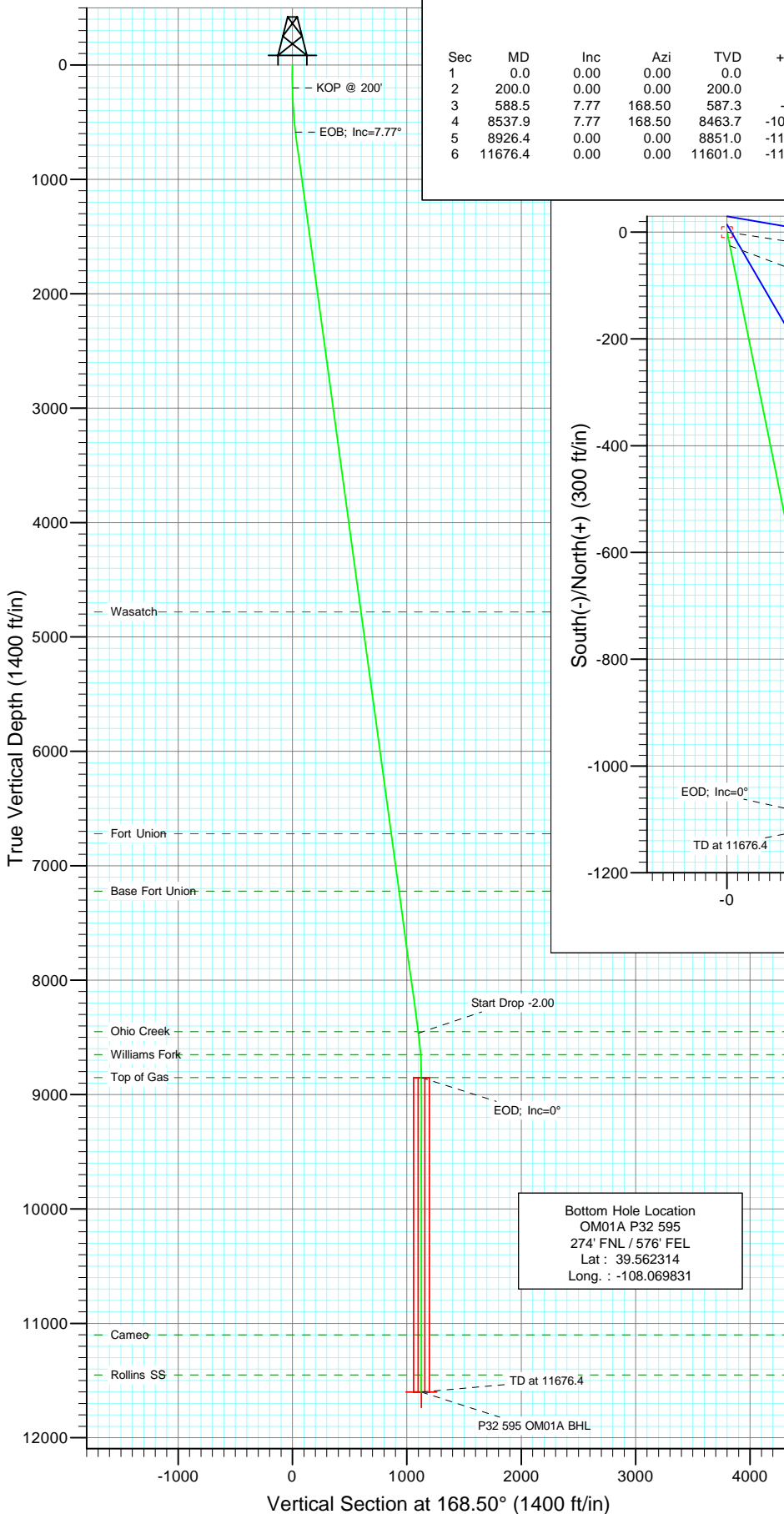


Berry Petroleum Company

Project: Garfield County
Site: P32 595
Well: OM01A P32 595
Wellbore: DD
Design: Plan #1

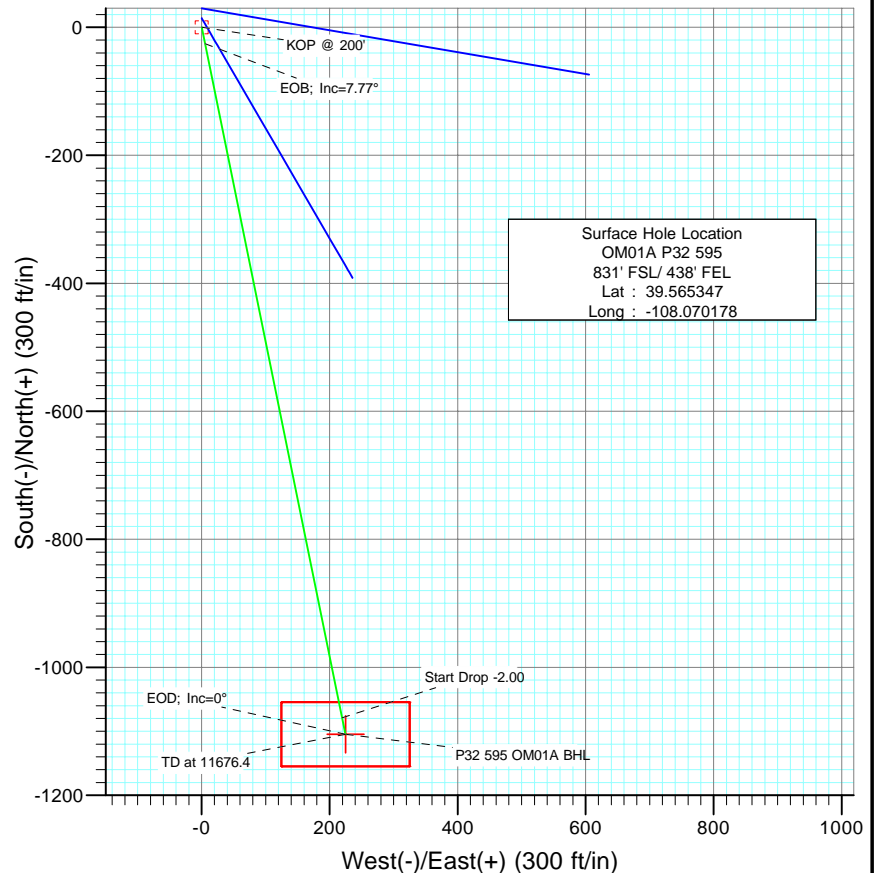


Directional Plus
A Division of Cathedral Energy Services Ltd.



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	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	588.5	7.77	168.50	587.3	-25.8	5.2	2.00	168.50	26.3	
4	8537.9	7.77	168.50	8463.7	-1079.0	219.5	0.00	0.00	1101.1	
5	8926.4	0.00	0.00	8851.0	-1104.7	224.7	2.00	180.00	1127.4	
6	11676.4	0.00	0.00	11601.0	-1104.7	224.7	0.00	0.00	1127.4	P32 595 OM01A BHL



Surface Hole Location
OM01A P32 595
831' FSL/ 438' FEL
Lat : 39.565347
Long : -108.070178

Bottom Hole Location
OM01A P32 595
274' FNL / 576' FEL
Lat : 39.562314
Long : -108.069831

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4781.0	4821.1	Wasatch
6721.0	6779.0	Fort Union
7221.0	7283.7	Base Fort Union
8451.0	8525.1	Ohio Creek
8651.0	8726.2	Williams Fork
8851.0	8926.4	Top of Gas
11101.0	11176.4	Cameo
11451.0	11526.4	Rollins SS



Azimuths to True North
Magnetic North: 10.68°

Magnetic Field
Strength: 52584.5nT
Dip Angle: 65.85°
Date: 2/23/2009
Model: IGRF200510

DESIGN DETAILS: Plan #1

95xxx; LR
KB OM01A P32 @ 8386.0ft (Rig Name)

Target	Azimuth	Origin	N/S	E/W	From TVD
P32 595 OM01A BHL	168.50	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 OM01A P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM01A 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	OM01A P32 595					
Well Position	+N/-S	0.0 ft	Northing:	1,641,058.50 ft	Latitude:	39.565347
	+E/-W	0.0 ft	Easting:	2,275,510.39 ft	Longitude:	-108.070178
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)
	IGRF200510	2/23/2009	10.68	65.85	52,585

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	168.50

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
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	
588.5	7.77	168.50	587.3	-25.8	5.2	2.00	2.00	0.00	168.50	
8,537.9	7.77	168.50	8,463.7	-1,079.0	219.5	0.00	0.00	0.00	0.00	
8,926.4	0.00	0.00	8,851.0	-1,104.7	224.7	2.00	-2.00	0.00	180.00	
11,676.4	0.00	0.00	11,601.0	-1,104.7	224.7	0.00	0.00	0.00	0.00	P32 595 OM01A BHL

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM01A P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM01A 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	KOP @ 200'
300.0	2.00	168.50	300.0	-1.7	0.3	1.7	2.00	2.00	
400.0	4.00	168.50	399.8	-6.8	1.4	7.0	2.00	2.00	
500.0	6.00	168.50	499.5	-15.4	3.1	15.7	2.00	2.00	
588.5	7.77	168.50	587.3	-25.8	5.2	26.3	2.00	2.00	EOB; Inc=7.77°
600.0	7.77	168.50	598.7	-27.3	5.6	27.9	0.00	0.00	
700.0	7.77	168.50	697.8	-40.5	8.2	41.4	0.00	0.00	
800.0	7.77	168.50	796.9	-53.8	10.9	54.9	0.00	0.00	
900.0	7.77	168.50	896.0	-67.0	13.6	68.4	0.00	0.00	
1,000.0	7.77	168.50	995.0	-80.3	16.3	81.9	0.00	0.00	
1,100.0	7.77	168.50	1,094.1	-93.5	19.0	95.5	0.00	0.00	
1,200.0	7.77	168.50	1,193.2	-106.8	21.7	109.0	0.00	0.00	
1,300.0	7.77	168.50	1,292.3	-120.0	24.4	122.5	0.00	0.00	
1,400.0	7.77	168.50	1,391.4	-133.3	27.1	136.0	0.00	0.00	
1,500.0	7.77	168.50	1,490.4	-146.5	29.8	149.5	0.00	0.00	
1,600.0	7.77	168.50	1,589.5	-159.8	32.5	163.1	0.00	0.00	
1,700.0	7.77	168.50	1,688.6	-173.0	35.2	176.6	0.00	0.00	
1,800.0	7.77	168.50	1,787.7	-186.3	37.9	190.1	0.00	0.00	
1,900.0	7.77	168.50	1,886.8	-199.5	40.6	203.6	0.00	0.00	
2,000.0	7.77	168.50	1,985.9	-212.8	43.3	217.1	0.00	0.00	
2,100.0	7.77	168.50	2,084.9	-226.0	46.0	230.7	0.00	0.00	
2,200.0	7.77	168.50	2,184.0	-239.3	48.7	244.2	0.00	0.00	
2,300.0	7.77	168.50	2,283.1	-252.5	51.4	257.7	0.00	0.00	
2,400.0	7.77	168.50	2,382.2	-265.8	54.1	271.2	0.00	0.00	
2,500.0	7.77	168.50	2,481.3	-279.0	56.8	284.7	0.00	0.00	
2,600.0	7.77	168.50	2,580.3	-292.3	59.4	298.3	0.00	0.00	
2,700.0	7.77	168.50	2,679.4	-305.5	62.1	311.8	0.00	0.00	
2,800.0	7.77	168.50	2,778.5	-318.8	64.8	325.3	0.00	0.00	
2,900.0	7.77	168.50	2,877.6	-332.0	67.5	338.8	0.00	0.00	
3,000.0	7.77	168.50	2,976.7	-345.3	70.2	352.3	0.00	0.00	
3,100.0	7.77	168.50	3,075.8	-358.5	72.9	365.9	0.00	0.00	
3,200.0	7.77	168.50	3,174.8	-371.8	75.6	379.4	0.00	0.00	
3,300.0	7.77	168.50	3,273.9	-385.0	78.3	392.9	0.00	0.00	
3,400.0	7.77	168.50	3,373.0	-398.3	81.0	406.4	0.00	0.00	
3,500.0	7.77	168.50	3,472.1	-411.5	83.7	419.9	0.00	0.00	
3,600.0	7.77	168.50	3,571.2	-424.8	86.4	433.5	0.00	0.00	
3,700.0	7.77	168.50	3,670.2	-438.0	89.1	447.0	0.00	0.00	
3,800.0	7.77	168.50	3,769.3	-451.3	91.8	460.5	0.00	0.00	
3,900.0	7.77	168.50	3,868.4	-464.5	94.5	474.0	0.00	0.00	
4,000.0	7.77	168.50	3,967.5	-477.8	97.2	487.5	0.00	0.00	
4,100.0	7.77	168.50	4,066.6	-491.0	99.9	501.1	0.00	0.00	
4,200.0	7.77	168.50	4,165.7	-504.3	102.6	514.6	0.00	0.00	
4,300.0	7.77	168.50	4,264.7	-517.5	105.3	528.1	0.00	0.00	
4,400.0	7.77	168.50	4,363.8	-530.8	108.0	541.6	0.00	0.00	
4,500.0	7.77	168.50	4,462.9	-544.0	110.6	555.1	0.00	0.00	
4,600.0	7.77	168.50	4,562.0	-557.3	113.3	568.7	0.00	0.00	
4,700.0	7.77	168.50	4,661.1	-570.5	116.0	582.2	0.00	0.00	
4,800.0	7.77	168.50	4,760.1	-583.8	118.7	595.7	0.00	0.00	
4,821.1	7.77	168.50	4,781.0	-586.5	119.3	598.5	0.00	0.00	Wasatch
4,900.0	7.77	168.50	4,859.2	-597.0	121.4	609.2	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM01A P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM01A 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	7.77	168.50	4,958.3	-610.2	124.1	622.7	0.00	0.00	
5,100.0	7.77	168.50	5,057.4	-623.5	126.8	636.3	0.00	0.00	
5,200.0	7.77	168.50	5,156.5	-636.7	129.5	649.8	0.00	0.00	
5,300.0	7.77	168.50	5,255.5	-650.0	132.2	663.3	0.00	0.00	
5,400.0	7.77	168.50	5,354.6	-663.2	134.9	676.8	0.00	0.00	
5,500.0	7.77	168.50	5,453.7	-676.5	137.6	690.3	0.00	0.00	
5,600.0	7.77	168.50	5,552.8	-689.7	140.3	703.9	0.00	0.00	
5,700.0	7.77	168.50	5,651.9	-703.0	143.0	717.4	0.00	0.00	
5,800.0	7.77	168.50	5,751.0	-716.2	145.7	730.9	0.00	0.00	
5,900.0	7.77	168.50	5,850.0	-729.5	148.4	744.4	0.00	0.00	
6,000.0	7.77	168.50	5,949.1	-742.7	151.1	757.9	0.00	0.00	
6,100.0	7.77	168.50	6,048.2	-756.0	153.8	771.5	0.00	0.00	
6,200.0	7.77	168.50	6,147.3	-769.2	156.5	785.0	0.00	0.00	
6,300.0	7.77	168.50	6,246.4	-782.5	159.2	798.5	0.00	0.00	
6,400.0	7.77	168.50	6,345.4	-795.7	161.8	812.0	0.00	0.00	
6,500.0	7.77	168.50	6,444.5	-809.0	164.5	825.5	0.00	0.00	
6,600.0	7.77	168.50	6,543.6	-822.2	167.2	839.1	0.00	0.00	
6,700.0	7.77	168.50	6,642.7	-835.5	169.9	852.6	0.00	0.00	
6,779.0	7.77	168.50	6,721.0	-845.9	172.1	863.3	0.00	0.00	Fort Union
6,800.0	7.77	168.50	6,741.8	-848.7	172.6	866.1	0.00	0.00	
6,900.0	7.77	168.50	6,840.9	-862.0	175.3	879.6	0.00	0.00	
7,000.0	7.77	168.50	6,939.9	-875.2	178.0	893.1	0.00	0.00	
7,100.0	7.77	168.50	7,039.0	-888.5	180.7	906.7	0.00	0.00	
7,200.0	7.77	168.50	7,138.1	-901.7	183.4	920.2	0.00	0.00	
7,283.7	7.77	168.50	7,221.0	-912.8	185.7	931.5	0.00	0.00	Base Fort Union
7,300.0	7.77	168.50	7,237.2	-915.0	186.1	933.7	0.00	0.00	
7,400.0	7.77	168.50	7,336.3	-928.2	188.8	947.2	0.00	0.00	
7,500.0	7.77	168.50	7,435.3	-941.5	191.5	960.7	0.00	0.00	
7,600.0	7.77	168.50	7,534.4	-954.7	194.2	974.3	0.00	0.00	
7,700.0	7.77	168.50	7,633.5	-968.0	196.9	987.8	0.00	0.00	
7,800.0	7.77	168.50	7,732.6	-981.2	199.6	1,001.3	0.00	0.00	
7,900.0	7.77	168.50	7,831.7	-994.5	202.3	1,014.8	0.00	0.00	
8,000.0	7.77	168.50	7,930.8	-1,007.7	205.0	1,028.3	0.00	0.00	
8,100.0	7.77	168.50	8,029.8	-1,021.0	207.7	1,041.9	0.00	0.00	
8,200.0	7.77	168.50	8,128.9	-1,034.2	210.4	1,055.4	0.00	0.00	
8,300.0	7.77	168.50	8,228.0	-1,047.5	213.0	1,068.9	0.00	0.00	
8,400.0	7.77	168.50	8,327.1	-1,060.7	215.7	1,082.4	0.00	0.00	
8,500.0	7.77	168.50	8,426.2	-1,074.0	218.4	1,095.9	0.00	0.00	
8,525.1	7.77	168.50	8,451.0	-1,077.3	219.1	1,099.3	0.00	0.00	Ohio Creek
8,537.9	7.77	168.50	8,463.7	-1,079.0	219.5	1,101.1	0.00	0.00	Start Drop -2.00
8,600.0	6.53	168.50	8,525.3	-1,086.6	221.0	1,108.8	2.00	-2.00	
8,700.0	4.53	168.50	8,624.9	-1,096.0	222.9	1,118.4	2.00	-2.00	
8,726.2	4.00	168.50	8,651.0	-1,097.9	223.3	1,120.4	2.00	-2.00	Williams Fork
8,800.0	2.53	168.50	8,724.7	-1,102.0	224.1	1,124.6	2.00	-2.00	
8,900.0	0.53	168.50	8,824.6	-1,104.6	224.7	1,127.2	2.00	-2.00	
8,926.4	0.00	0.00	8,851.0	-1,104.7	224.7	1,127.4	2.00	-2.00	EOD; Inc=0° - Top of Gas
9,000.0	0.00	0.00	8,924.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,100.0	0.00	0.00	9,024.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,200.0	0.00	0.00	9,124.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,300.0	0.00	0.00	9,224.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,400.0	0.00	0.00	9,324.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,500.0	0.00	0.00	9,424.6	-1,104.7	224.7	1,127.4	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM01A P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM01A 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	9,524.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,700.0	0.00	0.00	9,624.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,800.0	0.00	0.00	9,724.6	-1,104.7	224.7	1,127.4	0.00	0.00	
9,900.0	0.00	0.00	9,824.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,000.0	0.00	0.00	9,924.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,100.0	0.00	0.00	10,024.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,200.0	0.00	0.00	10,124.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,300.0	0.00	0.00	10,224.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,400.0	0.00	0.00	10,324.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,500.0	0.00	0.00	10,424.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,600.0	0.00	0.00	10,524.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,700.0	0.00	0.00	10,624.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,800.0	0.00	0.00	10,724.6	-1,104.7	224.7	1,127.4	0.00	0.00	
10,900.0	0.00	0.00	10,824.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,000.0	0.00	0.00	10,924.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,100.0	0.00	0.00	11,024.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,176.4	0.00	0.00	11,101.0	-1,104.7	224.7	1,127.4	0.00	0.00	Cameo
11,200.0	0.00	0.00	11,124.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,300.0	0.00	0.00	11,224.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,400.0	0.00	0.00	11,324.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,500.0	0.00	0.00	11,424.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,526.4	0.00	0.00	11,451.0	-1,104.7	224.7	1,127.4	0.00	0.00	Rollins SS
11,600.0	0.00	0.00	11,524.6	-1,104.7	224.7	1,127.4	0.00	0.00	
11,676.4	0.00	0.00	11,601.0	-1,104.7	224.7	1,127.4	0.00	0.00	TD at 11676.4 - P32 595 OM01A BHL

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
- Shape									Latitude Longitude
P32 595 OM01A BHL		0.00	0.00	11,601.0	-1,104.7	224.7	1,639,947.84	2,275,703.75	39.562314 -108.069381
- plan hits target center									
- Rectangle (sides W100.0 H200.0 D0.0)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,821.1	4,781.0	Wasatch				
6,779.0	6,721.0	Fort Union				
7,283.7	7,221.0	Base Fort Union				
8,525.1	8,451.0	Ohio Creek				
8,726.2	8,651.0	Williams Fork				
8,926.4	8,851.0	Top of Gas				
11,176.4	11,101.0	Cameo				
11,526.4	11,451.0	Rollins SS				

Cathedral Energy Services

Planning Report

Database:	EDM 2003.21 US Multi Users DB	Local Co-ordinate Reference:	Well OM01A P32 595
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Project:	Garfield County	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site:	P32 595	North Reference:	True
Well:	OM01A 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)	
200.0	200.0	0.0	0.0	KOP @ 200'
588.5	587.3	-25.8	5.2	EOB; Inc=7.77°
8,537.9	8,463.7	-1,079.0	219.5	Start Drop -2.00
8,926.4	8,851.0	-1,104.7	224.7	EOD; Inc=0°
11,676.4	11,601.0	-1,104.7	224.7	TD at 11676.4

Anticollision Report

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

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						
OM09B P32 595 - DD - Plan #1						Out of range
OM09C P32 595 - DD - Plan #1	200.0	200.0	89.3	88.7	148.663	CC, ES
OM09C P32 595 - DD - Plan #1	400.0	394.9	99.9	98.6	77.505	SF
OM09D P32 595 - DD - Plan #1	200.0	200.0	75.0	74.4	124.999	CC, ES
OM09D P32 595 - DD - Plan #1	500.0	493.2	97.1	95.4	59.425	SF
OM13B P32 595 - DD - Plan #1	200.0	200.0	29.5	28.9	49.149	CC, ES
OM13B P32 595 - DD - Plan #1	500.0	499.6	43.9	42.1	25.576	SF
OM16A P32 595 - DD - Plan #1	200.0	200.0	59.7	59.1	99.513	CC, ES
OM16A P32 595 - DD - Plan #1	600.0	595.0	92.3	90.4	46.557	SF
OM16B P32 595 - DD - Plan #1	200.0	200.0	44.5	43.9	74.036	CC, ES
OM16B P32 595 - DD - Plan #1	500.0	498.6	60.7	59.0	36.931	SF
OM16D P32 595 - DD - Plan #1	200.0	200.0	14.2	13.6	23.668	CC, ES
OM16D P32 595 - DD - Plan #1	400.0	399.8	21.1	19.8	16.263	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 OM01A P32 595
Project:	Garfield County	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM01A 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							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis						
0.0	0.0	0.0	0.0	0.0	0.0	-0.90	89.2	-1.4	89.3								
100.0	100.0	100.0	100.0	0.1	0.1	-0.90	89.2	-1.4	89.3	89.0	0.25	355.139					
200.0	200.0	200.0	200.0	0.3	0.3	-0.90	89.2	-1.4	89.3	88.7	0.60	148.663	CC, ES				
300.0	300.0	298.5	298.5	0.5	0.5	-169.64	89.6	-1.5	91.4	90.4	0.95	96.550					
400.0	399.8	394.9	394.8	0.7	0.6	-170.41	92.9	-2.0	99.9	98.6	1.29	77.505	SF				

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM01A P32 595
Project:	Garfield County	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM01A 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 - OM09D 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	-1.08	75.0	-1.4	75.0					
100.0	100.0	100.0	100.0	0.1	0.1	-1.08	75.0	-1.4	75.0	74.8	0.25	298.607		
200.0	200.0	200.0	200.0	0.3	0.3	-1.08	75.0	-1.4	75.0	74.4	0.60	124.999 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-169.81	75.0	-1.4	76.8	75.8	0.95	80.872		
400.0	399.8	397.1	397.1	0.7	0.6	-170.71	76.6	-1.9	83.6	82.3	1.29	64.638		
500.0	499.5	493.2	493.1	0.9	0.8	-172.22	81.3	-3.3	97.1	95.4	1.63	59.425 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM01A P32 595
Project:	Garfield County	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM01A 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 (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	0.00	29.5	0.0	29.5					
100.0	100.0	100.0	100.0	0.1	0.1	0.00	29.5	0.0	29.5	29.3	0.25	117.410		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.5	0.0	29.5	28.9	0.60	49.149 CC, ES		
300.0	300.0	300.1	300.1	0.5	0.5	-165.95	29.2	1.7	31.0	30.0	0.95	32.465		
400.0	399.8	400.0	399.9	0.7	0.7	-159.59	28.3	6.9	35.6	34.3	1.33	26.831		
500.0	499.5	499.6	499.2	0.9	0.9	-154.12	27.1	13.9	43.9	42.1	1.71	25.576 SF		
600.0	598.7	598.9	598.3	1.2	1.1	-152.13	25.9	20.9	55.4	53.3	2.12	26.187		
700.0	697.8	698.1	697.2	1.4	1.3	-151.45	24.7	28.0	68.2	65.7	2.53	26.998		
800.0	796.9	797.3	796.1	1.7	1.5	-150.98	23.5	35.0	81.0	78.0	2.94	27.546		
900.0	896.0	896.5	895.0	2.0	1.7	-150.64	22.3	42.0	93.8	90.4	3.36	27.939		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM01A P32 595
Project:	Garfield County	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM01A 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				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	-0.81	59.7	-0.8	59.7					
100.0	100.0	100.0	100.0	0.1	0.1	-0.81	59.7	-0.8	59.7	59.5	0.25	237.726		
200.0	200.0	200.0	200.0	0.3	0.3	-0.81	59.7	-0.8	59.7	59.1	0.60	99.513 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-169.61	59.7	-0.8	61.5	60.5	0.95	64.751		
400.0	399.8	399.3	399.3	0.7	0.6	-170.35	59.9	-0.8	66.8	65.5	1.30	51.546		
500.0	499.5	497.6	497.5	0.9	0.8	-171.05	61.6	-0.4	77.1	75.4	1.64	46.966		
600.0	598.7	595.0	594.9	1.2	1.0	-171.58	64.8	0.4	92.3	90.4	1.98	46.557 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM01A P32 595
Project:	Garfield County	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM01A 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				Total Uncertainty Axis	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)				
0.0	0.0	0.0	0.0	0.0	0.0	-1.09	44.4	-0.8	44.5					
100.0	100.0	100.0	100.0	0.1	0.1	-1.09	44.4	-0.8	44.5	44.2	0.25	176.863		
200.0	200.0	200.0	200.0	0.3	0.3	-1.09	44.4	-0.8	44.5	43.9	0.60	74.036 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-169.98	44.4	-0.8	46.2	45.2	0.95	48.638		
400.0	399.8	399.8	399.8	0.7	0.6	-170.98	44.4	-0.8	51.3	50.0	1.30	39.568		
500.0	499.5	498.6	498.6	0.9	0.8	-171.79	45.2	-0.4	60.7	59.0	1.64	36.931 SF		
600.0	598.7	596.6	596.6	1.2	1.0	-171.99	47.3	0.9	74.8	72.8	1.99	37.659		
700.0	697.8	694.0	693.9	1.4	1.2	-171.67	50.9	3.0	91.7	89.4	2.34	39.260		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM01A P32 595
Project:	Garfield County	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM01A 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					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	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 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-169.75	14.2	0.0	15.9	15.0	0.95	16.776		
400.0	399.8	399.8	399.8	0.7	0.6	-172.27	14.2	0.0	21.1	19.8	1.30	16.263 SF		
500.0	499.5	499.5	499.5	0.9	0.8	-174.51	14.2	0.0	29.8	28.1	1.64	18.109		
600.0	598.7	598.7	598.7	1.2	1.0	-176.09	14.2	0.0	41.9	39.9	1.99	21.078		
700.0	697.8	698.7	698.7	1.4	1.2	-176.72	13.5	0.4	54.6	52.3	2.34	23.374		
800.0	796.9	799.0	799.0	1.7	1.3	-176.55	11.2	1.7	65.7	63.0	2.69	24.458		
900.0	896.0	899.7	899.6	2.0	1.5	-175.91	7.4	3.9	75.2	72.2	3.04	24.743		
1,000.0	995.0	1,000.7	1,000.3	2.3	1.7	-174.94	2.1	7.0	83.1	79.7	3.40	24.470		
1,100.0	1,094.1	1,100.5	1,099.9	2.6	1.9	-173.89	-4.0	10.6	90.1	86.4	3.75	24.014		
1,200.0	1,193.2	1,200.2	1,199.4	2.9	2.1	-172.99	-10.1	14.1	97.2	93.1	4.11	23.631		

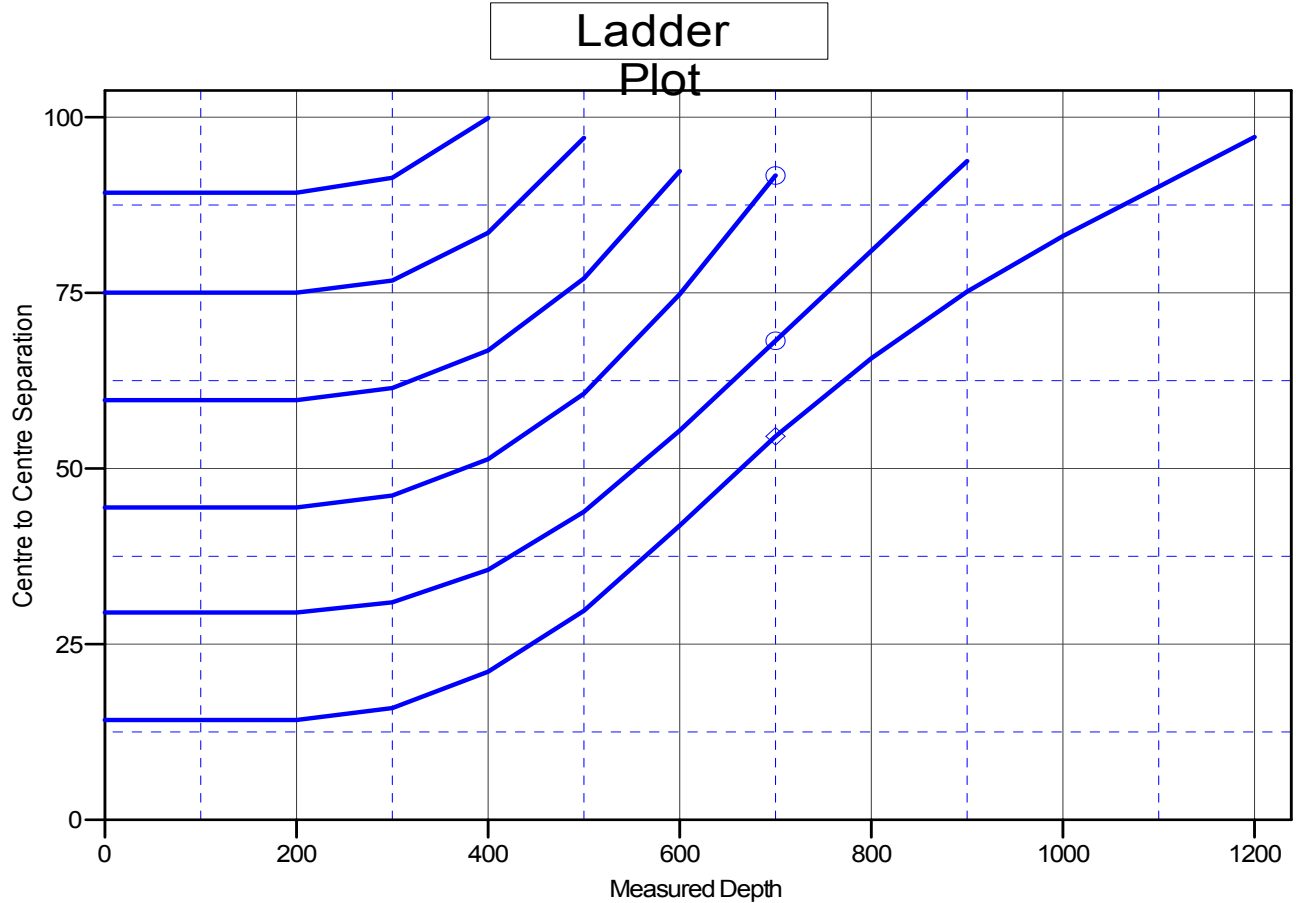
Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well OM01A P32 595
Project:	Garfield County	TVD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Reference Site:	P32 595	MD Reference:	KB OM01A P32 @ 8386.0ft (Rig Name)
Site Error:	0.0ft	North Reference:	True
Reference Well:	OM01A 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 OM01A P32 @ 8386.0ft (Rig Nam
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: OM01A 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
- OM09C P32 595, DD, Plan #1 V0
- OM09D P32 595, DD, Plan #1 V0
- OM16D P32 595, DD, Plan #1 V0
- OM16B P32 595, DD, Plan #1 V0
- OM16A P32 595, DD, Plan #1 V0