	1,199.93	1,196.79	1,196.73	2.50	2.55	150.69	48.85	-41.33	67.46	62.42	5.04	13.383	
1,300.00	1,299.68	1,293.71	1,293.42	2.69	2.76	151.19	52.11	-47.07	79.85	74.43	5.42	14.729	
1,400.00	1,399.13	1,391.36	1,390.64	2.89	2.99	151.87	56.60	-55.01	97.59	91.78	5.81	16.797	
1,500.00	1,498.15	1,489.10	1,487.94	3.12	3.23	153.04	61.17	-63.08	118.52	112.31	6.21	19.097	
1,600.00	1,596.63	1,586.10	1,584.50	3.39	3.47	154.41	65.71	-71.08	142.56	135.95	6.61	21.575	
1,700.00	1,694.44	1,682.23	1,680.20	3.71	3.71	155.81	70.20	-79.02	169.75	162.74	7.01	24.203	
1,800.00	1,791.46	1,777.38	1,774.92	4.08	3.95	157.14	74.65	-86.87	200.11	192.69	7.42	26.956	
1,900.00	1,887.58	1,871.43	1,868.55	4.51	4.20	158.38	79.04	-94.63	233.66	225.82	7.84	29.816	
2,000.00	1,982.68	1,964.27	1,960.96	5.01	4.45	159.50	83.38	-102.30	270.37	262.12	8.25	32.763	
2,063.77	2,042.74	2,022.78	2,019.21	5.36	4.60	160.16	86.12	-107.12	295.43	286.91	8.52	34.682	
2,100.00	2,076.73	2,055.86	2,052.15	5.57	4.69	160.60	87.67	-109.86	310.04	301.34	8.70	35.643	
2,200.00	2,170.53	2,147.18	2,143.05	6.16	4.93	161.64	91.94	-117.39	350.42	341.22	9.20	38.081	
2,300.00	2,264.34	2,238.50	2,233.96	6.78	5.18	162.46	96.20	-124.93	390.88	381.17	9.71	40.238	
2,400.00	2,358.14	2,329.82	2,324.87	7.41	5.43	163.13	100.47	-132.47	431.40	421.16	10.23	42.156	
2,500.00	2,451.94	2,421.14	2,415.78	8.05	5.68	163.68	104.74	-140.00	471.95	461.20	10.76	43.868	
2,600.00	2,545.75	2,512.46	2,506.69	8.70	5.93	164.15	109.01	-147.54	512.54	501.25	11.29	45.404	
2,700.00	2,639.55	2,603.78	2,597.59	9.36	6.18	164.54	113.28	-155.08	553.15	541.33	11.82	46.787	
2,800.00	2,733.36	2,695.10	2,688.50	10.03	6.43	164.89	117.55	-162.62	593.78	581.42	12.36	48.039	
2,900.00	2,827.16	2,786.42	2,779.41	10.70	6.68	165.19	121.82	-170.15	634.43	621.53	12.90	49.175	
3,000.00	2,920.96	2,877.74	2,870.32	11.37	6.93	165.45	126.09	-177.69	675.09	661.65	13.44	50.211	
3,100.00	3,014.77	2,969.06	2,961.22	12.05	7.19	165.68	130.36	-185.23	715.76	701.77	13.99	51.159	
3,200.00	3,108.57	3,060.38	3,052.13	12.72	7.44	165.89	134.63	-192.77	756.44	741.90	14.54	52.029	
3,300.00	3,202.37	3,151.70	3,143.04	13.41	7.70	166.08	138.89	-200.30	797.13	782.04	15.09	52.830	
3,400.00	3,296.18	3,243.02	3,233.95	14.09	7.95	166.25	143.16	-207.84	837.82	822.18	15.64	53.569	
3,500.00	3,389.98	3,334.34	3,324.86	14.77	8.21	166.40	147.43	-215.38	878.52	862.32	16.19	54.253	
3,600.00	3,483.79	3,425.66	3,415.76	15.46	8.46	166.54	151.70	-222.91	919.22	902.47	16.75	54.889	
3,700.00	3,577.59	3,516.98	3,506.67	16.15	8.72	166.67	155.97	-230.45	959.93	942.62	17.30	55.480	
3,800.00	3,671.39	3,608.30	3,597.58	16.84	8.97	166.78	160.24	-237.99	1,000.64	982.78	17.86	56.031	
3,900.00	3,765.20	3,699.62	3,688.49	17.53	9.23	166.89	164.51	-245.53	1,041.35	1,022.94	18.42	56.547	
4,000.00	3,859.00	3,790.94	3,779.39	18.22	9.49	166.99	168.78	-253.06	1,082.07	1,063.09	18.97	57.029	
4,100.00	3,952.80	3,882.26	3,870.30	18.91	9.74	167.09	173.05	-260.60	1,122.79	1,103.25	19.53	57.482	
4,200.00	4,046.61	3,973.58	3,961.21	19.60	10.00	167.17	177.32	-268.14	1,163.51	1,143.42	20.09	57.908	
4,300.00	4,140.41	4,064.89	4,052.12	20.29	10.26	167.25	181.59	-275.68	1,204.23	1,183.58	20.65	58.309	
4,400.00	4,234.22	4,156.21	4,143.03	20.99	10.52	167.33	185.85	-283.21	1,244.96	1,223.75	21.21	58.687	
4,500.00	4,328.02	4,247.53	4,233.93	21.68	10.77	167.40	190.12	-290.75	1,285.69	1,263.91	21.77	59.044	
4,600.00	4,421.82	4,338.85	4,324.84	22.37	11.03	167.47	194.39	-298.29	1,326.42	1,304.08	22.34	59.383	
4,700.00	4,515.63	4,430.17	4,415.75	23.07	11.29	167.53	198.66	-305.82	1,367.15	1,344.25	22.90	59.703	
4,800.00	4,609.43	4,521.49	4,506.66	23.76	11.55	167.59	202.93	-313.36	1,407.88	1,384.42	23.46	60.007	
4,900.00	4,703.24	4,612.81	4,597.57	24.46	11.81	167.64	207.20	-320.90	1,448.61	1,424.58	24.03	60.296	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	
5,000.00	4,797.04	4,704.13	4,688.47	25.15	12.06	167.69	211.47	-328.44	1,489.34	1,464.75	24.59	60.570	
5,100.00	4,890.84	4,795.45	4,779.38	25.85	12.32	167.74	215.74	-335.97	1,530.08	1,504.93	25.15	60.832	
5,200.00	4,984.65	4,886.77	4,870.29	26.55	12.58	167.79	220.01	-343.51	1,570.81	1,545.10	25.72	61.081	
5,300.00	5,078.45	4,978.09	4,961.20	27.24	12.84	167.83	224.28	-351.05	1,611.55	1,585.27	26.28	61.319	
5,400.00	5,172.25	5,069.41	5,052.10	27.94	13.10	167.88	228.54	-358.58	1,652.29	1,625.44	26.85	61.546	
5,500.00	5,266.06	5,160.73	5,143.01	28.64	13.36	167.92	232.81	-366.12	1,693.03	1,665.61	27.41	61.763	
5,600.00	5,359.86	5,252.05	5,233.92	29.33	13.62	167.96	237.08	-373.66	1,733.76	1,705.79	27.98	61.971	
5,700.00	5,453.67	5,343.37	5,324.83	30.03	13.87	167.99	241.35	-381.20	1,774.50	1,745.96	28.54	62.171	
5,762.46	5,512.26	5,400.41	5,381.61	30.47	14.04	168.01	244.02	-385.90	1,799.95	1,771.05	28.90	62.291	
5,800.00	5,547.55	5,434.79	5,415.83	30.69	14.13	168.09	245.63	-388.74	1,815.02	1,785.86	29.16	62.236	
5,900.00	5,642.37	5,527.28	5,507.91	31.15	14.40	168.27	249.95	-396.38	1,853.01	1,823.18	29.83	62.113	
6,000.00	5,738.23	5,621.02	5,601.23	31.59	14.66	168.41	254.33	-404.11	1,887.82	1,857.35	30.47	61.959	
6,100.00	5,835.03	5,715.89	5,695.67	31.98	14.93	168.51	258.77	-411.94	1,919.40	1,888.33	31.07	61.781	
6,200.00	5,932.65	5,811.78	5,791.13	32.33	15.20	168.58	263.25	-419.86	1,947.72	1,916.09	31.63	61.581	
6,300.00	6,030.96	5,908.56	5,887.47	32.63	15.48	168.61	267.77	-427.85	1,972.75	1,940.60	32.15	61.365	
6,400.00	6,129.85	6,006.12	5,984.60	32.90	15.76	168.60	272.33	-435.90	1,994.45	1,961.82	32.62	61.133	
6,500.00	6,229.20	6,104.35	6,082.38	33.12	16.03	168.57	276.93	-444.01	2,012.80	1,979.75	33.06	60.888	
6,600.00	6,328.88	6,203.11	6,180.70	33.29	16.32	168.50	281.54	-452.16	2,027.79	1,994.35	33.44	60.631	
6,700.00	6,428.78	6,340.50	6,317.53	33.42	16.66	168.36	287.55	-462.77	2,039.11	2,005.27	33.85	60.246	
6,776.23	6,505.00	6,509.74	6,486.61	33.50	16.96	-21.05	290.99	-468.83	2,042.53	2,008.36	34.18	59.765	
6,800.00	6,528.77	6,551.90	6,528.77	33.52	17.03	-21.05	291.08	-469.00	2,042.60	2,008.32	34.28	59.584	
6,900.00	6,628.77	6,651.90	6,628.77	33.60	17.20	-21.05	291.08	-469.00	2,042.60	2,007.99	34.61	59.020	
7,000.00	6,728.77	6,751.90	6,728.77	33.67	17.39	-21.05	291.08	-469.00	2,042.60	2,007.65	34.95	58.449	
7,100.00	6,828.77	6,851.90	6,828.77	33.75	17.57	-21.05	291.08	-469.00	2,042.60	2,007.31	35.29	57.885	
7,200.00	6,928.77	6,951.90	6,928.77	33.83	17.76	-21.05	291.08	-469.00	2,042.60	2,006.97	35.63	57.328	
7,300.00	7,028.77	7,051.90	7,028.77	33.91	17.95	-21.05	291.08	-469.00	2,042.60	2,006.62	35.98	56.778	
7,400.00	7,128.77	7,151.90	7,128.77	33.99	18.13	-21.05	291.08	-469.00	2,042.60	2,006.28	36.32	56.235	
7,500.00	7,228.77	7,251.90	7,228.77	34.08	18.32	-21.05	291.08	-469.00	2,042.60	2,005.93	36.67	55.700	
7,600.00	7,328.77	7,351.90	7,328.77	34.16	18.51	-21.05	291.08	-469.00	2,042.60	2,005.58	37.02	55.171	
7,700.00	7,428.77	7,451.90	7,428.77	34.24	18.70	-21.05	291.08	-469.00	2,042.60	2,005.22	37.38	54.649	
7,800.00	7,528.77	7,551.90	7,528.77	34.33	18.89	-21.05	291.08	-469.00	2,042.60	2,004.87	37.73	54.135	
7,900.00	7,628.77	7,651.90	7,628.77	34.42	19.09	-21.05	291.08	-469.00	2,042.60	2,004.51	38.09	53.627	
8,000.00	7,728.77	7,751.90	7,728.77	34.51	19.28	-21.05	291.08	-469.00	2,042.60	2,004.15	38.45	53.127	
8,100.00	7,828.77	7,851.90	7,828.77	34.60	19.47	-21.05	291.08	-469.00	2,042.60	2,003.79	38.81	52.633	
8,200.00	7,928.77	7,951.90	7,928.77	34.69	19.67	-21.05	291.08	-469.00	2,042.60	2,003.43	39.17	52.146	
8,236.23	7,965.00	7,988.13	7,965.00	34.72	19.74	-21.05	291.08	-469.00	2,042.60	2,003.30	39.30	51.971	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 13-3 - P_KERR-MCGEE 13-3 - PLAN #1 1-15-10													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	-39.45	15.30	-12.59	19.82					
100.00	100.00	100.00	100.00	0.10	0.10	-39.45	15.30	-12.59	19.82	19.63	0.19	103.735		
200.00	200.00	200.00	200.00	0.32	0.32	-39.45	15.30	-12.59	19.82	19.18	0.64	30.939		
300.00	300.00	300.00	300.00	0.55	0.55	-39.45	15.30	-12.59	19.82	18.73	1.09	18.180		
400.00	400.00	400.00	400.00	0.77	0.77	-39.45	15.30	-12.59	19.82	18.28	1.54	12.872		
500.00	500.00	500.00	500.00	0.99	0.99	-39.45	15.30	-12.59	19.82	17.83	1.99	9.963		
600.00	600.00	600.00	600.00	1.22	1.22	-39.45	15.30	-12.59	19.82	17.38	2.44	8.127		
700.00	700.00	700.00	700.00	1.44	1.44	-39.45	15.30	-12.59	19.82	16.93	2.89	6.862		
800.00	800.00	800.00	800.00	1.67	1.67	-39.45	15.30	-12.59	19.82	16.48	3.34	5.938		
900.00	900.00	900.00	900.00	1.89	1.89	-39.45	15.30	-12.59	19.82	16.03	3.79	5.233		
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-39.45	15.30	-12.59	19.82	15.58	4.24	4.678		
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-39.45	15.30	-12.59	19.82	15.36	4.46	4.442 CC		
1,100.00	1,100.00	1,100.15	1,100.15	2.33	2.33	149.35	14.91	-12.78	20.01	15.35	4.66	4.296 ES, SF		
1,200.00	1,199.93	1,200.41	1,200.34	2.50	2.51	145.62	11.73	-14.27	21.58	16.58	5.00	4.315		
1,300.00	1,299.68	1,300.58	1,300.26	2.69	2.69	139.63	5.39	-17.24	24.94	19.58	5.36	4.649		
1,400.00	1,399.13	1,400.58	1,399.71	2.89	2.90	133.22	-4.10	-21.69	30.34	24.58	5.76	5.266		
1,500.00	1,498.15	1,500.37	1,498.51	3.12	3.13	127.59	-16.68	-27.59	37.90	31.69	6.21	6.103		
1,600.00	1,596.63	1,599.87	1,596.50	3.39	3.40	123.09	-32.33	-34.92	47.65	40.92	6.73	7.078		
1,700.00	1,694.44	1,699.03	1,693.49	3.71	3.72	119.62	-50.98	-43.66	59.55	52.21	7.34	8.109		
1,800.00	1,791.46	1,798.05	1,789.99	4.08	4.07	118.32	-71.10	-53.09	73.37	65.33	8.04	9.128		
1,900.00	1,887.58	1,896.83	1,886.24	4.51	4.45	119.33	-91.17	-62.50	88.86	80.07	8.79	10.111		
2,000.00	1,982.68	1,995.22	1,982.13	5.01	4.84	121.59	-111.16	-71.87	106.15	96.57	9.58	11.080		
2,063.77	2,042.74	2,057.71	2,043.03	5.36	5.10	123.37	-123.86	-77.82	118.24	108.14	10.10	11.706		
2,100.00	2,076.73	2,093.16	2,077.57	5.57	5.25	124.48	-131.06	-81.19	125.39	114.98	10.41	12.050		
2,200.00	2,170.53	2,190.98	2,172.90	6.16	5.66	126.98	-150.94	-90.51	145.31	134.04	11.26	12.903		
2,300.00	2,264.34	2,288.81	2,268.23	6.78	6.09	128.87	-170.81	-99.82	165.42	153.29	12.13	13.634		
2,400.00	2,358.14	2,386.64	2,363.57	7.41	6.52	130.36	-190.69	-109.14	185.68	172.66	13.02	14.265		
2,500.00	2,451.94	2,484.46	2,458.90	8.05	6.96	131.55	-210.57	-118.46	206.03	192.12	13.91	14.812		
2,600.00	2,545.75	2,582.29	2,554.23	8.70	7.40	132.53	-230.44	-127.77	226.45	211.64	14.81	15.290		
2,700.00	2,639.55	2,680.12	2,649.56	9.36	7.84	133.34	-250.32	-137.09	246.92	231.21	15.72	15.710		
2,800.00	2,733.36	2,777.94	2,744.89	10.03	8.29	134.03	-270.19	-146.40	267.44	250.81	16.63	16.082		
2,900.00	2,827.16	2,875.77	2,840.22	10.70	8.74	134.62	-290.07	-155.72	287.98	270.44	17.55	16.412		
3,000.00	2,920.96	2,973.59	2,935.55	11.37	9.20	135.14	-309.95	-165.03	308.56	290.09	18.47	16.708		
3,100.00	3,014.77	3,071.42	3,030.89	12.05	9.66	135.59	-329.82	-174.35	329.15	309.76	19.39	16.974		
3,200.00	3,108.57	3,169.25	3,126.22	12.72	10.11	135.98	-349.70	-183.67	349.76	329.44	20.32	17.215		
3,300.00	3,202.37	3,267.07	3,221.55	13.41	10.57	136.34	-369.57	-192.98	370.38	349.14	21.25	17.434		
3,400.00	3,296.18	3,364.90	3,316.88	14.09	11.03	136.65	-389.45	-202.30	391.02	368.84	22.18	17.633		
3,500.00	3,389.98	3,462.72	3,412.21	14.77	11.50	136.94	-409.33	-211.61	411.67	388.56	23.11	17.816		
3,600.00	3,483.79	3,560.55	3,507.54	15.46	11.96	137.19	-429.20	-220.93	432.32	408.28	24.04	17.983		
3,700.00	3,577.59	3,658.38	3,602.88	16.15	12.42	137.43	-449.08	-230.24	452.98	428.01	24.97	18.138		
3,800.00	3,671.39	3,756.20	3,698.21	16.84	12.89	137.64	-468.95	-239.56	473.65	447.74	25.91	18.281		
3,900.00	3,765.20	3,854.03	3,793.54	17.53	13.35	137.83	-488.83	-248.88	494.33	467.48	26.84	18.414		
4,000.00	3,859.00	3,951.85	3,888.87	18.22	13.82	138.01	-508.71	-258.19	515.01	487.23	27.78	18.538		
4,100.00	3,952.80	4,049.68	3,984.20	18.91	14.29	138.18	-528.58	-267.51	535.69	506.97	28.72	18.653		
4,200.00	4,046.61	4,147.51	4,079.53	19.60	14.75	138.33	-548.46	-276.82	556.38	526.73	29.66	18.761		
4,300.00	4,140.41	4,245.33	4,174.86	20.29	15.22	138.47	-568.34	-286.14	577.07	546.48	30.59	18.863		
4,400.00	4,234.22	4,343.16	4,270.20	20.99	15.69	138.61	-588.21	-295.45	597.77	566.24	31.53	18.958		
4,500.00	4,328.02	4,440.99	4,365.53	21.68	16.16	138.73	-608.09	-304.77	618.47	586.00	32.47	19.048		
4,600.00	4,421.82	4,538.81	4,460.86	22.37	16.63	138.84	-627.96	-314.09	639.17	605.76	33.41	19.132		
4,700.00	4,515.63	4,636.64	4,556.19	23.07	17.10	138.95	-647.84	-323.40	659.87	625.52	34.35	19.212		
4,800.00	4,609.43	4,734.46	4,651.52	23.76	17.56	139.05	-667.72	-332.72	680.57	645.29	35.28	19.288		
4,900.00	4,703.24	4,832.29	4,746.85	24.46	18.03	139.15	-687.59	-342.03	701.28	665.06	36.22	19.360		

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 13-3 - P_KERR-MCGEE 13-3 - PLAN #1 1-15-10												Offset Well Error:	0.00 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,797.04	4,930.12	4,842.19	25.15	18.50	139.24	-707.47	-351.35	721.99	684.83	37.16	19.429	
5,100.00	4,890.84	5,027.94	4,937.52	25.85	18.98	139.33	-727.34	-360.66	742.70	704.60	38.10	19.494	
5,200.00	4,984.65	5,125.77	5,032.85	26.55	19.45	139.41	-747.22	-369.98	763.41	724.37	39.04	19.556	
5,300.00	5,078.45	5,223.59	5,128.18	27.24	19.92	139.48	-767.10	-379.30	784.13	744.15	39.98	19.615	
5,400.00	5,172.25	5,321.42	5,223.51	27.94	20.39	139.56	-786.97	-388.61	804.84	763.93	40.91	19.672	
5,500.00	5,266.06	5,419.25	5,318.84	28.64	20.86	139.62	-806.85	-397.93	825.56	783.70	41.85	19.726	
5,600.00	5,359.86	5,517.07	5,414.17	29.33	21.33	139.69	-826.72	-407.24	846.27	803.48	42.79	19.778	
5,700.00	5,453.67	5,614.90	5,509.51	30.03	21.80	139.75	-846.60	-416.56	866.99	823.26	43.73	19.828	
5,762.46	5,512.26	5,676.00	5,569.05	30.47	22.10	139.79	-859.02	-422.38	879.93	835.62	44.31	19.858	
5,800.00	5,547.55	5,712.76	5,604.88	30.69	22.27	139.90	-866.48	-425.88	887.52	842.87	44.65	19.875	
5,900.00	5,642.37	5,811.04	5,700.65	31.15	22.75	140.07	-886.45	-435.24	905.95	860.43	45.52	19.900	
6,000.00	5,738.23	5,909.73	5,796.82	31.59	23.22	140.07	-906.50	-444.63	921.75	875.33	46.41	19.859	
6,100.00	5,835.03	6,007.16	5,891.77	31.98	23.68	139.91	-926.25	-453.89	934.93	887.64	47.29	19.769	
6,200.00	5,932.65	6,100.00	5,982.68	32.33	23.97	139.73	-943.30	-461.88	946.08	898.10	47.98	19.717	
6,300.00	6,030.96	6,189.44	6,070.80	32.63	24.23	139.60	-957.19	-468.39	955.47	906.90	48.57	19.671	
6,400.00	6,129.85	6,280.95	6,161.40	32.90	24.46	139.48	-968.81	-473.84	963.08	914.00	49.08	19.623	
6,500.00	6,229.20	6,372.65	6,252.55	33.12	24.66	139.39	-977.83	-478.06	968.90	919.40	49.50	19.575	
6,600.00	6,328.88	6,464.48	6,344.11	33.29	24.83	139.32	-984.20	-481.05	972.90	923.08	49.82	19.527	
6,700.00	6,428.78	6,556.41	6,435.94	33.42	24.97	139.27	-987.92	-482.80	975.10	925.04	50.06	19.478	
6,776.23	6,505.00	6,626.52	6,506.04	33.50	25.06	-50.07	-988.97	-483.28	975.54	925.35	50.20	19.435	
6,793.72	6,522.49	6,642.97	6,522.49	33.52	25.08	-50.07	-988.99	-483.29	975.54	925.30	50.24	19.419	
6,800.00	6,528.77	6,649.25	6,528.77	33.52	25.08	-50.07	-988.99	-483.29	975.54	925.29	50.25	19.414	
6,900.00	6,628.77	6,749.25	6,628.77	33.60	25.19	-50.07	-988.99	-483.29	975.54	925.08	50.46	19.333	
7,000.00	6,728.77	6,849.25	6,728.77	33.67	25.30	-50.07	-988.99	-483.29	975.54	924.87	50.67	19.255	
7,100.00	6,828.77	6,949.25	6,828.77	33.75	25.40	-50.07	-988.99	-483.29	975.54	924.66	50.87	19.175	
7,200.00	6,928.77	7,049.25	6,928.77	33.83	25.51	-50.07	-988.99	-483.29	975.54	924.45	51.09	19.095	
7,300.00	7,028.77	7,149.25	7,028.77	33.91	25.62	-50.07	-988.99	-483.29	975.54	924.23	51.30	19.015	
7,400.00	7,128.77	7,249.25	7,128.77	33.99	25.73	-50.07	-988.99	-483.29	975.54	924.02	51.52	18.934	
7,500.00	7,228.77	7,349.25	7,228.77	34.08	25.84	-50.07	-988.99	-483.29	975.54	923.79	51.74	18.853	
7,600.00	7,328.77	7,449.25	7,328.77	34.16	25.95	-50.07	-988.99	-483.29	975.54	923.57	51.97	18.772	
7,700.00	7,428.77	7,549.25	7,428.77	34.24	26.06	-50.07	-988.99	-483.29	975.54	923.34	52.20	18.690	
7,800.00	7,528.77	7,649.25	7,528.77	34.33	26.18	-50.07	-988.99	-483.29	975.54	923.11	52.43	18.608	
7,900.00	7,628.77	7,749.25	7,628.77	34.42	26.30	-50.07	-988.99	-483.29	975.54	922.88	52.66	18.525	
8,000.00	7,728.77	7,849.25	7,728.77	34.51	26.41	-50.07	-988.99	-483.29	975.54	922.64	52.90	18.443	
8,100.00	7,828.77	7,949.25	7,828.77	34.60	26.53	-50.07	-988.99	-483.29	975.54	922.40	53.13	18.360	
8,200.00	7,928.77	8,049.25	7,928.77	34.69	26.65	-50.07	-988.99	-483.29	975.54	922.16	53.38	18.277	
8,236.23	7,965.00	8,085.48	7,965.00	34.72	26.70	-50.07	-988.99	-483.29	975.54	922.07	53.46	18.247	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	141.18	-23.30	18.75	29.91				
100.00	100.00	100.00	100.00	0.10	0.10	141.18	-23.30	18.75	29.91	29.72	0.19	156.543	
200.00	200.00	200.00	200.00	0.32	0.32	141.18	-23.30	18.75	29.91	29.27	0.64	46.688	
300.00	300.00	300.00	300.00	0.55	0.55	141.18	-23.30	18.75	29.91	28.82	1.09	27.435	
400.00	400.00	400.00	400.00	0.77	0.77	141.18	-23.30	18.75	29.91	28.37	1.54	19.425	
500.00	500.00	500.00	500.00	0.99	0.99	141.18	-23.30	18.75	29.91	27.92	1.99	15.035	
600.00	600.00	600.00	600.00	1.22	1.22	141.18	-23.30	18.75	29.91	27.47	2.44	12.264	
700.00	700.00	700.00	700.00	1.44	1.44	141.18	-23.30	18.75	29.91	27.02	2.89	10.355	
800.00	800.00	800.00	800.00	1.67	1.67	141.18	-23.30	18.75	29.91	26.57	3.34	8.960	
900.00	900.00	900.00	900.00	1.89	1.89	141.18	-23.30	18.75	29.91	26.12	3.79	7.897	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	141.18	-23.30	18.75	29.91	25.67	4.24	7.059	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	141.18	-23.30	18.75	29.91	25.45	4.46	6.703 CC	
1,100.00	1,100.00	1,099.48	1,099.48	2.33	2.33	-29.93	-23.63	19.02	29.96	25.30	4.66	6.433 ES	
1,200.00	1,199.93	1,198.42	1,198.36	2.50	2.51	-33.19	-26.27	21.19	30.44	25.44	5.00	6.085	
1,300.00	1,299.68	1,297.29	1,296.99	2.69	2.70	-39.35	-31.54	25.52	31.68	26.32	5.36	5.909 SF	
1,400.00	1,399.13	1,396.05	1,395.21	2.89	2.91	-47.57	-39.43	32.00	34.17	28.42	5.74	5.949	
1,500.00	1,498.15	1,494.64	1,492.86	3.12	3.14	-56.58	-49.91	40.61	38.40	32.23	6.17	6.223	
1,600.00	1,596.63	1,593.03	1,589.78	3.39	3.41	-65.13	-62.94	51.33	44.73	38.06	6.67	6.705	
1,700.00	1,694.44	1,691.16	1,685.82	3.71	3.73	-72.46	-78.50	64.11	53.29	46.02	7.27	7.330	
1,800.00	1,791.46	1,789.01	1,780.84	4.08	4.10	-78.38	-96.53	78.94	64.03	56.05	7.99	8.019	
1,900.00	1,887.58	1,887.41	1,875.69	4.51	4.52	-83.39	-116.76	95.56	76.54	67.72	8.82	8.674	
2,000.00	1,982.68	1,986.19	1,970.84	5.01	4.98	-88.98	-137.29	112.43	89.56	79.77	9.79	9.150	
2,063.77	2,042.74	2,049.02	2,031.35	5.36	5.28	-92.77	-150.35	123.16	98.32	87.87	10.45	9.406	
2,100.00	2,076.73	2,084.68	2,065.69	5.57	5.45	-94.94	-157.75	129.25	103.51	92.67	10.84	9.549	
2,200.00	2,170.53	2,183.09	2,160.48	6.16	5.94	-99.93	-178.20	146.06	118.46	106.55	11.92	9.940	
2,300.00	2,264.34	2,281.50	2,255.26	6.78	6.44	-103.79	-198.65	162.86	134.11	121.11	13.00	10.315	
2,400.00	2,358.14	2,379.91	2,350.04	7.41	6.95	-106.83	-219.10	179.67	150.22	136.13	14.09	10.663	
2,500.00	2,451.94	2,478.32	2,444.83	8.05	7.47	-109.28	-239.55	196.48	166.67	151.49	15.18	10.982	
2,600.00	2,545.75	2,576.73	2,539.61	8.70	8.00	-111.30	-260.00	213.28	183.37	167.10	16.27	11.271	
2,700.00	2,639.55	2,675.14	2,634.39	9.36	8.53	-112.97	-280.45	230.09	200.24	182.88	17.36	11.534	
2,800.00	2,733.36	2,773.55	2,729.18	10.03	9.06	-114.38	-300.90	246.90	217.26	198.80	18.46	11.772	
2,900.00	2,827.16	2,871.96	2,823.96	10.70	9.60	-115.59	-321.35	263.70	234.39	214.84	19.55	11.988	
3,000.00	2,920.96	2,970.37	2,918.74	11.37	10.14	-116.64	-341.80	280.51	251.60	230.95	20.65	12.184	
3,100.00	3,014.77	3,068.78	3,013.53	12.05	10.69	-117.55	-362.25	297.32	268.89	247.14	21.75	12.364	
3,200.00	3,108.57	3,167.19	3,108.31	12.72	11.23	-118.35	-382.70	314.12	286.24	263.39	22.85	12.528	
3,300.00	3,202.37	3,265.60	3,203.10	13.41	11.78	-119.06	-403.15	330.93	303.63	279.68	23.95	12.679	
3,400.00	3,296.18	3,364.01	3,297.88	14.09	12.33	-119.69	-423.60	347.74	321.06	296.01	25.05	12.817	
3,500.00	3,389.98	3,462.42	3,392.66	14.77	12.88	-120.25	-444.05	364.54	338.53	312.38	26.15	12.945	
3,600.00	3,483.79	3,560.83	3,487.45	15.46	13.43	-120.77	-464.50	381.35	356.02	328.77	27.25	13.064	
3,700.00	3,577.59	3,659.24	3,582.23	16.15	13.98	-121.23	-484.95	398.16	373.54	345.19	28.36	13.174	
3,800.00	3,671.39	3,757.65	3,677.01	16.84	14.53	-121.65	-505.40	414.96	391.09	361.63	29.46	13.276	
3,900.00	3,765.20	3,856.07	3,771.80	17.53	15.09	-122.04	-525.85	431.77	408.65	378.09	30.56	13.371	
4,000.00	3,859.00	3,954.48	3,866.58	18.22	15.64	-122.39	-546.30	448.58	426.23	394.56	31.66	13.461	
4,100.00	3,952.80	4,052.89	3,961.36	18.91	16.20	-122.72	-566.75	465.38	443.82	411.05	32.77	13.544	
4,200.00	4,046.61	4,151.30	4,056.15	19.60	16.75	-123.02	-587.20	482.19	461.42	427.55	33.87	13.622	
4,300.00	4,140.41	4,249.71	4,150.93	20.29	17.31	-123.30	-607.65	499.00	479.04	444.06	34.98	13.694	
4,400.00	4,234.22	4,348.12	4,245.71	20.99	17.87	-123.55	-628.10	515.80	496.67	460.57	36.09	13.761	
4,500.00	4,328.02	4,446.53	4,340.50	21.68	18.42	-123.80	-648.55	532.61	514.30	477.10	37.20	13.824	
4,600.00	4,421.82	4,544.94	4,435.28	22.37	18.98	-124.02	-669.00	549.42	531.95	493.63	38.31	13.884	
4,700.00	4,515.63	4,643.35	4,530.06	23.07	19.54	-124.23	-689.45	566.22	549.60	510.17	39.43	13.940	
4,800.00	4,609.43	4,741.76	4,624.85	23.76	20.10	-124.43	-709.90	583.03	567.26	526.72	40.54	13.993	
4,900.00	4,703.24	4,840.17	4,719.63	24.46	20.66	-124.62	-730.35	599.84	584.92	543.27	41.65	14.044	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 14-3 - P_KERR-MCGEE 14-3 - PLAN #1 1-15-10												Offset Well Error:	0.00 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,000.00	4,797.04	4,938.58	4,814.42	25.15	21.22	-124.79	-750.80	616.65	602.59	559.83	42.76	14.092	
5,100.00	4,890.84	5,036.99	4,909.20	25.85	21.78	-124.96	-771.25	633.45	620.27	576.39	43.88	14.137	
5,200.00	4,984.65	5,135.40	5,003.98	26.55	22.34	-125.11	-791.70	650.26	637.95	592.96	44.99	14.180	
5,300.00	5,078.45	5,233.81	5,098.77	27.24	22.90	-125.26	-812.15	667.07	655.63	609.53	46.10	14.221	
5,400.00	5,172.25	5,332.22	5,193.55	27.94	23.46	-125.40	-832.60	683.87	673.32	626.10	47.22	14.261	
5,500.00	5,266.06	5,430.63	5,288.33	28.64	24.02	-125.53	-853.05	700.68	691.01	642.68	48.33	14.298	
5,600.00	5,359.86	5,529.04	5,383.12	29.33	24.58	-125.66	-873.50	717.49	708.70	659.26	49.44	14.334	
5,700.00	5,453.67	5,627.45	5,477.90	30.03	25.14	-125.78	-893.95	734.29	726.40	675.85	50.56	14.368	
5,762.46	5,512.26	5,688.92	5,537.10	30.47	25.49	-125.85	-906.73	744.79	737.46	686.21	51.25	14.389	
5,800.00	5,547.55	5,725.89	5,572.71	30.69	25.70	-125.98	-914.41	751.10	743.96	692.31	51.65	14.403	
5,900.00	5,642.37	5,824.60	5,667.78	31.15	26.26	-126.16	-934.92	767.96	759.89	707.23	52.66	14.430	
6,000.00	5,738.23	5,922.62	5,762.23	31.59	26.78	-126.12	-955.18	784.61	773.82	720.18	53.64	14.426	
6,100.00	5,835.03	6,018.73	5,855.45	31.98	27.15	-126.03	-973.23	799.44	786.02	731.57	54.45	14.436	
6,200.00	5,932.65	6,115.12	5,949.68	32.33	27.49	-125.97	-988.89	812.31	796.58	741.41	55.17	14.438	
6,300.00	6,030.96	6,211.75	6,044.78	32.63	27.79	-125.91	-1,002.12	823.19	805.49	749.68	55.80	14.435	
6,400.00	6,129.85	6,308.58	6,140.59	32.90	28.04	-125.87	-1,012.89	832.04	812.72	756.38	56.34	14.425	
6,500.00	6,229.20	6,405.57	6,236.99	33.12	28.26	-125.84	-1,021.16	838.84	818.26	761.48	56.78	14.410	
6,600.00	6,328.88	6,502.68	6,333.81	33.29	28.44	-125.82	-1,026.91	843.56	822.12	764.98	57.13	14.389	
6,700.00	6,428.78	6,600.00	6,431.03	33.42	28.57	-125.80	-1,030.13	846.21	824.27	766.88	57.39	14.363	
6,776.23	6,505.00	6,673.97	6,505.00	33.50	28.66	44.89	-1,030.87	846.82	824.76	767.23	57.53	14.336	
6,800.00	6,528.77	6,697.74	6,528.77	33.52	28.68	44.89	-1,030.87	846.82	824.76	767.18	57.58	14.324	
6,900.00	6,628.77	6,797.74	6,628.77	33.60	28.77	44.89	-1,030.87	846.82	824.76	767.00	57.76	14.278	
7,000.00	6,728.77	6,897.74	6,728.77	33.67	28.87	44.89	-1,030.87	846.82	824.76	766.81	57.95	14.232	
7,100.00	6,828.77	6,997.74	6,828.77	33.75	28.97	44.89	-1,030.87	846.82	824.76	766.62	58.14	14.185	
7,200.00	6,928.77	7,097.74	6,928.77	33.83	29.07	44.89	-1,030.87	846.82	824.76	766.43	58.34	14.138	
7,300.00	7,028.77	7,197.74	7,028.77	33.91	29.17	44.89	-1,030.87	846.82	824.76	766.23	58.53	14.091	
7,400.00	7,128.77	7,297.74	7,128.77	33.99	29.27	44.89	-1,030.87	846.82	824.76	766.03	58.73	14.043	
7,500.00	7,228.77	7,397.74	7,228.77	34.08	29.37	44.89	-1,030.87	846.82	824.76	765.83	58.93	13.995	
7,600.00	7,328.77	7,497.74	7,328.77	34.16	29.48	44.89	-1,030.87	846.82	824.76	765.63	59.14	13.947	
7,700.00	7,428.77	7,597.74	7,428.77	34.24	29.58	44.89	-1,030.87	846.82	824.76	765.42	59.34	13.898	
7,800.00	7,528.77	7,697.74	7,528.77	34.33	29.69	44.89	-1,030.87	846.82	824.76	765.21	59.55	13.849	
7,900.00	7,628.77	7,797.74	7,628.77	34.42	29.80	44.89	-1,030.87	846.82	824.76	765.00	59.77	13.800	
8,000.00	7,728.77	7,897.74	7,728.77	34.51	29.91	44.89	-1,030.87	846.82	824.76	764.78	59.98	13.750	
8,100.00	7,828.77	7,997.74	7,828.77	34.60	30.02	44.89	-1,030.87	846.82	824.76	764.56	60.20	13.701	
8,200.00	7,928.77	8,097.74	7,928.77	34.69	30.13	44.89	-1,030.87	846.82	824.76	764.34	60.42	13.651	
8,236.23	7,965.00	8,133.97	7,965.00	34.72	30.17	44.89	-1,030.87	846.82	824.76	764.26	60.50	13.633	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	141.50	-31.31	24.91	40.00				
100.00	100.00	100.00	100.00	0.10	0.10	141.50	-31.31	24.91	40.00	39.81	0.19	209.394	
200.00	200.00	200.00	200.00	0.32	0.32	141.50	-31.31	24.91	40.00	39.36	0.64	62.451	
300.00	300.00	300.00	300.00	0.55	0.55	141.50	-31.31	24.91	40.00	38.91	1.09	36.698	
400.00	400.00	400.00	400.00	0.77	0.77	141.50	-31.31	24.91	40.00	38.47	1.54	25.983	
500.00	500.00	500.00	500.00	0.99	0.99	141.50	-31.31	24.91	40.00	38.02	1.99	20.111	
600.00	600.00	600.00	600.00	1.22	1.22	141.50	-31.31	24.91	40.00	37.57	2.44	16.404	
700.00	700.00	700.00	700.00	1.44	1.44	141.50	-31.31	24.91	40.00	37.12	2.89	13.851	
800.00	800.00	800.00	800.00	1.67	1.67	141.50	-31.31	24.91	40.00	36.67	3.34	11.986	
900.00	900.00	900.00	900.00	1.89	1.89	141.50	-31.31	24.91	40.00	36.22	3.79	10.563	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	141.50	-31.31	24.91	40.00	35.77	4.24	9.442	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	141.50	-31.31	24.91	40.00	35.54	4.46	8.966 CC	
1,100.00	1,100.00	1,099.36	1,099.36	2.33	2.33	-29.72	-31.52	25.27	40.03	35.37	4.66	8.590	
1,200.00	1,199.93	1,198.01	1,197.94	2.50	2.52	-33.91	-33.20	28.23	40.31	35.30	5.01	8.044 ES	
1,300.00	1,299.68	1,296.46	1,296.16	2.69	2.71	-41.96	-36.54	34.12	41.52	36.14	5.38	7.721 SF	
1,400.00	1,399.13	1,394.59	1,393.76	2.89	2.93	-52.80	-41.54	42.90	44.76	39.00	5.77	7.763	
1,500.00	1,498.15	1,492.28	1,490.52	3.12	3.17	-64.45	-48.15	54.52	51.18	44.98	6.20	8.257	
1,600.00	1,596.63	1,589.39	1,586.21	3.39	3.44	-74.95	-56.34	68.92	61.45	54.75	6.70	9.174	
1,700.00	1,694.44	1,685.82	1,680.62	3.71	3.76	-83.37	-66.04	85.99	75.66	68.38	7.28	10.393	
1,800.00	1,791.46	1,781.46	1,773.54	4.08	4.12	-89.71	-77.22	105.64	93.59	85.64	7.95	11.767	
1,900.00	1,887.58	1,876.21	1,864.81	4.51	4.53	-94.38	-89.80	127.75	114.95	106.23	8.72	13.177	
2,000.00	1,982.68	1,969.98	1,954.25	5.01	5.00	-97.80	-103.70	152.21	139.50	129.90	9.60	14.528	
2,063.77	2,042.74	2,029.22	2,010.26	5.36	5.33	-99.48	-113.23	168.97	156.73	146.51	10.22	15.339	
2,100.00	2,076.73	2,062.70	2,041.74	5.57	5.52	-100.44	-118.87	178.89	167.00	156.41	10.59	15.771	
2,200.00	2,170.53	2,154.58	2,127.42	6.16	6.11	-102.06	-135.28	207.73	196.75	185.09	11.66	16.876	
2,300.00	2,264.34	2,245.54	2,211.14	6.78	6.75	-102.62	-152.85	238.63	228.34	215.55	12.79	17.854	
2,400.00	2,358.14	2,335.45	2,292.75	7.41	7.43	-102.50	-171.50	271.42	261.67	247.70	13.97	18.734	
2,500.00	2,451.94	2,429.43	2,377.44	8.05	8.20	-102.16	-191.63	306.83	295.82	280.60	15.22	19.433	
2,600.00	2,545.75	2,523.40	2,462.12	8.70	8.99	-101.89	-211.77	342.24	329.99	313.49	16.50	20.000	
2,700.00	2,639.55	2,617.37	2,546.81	9.36	9.79	-101.67	-231.91	377.65	364.16	346.36	17.79	20.465	
2,800.00	2,733.36	2,711.35	2,631.49	10.03	10.60	-101.49	-252.05	413.06	398.33	379.23	19.10	20.852	
2,900.00	2,827.16	2,805.32	2,716.18	10.70	11.42	-101.33	-272.18	448.47	432.51	412.08	20.42	21.177	
3,000.00	2,920.96	2,899.29	2,800.86	11.37	12.25	-101.20	-292.32	483.88	466.69	444.93	21.75	21.454	
3,100.00	3,014.77	2,993.26	2,885.55	12.05	13.08	-101.09	-312.46	519.29	500.87	477.78	23.09	21.692	
3,200.00	3,108.57	3,087.24	2,970.23	12.72	13.92	-100.99	-332.59	554.70	535.05	510.62	24.43	21.899	
3,300.00	3,202.37	3,181.21	3,054.92	13.41	14.76	-100.91	-352.73	590.10	569.23	543.45	25.78	22.079	
3,400.00	3,296.18	3,275.18	3,139.60	14.09	15.60	-100.83	-372.87	625.51	603.42	576.28	27.13	22.239	
3,500.00	3,389.98	3,369.15	3,224.29	14.77	16.44	-100.76	-393.00	660.92	637.60	609.11	28.49	22.380	
3,600.00	3,483.79	3,463.13	3,308.97	15.46	17.29	-100.70	-413.14	696.33	671.79	641.94	29.85	22.507	
3,700.00	3,577.59	3,557.10	3,393.66	16.15	18.14	-100.64	-433.28	731.74	705.98	674.77	31.21	22.621	
3,800.00	3,671.39	3,651.07	3,478.34	16.84	18.99	-100.59	-453.41	767.15	740.16	707.59	32.57	22.723	
3,900.00	3,765.20	3,745.05	3,563.03	17.53	19.84	-100.55	-473.55	802.56	774.35	740.41	33.94	22.817	
4,000.00	3,859.00	3,839.02	3,647.71	18.22	20.69	-100.51	-493.69	837.97	808.54	773.23	35.30	22.902	
4,100.00	3,952.80	3,932.99	3,732.40	18.91	21.55	-100.47	-513.82	873.38	842.73	806.06	36.67	22.980	
4,200.00	4,046.61	4,026.96	3,817.08	19.60	22.40	-100.43	-533.96	908.79	876.92	838.88	38.04	23.052	
4,300.00	4,140.41	4,120.94	3,901.77	20.29	23.26	-100.40	-554.10	944.20	911.10	871.70	39.41	23.119	
4,400.00	4,234.22	4,214.91	3,986.45	20.99	24.12	-100.37	-574.24	979.61	945.29	904.51	40.78	23.181	
4,500.00	4,328.02	4,308.88	4,071.14	21.68	24.97	-100.34	-594.37	1,015.02	979.48	937.33	42.15	23.238	
4,600.00	4,421.82	4,402.85	4,155.82	22.37	25.83	-100.31	-614.51	1,050.43	1,013.67	970.15	43.52	23.292	
4,700.00	4,515.63	4,496.83	4,240.51	23.07	26.69	-100.29	-634.65	1,085.83	1,047.86	1,002.97	44.89	23.342	
4,800.00	4,609.43	4,590.80	4,325.19	23.76	27.55	-100.27	-654.78	1,121.24	1,082.05	1,035.79	46.26	23.389	
4,900.00	4,703.24	4,684.77	4,409.88	24.46	28.41	-100.24	-674.92	1,156.65	1,116.24	1,068.61	47.63	23.434	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	
5,000.00	4,797.04	4,778.75	4,494.56	25.15	29.27	-100.22	-695.06	1,192.06	1,150.43	1,101.43	49.01	23.475	
5,100.00	4,890.84	4,872.72	4,579.25	25.85	30.13	-100.20	-715.19	1,227.47	1,184.62	1,134.25	50.38	23.515	
5,200.00	4,984.65	4,966.69	4,663.93	26.55	30.99	-100.19	-735.33	1,262.88	1,218.81	1,167.07	51.75	23.553	
5,300.00	5,078.45	5,060.66	4,748.62	27.24	31.85	-100.17	-755.47	1,298.29	1,253.00	1,199.88	53.12	23.588	
5,400.00	5,172.25	5,154.64	4,833.30	27.94	32.71	-100.15	-775.60	1,333.70	1,287.20	1,232.70	54.49	23.622	
5,500.00	5,266.06	5,248.61	4,917.99	28.64	33.57	-100.14	-795.74	1,369.11	1,321.39	1,265.52	55.86	23.655	
5,600.00	5,359.86	5,342.58	5,002.67	29.33	34.44	-100.12	-815.88	1,404.52	1,355.58	1,298.34	57.23	23.685	
5,700.00	5,453.67	5,436.56	5,087.36	30.03	35.30	-100.11	-836.02	1,439.93	1,389.77	1,331.17	58.60	23.715	
5,762.46	5,512.26	5,495.25	5,140.26	30.47	35.84	-100.10	-848.59	1,462.04	1,411.12	1,351.67	59.46	23.733	
5,800.00	5,547.55	5,530.54	5,172.06	30.69	36.16	-100.35	-856.15	1,475.34	1,423.92	1,363.90	60.02	23.723	
5,900.00	5,642.37	5,624.64	5,256.85	31.15	37.02	-100.92	-876.32	1,510.80	1,457.59	1,396.21	61.39	23.744	
6,000.00	5,738.23	5,718.78	5,341.69	31.59	37.89	-101.33	-896.49	1,546.27	1,490.66	1,427.97	62.69	23.779	
6,100.00	5,835.03	5,812.84	5,426.45	31.98	38.75	-101.61	-916.65	1,581.71	1,523.13	1,459.21	63.92	23.828	
6,200.00	5,932.65	5,906.71	5,511.05	32.33	39.62	-101.77	-936.76	1,617.09	1,555.02	1,489.94	65.08	23.894	
6,300.00	6,030.96	6,000.29	5,595.38	32.63	40.47	-101.80	-956.81	1,652.34	1,586.38	1,520.21	66.16	23.976	
6,400.00	6,129.85	6,093.44	5,679.32	32.90	41.33	-101.73	-976.78	1,687.44	1,617.25	1,550.08	67.17	24.078	
6,500.00	6,229.20	6,186.06	5,762.79	33.12	42.18	-101.56	-996.62	1,722.35	1,647.71	1,579.63	68.08	24.201	
6,600.00	6,328.88	6,278.04	5,845.68	33.29	43.03	-101.31	-1,016.33	1,757.00	1,677.85	1,608.94	68.91	24.347	
6,700.00	6,428.78	6,369.27	5,927.89	33.42	43.87	-100.97	-1,035.88	1,791.38	1,707.76	1,638.10	69.66	24.517	
6,776.23	6,505.00	6,463.26	6,012.87	33.50	44.66	70.29	-1,055.74	1,826.29	1,730.21	1,660.01	70.20	24.647	
6,800.00	6,528.77	6,500.43	6,046.79	33.52	44.95	70.68	-1,063.24	1,839.49	1,736.89	1,666.57	70.32	24.700	
6,900.00	6,628.77	6,661.42	6,195.90	33.60	45.96	72.22	-1,093.22	1,892.20	1,763.07	1,692.45	70.63	24.963	
7,000.00	6,728.77	6,829.47	6,354.93	33.67	46.88	73.53	-1,120.04	1,939.36	1,785.85	1,714.97	70.88	25.194	
7,100.00	6,828.77	7,003.83	6,523.00	33.75	47.67	74.60	-1,142.94	1,979.63	1,804.82	1,733.72	71.10	25.384	
7,200.00	6,928.77	7,183.51	6,698.80	33.83	48.30	75.43	-1,161.21	2,011.76	1,819.63	1,748.34	71.29	25.525	
7,300.00	7,028.77	7,367.27	6,880.63	33.91	48.77	76.01	-1,174.23	2,034.65	1,830.01	1,758.54	71.47	25.606	
7,400.00	7,128.77	7,553.71	7,066.46	33.99	49.07	76.33	-1,181.51	2,047.46	1,835.77	1,764.11	71.66	25.619	
7,500.00	7,228.77	7,716.07	7,228.77	34.08	49.22	76.39	-1,183.05	2,050.17	1,836.98	1,765.12	71.86	25.563	
7,600.00	7,328.77	7,816.07	7,328.77	34.16	49.28	76.39	-1,183.05	2,050.17	1,836.98	1,764.95	72.03	25.504	
7,700.00	7,428.77	7,916.07	7,428.77	34.24	49.35	76.39	-1,183.05	2,050.17	1,836.98	1,764.78	72.19	25.446	
7,800.00	7,528.77	8,016.07	7,528.77	34.33	49.42	76.39	-1,183.05	2,050.17	1,836.98	1,764.62	72.36	25.386	
7,900.00	7,628.77	8,116.07	7,628.77	34.42	49.49	76.39	-1,183.05	2,050.17	1,836.98	1,764.44	72.53	25.326	
8,000.00	7,728.77	8,216.07	7,728.77	34.51	49.56	76.39	-1,183.05	2,050.17	1,836.98	1,764.27	72.71	25.265	
8,100.00	7,828.77	8,316.07	7,828.77	34.60	49.63	76.39	-1,183.05	2,050.17	1,836.98	1,764.09	72.88	25.204	
8,200.00	7,928.77	8,416.07	7,928.77	34.69	49.70	76.39	-1,183.05	2,050.17	1,836.98	1,763.91	73.06	25.143	
8,236.23	7,965.00	8,452.30	7,965.00	34.72	49.73	76.39	-1,183.05	2,050.17	1,836.98	1,763.85	73.13	25.120	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	141.13	-7.64	6.16	9.81				
100.00	100.00	100.00	100.00	0.10	0.10	141.13	-7.64	6.16	9.81	9.62	0.19	51.345	
200.00	200.00	200.00	200.00	0.32	0.32	141.13	-7.64	6.16	9.81	9.17	0.64	15.314	
300.00	300.00	300.00	300.00	0.55	0.55	141.13	-7.64	6.16	9.81	8.72	1.09	8.999	
400.00	400.00	400.00	400.00	0.77	0.77	141.13	-7.64	6.16	9.81	8.27	1.54	6.371	
500.00	500.00	500.00	500.00	0.99	0.99	141.13	-7.64	6.16	9.81	7.82	1.99	4.931	
600.00	600.00	600.00	600.00	1.22	1.22	141.13	-7.64	6.16	9.81	7.37	2.44	4.022	
700.00	700.00	700.00	700.00	1.44	1.44	141.13	-7.64	6.16	9.81	6.92	2.89	3.396	
800.00	800.00	800.00	800.00	1.67	1.67	141.13	-7.64	6.16	9.81	6.47	3.34	2.939	
900.00	900.00	900.00	900.00	1.89	1.89	141.13	-7.64	6.16	9.81	6.02	3.79	2.590	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	141.13	-7.64	6.16	9.81	5.57	4.24	2.315	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	141.13	-7.64	6.16	9.81	5.35	4.46	2.199 CC	
1,100.00	1,100.00	1,099.83	1,099.83	2.33	2.33	-30.28	-8.02	6.35	9.86	5.20	4.66	2.116 ES	
1,200.00	1,199.93	1,199.49	1,199.42	2.50	2.50	-35.77	-11.12	7.91	10.28	5.28	5.00	2.056	
1,300.00	1,299.68	1,299.22	1,298.92	2.69	2.69	-45.63	-17.19	10.97	11.26	5.90	5.36	2.100	
1,400.00	1,399.13	1,399.14	1,398.54	2.89	2.89	-65.25	-24.07	14.44	11.41	5.65	5.76	1.980 SF	
1,500.00	1,498.15	1,498.89	1,497.99	3.12	3.10	-98.04	-30.94	17.91	12.80	6.58	6.22	2.058	
1,600.00	1,596.63	1,598.35	1,597.16	3.39	3.32	-128.17	-37.80	21.36	19.12	12.48	6.63	2.882	
1,700.00	1,694.44	1,697.40	1,695.91	3.71	3.55	-145.45	-44.62	24.80	30.73	23.73	7.00	4.391	
1,800.00	1,791.46	1,795.92	1,794.13	4.08	3.78	-154.83	-51.41	28.22	46.69	39.33	7.36	6.341	
1,900.00	1,887.58	1,893.78	1,891.70	4.51	4.01	-160.38	-58.15	31.62	66.49	58.75	7.74	8.594	
2,000.00	1,982.68	1,990.87	1,988.51	5.01	4.25	-163.96	-64.84	34.99	89.91	81.79	8.12	11.075	
2,063.77	2,042.74	2,052.33	2,049.78	5.36	4.40	-165.63	-69.07	37.13	106.67	98.30	8.36	12.754	
2,100.00	2,076.73	2,087.14	2,084.49	5.57	4.48	-166.45	-71.47	38.34	116.60	108.07	8.53	13.669	
2,200.00	2,170.53	2,183.21	2,180.27	6.16	4.72	-168.13	-78.09	41.67	144.10	135.10	9.00	16.006	
2,300.00	2,264.34	2,279.29	2,276.06	6.78	4.96	-169.27	-84.70	45.01	171.68	162.19	9.49	18.096	
2,400.00	2,358.14	2,375.36	2,371.85	7.41	5.21	-170.10	-91.32	48.35	199.30	189.32	9.98	19.968	
2,500.00	2,451.94	2,471.44	2,467.64	8.05	5.45	-170.72	-97.94	51.69	226.96	216.47	10.48	21.651	
2,600.00	2,545.75	2,567.51	2,563.43	8.70	5.70	-171.21	-104.56	55.02	254.63	243.64	10.99	23.169	
2,700.00	2,639.55	2,663.59	2,659.22	9.36	5.94	-171.60	-111.18	58.36	282.31	270.81	11.50	24.545	
2,800.00	2,733.36	2,759.66	2,755.00	10.03	6.19	-171.93	-117.80	61.70	310.01	297.99	12.02	25.794	
2,900.00	2,827.16	2,855.73	2,850.79	10.70	6.44	-172.20	-124.41	65.03	337.71	325.18	12.54	26.933	
3,000.00	2,920.96	2,951.81	2,946.58	11.37	6.69	-172.43	-131.03	68.37	365.42	352.36	13.06	27.975	
3,100.00	3,014.77	3,047.88	3,042.37	12.05	6.94	-172.62	-137.65	71.71	393.14	379.55	13.59	28.932	
3,200.00	3,108.57	3,143.96	3,138.16	12.72	7.19	-172.79	-144.27	75.04	420.86	406.74	14.12	29.812	
3,300.00	3,202.37	3,240.03	3,233.95	13.41	7.44	-172.94	-150.89	78.38	448.58	433.93	14.65	30.624	
3,400.00	3,296.18	3,336.11	3,329.73	14.09	7.70	-173.08	-157.51	81.72	476.30	461.12	15.18	31.376	
3,500.00	3,389.98	3,432.18	3,425.52	14.77	7.95	-173.19	-164.12	85.05	504.03	488.31	15.71	32.074	
3,600.00	3,483.79	3,528.26	3,521.31	15.46	8.20	-173.30	-170.74	88.39	531.76	515.51	16.25	32.723	
3,700.00	3,577.59	3,624.33	3,617.10	16.15	8.46	-173.39	-177.36	91.73	559.48	542.70	16.79	33.327	
3,800.00	3,671.39	3,720.41	3,712.89	16.84	8.71	-173.48	-183.98	95.06	587.22	569.89	17.33	33.892	
3,900.00	3,765.20	3,816.48	3,808.68	17.53	8.97	-173.56	-190.60	98.40	614.95	597.08	17.87	34.421	
4,000.00	3,859.00	3,912.56	3,904.46	18.22	9.22	-173.63	-197.22	101.74	642.68	624.27	18.41	34.917	
4,100.00	3,952.80	4,008.63	4,000.25	18.91	9.48	-173.70	-203.84	105.07	670.41	651.47	18.95	35.384	
4,200.00	4,046.61	4,104.71	4,096.04	19.60	9.74	-173.76	-210.45	108.41	698.15	678.66	19.49	35.822	
4,300.00	4,140.41	4,200.78	4,191.83	20.29	9.99	-173.81	-217.07	111.75	725.88	705.85	20.03	36.236	
4,400.00	4,234.22	4,296.85	4,287.62	20.99	10.25	-173.86	-223.69	115.09	753.62	733.04	20.58	36.627	
4,500.00	4,328.02	4,392.93	4,383.41	21.68	10.50	-173.91	-230.31	118.42	781.35	760.23	21.12	36.996	
4,600.00	4,421.82	4,489.00	4,479.19	22.37	10.76	-173.96	-236.93	121.76	809.09	787.42	21.66	37.346	
4,700.00	4,515.63	4,585.08	4,574.98	23.07	11.02	-174.00	-243.55	125.10	836.83	814.62	22.21	37.678	
4,800.00	4,609.43	4,681.15	4,670.77	23.76	11.28	-174.04	-250.16	128.43	864.56	841.81	22.76	37.993	
4,900.00	4,703.24	4,777.23	4,766.56	24.46	11.53	-174.07	-256.78	131.77	892.30	869.00	23.30	38.293	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	
5,000.00	4,797.04	4,873.30	4,862.35	25.15	11.79	-174.11	-263.40	135.11	920.04	896.19	23.85	38.578	
5,100.00	4,890.84	4,969.38	4,958.14	25.85	12.05	-174.14	-270.02	138.44	947.78	923.38	24.40	38.850	
5,200.00	4,984.65	5,065.45	5,053.92	26.55	12.31	-174.17	-276.64	141.78	975.51	950.57	24.94	39.109	
5,300.00	5,078.45	5,161.53	5,149.71	27.24	12.56	-174.20	-283.26	145.12	1,003.25	977.76	25.49	39.357	
5,400.00	5,172.25	5,257.60	5,245.50	27.94	12.82	-174.23	-289.87	148.45	1,030.99	1,004.95	26.04	39.594	
5,500.00	5,266.06	5,353.68	5,341.29	28.64	13.08	-174.25	-296.49	151.79	1,058.73	1,032.14	26.59	39.820	
5,600.00	5,359.86	5,449.75	5,437.08	29.33	13.34	-174.28	-303.11	155.13	1,086.47	1,059.33	27.14	40.037	
5,700.00	5,453.67	5,545.83	5,532.87	30.03	13.60	-174.30	-309.73	158.46	1,114.21	1,086.52	27.69	40.245	
5,762.46	5,512.26	5,605.84	5,592.70	30.47	13.76	-174.32	-313.86	160.55	1,131.54	1,103.51	28.03	40.371	
5,800.00	5,547.55	5,641.97	5,628.72	30.69	13.86	-174.34	-316.35	161.80	1,141.71	1,113.43	28.28	40.372	
5,900.00	5,642.37	5,738.84	5,725.30	31.15	14.12	-174.40	-323.03	165.17	1,166.52	1,137.61	28.91	40.354	
6,000.00	5,738.23	5,836.51	5,822.68	31.59	14.38	-174.43	-329.75	168.56	1,187.94	1,158.45	29.49	40.276	
6,100.00	5,835.03	5,934.87	5,920.75	31.98	14.65	-174.44	-336.53	171.98	1,205.96	1,175.92	30.04	40.145	
6,200.00	5,932.65	6,033.79	6,019.37	32.33	14.91	-174.43	-343.34	175.41	1,220.56	1,190.01	30.54	39.964	
6,300.00	6,030.96	6,133.15	6,118.44	32.63	15.18	-174.39	-350.19	178.86	1,231.70	1,200.71	31.00	39.736	
6,400.00	6,129.85	6,232.84	6,217.83	32.90	15.45	-174.33	-357.06	182.32	1,239.40	1,207.99	31.41	39.463	
6,500.00	6,229.20	6,326.59	6,311.31	33.12	15.69	-174.26	-363.48	185.56	1,243.68	1,211.93	31.75	39.173	
6,600.00	6,328.88	6,400.00	6,384.59	33.29	15.86	-174.21	-367.35	187.51	1,246.08	1,214.10	31.97	38.971	
6,700.00	6,428.78	6,469.44	6,453.98	33.42	15.98	-174.19	-369.46	188.58	1,247.29	1,215.17	32.12	38.835	
6,776.23	6,505.00	6,523.89	6,508.43	33.50	16.08	-3.49	-370.07	188.89	1,247.42	1,215.22	32.20	38.736	
6,792.23	6,521.00	6,536.46	6,521.00	33.52	16.10	-3.49	-370.08	188.89	1,247.41	1,215.16	32.25	38.677	
6,800.00	6,528.77	6,544.23	6,528.77	33.52	16.11	-3.49	-370.08	188.89	1,247.41	1,215.13	32.28	38.644	
6,900.00	6,628.77	6,644.23	6,628.77	33.60	16.28	-3.49	-370.08	188.89	1,247.41	1,214.79	32.61	38.247	
7,000.00	6,728.77	6,744.23	6,728.77	33.67	16.44	-3.49	-370.08	188.89	1,247.41	1,214.46	32.94	37.865	
7,100.00	6,828.77	6,844.23	6,828.77	33.75	16.61	-3.49	-370.08	188.89	1,247.41	1,214.13	33.28	37.487	
7,200.00	6,928.77	6,944.23	6,928.77	33.83	16.77	-3.49	-370.08	188.89	1,247.41	1,213.80	33.61	37.114	
7,300.00	7,028.77	7,044.23	7,028.77	33.91	16.94	-3.49	-370.08	188.89	1,247.41	1,213.46	33.95	36.746	
7,400.00	7,128.77	7,144.23	7,128.77	33.99	17.10	-3.49	-370.08	188.89	1,247.41	1,213.12	34.29	36.382	
7,500.00	7,228.77	7,244.23	7,228.77	34.08	17.27	-3.49	-370.08	188.89	1,247.41	1,212.78	34.63	36.022	
7,600.00	7,328.77	7,344.23	7,328.77	34.16	17.44	-3.49	-370.08	188.89	1,247.41	1,212.43	34.97	35.667	
7,700.00	7,428.77	7,444.23	7,428.77	34.24	17.61	-3.49	-370.08	188.89	1,247.41	1,212.09	35.32	35.317	
7,800.00	7,528.77	7,544.23	7,528.77	34.33	17.79	-3.49	-370.08	188.89	1,247.41	1,211.74	35.67	34.971	
7,900.00	7,628.77	7,644.23	7,628.77	34.42	17.96	-3.49	-370.08	188.89	1,247.41	1,211.39	36.02	34.630	
8,000.00	7,728.77	7,744.23	7,728.77	34.51	18.13	-3.49	-370.08	188.89	1,247.41	1,211.03	36.37	34.294	
8,100.00	7,828.77	7,844.23	7,828.77	34.60	18.31	-3.49	-370.08	188.89	1,247.41	1,210.68	36.73	33.962	
8,200.00	7,928.77	7,944.23	7,928.77	34.69	18.49	-3.49	-370.08	188.89	1,247.41	1,210.32	37.09	33.635	
8,236.23	7,965.00	7,980.46	7,965.00	34.72	18.55	-3.49	-370.08	188.89	1,247.41	1,210.19	37.22	33.518	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	-39.05	38.99	-31.62	50.20				
100.00	100.00	100.00	100.00	0.10	0.10	-39.05	38.99	-31.62	50.20	50.01	0.19	262.745	
200.00	200.00	200.00	200.00	0.32	0.32	-39.05	38.99	-31.62	50.20	49.56	0.64	78.363	
300.00	300.00	300.00	300.00	0.55	0.55	-39.05	38.99	-31.62	50.20	49.11	1.09	46.048	
400.00	400.00	400.00	400.00	0.77	0.77	-39.05	38.99	-31.62	50.20	48.66	1.54	32.603	
500.00	500.00	500.00	500.00	0.99	0.99	-39.05	38.99	-31.62	50.20	48.21	1.99	25.235	
600.00	600.00	600.00	600.00	1.22	1.22	-39.05	38.99	-31.62	50.20	47.76	2.44	20.584	
700.00	700.00	700.00	700.00	1.44	1.44	-39.05	38.99	-31.62	50.20	47.31	2.89	17.380	
800.00	800.00	800.00	800.00	1.67	1.67	-39.05	38.99	-31.62	50.20	46.86	3.34	15.039	
900.00	900.00	900.00	900.00	1.89	1.89	-39.05	38.99	-31.62	50.20	46.41	3.79	13.254	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-39.05	38.99	-31.62	50.20	45.96	4.24	11.848	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-39.05	38.99	-31.62	50.20	45.74	4.46	11.251 CC, ES	
1,100.00	1,100.00	1,099.53	1,099.53	2.33	2.34	150.91	39.39	-31.48	50.81	46.14	4.67	10.880 SF	
1,200.00	1,199.93	1,198.26	1,198.19	2.50	2.56	155.55	42.61	-30.35	55.89	50.83	5.06	11.052	
1,300.00	1,299.68	1,295.98	1,295.68	2.69	2.78	162.56	48.95	-28.14	66.89	61.45	5.45	12.283	
1,400.00	1,399.13	1,392.08	1,391.27	2.89	3.01	169.45	58.24	-24.88	84.59	78.76	5.83	14.502	
1,500.00	1,498.15	1,485.96	1,484.28	3.12	3.24	175.04	70.24	-20.69	109.19	102.98	6.22	17.568	
1,600.00	1,596.63	1,577.09	1,574.12	3.39	3.50	179.24	84.63	-15.65	140.50	133.91	6.59	21.315	
1,700.00	1,694.44	1,669.77	1,665.22	3.71	3.78	-177.76	100.71	-10.03	176.97	170.00	6.97	25.378	
1,800.00	1,791.46	1,761.23	1,755.13	4.08	4.07	-175.80	116.58	-4.47	216.94	209.58	7.35	29.504	
1,900.00	1,887.58	1,851.27	1,843.63	4.51	4.36	-174.48	132.20	0.99	260.20	252.47	7.73	33.658	
2,000.00	1,982.68	1,939.76	1,930.61	5.01	4.67	-173.57	147.56	6.36	306.63	298.52	8.11	37.823	
2,063.77	2,042.74	1,995.33	1,985.24	5.36	4.86	-173.13	157.20	9.74	337.84	329.50	8.35	40.481	
2,100.00	2,076.73	2,026.72	2,016.08	5.57	4.97	-172.96	162.65	11.64	355.93	347.42	8.52	41.792	
2,200.00	2,170.53	2,113.33	2,101.22	6.16	5.28	-172.58	177.68	16.90	405.87	396.88	9.00	45.116	
2,300.00	2,264.34	2,199.94	2,186.35	6.78	5.59	-172.28	192.71	22.16	455.82	446.33	9.49	48.055	
2,400.00	2,358.14	2,286.55	2,271.49	7.41	5.91	-172.04	207.74	27.42	505.77	495.79	9.98	50.664	
2,500.00	2,451.94	2,373.16	2,356.62	8.05	6.23	-171.85	222.77	32.68	555.73	545.25	10.49	52.991	
2,600.00	2,545.75	2,459.77	2,441.76	8.70	6.56	-171.68	237.80	37.93	605.70	594.70	11.00	55.075	
2,700.00	2,639.55	2,546.38	2,526.89	9.36	6.89	-171.54	252.83	43.19	655.67	644.15	11.51	56.950	
2,800.00	2,733.36	2,632.99	2,612.03	10.03	7.21	-171.42	267.86	48.45	705.64	693.60	12.03	58.643	
2,900.00	2,827.16	2,719.60	2,697.16	10.70	7.55	-171.32	282.89	53.71	755.61	743.05	12.56	60.178	
3,000.00	2,920.96	2,806.22	2,782.30	11.37	7.88	-171.23	297.91	58.97	805.58	792.50	13.08	61.574	
3,100.00	3,014.77	2,892.83	2,867.43	12.05	8.21	-171.15	312.94	64.23	855.56	841.95	13.61	62.849	
3,200.00	3,108.57	2,979.44	2,952.57	12.72	8.55	-171.08	327.97	69.48	905.53	891.39	14.15	64.017	
3,300.00	3,202.37	3,066.05	3,037.70	13.41	8.89	-171.02	343.00	74.74	955.51	940.83	14.68	65.091	
3,400.00	3,296.18	3,152.66	3,122.84	14.09	9.22	-170.96	358.03	80.00	1,005.49	990.27	15.22	66.080	
3,500.00	3,389.98	3,239.27	3,207.97	14.77	9.56	-170.91	373.06	85.26	1,055.47	1,039.71	15.75	66.995	
3,600.00	3,483.79	3,325.88	3,293.11	15.46	9.90	-170.86	388.09	90.52	1,105.45	1,089.15	16.29	67.842	
3,700.00	3,577.59	3,412.49	3,378.24	16.15	10.24	-170.82	403.12	95.77	1,155.43	1,138.59	16.84	68.630	
3,800.00	3,671.39	3,499.10	3,463.38	16.84	10.59	-170.78	418.15	101.03	1,205.41	1,188.03	17.38	69.363	
3,900.00	3,765.20	3,585.71	3,548.51	17.53	10.93	-170.74	433.18	106.29	1,255.39	1,237.47	17.92	70.047	
4,000.00	3,859.00	3,672.33	3,633.65	18.22	11.27	-170.71	448.21	111.55	1,305.37	1,286.90	18.47	70.687	
4,100.00	3,952.80	3,758.94	3,718.78	18.91	11.61	-170.68	463.24	116.81	1,355.35	1,336.34	19.01	71.286	
4,200.00	4,046.61	3,845.55	3,803.91	19.60	11.96	-170.65	478.27	122.07	1,405.33	1,385.77	19.56	71.849	
4,300.00	4,140.41	3,932.16	3,889.05	20.29	12.30	-170.62	493.30	127.32	1,455.31	1,435.21	20.11	72.379	
4,400.00	4,234.22	4,018.77	3,974.18	20.99	12.64	-170.59	508.33	132.58	1,505.30	1,484.64	20.66	72.878	
4,500.00	4,328.02	4,105.38	4,059.32	21.68	12.99	-170.57	523.36	137.84	1,555.28	1,534.07	21.20	73.348	
4,600.00	4,421.82	4,191.99	4,144.45	22.37	13.33	-170.55	538.39	143.10	1,605.26	1,583.51	21.75	73.793	
4,700.00	4,515.63	4,278.60	4,229.59	23.07	13.68	-170.53	553.42	148.36	1,655.24	1,632.94	22.30	74.214	
4,800.00	4,609.43	4,365.21	4,314.72	23.76	14.02	-170.51	568.45	153.62	1,705.23	1,682.37	22.85	74.613	
4,900.00	4,703.24	4,451.83	4,399.86	24.46	14.37	-170.49	583.48	158.87	1,755.21	1,731.80	23.41	74.991	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	4,797.04	4,538.44	4,484.99	25.15	14.71	-170.47	598.51	164.13	1,805.19	1,781.23	23.96	75.351	
5,100.00	4,890.84	4,625.05	4,570.13	25.85	15.06	-170.46	613.54	169.39	1,855.17	1,830.67	24.51	75.693	
5,200.00	4,984.65	4,711.66	4,655.26	26.55	15.41	-170.44	628.57	174.65	1,905.16	1,880.10	25.06	76.019	
5,300.00	5,078.45	4,798.27	4,740.40	27.24	15.75	-170.43	643.60	179.91	1,955.14	1,929.53	25.61	76.330	
5,400.00	5,172.25	4,884.88	4,825.53	27.94	16.10	-170.41	658.63	185.16	2,005.12	1,978.96	26.17	76.626	
5,500.00	5,266.06	4,971.49	4,910.67	28.64	16.45	-170.40	673.65	190.42	2,055.11	2,028.39	26.72	76.910	
5,600.00	5,359.86	5,058.10	4,995.80	29.33	16.79	-170.39	688.68	195.68	2,105.09	2,077.82	27.27	77.181	
5,700.00	5,453.67	5,144.71	5,080.94	30.03	17.14	-170.37	703.71	200.94	2,155.08	2,127.25	27.83	77.440	
5,762.46	5,512.26	5,198.81	5,134.11	30.47	17.36	-170.37	713.10	204.22	2,186.30	2,158.12	28.18	77.597	
5,800.00	5,547.55	5,231.45	5,166.19	30.69	17.49	-170.43	718.76	206.20	2,204.85	2,176.39	28.46	77.478	
5,900.00	5,642.37	5,319.51	5,252.76	31.15	17.84	-170.58	734.05	211.55	2,252.20	2,223.03	29.17	77.205	
6,000.00	5,738.23	5,409.15	5,340.87	31.59	18.20	-170.70	749.60	216.99	2,296.49	2,266.64	29.85	76.932	
6,100.00	5,835.03	5,500.26	5,430.42	31.98	18.57	-170.79	765.41	222.52	2,337.66	2,307.17	30.49	76.661	
6,200.00	5,932.65	5,592.71	5,521.29	32.33	18.94	-170.86	781.45	228.14	2,375.68	2,344.58	31.10	76.395	
6,300.00	6,030.96	5,686.40	5,613.39	32.63	19.32	-170.90	797.71	233.83	2,410.49	2,378.83	31.66	76.137	
6,400.00	6,129.85	5,781.21	5,706.58	32.90	19.70	-170.91	814.16	239.58	2,442.05	2,409.87	32.18	75.888	
6,500.00	6,229.20	5,877.03	5,800.77	33.12	20.08	-170.90	830.79	245.40	2,470.34	2,437.68	32.66	75.650	
6,600.00	6,328.88	5,973.74	5,895.83	33.29	20.47	-170.87	847.57	251.27	2,495.30	2,462.22	33.08	75.422	
6,700.00	6,428.78	6,067.74	6,007.90	33.42	20.92	-170.79	867.29	258.17	2,516.92	2,483.41	33.51	75.116	
6,776.23	6,505.00	6,537.66	6,455.14	33.50	21.95	0.19	909.40	272.90	2,525.09	2,490.67	34.42	73.361	
6,800.00	6,528.77	6,611.29	6,528.77	33.52	22.05	0.19	909.99	273.11	2,525.19	2,490.61	34.58	73.035	
6,900.00	6,628.77	6,711.29	6,628.77	33.60	22.19	0.19	909.99	273.11	2,525.19	2,490.28	34.91	72.332	
7,000.00	6,728.77	6,811.29	6,728.77	33.67	22.33	0.19	909.99	273.11	2,525.19	2,489.94	35.25	71.638	
7,100.00	6,828.77	6,911.29	6,828.77	33.75	22.47	0.19	909.99	273.11	2,525.19	2,489.60	35.59	70.953	
7,200.00	6,928.77	7,011.29	6,928.77	33.83	22.61	0.19	909.99	273.11	2,525.19	2,489.25	35.93	70.276	
7,300.00	7,028.77	7,111.29	7,028.77	33.91	22.76	0.19	909.99	273.11	2,525.19	2,488.91	36.28	69.607	
7,400.00	7,128.77	7,211.29	7,128.77	33.99	22.91	0.19	909.99	273.11	2,525.19	2,488.56	36.62	68.947	
7,500.00	7,228.77	7,311.29	7,228.77	34.08	23.05	0.19	909.99	273.11	2,525.19	2,488.21	36.97	68.296	
7,600.00	7,328.77	7,411.29	7,328.77	34.16	23.20	0.19	909.99	273.11	2,525.19	2,487.86	37.33	67.653	
7,700.00	7,428.77	7,511.29	7,428.77	34.24	23.35	0.19	909.99	273.11	2,525.19	2,487.51	37.68	67.018	
7,800.00	7,528.77	7,611.29	7,528.77	34.33	23.51	0.19	909.99	273.11	2,525.19	2,487.15	38.03	66.392	
7,900.00	7,628.77	7,711.29	7,628.77	34.42	23.66	0.19	909.99	273.11	2,525.19	2,486.79	38.39	65.774	
8,000.00	7,728.77	7,811.29	7,728.77	34.51	23.81	0.19	909.99	273.11	2,525.19	2,486.44	38.75	65.164	
8,100.00	7,828.77	7,911.29	7,828.77	34.60	23.97	0.19	909.99	273.11	2,525.19	2,486.07	39.11	64.562	
8,200.00	7,928.77	8,011.29	7,928.77	34.69	24.12	0.19	909.99	273.11	2,525.19	2,485.71	39.48	63.969	
8,236.23	7,965.00	8,047.52	7,965.00	34.72	24.18	0.19	909.99	273.11	2,525.19	2,485.58	39.61	63.756	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	141.81	-15.65	12.31	19.91				
100.00	100.00	100.00	100.00	0.10	0.10	141.81	-15.65	12.31	19.91	19.72	0.19	104.234	
200.00	200.00	200.00	200.00	0.32	0.32	141.81	-15.65	12.31	19.91	19.27	0.64	31.087	
300.00	300.00	300.00	300.00	0.55	0.55	141.81	-15.65	12.31	19.91	18.82	1.09	18.268	
400.00	400.00	400.00	400.00	0.77	0.77	141.81	-15.65	12.31	19.91	18.37	1.54	12.934	
500.00	500.00	500.00	500.00	0.99	0.99	141.81	-15.65	12.31	19.91	17.92	1.99	10.011	
600.00	600.00	600.00	600.00	1.22	1.22	141.81	-15.65	12.31	19.91	17.48	2.44	8.166	
700.00	700.00	700.00	700.00	1.44	1.44	141.81	-15.65	12.31	19.91	17.03	2.89	6.895	
800.00	800.00	800.00	800.00	1.67	1.67	141.81	-15.65	12.31	19.91	16.58	3.34	5.966	
900.00	900.00	900.00	900.00	1.89	1.89	141.81	-15.65	12.31	19.91	16.13	3.79	5.258	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	141.81	-15.65	12.31	19.91	15.68	4.24	4.700	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	141.81	-15.65	12.31	19.91	15.45	4.46	4.463	
1,100.00	1,100.00	1,099.73	1,099.73	2.33	2.33	-30.29	-15.74	12.74	19.87	15.21	4.66	4.262	
1,151.76	1,151.74	1,151.18	1,151.16	2.42	2.44	-34.74	-16.01	14.06	19.81	14.96	4.85	4.084 CC	
1,200.00	1,199.93	1,199.08	1,199.01	2.50	2.53	-41.57	-16.44	16.11	19.95	14.93	5.02	3.971 ES, SF	
1,300.00	1,299.68	1,298.08	1,297.77	2.69	2.74	-61.86	-17.82	22.83	22.30	16.89	5.40	4.127	
1,400.00	1,399.13	1,396.51	1,395.66	2.89	2.96	-82.25	-19.88	32.81	29.58	23.77	5.81	5.090	
1,500.00	1,498.15	1,494.15	1,492.37	3.12	3.20	-96.25	-22.60	45.96	42.47	36.20	6.26	6.782	
1,600.00	1,596.63	1,590.80	1,587.59	3.39	3.48	-104.66	-25.94	62.16	60.29	53.54	6.76	8.922	
1,700.00	1,694.44	1,686.26	1,681.04	3.71	3.79	-109.72	-29.87	81.23	82.47	75.16	7.31	11.281	
1,800.00	1,791.46	1,780.35	1,772.47	4.08	4.15	-112.87	-34.37	103.00	108.65	100.72	7.93	13.700	
1,900.00	1,887.58	1,872.91	1,861.64	4.51	4.55	-114.87	-39.38	127.27	138.59	129.97	8.62	16.069	
2,000.00	1,982.68	1,963.80	1,948.38	5.01	5.00	-116.16	-44.86	153.84	172.13	162.73	9.40	18.317	
2,063.77	2,042.74	2,020.82	2,002.34	5.36	5.31	-116.73	-48.58	171.88	195.33	185.40	9.93	19.669	
2,100.00	2,076.73	2,053.02	2,032.65	5.57	5.49	-117.19	-50.78	182.53	209.02	198.76	10.26	20.376	
2,200.00	2,170.53	2,145.40	2,119.45	6.16	6.05	-118.15	-57.17	213.49	247.14	235.92	11.22	22.031	
2,300.00	2,264.34	2,237.78	2,206.26	6.78	6.62	-118.85	-63.57	244.46	285.30	273.09	12.21	23.364	
2,400.00	2,358.14	2,330.17	2,293.06	7.41	7.21	-119.39	-69.96	275.43	323.49	310.26	13.23	24.446	
2,500.00	2,451.94	2,422.55	2,379.86	8.05	7.82	-119.81	-76.35	306.39	361.70	347.42	14.28	25.336	
2,600.00	2,545.75	2,514.93	2,466.67	8.70	8.43	-120.15	-82.74	337.36	399.92	384.58	15.34	26.076	
2,700.00	2,639.55	2,607.32	2,553.47	9.36	9.05	-120.44	-89.13	368.33	438.15	421.74	16.41	26.699	
2,800.00	2,733.36	2,699.70	2,640.28	10.03	9.68	-120.68	-95.52	399.29	476.39	458.90	17.50	27.230	
2,900.00	2,827.16	2,792.08	2,727.08	10.70	10.31	-120.88	-101.91	430.26	514.64	496.05	18.59	27.685	
3,000.00	2,920.96	2,884.47	2,813.88	11.37	10.95	-121.05	-108.31	461.23	552.89	533.20	19.69	28.079	
3,100.00	3,014.77	2,976.85	2,900.69	12.05	11.58	-121.20	-114.70	492.20	591.14	570.35	20.80	28.424	
3,200.00	3,108.57	3,069.23	2,987.49	12.72	12.23	-121.34	-121.09	523.16	629.40	607.49	21.91	28.728	
3,300.00	3,202.37	3,161.61	3,074.29	13.41	12.87	-121.45	-127.48	554.13	667.66	644.64	23.02	28.998	
3,400.00	3,296.18	3,254.00	3,161.10	14.09	13.52	-121.56	-133.87	585.10	705.92	681.78	24.14	29.239	
3,500.00	3,389.98	3,346.38	3,247.90	14.77	14.17	-121.65	-140.26	616.06	744.19	718.92	25.27	29.455	
3,600.00	3,483.79	3,438.76	3,334.70	15.46	14.82	-121.74	-146.65	647.03	782.45	756.06	26.39	29.650	
3,700.00	3,577.59	3,531.15	3,421.51	16.15	15.47	-121.82	-153.05	678.00	820.72	793.21	27.52	29.827	
3,800.00	3,671.39	3,623.53	3,508.31	16.84	16.12	-121.89	-159.44	708.96	858.99	830.35	28.64	29.989	
3,900.00	3,765.20	3,715.91	3,595.11	17.53	16.77	-121.95	-165.83	739.93	897.26	867.49	29.77	30.137	
4,000.00	3,859.00	3,808.30	3,681.92	18.22	17.43	-122.01	-172.22	770.90	935.53	904.63	30.90	30.273	
4,100.00	3,952.80	3,900.68	3,768.72	18.91	18.08	-122.06	-178.61	801.87	973.80	941.77	32.03	30.399	
4,200.00	4,046.61	3,993.06	3,855.52	19.60	18.74	-122.12	-185.00	832.83	1,012.07	978.91	33.17	30.515	
4,300.00	4,140.41	4,085.45	3,942.33	20.29	19.40	-122.16	-191.39	863.80	1,050.34	1,016.05	34.30	30.624	
4,400.00	4,234.22	4,177.83	4,029.13	20.99	20.05	-122.21	-197.79	894.77	1,088.62	1,053.19	35.43	30.725	
4,500.00	4,328.02	4,270.21	4,115.93	21.68	20.71	-122.25	-204.18	925.73	1,126.89	1,090.33	36.56	30.819	
4,600.00	4,421.82	4,362.59	4,202.74	22.37	21.37	-122.28	-210.57	956.70	1,165.16	1,127.47	37.70	30.908	
4,700.00	4,515.63	4,454.98	4,289.54	23.07	22.03	-122.32	-216.96	987.67	1,203.44	1,164.61	38.83	30.991	
4,800.00	4,609.43	4,547.36	4,376.34	23.76	22.69	-122.35	-223.35	1,018.63	1,241.71	1,201.75	39.96	31.070	

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

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 23-3 - P_KERR-MCGEE 23-3 - PLAN #1 1-15-10												Offset Well Error:	0.00 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
4,900.00	4,703.24	4,639.74	4,463.15	24.46	23.35	-122.38	-229.74	1,049.60	1,279.99	1,238.89	41.10	31.144	
5,000.00	4,797.04	4,732.13	4,549.95	25.15	24.01	-122.41	-236.13	1,080.57	1,318.26	1,276.02	42.24	31.205	
5,100.00	4,890.84	4,824.51	4,636.75	25.85	24.67	-122.44	-242.53	1,111.54	1,356.54	1,313.15	43.39	31.263	
5,200.00	4,984.65	4,916.89	4,723.56	26.55	25.33	-122.47	-248.92	1,142.50	1,394.82	1,350.28	44.54	31.318	
5,300.00	5,078.45	5,009.28	4,810.36	27.24	25.99	-122.49	-255.31	1,173.47	1,433.09	1,387.41	45.68	31.369	
5,400.00	5,172.25	5,101.66	4,897.16	27.94	26.65	-122.51	-261.70	1,204.44	1,471.37	1,424.53	46.83	31.418	
5,500.00	5,266.06	5,194.04	4,983.97	28.64	27.31	-122.54	-268.09	1,235.40	1,509.64	1,461.66	47.98	31.464	
5,600.00	5,359.86	5,286.42	5,070.77	29.33	27.98	-122.56	-274.48	1,266.37	1,547.92	1,498.79	49.13	31.507	
5,700.00	5,453.67	5,378.81	5,157.57	30.03	28.64	-122.58	-280.87	1,297.34	1,586.20	1,535.92	50.28	31.548	
5,762.46	5,512.26	5,436.51	5,211.79	30.47	29.05	-122.59	-284.87	1,316.68	1,610.11	1,559.11	51.00	31.573	
5,800.00	5,547.55	5,471.24	5,244.42	30.69	29.30	-122.85	-287.27	1,328.32	1,624.35	1,572.89	51.46	31.564	
5,900.00	5,642.37	5,564.22	5,331.79	31.15	29.97	-123.43	-293.70	1,359.49	1,661.09	1,608.49	52.60	31.579	
6,000.00	5,738.23	5,657.78	5,419.69	31.59	30.64	-123.88	-300.18	1,390.85	1,696.04	1,642.33	53.71	31.579	
6,100.00	5,835.03	5,751.80	5,508.04	31.98	31.31	-124.19	-306.68	1,422.37	1,729.19	1,674.41	54.78	31.568	
6,200.00	5,932.65	5,892.80	5,641.58	32.33	32.10	-124.26	-315.82	1,466.63	1,759.34	1,703.45	55.89	31.479	
6,300.00	6,030.96	6,040.05	5,783.24	32.63	32.76	-124.32	-323.93	1,505.93	1,784.94	1,728.08	56.86	31.393	
6,400.00	6,129.85	6,190.67	5,930.08	32.90	33.34	-124.36	-330.69	1,538.70	1,805.83	1,748.13	57.70	31.296	
6,500.00	6,229.20	6,344.05	6,081.20	33.12	33.80	-124.40	-335.97	1,564.27	1,821.87	1,763.48	58.40	31.198	
6,600.00	6,328.88	6,499.50	6,235.57	33.29	34.16	-124.43	-339.64	1,582.05	1,832.95	1,774.00	58.95	31.092	
6,700.00	6,428.78	6,656.26	6,392.00	33.42	34.40	-124.46	-341.62	1,591.66	1,838.99	1,779.65	59.35	30.988	
6,776.23	6,505.00	6,769.28	6,505.00	33.50	34.51	46.22	-341.98	1,593.40	1,840.21	1,780.66	59.56	30.899	
6,800.00	6,528.77	6,793.05	6,528.77	33.52	34.53	46.22	-341.98	1,593.40	1,840.21	1,780.61	59.60	30.876	
6,900.00	6,628.77	6,893.05	6,628.77	33.60	34.62	46.22	-341.98	1,593.40	1,840.21	1,780.43	59.79	30.780	
7,000.00	6,728.77	6,993.05	6,728.77	33.67	34.71	46.22	-341.98	1,593.40	1,840.21	1,780.24	59.97	30.684	
7,100.00	6,828.77	7,093.05	6,828.77	33.75	34.80	46.22	-341.98	1,593.40	1,840.21	1,780.05	60.16	30.587	
7,200.00	6,928.77	7,193.05	6,928.77	33.83	34.89	46.22	-341.98	1,593.40	1,840.21	1,779.85	60.36	30.488	
7,300.00	7,028.77	7,293.05	7,028.77	33.91	34.99	46.22	-341.98	1,593.40	1,840.21	1,779.66	60.55	30.390	
7,400.00	7,128.77	7,393.05	7,128.77	33.99	35.08	46.22	-341.98	1,593.40	1,840.21	1,779.46	60.75	30.290	
7,500.00	7,228.77	7,493.05	7,228.77	34.08	35.18	46.22	-341.98	1,593.40	1,840.21	1,779.26	60.95	30.190	
7,600.00	7,328.77	7,593.05	7,328.77	34.16	35.28	46.22	-341.98	1,593.40	1,840.21	1,779.05	61.16	30.089	
7,700.00	7,428.77	7,693.05	7,428.77	34.24	35.37	46.22	-341.98	1,593.40	1,840.21	1,778.85	61.37	29.988	
7,800.00	7,528.77	7,793.05	7,528.77	34.33	35.47	46.22	-341.98	1,593.40	1,840.21	1,778.64	61.57	29.886	
7,900.00	7,628.77	7,893.05	7,628.77	34.42	35.57	46.22	-341.98	1,593.40	1,840.21	1,778.42	61.79	29.783	
8,000.00	7,728.77	7,993.05	7,728.77	34.51	35.67	46.22	-341.98	1,593.40	1,840.21	1,778.21	62.00	29.680	
8,100.00	7,828.77	8,093.05	7,828.77	34.60	35.78	46.22	-341.98	1,593.40	1,840.21	1,777.99	62.22	29.577	
8,200.00	7,928.77	8,193.05	7,928.77	34.69	35.88	46.22	-341.98	1,593.40	1,840.21	1,777.77	62.44	29.473	
8,236.23	7,965.00	8,229.28	7,965.00	34.72	35.92	46.22	-341.98	1,593.40	1,840.21	1,777.69	62.52	29.435	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	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	-38.79	31.34	-25.19	40.20				
100.00	100.00	100.00	100.00	0.10	0.10	-38.79	31.34	-25.19	40.20	40.01	0.19	210.429	
200.00	200.00	200.00	200.00	0.32	0.32	-38.79	31.34	-25.19	40.20	39.56	0.64	62.759	
300.00	300.00	300.00	300.00	0.55	0.55	-38.79	31.34	-25.19	40.20	39.11	1.09	36.879	
400.00	400.00	400.00	400.00	0.77	0.77	-38.79	31.34	-25.19	40.20	38.66	1.54	26.112	
500.00	500.00	500.00	500.00	0.99	0.99	-38.79	31.34	-25.19	40.20	38.21	1.99	20.211	
600.00	600.00	600.00	600.00	1.22	1.22	-38.79	31.34	-25.19	40.20	37.76	2.44	16.485	
700.00	700.00	700.00	700.00	1.44	1.44	-38.79	31.34	-25.19	40.20	37.31	2.89	13.919	
800.00	800.00	800.00	800.00	1.67	1.67	-38.79	31.34	-25.19	40.20	36.86	3.34	12.045	
900.00	900.00	900.00	900.00	1.89	1.89	-38.79	31.34	-25.19	40.20	36.42	3.79	10.615	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-38.79	31.34	-25.19	40.20	35.97	4.24	9.489	
1,050.00	1,050.00	1,050.00	1,050.00	2.23	2.23	-38.79	31.34	-25.19	40.20	35.74	4.46	9.011 CC, ES	
1,100.00	1,100.00	1,099.78	1,099.78	2.33	2.33	150.24	31.18	-25.59	40.71	36.05	4.66	8.735 SF	
1,200.00	1,199.93	1,199.20	1,199.14	2.50	2.52	148.19	29.93	-28.81	44.84	39.82	5.02	8.933	
1,300.00	1,299.68	1,298.20	1,297.89	2.69	2.73	145.06	27.45	-35.20	53.20	47.80	5.39	9.866	
1,400.00	1,399.13	1,396.49	1,395.64	2.89	2.94	141.83	23.77	-44.70	65.89	60.11	5.79	11.387	
1,500.00	1,498.15	1,493.80	1,492.03	3.12	3.19	139.04	18.94	-57.17	82.94	76.73	6.22	13.344	
1,600.00	1,596.63	1,590.13	1,586.94	3.39	3.46	136.79	13.00	-72.49	104.28	97.59	6.69	15.590	
1,700.00	1,694.44	1,687.07	1,682.25	3.71	3.76	135.77	6.59	-89.03	128.76	121.55	7.21	17.858	
1,800.00	1,791.46	1,783.37	1,776.92	4.08	4.08	135.86	0.23	-105.45	155.67	147.90	7.77	20.038	
1,900.00	1,887.58	1,878.91	1,870.85	4.51	4.41	136.56	-6.09	-121.75	185.03	176.66	8.36	22.125	
2,000.00	1,982.68	1,973.57	1,963.91	5.01	4.75	137.57	-12.35	-137.89	216.88	207.90	8.99	24.133	
2,063.77	2,042.74	2,033.42	2,022.75	5.36	4.97	138.29	-16.30	-148.10	238.54	229.14	9.40	25.379	
2,100.00	2,076.73	2,067.30	2,056.06	5.57	5.09	138.87	-18.54	-153.88	251.16	241.50	9.65	26.015	
2,200.00	2,170.53	2,160.83	2,148.01	6.16	5.44	140.19	-24.73	-169.83	286.07	275.70	10.37	27.581	
2,300.00	2,264.34	2,254.36	2,239.96	6.78	5.80	141.22	-30.91	-185.78	321.10	309.99	11.10	28.915	
2,400.00	2,358.14	2,347.88	2,331.91	7.41	6.16	142.05	-37.09	-201.73	356.19	344.34	11.85	30.060	
2,500.00	2,451.94	2,441.41	2,423.86	8.05	6.52	142.74	-43.27	-217.68	391.34	378.74	12.60	31.050	
2,600.00	2,545.75	2,534.93	2,515.80	8.70	6.89	143.30	-49.46	-233.64	426.54	413.17	13.37	31.914	
2,700.00	2,639.55	2,628.46	2,607.75	9.36	7.26	143.79	-55.64	-249.59	461.76	447.63	14.13	32.672	
2,800.00	2,733.36	2,721.98	2,699.70	10.03	7.63	144.20	-61.82	-265.54	497.01	482.10	14.91	33.343	
2,900.00	2,827.16	2,815.51	2,791.65	10.70	8.00	144.56	-68.00	-281.49	532.27	516.59	15.68	33.940	
3,000.00	2,920.96	2,909.04	2,883.59	11.37	8.38	144.88	-74.19	-297.44	567.56	551.09	16.46	34.474	
3,100.00	3,014.77	3,002.56	2,975.54	12.05	8.75	145.16	-80.37	-313.39	602.85	585.61	17.25	34.955	
3,200.00	3,108.57	3,096.09	3,067.49	12.72	9.13	145.40	-86.55	-329.34	638.16	620.13	18.03	35.390	
3,300.00	3,202.37	3,189.61	3,159.44	13.41	9.51	145.62	-92.73	-345.30	673.48	654.66	18.82	35.786	
3,400.00	3,296.18	3,283.14	3,251.39	14.09	9.89	145.82	-98.92	-361.25	708.80	689.20	19.61	36.148	
3,500.00	3,389.98	3,376.66	3,343.33	14.77	10.28	146.00	-105.10	-377.20	744.14	723.74	20.40	36.479	
3,600.00	3,483.79	3,470.19	3,435.28	15.46	10.66	146.17	-111.28	-393.15	779.47	758.28	21.19	36.784	
3,700.00	3,577.59	3,563.72	3,527.23	16.15	11.04	146.32	-117.46	-409.10	814.82	792.84	21.98	37.066	
3,800.00	3,671.39	3,657.24	3,619.18	16.84	11.43	146.46	-123.65	-425.05	850.17	827.39	22.78	37.328	
3,900.00	3,765.20	3,750.77	3,711.12	17.53	11.81	146.58	-129.83	-441.00	885.52	861.95	23.57	37.571	
4,000.00	3,859.00	3,844.29	3,803.07	18.22	12.20	146.70	-136.01	-456.96	920.87	896.51	24.36	37.798	
4,100.00	3,952.80	3,937.82	3,895.02	18.91	12.58	146.81	-142.20	-472.91	956.23	931.07	25.16	38.010	
4,200.00	4,046.61	4,031.35	3,986.97	19.60	12.97	146.91	-148.38	-488.86	991.59	965.64	25.95	38.209	
4,300.00	4,140.41	4,124.87	4,078.92	20.29	13.35	147.00	-154.56	-504.81	1,026.95	1,000.21	26.75	38.397	
4,400.00	4,234.22	4,218.40	4,170.86	20.99	13.74	147.09	-160.74	-520.76	1,062.32	1,034.78	27.54	38.573	
4,500.00	4,328.02	4,311.92	4,262.81	21.68	14.13	147.17	-166.93	-536.71	1,097.69	1,069.35	28.34	38.739	
4,600.00	4,421.82	4,405.45	4,354.76	22.37	14.52	147.25	-173.11	-552.66	1,133.06	1,103.91	29.14	38.880	
4,700.00	4,515.63	4,498.97	4,446.71	23.07	14.90	147.32	-179.29	-568.62	1,168.43	1,138.48	29.95	39.012	
4,800.00	4,609.43	4,592.50	4,538.65	23.76	15.29	147.39	-185.47	-584.57	1,203.80	1,173.04	30.76	39.137	
4,900.00	4,703.24	4,686.03	4,630.60	24.46	15.68	147.45	-191.66	-600.52	1,239.17	1,207.61	31.57	39.254	

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

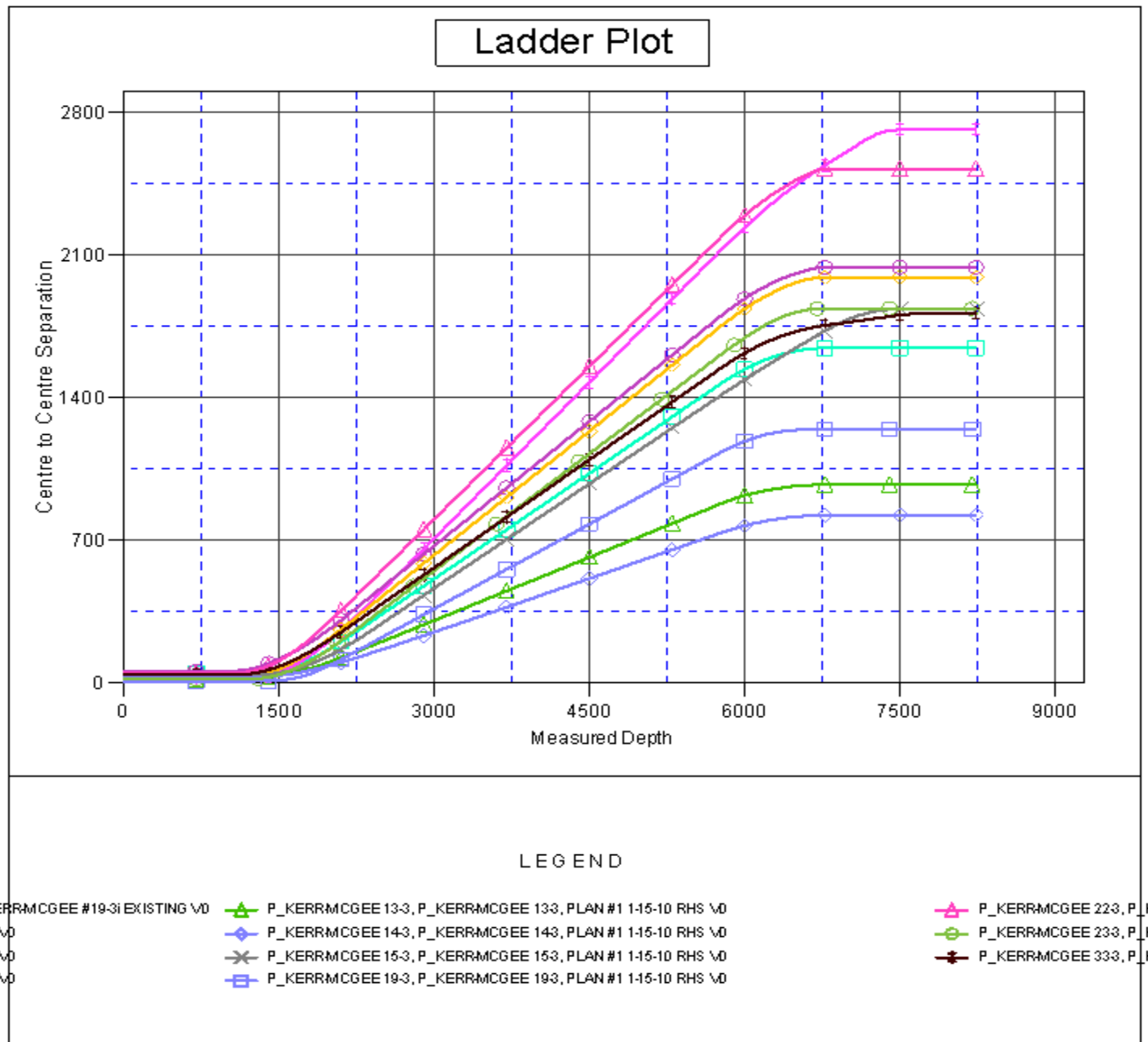
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design WELD_KERR MCGEE 19-3 PAD - P_KERR-MCGEE 33-3 - P_KERR-MCGEE 33-3 - PLAN #1 1-15-10												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	4,797.04	4,779.55	4,722.55	25.15	16.07	147.51	-197.84	-616.47	1,274.55	1,242.17	32.38	39.365	
5,100.00	4,890.84	4,873.08	4,814.50	25.85	16.46	147.57	-204.02	-632.42	1,309.92	1,276.74	33.19	39.471	
5,200.00	4,984.65	4,966.60	4,906.45	26.55	16.85	147.62	-210.20	-648.37	1,345.30	1,311.30	34.00	39.570	
5,300.00	5,078.45	5,060.13	4,998.39	27.24	17.24	147.67	-216.39	-664.32	1,380.68	1,345.87	34.81	39.665	
5,400.00	5,172.25	5,153.65	5,090.34	27.94	17.63	147.72	-222.57	-680.28	1,416.06	1,380.44	35.62	39.755	
5,500.00	5,266.06	5,247.18	5,182.29	28.64	18.02	147.77	-228.75	-696.23	1,451.44	1,415.01	36.43	39.841	
5,600.00	5,359.86	5,340.71	5,274.24	29.33	18.41	147.81	-234.93	-712.18	1,486.82	1,449.58	37.24	39.922	
5,700.00	5,453.67	5,434.23	5,366.18	30.03	18.80	147.85	-241.12	-728.13	1,522.20	1,484.15	38.05	40.000	
5,762.46	5,512.26	5,492.65	5,423.62	30.47	19.04	147.88	-244.98	-738.09	1,544.30	1,505.74	38.56	40.047	
5,800.00	5,547.55	5,527.83	5,458.21	30.69	19.19	148.04	-247.30	-744.09	1,557.39	1,518.50	38.89	40.043	
5,900.00	5,642.37	5,622.24	5,551.02	31.15	19.58	148.38	-253.54	-760.20	1,590.33	1,550.62	39.71	40.044	
6,000.00	5,738.23	5,717.56	5,644.73	31.59	19.98	148.62	-259.85	-776.45	1,620.46	1,579.94	40.52	39.994	
6,100.00	5,835.03	5,813.67	5,739.22	31.98	20.38	148.76	-266.20	-792.85	1,647.74	1,606.44	41.30	39.899	
6,200.00	5,932.65	5,910.45	5,834.37	32.33	20.78	148.81	-272.60	-809.35	1,672.15	1,630.10	42.05	39.764	
6,300.00	6,030.96	6,007.80	5,930.07	32.63	21.19	148.77	-279.03	-825.95	1,693.69	1,650.91	42.78	39.595	
6,400.00	6,129.85	6,105.58	6,026.20	32.90	21.60	148.64	-285.50	-842.63	1,712.34	1,668.87	43.47	39.395	
6,500.00	6,229.20	6,203.67	6,122.65	33.12	22.01	148.43	-291.98	-859.36	1,728.12	1,684.00	44.12	39.167	
6,600.00	6,328.88	6,301.97	6,219.29	33.29	22.42	148.14	-298.48	-876.13	1,741.05	1,696.31	44.74	38.915	
6,700.00	6,428.78	6,400.35	6,316.00	33.42	22.83	147.77	-304.98	-892.91	1,751.14	1,705.82	45.32	38.640	
6,776.23	6,505.00	6,475.33	6,389.71	33.50	23.14	-41.88	-309.94	-905.69	1,756.95	1,711.21	45.74	38.411	
6,800.00	6,528.77	6,498.69	6,412.69	33.52	23.24	-42.01	-311.48	-909.68	1,758.51	1,712.62	45.89	38.320	
6,900.00	6,628.77	6,597.01	6,509.34	33.60	23.65	-42.56	-317.98	-926.45	1,765.20	1,718.69	46.50	37.958	
7,000.00	6,728.77	6,695.32	6,606.00	33.67	24.06	-43.10	-324.48	-943.22	1,772.04	1,724.93	47.11	37.611	
7,100.00	6,828.77	6,793.63	6,702.65	33.75	24.47	-43.64	-330.98	-959.98	1,779.05	1,731.33	47.72	37.279	
7,200.00	6,928.77	6,891.94	6,799.30	33.83	24.89	-44.18	-337.48	-976.75	1,786.22	1,737.89	48.33	36.961	
7,300.00	7,028.77	6,990.26	6,895.96	33.91	25.30	-44.71	-343.98	-993.52	1,793.55	1,744.62	48.93	36.656	
7,400.00	7,128.77	7,088.57	6,992.61	33.99	25.71	-45.23	-350.48	-1,010.29	1,801.03	1,751.50	49.53	36.365	
7,500.00	7,228.77	7,220.86	7,123.14	34.08	26.09	-45.85	-358.21	-1,030.23	1,807.79	1,757.68	50.11	36.079	
7,600.00	7,328.77	7,356.47	7,257.85	34.16	26.40	-46.30	-363.86	-1,044.82	1,812.67	1,762.08	50.59	35.828	
7,700.00	7,428.77	7,493.29	7,394.33	34.24	26.65	-46.57	-367.23	-1,053.50	1,815.58	1,764.59	51.00	35.603	
7,800.00	7,528.77	7,627.77	7,528.77	34.33	26.83	-46.65	-368.24	-1,056.11	1,816.46	1,765.15	51.30	35.406	
7,900.00	7,628.77	7,727.77	7,628.77	34.42	26.95	-46.65	-368.24	-1,056.11	1,816.46	1,764.91	51.55	35.237	
8,000.00	7,728.77	7,827.77	7,728.77	34.51	27.07	-46.65	-368.24	-1,056.11	1,816.46	1,764.66	51.80	35.069	
8,100.00	7,828.77	7,927.77	7,828.77	34.60	27.20	-46.65	-368.24	-1,056.11	1,816.46	1,764.41	52.05	34.900	
8,200.00	7,928.77	8,027.77	7,928.77	34.69	27.33	-46.65	-368.24	-1,056.11	1,816.46	1,764.16	52.30	34.732	
8,236.23	7,965.00	8,064.00	7,965.00	34.72	27.37	-46.65	-368.24	-1,056.11	1,816.46	1,764.07	52.39	34.671	



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5057.00ft (Original Well Elev) Coordinates are relative to: P\_KERR-MCGEE 35-3  
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: 0.33°



<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well P_KERR-MCGEE 35-3
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Reference Site:</b>	WELD_KERR MCGEE 19-3 PAD	<b>MD Reference:</b>	WELL @ 5057.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	P_KERR-MCGEE 35-3	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	P_KERR-MCGEE 35-3	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	PLAN #1 1-15-10 RHS	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5057.00ft (Original Well Elev) Coordinates are relative to: P\_KERR-MCGEE 35-3  
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: 0.33°

