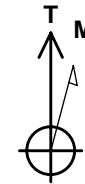
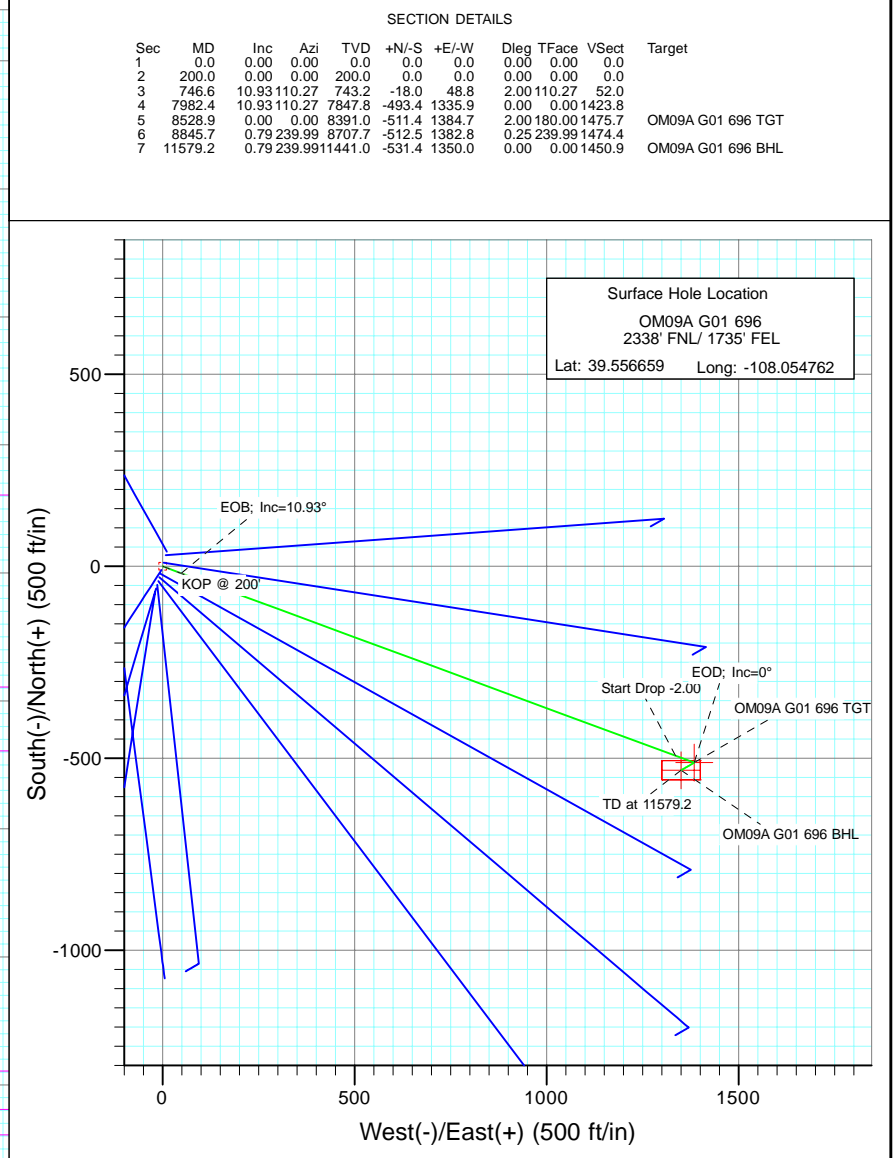
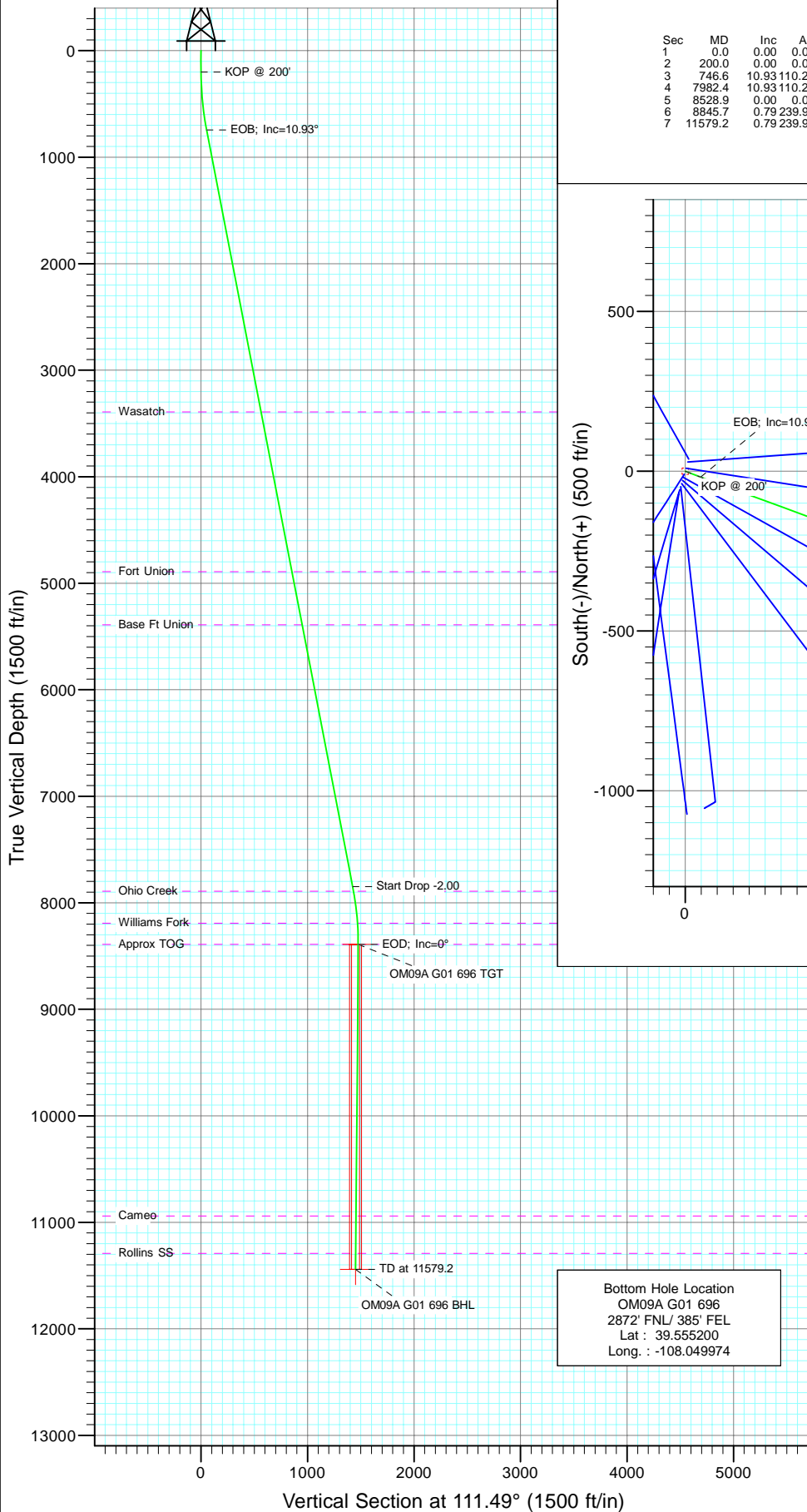




Project: Garfield County
Site: G01 696 Pad
Well: OM09A G01 696
Wellbore: DD
Design: Plan #1



Azimuths to True North
Magnetic North: 10.47°

Magnetic Field
Strength: 52371.6snT
Dip Angle: 65.81°
Date: 8/12/2010
Model: IGRF200510

FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3391.0	3443.2	Wasatch
4891.0	4971.0	Fort Union
5391.0	5480.2	Base Ft Union
7891.0	8026.3	Ohio Creek
8191.0	8328.7	Williams Fork
8391.0	8528.9	Approx TOG
10941.0	11079.1	Cameo
11291.0	11429.2	Rollins SS

DESIGN DETAILS: Plan #1

105XXX; BH
KBE @ 8352.0ft (Patterson 302)

Target	Azimuth	Origin	N/S	E/W	From TVD
OM09A G01 696 BHL	111.49	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM09A G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	Garfield County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		G01 696 Pad			
Site Position:		Northing:	1,636,699.44 ft	Latitude:	39.553712
From:	Lat/Long	Easting:	2,279,741.26 ft	Longitude:	-108.054742
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.61 °

Well	OM09A G01 696					
Well Position	+N/-S	0.0 ft	Northing:	1,637,772.60 ft	Latitude:	39.556659
	+E/-W	0.0 ft	Easting:	2,279,765.80 ft	Longitude:	-108.054762
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,337.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	8/12/2010	10.47	65.81	52,372

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	111.49

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
746.6	10.93	110.27	743.2	-18.0	48.8	2.00	2.00	0.00	110.27	
7,982.4	10.93	110.27	7,847.8	-493.4	1,335.9	0.00	0.00	0.00	0.00	
8,528.9	0.00	0.00	8,391.0	-511.4	1,384.7	2.00	-2.00	0.00	180.00	OM09A G01 696 TGT
8,845.7	0.79	239.99	8,707.7	-512.5	1,382.8	0.25	0.25	-37.89	239.99	
11,579.2	0.79	239.99	11,441.0	-531.4	1,350.0	0.00	0.00	0.00	0.00	OM09A G01 696 BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM09A G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
30.0	0.00	0.00	30.0	0.0	0.0	0.0	0.00	0.00	
60.0	0.00	0.00	60.0	0.0	0.0	0.0	0.00	0.00	
90.0	0.00	0.00	90.0	0.0	0.0	0.0	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
210.0	0.20	110.27	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	110.27	240.0	-0.1	0.3	0.3	2.00	2.00	
270.0	1.40	110.27	270.0	-0.3	0.8	0.9	2.00	2.00	
300.0	2.00	110.27	300.0	-0.6	1.6	1.7	2.00	2.00	
330.0	2.60	110.27	330.0	-1.0	2.8	2.9	2.00	2.00	
360.0	3.20	110.27	359.9	-1.5	4.2	4.5	2.00	2.00	
390.0	3.80	110.27	389.9	-2.2	5.9	6.3	2.00	2.00	
420.0	4.40	110.27	419.8	-2.9	7.9	8.4	2.00	2.00	
450.0	5.00	110.27	449.7	-3.8	10.2	10.9	2.00	2.00	
480.0	5.60	110.27	479.6	-4.7	12.8	13.7	2.00	2.00	
510.0	6.20	110.27	509.4	-5.8	15.7	16.8	2.00	2.00	
540.0	6.80	110.27	539.2	-7.0	18.9	20.1	2.00	2.00	
570.0	7.40	110.27	569.0	-8.3	22.4	23.9	2.00	2.00	
600.0	8.00	110.27	598.7	-9.7	26.2	27.9	2.00	2.00	
630.0	8.60	110.27	628.4	-11.2	30.2	32.2	2.00	2.00	
660.0	9.20	110.27	658.0	-12.8	34.6	36.8	2.00	2.00	
690.0	9.80	110.27	687.6	-14.5	39.2	41.8	2.00	2.00	
720.0	10.40	110.27	717.1	-16.3	44.1	47.1	2.00	2.00	
746.6	10.93	110.27	743.2	-18.0	48.8	52.0	2.00	2.00	EOB; Inc=10.93°
750.0	10.93	110.27	746.6	-18.2	49.4	52.6	0.00	0.00	
780.0	10.93	110.27	776.1	-20.2	54.7	58.3	0.00	0.00	
810.0	10.93	110.27	805.5	-22.2	60.0	64.0	0.00	0.00	
840.0	10.93	110.27	835.0	-24.1	65.4	69.7	0.00	0.00	
870.0	10.93	110.27	864.5	-26.1	70.7	75.4	0.00	0.00	
900.0	10.93	110.27	893.9	-28.1	76.1	81.1	0.00	0.00	
930.0	10.93	110.27	923.4	-30.1	81.4	86.7	0.00	0.00	
960.0	10.93	110.27	952.8	-32.0	86.7	92.4	0.00	0.00	
990.0	10.93	110.27	982.3	-34.0	92.1	98.1	0.00	0.00	
1,020.0	10.93	110.27	1,011.7	-36.0	97.4	103.8	0.00	0.00	
1,050.0	10.93	110.27	1,041.2	-37.9	102.7	109.5	0.00	0.00	
1,080.0	10.93	110.27	1,070.6	-39.9	108.1	115.2	0.00	0.00	
1,110.0	10.93	110.27	1,100.1	-41.9	113.4	120.9	0.00	0.00	
1,140.0	10.93	110.27	1,129.6	-43.9	118.7	126.6	0.00	0.00	
1,170.0	10.93	110.27	1,159.0	-45.8	124.1	132.2	0.00	0.00	
1,200.0	10.93	110.27	1,188.5	-47.8	129.4	137.9	0.00	0.00	
1,230.0	10.93	110.27	1,217.9	-49.8	134.8	143.6	0.00	0.00	
1,260.0	10.93	110.27	1,247.4	-51.7	140.1	149.3	0.00	0.00	
1,290.0	10.93	110.27	1,276.8	-53.7	145.4	155.0	0.00	0.00	
1,320.0	10.93	110.27	1,306.3	-55.7	150.8	160.7	0.00	0.00	
1,350.0	10.93	110.27	1,335.7	-57.7	156.1	166.4	0.00	0.00	
1,380.0	10.93	110.27	1,365.2	-59.6	161.4	172.1	0.00	0.00	
1,410.0	10.93	110.27	1,394.7	-61.6	166.8	177.7	0.00	0.00	
1,440.0	10.93	110.27	1,424.1	-63.6	172.1	183.4	0.00	0.00	
1,470.0	10.93	110.27	1,453.6	-65.5	177.4	189.1	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM09A G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)	Comments / Formations
1,500.0	10.93	110.27	1,483.0	-67.5	182.8	194.8	0.00	0.00	
1,530.0	10.93	110.27	1,512.5	-69.5	188.1	200.5	0.00	0.00	
1,560.0	10.93	110.27	1,541.9	-71.5	193.5	206.2	0.00	0.00	
1,590.0	10.93	110.27	1,571.4	-73.4	198.8	211.9	0.00	0.00	
1,620.0	10.93	110.27	1,600.8	-75.4	204.1	217.6	0.00	0.00	
1,650.0	10.93	110.27	1,630.3	-77.4	209.5	223.2	0.00	0.00	
1,680.0	10.93	110.27	1,659.8	-79.3	214.8	228.9	0.00	0.00	
1,710.0	10.93	110.27	1,689.2	-81.3	220.1	234.6	0.00	0.00	
1,740.0	10.93	110.27	1,718.7	-83.3	225.5	240.3	0.00	0.00	
1,770.0	10.93	110.27	1,748.1	-85.2	230.8	246.0	0.00	0.00	
1,800.0	10.93	110.27	1,777.6	-87.2	236.2	251.7	0.00	0.00	
1,830.0	10.93	110.27	1,807.0	-89.2	241.5	257.4	0.00	0.00	
1,860.0	10.93	110.27	1,836.5	-91.2	246.8	263.1	0.00	0.00	
1,890.0	10.93	110.27	1,865.9	-93.1	252.2	268.7	0.00	0.00	
1,920.0	10.93	110.27	1,895.4	-95.1	257.5	274.4	0.00	0.00	
1,950.0	10.93	110.27	1,924.9	-97.1	262.8	280.1	0.00	0.00	
1,980.0	10.93	110.27	1,954.3	-99.0	268.2	285.8	0.00	0.00	
2,010.0	10.93	110.27	1,983.8	-101.0	273.5	291.5	0.00	0.00	
2,040.0	10.93	110.27	2,013.2	-103.0	278.8	297.2	0.00	0.00	
2,070.0	10.93	110.27	2,042.7	-105.0	284.2	302.9	0.00	0.00	
2,100.0	10.93	110.27	2,072.1	-106.9	289.5	308.6	0.00	0.00	
2,130.0	10.93	110.27	2,101.6	-108.9	294.9	314.2	0.00	0.00	
2,160.0	10.93	110.27	2,131.0	-110.9	300.2	319.9	0.00	0.00	
2,190.0	10.93	110.27	2,160.5	-112.8	305.5	325.6	0.00	0.00	
2,220.0	10.93	110.27	2,190.0	-114.8	310.9	331.3	0.00	0.00	
2,250.0	10.93	110.27	2,219.4	-116.8	316.2	337.0	0.00	0.00	
2,280.0	10.93	110.27	2,248.9	-118.8	321.5	342.7	0.00	0.00	
2,310.0	10.93	110.27	2,278.3	-120.7	326.9	348.4	0.00	0.00	
2,340.0	10.93	110.27	2,307.8	-122.7	332.2	354.1	0.00	0.00	
2,370.0	10.93	110.27	2,337.2	-124.7	337.5	359.7	0.00	0.00	
2,400.0	10.93	110.27	2,366.7	-126.6	342.9	365.4	0.00	0.00	
2,430.0	10.93	110.27	2,396.1	-128.6	348.2	371.1	0.00	0.00	
2,460.0	10.93	110.27	2,425.6	-130.6	353.6	376.8	0.00	0.00	
2,490.0	10.93	110.27	2,455.1	-132.5	358.9	382.5	0.00	0.00	

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									
OM09A G01 696 TGT	0.00	0.00	8,391.0	-511.4	1,384.7	1,637,222.47	2,281,135.52	39.555255	-108.049851
- plan misses target center by 6035.8ft at 2490.0ft MD (2455.1 TVD, -132.5 N, 358.9 E)									
- Point									
OM09A G01 696 BHL	0.00	0.00	11,441.0	-531.4	1,350.0	1,637,203.46	2,281,100.37	39.555200	-108.049974
- plan misses target center by 9049.2ft at 2490.0ft MD (2455.1 TVD, -132.5 N, 358.9 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM09A G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)	Comments / Formations
2,500.0	10.93	110.27	2,464.9	-133.2	360.7	384.4	0.00	0.00	
2,600.0	10.93	110.27	2,563.1	-139.8	378.5	403.4	0.00	0.00	
2,700.0	10.93	110.27	2,661.2	-146.3	396.2	422.3	0.00	0.00	
2,800.0	10.93	110.27	2,759.4	-152.9	414.0	441.3	0.00	0.00	
2,900.0	10.93	110.27	2,857.6	-159.5	431.8	460.2	0.00	0.00	
3,000.0	10.93	110.27	2,955.8	-166.1	449.6	479.2	0.00	0.00	
3,100.0	10.93	110.27	3,054.0	-172.6	467.4	498.1	0.00	0.00	
3,200.0	10.93	110.27	3,152.2	-179.2	485.2	517.1	0.00	0.00	
3,300.0	10.93	110.27	3,250.4	-185.8	503.0	536.1	0.00	0.00	
3,400.0	10.93	110.27	3,348.5	-192.3	520.8	555.0	0.00	0.00	
3,443.2	10.93	110.27	3,391.0	-195.2	528.5	563.2	0.00	0.00	Wasatch
3,500.0	10.93	110.27	3,446.7	-198.9	538.6	574.0	0.00	0.00	
3,600.0	10.93	110.27	3,544.9	-205.5	556.3	592.9	0.00	0.00	
3,700.0	10.93	110.27	3,643.1	-212.0	574.1	611.9	0.00	0.00	
3,800.0	10.93	110.27	3,741.3	-218.6	591.9	630.9	0.00	0.00	
3,900.0	10.93	110.27	3,839.5	-225.2	609.7	649.8	0.00	0.00	
4,000.0	10.93	110.27	3,937.7	-231.8	627.5	668.8	0.00	0.00	
4,100.0	10.93	110.27	4,035.8	-238.3	645.3	687.7	0.00	0.00	
4,200.0	10.93	110.27	4,134.0	-244.9	663.1	706.7	0.00	0.00	
4,300.0	10.93	110.27	4,232.2	-251.5	680.9	725.6	0.00	0.00	
4,400.0	10.93	110.27	4,330.4	-258.0	698.6	744.6	0.00	0.00	
4,500.0	10.93	110.27	4,428.6	-264.6	716.4	763.6	0.00	0.00	
4,600.0	10.93	110.27	4,526.8	-271.2	734.2	782.5	0.00	0.00	
4,700.0	10.93	110.27	4,625.0	-277.7	752.0	801.5	0.00	0.00	
4,800.0	10.93	110.27	4,723.1	-284.3	769.8	820.4	0.00	0.00	
4,900.0	10.93	110.27	4,821.3	-290.9	787.6	839.4	0.00	0.00	
4,971.0	10.93	110.27	4,891.0	-295.5	800.2	852.9	0.00	0.00	Fort Union
5,000.0	10.93	110.27	4,919.5	-297.5	805.4	858.4	0.00	0.00	
5,100.0	10.93	110.27	5,017.7	-304.0	823.2	877.3	0.00	0.00	
5,200.0	10.93	110.27	5,115.9	-310.6	841.0	896.3	0.00	0.00	
5,300.0	10.93	110.27	5,214.1	-317.2	858.7	915.2	0.00	0.00	
5,400.0	10.93	110.27	5,312.3	-323.7	876.5	934.2	0.00	0.00	
5,480.2	10.93	110.27	5,391.0	-329.0	890.8	949.4	0.00	0.00	Base Ft Union
5,500.0	10.93	110.27	5,410.4	-330.3	894.3	953.2	0.00	0.00	
5,600.0	10.93	110.27	5,508.6	-336.9	912.1	972.1	0.00	0.00	
5,700.0	10.93	110.27	5,606.8	-343.4	929.9	991.1	0.00	0.00	
5,800.0	10.93	110.27	5,705.0	-350.0	947.7	1,010.0	0.00	0.00	
5,900.0	10.93	110.27	5,803.2	-356.6	965.5	1,029.0	0.00	0.00	
6,000.0	10.93	110.27	5,901.4	-363.2	983.3	1,047.9	0.00	0.00	
6,100.0	10.93	110.27	5,999.6	-369.7	1,001.1	1,066.9	0.00	0.00	
6,200.0	10.93	110.27	6,097.7	-376.3	1,018.8	1,085.9	0.00	0.00	
6,300.0	10.93	110.27	6,195.9	-382.9	1,036.6	1,104.8	0.00	0.00	
6,400.0	10.93	110.27	6,294.1	-389.4	1,054.4	1,123.8	0.00	0.00	
6,500.0	10.93	110.27	6,392.3	-396.0	1,072.2	1,142.7	0.00	0.00	
6,600.0	10.93	110.27	6,490.5	-402.6	1,090.0	1,161.7	0.00	0.00	
6,700.0	10.93	110.27	6,588.7	-409.1	1,107.8	1,180.7	0.00	0.00	
6,800.0	10.93	110.27	6,686.9	-415.7	1,125.6	1,199.6	0.00	0.00	
6,900.0	10.93	110.27	6,785.0	-422.3	1,143.4	1,218.6	0.00	0.00	
7,000.0	10.93	110.27	6,883.2	-428.8	1,161.1	1,237.5	0.00	0.00	
7,100.0	10.93	110.27	6,981.4	-435.4	1,178.9	1,256.5	0.00	0.00	
7,200.0	10.93	110.27	7,079.6	-442.0	1,196.7	1,275.4	0.00	0.00	
7,300.0	10.93	110.27	7,177.8	-448.6	1,214.5	1,294.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM09A G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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)	Comments / Formations
7,400.0	10.93	110.27	7,276.0	-455.1	1,232.3	1,313.4	0.00	0.00	
7,500.0	10.93	110.27	7,374.2	-461.7	1,250.1	1,332.3	0.00	0.00	
7,600.0	10.93	110.27	7,472.3	-468.3	1,267.9	1,351.3	0.00	0.00	
7,700.0	10.93	110.27	7,570.5	-474.8	1,285.7	1,370.2	0.00	0.00	
7,800.0	10.93	110.27	7,668.7	-481.4	1,303.5	1,389.2	0.00	0.00	
7,900.0	10.93	110.27	7,766.9	-488.0	1,321.2	1,408.2	0.00	0.00	
7,982.4	10.93	110.27	7,847.8	-493.4	1,335.9	1,423.8	0.00	0.00	Start Drop -2.00
8,000.0	10.58	110.27	7,865.1	-494.5	1,339.0	1,427.1	2.00	-2.00	
8,026.3	10.05	110.27	7,891.0	-496.2	1,343.4	1,431.8	2.00	-2.00	Ohio Creek
8,100.0	8.58	110.27	7,963.7	-500.3	1,354.6	1,443.7	2.00	-2.00	
8,200.0	6.58	110.27	8,062.8	-504.9	1,367.0	1,456.9	2.00	-2.00	
8,300.0	4.58	110.27	8,162.3	-508.2	1,376.1	1,466.6	2.00	-2.00	
8,328.7	4.00	110.27	8,191.0	-509.0	1,378.1	1,468.7	2.00	-2.00	Williams Fork
8,400.0	2.58	110.27	8,262.1	-510.4	1,381.9	1,472.8	2.00	-2.00	
8,500.0	0.58	110.27	8,362.1	-511.3	1,384.5	1,475.6	2.00	-2.00	
8,528.9	0.00	0.00	8,391.0	-511.4	1,384.7	1,475.7	2.00	-2.00	EOD; Inc=0° - Approx TOG - OM09A G01 696
8,600.0	0.18	239.99	8,462.1	-511.5	1,384.6	1,475.7	0.25	0.25	
8,700.0	0.43	239.99	8,562.1	-511.7	1,384.1	1,475.3	0.25	0.25	
8,800.0	0.68	239.99	8,662.1	-512.2	1,383.3	1,474.7	0.25	0.25	
8,845.7	0.79	239.99	8,707.7	-512.5	1,382.8	1,474.4	0.25	0.25	
8,900.0	0.79	239.99	8,762.1	-512.9	1,382.1	1,473.9	0.00	0.00	
9,000.0	0.79	239.99	8,862.1	-513.6	1,380.9	1,473.0	0.00	0.00	
9,100.0	0.79	239.99	8,962.1	-514.2	1,379.7	1,472.2	0.00	0.00	
9,200.0	0.79	239.99	9,062.1	-514.9	1,378.5	1,471.3	0.00	0.00	
9,300.0	0.79	239.99	9,162.0	-515.6	1,377.3	1,470.5	0.00	0.00	
9,400.0	0.79	239.99	9,262.0	-516.3	1,376.1	1,469.6	0.00	0.00	
9,500.0	0.79	239.99	9,362.0	-517.0	1,374.9	1,468.7	0.00	0.00	
9,600.0	0.79	239.99	9,462.0	-517.7	1,373.7	1,467.9	0.00	0.00	
9,700.0	0.79	239.99	9,562.0	-518.4	1,372.5	1,467.0	0.00	0.00	
9,800.0	0.79	239.99	9,662.0	-519.1	1,371.3	1,466.2	0.00	0.00	
9,900.0	0.79	239.99	9,762.0	-519.8	1,370.1	1,465.3	0.00	0.00	
10,000.0	0.79	239.99	9,862.0	-520.5	1,368.9	1,464.4	0.00	0.00	
10,100.0	0.79	239.99	9,962.0	-521.2	1,367.7	1,463.6	0.00	0.00	
10,200.0	0.79	239.99	10,062.0	-521.9	1,366.5	1,462.7	0.00	0.00	
10,300.0	0.79	239.99	10,161.9	-522.5	1,365.4	1,461.9	0.00	0.00	
10,400.0	0.79	239.99	10,261.9	-523.2	1,364.2	1,461.0	0.00	0.00	
10,500.0	0.79	239.99	10,361.9	-523.9	1,363.0	1,460.1	0.00	0.00	
10,600.0	0.79	239.99	10,461.9	-524.6	1,361.8	1,459.3	0.00	0.00	
10,700.0	0.79	239.99	10,561.9	-525.3	1,360.6	1,458.4	0.00	0.00	
10,800.0	0.79	239.99	10,661.9	-526.0	1,359.4	1,457.6	0.00	0.00	
10,900.0	0.79	239.99	10,761.9	-526.7	1,358.2	1,456.7	0.00	0.00	
11,000.0	0.79	239.99	10,861.9	-527.4	1,357.0	1,455.8	0.00	0.00	
11,079.1	0.79	239.99	10,941.0	-527.9	1,356.0	1,455.2	0.00	0.00	Cameo
11,100.0	0.79	239.99	10,961.9	-528.1	1,355.8	1,455.0	0.00	0.00	
11,200.0	0.79	239.99	11,061.9	-528.8	1,354.6	1,454.1	0.00	0.00	
11,300.0	0.79	239.99	11,161.8	-529.5	1,353.4	1,453.3	0.00	0.00	
11,400.0	0.79	239.99	11,261.8	-530.1	1,352.2	1,452.4	0.00	0.00	
11,429.2	0.79	239.99	11,291.0	-530.4	1,351.8	1,452.1	0.00	0.00	Rollins SS
11,500.0	0.79	239.99	11,361.8	-530.8	1,351.0	1,451.5	0.00	0.00	
11,579.2	0.79	239.99	11,441.0	-531.4	1,350.0	1,450.9	0.00	0.00	OM09A G01 696 BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well OM09A G01 696
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site:	G01 696 Pad	North Reference:	True
Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
OM09A G01 696 TGT	0.00	0.00	8,391.0	-511.4	1,384.7	1,637,222.47	2,281,135.52	39.555255	-108.049851
- plan hits target center									
- Point									
OM09A G01 696 BHL	0.00	0.00	11,441.0	-531.4	1,350.0	1,637,203.46	2,281,100.37	39.555200	-108.049974
- plan hits target center									
- Rectangle (sides W50.0 H100.0 D0.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
3,443.2	3,391.0	Wasatch		0.00		
4,971.0	4,891.0	Fort Union		0.00		
5,480.2	5,391.0	Base Ft Union		0.00		
8,026.3	7,891.0	Ohio Creek		0.00		
8,328.7	8,191.0	Williams Fork		0.00		
8,528.9	8,391.0	Approx TOG		0.00		
11,079.1	10,941.0	Cameo		0.00		
11,429.2	11,291.0	Rollins SS		0.00		

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
200.0	200.0	0.0	0.0	KOP @ 200'	
746.6	743.2	-18.0	48.8	EOB; Inc=10.93°	
7,982.4	7,847.8	-493.4	1,335.9	Start Drop -2.00	
8,528.9	8,391.0	-511.4	1,384.7	EOD; Inc=0°	
11,579.2	11,441.0	-512.5	1,382.8	TD at 11579.2	

Berry Petroleum Company (NAD 83)

Garfield County

G01 696 Pad

OM09A G01 696

DD

Plan #1

Anticollision Report

12 August, 2010

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	8/12/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,579.2	Plan #1 (DD)	MWD	Geolink MWD	

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						
G01 696 Pad						
OM07C G01 696 - DD - Plan #1						Out of range
OM07D G01 696 - DD - Plan #1	200.0	200.0	39.9	39.2	61.747	CC
OM07D G01 696 - DD - Plan #1	300.0	300.0	40.0	39.0	40.090	ES
OM07D G01 696 - DD - Plan #1	600.0	598.7	50.2	48.0	23.371	SF
OM08C G01 696 - DD - Plan #1	200.0	200.0	9.9	9.2	15.301	CC
OM08C G01 696 - DD - Plan #1	300.0	300.0	10.2	9.2	10.207	ES
OM08C G01 696 - DD - Plan #1	2,800.0	2,798.1	97.4	79.1	5.329	SF
OM08D G01 696 - DD - Plan #1	200.0	200.0	30.0	29.3	46.445	CC
OM08D G01 696 - DD - Plan #1	300.0	300.0	30.2	29.2	30.208	ES
OM08D G01 696 - DD - Plan #1	1,200.0	1,200.5	93.1	87.9	17.943	SF
OM09B G01 696 - DD - Plan #1	200.0	200.0	20.0	19.4	31.018	CC
OM09B G01 696 - DD - Plan #1	300.0	299.8	20.3	19.3	20.262	ES
OM09B G01 696 - DD - Plan #1	2,900.0	2,897.7	100.0	81.0	5.278	SF
OM09C G01 696 - DD - Plan #1	200.0	200.0	40.1	39.5	62.160	CC, ES
OM09C G01 696 - DD - Plan #1	1,000.0	990.1	98.6	93.5	19.482	SF
OM09D G01 696 - DD - Plan #1	200.0	200.0	29.9	29.3	46.317	CC, ES
OM09D G01 696 - DD - Plan #1	1,300.0	1,294.3	92.5	85.1	12.583	SF
OM10A G01 696 - DD - Plan #1	200.0	200.0	50.0	49.4	77.461	CC, ES
OM10A G01 696 - DD - Plan #1	746.6	732.7	98.6	95.5	32.182	SF
OM10B G01 696 - DD - Plan #1	271.8	271.8	9.8	8.9	10.857	CC
OM10B G01 696 - DD - Plan #1	300.0	300.0	9.8	8.8	9.810	ES
OM10B G01 696 - DD - Plan #1	400.0	399.8	11.5	10.1	8.449	SF
OM10C G01 696 - DD - Plan #1	200.0	200.0	59.9	59.3	92.762	CC, ES
OM10C G01 696 - DD - Plan #1	600.0	588.4	89.5	87.3	40.758	SF
OM10D G01 696 - DD - Plan #1	200.0	200.0	70.1	69.5	108.611	CC, ES
OM10D G01 696 - DD - Plan #1	600.0	587.6	98.0	95.8	44.460	SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM07D G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	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)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	16.43	38.2	11.3	39.9					
100.0	100.0	100.0	100.0	0.1	0.1	16.43	38.2	11.3	39.9	39.6	0.30	134.389		
200.0	200.0	200.0	200.0	0.3	0.3	16.43	38.2	11.3	39.9	39.2	0.65	61.747 CC		
300.0	300.0	300.0	300.0	0.5	0.5	-96.33	38.2	11.3	40.0	39.0	1.00	40.090 ES		
400.0	399.8	399.8	399.8	0.7	0.7	-103.60	38.2	11.3	40.9	39.6	1.37	29.955		
500.0	499.5	499.5	499.5	0.9	0.8	-114.66	38.2	11.3	43.8	42.1	1.75	24.978		
600.0	598.7	598.7	598.7	1.2	1.0	-127.25	38.2	11.3	50.2	48.0	2.15	23.371 SF		
700.0	697.5	697.5	697.5	1.5	1.2	-138.83	38.2	11.3	61.0	58.4	2.52	24.178		
746.6	743.2	743.2	743.2	1.7	1.3	-143.45	38.2	11.3	67.6	64.9	2.69	25.167		
800.0	795.7	795.7	795.7	1.9	1.4	-147.98	38.2	11.3	76.0	73.2	2.87	26.486		
900.0	893.9	893.9	893.9	2.2	1.5	-154.18	38.2	11.3	92.7	89.5	3.21	28.894		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM08C G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	0.0	0.0	0.0	0.0	16.58	9.5	2.8	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	16.58	9.5	2.8	9.9	9.6	0.30	33.303		
200.0	200.0	200.0	200.0	0.3	0.3	16.58	9.5	2.8	9.9	9.2	0.65	15.301 CC		
300.0	300.0	300.0	299.9	0.5	0.5	-93.76	9.2	4.5	10.2	9.2	1.00	10.207 ES		
400.0	399.8	399.9	399.7	0.7	0.7	-93.93	8.4	9.7	11.3	9.9	1.39	8.096		
500.0	499.5	499.8	499.3	0.9	0.9	-94.15	7.1	18.3	13.0	11.2	1.84	7.058		
600.0	598.7	599.7	598.4	1.2	1.2	-94.38	5.2	30.3	15.4	13.1	2.38	6.495		
700.0	697.5	699.6	697.1	1.5	1.5	-94.57	2.8	45.8	18.5	15.5	3.01	6.167		
746.6	743.2	746.1	742.8	1.7	1.7	-94.82	1.5	54.0	20.2	16.9	3.33	6.081		
800.0	795.7	799.5	795.3	1.9	1.8	-95.81	0.0	63.7	22.2	18.5	3.70	6.007		
900.0	893.9	899.5	893.6	2.2	2.2	-97.26	-2.8	81.8	25.9	21.5	4.40	5.890		
1,000.0	992.1	999.4	991.8	2.6	2.6	-98.34	-5.6	99.8	29.7	24.5	5.12	5.797		
1,100.0	1,090.3	1,099.3	1,090.1	2.9	2.9	-99.18	-8.4	117.9	33.4	27.6	5.84	5.722		
1,200.0	1,188.5	1,199.2	1,188.3	3.3	3.3	-99.86	-11.2	136.0	37.1	30.6	6.56	5.662		
1,300.0	1,286.6	1,299.2	1,286.5	3.7	3.6	-100.40	-14.0	154.1	40.9	33.6	7.29	5.613		
1,400.0	1,384.8	1,399.1	1,384.8	4.1	4.0	-100.86	-16.9	172.1	44.7	36.6	8.02	5.571		
1,500.0	1,483.0	1,499.0	1,483.0	4.4	4.4	-101.25	-19.7	190.2	48.4	39.7	8.75	5.536		
1,600.0	1,581.2	1,599.0	1,581.3	4.8	4.7	-101.58	-22.5	208.3	52.2	42.7	9.48	5.506		
1,700.0	1,679.4	1,698.9	1,679.5	5.2	5.1	-101.86	-25.3	226.4	55.9	45.7	10.21	5.481		
1,800.0	1,777.6	1,798.8	1,777.7	5.6	5.5	-102.11	-28.1	244.4	59.7	48.8	10.94	5.458		
1,900.0	1,875.8	1,898.7	1,876.0	5.9	5.8	-102.33	-30.9	262.5	63.5	51.8	11.67	5.438		
2,000.0	1,973.9	1,998.7	1,974.2	6.3	6.2	-102.53	-33.7	280.6	67.2	54.8	12.40	5.421		
2,100.0	2,072.1	2,098.6	2,072.5	6.7	6.6	-102.70	-36.5	298.6	71.0	57.9	13.13	5.405		
2,200.0	2,170.3	2,198.5	2,170.7	7.1	6.9	-102.86	-39.3	316.7	74.8	60.9	13.87	5.391		
2,300.0	2,268.5	2,298.5	2,268.9	7.5	7.3	-103.00	-42.1	334.8	78.5	63.9	14.60	5.378		
2,400.0	2,366.7	2,398.4	2,367.2	7.8	7.7	-103.13	-45.0	352.9	82.3	67.0	15.33	5.366		
2,500.0	2,464.9	2,498.3	2,465.4	8.2	8.0	-103.25	-47.8	370.9	86.1	70.0	16.07	5.356		
2,600.0	2,563.1	2,598.2	2,563.7	8.6	8.4	-103.36	-50.6	389.0	89.8	73.0	16.80	5.346		
2,700.0	2,661.2	2,698.2	2,661.9	9.0	8.8	-103.46	-53.4	407.1	93.6	76.1	17.53	5.338		
2,800.0	2,759.4	2,798.1	2,760.2	9.3	9.1	-103.55	-56.2	425.2	97.4	79.1	18.27	5.329 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													G01 696 Pad - OM08D G01 696 - DD - Plan #1		Offset Site Error:		0.0 ft	
Survey Program: 0-MWD															Offset Well Error:		0.0 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)	Total Uncertainty Axis	Separation Factor	Warning					
0.0	0.0	0.0	0.0	0.0	0.0	16.38	28.8	8.5	30.0									
100.0	100.0	100.0	100.0	0.1	0.1	16.38	28.8	8.5	30.0	29.7	0.30	101.087						
200.0	200.0	200.0	200.0	0.3	0.3	16.38	28.8	8.5	30.0	29.3	0.65	46.445	CC					
300.0	300.0	300.0	300.0	0.5	0.5	-97.19	28.8	8.5	30.2	29.2	1.00	30.208	ES					
400.0	399.8	399.8	399.8	0.7	0.7	-106.72	28.8	8.5	31.3	29.9	1.37	22.879						
500.0	499.5	499.5	499.5	0.9	0.8	-120.51	28.8	8.5	34.8	33.0	1.75	19.901						
600.0	598.7	599.2	599.2	1.2	1.0	-132.57	28.9	10.2	41.7	39.6	2.13	19.572						
700.0	697.5	699.2	699.0	1.5	1.2	-139.89	29.3	15.4	51.2	48.6	2.53	20.228						
746.6	743.2	745.8	745.5	1.7	1.3	-142.10	29.5	19.0	56.2	53.4	2.72	20.620						
800.0	795.7	799.5	798.9	1.9	1.4	-143.73	29.9	24.1	61.9	58.9	2.95	20.963						
900.0	893.9	900.2	898.9	2.2	1.7	-144.24	30.8	36.3	71.2	67.8	3.42	20.813						
1,000.0	992.1	1,001.1	998.5	2.6	2.0	-142.41	32.0	52.0	78.9	74.9	3.97	19.866						
1,100.0	1,090.3	1,100.8	1,096.7	2.9	2.3	-139.98	33.2	69.2	86.0	81.4	4.57	18.814						
1,200.0	1,188.5	1,200.5	1,194.9	3.3	2.6	-137.91	34.5	86.3	93.1	87.9	5.19	17.943	SF					

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM09B G01 696 - DD - Plan #1												Offset Site Error: 0.0 ft	
Survey Program: 0-MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis		Separation Factor
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)			
0.0	0.0	0.0	0.0	0.0	0.0	-164.49	-19.3	-5.4	20.0				
100.0	100.0	100.0	100.0	0.1	0.1	-164.49	-19.3	-5.4	20.0	19.7	0.30	67.509	
200.0	200.0	200.0	200.0	0.3	0.3	-164.49	-19.3	-5.4	20.0	19.4	0.65	31.018 CC	
300.0	300.0	299.8	299.8	0.5	0.5	85.37	-20.1	-3.8	20.3	19.3	1.00	20.262 ES	
400.0	399.8	399.7	399.5	0.7	0.7	85.72	-22.7	0.7	21.1	19.7	1.39	15.170	
500.0	499.5	499.5	498.9	0.9	0.9	86.26	-26.9	8.3	22.4	20.6	1.84	12.195	
600.0	598.7	599.3	598.0	1.2	1.2	86.90	-32.8	18.9	24.3	21.9	2.37	10.253	
700.0	697.5	699.1	696.6	1.5	1.5	87.59	-40.4	32.5	26.7	23.7	3.00	8.904	
746.6	743.2	745.5	742.2	1.7	1.7	87.92	-44.5	39.9	28.0	24.7	3.33	8.415	
800.0	795.7	798.9	794.5	1.9	1.9	87.38	-49.7	49.1	29.7	26.0	3.71	7.998	
900.0	893.9	898.8	892.4	2.2	2.2	85.45	-59.7	66.9	32.9	28.5	4.43	7.427	
1,000.0	992.1	998.8	990.2	2.6	2.6	83.87	-69.6	84.7	36.2	31.0	5.16	7.013	
1,100.0	1,090.3	1,098.7	1,088.0	2.9	3.0	82.55	-79.6	102.6	39.5	33.6	5.89	6.703	
1,200.0	1,188.5	1,198.6	1,185.9	3.3	3.4	81.43	-89.5	120.4	42.8	36.1	6.62	6.462	
1,300.0	1,286.6	1,298.6	1,283.7	3.7	3.8	80.48	-99.5	138.2	46.1	38.7	7.35	6.272	
1,400.0	1,384.8	1,398.5	1,381.5	4.1	4.2	79.65	-109.4	156.0	49.4	41.3	8.08	6.118	
1,500.0	1,483.0	1,498.5	1,479.4	4.4	4.6	78.93	-119.4	173.9	52.7	43.9	8.80	5.991	
1,600.0	1,581.2	1,598.4	1,577.2	4.8	5.0	78.30	-129.3	191.7	56.1	46.6	9.53	5.885	
1,700.0	1,679.4	1,698.4	1,675.0	5.2	5.4	77.73	-139.3	209.5	59.5	49.2	10.26	5.794	
1,800.0	1,777.6	1,798.3	1,772.9	5.6	5.8	77.23	-149.2	227.3	62.8	51.8	10.99	5.717	
1,900.0	1,875.8	1,898.2	1,870.7	5.9	6.2	76.77	-159.2	245.2	66.2	54.5	11.71	5.650	
2,000.0	1,973.9	1,998.2	1,968.5	6.3	6.6	76.37	-169.1	263.0	69.5	57.1	12.44	5.591	
2,100.0	2,072.1	2,098.1	2,066.4	6.7	7.0	75.99	-179.1	280.8	72.9	59.7	13.16	5.540	
2,200.0	2,170.3	2,198.1	2,164.2	7.1	7.4	75.66	-189.0	298.7	76.3	62.4	13.88	5.494	
2,300.0	2,268.5	2,298.0	2,262.0	7.5	7.8	75.35	-199.0	316.5	79.7	65.1	14.61	5.453	
2,400.0	2,366.7	2,398.0	2,359.9	7.8	8.2	75.06	-208.9	334.3	83.0	67.7	15.33	5.416	
2,500.0	2,464.9	2,497.9	2,457.7	8.2	8.6	74.80	-218.9	352.1	86.4	70.4	16.05	5.383	
2,600.0	2,563.1	2,597.8	2,555.5	8.6	9.0	74.56	-228.9	370.0	89.8	73.0	16.77	5.353	
2,700.0	2,661.2	2,697.8	2,653.4	9.0	9.4	74.33	-238.8	387.8	93.2	75.7	17.50	5.326	
2,800.0	2,759.4	2,797.7	2,751.2	9.3	9.8	74.12	-248.8	405.6	96.6	78.3	18.22	5.301	
2,900.0	2,857.6	2,897.7	2,849.1	9.7	10.2	73.93	-258.7	423.4	100.0	81.0	18.94	5.278 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM09C G01 696 - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 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)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-164.10	-38.6	-11.0	40.1				
100.0	100.0	100.0	100.0	0.1	0.1	-164.10	-38.6	-11.0	40.1	39.8	0.30	135.290	
200.0	200.0	200.0	200.0	0.3	0.3	-164.10	-38.6	-11.0	40.1	39.5	0.65	62.160 CC, ES	
300.0	300.0	299.2	299.1	0.5	0.5	86.11	-40.0	-10.0	41.1	40.1	1.00	41.075	
400.0	399.8	398.3	398.1	0.7	0.7	87.42	-44.1	-6.9	43.8	42.4	1.38	31.707	
500.0	499.5	497.2	496.7	0.9	0.9	89.27	-50.9	-1.7	48.4	46.6	1.82	26.660	
600.0	598.7	596.1	594.8	1.2	1.2	91.31	-60.4	5.5	54.9	52.6	2.33	23.626	
700.0	697.5	694.7	692.2	1.5	1.5	93.29	-72.6	14.7	63.4	60.5	2.93	21.666	
746.6	743.2	740.5	737.3	1.7	1.7	94.14	-79.2	19.6	68.0	64.8	3.24	20.994	
800.0	795.7	793.0	788.8	1.9	1.8	94.79	-87.4	25.9	73.8	70.2	3.61	20.457	
900.0	893.9	891.0	884.3	2.2	2.3	94.21	-104.8	39.0	85.7	81.4	4.33	19.808	
1,000.0	992.1	990.1	980.5	2.6	2.7	92.81	-123.8	53.3	98.6	93.5	5.06	19.482 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM09D G01 696 - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 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)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-164.13	-28.8	-8.2	29.9				
100.0	100.0	100.0	100.0	0.1	0.1	-164.13	-28.8	-8.2	29.9	29.6	0.30	100.808	
200.0	200.0	200.0	200.0	0.3	0.3	-164.13	-28.8	-8.2	29.9	29.3	0.65	46.317 CC, ES	
300.0	300.0	299.6	299.5	0.5	0.5	85.88	-29.9	-6.9	30.5	29.5	1.00	30.472	
400.0	399.8	399.1	398.9	0.7	0.7	86.67	-33.3	-2.9	32.3	30.9	1.39	23.259	
500.0	499.5	498.6	498.1	0.9	0.9	87.81	-38.8	3.7	35.2	33.4	1.83	19.237	
600.0	598.7	598.0	596.8	1.2	1.2	89.11	-46.7	12.9	39.4	37.0	2.35	16.725	
700.0	697.5	697.4	694.9	1.5	1.5	90.42	-56.7	24.6	44.7	41.7	2.97	15.042	
746.6	743.2	743.6	740.4	1.7	1.7	90.99	-62.1	31.0	47.6	44.3	3.30	14.442	
800.0	795.7	796.6	792.3	1.9	1.9	91.14	-68.9	39.0	51.3	47.6	3.67	13.950	
900.0	893.9	895.8	889.0	2.2	2.3	88.95	-83.2	55.8	58.9	54.5	4.41	13.357	
1,000.0	992.1	995.4	985.8	2.6	2.7	86.27	-98.4	73.7	67.2	62.0	5.15	13.045	
1,100.0	1,090.3	1,095.0	1,082.6	2.9	3.1	84.17	-113.7	91.6	75.5	69.7	5.89	12.835	
1,200.0	1,188.5	1,194.6	1,179.4	3.3	3.6	82.49	-128.9	109.5	84.0	77.4	6.62	12.688	
1,300.0	1,286.6	1,294.3	1,276.2	3.7	4.0	81.12	-144.1	127.4	92.5	85.1	7.35	12.583 SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM10A G01 696 - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 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)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-163.97	-48.1	-13.8	50.0				
100.0	100.0	100.0	100.0	0.1	0.1	-163.97	-48.1	-13.8	50.0	49.7	0.30	168.591	
200.0	200.0	200.0	200.0	0.3	0.3	-163.97	-48.1	-13.8	50.0	49.4	0.65	77.461	CC, ES
300.0	300.0	298.4	298.4	0.5	0.5	86.93	-49.8	-13.6	51.5	50.5	1.00	51.684	
400.0	399.8	396.6	396.4	0.7	0.7	90.03	-54.8	-13.1	56.0	54.7	1.37	40.976	
500.0	499.5	494.4	493.8	0.9	0.9	94.18	-63.1	-12.2	63.9	62.1	1.78	35.922	
600.0	598.7	591.6	590.4	1.2	1.2	98.45	-74.6	-10.9	75.3	73.0	2.25	33.494	
700.0	697.5	688.1	685.7	1.5	1.5	102.27	-89.3	-9.3	90.3	87.5	2.79	32.396	
746.6	743.2	732.7	729.6	1.7	1.6	103.83	-97.2	-8.4	98.6	95.5	3.06	32.182	SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM10B G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	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)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-164.99	-9.5	-2.5	9.8					
100.0	100.0	100.0	100.0	0.1	0.1	-164.99	-9.5	-2.5	9.8	9.5	0.30	33.030		
200.0	200.0	200.0	200.0	0.3	0.3	-164.99	-9.5	-2.5	9.8	9.2	0.65	15.176		
271.8	271.8	271.8	271.8	0.5	0.4	90.00	-9.5	-2.5	9.8	8.9	0.90	10.857 CC		
300.0	300.0	300.0	300.0	0.5	0.5	94.95	-9.5	-2.5	9.8	8.8	1.00	9.810 ES		
400.0	399.8	399.8	399.8	0.7	0.7	121.86	-9.5	-2.5	11.5	10.1	1.36	8.449 SF		
500.0	499.5	499.5	499.5	0.9	0.8	146.44	-9.5	-2.5	17.7	16.0	1.71	10.348		
600.0	598.7	598.1	598.1	1.2	1.0	157.11	-10.9	-3.5	29.6	27.6	2.06	14.392		
700.0	697.5	695.9	695.7	1.5	1.2	159.31	-15.1	-6.2	47.0	44.6	2.42	19.428		
746.6	743.2	740.9	740.6	1.7	1.3	159.26	-18.0	-8.0	56.9	54.3	2.60	21.879		
800.0	795.7	792.3	791.8	1.9	1.4	158.78	-22.0	-10.6	69.0	66.2	2.81	24.557		
900.0	893.9	889.4	888.4	2.2	1.6	157.62	-30.5	-16.2	92.4	89.2	3.22	28.679		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM10C G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 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)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-163.88	-57.5	-16.6	59.9					
100.0	100.0	100.0	100.0	0.1	0.1	-163.88	-57.5	-16.6	59.9	59.6	0.30	201.893		
200.0	200.0	200.0	200.0	0.3	0.3	-163.88	-57.5	-16.6	59.9	59.3	0.65	92.762 CC, ES		
300.0	300.0	297.9	297.9	0.5	0.5	87.42	-59.1	-17.1	61.5	60.5	0.99	61.825		
400.0	399.8	395.5	395.3	0.7	0.7	91.64	-63.9	-18.5	66.6	65.2	1.36	48.938		
500.0	499.5	492.4	491.9	0.9	0.9	97.31	-71.8	-20.9	75.7	74.0	1.76	43.104		
600.0	598.7	588.4	587.2	1.2	1.2	103.14	-82.7	-24.2	89.5	87.3	2.20	40.758 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design G01 696 Pad - OM10D G01 696 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Separation Factor	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)	Total Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-163.90	-67.4	-19.5	70.1					
100.0	100.0	100.0	100.0	0.1	0.1	-163.90	-67.4	-19.5	70.1	69.8	0.30	236.389		
200.0	200.0	200.0	200.0	0.3	0.3	-163.90	-67.4	-19.5	70.1	69.5	0.65	108.611 CC, ES		
300.0	300.0	297.6	297.6	0.5	0.5	87.00	-69.0	-19.7	71.7	70.7	0.99	72.120		
400.0	399.8	394.9	394.7	0.7	0.7	90.17	-73.9	-20.5	76.6	75.3	1.36	56.323		
500.0	499.5	491.6	491.1	0.9	0.9	94.60	-82.0	-21.8	85.3	83.5	1.76	48.464		
600.0	598.7	587.6	586.4	1.2	1.2	99.38	-93.2	-23.6	98.0	95.8	2.20	44.460 SF		

Cathedral Energy Services

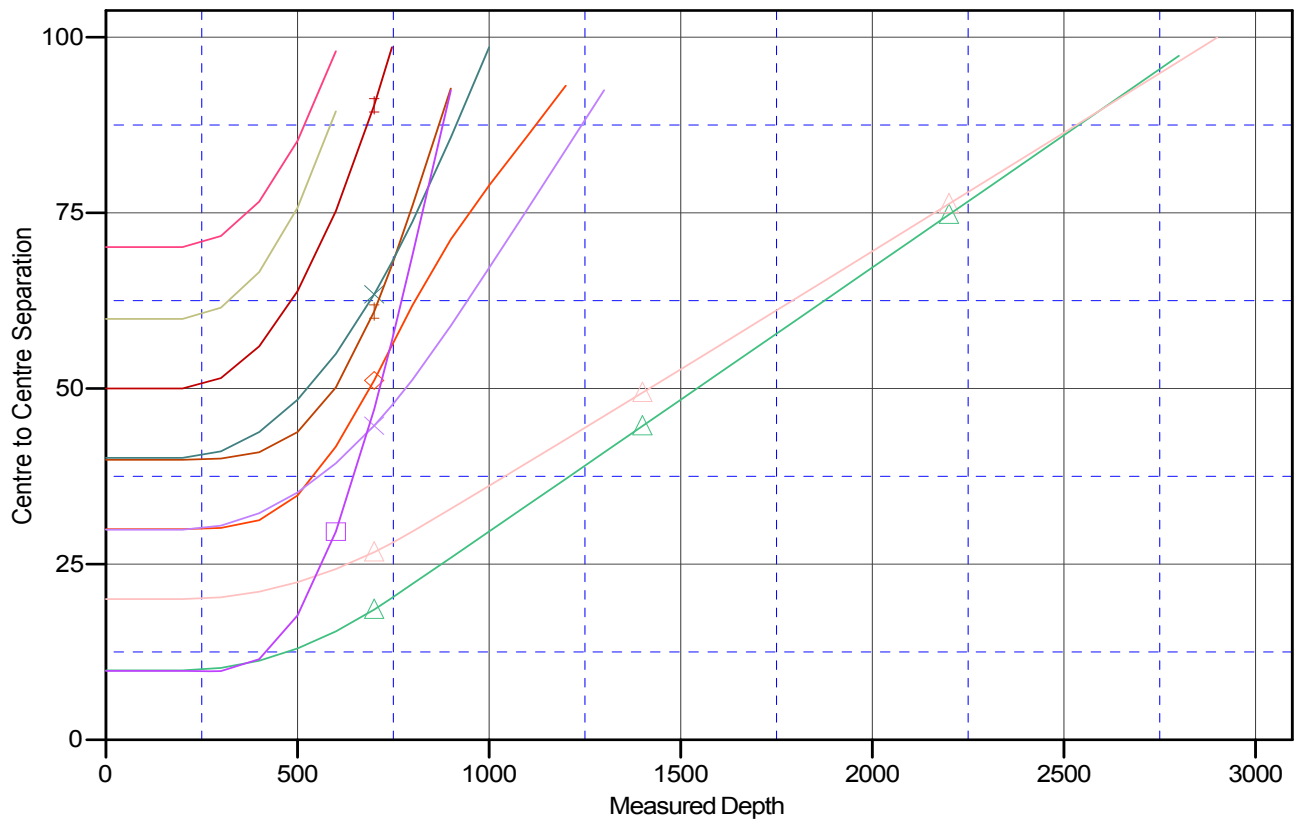
Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09A G01 696
Project:	Garfield County	TVD Reference:	KBE @ 8352.0ft (Patterson 302)
Reference Site:	G01 696 Pad	MD Reference:	KBE @ 8352.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09A G01 696	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 8352.0ft (Patterson 302)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: OM09A G01 696
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.61°

Ladder Plot



LEGEND

OM07D G01 696, DD, Plan #1 V0	OM09C G01 696, DD, Plan #1 V0	OM10C G01 696, DD, Plan #1 V0
OM08C G01 696, DD, Plan #1 V0	OM09D G01 696, DD, Plan #1 V0	OM10D G01 696, DD, Plan #1 V0
OM08D G01 696, DD, Plan #1 V0	OM10A G01 696, DD, Plan #1 V0	
OM09B G01 696, DD, Plan #1 V0	OM10B G01 696, DD, Plan #1 V0	