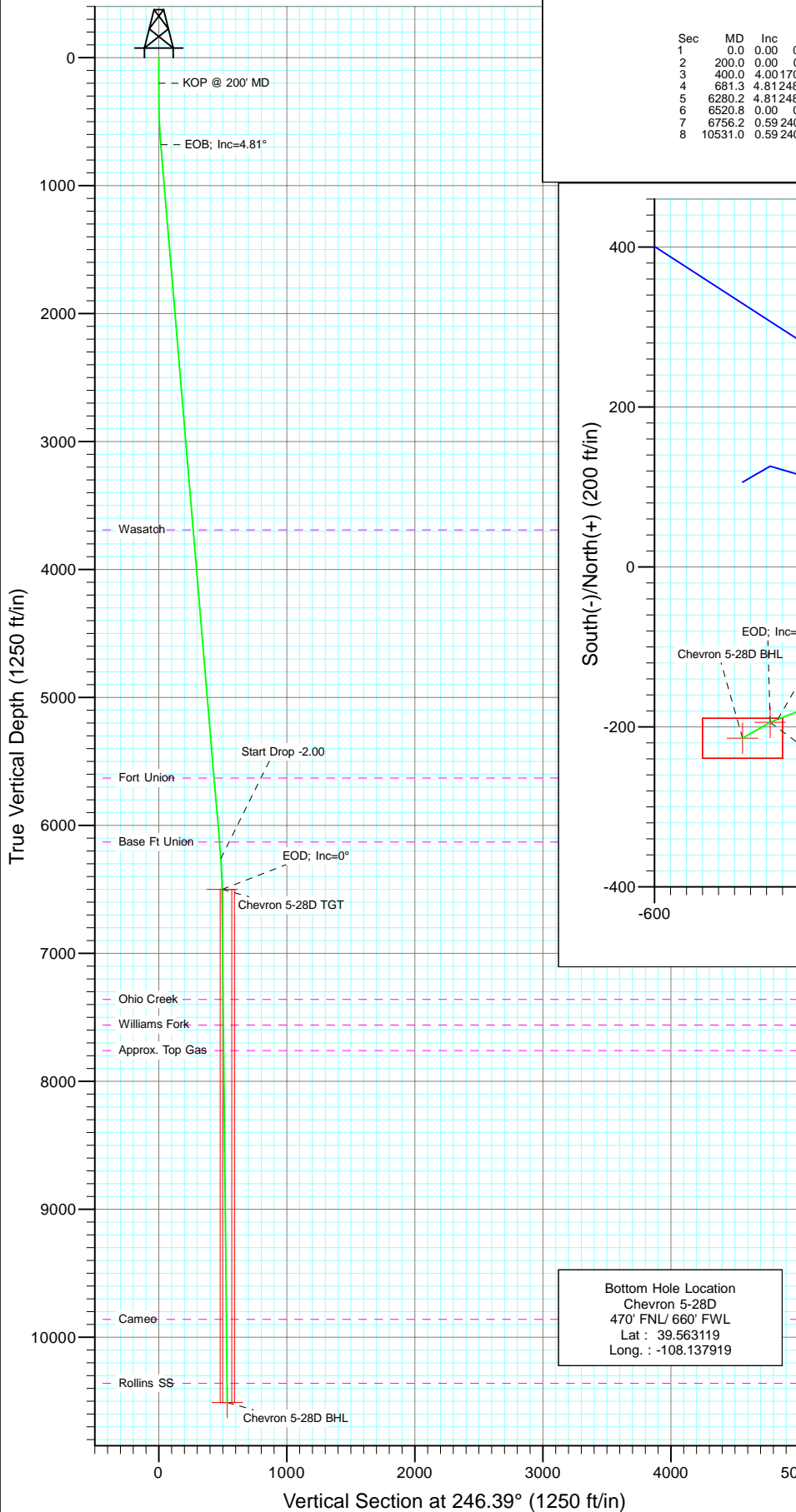
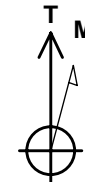
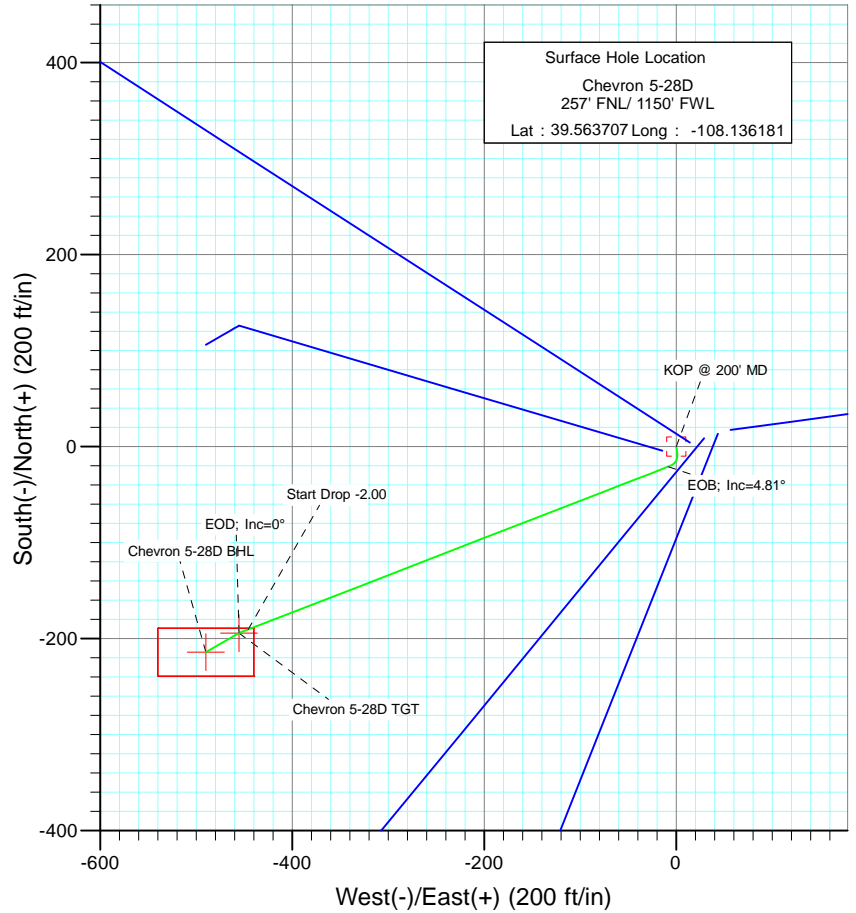


Project: Garfield County
Site: Chevron D05 696 Pad
Well: Chevron 5-28D
Wellbore: DD
Design: Plan #4



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	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	400.0	4.00	170.00	399.8	-6.9	1.2	2.00	170.00	1.6	
4	681.3	4.81	248.81	680.5	-20.8	-8.1	2.00	122.92	15.7	
5	6280.2	4.81	248.81	6259.7	-190.6	-445.9	0.00	0.00	484.9	
6	6520.8	0.00	0.00	6500.0	-194.2	-455.3	2.00	180.00	495.0	Chevron 5-28D TGT
7	6756.2	0.59	240.05	6735.4	-194.8	-456.4	0.25	240.05	496.2	
8	10531.0	0.59	240.05	10510.0	-214.2	-490.0	0.00	0.00	534.8	Chevron 5-28D BHL



Azimuths to True North
Magnetic North: 10.70°

Magnetic Field
Strength: 52512.7snT
Dip Angle: 65.84°
Date: 2/9/2009
Model: IGRF200510

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3690.0	3701.4	Wasatch
5630.0	5648.3	Fort Union
6130.0	6150.0	Base Ft Union
7360.0	7380.8	Ohio Creek
7560.0	7580.8	Williams Fork
7760.0	7780.8	Approx. Top Gas
9860.0	9881.0	Cameo
10360.0	10381.0	Rollins SS

DESIGN DETAILS: Plan #4

95XXX; BH
KBE @ 8160.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Chevron 5-28D BHL	246.39	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 Chevron 5-28D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site:	Chevron D05 696 Pad	North Reference:	True
Well:	Chevron 5-28D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #4		

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		Chevron D05 696 Pad			
Site Position:		Northing:	1,641,014.90 ft	Latitude:	39.563760
From:	Lat/Long	Easting:	2,256,856.29 ft	Longitude:	-108.136313
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.66 °

Well	Chevron 5-28D					
Well Position	+N/-S	0.0 ft	Northing:	1,640,994.52 ft	Latitude:	39.563707
	+E/-W	0.0 ft	Easting:	2,256,892.93 ft	Longitude:	-108.136181
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,146.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2/9/2009	10.70	65.84	52,513

Design	Plan #4			
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	246.39

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	
400.0	4.00	170.00	399.8	-6.9	1.2	2.00	2.00	0.00	170.00	
681.3	4.81	248.81	680.5	-20.8	-8.1	2.00	0.29	28.02	122.92	
6,280.2	4.81	248.81	6,259.7	-190.6	-445.9	0.00	0.00	0.00	0.00	
6,520.8	0.00	0.00	6,500.0	-194.2	-455.3	2.00	-2.00	0.00	180.00	Chevron 5-28D TGT
6,756.2	0.59	240.05	6,735.4	-194.8	-456.4	0.25	0.25	-50.95	240.05	
10,531.0	0.59	240.05	10,510.0	-214.2	-490.0	0.00	0.00	0.00	0.00	Chevron 5-28D BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron 5-28D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site:	Chevron D05 696 Pad	North Reference:	True
Well:	Chevron 5-28D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #4		

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' MD
210.0	0.20	170.00	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	170.00	240.0	-0.3	0.0	0.1	2.00	2.00	
270.0	1.40	170.00	270.0	-0.8	0.1	0.2	2.00	2.00	
300.0	2.00	170.00	300.0	-1.7	0.3	0.4	2.00	2.00	
330.0	2.60	170.00	330.0	-2.9	0.5	0.7	2.00	2.00	
360.0	3.20	170.00	359.9	-4.4	0.8	1.1	2.00	2.00	
390.0	3.80	170.00	389.9	-6.2	1.1	1.5	2.00	2.00	
400.0	4.00	170.00	399.8	-6.9	1.2	1.6	2.00	2.00	
420.0	3.80	175.08	419.8	-8.2	1.4	2.0	2.00	-1.01	
450.0	3.56	183.66	449.7	-10.1	1.4	2.8	2.00	-0.80	
480.0	3.41	193.24	479.7	-11.9	1.2	3.7	2.00	-0.50	
510.0	3.36	203.39	509.6	-13.6	0.6	4.9	2.00	-0.16	
540.0	3.41	213.51	539.6	-15.2	-0.2	6.3	2.00	0.19	
570.0	3.57	223.03	569.5	-16.6	-1.4	7.9	2.00	0.53	
600.0	3.82	231.52	599.5	-17.9	-2.8	9.7	2.00	0.82	
630.0	4.14	238.85	629.4	-19.1	-4.5	11.8	2.00	1.07	
660.0	4.52	245.04	659.3	-20.1	-6.5	14.0	2.00	1.26	
681.3	4.81	248.81	680.5	-20.8	-8.1	15.7	2.00	1.38	EOB; Inc=4.81°
690.0	4.81	248.81	689.2	-21.1	-8.8	16.5	0.00	0.00	
720.0	4.81	248.81	719.1	-22.0	-11.1	19.0	0.00	0.00	
750.0	4.81	248.81	749.0	-22.9	-13.5	21.5	0.00	0.00	
780.0	4.81	248.81	778.9	-23.8	-15.8	24.0	0.00	0.00	
810.0	4.81	248.81	808.8	-24.7	-18.2	26.5	0.00	0.00	
840.0	4.81	248.81	838.7	-25.6	-20.5	29.0	0.00	0.00	
870.0	4.81	248.81	868.6	-26.5	-22.8	31.6	0.00	0.00	
900.0	4.81	248.81	898.5	-27.4	-25.2	34.1	0.00	0.00	
930.0	4.81	248.81	928.3	-28.3	-27.5	36.6	0.00	0.00	
960.0	4.81	248.81	958.2	-29.3	-29.9	39.1	0.00	0.00	
990.0	4.81	248.81	988.1	-30.2	-32.2	41.6	0.00	0.00	
1,020.0	4.81	248.81	1,018.0	-31.1	-34.6	44.1	0.00	0.00	
1,050.0	4.81	248.81	1,047.9	-32.0	-36.9	46.6	0.00	0.00	
1,080.0	4.81	248.81	1,077.8	-32.9	-39.3	49.2	0.00	0.00	
1,110.0	4.81	248.81	1,107.7	-33.8	-41.6	51.7	0.00	0.00	
1,140.0	4.81	248.81	1,137.6	-34.7	-44.0	54.2	0.00	0.00	
1,170.0	4.81	248.81	1,167.5	-35.6	-46.3	56.7	0.00	0.00	
1,200.0	4.81	248.81	1,197.4	-36.5	-48.7	59.2	0.00	0.00	
1,230.0	4.81	248.81	1,227.3	-37.4	-51.0	61.7	0.00	0.00	
1,260.0	4.81	248.81	1,257.2	-38.4	-53.3	64.2	0.00	0.00	
1,290.0	4.81	248.81	1,287.1	-39.3	-55.7	66.8	0.00	0.00	
1,320.0	4.81	248.81	1,317.0	-40.2	-58.0	69.3	0.00	0.00	
1,350.0	4.81	248.81	1,346.9	-41.1	-60.4	71.8	0.00	0.00	
1,380.0	4.81	248.81	1,376.8	-42.0	-62.7	74.3	0.00	0.00	
1,410.0	4.81	248.81	1,406.7	-42.9	-65.1	76.8	0.00	0.00	
1,440.0	4.81	248.81	1,436.6	-43.8	-67.4	79.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron 5-28D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site:	Chevron D05 696 Pad	North Reference:	True
Well:	Chevron 5-28D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #4		

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
1,470.0	4.81	248.81	1,466.4	-44.7	-69.8	81.8	0.00	0.00	
1,500.0	4.81	248.81	1,496.3	-45.6	-72.1	84.4	0.00	0.00	
1,530.0	4.81	248.81	1,526.2	-46.5	-74.5	86.9	0.00	0.00	
1,560.0	4.81	248.81	1,556.1	-47.4	-76.8	89.4	0.00	0.00	
1,590.0	4.81	248.81	1,586.0	-48.4	-79.2	91.9	0.00	0.00	
1,620.0	4.81	248.81	1,615.9	-49.3	-81.5	94.4	0.00	0.00	
1,650.0	4.81	248.81	1,645.8	-50.2	-83.8	96.9	0.00	0.00	
1,680.0	4.81	248.81	1,675.7	-51.1	-86.2	99.4	0.00	0.00	
1,710.0	4.81	248.81	1,705.6	-52.0	-88.5	102.0	0.00	0.00	
1,740.0	4.81	248.81	1,735.5	-52.9	-90.9	104.5	0.00	0.00	
1,770.0	4.81	248.81	1,765.4	-53.8	-93.2	107.0	0.00	0.00	
1,800.0	4.81	248.81	1,795.3	-54.7	-95.6	109.5	0.00	0.00	
1,830.0	4.81	248.81	1,825.2	-55.6	-97.9	112.0	0.00	0.00	
1,860.0	4.81	248.81	1,855.1	-56.5	-100.3	114.5	0.00	0.00	
1,890.0	4.81	248.81	1,885.0	-57.5	-102.6	117.0	0.00	0.00	
1,920.0	4.81	248.81	1,914.9	-58.4	-105.0	119.5	0.00	0.00	
1,950.0	4.81	248.81	1,944.8	-59.3	-107.3	122.1	0.00	0.00	
1,980.0	4.81	248.81	1,974.6	-60.2	-109.7	124.6	0.00	0.00	
2,010.0	4.81	248.81	2,004.5	-61.1	-112.0	127.1	0.00	0.00	
2,040.0	4.81	248.81	2,034.4	-62.0	-114.3	129.6	0.00	0.00	
2,070.0	4.81	248.81	2,064.3	-62.9	-116.7	132.1	0.00	0.00	
2,100.0	4.81	248.81	2,094.2	-63.8	-119.0	134.6	0.00	0.00	
2,130.0	4.81	248.81	2,124.1	-64.7	-121.4	137.1	0.00	0.00	
2,160.0	4.81	248.81	2,154.0	-65.6	-123.7	139.7	0.00	0.00	
2,190.0	4.81	248.81	2,183.9	-66.5	-126.1	142.2	0.00	0.00	
2,220.0	4.81	248.81	2,213.8	-67.5	-128.4	144.7	0.00	0.00	
2,250.0	4.81	248.81	2,243.7	-68.4	-130.8	147.2	0.00	0.00	
2,280.0	4.81	248.81	2,273.6	-69.3	-133.1	149.7	0.00	0.00	
2,310.0	4.81	248.81	2,303.5	-70.2	-135.5	152.2	0.00	0.00	
2,340.0	4.81	248.81	2,333.4	-71.1	-137.8	154.7	0.00	0.00	
2,370.0	4.81	248.81	2,363.3	-72.0	-140.2	157.3	0.00	0.00	
2,400.0	4.81	248.81	2,393.2	-72.9	-142.5	159.8	0.00	0.00	
2,430.0	4.81	248.81	2,423.1	-73.8	-144.8	162.3	0.00	0.00	
2,460.0	4.81	248.81	2,453.0	-74.7	-147.2	164.8	0.00	0.00	
2,490.0	4.81	248.81	2,482.9	-75.6	-149.5	167.3	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									
Chevron 5-28D BHL	0.00	0.00	10,510.0	-214.2	-490.0	1,640,794.66	2,256,396.93	39.563119	-108.137919
- plan misses target center by 8035.6ft at 2490.0ft MD (2482.9 TVD, -75.6 N, -149.5 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									
Chevron 5-28D TGT	0.00	0.00	6,500.0	-194.2	-455.3	1,640,813.61	2,256,432.14	39.563174	-108.137796
- plan misses target center by 4030.5ft at 2490.0ft MD (2482.9 TVD, -75.6 N, -149.5 E)									
- Point									

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron 5-28D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site:	Chevron D05 696 Pad	North Reference:	True
Well:	Chevron 5-28D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #4		

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	4.81	248.81	2,492.8	-75.9	-150.3	168.2	0.00	0.00	
2,600.0	4.81	248.81	2,592.5	-79.0	-158.1	176.5	0.00	0.00	
2,700.0	4.81	248.81	2,692.1	-82.0	-166.0	184.9	0.00	0.00	
2,800.0	4.81	248.81	2,791.8	-85.0	-173.8	193.3	0.00	0.00	
2,900.0	4.81	248.81	2,891.4	-88.1	-181.6	201.7	0.00	0.00	
3,000.0	4.81	248.81	2,991.1	-91.1	-189.4	210.1	0.00	0.00	
3,100.0	4.81	248.81	3,090.7	-94.1	-197.2	218.4	0.00	0.00	
3,200.0	4.81	248.81	3,190.4	-97.2	-205.1	226.8	0.00	0.00	
3,300.0	4.81	248.81	3,290.0	-100.2	-212.9	235.2	0.00	0.00	
3,400.0	4.81	248.81	3,389.6	-103.2	-220.7	243.6	0.00	0.00	
3,500.0	4.81	248.81	3,489.3	-106.3	-228.5	252.0	0.00	0.00	
3,600.0	4.81	248.81	3,588.9	-109.3	-236.3	260.3	0.00	0.00	
3,700.0	4.81	248.81	3,688.6	-112.3	-244.2	268.7	0.00	0.00	
3,701.4	4.81	248.81	3,690.0	-112.4	-244.3	268.8	0.00	0.00	Wasatch
3,800.0	4.81	248.81	3,788.2	-115.4	-252.0	277.1	0.00	0.00	
3,900.0	4.81	248.81	3,887.9	-118.4	-259.8	285.5	0.00	0.00	
4,000.0	4.81	248.81	3,987.5	-121.4	-267.6	293.8	0.00	0.00	
4,100.0	4.81	248.81	4,087.2	-124.5	-275.4	302.2	0.00	0.00	
4,200.0	4.81	248.81	4,186.8	-127.5	-283.3	310.6	0.00	0.00	
4,300.0	4.81	248.81	4,286.5	-130.5	-291.1	319.0	0.00	0.00	
4,400.0	4.81	248.81	4,386.1	-133.5	-298.9	327.4	0.00	0.00	
4,500.0	4.81	248.81	4,485.8	-136.6	-306.7	335.7	0.00	0.00	
4,600.0	4.81	248.81	4,585.4	-139.6	-314.5	344.1	0.00	0.00	
4,700.0	4.81	248.81	4,685.1	-142.6	-322.4	352.5	0.00	0.00	
4,800.0	4.81	248.81	4,784.7	-145.7	-330.2	360.9	0.00	0.00	
4,900.0	4.81	248.81	4,884.4	-148.7	-338.0	369.3	0.00	0.00	
5,000.0	4.81	248.81	4,984.0	-151.7	-345.8	377.6	0.00	0.00	
5,100.0	4.81	248.81	5,083.7	-154.8	-353.6	386.0	0.00	0.00	
5,200.0	4.81	248.81	5,183.3	-157.8	-361.5	394.4	0.00	0.00	
5,300.0	4.81	248.81	5,283.0	-160.8	-369.3	402.8	0.00	0.00	
5,400.0	4.81	248.81	5,382.6	-163.9	-377.1	411.2	0.00	0.00	
5,500.0	4.81	248.81	5,482.2	-166.9	-384.9	419.5	0.00	0.00	
5,600.0	4.81	248.81	5,581.9	-169.9	-392.7	427.9	0.00	0.00	
5,648.3	4.81	248.81	5,630.0	-171.4	-396.5	432.0	0.00	0.00	Fort Union
5,700.0	4.81	248.81	5,681.5	-173.0	-400.6	436.3	0.00	0.00	
5,800.0	4.81	248.81	5,781.2	-176.0	-408.4	444.7	0.00	0.00	
5,900.0	4.81	248.81	5,880.8	-179.0	-416.2	453.1	0.00	0.00	
6,000.0	4.81	248.81	5,980.5	-182.1	-424.0	461.4	0.00	0.00	
6,100.0	4.81	248.81	6,080.1	-185.1	-431.8	469.8	0.00	0.00	
6,150.0	4.81	248.81	6,130.0	-186.6	-435.8	474.0	0.00	0.00	Base Ft Union
6,200.0	4.81	248.81	6,179.8	-188.1	-439.7	478.2	0.00	0.00	
6,280.2	4.81	248.81	6,259.7	-190.6	-445.9	484.9	0.00	0.00	Start Drop -2.00
6,300.0	4.42	248.81	6,279.4	-191.1	-447.4	486.5	2.00	-2.00	
6,400.0	2.42	248.81	6,379.3	-193.3	-453.0	492.5	2.00	-2.00	
6,500.0	0.42	248.81	6,479.2	-194.2	-455.3	494.9	2.00	-2.00	
6,520.8	0.00	248.81	6,500.0	-194.2	-455.4	495.0	2.00	-2.00	EOD; Inc=0° - Chevron 5-28D TGT
6,600.0	0.20	240.05	6,579.2	-194.3	-455.5	495.1	0.25	0.25	
6,700.0	0.45	240.05	6,679.2	-194.5	-456.0	495.7	0.25	0.25	
6,756.2	0.59	240.05	6,735.4	-194.8	-456.4	496.2	0.25	0.25	
6,800.0	0.59	240.05	6,779.2	-195.0	-456.8	496.7	0.00	0.00	
6,900.0	0.59	240.05	6,879.2	-195.5	-457.7	497.7	0.00	0.00	
7,000.0	0.59	240.05	6,979.2	-196.1	-458.6	498.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron 5-28D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site:	Chevron D05 696 Pad	North Reference:	True
Well:	Chevron 5-28D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #4		

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
7,100.0	0.59	240.05	7,079.2	-196.6	-459.5	499.7	0.00	0.00	
7,200.0	0.59	240.05	7,179.2	-197.1	-460.3	500.7	0.00	0.00	
7,300.0	0.59	240.05	7,279.2	-197.6	-461.2	501.8	0.00	0.00	
7,380.8	0.59	240.05	7,360.0	-198.0	-462.0	502.6	0.00	0.00	Ohio Creek
7,400.0	0.59	240.05	7,379.2	-198.1	-462.1	502.8	0.00	0.00	
7,500.0	0.59	240.05	7,479.2	-198.6	-463.0	503.8	0.00	0.00	
7,580.8	0.59	240.05	7,560.0	-199.0	-463.7	504.6	0.00	0.00	Williams Fork
7,600.0	0.59	240.05	7,579.2	-199.1	-463.9	504.8	0.00	0.00	
7,700.0	0.59	240.05	7,679.2	-199.6	-464.8	505.9	0.00	0.00	
7,780.8	0.59	240.05	7,760.0	-200.1	-465.5	506.7	0.00	0.00	Approx. Top Gas
7,800.0	0.59	240.05	7,779.2	-200.2	-465.7	506.9	0.00	0.00	
7,900.0	0.59	240.05	7,879.1	-200.7	-466.6	507.9	0.00	0.00	
8,000.0	0.59	240.05	7,979.1	-201.2	-467.5	508.9	0.00	0.00	
8,100.0	0.59	240.05	8,079.1	-201.7	-468.4	509.9	0.00	0.00	
8,200.0	0.59	240.05	8,179.1	-202.2	-469.2	511.0	0.00	0.00	
8,300.0	0.59	240.05	8,279.1	-202.7	-470.1	512.0	0.00	0.00	
8,400.0	0.59	240.05	8,379.1	-203.2	-471.0	513.0	0.00	0.00	
8,500.0	0.59	240.05	8,479.1	-203.7	-471.9	514.0	0.00	0.00	
8,600.0	0.59	240.05	8,579.1	-204.3	-472.8	515.0	0.00	0.00	
8,700.0	0.59	240.05	8,679.1	-204.8	-473.7	516.1	0.00	0.00	
8,800.0	0.59	240.05	8,779.1	-205.3	-474.6	517.1	0.00	0.00	
8,900.0	0.59	240.05	8,879.1	-205.8	-475.5	518.1	0.00	0.00	
9,000.0	0.59	240.05	8,979.1	-206.3	-476.4	519.1	0.00	0.00	
9,100.0	0.59	240.05	9,079.1	-206.8	-477.3	520.1	0.00	0.00	
9,200.0	0.59	240.05	9,179.1	-207.3	-478.2	521.2	0.00	0.00	
9,300.0	0.59	240.05	9,279.1	-207.9	-479.0	522.2	0.00	0.00	
9,400.0	0.59	240.05	9,379.1	-208.4	-479.9	523.2	0.00	0.00	
9,500.0	0.59	240.05	9,479.1	-208.9	-480.8	524.2	0.00	0.00	
9,600.0	0.59	240.05	9,579.1	-209.4	-481.7	525.3	0.00	0.00	
9,700.0	0.59	240.05	9,679.1	-209.9	-482.6	526.3	0.00	0.00	
9,800.0	0.59	240.05	9,779.0	-210.4	-483.5	527.3	0.00	0.00	
9,881.0	0.59	240.05	9,860.0	-210.8	-484.2	528.1	0.00	0.00	Cameo
9,900.0	0.59	240.05	9,879.0	-210.9	-484.4	528.3	0.00	0.00	
10,000.0	0.59	240.05	9,979.0	-211.4	-485.3	529.3	0.00	0.00	
10,100.0	0.59	240.05	10,079.0	-212.0	-486.2	530.4	0.00	0.00	
10,200.0	0.59	240.05	10,179.0	-212.5	-487.1	531.4	0.00	0.00	
10,300.0	0.59	240.05	10,279.0	-213.0	-487.9	532.4	0.00	0.00	
10,381.0	0.59	240.05	10,360.0	-213.4	-488.7	533.2	0.00	0.00	Rollins SS
10,400.0	0.59	240.05	10,379.0	-213.5	-488.8	533.4	0.00	0.00	
10,500.0	0.59	240.05	10,479.0	-214.0	-489.7	534.4	0.00	0.00	
10,531.0	0.59	240.05	10,510.0	-214.2	-490.0	534.8	0.00	0.00	Chevron 5-28D BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron 5-28D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site:	Chevron D05 696 Pad	North Reference:	True
Well:	Chevron 5-28D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #4		

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)		
Chevron 5-28D BHL	0.00	0.00	10,510.0	-214.2	-490.0	1,640,794.66	2,256,396.93	39.563119	-108.137919
- plan hits target center									
- Rectangle (sides W50.0 H100.0 D0.0)									
Chevron 5-28D TGT	0.00	0.00	6,500.0	-194.2	-455.3	1,640,813.61	2,256,432.14	39.563174	-108.137796
- plan hits target center									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
3,701.4	3,690.0	Wasatch		0.00		
5,648.3	5,630.0	Fort Union		0.00		
6,150.0	6,130.0	Base Ft Union		0.00		
7,380.8	7,360.0	Ohio Creek		0.00		
7,580.8	7,560.0	Williams Fork		0.00		
7,780.8	7,760.0	Approx. Top Gas		0.00		
9,881.0	9,860.0	Cameo		0.00		
10,381.0	10,360.0	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' MD	
681.3	680.5	-6.9	1.2	EOB; Inc=4.81°	
6,280.2	6,259.7	-20.8	-8.1	Start Drop -2.00	
6,520.8	6,500.0	-190.6	-445.9	EOD; Inc=0°	
10,531.0	10,510.0	-194.2	-455.3	TD at 10531.0	

Berry Petroleum Company (NAD 83)

**Garfield County
Chevron D05 696 Pad
Chevron 5-28D
DD
Plan #4**

Anticollision Report

22 November, 2010

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Reference	Plan #4		
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 1,221.6ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	11/22/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	10,531.0	Plan #4 (DD)	MWD	Geolink MWD	

Summary						
Site Name	Reference	Offset	Distance		Separation Factor	Warning
	Measured	Measured	Between	Between		
	Depth	Depth	Centres	Ellipses		
Offset Well - Wellbore - Design						
Chevron D05 696 Pad						
Chevron 35-1D - DD - Plan #4	316.3	316.5	14.4	13.3	13.573	CC, ES
Chevron 35-1D - DD - Plan #4	400.0	399.9	16.7	15.3	12.169	SF
Chevron 5-16D - DD - Plan #3	200.0	200.0	59.3	58.7	92.333	CC, ES
Chevron 5-16D - DD - Plan #3	600.0	590.6	93.9	91.8	45.395	SF
Chevron 5-24D - DD - Plan #2	668.4	672.1	43.2	40.8	17.955	CC, ES
Chevron 5-24D - DD - Plan #2	1,000.0	1,002.1	55.5	51.3	13.331	SF
Chevron 5-26D - DD - Plan #2	675.5	677.4	16.2	13.7	6.695	CC, ES
Chevron 5-26D - DD - Plan #2	900.0	901.7	20.4	16.9	5.845	SF
Chevron 5-27D - DD - Plan #3	301.8	301.8	14.9	13.9	14.895	CC, ES
Chevron 5-27D - DD - Plan #3	700.0	699.2	17.7	15.2	7.270	SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 35-1D - DD - Plan #4													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		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
							+N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	73.14	4.4	14.4	15.0					
100.0	100.0	100.0	100.0	0.2	0.1	73.14	4.4	14.4	15.0	14.7	0.29	51.240		
200.0	200.0	200.0	200.0	0.3	0.3	73.14	4.4	14.4	15.0	14.4	0.64	23.392		
300.0	300.0	300.2	300.2	0.5	0.5	-109.16	5.3	12.9	14.4	13.4	1.00	14.459		
316.3	316.2	316.5	316.5	0.5	0.5	-113.64	5.6	12.4	14.4	13.3	1.06	13.573 CC, ES		
400.0	399.8	399.9	399.7	0.7	0.7	-143.94	8.1	8.5	16.7	15.3	1.37	12.169 SF		
500.0	499.6	498.8	498.2	0.9	0.9	161.00	12.8	1.3	25.9	24.2	1.74	14.877		
600.0	599.5	597.7	596.5	1.1	1.2	119.56	19.0	-8.4	37.5	35.3	2.13	17.585		
700.0	699.2	697.1	695.2	1.3	1.4	100.06	25.5	-18.4	47.9	45.3	2.55	18.798		
800.0	798.8	796.6	794.0	1.5	1.7	99.64	32.0	-28.5	57.7	54.7	2.98	19.379		
900.0	898.5	896.2	892.8	1.7	1.9	99.34	38.5	-38.5	67.5	64.1	3.41	19.777		
1,000.0	998.1	995.7	991.6	1.9	2.2	99.12	44.9	-48.5	77.3	73.4	3.85	20.063		
1,100.0	1,097.7	1,095.2	1,090.4	2.1	2.5	98.95	51.4	-58.6	87.1	82.8	4.29	20.278		
1,200.0	1,197.4	1,194.7	1,189.2	2.4	2.8	98.81	57.9	-68.6	96.9	92.1	4.74	20.444		
1,300.0	1,297.0	1,294.2	1,288.0	2.6	3.0	98.70	64.4	-78.7	106.7	101.5	5.18	20.575		
1,400.0	1,396.7	1,393.7	1,386.8	2.8	3.3	98.60	70.8	-88.7	116.5	110.8	5.63	20.682		
1,500.0	1,496.3	1,493.3	1,485.6	3.0	3.6	98.52	77.3	-98.8	126.3	120.2	6.08	20.770		
1,600.0	1,596.0	1,592.8	1,584.4	3.3	3.8	98.46	83.8	-108.8	136.1	129.5	6.53	20.844		
1,700.0	1,695.6	1,692.3	1,683.2	3.5	4.1	98.40	90.3	-118.8	145.9	138.9	6.98	20.906		
1,800.0	1,795.3	1,791.8	1,782.0	3.7	4.4	98.35	96.7	-128.9	155.7	148.2	7.43	20.960		
1,900.0	1,894.9	1,891.3	1,880.8	3.9	4.6	98.30	103.2	-138.9	165.5	157.6	7.88	21.007		
2,000.0	1,994.6	1,990.9	1,979.6	4.2	4.9	98.26	109.7	-149.0	175.3	166.9	8.33	21.048		
2,100.0	2,094.2	2,090.4	2,078.4	4.4	5.2	98.23	116.2	-159.0	185.1	176.3	8.78	21.084		
2,200.0	2,193.9	2,189.9	2,177.2	4.6	5.5	98.19	122.6	-169.1	194.9	185.6	9.23	21.116		
2,300.0	2,293.5	2,289.4	2,276.0	4.8	5.7	98.17	129.1	-179.1	204.7	195.0	9.68	21.145		
2,400.0	2,393.2	2,388.9	2,374.8	5.1	6.0	98.14	135.6	-189.2	214.5	204.3	10.13	21.170		
2,500.0	2,492.8	2,488.5	2,473.6	5.3	6.3	98.11	142.1	-199.2	224.3	213.7	10.58	21.194		
2,600.0	2,592.5	2,588.0	2,572.4	5.5	6.5	98.09	148.6	-209.2	234.1	223.0	11.03	21.215		
2,700.0	2,692.1	2,687.5	2,671.2	5.7	6.8	98.07	155.0	-219.3	243.9	232.4	11.48	21.234		
2,800.0	2,791.8	2,787.0	2,770.0	6.0	7.1	98.05	161.5	-229.3	253.7	241.7	11.94	21.252		
2,900.0	2,891.4	2,886.5	2,868.7	6.2	7.4	98.04	168.0	-239.4	263.5	251.1	12.39	21.268		
3,000.0	2,991.1	2,986.0	2,967.5	6.4	7.6	98.02	174.5	-249.4	273.3	260.4	12.84	21.283		
3,100.0	3,090.7	3,085.6	3,066.3	6.6	7.9	98.00	180.9	-259.5	283.1	269.8	13.29	21.297		
3,200.0	3,190.4	3,185.1	3,165.1	6.9	8.2	97.99	187.4	-269.5	292.9	279.1	13.74	21.309		
3,300.0	3,290.0	3,284.6	3,263.9	7.1	8.4	97.98	193.9	-279.5	302.7	288.5	14.20	21.321		
3,400.0	3,389.6	3,384.1	3,362.7	7.3	8.7	97.97	200.4	-289.6	312.5	297.8	14.65	21.332		
3,500.0	3,489.3	3,483.6	3,461.5	7.6	9.0	97.95	206.8	-299.6	322.3	307.2	15.10	21.343		
3,600.0	3,588.9	3,583.2	3,560.3	7.8	9.3	97.94	213.3	-309.7	332.1	316.5	15.55	21.352		
3,700.0	3,688.6	3,682.7	3,659.1	8.0	9.5	97.93	219.8	-319.7	341.9	325.9	16.00	21.361		
3,800.0	3,788.2	3,782.2	3,757.9	8.2	9.8	97.92	226.3	-329.8	351.7	335.2	16.46	21.370		
3,900.0	3,887.9	3,881.7	3,856.7	8.5	10.1	97.91	232.7	-339.8	361.5	344.6	16.91	21.378		
4,000.0	3,987.5	3,981.2	3,955.5	8.7	10.3	97.91	239.2	-349.8	371.3	353.9	17.36	21.386		
4,100.0	4,087.2	4,080.7	4,054.3	8.9	10.6	97.90	245.7	-359.9	381.1	363.3	17.81	21.393		
4,200.0	4,186.8	4,180.3	4,153.1	9.1	10.9	97.89	252.2	-369.9	390.9	372.6	18.27	21.400		
4,300.0	4,286.5	4,279.8	4,251.9	9.4	11.2	97.88	258.7	-380.0	400.7	382.0	18.72	21.406		
4,400.0	4,386.1	4,379.3	4,350.7	9.6	11.4	97.87	265.1	-390.0	410.5	391.3	19.17	21.412		
4,500.0	4,485.8	4,478.8	4,449.5	9.8	11.7	97.87	271.6	-400.1	420.3	400.7	19.62	21.418		
4,600.0	4,585.4	4,578.3	4,548.3	10.1	12.0	97.86	278.1	-410.1	430.1	410.0	20.08	21.424		
4,700.0	4,685.1	4,677.9	4,647.1	10.3	12.3	97.86	284.6	-420.2	439.9	419.4	20.53	21.429		
4,800.0	4,784.7	4,777.4	4,745.9	10.5	12.5	97.85	291.0	-430.2	449.7	428.7	20.98	21.434		
4,900.0	4,884.4	4,876.9	4,844.7	10.7	12.8	97.84	297.5	-440.2	459.5	438.1	21.43	21.439		
5,000.0	4,984.0	4,976.4	4,943.5	11.0	13.1	97.84	304.0	-450.3	469.3	447.4	21.89	21.443		

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 35-1D - DD - Plan #4													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		
5,100.0	5,083.7	5,075.9	5,042.3	11.2	13.3	97.83	310.5	-460.3	479.1	456.8	22.34	21.448		
5,200.0	5,183.3	5,175.5	5,141.1	11.4	13.6	97.83	316.9	-470.4	488.9	466.1	22.79	21.452		
5,300.0	5,283.0	5,275.0	5,239.9	11.7	13.9	97.82	323.4	-480.4	498.7	475.5	23.24	21.456		
5,400.0	5,382.6	5,374.5	5,338.7	11.9	14.2	97.82	329.9	-490.5	508.5	484.8	23.70	21.460		
5,500.0	5,482.2	5,474.0	5,437.5	12.1	14.4	97.81	336.4	-500.5	518.3	494.2	24.15	21.463		
5,600.0	5,581.9	5,573.5	5,536.3	12.3	14.7	97.81	342.8	-510.5	528.1	503.5	24.60	21.467		
5,700.0	5,681.5	5,673.0	5,635.1	12.6	15.0	97.81	349.3	-520.6	537.9	512.9	25.05	21.470		
5,800.0	5,781.2	5,772.6	5,733.9	12.8	15.2	97.80	355.8	-530.6	547.7	522.2	25.51	21.474		
5,900.0	5,880.8	5,872.1	5,832.7	13.0	15.5	97.80	362.3	-540.7	557.5	531.6	25.96	21.477		
6,000.0	5,980.5	5,971.6	5,931.5	13.2	15.8	97.79	368.8	-550.7	567.3	540.9	26.41	21.480		
6,100.0	6,080.1	6,071.1	6,030.3	13.5	16.1	97.79	375.2	-560.8	577.1	550.3	26.86	21.483		
6,200.0	6,179.8	6,170.6	6,129.1	13.7	16.3	97.79	381.7	-570.8	586.9	559.6	27.32	21.486		
6,300.0	6,279.4	6,270.2	6,227.9	13.9	16.6	97.82	388.2	-580.9	596.7	568.9	27.77	21.486		
6,400.0	6,379.3	6,369.7	6,326.7	14.1	16.9	97.77	394.7	-590.9	606.2	578.0	28.18	21.511		
6,500.0	6,479.2	6,469.1	6,425.4	14.3	17.2	97.41	401.1	-600.9	615.2	586.7	28.52	21.569		
6,600.0	6,579.2	6,568.4	6,524.0	14.4	17.4	105.45	407.6	-610.9	624.1	595.2	28.83	21.649		
6,700.0	6,679.2	6,667.7	6,622.5	14.5	17.7	104.74	414.1	-621.0	633.1	604.0	29.13	21.733		
6,800.0	6,779.2	6,767.0	6,721.1	14.7	18.0	104.10	420.5	-631.0	642.4	612.9	29.44	21.817		
6,900.0	6,879.2	6,866.3	6,819.8	14.9	18.2	103.49	427.0	-641.0	651.7	621.9	29.76	21.901		
7,000.0	6,979.2	6,965.7	6,918.4	15.0	18.5	102.90	433.4	-651.0	661.1	631.0	30.07	21.986		
7,100.0	7,079.2	7,065.0	7,017.0	15.2	18.8	102.32	439.9	-661.1	670.5	640.2	30.38	22.072		
7,200.0	7,179.2	7,164.3	7,115.6	15.3	19.1	101.76	446.4	-671.1	680.1	649.4	30.69	22.159		
7,300.0	7,279.2	7,263.6	7,214.2	15.5	19.3	101.22	452.8	-681.1	689.7	658.7	31.00	22.246		
7,400.0	7,379.2	7,379.0	7,328.9	15.6	19.6	100.67	459.7	-691.7	698.5	667.2	31.33	22.299		
7,500.0	7,479.2	7,502.8	7,452.3	15.8	19.8	100.34	464.4	-699.0	704.2	672.6	31.66	22.243		
7,600.0	7,579.2	7,627.0	7,576.5	15.9	20.0	100.28	466.1	-701.7	706.5	674.5	32.00	22.081		
7,700.0	7,679.2	7,730.2	7,679.7	16.1	20.1	100.35	466.1	-701.9	706.7	674.4	32.31	21.871		
7,800.0	7,779.2	7,830.7	7,780.2	16.2	20.2	100.38	465.8	-702.5	706.8	674.1	32.62	21.664		
7,900.0	7,879.1	7,931.3	7,880.8	16.4	20.4	100.38	465.2	-703.4	706.8	673.8	32.94	21.457		
8,000.0	7,979.1	8,031.6	7,981.1	16.5	20.5	100.34	464.5	-704.6	706.7	673.4	33.25	21.252		
8,100.0	8,079.1	8,131.6	8,081.1	16.7	20.6	100.30	463.7	-706.0	706.6	673.0	33.56	21.051		
8,200.0	8,179.1	8,231.6	8,181.1	16.9	20.8	100.26	463.0	-707.3	706.5	672.6	33.88	20.854		
8,300.0	8,279.1	8,331.6	8,281.1	17.0	20.9	100.22	462.2	-708.7	706.4	672.2	34.19	20.659		
8,400.0	8,379.1	8,431.6	8,381.1	17.2	21.0	100.17	461.4	-710.0	706.3	671.8	34.51	20.468		
8,500.0	8,479.1	8,531.6	8,481.0	17.3	21.1	100.13	460.6	-711.4	706.2	671.4	34.82	20.279		
8,600.0	8,579.1	8,631.6	8,581.0	17.5	21.3	100.09	459.9	-712.7	706.1	671.0	35.14	20.094		
8,700.0	8,679.1	8,731.6	8,681.0	17.7	21.4	100.05	459.1	-714.1	706.0	670.6	35.46	19.912		
8,800.0	8,779.1	8,831.6	8,781.0	17.8	21.5	100.01	458.3	-715.4	705.9	670.2	35.78	19.732		
8,900.0	8,879.1	8,931.6	8,881.0	18.0	21.7	99.96	457.5	-716.8	705.8	669.8	36.09	19.556		
9,000.0	8,979.1	9,031.6	8,981.0	18.1	21.8	99.92	456.8	-718.1	705.8	669.3	36.41	19.382		
9,100.0	9,079.1	9,131.6	9,081.0	18.3	21.9	99.88	456.0	-719.4	705.7	668.9	36.73	19.211		
9,200.0	9,179.1	9,231.6	9,181.0	18.5	22.1	99.84	455.2	-720.8	705.6	668.5	37.05	19.042		
9,300.0	9,279.1	9,331.6	9,280.9	18.6	22.2	99.80	454.4	-722.1	705.5	668.1	37.37	18.877		
9,400.0	9,379.1	9,431.6	9,380.9	18.8	22.4	99.75	453.7	-723.5	705.4	667.7	37.70	18.713		
9,500.0	9,479.1	9,531.6	9,480.9	18.9	22.5	99.71	452.9	-724.8	705.3	667.3	38.02	18.553		
9,600.0	9,579.1	9,631.6	9,580.9	19.1	22.6	99.67	452.1	-726.2	705.2	666.9	38.34	18.394		
9,700.0	9,679.1	9,731.6	9,680.9	19.3	22.8	99.63	451.3	-727.5	705.1	666.5	38.66	18.238		
9,800.0	9,779.0	9,831.6	9,780.9	19.4	22.9	99.59	450.6	-728.9	705.0	666.1	38.99	18.085		
9,900.0	9,879.0	9,931.6	9,880.9	19.6	23.0	99.54	449.8	-730.2	705.0	665.7	39.31	17.934		
10,000.0	9,979.0	10,031.6	9,980.8	19.7	23.2	99.50	449.0	-731.6	704.9	665.2	39.63	17.785		
10,100.0	10,079.0	10,131.6	10,080.8	19.9	23.3	99.46	448.2	-732.9	704.8	664.8	39.96	17.638		
10,200.0	10,179.0	10,231.6	10,180.8	20.1	23.5	99.42	447.5	-734.2	704.7	664.4	40.28	17.494		

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 35-1D - DD - Plan #4													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		
10,300.0	10,279.0	10,331.6	10,280.8	20.2	23.6	99.37	446.7	-735.6	704.6	664.0	40.61	17.351		
10,350.5	10,329.5	10,382.1	10,331.3	20.3	23.7	99.35	446.3	-736.3	704.6	663.8	40.77	17.280		
10,400.0	10,379.0	10,390.8	10,340.0	20.4	23.7	99.35	446.2	-736.4	705.7	664.8	40.87	17.268		
10,500.0	10,479.0	10,390.8	10,340.0	20.6	23.7	99.35	446.2	-736.4	718.4	677.3	41.03	17.508		
10,531.0	10,510.0	10,390.8	10,340.0	20.6	23.7	99.35	446.2	-736.4	725.1	684.0	41.08	17.649		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-16D - DD - Plan #3													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		Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
							+N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	72.85	17.5	56.7	59.3					
100.0	100.0	100.0	100.0	0.2	0.1	72.85	17.5	56.7	59.3	59.0	0.29	202.253		
200.0	200.0	200.0	200.0	0.3	0.3	72.85	17.5	56.7	59.3	58.7	0.64	92.333 CC, ES		
300.0	300.0	297.9	297.9	0.5	0.5	-98.44	17.7	58.3	61.2	60.2	0.99	61.747		
400.0	399.8	395.6	395.4	0.7	0.7	-101.84	18.4	63.3	67.2	65.8	1.36	49.472		
500.0	499.6	492.5	492.0	0.9	0.9	-134.40	19.5	71.5	78.1	76.4	1.72	45.495		
600.0	599.5	590.6	589.5	1.1	1.1	-165.93	20.9	82.1	93.9	91.8	2.07	45.395 SF		
700.0	699.2	688.9	687.2	1.3	1.4	178.07	22.3	92.9	112.0	109.6	2.41	46.497		
800.0	798.8	787.1	784.8	1.5	1.6	179.49	23.7	103.6	131.0	128.2	2.75	47.582		
900.0	898.5	885.2	882.3	1.7	1.9	-179.45	25.2	114.4	150.0	147.0	3.10	48.434		
1,000.0	998.1	983.3	979.8	1.9	2.1	-178.63	26.6	125.2	169.1	165.7	3.44	49.120		
1,100.0	1,097.7	1,081.5	1,077.4	2.1	2.4	-177.98	28.0	135.9	188.3	184.5	3.79	49.686		
1,200.0	1,197.4	1,179.6	1,174.9	2.4	2.6	-177.44	29.5	146.7	207.4	203.3	4.13	50.160		
1,300.0	1,297.0	1,277.7	1,272.4	2.6	2.9	-177.00	30.9	157.4	226.6	222.1	4.48	50.562		
1,400.0	1,396.7	1,375.9	1,370.0	2.8	3.1	-176.63	32.3	168.2	245.7	240.9	4.83	50.909		
1,500.0	1,496.3	1,474.0	1,467.5	3.0	3.4	-176.31	33.7	178.9	264.9	259.7	5.17	51.210		
1,600.0	1,596.0	1,572.1	1,565.0	3.3	3.7	-176.03	35.2	189.7	284.1	278.5	5.52	51.474		
1,700.0	1,695.6	1,670.3	1,662.5	3.5	3.9	-175.79	36.6	200.5	303.3	297.4	5.86	51.708		
1,800.0	1,795.3	1,768.4	1,760.1	3.7	4.2	-175.58	38.0	211.2	322.4	316.2	6.21	51.916		
1,900.0	1,894.9	1,866.5	1,857.6	3.9	4.4	-175.39	39.5	222.0	341.6	335.1	6.56	52.103		
2,000.0	1,994.6	1,964.7	1,955.1	4.2	4.7	-175.22	40.9	232.7	360.8	353.9	6.90	52.271		
2,100.0	2,094.2	2,062.8	2,052.7	4.4	4.9	-175.07	42.3	243.5	380.0	372.8	7.25	52.424		
2,200.0	2,193.9	2,160.9	2,150.2	4.6	5.2	-174.93	43.8	254.3	399.2	391.6	7.60	52.562		
2,300.0	2,293.5	2,259.1	2,247.7	4.8	5.4	-174.81	45.2	265.0	418.4	410.5	7.94	52.689		
2,400.0	2,393.2	2,357.2	2,345.3	5.1	5.7	-174.69	46.6	275.8	437.6	429.4	8.29	52.806		
2,500.0	2,492.8	2,455.3	2,442.8	5.3	6.0	-174.59	48.1	286.5	456.8	448.2	8.63	52.913		
2,600.0	2,592.5	2,553.5	2,540.3	5.5	6.2	-174.49	49.5	297.3	476.1	467.1	8.98	53.012		
2,700.0	2,692.1	2,651.6	2,637.9	5.7	6.5	-174.40	50.9	308.0	495.3	485.9	9.33	53.104		
2,800.0	2,791.8	2,749.8	2,735.4	6.0	6.7	-174.32	52.3	318.8	514.5	504.8	9.67	53.189		
2,900.0	2,891.4	2,847.9	2,832.9	6.2	7.0	-174.25	53.8	329.6	533.7	523.7	10.02	53.268		
3,000.0	2,991.1	2,946.0	2,930.5	6.4	7.2	-174.18	55.2	340.3	552.9	542.5	10.37	53.343		
3,100.0	3,090.7	3,044.2	3,028.0	6.6	7.5	-174.11	56.6	351.1	572.1	561.4	10.71	53.412		
3,200.0	3,190.4	3,142.3	3,125.5	6.9	7.7	-174.05	58.1	361.8	591.3	580.3	11.06	53.477		
3,300.0	3,290.0	3,240.4	3,223.1	7.1	8.0	-173.99	59.5	372.6	610.5	599.1	11.40	53.539		
3,400.0	3,389.6	3,338.6	3,320.6	7.3	8.3	-173.94	60.9	383.3	629.8	618.0	11.75	53.596		
3,500.0	3,489.3	3,436.7	3,418.1	7.6	8.5	-173.89	62.4	394.1	649.0	636.9	12.10	53.651		
3,600.0	3,588.9	3,534.8	3,515.7	7.8	8.8	-173.84	63.8	404.9	668.2	655.7	12.44	53.702		
3,700.0	3,688.6	3,633.0	3,613.2	8.0	9.0	-173.79	65.2	415.6	687.4	674.6	12.79	53.751		
3,800.0	3,788.2	3,731.1	3,710.7	8.2	9.3	-173.75	66.6	426.4	706.6	693.5	13.13	53.797		
3,900.0	3,887.9	3,829.2	3,808.3	8.5	9.5	-173.71	68.1	437.1	725.8	712.4	13.48	53.840		
4,000.0	3,987.5	3,927.4	3,905.8	8.7	9.8	-173.67	69.5	447.9	745.1	731.2	13.83	53.882		
4,100.0	4,087.2	4,025.5	4,003.3	8.9	10.0	-173.63	70.9	458.7	764.3	750.1	14.17	53.922		
4,200.0	4,186.8	4,123.6	4,100.9	9.1	10.3	-173.60	72.4	469.4	783.5	769.0	14.52	53.959		
4,300.0	4,286.5	4,221.8	4,198.4	9.4	10.6	-173.57	73.8	480.2	802.7	787.8	14.87	53.995		
4,400.0	4,386.1	4,319.9	4,295.9	9.6	10.8	-173.53	75.2	490.9	821.9	806.7	15.21	54.029		
4,500.0	4,485.8	4,418.0	4,393.5	9.8	11.1	-173.50	76.7	501.7	841.1	825.6	15.56	54.062		
4,600.0	4,585.4	4,516.2	4,491.0	10.1	11.3	-173.48	78.1	512.4	860.4	844.5	15.90	54.094		
4,700.0	4,685.1	4,614.3	4,588.5	10.3	11.6	-173.45	79.5	523.2	879.6	863.3	16.25	54.124		
4,800.0	4,784.7	4,712.5	4,686.1	10.5	11.8	-173.42	81.0	534.0	898.8	882.2	16.60	54.152		
4,900.0	4,884.4	4,810.6	4,783.6	10.7	12.1	-173.40	82.4	544.7	918.0	901.1	16.94	54.180		
5,000.0	4,984.0	4,908.7	4,881.1	11.0	12.4	-173.37	83.8	555.5	937.2	919.9	17.29	54.207		
5,100.0	5,083.7	5,006.9	4,978.7	11.2	12.6	-173.35	85.2	566.2	956.5	938.8	17.64	54.232		

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-16D - DD - Plan #3													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		
5,200.0	5,183.3	5,105.0	5,076.2	11.4	12.9	-173.33	86.7	577.0	975.7	957.7	17.98	54.257		
5,300.0	5,283.0	5,203.1	5,173.7	11.7	13.1	-173.31	88.1	587.8	994.9	976.6	18.33	54.280		
5,400.0	5,382.6	5,301.3	5,271.3	11.9	13.4	-173.28	89.5	598.5	1,014.1	995.4	18.68	54.303		
5,500.0	5,482.2	5,399.4	5,368.8	12.1	13.6	-173.26	91.0	609.3	1,033.3	1,014.3	19.02	54.325		
5,600.0	5,581.9	5,497.5	5,466.3	12.3	13.9	-173.25	92.4	620.0	1,052.6	1,033.2	19.37	54.346		
5,700.0	5,681.5	5,595.7	5,563.9	12.6	14.1	-173.23	93.8	630.8	1,071.8	1,052.1	19.71	54.366		
5,800.0	5,781.2	5,693.8	5,661.4	12.8	14.4	-173.21	95.3	641.5	1,091.0	1,070.9	20.06	54.386		
5,900.0	5,880.8	5,791.9	5,758.9	13.0	14.7	-173.19	96.7	652.3	1,110.2	1,089.8	20.41	54.405		
6,000.0	5,980.5	5,890.1	5,856.5	13.2	14.9	-173.18	98.1	663.1	1,129.4	1,108.7	20.75	54.423		
6,100.0	6,080.1	5,988.2	5,954.0	13.5	15.2	-173.16	99.6	673.8	1,148.7	1,127.6	21.10	54.441		
6,200.0	6,179.8	6,086.3	6,051.5	13.7	15.4	-173.14	101.0	684.6	1,167.9	1,146.4	21.45	54.458		
6,300.0	6,279.4	6,184.5	6,149.1	13.9	15.7	-173.14	102.4	695.3	1,187.0	1,165.2	21.80	54.449		
6,400.0	6,379.3	6,283.1	6,247.0	14.1	15.9	-173.15	103.8	706.1	1,203.9	1,181.7	22.18	54.267		
6,500.0	6,479.2	6,382.1	6,345.5	14.3	16.2	-173.13	105.3	717.0	1,217.3	1,194.7	22.55	53.980		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-24D - DD - Plan #2														Offset Site Error:	0.0 ft
Survey Program: O-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	72.76	13.5	43.4	45.5						
100.0	100.0	100.0	100.0	0.2	0.1	72.76	13.5	43.4	45.5	45.2	0.29	155.042			
200.0	200.0	200.0	200.0	0.3	0.3	72.76	13.5	43.4	45.5	44.8	0.64	70.780			
300.0	300.0	300.0	300.0	0.5	0.5	-99.41	13.5	43.4	45.7	44.7	0.99	45.948			
400.0	399.8	401.0	401.0	0.7	0.7	-104.29	11.8	42.8	45.6	44.2	1.37	33.354			
500.0	499.6	502.2	502.0	0.9	0.9	-136.53	6.8	40.8	44.7	43.0	1.74	25.750			
600.0	599.5	603.2	602.7	1.1	1.1	-163.79	-1.4	37.5	43.7	41.5	2.12	20.619			
668.4	667.6	672.1	671.0	1.2	1.3	-169.73	-9.0	34.5	43.2	40.8	2.41	17.955 CC, ES			
700.0	699.2	703.8	702.5	1.3	1.3	-170.07	-12.9	32.9	43.5	40.9	2.55	17.049			
800.0	798.8	803.7	801.1	1.5	1.6	-154.85	-27.5	27.2	44.7	41.6	3.07	14.547			
900.0	898.5	902.9	898.9	1.7	2.0	-140.14	-43.0	21.0	48.8	45.1	3.63	13.442			
1,000.0	998.1	1,002.1	996.7	1.9	2.3	-128.30	-58.5	14.9	55.5	51.3	4.16	13.331 SF			
1,100.0	1,097.7	1,101.3	1,094.5	2.1	2.6	-119.30	-73.9	8.7	64.1	59.4	4.67	13.726			
1,200.0	1,197.4	1,200.5	1,192.2	2.4	2.9	-112.52	-89.4	2.6	73.8	68.7	5.15	14.342			
1,300.0	1,297.0	1,299.6	1,290.0	2.6	3.3	-107.38	-104.9	-3.5	84.4	78.8	5.61	15.031			
1,400.0	1,396.7	1,398.8	1,387.8	2.8	3.6	-103.40	-120.4	-9.7	95.5	89.4	6.07	15.725			
1,500.0	1,496.3	1,498.0	1,485.6	3.0	3.9	-100.25	-135.9	-15.8	106.9	100.4	6.52	16.389			
1,600.0	1,596.0	1,597.2	1,583.4	3.3	4.3	-97.72	-151.3	-22.0	118.6	111.6	6.97	17.012			
1,700.0	1,695.6	1,696.4	1,681.2	3.5	4.6	-95.64	-166.8	-28.1	130.5	123.1	7.42	17.588			
1,800.0	1,795.3	1,795.6	1,778.9	3.7	4.9	-93.91	-182.3	-34.3	142.5	134.6	7.86	18.120			
1,900.0	1,894.9	1,894.8	1,876.7	3.9	5.3	-92.46	-197.8	-40.4	154.6	146.3	8.31	18.608			
2,000.0	1,994.6	1,994.0	1,974.5	4.2	5.6	-91.21	-213.3	-46.5	166.8	158.1	8.75	19.057			
2,100.0	2,094.2	2,093.2	2,072.3	4.4	5.9	-90.13	-228.7	-52.7	179.1	169.9	9.20	19.470			
2,200.0	2,193.9	2,192.4	2,170.1	4.6	6.3	-89.20	-244.2	-58.8	191.5	181.8	9.64	19.851			
2,300.0	2,293.5	2,291.5	2,267.9	4.8	6.6	-88.37	-259.7	-65.0	203.8	193.7	10.09	20.202			
2,400.0	2,393.2	2,390.7	2,365.6	5.1	6.9	-87.64	-275.2	-71.1	216.3	205.7	10.54	20.527			
2,500.0	2,492.8	2,489.9	2,463.4	5.3	7.3	-86.99	-290.7	-77.2	228.7	217.7	10.98	20.829			
2,600.0	2,592.5	2,589.1	2,561.2	5.5	7.6	-86.41	-306.1	-83.4	241.2	229.8	11.43	21.109			
2,700.0	2,692.1	2,688.3	2,659.0	5.7	8.0	-85.88	-321.6	-89.5	253.7	241.8	11.87	21.369			
2,800.0	2,791.8	2,787.5	2,756.8	6.0	8.3	-85.41	-337.1	-95.7	266.2	253.9	12.32	21.612			
2,900.0	2,891.4	2,886.7	2,854.5	6.2	8.6	-84.98	-352.6	-101.8	278.7	266.0	12.76	21.840			
3,000.0	2,991.1	2,985.9	2,952.3	6.4	9.0	-84.58	-368.1	-107.9	291.3	278.1	13.21	22.053			
3,100.0	3,090.7	3,085.1	3,050.1	6.6	9.3	-84.22	-383.5	-114.1	303.8	290.2	13.65	22.252			
3,200.0	3,190.4	3,184.3	3,147.9	6.9	9.6	-83.88	-399.0	-120.2	316.4	302.3	14.10	22.440			
3,300.0	3,290.0	3,283.5	3,245.7	7.1	10.0	-83.57	-414.5	-126.4	329.0	314.4	14.55	22.617			
3,400.0	3,389.6	3,382.6	3,343.5	7.3	10.3	-83.29	-430.0	-132.5	341.6	326.6	14.99	22.784			
3,500.0	3,489.3	3,481.8	3,441.2	7.6	10.7	-83.02	-445.5	-138.6	354.2	338.7	15.44	22.941			
3,600.0	3,588.9	3,581.0	3,539.0	7.8	11.0	-82.77	-460.9	-144.8	366.8	350.9	15.88	23.090			
3,700.0	3,688.6	3,680.2	3,636.8	8.0	11.3	-82.54	-476.4	-150.9	379.4	363.1	16.33	23.231			
3,800.0	3,788.2	3,779.4	3,734.6	8.2	11.7	-82.32	-491.9	-157.1	392.0	375.2	16.78	23.365			
3,900.0	3,887.9	3,878.6	3,832.4	8.5	12.0	-82.12	-507.4	-163.2	404.6	387.4	17.22	23.492			
4,000.0	3,987.5	3,977.8	3,930.2	8.7	12.3	-81.93	-522.8	-169.3	417.2	399.6	17.67	23.613			
4,100.0	4,087.2	4,077.0	4,027.9	8.9	12.7	-81.75	-538.3	-175.5	429.9	411.8	18.12	23.729			
4,200.0	4,186.8	4,176.2	4,125.7	9.1	13.0	-81.58	-553.8	-181.6	442.5	423.9	18.56	23.838			
4,300.0	4,286.5	4,275.4	4,223.5	9.4	13.4	-81.42	-569.3	-187.8	455.1	436.1	19.01	23.943			
4,400.0	4,386.1	4,374.5	4,321.3	9.6	13.7	-81.27	-584.8	-193.9	467.8	448.3	19.46	24.043			
4,500.0	4,485.8	4,473.7	4,419.1	9.8	14.0	-81.13	-600.2	-200.1	480.4	460.5	19.90	24.139			
4,600.0	4,585.4	4,572.9	4,516.9	10.1	14.4	-80.99	-615.7	-206.2	493.1	472.7	20.35	24.231			
4,700.0	4,685.1	4,672.1	4,614.6	10.3	14.7	-80.86	-631.2	-212.3	505.7	484.9	20.80	24.318			
4,800.0	4,784.7	4,771.3	4,712.4	10.5	15.1	-80.74	-646.7	-218.5	518.4	497.1	21.24	24.402			
4,900.0	4,884.4	4,870.5	4,810.2	10.7	15.4	-80.62	-662.2	-224.6	531.0	509.3	21.69	24.483			
5,000.0	4,984.0	4,969.7	4,908.0	11.0	15.7	-80.51	-677.6	-230.8	543.7	521.5	22.14	24.561			

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-24D - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-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)				
5,100.0	5,083.7	5,068.9	5,005.8	11.2	16.1	-80.41	-693.1	-236.9	556.3	533.8	22.58	24.635		
5,200.0	5,183.3	5,168.1	5,103.5	11.4	16.4	-80.30	-708.6	-243.0	569.0	546.0	23.03	24.707		
5,300.0	5,283.0	5,267.3	5,201.3	11.7	16.7	-80.21	-724.1	-249.2	581.7	558.2	23.48	24.776		
5,400.0	5,382.6	5,366.5	5,299.1	11.9	17.1	-80.11	-739.6	-255.3	594.3	570.4	23.92	24.842		
5,500.0	5,482.2	5,465.6	5,396.9	12.1	17.4	-80.03	-755.0	-261.5	607.0	582.6	24.37	24.907		
5,600.0	5,581.9	5,564.8	5,494.7	12.3	17.8	-79.94	-770.5	-267.6	619.7	594.8	24.82	24.968		
5,700.0	5,681.5	5,664.0	5,592.5	12.6	18.1	-79.86	-786.0	-273.7	632.3	607.1	25.26	25.028		
5,800.0	5,781.2	5,763.2	5,690.2	12.8	18.4	-79.78	-801.5	-279.9	645.0	619.3	25.71	25.086		
5,900.0	5,880.8	5,862.4	5,788.0	13.0	18.8	-79.70	-817.0	-286.0	657.7	631.5	26.16	25.141		
6,000.0	5,980.5	5,961.6	5,885.8	13.2	19.1	-79.63	-832.4	-292.2	670.3	643.7	26.61	25.195		
6,100.0	6,080.1	6,060.8	5,983.6	13.5	19.5	-79.56	-847.9	-298.3	683.0	655.9	27.05	25.247		
6,200.0	6,179.8	6,160.0	6,081.4	13.7	19.8	-79.49	-863.4	-304.4	695.7	668.2	27.50	25.298		
6,300.0	6,279.4	6,259.2	6,179.2	13.9	20.1	-79.47	-878.9	-310.6	708.4	680.4	27.95	25.342		
6,400.0	6,379.3	6,358.2	6,276.8	14.1	20.5	-79.48	-894.3	-316.7	721.5	693.1	28.36	25.440		
6,500.0	6,479.2	6,457.1	6,374.3	14.3	20.8	-79.24	-909.8	-322.8	735.3	706.6	28.69	25.631		
6,600.0	6,579.2	6,555.7	6,471.5	14.4	21.1	-69.84	-925.1	-328.9	749.5	720.6	28.94	25.900		
6,700.0	6,679.2	6,654.3	6,568.7	14.5	21.5	-69.19	-940.5	-335.1	763.8	734.6	29.19	26.162		
6,800.0	6,779.2	6,753.0	6,666.0	14.7	21.8	-68.61	-955.9	-341.2	777.9	748.5	29.46	26.407		
6,900.0	6,879.2	6,851.7	6,763.3	14.9	22.2	-68.07	-971.3	-347.3	792.1	762.4	29.73	26.645		
7,000.0	6,979.2	6,950.5	6,860.6	15.0	22.5	-67.55	-986.8	-353.4	806.4	776.4	30.00	26.880		
7,100.0	7,079.2	7,049.2	6,957.9	15.2	22.8	-67.04	-1,002.2	-359.5	820.8	790.5	30.27	27.111		
7,200.0	7,179.2	7,152.2	7,059.5	15.3	23.2	-66.54	-1,018.2	-365.9	835.1	804.6	30.55	27.334		
7,300.0	7,279.2	7,286.2	7,192.2	15.5	23.5	-66.02	-1,035.5	-372.7	847.0	816.2	30.87	27.439		
7,400.0	7,379.2	7,421.5	7,326.9	15.6	23.8	-65.72	-1,047.1	-377.3	854.8	823.6	31.20	27.398		
7,500.0	7,479.2	7,557.6	7,462.9	15.8	24.0	-65.62	-1,052.8	-379.6	858.4	826.9	31.55	27.211		
7,600.0	7,579.2	7,673.1	7,578.3	15.9	24.1	-65.67	-1,053.5	-379.9	858.4	826.6	31.88	26.927		
7,700.0	7,679.2	7,771.5	7,676.8	16.1	24.2	-65.70	-1,053.7	-380.3	858.2	826.0	32.19	26.659		
7,783.3	7,762.5	7,853.6	7,758.8	16.2	24.3	-65.71	-1,054.0	-380.9	858.1	825.7	32.45	26.444		
7,800.0	7,779.2	7,870.0	7,775.3	16.2	24.3	-65.71	-1,054.1	-381.0	858.2	825.6	32.50	26.403		
7,900.0	7,879.1	7,968.5	7,873.7	16.4	24.4	-65.69	-1,054.8	-382.1	858.3	825.5	32.81	26.157		
8,000.0	7,979.1	8,068.4	7,973.6	16.5	24.6	-65.66	-1,055.5	-383.5	858.5	825.4	33.12	25.919		
8,100.0	8,079.1	8,168.4	8,073.6	16.7	24.7	-65.63	-1,056.3	-384.8	858.7	825.3	33.43	25.684		
8,200.0	8,179.1	8,268.4	8,173.6	16.9	24.8	-65.60	-1,057.1	-386.2	858.9	825.2	33.75	25.453		
8,300.0	8,279.1	8,368.4	8,273.6	17.0	24.9	-65.56	-1,057.9	-387.5	859.1	825.1	34.06	25.226		
8,400.0	8,379.1	8,468.4	8,373.6	17.2	25.0	-65.53	-1,058.6	-388.9	859.4	825.0	34.37	25.002		
8,500.0	8,479.1	8,568.4	8,473.6	17.3	25.2	-65.50	-1,059.4	-390.2	859.6	824.9	34.69	24.782		
8,600.0	8,579.1	8,668.4	8,573.5	17.5	25.3	-65.47	-1,060.2	-391.6	859.8	824.8	35.00	24.566		
8,700.0	8,679.1	8,768.4	8,673.5	17.7	25.4	-65.44	-1,061.0	-392.9	860.0	824.7	35.32	24.353		
8,800.0	8,779.1	8,868.4	8,773.5	17.8	25.5	-65.41	-1,061.8	-394.3	860.2	824.6	35.63	24.143		
8,900.0	8,879.1	8,968.4	8,873.5	18.0	25.6	-65.37	-1,062.5	-395.6	860.5	824.5	35.95	23.936		
9,000.0	8,979.1	9,068.4	8,973.5	18.1	25.8	-65.34	-1,063.3	-396.9	860.7	824.4	36.27	23.733		
9,100.0	9,079.1	9,168.4	9,073.5	18.3	25.9	-65.31	-1,064.1	-398.3	860.9	824.3	36.58	23.533		
9,200.0	9,179.1	9,268.4	9,173.5	18.5	26.0	-65.28	-1,064.9	-399.6	861.1	824.2	36.90	23.336		
9,300.0	9,279.1	9,368.4	9,273.5	18.6	26.1	-65.25	-1,065.6	-401.0	861.4	824.1	37.22	23.142		
9,400.0	9,379.1	9,468.4	9,373.4	18.8	26.3	-65.21	-1,066.4	-402.3	861.6	824.0	37.54	22.951		
9,500.0	9,479.1	9,568.4	9,473.4	18.9	26.4	-65.18	-1,067.2	-403.7	861.8	823.9	37.86	22.762		
9,600.0	9,579.1	9,668.4	9,573.4	19.1	26.5	-65.15	-1,068.0	-405.0	862.0	823.8	38.18	22.577		
9,700.0	9,679.1	9,768.4	9,673.4	19.3	26.6	-65.12	-1,068.8	-406.4	862.2	823.7	38.50	22.395		
9,800.0	9,779.0	9,868.4	9,773.4	19.4	26.8	-65.09	-1,069.5	-407.7	862.5	823.6	38.82	22.215		
9,900.0	9,879.0	9,968.4	9,873.4	19.6	26.9	-65.06	-1,070.3	-409.1	862.7	823.5	39.15	22.038		
10,000.0	9,979.0	10,068.4	9,973.4	19.7	27.0	-65.02	-1,071.1	-410.4	862.9	823.4	39.47	21.863		
10,100.0	10,079.0	10,168.4	10,073.3	19.9	27.2	-64.99	-1,071.9	-411.8	863.1	823.4	39.79	21.691		

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design											Chevron D05 696 Pad - Chevron 5-24D - DD - Plan #2		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				
10,200.0	10,179.0	10,268.4	10,173.3	20.1	27.3	-64.96	-1,072.6	-413.1	863.4	823.3	40.12	21.522			
10,300.0	10,279.0	10,368.4	10,273.3	20.2	27.4	-64.93	-1,073.4	-414.4	863.6	823.2	40.44	21.355			
10,400.0	10,379.0	10,369.0	10,274.0	20.4	27.4	-64.93	-1,073.4	-414.5	869.5	828.9	40.60	21.414			
10,500.0	10,479.0	10,369.0	10,274.0	20.6	27.4	-64.93	-1,073.4	-414.5	886.7	846.0	40.77	21.751			
10,531.0	10,510.0	10,369.0	10,274.0	20.6	27.4	-64.93	-1,073.4	-414.5	894.3	853.5	40.82	21.908			

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-26D - DD - Plan #2													Offset Site Error: 0.0 ft	
Survey Program: O-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	73.25	8.7	29.0	30.3					
100.0	100.0	100.0	100.0	0.2	0.1	73.25	8.7	29.0	30.3	30.0	0.29	103.426		
200.0	200.0	200.0	200.0	0.3	0.3	73.25	8.7	29.0	30.3	29.7	0.64	47.216		
300.0	300.0	300.9	300.8	0.5	0.5	-98.28	7.4	27.9	29.1	28.1	1.00	29.148		
400.0	399.8	401.6	401.4	0.7	0.7	-103.70	3.3	24.5	25.5	24.1	1.37	18.579		
500.0	499.6	502.0	501.5	0.9	0.9	-137.93	-3.5	19.0	20.6	18.9	1.74	11.870		
600.0	599.5	602.0	600.9	1.1	1.1	-165.39	-11.0	12.8	17.1	15.0	2.11	8.122		
675.5	674.7	677.4	676.0	1.2	1.3	-169.74	-16.7	8.1	16.2	13.7	2.41	6.695 CC, ES		
700.0	699.2	701.9	700.4	1.3	1.4	-168.79	-18.5	6.6	16.5	13.9	2.52	6.521		
800.0	798.8	801.8	799.8	1.5	1.6	-153.51	-26.1	0.4	17.9	14.9	3.00	5.969		
900.0	898.5	901.7	899.2	1.7	1.9	-141.23	-33.6	-5.8	20.4	16.9	3.49	5.845 SF		
1,000.0	998.1	1,001.5	998.6	1.9	2.1	-131.94	-41.1	-12.0	23.6	19.6	3.97	5.938		
1,100.0	1,097.7	1,101.4	1,098.0	2.1	2.3	-125.01	-48.7	-18.2	27.3	22.8	4.45	6.128		
1,200.0	1,197.4	1,201.3	1,197.4	2.4	2.6	-119.79	-56.2	-24.3	31.3	26.3	4.92	6.352		
1,300.0	1,297.0	1,301.2	1,296.8	2.6	2.8	-115.76	-63.7	-30.5	35.4	30.1	5.39	6.580		
1,400.0	1,396.7	1,401.1	1,396.2	2.8	3.1	-112.60	-71.2	-36.7	39.8	33.9	5.85	6.799		
1,500.0	1,496.3	1,501.0	1,495.6	3.0	3.3	-110.07	-78.8	-42.9	44.2	37.9	6.31	7.004		
1,600.0	1,596.0	1,600.9	1,595.1	3.3	3.6	-107.99	-86.3	-49.1	48.7	41.9	6.76	7.193		
1,700.0	1,695.6	1,700.7	1,694.5	3.5	3.8	-106.27	-93.8	-55.3	53.2	46.0	7.22	7.366		
1,800.0	1,795.3	1,800.6	1,793.9	3.7	4.0	-104.82	-101.3	-61.5	57.8	50.1	7.68	7.525		
1,900.0	1,894.9	1,900.5	1,893.3	3.9	4.3	-103.59	-108.9	-67.7	62.4	54.3	8.13	7.670		
2,000.0	1,994.6	2,000.4	1,992.7	4.2	4.5	-102.52	-116.4	-73.9	67.0	58.4	8.59	7.803		
2,100.0	2,094.2	2,100.3	2,092.1	4.4	4.8	-101.60	-123.9	-80.1	71.7	62.6	9.04	7.925		
2,200.0	2,193.9	2,200.2	2,191.5	4.6	5.0	-100.78	-131.5	-86.2	76.3	66.9	9.50	8.037		
2,300.0	2,293.5	2,300.0	2,290.9	4.8	5.3	-100.06	-139.0	-92.4	81.0	71.1	9.95	8.140		
2,400.0	2,393.2	2,399.9	2,390.3	5.1	5.5	-99.42	-146.5	-98.6	85.7	75.3	10.41	8.236		
2,500.0	2,492.8	2,499.8	2,489.7	5.3	5.7	-98.85	-154.0	-104.8	90.4	79.6	10.87	8.324		
2,600.0	2,592.5	2,599.7	2,589.1	5.5	6.0	-98.33	-161.6	-111.0	95.2	83.8	11.32	8.406		
2,700.0	2,692.1	2,699.6	2,688.6	5.7	6.2	-97.86	-169.1	-117.2	99.9	88.1	11.78	8.482		
2,800.0	2,791.8	2,799.5	2,788.0	6.0	6.5	-97.43	-176.6	-123.4	104.6	92.4	12.23	8.553		
2,900.0	2,891.4	2,899.4	2,887.4	6.2	6.7	-97.04	-184.2	-129.6	109.3	96.7	12.69	8.619		
3,000.0	2,991.1	2,999.2	2,986.8	6.4	7.0	-96.69	-191.7	-135.8	114.1	100.9	13.14	8.681		
3,100.0	3,090.7	3,099.1	3,086.2	6.6	7.2	-96.36	-199.2	-142.0	118.8	105.2	13.60	8.739		
3,200.0	3,190.4	3,199.0	3,185.6	6.9	7.4	-96.06	-206.7	-148.1	123.6	109.5	14.05	8.794		
3,300.0	3,290.0	3,298.9	3,285.0	7.1	7.7	-95.77	-214.3	-154.3	128.3	113.8	14.51	8.846		
3,400.0	3,389.6	3,398.8	3,384.4	7.3	7.9	-95.51	-221.8	-160.5	133.1	118.1	14.96	8.894		
3,500.0	3,489.3	3,498.7	3,483.8	7.6	8.2	-95.27	-229.3	-166.7	137.8	122.4	15.42	8.940		
3,600.0	3,588.9	3,598.6	3,583.2	7.8	8.4	-95.04	-236.8	-172.9	142.6	126.7	15.87	8.983		
3,700.0	3,688.6	3,698.4	3,682.6	8.0	8.7	-94.83	-244.4	-179.1	147.3	131.0	16.33	9.024		
3,800.0	3,788.2	3,798.3	3,782.0	8.2	8.9	-94.63	-251.9	-185.3	152.1	135.3	16.78	9.063		
3,900.0	3,887.9	3,898.2	3,881.5	8.5	9.1	-94.45	-259.4	-191.5	156.9	139.6	17.24	9.100		
4,000.0	3,987.5	3,998.1	3,980.9	8.7	9.4	-94.27	-267.0	-197.7	161.6	143.9	17.69	9.135		
4,100.0	4,087.2	4,098.0	4,080.3	8.9	9.6	-94.11	-274.5	-203.8	166.4	148.2	18.15	9.169		
4,200.0	4,186.8	4,197.9	4,179.7	9.1	9.9	-93.95	-282.0	-210.0	171.1	152.5	18.60	9.201		
4,300.0	4,286.5	4,297.8	4,279.1	9.4	10.1	-93.80	-289.5	-216.2	175.9	156.9	19.06	9.231		
4,400.0	4,386.1	4,397.6	4,378.5	9.6	10.4	-93.66	-297.1	-222.4	180.7	161.2	19.51	9.260		
4,500.0	4,485.8	4,497.5	4,477.9	9.8	10.6	-93.53	-304.6	-228.6	185.5	165.5	19.97	9.288		
4,600.0	4,585.4	4,597.4	4,577.3	10.1	10.9	-93.40	-312.1	-234.8	190.2	169.8	20.42	9.314		
4,700.0	4,685.1	4,697.3	4,676.7	10.3	11.1	-93.28	-319.7	-241.0	195.0	174.1	20.88	9.340		
4,800.0	4,784.7	4,797.2	4,776.1	10.5	11.3	-93.17	-327.2	-247.2	199.8	178.4	21.33	9.364		
4,900.0	4,884.4	4,897.1	4,875.5	10.7	11.6	-93.06	-334.7	-253.4	204.5	182.8	21.79	9.387		
5,000.0	4,984.0	4,997.0	4,975.0	11.0	11.8	-92.95	-342.2	-259.6	209.3	187.1	22.24	9.410		

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 ft
Chevron D05 696 Pad - Chevron 5-26D - DD - Plan #2													Offset Well Error:	0.0 ft
Survey Program: O-MWD														
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)				
5,100.0	5,083.7	5,096.8	5,074.4	11.2	12.1	-92.85	-349.8	-265.7	214.1	191.4	22.70	9.432		
5,200.0	5,183.3	5,196.7	5,173.8	11.4	12.3	-92.76	-357.3	-271.9	218.9	195.7	23.15	9.452		
5,300.0	5,283.0	5,296.6	5,273.2	11.7	12.6	-92.67	-364.8	-278.1	223.6	200.0	23.61	9.472		
5,400.0	5,382.6	5,396.5	5,372.6	11.9	12.8	-92.58	-372.3	-284.3	228.4	204.4	24.07	9.492		
5,500.0	5,482.2	5,496.4	5,472.0	12.1	13.0	-92.50	-379.9	-290.5	233.2	208.7	24.52	9.510		
5,600.0	5,581.9	5,596.3	5,571.4	12.3	13.3	-92.42	-387.4	-296.7	238.0	213.0	24.98	9.528		
5,700.0	5,681.5	5,696.1	5,670.8	12.6	13.5	-92.34	-394.9	-302.9	242.7	217.3	25.43	9.545		
5,800.0	5,781.2	5,796.0	5,770.2	12.8	13.8	-92.27	-402.5	-309.1	247.5	221.6	25.89	9.562		
5,900.0	5,880.8	5,895.9	5,869.6	13.0	14.0	-92.20	-410.0	-315.3	252.3	226.0	26.34	9.578		
6,000.0	5,980.5	5,995.8	5,969.0	13.2	14.3	-92.13	-417.5	-321.5	257.1	230.3	26.80	9.594		
6,100.0	6,080.1	6,095.7	6,068.4	13.5	14.5	-92.06	-425.0	-327.6	261.9	234.6	27.25	9.609		
6,200.0	6,179.8	6,195.6	6,167.9	13.7	14.8	-92.00	-432.6	-333.8	266.6	238.9	27.71	9.623		
6,300.0	6,279.4	6,295.5	6,267.3	13.9	15.0	-91.94	-440.1	-340.0	271.4	243.3	28.16	9.638		
6,400.0	6,379.3	6,395.3	6,366.6	14.1	15.2	-91.47	-447.6	-346.2	276.1	247.6	28.55	9.671		
6,500.0	6,479.2	6,495.0	6,465.9	14.3	15.5	-90.31	-455.1	-352.4	280.8	252.0	28.86	9.731		
6,600.0	6,579.2	6,594.5	6,564.9	14.4	15.7	-79.89	-462.6	-358.6	285.7	256.6	29.13	9.809		
6,700.0	6,679.2	6,694.1	6,664.0	14.5	16.0	-78.34	-470.1	-364.7	290.7	261.3	29.39	9.890		
6,800.0	6,779.2	6,793.7	6,763.2	14.7	16.2	-76.92	-477.7	-370.9	295.8	266.2	29.67	9.972		
6,900.0	6,879.2	6,893.3	6,862.3	14.9	16.5	-75.57	-485.2	-377.1	301.1	271.2	29.93	10.059		
7,000.0	6,979.2	6,992.9	6,961.4	15.0	16.7	-74.27	-492.7	-383.2	306.5	276.3	30.20	10.150		
7,100.0	7,079.2	7,092.6	7,060.6	15.2	16.9	-73.01	-500.2	-389.4	312.1	281.7	30.46	10.246		
7,200.0	7,179.2	7,192.2	7,159.7	15.3	17.2	-71.79	-507.7	-395.6	317.9	287.2	30.72	10.346		
7,300.0	7,279.2	7,291.8	7,258.8	15.5	17.4	-70.62	-515.2	-401.8	323.8	292.8	30.98	10.449		
7,400.0	7,379.2	7,395.0	7,361.6	15.6	17.7	-69.50	-522.7	-407.9	329.5	298.3	31.24	10.547		
7,500.0	7,479.2	7,503.1	7,469.5	15.8	17.9	-68.81	-527.9	-412.2	333.3	301.8	31.52	10.574		
7,600.0	7,579.2	7,611.6	7,577.9	15.9	18.0	-68.65	-529.9	-413.9	334.6	302.7	31.82	10.513		
7,700.0	7,679.2	7,712.4	7,678.7	16.1	18.1	-68.78	-530.0	-414.0	334.3	302.1	32.14	10.400		
7,800.0	7,779.2	7,811.8	7,778.2	16.2	18.3	-68.85	-530.3	-414.6	334.1	301.7	32.45	10.295		
7,850.5	7,829.7	7,862.1	7,828.4	16.3	18.4	-68.86	-530.6	-414.9	334.1	301.5	32.61	10.244		
7,900.0	7,879.1	7,911.3	7,877.7	16.4	18.4	-68.85	-530.8	-415.4	334.1	301.3	32.77	10.197		
8,000.0	7,979.1	8,010.9	7,977.3	16.5	18.6	-68.79	-531.6	-416.7	334.3	301.2	33.08	10.106		
8,100.0	8,079.1	8,110.9	8,077.2	16.7	18.7	-68.70	-532.3	-418.0	334.5	301.1	33.38	10.018		
8,200.0	8,179.1	8,210.9	8,177.2	16.9	18.9	-68.62	-533.1	-419.4	334.6	301.0	33.69	9.932		
8,300.0	8,279.1	8,310.9	8,277.2	17.0	19.0	-68.54	-533.9	-420.7	334.8	300.8	34.01	9.847		
8,400.0	8,379.1	8,410.9	8,377.2	17.2	19.2	-68.45	-534.7	-422.1	335.0	300.7	34.32	9.763		
8,500.0	8,479.1	8,510.9	8,477.2	17.3	19.3	-68.37	-535.5	-423.4	335.2	300.6	34.63	9.681		
8,600.0	8,579.1	8,610.9	8,577.2	17.5	19.5	-68.28	-536.2	-424.8	335.4	300.5	34.94	9.600		
8,700.0	8,679.1	8,710.9	8,677.2	17.7	19.6	-68.20	-537.0	-426.1	335.6	300.4	35.25	9.520		
8,800.0	8,779.1	8,810.9	8,777.1	17.8	19.8	-68.12	-537.8	-427.4	335.8	300.3	35.57	9.442		
8,900.0	8,879.1	8,910.9	8,877.1	18.0	19.9	-68.03	-538.6	-428.8	336.0	300.2	35.88	9.365		
9,000.0	8,979.1	9,010.9	8,977.1	18.1	20.1	-67.95	-539.3	-430.1	336.2	300.0	36.20	9.289		
9,100.0	9,079.1	9,110.9	9,077.1	18.3	20.2	-67.87	-540.1	-431.5	336.4	299.9	36.51	9.214		
9,200.0	9,179.1	9,210.9	9,177.1	18.5	20.4	-67.78	-540.9	-432.8	336.6	299.8	36.83	9.140		
9,300.0	9,279.1	9,310.9	9,277.1	18.6	20.5	-67.70	-541.7	-434.2	336.8	299.7	37.15	9.068		
9,400.0	9,379.1	9,410.9	9,377.1	18.8	20.7	-67.62	-542.5	-435.5	337.0	299.6	37.47	8.996		
9,500.0	9,479.1	9,510.9	9,477.1	18.9	20.8	-67.53	-543.2	-436.9	337.2	299.5	37.78	8.926		
9,600.0	9,579.1	9,610.9	9,577.0	19.1	21.0	-67.45	-544.0	-438.2	337.5	299.4	38.10	8.857		
9,700.0	9,679.1	9,710.9	9,677.0	19.3	21.2	-67.37	-544.8	-439.6	337.7	299.2	38.42	8.788		
9,800.0	9,779.0	9,810.9	9,777.0	19.4	21.3	-67.29	-545.6	-440.9	337.9	299.1	38.74	8.721		
9,900.0	9,879.0	9,910.9	9,877.0	19.6	21.5	-67.20	-546.4	-442.3	338.1	299.0	39.06	8.655		
10,000.0	9,979.0	10,010.9	9,977.0	19.7	21.6	-67.12	-547.1	-443.6	338.3	298.9	39.38	8.590		
10,100.0	10,079.0	10,110.9	10,077.0	19.9	21.8	-67.04	-547.9	-445.0	338.5	298.8	39.70	8.526		

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design												Chevron D05 696 Pad - Chevron 5-26D - DD - Plan #2		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)							
10,200.0	10,179.0	10,210.9	10,177.0	20.1	21.9	-66.96	-548.7	-446.3	338.7	298.7	40.02	8.462					
10,300.0	10,279.0	10,310.9	10,276.9	20.2	22.1	-66.87	-549.5	-447.7	338.9	298.6	40.35	8.400					
10,342.5	10,321.5	10,353.4	10,319.4	20.3	22.2	-66.84	-549.8	-448.2	339.0	298.5	40.48	8.374					
10,400.0	10,379.0	10,378.0	10,344.0	20.4	22.2	-66.82	-550.0	-448.6	340.7	300.1	40.62	8.389					
10,500.0	10,479.0	10,378.0	10,344.0	20.6	22.2	-66.82	-550.0	-448.6	364.4	323.7	40.78	8.937					
10,531.0	10,510.0	10,378.0	10,344.0	20.6	22.2	-66.82	-550.0	-448.6	376.9	336.1	40.83	9.231					

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-27D - DD - Plan #3													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	-106.91	-4.4	-14.4	15.0					
100.0	100.0	100.0	100.0	0.2	0.1	-106.91	-4.4	-14.4	15.0	14.7	0.29	51.253		
200.0	200.0	200.0	200.0	0.3	0.3	-106.91	-4.4	-14.4	15.0	14.4	0.64	23.398		
300.0	300.0	300.0	300.0	0.5	0.5	89.76	-4.4	-14.4	14.9	13.9	1.00	14.994		
301.8	301.8	301.8	301.8	0.5	0.5	90.00	-4.4	-14.4	14.9	13.9	1.00	14.895 CC, ES		
400.0	399.8	399.8	399.8	0.7	0.7	109.07	-4.4	-14.4	15.8	14.4	1.36	11.595		
500.0	499.6	499.6	499.6	0.9	0.8	99.78	-4.4	-14.4	17.5	15.8	1.72	10.163		
600.0	599.5	599.5	599.5	1.1	1.0	87.89	-4.4	-14.4	17.8	15.7	2.08	8.560		
671.4	670.6	670.6	670.6	1.2	1.1	91.37	-4.4	-14.4	17.7	15.4	2.33	7.594		
700.0	699.2	699.2	699.2	1.3	1.2	95.34	-4.4	-14.4	17.7	15.2	2.43	7.270 SF		
800.0	798.8	798.8	798.8	1.5	1.4	119.61	-4.4	-14.4	20.3	17.5	2.77	7.324		
900.0	898.5	898.5	898.5	1.7	1.5	136.21	-4.4	-14.4	25.5	22.4	3.10	8.218		
1,000.0	998.1	998.1	998.1	1.9	1.7	146.63	-4.4	-14.4	32.1	28.6	3.44	9.322		
1,100.0	1,097.7	1,098.3	1,098.3	2.1	1.9	151.13	-3.9	-16.0	38.7	34.9	3.79	10.200		
1,200.0	1,197.4	1,198.7	1,198.6	2.4	2.1	150.21	-2.4	-21.0	43.9	39.8	4.15	10.576		
1,300.0	1,297.0	1,298.9	1,298.4	2.6	2.3	146.07	-0.1	-28.9	48.2	43.6	4.54	10.600		
1,400.0	1,396.7	1,398.7	1,397.8	2.8	2.5	142.14	2.4	-37.3	52.5	47.5	4.95	10.604		
1,500.0	1,496.3	1,498.6	1,497.3	3.0	2.7	138.82	4.9	-45.6	57.0	51.7	5.37	10.623		
1,600.0	1,596.0	1,598.4	1,596.8	3.3	2.9	135.99	7.3	-54.0	61.7	55.9	5.80	10.652		
1,700.0	1,695.6	1,698.3	1,696.2	3.5	3.1	133.57	9.8	-62.3	66.6	60.3	6.23	10.687		
1,800.0	1,795.3	1,798.1	1,795.7	3.7	3.3	131.48	12.3	-70.7	71.5	64.8	6.66	10.725		
1,900.0	1,894.9	1,898.0	1,895.2	3.9	3.5	129.66	14.8	-79.1	76.5	69.4	7.10	10.766		
2,000.0	1,994.6	1,997.8	1,994.6	4.2	3.7	128.07	17.2	-87.4	81.6	74.0	7.55	10.807		
2,100.0	2,094.2	2,097.7	2,094.1	4.4	3.9	126.66	19.7	-95.8	86.7	78.7	7.99	10.848		
2,200.0	2,193.9	2,197.5	2,193.6	4.6	4.2	125.41	22.2	-104.1	91.9	83.4	8.44	10.889		
2,300.0	2,293.5	2,297.4	2,293.0	4.8	4.4	124.30	24.6	-112.5	97.1	88.2	8.88	10.929		
2,400.0	2,393.2	2,397.2	2,392.5	5.1	4.6	123.30	27.1	-120.8	102.3	93.0	9.33	10.967		
2,500.0	2,492.8	2,497.0	2,492.0	5.3	4.8	122.39	29.6	-129.2	107.6	97.8	9.78	11.004		
2,600.0	2,592.5	2,596.9	2,591.4	5.5	5.1	121.57	32.1	-137.5	112.9	102.7	10.23	11.040		
2,700.0	2,692.1	2,696.7	2,690.9	5.7	5.3	120.83	34.5	-145.9	118.3	107.6	10.68	11.075		
2,800.0	2,791.8	2,796.6	2,790.4	6.0	5.5	120.15	37.0	-154.2	123.6	112.5	11.13	11.108		
2,900.0	2,891.4	2,896.4	2,889.8	6.2	5.7	119.52	39.5	-162.6	129.0	117.4	11.58	11.140		
3,000.0	2,991.1	2,996.3	2,989.3	6.4	6.0	118.95	41.9	-171.0	134.3	122.3	12.02	11.171		
3,100.0	3,090.7	3,096.1	3,088.8	6.6	6.2	118.42	44.4	-179.3	139.7	127.2	12.47	11.200		
3,200.0	3,190.4	3,196.0	3,188.2	6.9	6.4	117.93	46.9	-187.7	145.1	132.2	12.92	11.228		
3,300.0	3,290.0	3,295.8	3,287.7	7.1	6.6	117.47	49.3	-196.0	150.5	137.1	13.37	11.254		
3,400.0	3,389.6	3,395.7	3,387.2	7.3	6.9	117.05	51.8	-204.4	155.9	142.1	13.82	11.280		
3,500.0	3,489.3	3,495.5	3,486.6	7.6	7.1	116.65	54.3	-212.7	161.3	147.1	14.27	11.305		
3,600.0	3,588.9	3,595.4	3,586.1	7.8	7.3	116.28	56.8	-221.1	166.8	152.1	14.72	11.328		
3,700.0	3,688.6	3,695.2	3,685.6	8.0	7.6	115.94	59.2	-229.4	172.2	157.0	15.17	11.351		
3,800.0	3,788.2	3,795.1	3,785.0	8.2	7.8	115.61	61.7	-237.8	177.7	162.0	15.62	11.372		
3,900.0	3,887.9	3,894.9	3,884.5	8.5	8.0	115.31	64.2	-246.2	183.1	167.0	16.07	11.393		
4,000.0	3,987.5	3,994.7	3,984.0	8.7	8.2	115.02	66.6	-254.5	188.6	172.0	16.52	11.413		
4,100.0	4,087.2	4,094.6	4,083.4	8.9	8.5	114.75	69.1	-262.9	194.0	177.0	16.97	11.432		
4,200.0	4,186.8	4,194.4	4,182.9	9.1	8.7	114.49	71.6	-271.2	199.5	182.1	17.42	11.451		
4,300.0	4,286.5	4,294.3	4,282.4	9.4	8.9	114.25	74.1	-279.6	204.9	187.1	17.87	11.468		
4,400.0	4,386.1	4,394.1	4,381.8	9.6	9.2	114.02	76.5	-287.9	210.4	192.1	18.32	11.485		
4,500.0	4,485.8	4,494.0	4,481.3	9.8	9.4	113.80	79.0	-296.3	215.9	197.1	18.77	11.502		
4,600.0	4,585.4	4,593.8	4,580.8	10.1	9.6	113.59	81.5	-304.6	221.3	202.1	19.22	11.518		
4,700.0	4,685.1	4,693.7	4,680.2	10.3	9.9	113.39	83.9	-313.0	226.8	207.2	19.67	11.533		
4,800.0	4,784.7	4,793.5	4,779.7	10.5	10.1	113.20	86.4	-321.3	232.3	212.2	20.12	11.548		
4,900.0	4,884.4	4,893.4	4,879.2	10.7	10.3	113.02	88.9	-329.7	237.8	217.2	20.57	11.562		

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-27D - DD - Plan #3												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		
5,000.0	4,984.0	4,993.2	4,978.6	11.0	10.5	112.85	91.3	-338.1	243.3	222.3	21.02	11.575			
5,100.0	5,083.7	5,093.1	5,078.1	11.2	10.8	112.69	93.8	-346.4	248.8	227.3	21.47	11.589			
5,200.0	5,183.3	5,192.9	5,177.6	11.4	11.0	112.53	96.3	-354.8	254.2	232.3	21.92	11.601			
5,300.0	5,283.0	5,292.8	5,277.0	11.7	11.2	112.38	98.8	-363.1	259.7	237.4	22.36	11.614			
5,400.0	5,382.6	5,392.6	5,376.5	11.9	11.5	112.23	101.2	-371.5	265.2	242.4	22.81	11.626			
5,500.0	5,482.2	5,492.5	5,476.0	12.1	11.7	112.09	103.7	-379.8	270.7	247.5	23.26	11.637			
5,600.0	5,581.9	5,592.3	5,575.4	12.3	11.9	111.96	106.2	-388.2	276.2	252.5	23.71	11.648			
5,700.0	5,681.5	5,692.1	5,674.9	12.6	12.2	111.83	108.6	-396.5	281.7	257.5	24.16	11.659			
5,800.0	5,781.2	5,792.0	5,774.4	12.8	12.4	111.71	111.1	-404.9	287.2	262.6	24.61	11.670			
5,900.0	5,880.8	5,891.8	5,873.8	13.0	12.6	111.59	113.6	-413.2	292.7	267.6	25.06	11.680			
6,000.0	5,980.5	5,991.7	5,973.3	13.2	12.8	111.48	116.1	-421.6	298.2	272.7	25.51	11.690			
6,100.0	6,080.1	6,091.5	6,072.7	13.5	13.1	111.37	118.5	-430.0	303.7	277.8	25.96	11.699			
6,200.0	6,179.8	6,191.4	6,172.2	13.7	13.3	111.26	121.0	-438.3	309.2	282.8	26.41	11.709			
6,300.0	6,279.4	6,291.9	6,272.4	13.9	13.5	111.18	123.5	-446.6	314.7	287.8	26.86	11.716			
6,400.0	6,379.3	6,395.1	6,375.3	14.1	13.7	111.19	125.3	-452.7	318.6	291.3	27.23	11.697			
6,500.0	6,479.2	6,498.3	6,478.5	14.3	13.9	111.19	126.0	-455.3	320.2	292.6	27.54	11.625			
6,600.0	6,579.2	6,599.6	6,579.8	14.4	14.0	119.95	126.0	-455.4	320.2	292.4	27.84	11.504			
6,700.0	6,679.2	6,700.3	6,680.5	14.5	14.2	119.95	125.7	-455.9	320.2	292.1	28.14	11.380			
6,800.0	6,779.2	6,800.7	6,780.9	14.7	14.3	119.95	125.2	-456.8	320.2	291.8	28.45	11.257			
6,900.0	6,879.2	6,900.7	6,880.9	14.9	14.5	119.95	124.7	-457.7	320.2	291.5	28.76	11.136			
7,000.0	6,979.2	7,000.7	6,980.9	15.0	14.6	119.95	124.2	-458.6	320.2	291.1	29.07	11.017			
7,100.0	7,079.2	7,100.7	7,080.8	15.2	14.8	119.95	123.6	-459.5	320.2	290.8	29.38	10.901			
7,200.0	7,179.2	7,200.7	7,180.8	15.3	14.9	119.95	123.1	-460.4	320.2	290.5	29.69	10.786			
7,300.0	7,279.2	7,300.7	7,280.8	15.5	15.1	119.95	122.6	-461.3	320.2	290.2	30.00	10.674			
7,400.0	7,379.2	7,400.7	7,380.8	15.6	15.2	119.95	122.1	-462.2	320.2	289.9	30.31	10.564			
7,500.0	7,479.2	7,500.7	7,480.8	15.8	15.4	119.95	121.6	-463.0	320.2	289.6	30.62	10.455			
7,600.0	7,579.2	7,600.7	7,580.8	15.9	15.6	119.95	121.1	-463.9	320.2	289.2	30.94	10.349			
7,700.0	7,679.2	7,700.7	7,680.8	16.1	15.7	119.94	120.5	-464.8	320.2	288.9	31.25	10.244			
7,800.0	7,779.2	7,800.7	7,780.8	16.2	15.9	119.94	120.0	-465.7	320.2	288.6	31.57	10.142			
7,900.0	7,879.1	7,900.7	7,880.8	16.4	16.0	119.94	119.5	-466.6	320.2	288.3	31.89	10.041			
8,000.0	7,979.1	8,000.7	7,980.8	16.5	16.2	119.94	119.0	-467.5	320.2	288.0	32.20	9.942			
8,100.0	8,079.1	8,100.7	8,080.8	16.7	16.3	119.94	118.5	-468.4	320.2	287.6	32.52	9.845			
8,200.0	8,179.1	8,200.7	8,180.8	16.9	16.5	119.94	118.0	-469.3	320.2	287.3	32.84	9.749			
8,300.0	8,279.1	8,300.7	8,280.8	17.0	16.7	119.94	117.4	-470.2	320.2	287.0	33.16	9.655			
8,400.0	8,379.1	8,400.7	8,380.8	17.2	16.8	119.94	116.9	-471.1	320.2	286.7	33.48	9.562			
8,500.0	8,479.1	8,500.7	8,480.8	17.3	17.0	119.94	116.4	-472.0	320.2	286.3	33.80	9.472			
8,600.0	8,579.1	8,600.7	8,580.8	17.5	17.1	119.94	115.9	-472.9	320.1	286.0	34.12	9.382			
8,700.0	8,679.1	8,700.7	8,680.8	17.7	17.3	119.94	115.4	-473.8	320.1	285.7	34.44	9.295			
8,800.0	8,779.1	8,800.7	8,780.8	17.8	17.4	119.93	114.8	-474.7	320.1	285.4	34.77	9.208			
8,900.0	8,879.1	8,900.7	8,880.8	18.0	17.6	119.93	114.3	-475.6	320.1	285.0	35.09	9.124			
9,000.0	8,979.1	9,000.7	8,980.7	18.1	17.8	119.93	113.8	-476.5	320.1	284.7	35.41	9.040			
9,100.0	9,079.1	9,100.7	9,080.7	18.3	17.9	119.93	113.3	-477.4	320.1	284.4	35.74	8.958			
9,200.0	9,179.1	9,200.7	9,180.7	18.5	18.1	119.93	112.8	-478.3	320.1	284.1	36.06	8.877			
9,300.0	9,279.1	9,300.7	9,280.7	18.6	18.2	119.93	112.3	-479.2	320.1	283.7	36.39	8.798			
9,400.0	9,379.1	9,400.7	9,380.7	18.8	18.4	119.93	111.7	-480.1	320.1	283.4	36.71	8.720			
9,500.0	9,479.1	9,500.7	9,480.7	18.9	18.6	119.93	111.2	-481.0	320.1	283.1	37.04	8.643			
9,600.0	9,579.1	9,600.7	9,580.7	19.1	18.7	119.93	110.7	-481.9	320.1	282.7	37.36	8.568			
9,700.0	9,679.1	9,700.7	9,680.7	19.3	18.9	119.93	110.2	-482.7	320.1	282.4	37.69	8.493			
9,800.0	9,779.0	9,800.7	9,780.7	19.4	19.1	119.93	109.7	-483.6	320.1	282.1	38.02	8.420			
9,900.0	9,879.0	9,900.7	9,880.7	19.6	19.2	119.92	109.2	-484.5	320.1	281.7	38.34	8.348			
10,000.0	9,979.0	10,000.7	9,980.7	19.7	19.4	119.92	108.6	-485.4	320.1	281.4	38.67	8.277			
10,100.0	10,079.0	10,100.7	10,080.7	19.9	19.5	119.92	108.1	-486.3	320.1	281.1	39.00	8.207			

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

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Offset Design Chevron D05 696 Pad - Chevron 5-27D - DD - Plan #3													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		
10,200.0	10,179.0	10,200.7	10,180.7	20.1	19.7	119.92	107.6	-487.2	320.1	280.8	39.33	8.139		
10,300.0	10,279.0	10,300.7	10,280.7	20.2	19.9	119.92	107.1	-488.1	320.1	280.4	39.66	8.071		
10,400.0	10,379.0	10,400.7	10,380.7	20.4	20.0	119.92	106.6	-489.0	320.1	280.1	39.99	8.004		
10,500.0	10,479.0	10,500.7	10,480.7	20.6	20.2	119.92	106.1	-489.9	320.1	279.8	40.32	7.939		
10,505.2	10,484.2	10,505.8	10,485.9	20.6	20.2	119.92	106.0	-490.0	320.1	279.7	40.33	7.935		
10,531.0	10,510.0	10,510.0	10,490.0	20.6	20.2	119.92	106.0	-490.0	320.8	280.4	40.38	7.944		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron 5-28D
Project:	Garfield County	TVD Reference:	KBE @ 8160.0ft (Original Well Elev)
Reference Site:	Chevron D05 696 Pad	MD Reference:	KBE @ 8160.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron 5-28D	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 #4	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 8160.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Chevron 5-28D
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.66°

