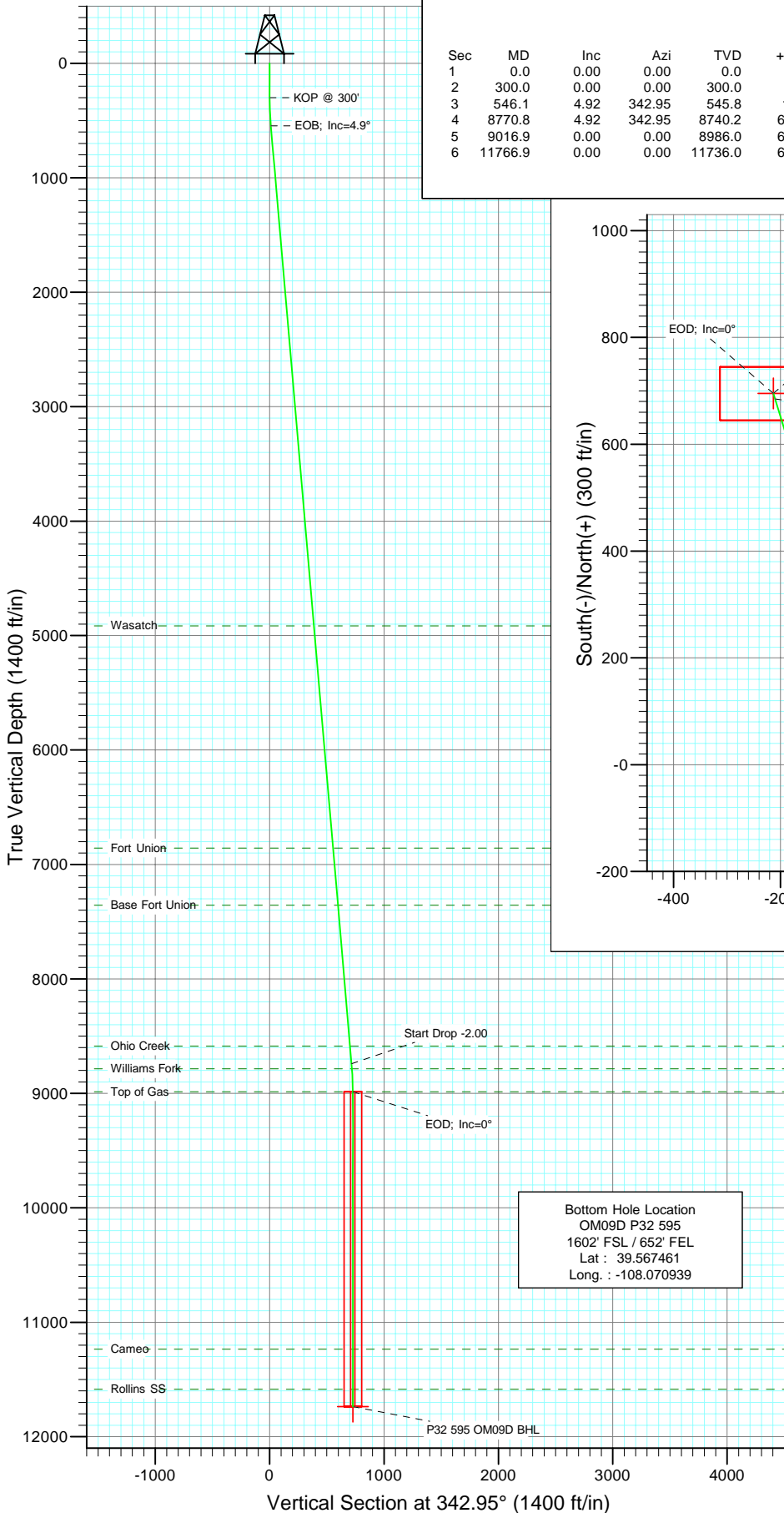




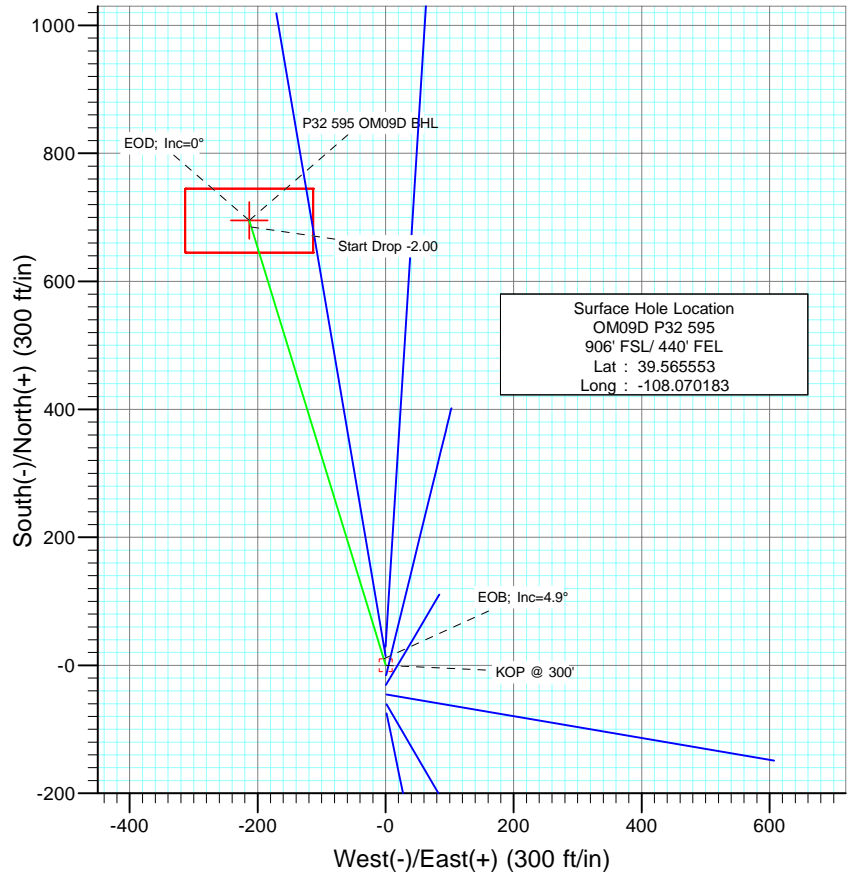
Berry Petroleum Company

Project: Garfield County
Site: P32 595
Well: OM09D P32 595
Wellbore: DD
Design: Plan #1



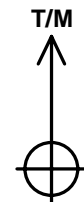
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	546.1	4.92	342.95	545.8	10.1	-3.1	2.00	342.95	10.6	
4	8770.8	4.92	342.95	8740.2	684.9	-210.0	0.00	0.00	716.4	
5	9016.9	0.00	0.00	8986.0	695.0	-213.1	2.00	180.00	726.9	
6	11766.9	0.00	0.00	11736.0	695.0	-213.1	0.00	0.00	726.9	P32 595 OM09D BHL



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4916.0	4932.5	Wasatch
6856.0	6879.7	Fort Union
7356.0	7381.5	Base Fort Union
8586.0	8616.1	Ohio Creek
8786.0	8816.8	Williams Fork
8986.0	9016.9	Top of Gas
11236.0	11266.9	Cameo
11586.0	11616.9	Rollins SS



Azimuths to True North
Magnetic North: 0.00°

Magnetic Field
Strength: 0.0snT
Dip Angle: 0.00°
Date: 10/3/2006
Model: USER DEFINED

DESIGN DETAILS: Plan #1

KB OM09D P32 @ 8386.0ft (Rig Name)

Target	Azimuth	Origin	N/S	E/W	From TVD
P32 595 OM09D BHL	342.95	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM09D P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM09D P32 595	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		P32 595			
Site Position:		Northing:	1,641,133.56 ft	Latitude:	39.565553
From:	Lat/Long	Easting:	2,275,511.10 ft	Longitude:	-108.070183
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence:	-1.62 °

Well	OM09D P32 595					
Well Position	+N/-S	0.0 ft	Northing:	1,641,133.55 ft	Latitude:	39.565553
	+E/-W	0.0 ft	Easting:	2,275,511.10 ft	Longitude:	-108.070183
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,358.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	User Defined	10/3/2006	0.00	0.00	0

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	342.95

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
546.1	4.92	342.95	545.8	10.1	-3.1	2.00	2.00	0.00	342.95	
8,770.8	4.92	342.95	8,740.2	684.9	-210.0	0.00	0.00	0.00	0.00	
9,016.9	0.00	0.00	8,986.0	695.0	-213.1	2.00	-2.00	0.00	180.00	
11,766.9	0.00	0.00	11,736.0	695.0	-213.1	0.00	0.00	0.00	0.00	P32 595 OM09D BHL

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM09D P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM09D P32 595	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	
100.0	0.00	0.00	100.0	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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
400.0	2.00	342.95	400.0	1.7	-0.5	1.7	2.00	2.00	
500.0	4.00	342.95	499.8	6.7	-2.0	7.0	2.00	2.00	
546.1	4.92	342.95	545.8	10.1	-3.1	10.6	2.00	2.00	EOB; Inc=4.9°
600.0	4.92	342.95	599.5	14.5	-4.5	15.2	0.00	0.00	
700.0	4.92	342.95	699.1	22.7	-7.0	23.8	0.00	0.00	
800.0	4.92	342.95	798.8	30.9	-9.5	32.4	0.00	0.00	
900.0	4.92	342.95	898.4	39.1	-12.0	40.9	0.00	0.00	
1,000.0	4.92	342.95	998.0	47.3	-14.5	49.5	0.00	0.00	
1,100.0	4.92	342.95	1,097.7	55.5	-17.0	58.1	0.00	0.00	
1,200.0	4.92	342.95	1,197.3	63.7	-19.5	66.7	0.00	0.00	
1,300.0	4.92	342.95	1,296.9	72.0	-22.1	75.3	0.00	0.00	
1,400.0	4.92	342.95	1,396.5	80.2	-24.6	83.8	0.00	0.00	
1,500.0	4.92	342.95	1,496.2	88.4	-27.1	92.4	0.00	0.00	
1,600.0	4.92	342.95	1,595.8	96.6	-29.6	101.0	0.00	0.00	
1,700.0	4.92	342.95	1,695.4	104.8	-32.1	109.6	0.00	0.00	
1,800.0	4.92	342.95	1,795.1	113.0	-34.6	118.2	0.00	0.00	
1,900.0	4.92	342.95	1,894.7	121.2	-37.2	126.8	0.00	0.00	
2,000.0	4.92	342.95	1,994.3	129.4	-39.7	135.3	0.00	0.00	
2,100.0	4.92	342.95	2,094.0	137.6	-42.2	143.9	0.00	0.00	
2,200.0	4.92	342.95	2,193.6	145.8	-44.7	152.5	0.00	0.00	
2,300.0	4.92	342.95	2,293.2	154.0	-47.2	161.1	0.00	0.00	
2,400.0	4.92	342.95	2,392.9	162.2	-49.7	169.7	0.00	0.00	
2,500.0	4.92	342.95	2,492.5	170.4	-52.3	178.2	0.00	0.00	
2,600.0	4.92	342.95	2,592.1	178.6	-54.8	186.8	0.00	0.00	
2,700.0	4.92	342.95	2,691.8	186.8	-57.3	195.4	0.00	0.00	
2,800.0	4.92	342.95	2,791.4	195.0	-59.8	204.0	0.00	0.00	
2,900.0	4.92	342.95	2,891.0	203.2	-62.3	212.6	0.00	0.00	
3,000.0	4.92	342.95	2,990.6	211.4	-64.8	221.1	0.00	0.00	
3,100.0	4.92	342.95	3,090.3	219.6	-67.4	229.7	0.00	0.00	
3,200.0	4.92	342.95	3,189.9	227.8	-69.9	238.3	0.00	0.00	
3,300.0	4.92	342.95	3,289.5	236.0	-72.4	246.9	0.00	0.00	
3,400.0	4.92	342.95	3,389.2	244.2	-74.9	255.5	0.00	0.00	
3,500.0	4.92	342.95	3,488.8	252.5	-77.4	264.1	0.00	0.00	
3,600.0	4.92	342.95	3,588.4	260.7	-79.9	272.6	0.00	0.00	
3,700.0	4.92	342.95	3,688.1	268.9	-82.4	281.2	0.00	0.00	
3,800.0	4.92	342.95	3,787.7	277.1	-85.0	289.8	0.00	0.00	
3,900.0	4.92	342.95	3,887.3	285.3	-87.5	298.4	0.00	0.00	
4,000.0	4.92	342.95	3,987.0	293.5	-90.0	307.0	0.00	0.00	
4,100.0	4.92	342.95	4,086.6	301.7	-92.5	315.5	0.00	0.00	
4,200.0	4.92	342.95	4,186.2	309.9	-95.0	324.1	0.00	0.00	
4,300.0	4.92	342.95	4,285.8	318.1	-97.5	332.7	0.00	0.00	
4,400.0	4.92	342.95	4,385.5	326.3	-100.1	341.3	0.00	0.00	
4,500.0	4.92	342.95	4,485.1	334.5	-102.6	349.9	0.00	0.00	
4,600.0	4.92	342.95	4,584.7	342.7	-105.1	358.5	0.00	0.00	
4,700.0	4.92	342.95	4,684.4	350.9	-107.6	367.0	0.00	0.00	
4,800.0	4.92	342.95	4,784.0	359.1	-110.1	375.6	0.00	0.00	
4,900.0	4.92	342.95	4,883.6	367.3	-112.6	384.2	0.00	0.00	
4,932.5	4.92	342.95	4,916.0	370.0	-113.5	387.0	0.00	0.00	Wasatch

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM09D P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM09D P32 595	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
5,000.0	4.92	342.95	4,983.3	375.5	-115.2	392.8	0.00	0.00	
5,100.0	4.92	342.95	5,082.9	383.7	-117.7	401.4	0.00	0.00	
5,200.0	4.92	342.95	5,182.5	391.9	-120.2	409.9	0.00	0.00	
5,300.0	4.92	342.95	5,282.2	400.1	-122.7	418.5	0.00	0.00	
5,400.0	4.92	342.95	5,381.8	408.3	-125.2	427.1	0.00	0.00	
5,500.0	4.92	342.95	5,481.4	416.5	-127.7	435.7	0.00	0.00	
5,600.0	4.92	342.95	5,581.1	424.7	-130.3	444.3	0.00	0.00	
5,700.0	4.92	342.95	5,680.7	433.0	-132.8	452.9	0.00	0.00	
5,800.0	4.92	342.95	5,780.3	441.2	-135.3	461.4	0.00	0.00	
5,900.0	4.92	342.95	5,879.9	449.4	-137.8	470.0	0.00	0.00	
6,000.0	4.92	342.95	5,979.6	457.6	-140.3	478.6	0.00	0.00	
6,100.0	4.92	342.95	6,079.2	465.8	-142.8	487.2	0.00	0.00	
6,200.0	4.92	342.95	6,178.8	474.0	-145.3	495.8	0.00	0.00	
6,300.0	4.92	342.95	6,278.5	482.2	-147.9	504.3	0.00	0.00	
6,400.0	4.92	342.95	6,378.1	490.4	-150.4	512.9	0.00	0.00	
6,500.0	4.92	342.95	6,477.7	498.6	-152.9	521.5	0.00	0.00	
6,600.0	4.92	342.95	6,577.4	506.8	-155.4	530.1	0.00	0.00	
6,700.0	4.92	342.95	6,677.0	515.0	-157.9	538.7	0.00	0.00	
6,800.0	4.92	342.95	6,776.6	523.2	-160.4	547.2	0.00	0.00	
6,879.7	4.92	342.95	6,856.0	529.7	-162.4	554.1	0.00	0.00	Fort Union
6,900.0	4.92	342.95	6,876.3	531.4	-163.0	555.8	0.00	0.00	
7,000.0	4.92	342.95	6,975.9	539.6	-165.5	564.4	0.00	0.00	
7,100.0	4.92	342.95	7,075.5	547.8	-168.0	573.0	0.00	0.00	
7,200.0	4.92	342.95	7,175.2	556.0	-170.5	581.6	0.00	0.00	
7,300.0	4.92	342.95	7,274.8	564.2	-173.0	590.2	0.00	0.00	
7,381.5	4.92	342.95	7,356.0	570.9	-175.1	597.2	0.00	0.00	Base Fort Union
7,400.0	4.92	342.95	7,374.4	572.4	-175.5	598.7	0.00	0.00	
7,500.0	4.92	342.95	7,474.0	580.6	-178.1	607.3	0.00	0.00	
7,600.0	4.92	342.95	7,573.7	588.8	-180.6	615.9	0.00	0.00	
7,700.0	4.92	342.95	7,673.3	597.0	-183.1	624.5	0.00	0.00	
7,800.0	4.92	342.95	7,772.9	605.2	-185.6	633.1	0.00	0.00	
7,900.0	4.92	342.95	7,872.6	613.5	-188.1	641.6	0.00	0.00	
8,000.0	4.92	342.95	7,972.2	621.7	-190.6	650.2	0.00	0.00	
8,100.0	4.92	342.95	8,071.8	629.9	-193.2	658.8	0.00	0.00	
8,200.0	4.92	342.95	8,171.5	638.1	-195.7	667.4	0.00	0.00	
8,300.0	4.92	342.95	8,271.1	646.3	-198.2	676.0	0.00	0.00	
8,400.0	4.92	342.95	8,370.7	654.5	-200.7	684.6	0.00	0.00	
8,500.0	4.92	342.95	8,470.4	662.7	-203.2	693.1	0.00	0.00	
8,600.0	4.92	342.95	8,570.0	670.9	-205.7	701.7	0.00	0.00	
8,616.1	4.92	342.95	8,586.0	672.2	-206.1	703.1	0.00	0.00	Ohio Creek
8,700.0	4.92	342.95	8,669.6	679.1	-208.2	710.3	0.00	0.00	
8,770.8	4.92	342.95	8,740.2	684.9	-210.0	716.4	0.00	0.00	Start Drop -2.00
8,800.0	4.34	342.95	8,769.3	687.1	-210.7	718.7	2.00	-2.00	
8,816.8	4.00	342.95	8,786.0	688.3	-211.1	720.0	2.00	-2.00	Williams Fork
8,900.0	2.34	342.95	8,869.1	692.7	-212.4	724.6	2.00	-2.00	
9,000.0	0.34	342.95	8,969.1	695.0	-213.1	726.9	2.00	-2.00	
9,016.9	0.00	0.00	8,986.0	695.0	-213.1	726.9	2.00	-2.00	EOD; Inc=0° - Top of Gas
9,100.0	0.00	0.00	9,069.1	695.0	-213.1	726.9	0.00	0.00	
9,200.0	0.00	0.00	9,169.1	695.0	-213.1	726.9	0.00	0.00	
9,300.0	0.00	0.00	9,269.1	695.0	-213.1	726.9	0.00	0.00	
9,400.0	0.00	0.00	9,369.1	695.0	-213.1	726.9	0.00	0.00	
9,500.0	0.00	0.00	9,469.1	695.0	-213.1	726.9	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM09D P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM09D P32 595	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
9,600.0	0.00	0.00	9,569.1	695.0	-213.1	726.9	0.00	0.00	
9,700.0	0.00	0.00	9,669.1	695.0	-213.1	726.9	0.00	0.00	
9,800.0	0.00	0.00	9,769.1	695.0	-213.1	726.9	0.00	0.00	
9,900.0	0.00	0.00	9,869.1	695.0	-213.1	726.9	0.00	0.00	
10,000.0	0.00	0.00	9,969.1	695.0	-213.1	726.9	0.00	0.00	
10,100.0	0.00	0.00	10,069.1	695.0	-213.1	726.9	0.00	0.00	
10,200.0	0.00	0.00	10,169.1	695.0	-213.1	726.9	0.00	0.00	
10,300.0	0.00	0.00	10,269.1	695.0	-213.1	726.9	0.00	0.00	
10,400.0	0.00	0.00	10,369.1	695.0	-213.1	726.9	0.00	0.00	
10,500.0	0.00	0.00	10,469.1	695.0	-213.1	726.9	0.00	0.00	
10,600.0	0.00	0.00	10,569.1	695.0	-213.1	726.9	0.00	0.00	
10,700.0	0.00	0.00	10,669.1	695.0	-213.1	726.9	0.00	0.00	
10,800.0	0.00	0.00	10,769.1	695.0	-213.1	726.9	0.00	0.00	
10,900.0	0.00	0.00	10,869.1	695.0	-213.1	726.9	0.00	0.00	
11,000.0	0.00	0.00	10,969.1	695.0	-213.1	726.9	0.00	0.00	
11,100.0	0.00	0.00	11,069.1	695.0	-213.1	726.9	0.00	0.00	
11,200.0	0.00	0.00	11,169.1	695.0	-213.1	726.9	0.00	0.00	
11,266.9	0.00	0.00	11,236.0	695.0	-213.1	726.9	0.00	0.00	Cameo
11,300.0	0.00	0.00	11,269.1	695.0	-213.1	726.9	0.00	0.00	
11,400.0	0.00	0.00	11,369.1	695.0	-213.1	726.9	0.00	0.00	
11,500.0	0.00	0.00	11,469.1	695.0	-213.1	726.9	0.00	0.00	
11,600.0	0.00	0.00	11,569.1	695.0	-213.1	726.9	0.00	0.00	
11,616.9	0.00	0.00	11,586.0	695.0	-213.1	726.9	0.00	0.00	Rollins SS
11,700.0	0.00	0.00	11,669.1	695.0	-213.1	726.9	0.00	0.00	
11,766.9	0.00	0.00	11,736.0	695.0	-213.1	726.9	0.00	0.00	TD at 11766.9 - P32 595 OM09D BHL

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
P32 595 OM09D BHL	0.00	0.00	11,736.0	695.0	-213.1	1,641,834.30	2,275,317.72	39.567461	-108.070939
- plan hits target center									
- Rectangle (sides W100.0 H200.0 D0.0)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,932.5	4,916.0	Wasatch				
6,879.7	6,856.0	Fort Union				
7,381.5	7,356.0	Base Fort Union				
8,616.1	8,586.0	Ohio Creek				
8,816.8	8,786.0	Williams Fork				
9,016.9	8,986.0	Top of Gas				
11,266.9	11,236.0	Cameo				
11,616.9	11,586.0	Rollins SS				

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM09D P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300'
546.1	545.8	10.1	-3.1	EOB; Inc=4.9°
8,770.8	8,740.2	684.9	-210.0	Start Drop -2.00
9,016.9	8,986.0	695.0	-213.1	EOD; Inc=0°
11,766.9	11,736.0	695.0	-213.1	TD at 11766.9

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 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:	MD Interval 100.0ft	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	2/24/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,766.4	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						
(Sec 8-6S-R96 SWNW original)						
Chevron #22-8D - ST 100' N - Plan #1						Out of range
Chevron #22-8D - ST 300' N - Plan #1						Out of range
(Sec 8-6S-R96 SWNW)						
Chevron #22-8D - ST 100' N - Plan #1						Out of range
P32 595						
OM01A P32 595 - DD - Plan #1	200.0	200.0	75.0	74.4	124.999	CC, ES
OM01A P32 595 - DD - Plan #1	500.0	490.6	96.8	95.2	59.387	SF
OM09B P32 595 - DD - Plan #1	200.0	200.0	29.1	28.5	48.542	CC, ES
OM09B P32 595 - DD - Plan #1	1,300.0	1,292.1	96.3	91.7	20.690	SF
OM09C P32 595 - DD - Plan #1	233.4	233.4	14.2	13.5	19.823	CC, ES
OM09C P32 595 - DD - Plan #1	2,700.0	2,696.5	97.6	87.9	10.033	SF
OM13B P32 595 - DD - Plan #1	200.0	200.0	45.5	44.9	75.864	CC, ES
OM13B P32 595 - DD - Plan #1	600.0	597.5	69.0	67.0	33.624	SF
OM16A P32 595 - DD - Plan #1	300.0	300.0	15.3	14.4	16.119	CC, ES
OM16A P32 595 - DD - Plan #1	2,500.0	2,499.4	99.3	89.5	10.157	SF
OM16B P32 595 - DD - Plan #1	300.0	300.0	30.6	29.6	32.226	CC, ES
OM16B P32 595 - DD - Plan #1	1,700.0	1,699.7	98.2	91.8	15.361	SF
OM16D P32 595 - DD - Plan #1	300.0	300.0	60.8	59.9	64.080	CC, ES
OM16D P32 595 - DD - Plan #1	800.0	795.8	95.5	92.8	35.540	SF
Sec29 T5S R96W						
Latham 29-18D - DD - Plan #1						Out of range
Latham 29-19D - DD - Plan #1						Out of range
Latham 29-30D - DD - Plan #1						Out of range

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													P32 595 - OM01A P32 595 - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation	Warning				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor					
0.0	0.0	0.0	0.0	0.0	0.0	178.92	-75.0	1.4	75.0								
100.0	100.0	100.0	100.0	0.1	0.1	178.92	-75.0	1.4	75.0	74.8	0.25	298.607					
200.0	200.0	200.0	200.0	0.3	0.3	178.92	-75.0	1.4	75.0	74.4	0.60	124.999	CC, ES				
300.0	300.0	297.5	297.4	0.5	0.5	178.70	-76.7	1.7	76.7	75.8	0.95	81.118					
400.0	400.0	394.5	394.4	0.7	0.7	-165.14	-81.5	2.7	83.4	82.1	1.29	64.709					
500.0	499.8	490.6	490.1	0.8	0.9	-166.63	-89.5	4.3	96.8	95.2	1.63	59.387	SF				

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM09B P32 595 - 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	0.00	29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	29.1	0.0	29.1	28.9	0.25	115.961		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.60	48.542 CC, ES		
300.0	300.0	299.0	298.9	0.5	0.5	0.20	30.8	0.1	30.9	29.9	0.95	32.566		
400.0	400.0	397.8	397.6	0.7	0.7	18.58	36.0	0.4	34.4	33.1	1.29	26.554		
500.0	499.8	496.4	495.9	0.8	0.9	21.49	44.4	1.0	38.1	36.4	1.64	23.180		
600.0	599.5	594.9	593.7	1.1	1.2	25.23	56.3	1.7	42.6	40.6	2.00	21.319		
700.0	699.1	693.9	691.6	1.3	1.4	28.02	71.0	2.6	49.8	47.5	2.36	21.090		
800.0	798.8	793.6	790.1	1.5	1.7	30.06	86.2	3.6	57.5	54.7	2.73	21.023		
900.0	898.4	893.3	888.6	1.7	2.1	31.62	101.4	4.5	65.2	62.1	3.11	20.953		
1,000.0	998.0	993.0	987.1	1.9	2.4	32.84	116.6	5.5	72.9	69.4	3.49	20.883		
1,100.0	1,097.7	1,092.7	1,085.7	2.2	2.7	33.84	131.8	6.4	80.7	76.8	3.88	20.815		
1,200.0	1,197.3	1,192.4	1,184.2	2.4	3.0	34.65	147.0	7.4	88.5	84.2	4.27	20.751		
1,300.0	1,296.9	1,292.1	1,282.7	2.6	3.3	35.34	162.2	8.3	96.3	91.7	4.66	20.690 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM09C P32 595 - 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				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	14.2	0.0	14.2					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	14.2	0.0	14.2	14.0	0.25	56.540		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	14.2	0.0	14.2	13.6	0.60	23.668		
233.4	233.4	233.4	233.4	0.4	0.4	0.00	14.2	0.0	14.2	13.5	0.72	19.823 CC, ES		
300.0	300.0	299.8	299.7	0.5	0.5	-0.28	14.6	-0.1	14.6	13.7	0.95	15.424		
400.0	400.0	399.2	399.1	0.7	0.7	16.54	18.0	-0.7	16.4	15.1	1.30	12.637		
500.0	499.8	498.6	498.3	0.8	0.9	17.74	24.8	-1.8	18.2	16.6	1.65	11.070		
600.0	599.5	597.9	597.1	1.1	1.1	19.48	35.0	-3.5	20.7	18.6	2.00	10.314		
700.0	699.1	697.9	696.3	1.3	1.3	20.30	46.8	-5.5	24.3	21.9	2.36	10.288		
800.0	798.8	797.8	795.5	1.5	1.6	20.90	58.6	-7.6	28.0	25.2	2.73	10.262		
900.0	898.4	897.7	894.7	1.7	1.9	21.36	70.5	-9.6	31.6	28.5	3.09	10.237		
1,000.0	998.0	997.7	993.9	1.9	2.1	21.73	82.3	-11.6	35.3	31.8	3.45	10.215		
1,100.0	1,097.7	1,097.6	1,093.1	2.2	2.4	22.02	94.1	-13.6	39.0	35.1	3.82	10.194		
1,200.0	1,197.3	1,197.5	1,192.3	2.4	2.7	22.27	105.9	-15.6	42.6	38.4	4.19	10.176		
1,300.0	1,296.9	1,297.5	1,291.6	2.6	2.9	22.48	117.7	-17.6	46.3	41.7	4.56	10.159		
1,400.0	1,396.5	1,397.4	1,390.8	2.8	3.2	22.65	129.5	-19.6	50.0	45.0	4.92	10.144		
1,500.0	1,496.2	1,497.3	1,490.0	3.1	3.5	22.81	141.3	-21.6	53.6	48.3	5.29	10.130		
1,600.0	1,595.8	1,597.3	1,589.2	3.3	3.7	22.94	153.2	-23.6	57.3	51.6	5.66	10.118		
1,700.0	1,695.4	1,697.2	1,688.4	3.5	4.0	23.06	165.0	-25.6	61.0	54.9	6.03	10.107		
1,800.0	1,795.1	1,797.1	1,787.6	3.8	4.3	23.16	176.8	-27.6	64.6	58.2	6.40	10.096		
1,900.0	1,894.7	1,897.1	1,886.8	4.0	4.6	23.25	188.6	-29.7	68.3	61.5	6.77	10.087		
2,000.0	1,994.3	1,997.0	1,986.0	4.2	4.8	23.34	200.4	-31.7	72.0	64.8	7.14	10.078		
2,100.0	2,094.0	2,096.9	2,085.2	4.4	5.1	23.41	212.2	-33.7	75.6	68.1	7.51	10.070		
2,200.0	2,193.6	2,196.9	2,184.5	4.7	5.4	23.48	224.0	-35.7	79.3	71.4	7.88	10.063		
2,300.0	2,293.2	2,296.8	2,283.7	4.9	5.6	23.54	235.9	-37.7	83.0	74.7	8.25	10.056		
2,400.0	2,392.9	2,396.7	2,382.9	5.1	5.9	23.60	247.7	-39.7	86.6	78.0	8.62	10.050		
2,500.0	2,492.5	2,496.7	2,482.1	5.4	6.2	23.65	259.5	-41.7	90.3	81.3	8.99	10.044		
2,600.0	2,592.1	2,596.6	2,581.3	5.6	6.5	23.70	271.3	-43.7	94.0	84.6	9.36	10.038		
2,700.0	2,691.8	2,696.5	2,680.5	5.8	6.7	23.74	283.1	-45.7	97.6	87.9	9.73	10.033 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													P32 595 - OM13B P32 595 - 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	Separation					
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor					
0.0	0.0	0.0	0.0	0.0	0.0	178.23	-45.5	1.4	45.5								
100.0	100.0	100.0	100.0	0.1	0.1	178.23	-45.5	1.4	45.5	45.3	0.25	181.231					
200.0	200.0	200.0	200.0	0.3	0.3	178.23	-45.5	1.4	45.5	44.9	0.60	75.864	CC, ES				
300.0	300.0	299.6	299.6	0.5	0.5	176.11	-45.8	3.1	45.9	45.0	0.95	48.206					
400.0	400.0	399.0	398.8	0.7	0.7	-173.17	-46.7	8.2	49.2	47.8	1.32	37.250					
500.0	499.8	498.4	498.0	0.8	0.9	179.47	-47.9	15.2	57.3	55.6	1.69	33.946					
600.0	599.5	597.5	596.8	1.1	1.1	174.23	-49.1	22.3	69.0	67.0	2.05	33.624	SF				
700.0	699.1	696.6	695.7	1.3	1.3	170.59	-50.3	29.3	81.6	79.2	2.42	33.697					
800.0	798.8	795.7	794.5	1.5	1.5	167.92	-51.5	36.3	94.4	91.6	2.79	33.830					

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM16A P32 595 - 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	177.89	-15.3	0.6	15.3				
100.0	100.0	100.0	100.0	0.1	0.1	177.89	-15.3	0.6	15.3	15.1	0.25	60.894	
200.0	200.0	200.0	200.0	0.3	0.3	177.89	-15.3	0.6	15.3	14.7	0.60	25.491	
300.0	300.0	300.0	300.0	0.5	0.5	177.89	-15.3	0.6	15.3	14.4	0.95	16.119	CC, ES
400.0	400.0	400.1	400.1	0.7	0.6	-166.80	-15.1	0.6	16.8	15.5	1.30	12.929	
500.0	499.8	500.3	500.3	0.8	0.8	-171.67	-13.4	1.0	20.3	18.6	1.65	12.321	
600.0	599.5	600.6	600.5	1.1	1.0	-177.42	-10.0	1.9	25.3	23.3	2.00	12.681	
700.0	699.1	700.8	700.6	1.3	1.2	176.97	-4.9	3.1	29.4	27.1	2.35	12.507	
800.0	798.8	801.0	800.6	1.5	1.4	170.98	1.8	4.8	32.4	29.7	2.72	11.940	
900.0	898.4	900.9	900.2	1.7	1.6	165.67	8.9	6.5	35.5	32.4	3.09	11.478	
1,000.0	998.0	1,000.8	999.8	1.9	1.8	161.23	15.9	8.2	38.8	35.4	3.48	11.155	
1,100.0	1,097.7	1,100.7	1,099.5	2.2	2.0	157.51	22.9	9.9	42.4	38.5	3.88	10.922	
1,200.0	1,197.3	1,200.6	1,199.1	2.4	2.2	154.38	29.9	11.6	46.0	41.8	4.28	10.750	
1,300.0	1,296.9	1,300.5	1,298.8	2.6	2.4	151.71	37.0	13.3	49.8	45.1	4.69	10.619	
1,400.0	1,396.5	1,400.4	1,398.4	2.8	2.6	149.42	44.0	15.1	53.7	48.6	5.11	10.519	
1,500.0	1,496.2	1,500.3	1,498.1	3.1	2.9	147.44	51.0	16.8	57.7	52.1	5.52	10.441	
1,600.0	1,595.8	1,600.3	1,597.7	3.3	3.1	145.72	58.0	18.5	61.7	55.7	5.94	10.379	
1,700.0	1,695.4	1,700.2	1,697.3	3.5	3.3	144.21	65.1	20.2	65.7	59.4	6.36	10.330	
1,800.0	1,795.1	1,800.1	1,797.0	3.8	3.5	142.88	72.1	21.9	69.8	63.1	6.79	10.291	
1,900.0	1,894.7	1,900.0	1,896.6	4.0	3.7	141.70	79.1	23.7	74.0	66.8	7.21	10.259	
2,000.0	1,994.3	1,999.9	1,996.3	4.2	3.9	140.64	86.1	25.4	78.1	70.5	7.64	10.233	
2,100.0	2,094.0	2,099.8	2,095.9	4.4	4.1	139.69	93.2	27.1	82.3	74.3	8.06	10.211	
2,200.0	2,193.6	2,199.7	2,195.5	4.7	4.3	138.83	100.2	28.8	86.5	78.1	8.49	10.194	
2,300.0	2,293.2	2,299.6	2,295.2	4.9	4.6	138.05	107.2	30.5	90.8	81.9	8.92	10.179	
2,400.0	2,392.9	2,399.5	2,394.8	5.1	4.8	137.34	114.2	32.3	95.0	85.7	9.35	10.167	
2,500.0	2,492.5	2,499.4	2,494.5	5.4	5.0	136.69	121.3	34.0	99.3	89.5	9.77	10.157	SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM16B P32 595 - 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	178.94	-30.6	0.6	30.6					
100.0	100.0	100.0	100.0	0.1	0.1	178.94	-30.6	0.6	30.6	30.3	0.25	121.744		
200.0	200.0	200.0	200.0	0.3	0.3	178.94	-30.6	0.6	30.6	30.0	0.60	50.963		
300.0	300.0	300.0	300.0	0.5	0.5	178.94	-30.6	0.6	30.6	29.6	0.95	32.226	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.6	-164.85	-30.6	0.6	32.3	31.0	1.30	24.864		
500.0	499.8	500.4	500.4	0.8	0.8	-167.72	-29.8	1.0	36.6	35.0	1.65	22.243		
600.0	599.5	600.7	600.6	1.1	1.0	-172.12	-27.6	2.3	42.6	40.7	2.00	21.354		
700.0	699.1	701.1	700.9	1.3	1.2	-176.90	-23.8	4.6	48.0	45.6	2.35	20.392		
800.0	798.8	801.5	801.1	1.5	1.4	177.86	-18.5	7.7	52.4	49.7	2.71	19.295		
900.0	898.4	901.5	900.9	1.7	1.6	172.25	-11.9	11.6	56.3	53.2	3.09	18.217		
1,000.0	998.0	1,001.3	1,000.4	1.9	1.8	167.26	-5.2	15.5	60.6	57.1	3.48	17.419		
1,100.0	1,097.7	1,101.1	1,099.8	2.2	2.0	162.96	1.5	19.5	65.3	61.4	3.88	16.837		
1,200.0	1,197.3	1,200.9	1,199.3	2.4	2.2	159.25	8.2	23.5	70.3	66.0	4.28	16.404		
1,300.0	1,296.9	1,300.6	1,298.8	2.6	2.4	156.04	15.0	27.4	75.5	70.8	4.70	16.076		
1,400.0	1,396.5	1,400.4	1,398.3	2.8	2.6	153.26	21.7	31.4	81.0	75.9	5.12	15.826		
1,500.0	1,496.2	1,500.2	1,497.7	3.1	2.9	150.83	28.4	35.4	86.6	81.1	5.54	15.632		
1,600.0	1,595.8	1,600.0	1,597.2	3.3	3.1	148.71	35.1	39.3	92.4	86.4	5.97	15.480		
1,700.0	1,695.4	1,699.7	1,696.7	3.5	3.3	146.83	41.8	43.3	98.2	91.8	6.40	15.361	SF	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design P32 595 - OM16D P32 595 - 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				Total	Separation	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)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	178.67	-60.8	1.4	60.8					
100.0	100.0	100.0	100.0	0.1	0.1	178.67	-60.8	1.4	60.8	60.6	0.25	242.080		
200.0	200.0	200.0	200.0	0.3	0.3	178.67	-60.8	1.4	60.8	60.2	0.60	101.336		
300.0	300.0	300.0	300.0	0.5	0.5	178.67	-60.8	1.4	60.8	59.9	0.95	64.080 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.6	-164.70	-60.8	1.4	62.5	61.2	1.30	48.160		
500.0	499.8	499.8	499.8	0.8	0.8	-165.85	-60.8	1.4	67.6	65.9	1.65	41.050		
600.0	599.5	599.5	599.5	1.1	1.0	-167.36	-60.8	1.4	75.6	73.6	1.99	37.883		
700.0	699.1	697.8	697.8	1.3	1.2	-168.86	-61.5	1.8	84.7	82.4	2.34	36.183		
800.0	798.8	795.8	795.7	1.5	1.3	-170.46	-63.7	3.1	95.5	92.8	2.69	35.540 SF		

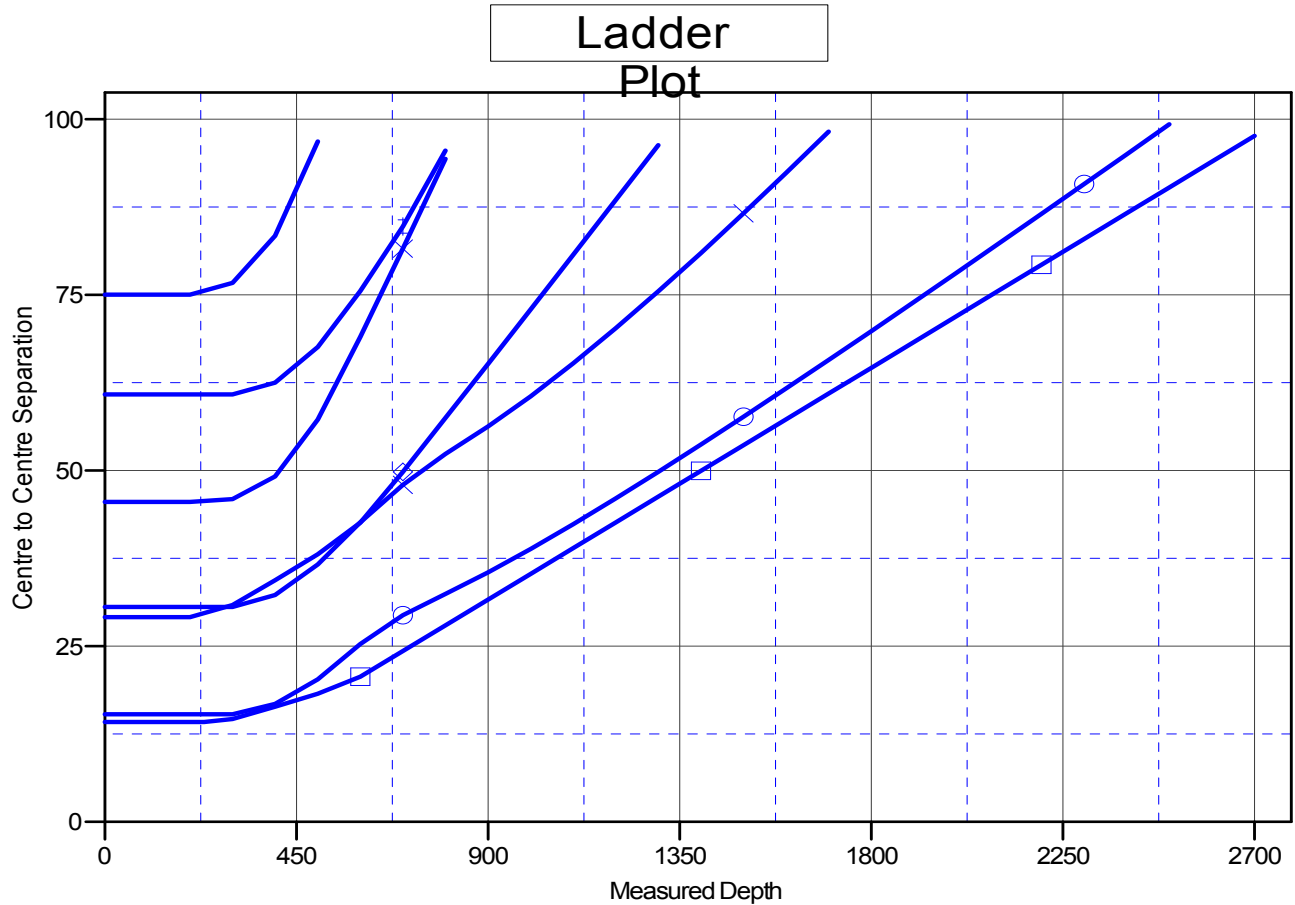
Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM09D P32 595
Project:	Garfield County	TVD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM09D P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM09D P32 595	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB OM09D P32 @ 8386.0ft (Rig Nam
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: OM09D P32 595
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.62°



LEGEND

- ✕ OM13B P32 595, DD, Plan #1 V0
- ✕ OM16D P32 595, DD, Plan #1 V0
- OM16A P32 595, DD, Plan #1 V0
- ✕ OM09B P32 595, DD, Plan #1 V0
- ✕ OM09C P32 595, DD, Plan #1 V0
- ✕ OM01A P32 595, DD, Plan #1 V0
- ✕ OM16B P32 595, DD, Plan #1 V0