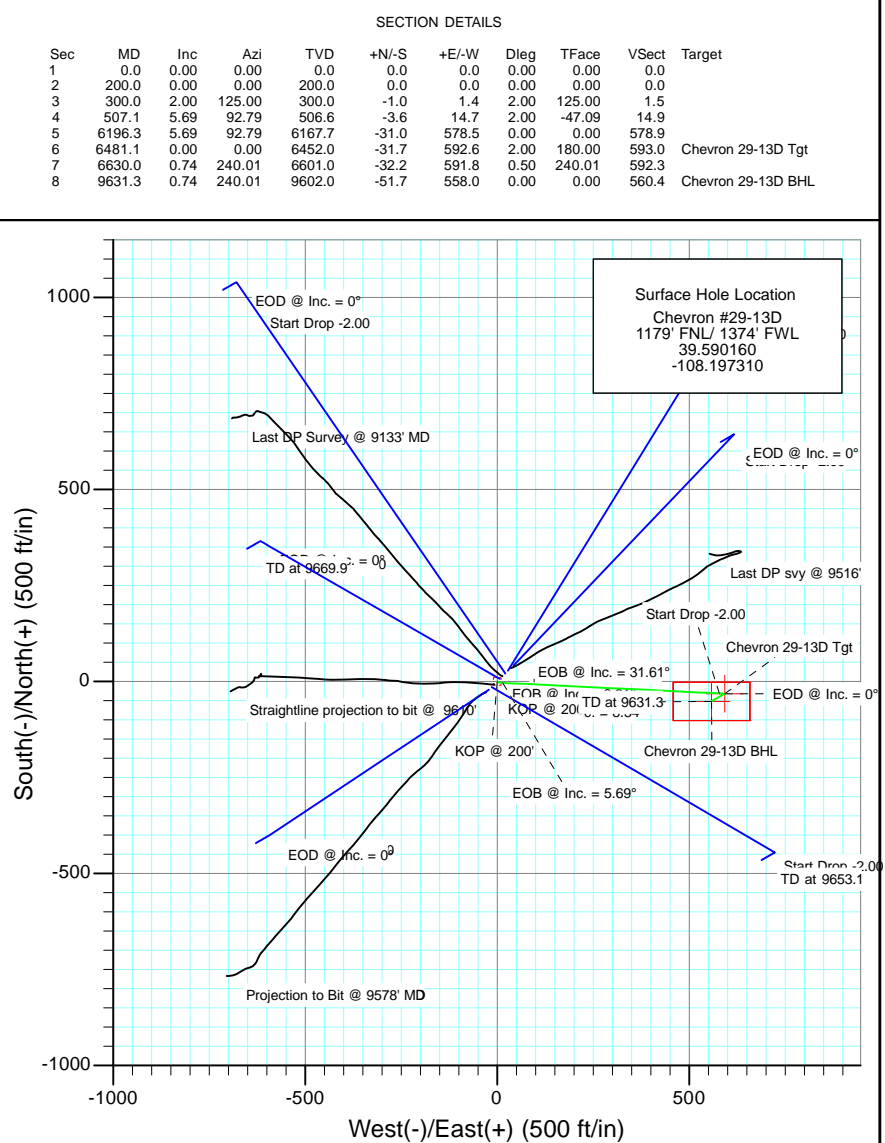
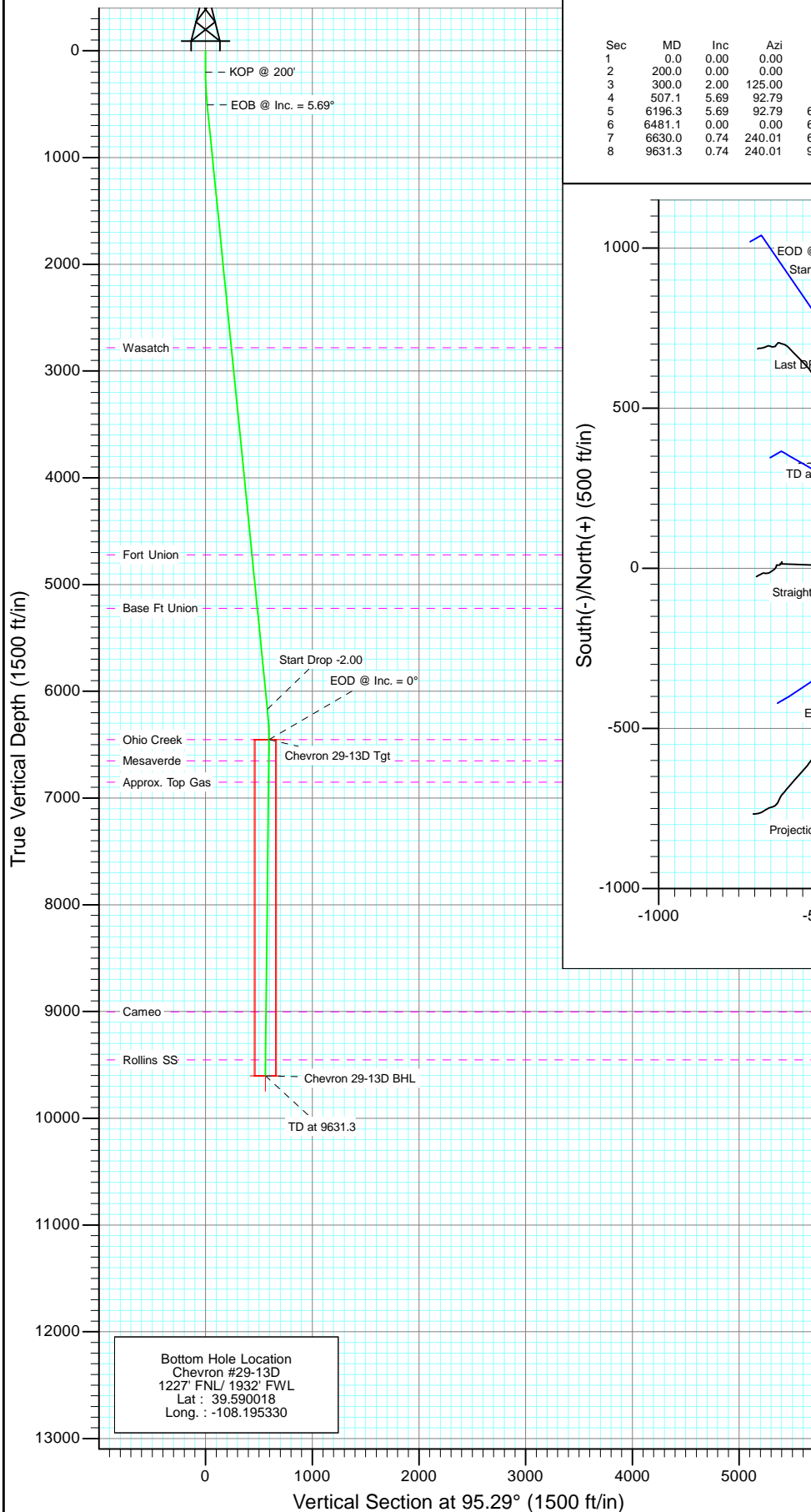




Project: Garfield County
Site: Chevron C-D29-596
Well: Chevron #29-13D
Wellbore: DD
Design: Plan #3



Azimuths to True North
Magnetic North: 10.80°

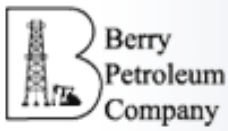
Magnetic Field
Strength: 52537.8snT
Dip Angle: 65.85°
Date: 9/19/2008
Model: IGRF2010

FORMATION TOP DETAILS

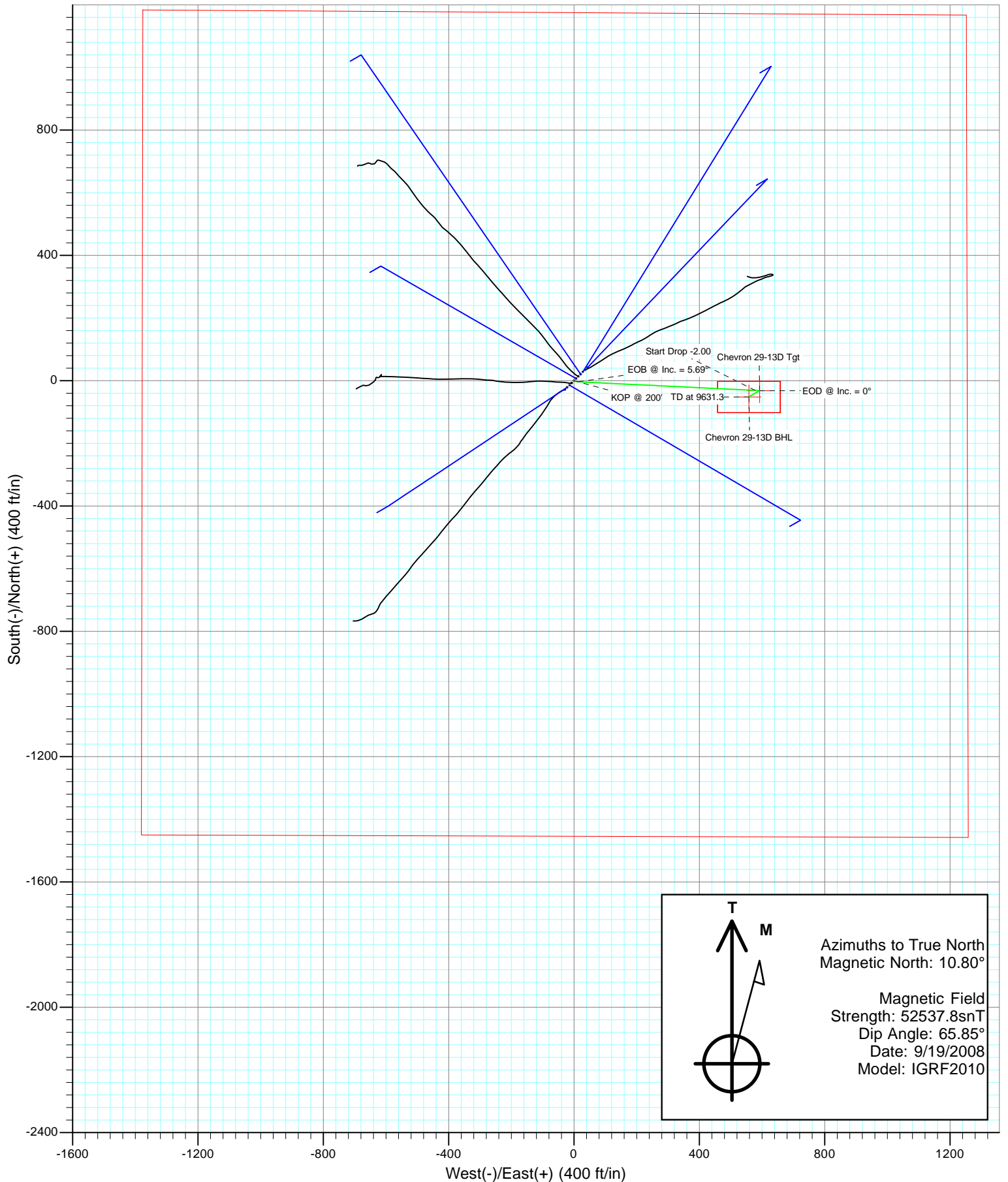
TVDPPath	MDPath	Formation
2782.0	2793.8	Wasatch
4722.0	4743.4	Fort Union
5222.0	5245.9	Base Ft Union
6452.0	6481.1	Ohio Creek
6652.0	6681.1	Mesaverde
6852.0	6881.1	Approx. Top Gas
9002.0	9031.3	Cameo
9452.0	9481.3	Rollins SS

DESIGN DETAILS: Plan #3

Target	Azimuth	Origin	N/S	E/W	From TVD
Chevron 29-13D BHL	95.29	Slot	0.0	0.0	0.0



Project: Garfield County
Site: Chevron C-D29-596
Well: Chevron #29-13D
Wellbore: DD
Design: Plan #3



Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-13D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	Well @ 7896.0ft
Project:	Garfield County	MD Reference:	Well @ 7896.0ft
Site:	Chevron C-D29-596	North Reference:	True
Well:	Chevron #29-13D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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 C-D29-596			
Site Position:		Northing:	1,651,165.49 ft	Latitude:	39.590256
From:	Lat/Long	Easting:	2,239,989.14 ft	Longitude:	-108.197183
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.70 °

Well	Chevron #29-13D					
Well Position	+N/-S	0.0 ft	Northing:	1,651,131.56 ft	Latitude:	39.590160
	+E/-W	0.0 ft	Easting:	2,239,952.33 ft	Longitude:	-108.197310
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	7,881.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/19/2008	10.80	65.85	52,538

Design	Plan #3			
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	95.29

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	
300.0	2.00	125.00	300.0	-1.0	1.4	2.00	2.00	0.00	125.00	
507.1	5.69	92.79	506.6	-3.6	14.7	2.00	1.78	-15.56	-47.09	
6,196.3	5.69	92.79	6,167.7	-31.0	578.5	0.00	0.00	0.00	0.00	
6,481.1	0.00	0.00	6,452.0	-31.7	592.6	2.00	-2.00	0.00	180.00	Chevron 29-13D Tgt
6,630.0	0.74	240.01	6,601.0	-32.2	591.8	0.50	0.50	-80.53	240.01	
9,631.3	0.74	240.01	9,602.0	-51.7	558.0	0.00	0.00	0.00	0.00	Chevron 29-13D BHL

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-13D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	Well @ 7896.0ft
Project:	Garfield County	MD Reference:	Well @ 7896.0ft
Site:	Chevron C-D29-596	North Reference:	True
Well:	Chevron #29-13D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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
30.0	0.00	0.00	30.0	0.0	0.0	0.0	0.00	0.00	
60.0	0.00	0.00	60.0	0.0	0.0	0.0	0.00	0.00	
90.0	0.00	0.00	90.0	0.0	0.0	0.0	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	KOP @ 200'
210.0	0.20	125.00	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	125.00	240.0	-0.2	0.2	0.2	2.00	2.00	
270.0	1.40	125.00	270.0	-0.5	0.7	0.7	2.00	2.00	
300.0	2.00	125.00	300.0	-1.0	1.4	1.5	2.00	2.00	
330.0	2.45	114.66	330.0	-1.6	2.4	2.6	2.00	1.49	
360.0	2.95	107.67	359.9	-2.1	3.8	3.9	2.00	1.68	
390.0	3.48	102.76	389.9	-2.5	5.4	5.6	2.00	1.78	
420.0	4.04	99.17	419.8	-2.9	7.3	7.5	2.00	1.84	
450.0	4.60	96.45	449.7	-3.2	9.6	9.8	2.00	1.88	
480.0	5.17	94.33	479.6	-3.4	12.1	12.4	2.00	1.91	
507.1	5.69	92.79	506.6	-3.6	14.7	14.9	2.00	1.92	EOB @ Inc. = 5.69°
510.0	5.69	92.79	509.5	-3.6	14.9	15.2	0.00	0.00	
540.0	5.69	92.79	539.3	-3.7	17.9	18.2	0.00	0.00	
570.0	5.69	92.79	569.2	-3.9	20.9	21.2	0.00	0.00	
600.0	5.69	92.79	599.0	-4.0	23.9	24.1	0.00	0.00	
630.0	5.69	92.79	628.9	-4.2	26.8	27.1	0.00	0.00	
660.0	5.69	92.79	658.7	-4.3	29.8	30.1	0.00	0.00	
690.0	5.69	92.79	688.6	-4.5	32.8	33.1	0.00	0.00	
720.0	5.69	92.79	718.4	-4.6	35.8	36.0	0.00	0.00	
750.0	5.69	92.79	748.3	-4.7	38.7	39.0	0.00	0.00	
780.0	5.69	92.79	778.1	-4.9	41.7	42.0	0.00	0.00	
810.0	5.69	92.79	808.0	-5.0	44.7	45.0	0.00	0.00	
840.0	5.69	92.79	837.9	-5.2	47.7	47.9	0.00	0.00	
870.0	5.69	92.79	867.7	-5.3	50.6	50.9	0.00	0.00	
900.0	5.69	92.79	897.6	-5.5	53.6	53.9	0.00	0.00	
930.0	5.69	92.79	927.4	-5.6	56.6	56.9	0.00	0.00	
960.0	5.69	92.79	957.3	-5.8	59.5	59.8	0.00	0.00	
990.0	5.69	92.79	987.1	-5.9	62.5	62.8	0.00	0.00	
1,020.0	5.69	92.79	1,017.0	-6.0	65.5	65.8	0.00	0.00	
1,050.0	5.69	92.79	1,046.8	-6.2	68.5	68.7	0.00	0.00	
1,080.0	5.69	92.79	1,076.7	-6.3	71.4	71.7	0.00	0.00	
1,110.0	5.69	92.79	1,106.5	-6.5	74.4	74.7	0.00	0.00	
1,140.0	5.69	92.79	1,136.4	-6.6	77.4	77.7	0.00	0.00	
1,170.0	5.69	92.79	1,166.2	-6.8	80.4	80.6	0.00	0.00	
1,200.0	5.69	92.79	1,196.1	-6.9	83.3	83.6	0.00	0.00	
1,230.0	5.69	92.79	1,225.9	-7.1	86.3	86.6	0.00	0.00	
1,260.0	5.69	92.79	1,255.8	-7.2	89.3	89.6	0.00	0.00	
1,290.0	5.69	92.79	1,285.6	-7.4	92.3	92.5	0.00	0.00	
1,320.0	5.69	92.79	1,315.5	-7.5	95.2	95.5	0.00	0.00	
1,350.0	5.69	92.79	1,345.3	-7.6	98.2	98.5	0.00	0.00	
1,380.0	5.69	92.79	1,375.2	-7.8	101.2	101.5	0.00	0.00	
1,410.0	5.69	92.79	1,405.0	-7.9	104.1	104.4	0.00	0.00	
1,440.0	5.69	92.79	1,434.9	-8.1	107.1	107.4	0.00	0.00	
1,470.0	5.69	92.79	1,464.7	-8.2	110.1	110.4	0.00	0.00	
1,500.0	5.69	92.79	1,494.6	-8.4	113.1	113.4	0.00	0.00	

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-13D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	Well @ 7896.0ft
Project:	Garfield County	MD Reference:	Well @ 7896.0ft
Site:	Chevron C-D29-596	North Reference:	True
Well:	Chevron #29-13D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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
1,530.0	5.69	92.79	1,524.4	-8.5	116.0	116.3	0.00	0.00	
1,560.0	5.69	92.79	1,554.3	-8.7	119.0	119.3	0.00	0.00	
1,590.0	5.69	92.79	1,584.2	-8.8	122.0	122.3	0.00	0.00	
1,620.0	5.69	92.79	1,614.0	-8.9	125.0	125.3	0.00	0.00	
1,650.0	5.69	92.79	1,643.9	-9.1	127.9	128.2	0.00	0.00	
1,680.0	5.69	92.79	1,673.7	-9.2	130.9	131.2	0.00	0.00	
1,710.0	5.69	92.79	1,703.6	-9.4	133.9	134.2	0.00	0.00	
1,740.0	5.69	92.79	1,733.4	-9.5	136.9	137.1	0.00	0.00	
1,770.0	5.69	92.79	1,763.3	-9.7	139.8	140.1	0.00	0.00	
1,800.0	5.69	92.79	1,793.1	-9.8	142.8	143.1	0.00	0.00	
1,830.0	5.69	92.79	1,823.0	-10.0	145.8	146.1	0.00	0.00	
1,860.0	5.69	92.79	1,852.8	-10.1	148.7	149.0	0.00	0.00	
1,890.0	5.69	92.79	1,882.7	-10.2	151.7	152.0	0.00	0.00	
1,920.0	5.69	92.79	1,912.5	-10.4	154.7	155.0	0.00	0.00	
1,950.0	5.69	92.79	1,942.4	-10.5	157.7	158.0	0.00	0.00	
1,980.0	5.69	92.79	1,972.2	-10.7	160.6	160.9	0.00	0.00	
2,010.0	5.69	92.79	2,002.1	-10.8	163.6	163.9	0.00	0.00	
2,040.0	5.69	92.79	2,031.9	-11.0	166.6	166.9	0.00	0.00	
2,070.0	5.69	92.79	2,061.8	-11.1	169.6	169.9	0.00	0.00	
2,100.0	5.69	92.79	2,091.6	-11.3	172.5	172.8	0.00	0.00	
2,130.0	5.69	92.79	2,121.5	-11.4	175.5	175.8	0.00	0.00	
2,160.0	5.69	92.79	2,151.3	-11.5	178.5	178.8	0.00	0.00	
2,190.0	5.69	92.79	2,181.2	-11.7	181.5	181.8	0.00	0.00	
2,220.0	5.69	92.79	2,211.0	-11.8	184.4	184.7	0.00	0.00	
2,250.0	5.69	92.79	2,240.9	-12.0	187.4	187.7	0.00	0.00	
2,280.0	5.69	92.79	2,270.7	-12.1	190.4	190.7	0.00	0.00	
2,310.0	5.69	92.79	2,300.6	-12.3	193.3	193.7	0.00	0.00	
2,340.0	5.69	92.79	2,330.4	-12.4	196.3	196.6	0.00	0.00	
2,370.0	5.69	92.79	2,360.3	-12.6	199.3	199.6	0.00	0.00	
2,400.0	5.69	92.79	2,390.2	-12.7	202.3	202.6	0.00	0.00	
2,430.0	5.69	92.79	2,420.0	-12.8	205.2	205.6	0.00	0.00	
2,460.0	5.69	92.79	2,449.9	-13.0	208.2	208.5	0.00	0.00	
2,490.0	5.69	92.79	2,479.7	-13.1	211.2	211.5	0.00	0.00	

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Chevron 29-13D Tgt	0.00	0.00	6,452.0	-31.7	592.6	1,651,082.28	2,240,543.78	39.590073	-108.195207
- plan misses target center by 3990.6ft at 2490.0ft MD (2479.7 TVD, -13.1 N, 211.2 E)									
- Point									
Chevron 29-13D BHL	0.00	0.00	9,602.0	-51.7	558.0	1,651,063.33	2,240,508.56	39.590018	-108.195330
- plan misses target center by 7130.8ft at 2490.0ft MD (2479.7 TVD, -13.1 N, 211.2 E)									
- Rectangle (sides W100.0 H200.0 D0.0)									

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-13D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	Well @ 7896.0ft
Project:	Garfield County	MD Reference:	Well @ 7896.0ft
Site:	Chevron C-D29-596	North Reference:	True
Well:	Chevron #29-13D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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	5.69	92.79	2,489.7	-13.2	212.2	212.5	0.00	0.00	
2,600.0	5.69	92.79	2,589.2	-13.7	222.1	222.4	0.00	0.00	
2,700.0	5.69	92.79	2,688.7	-14.2	232.0	232.3	0.00	0.00	
2,793.8	5.69	92.79	2,782.0	-14.6	241.3	241.6	0.00	0.00	Wasatch
2,800.0	5.69	92.79	2,788.2	-14.6	241.9	242.2	0.00	0.00	
2,900.0	5.69	92.79	2,887.7	-15.1	251.8	252.1	0.00	0.00	
3,000.0	5.69	92.79	2,987.2	-15.6	261.7	262.1	0.00	0.00	
3,100.0	5.69	92.79	3,086.7	-16.1	271.6	272.0	0.00	0.00	
3,200.0	5.69	92.79	3,186.2	-16.6	281.6	281.9	0.00	0.00	
3,300.0	5.69	92.79	3,285.7	-17.0	291.5	291.8	0.00	0.00	
3,400.0	5.69	92.79	3,385.2	-17.5	301.4	301.7	0.00	0.00	
3,500.0	5.69	92.79	3,484.7	-18.0	311.3	311.6	0.00	0.00	
3,600.0	5.69	92.79	3,584.2	-18.5	321.2	321.5	0.00	0.00	
3,700.0	5.69	92.79	3,683.7	-19.0	331.1	331.5	0.00	0.00	
3,800.0	5.69	92.79	3,783.2	-19.5	341.0	341.4	0.00	0.00	
3,900.0	5.69	92.79	3,882.8	-19.9	350.9	351.3	0.00	0.00	
4,000.0	5.69	92.79	3,982.3	-20.4	360.8	361.2	0.00	0.00	
4,100.0	5.69	92.79	4,081.8	-20.9	370.8	371.1	0.00	0.00	
4,200.0	5.69	92.79	4,181.3	-21.4	380.7	381.0	0.00	0.00	
4,300.0	5.69	92.79	4,280.8	-21.9	390.6	390.9	0.00	0.00	
4,400.0	5.69	92.79	4,380.3	-22.3	400.5	400.8	0.00	0.00	
4,500.0	5.69	92.79	4,479.8	-22.8	410.4	410.8	0.00	0.00	
4,600.0	5.69	92.79	4,579.3	-23.3	420.3	420.7	0.00	0.00	
4,700.0	5.69	92.79	4,678.8	-23.8	430.2	430.6	0.00	0.00	
4,743.4	5.69	92.79	4,722.0	-24.0	434.5	434.9	0.00	0.00	Fort Union
4,800.0	5.69	92.79	4,778.3	-24.3	440.1	440.5	0.00	0.00	
4,900.0	5.69	92.79	4,877.8	-24.8	450.0	450.4	0.00	0.00	
5,000.0	5.69	92.79	4,977.3	-25.2	460.0	460.3	0.00	0.00	
5,100.0	5.69	92.79	5,076.8	-25.7	469.9	470.2	0.00	0.00	
5,200.0	5.69	92.79	5,176.3	-26.2	479.8	480.2	0.00	0.00	
5,245.9	5.69	92.79	5,222.0	-26.4	484.3	484.7	0.00	0.00	Base Ft Union
5,300.0	5.69	92.79	5,275.8	-26.7	489.7	490.1	0.00	0.00	
5,400.0	5.69	92.79	5,375.3	-27.2	499.6	500.0	0.00	0.00	
5,500.0	5.69	92.79	5,474.9	-27.7	509.5	509.9	0.00	0.00	
5,600.0	5.69	92.79	5,574.4	-28.1	519.4	519.8	0.00	0.00	
5,700.0	5.69	92.79	5,673.9	-28.6	529.3	529.7	0.00	0.00	
5,800.0	5.69	92.79	5,773.4	-29.1	539.2	539.6	0.00	0.00	
5,900.0	5.69	92.79	5,872.9	-29.6	549.2	549.5	0.00	0.00	
6,000.0	5.69	92.79	5,972.4	-30.1	559.1	559.5	0.00	0.00	
6,100.0	5.69	92.79	6,071.9	-30.5	569.0	569.4	0.00	0.00	
6,196.3	5.69	92.79	6,167.7	-31.0	578.5	578.9	0.00	0.00	Start Drop -2.00
6,200.0	5.62	92.79	6,171.4	-31.0	578.9	579.3	1.99	-1.99	
6,300.0	3.62	92.79	6,271.1	-31.4	586.9	587.3	2.00	-2.00	
6,400.0	1.62	92.79	6,371.0	-31.6	591.5	591.9	2.00	-2.00	
6,481.1	0.00	0.00	6,452.0	-31.7	592.6	593.0	2.00	-2.00	EOD @ Inc. = 0° - Ohio Creek - Chevron 29-13
6,500.0	0.09	240.01	6,470.9	-31.7	592.6	593.0	0.50	0.50	
6,600.0	0.59	240.01	6,570.9	-32.0	592.1	592.5	0.50	0.50	
6,630.0	0.74	240.01	6,601.0	-32.2	591.8	592.3	0.50	0.50	
6,681.1	0.74	240.01	6,652.0	-32.5	591.2	591.7	0.00	0.00	Mesaverde
6,700.0	0.74	240.01	6,670.9	-32.6	591.0	591.5	0.00	0.00	
6,800.0	0.74	240.01	6,770.9	-33.3	589.9	590.5	0.00	0.00	
6,881.1	0.74	240.01	6,852.0	-33.8	589.0	589.6	0.00	0.00	Approx. Top Gas

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-13D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	Well @ 7896.0ft
Project:	Garfield County	MD Reference:	Well @ 7896.0ft
Site:	Chevron C-D29-596	North Reference:	True
Well:	Chevron #29-13D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

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
6,900.0	0.74	240.01	6,870.9	-33.9	588.8	589.4	0.00	0.00	
7,000.0	0.74	240.01	6,970.9	-34.6	587.6	588.3	0.00	0.00	
7,100.0	0.74	240.01	7,070.9	-35.2	586.5	587.3	0.00	0.00	
7,200.0	0.74	240.01	7,170.9	-35.9	585.4	586.2	0.00	0.00	
7,300.0	0.74	240.01	7,270.9	-36.5	584.3	585.1	0.00	0.00	
7,400.0	0.74	240.01	7,370.9	-37.2	583.1	584.1	0.00	0.00	
7,500.0	0.74	240.01	7,470.9	-37.8	582.0	583.0	0.00	0.00	
7,600.0	0.74	240.01	7,570.9	-38.5	580.9	582.0	0.00	0.00	
7,700.0	0.74	240.01	7,670.9	-39.1	579.8	580.9	0.00	0.00	
7,800.0	0.74	240.01	7,770.8	-39.8	578.6	579.8	0.00	0.00	
7,900.0	0.74	240.01	7,870.8	-40.4	577.5	578.8	0.00	0.00	
8,000.0	0.74	240.01	7,970.8	-41.1	576.4	577.7	0.00	0.00	
8,100.0	0.74	240.01	8,070.8	-41.7	575.3	576.7	0.00	0.00	
8,200.0	0.74	240.01	8,170.8	-42.4	574.1	575.6	0.00	0.00	
8,300.0	0.74	240.01	8,270.8	-43.0	573.0	574.5	0.00	0.00	
8,400.0	0.74	240.01	8,370.8	-43.7	571.9	573.5	0.00	0.00	
8,500.0	0.74	240.01	8,470.8	-44.3	570.8	572.4	0.00	0.00	
8,600.0	0.74	240.01	8,570.8	-45.0	569.6	571.3	0.00	0.00	
8,700.0	0.74	240.01	8,670.8	-45.6	568.5	570.3	0.00	0.00	
8,800.0	0.74	240.01	8,770.8	-46.3	567.4	569.2	0.00	0.00	
8,900.0	0.74	240.01	8,870.8	-46.9	566.2	568.2	0.00	0.00	
9,000.0	0.74	240.01	8,970.7	-47.6	565.1	567.1	0.00	0.00	
9,031.3	0.74	240.01	9,002.0	-47.8	564.8	566.8	0.00	0.00	Cameo
9,100.0	0.74	240.01	9,070.7	-48.2	564.0	566.0	0.00	0.00	
9,200.0	0.74	240.01	9,170.7	-48.9	562.9	565.0	0.00	0.00	
9,300.0	0.74	240.01	9,270.7	-49.5	561.7	563.9	0.00	0.00	
9,400.0	0.74	240.01	9,370.7	-50.2	560.6	562.9	0.00	0.00	
9,481.3	0.74	240.01	9,452.0	-50.7	559.7	562.0	0.00	0.00	Rollins SS
9,500.0	0.74	240.01	9,470.7	-50.8	559.5	561.8	0.00	0.00	
9,600.0	0.74	240.01	9,570.7	-51.5	558.4	560.7	0.00	0.00	
9,631.3	0.74	240.01	9,602.0	-51.7	558.0	560.4	0.00	0.00	TD at 9631.3 - Chevron 29-13D BHL

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Chevron 29-13D Tgt - plan hits target center - Point	0.00	0.00	6,452.0	-31.7	592.6	1,651,082.28	2,240,543.78	39.590073	-108.195207
Chevron 29-13D BHL - plan hits target center - Rectangle (sides W100.0 H200.0 D0.0)	0.00	0.00	9,602.0	-51.7	558.0	1,651,063.33	2,240,508.56	39.590018	-108.195330

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-13D
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	Well @ 7896.0ft
Project:	Garfield County	MD Reference:	Well @ 7896.0ft
Site:	Chevron C-D29-596	North Reference:	True
Well:	Chevron #29-13D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,793.8	2,782.0	Wasatch				
4,743.4	4,722.0	Fort Union				
5,245.9	5,222.0	Base Ft Union				
6,481.1	6,452.0	Ohio Creek				
6,681.1	6,652.0	Mesaverde				
6,881.1	6,852.0	Approx. Top Gas				
9,031.3	9,002.0	Cameo				
9,481.3	9,452.0	Rollins SS				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.0	200.0	0.0	0.0	KOP @ 200'	
507.1	506.6	-3.6	14.7	EOB @ Inc. = 5.69°	
6,196.3	6,167.7	-31.0	578.5	Start Drop -2.00	
6,481.1	6,452.0	-31.7	592.6	EOD @ Inc. = 0°	
9,631.3	9,602.0	-51.7	558.0	TD at 9631.3	

Berry Petroleum Company (NAD 83)

Garfield County

Chevron C-D29-596

Chevron #29-13D

DD

Plan #3

Anticollision Report

06 January, 2011

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
Filter type:	GLOBAL FILTER APPLIED: All wellpaths within 200'+ 100/1000 of reference		
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 1,163.1ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	1/5/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	9,631.3	Plan #3 (DD)	MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Chevron C-D29-596						
Chevron #29-7D - DD - Plan #4	200.0	200.0	59.9	59.3	92.755	CC, ES
Chevron #29-7D - DD - Plan #4	9,631.3	9,663.9	676.0	637.5	17.528	SF
Chevron #29-11D - DD - DD	0.0	10.0	10.1			
Chevron #29-11D - DD - DD	300.0	309.7	13.6	12.6	13.699	SF
Chevron #29-12D - DD - DD	0.0	10.0	50.0			
Chevron #29-12D - DD - DD	9,500.0	9,516.0	382.1	343.9	10.011	SF
Chevron #29-14D - DD - Plan #3	280.0	280.0	9.6	8.7	10.334	CC, ES
Chevron #29-14D - DD - Plan #3	300.0	300.0	9.7	8.7	9.679	SF
Chevron #29-15D - DD - DD	222.5	232.6	18.7	17.9	24.880	CC, ES
Chevron #29-15D - DD - DD	300.0	309.6	20.1	19.1	19.262	SF
Chevron #29-16D - DD - Plan #3	234.3	234.2	29.8	29.1	38.877	CC
Chevron #29-16D - DD - Plan #3	300.0	299.7	30.0	29.0	29.941	ES
Chevron #29-16D - DD - Plan #3	500.0	496.8	37.1	35.3	20.934	SF
Chevron #29-3D - DD - DD	0.0	10.0	40.0			
Chevron #29-3D - DD - DD	100.0	109.8	40.2	39.9	130.371	ES
Chevron #29-3D - DD - DD	400.0	405.2	55.5	54.1	41.257	SF
Chevron #29-5D - DD - Plan #3	313.8	314.0	20.1	19.0	19.019	CC, ES
Chevron #29-5D - DD - Plan #3	9,631.3	9,653.1	433.6	395.3	11.313	SF
Chevron #29-6D - DD - Plan #3	200.0	200.0	30.1	29.4	46.592	CC, ES
Chevron #29-6D - DD - Plan #3	400.0	397.3	40.0	38.6	29.550	SF
Chevron #29-8D - DD - Plan #3	200.0	200.0	40.0	39.3	61.866	CC, ES
Chevron #29-8D - DD - Plan #3	9,631.3	9,718.5	1,035.5	996.8	26.729	SF

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-7D - 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		
0.0	0.0	0.0	0.0	0.0	0.0	45.66	41.9	42.8	59.9					
100.0	100.0	100.0	100.0	0.1	0.1	45.66	41.9	42.8	59.9	59.6	0.30	201.879		
200.0	200.0	200.0	200.0	0.3	0.3	45.66	41.9	42.8	59.9	59.3	0.65	92.755 CC, ES		
300.0	300.0	297.9	297.9	0.5	0.5	-80.94	43.1	44.0	61.3	60.3	0.99	61.627		
400.0	399.9	395.6	395.5	0.7	0.7	-61.24	46.7	47.4	64.6	63.2	1.35	47.673		
500.0	499.5	493.1	492.6	0.9	0.9	-57.92	52.7	53.2	68.9	67.2	1.74	39.662		
600.0	599.0	590.3	589.1	1.1	1.2	-62.42	61.1	61.2	75.7	73.5	2.14	35.368		
700.0	698.5	689.4	687.2	1.4	1.4	-66.15	71.1	70.7	84.9	82.3	2.56	33.136		
800.0	798.0	788.8	785.7	1.6	1.7	-69.15	81.1	80.3	94.4	91.4	3.00	31.492		
900.0	897.6	888.3	884.2	1.9	2.0	-71.59	91.2	89.9	104.1	100.7	3.44	30.234		
1,000.0	997.1	987.7	982.6	2.1	2.3	-73.62	101.2	99.5	114.0	110.1	3.90	29.242		
1,100.0	1,096.6	1,087.2	1,081.1	2.3	2.6	-75.32	111.3	109.1	124.0	119.6	4.36	28.443		
1,200.0	1,196.1	1,186.6	1,179.5	2.6	2.9	-76.77	121.3	118.6	134.0	129.2	4.82	27.787		
1,300.0	1,295.6	1,286.0	1,278.0	2.8	3.2	-78.01	131.4	128.2	144.2	138.9	5.29	27.241		
1,400.0	1,395.1	1,385.5	1,376.5	3.1	3.5	-79.09	141.4	137.8	154.4	148.7	5.77	26.779		
1,500.0	1,494.6	1,484.9	1,474.9	3.3	3.8	-80.03	151.5	147.4	164.7	158.4	6.24	26.384		
1,600.0	1,594.1	1,584.3	1,573.4	3.6	4.1	-80.87	161.5	157.0	175.0	168.3	6.72	26.043		
1,700.0	1,693.6	1,683.8	1,671.9	3.8	4.4	-81.61	171.6	166.6	185.3	178.1	7.20	25.746		
1,800.0	1,793.1	1,783.2	1,770.3	4.1	4.7	-82.27	181.7	176.2	195.7	188.0	7.68	25.485		
1,900.0	1,892.6	1,882.7	1,868.8	4.3	5.0	-82.87	191.7	185.8	206.1	197.9	8.16	25.254		
2,000.0	1,992.1	1,982.1	1,967.2	4.5	5.3	-83.41	201.8	195.4	216.5	207.8	8.64	25.049		
2,100.0	2,091.6	2,081.5	2,065.7	4.8	5.6	-83.90	211.8	204.9	226.9	217.8	9.13	24.865		
2,200.0	2,191.1	2,181.0	2,164.2	5.0	5.9	-84.34	221.9	214.5	237.3	227.7	9.61	24.699		
2,300.0	2,290.6	2,280.4	2,262.6	5.3	6.2	-84.75	231.9	224.1	247.8	237.7	10.09	24.548		
2,400.0	2,390.2	2,379.8	2,361.1	5.5	6.5	-85.13	242.0	233.7	258.2	247.7	10.58	24.412		
2,500.0	2,489.7	2,479.3	2,459.6	5.8	6.8	-85.47	252.0	243.3	268.7	257.6	11.06	24.287		
2,600.0	2,589.2	2,578.7	2,558.0	6.0	7.1	-85.79	262.1	252.9	279.2	267.6	11.55	24.173		
2,700.0	2,688.7	2,678.2	2,656.5	6.3	7.4	-86.09	272.1	262.5	289.7	277.6	12.04	24.068		
2,800.0	2,788.2	2,777.6	2,754.9	6.5	7.7	-86.37	282.2	272.1	300.2	287.7	12.52	23.971		
2,900.0	2,887.7	2,877.0	2,853.4	6.8	8.0	-86.63	292.2	281.6	310.7	297.7	13.01	23.882		
3,000.0	2,987.2	2,976.5	2,951.9	7.0	8.3	-86.87	302.3	291.2	321.2	307.7	13.50	23.799		
3,100.0	3,086.7	3,075.9	3,050.3	7.3	8.5	-87.09	312.3	300.8	331.7	317.7	13.98	23.721		
3,200.0	3,186.2	3,175.3	3,148.8	7.5	8.8	-87.31	322.4	310.4	342.2	327.7	14.47	23.649		
3,300.0	3,285.7	3,274.8	3,247.3	7.7	9.1	-87.50	332.4	320.0	352.7	337.8	14.96	23.582		
3,400.0	3,385.2	3,374.2	3,345.7	8.0	9.4	-87.69	342.5	329.6	363.3	347.8	15.45	23.519		
3,500.0	3,484.7	3,473.7	3,444.2	8.2	9.7	-87.87	352.5	339.2	373.8	357.9	15.93	23.459		
3,600.0	3,584.2	3,573.1	3,542.6	8.5	10.0	-88.04	362.6	348.8	384.3	367.9	16.42	23.404		
3,700.0	3,683.7	3,672.5	3,641.1	8.7	10.3	-88.20	372.6	358.4	394.9	378.0	16.91	23.351		
3,800.0	3,783.2	3,772.0	3,739.6	9.0	10.6	-88.35	382.7	367.9	405.4	388.0	17.40	23.302		
3,900.0	3,882.8	3,871.4	3,838.0	9.2	10.9	-88.49	392.7	377.5	415.9	398.1	17.89	23.255		
4,000.0	3,982.3	3,970.8	3,936.5	9.5	11.2	-88.62	402.8	387.1	426.5	408.1	18.37	23.211		
4,100.0	4,081.8	4,070.3	4,035.0	9.7	11.5	-88.75	412.8	396.7	437.0	418.2	18.86	23.169		
4,200.0	4,181.3	4,169.7	4,133.4	10.0	11.8	-88.88	422.9	406.3	447.6	428.2	19.35	23.129		
4,300.0	4,280.8	4,269.2	4,231.9	10.2	12.1	-88.99	433.0	415.9	458.1	438.3	19.84	23.091		
4,400.0	4,380.3	4,368.6	4,330.3	10.5	12.4	-89.10	443.0	425.5	468.7	448.4	20.33	23.055		
4,500.0	4,479.8	4,468.0	4,428.8	10.7	12.7	-89.21	453.1	435.1	479.2	458.4	20.82	23.021		
4,600.0	4,579.3	4,567.5	4,527.3	10.9	13.0	-89.31	463.1	444.7	489.8	468.5	21.31	22.988		
4,700.0	4,678.8	4,666.9	4,625.7	11.2	13.3	-89.41	473.2	454.2	500.4	478.6	21.80	22.957		
4,800.0	4,778.3	4,766.3	4,724.2	11.4	13.6	-89.51	483.2	463.8	510.9	488.6	22.28	22.927		
4,900.0	4,877.8	4,865.8	4,822.7	11.7	13.9	-89.60	493.3	473.4	521.5	498.7	22.77	22.898		
5,000.0	4,977.3	4,965.2	4,921.1	11.9	14.2	-89.68	503.3	483.0	532.0	508.8	23.26	22.871		
5,100.0	5,076.8	5,064.7	5,019.6	12.2	14.5	-89.77	513.4	492.6	542.6	518.8	23.75	22.845		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-7D - 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				Total		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	Separation Factor		
5,200.0	5,176.3	5,164.1	5,118.0	12.4	14.8	-89.85	523.4	502.2	553.2	528.9	24.24	22.819		
5,300.0	5,275.8	5,263.5	5,216.5	12.7	15.1	-89.92	533.5	511.8	563.7	539.0	24.73	22.795		
5,400.0	5,375.3	5,363.0	5,315.0	12.9	15.4	-90.00	543.5	521.4	574.3	549.1	25.22	22.772		
5,500.0	5,474.9	5,462.4	5,413.4	13.2	15.7	-90.07	553.6	530.9	584.9	559.2	25.71	22.750		
5,600.0	5,574.4	5,561.8	5,511.9	13.4	16.0	-90.14	563.6	540.5	595.4	569.2	26.20	22.728		
5,700.0	5,673.9	5,661.3	5,610.4	13.7	16.3	-90.21	573.7	550.1	606.0	579.3	26.69	22.708		
5,800.0	5,773.4	5,760.7	5,708.8	13.9	16.6	-90.27	583.7	559.7	616.6	589.4	27.18	22.688		
5,900.0	5,872.9	5,860.2	5,807.3	14.2	16.9	-90.33	593.8	569.3	627.1	599.5	27.67	22.668		
6,000.0	5,972.4	5,959.6	5,905.7	14.4	17.2	-90.39	603.8	578.9	637.7	609.5	28.15	22.650		
6,100.0	6,071.9	6,059.0	6,004.2	14.6	17.5	-90.45	613.9	588.5	648.3	619.6	28.64	22.632		
6,200.0	6,171.4	6,159.7	6,103.9	14.9	17.8	-90.52	624.1	598.2	658.8	629.7	29.14	22.612		
6,300.0	6,271.1	6,280.1	6,223.5	15.1	18.1	-90.73	634.2	607.9	667.6	638.0	29.61	22.544		
6,400.0	6,371.0	6,401.1	6,344.1	15.3	18.3	-90.80	640.7	614.1	673.3	643.3	30.00	22.444		
6,500.0	6,470.9	6,522.4	6,465.4	15.4	18.5	122.03	643.5	616.8	675.7	645.4	30.29	22.305		
6,600.0	6,570.9	6,632.6	6,575.5	15.5	18.6	122.02	643.2	616.1	675.7	645.1	30.55	22.118		
6,644.9	6,615.9	6,677.5	6,620.4	15.6	18.6	122.02	642.9	615.6	675.6	645.0	30.66	22.039		
6,700.0	6,670.9	6,732.6	6,675.5	15.6	18.7	122.02	642.6	615.0	675.6	644.9	30.79	21.946		
6,800.0	6,770.9	6,832.6	6,775.5	15.7	18.8	122.02	641.9	613.9	675.7	644.6	31.03	21.776		
6,900.0	6,870.9	6,932.6	6,875.5	15.9	18.9	122.02	641.3	612.8	675.7	644.4	31.27	21.607		
7,000.0	6,970.9	7,032.6	6,975.5	16.0	19.0	122.03	640.7	611.7	675.7	644.2	31.52	21.439		
7,100.0	7,070.9	7,132.6	7,075.5	16.1	19.1	122.03	640.0	610.6	675.7	643.9	31.76	21.272		
7,200.0	7,170.9	7,232.6	7,175.5	16.2	19.2	122.03	639.4	609.5	675.7	643.7	32.01	21.107		
7,300.0	7,270.9	7,332.6	7,275.5	16.3	19.3	122.03	638.7	608.4	675.7	643.5	32.27	20.943		
7,400.0	7,370.9	7,432.6	7,375.4	16.5	19.4	122.03	638.1	607.3	675.7	643.2	32.52	20.780		
7,500.0	7,470.9	7,532.6	7,475.4	16.6	19.5	122.04	637.5	606.2	675.8	643.0	32.77	20.619		
7,600.0	7,570.9	7,632.6	7,575.4	16.7	19.6	122.04	636.8	605.1	675.8	642.7	33.03	20.459		
7,700.0	7,670.9	7,732.6	7,675.4	16.8	19.7	122.04	636.2	604.0	675.8	642.5	33.29	20.301		
7,800.0	7,770.8	7,832.6	7,775.4	17.0	19.8	122.04	635.6	602.9	675.8	642.2	33.55	20.144		
7,900.0	7,870.8	7,932.6	7,875.4	17.1	19.9	122.04	634.9	601.8	675.8	642.0	33.81	19.988		
8,000.0	7,970.8	8,032.6	7,975.4	17.2	20.0	122.05	634.3	600.7	675.8	641.7	34.07	19.834		
8,100.0	8,070.8	8,132.6	8,075.4	17.4	20.1	122.05	633.6	599.6	675.8	641.5	34.34	19.681		
8,200.0	8,170.8	8,232.6	8,175.4	17.5	20.2	122.05	633.0	598.5	675.9	641.2	34.61	19.530		
8,300.0	8,270.8	8,332.6	8,275.4	17.6	20.3	122.05	632.4	597.4	675.9	641.0	34.87	19.381		
8,400.0	8,370.8	8,432.6	8,375.4	17.8	20.4	122.05	631.7	596.3	675.9	640.7	35.14	19.232		
8,500.0	8,470.8	8,532.6	8,475.4	17.9	20.5	122.06	631.1	595.1	675.9	640.5	35.41	19.086		
8,600.0	8,570.8	8,632.6	8,575.4	18.0	20.7	122.06	630.5	594.0	675.9	640.2	35.69	18.940		
8,700.0	8,670.8	8,732.6	8,675.3	18.2	20.8	122.06	629.8	592.9	675.9	640.0	35.96	18.797		
8,800.0	8,770.8	8,832.6	8,775.3	18.3	20.9	122.06	629.2	591.8	675.9	639.7	36.23	18.654		
8,900.0	8,870.8	8,932.6	8,875.3	18.4	21.0	122.06	628.6	590.7	675.9	639.4	36.51	18.513		
9,000.0	8,970.7	9,032.6	8,975.3	18.6	21.1	122.07	627.9	589.6	676.0	639.2	36.79	18.374		
9,100.0	9,070.7	9,132.6	9,075.3	18.7	21.2	122.07	627.3	588.5	676.0	638.9	37.07	18.236		
9,200.0	9,170.7	9,232.6	9,175.3	18.8	21.3	122.07	626.6	587.4	676.0	638.6	37.35	18.100		
9,300.0	9,270.7	9,332.6	9,275.3	19.0	21.5	122.07	626.0	586.3	676.0	638.4	37.63	17.965		
9,400.0	9,370.7	9,432.6	9,375.3	19.1	21.6	122.07	625.4	585.2	676.0	638.1	37.91	17.831		
9,500.0	9,470.7	9,532.6	9,475.3	19.3	21.7	122.08	624.7	584.1	676.0	637.8	38.19	17.699		
9,600.0	9,570.7	9,632.6	9,575.3	19.4	21.8	122.08	624.1	583.0	676.0	637.6	38.48	17.569		
9,631.3	9,602.0	9,663.9	9,606.6	19.5	21.9	122.08	623.9	582.7	676.0	637.5	38.57	17.528 SF		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-11D - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 201-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	10.0	10.0	0.0	0.0	-135.95	-7.3	-7.0	10.1					
100.0	100.0	109.9	109.9	0.1	0.2	-134.98	-7.4	-7.4	10.5	10.1	0.31	33.329		
200.0	200.0	209.9	209.9	0.3	0.3	-132.66	-7.7	-8.3	11.3	10.7	0.64	17.671		
300.0	300.0	309.7	309.7	0.5	0.5	112.89	-8.2	-10.1	13.6	12.6	0.99	13.699 SF		
400.0	399.9	409.1	409.1	0.7	0.7	152.76	-8.0	-13.2	19.9	18.6	1.34	14.809		
500.0	499.5	507.2	507.0	0.9	0.9	170.76	-7.0	-19.2	33.5	31.8	1.69	19.859		
600.0	599.0	604.0	603.3	1.1	1.1	175.13	-5.9	-28.3	52.5	50.5	2.03	25.937		
700.0	698.5	700.0	698.6	1.4	1.4	176.92	-4.8	-40.0	74.4	72.0	2.36	31.467		
800.0	798.0	793.4	790.8	1.6	1.6	177.54	-4.3	-54.4	99.6	96.9	2.70	36.895		
900.0	897.6	887.5	883.3	1.9	2.0	178.37	-2.9	-71.6	127.5	124.5	3.04	42.018		
1,000.0	997.1	981.5	975.5	2.1	2.3	178.82	-1.6	-90.2	157.0	153.6	3.37	46.575		
1,100.0	1,096.6	1,075.8	1,067.8	2.3	2.7	178.75	-1.4	-109.3	186.8	183.1	3.71	50.423		
1,200.0	1,196.1	1,172.9	1,162.8	2.6	3.0	178.45	-2.2	-129.2	216.9	212.9	4.05	53.627		
1,300.0	1,295.6	1,270.0	1,258.1	2.8	3.4	178.02	-3.8	-148.1	246.0	241.7	4.39	56.092		
1,400.0	1,395.1	1,370.6	1,356.9	3.1	3.8	177.67	-5.5	-166.7	274.2	269.4	4.73	57.923		
1,500.0	1,494.6	1,472.8	1,457.7	3.3	4.1	177.68	-5.7	-183.8	300.5	295.5	5.08	59.125		
1,600.0	1,594.1	1,574.0	1,557.8	3.6	4.4	177.85	-5.1	-198.9	325.2	319.8	5.43	59.874		
1,700.0	1,693.6	1,673.6	1,656.4	3.8	4.7	177.96	-4.6	-212.7	348.8	343.0	5.78	60.380		
1,800.0	1,793.1	1,775.0	1,757.0	4.1	5.0	178.06	-4.1	-225.7	371.4	365.3	6.13	60.633		
1,900.0	1,892.6	1,871.2	1,852.4	4.3	5.3	178.28	-2.8	-237.7	393.7	387.2	6.47	60.892		
2,000.0	1,992.1	1,967.5	1,947.9	4.5	5.5	178.59	-0.6	-250.2	416.5	409.7	6.81	61.198		
2,100.0	2,091.6	2,068.9	2,048.4	4.8	5.8	178.87	1.4	-262.7	438.6	431.5	7.15	61.317		
2,200.0	2,191.1	2,164.4	2,143.2	5.0	6.1	178.93	2.1	-274.5	460.8	453.3	7.49	61.503		
2,300.0	2,290.6	2,262.4	2,240.4	5.3	6.4	179.02	3.0	-286.8	483.2	475.4	7.84	61.665		
2,400.0	2,390.2	2,352.6	2,329.9	5.5	6.6	179.13	4.2	-298.4	505.8	497.6	8.17	61.945		
2,500.0	2,489.7	2,438.0	2,414.4	5.8	6.9	179.19	5.0	-311.2	530.6	522.1	8.49	62.521		
2,600.0	2,589.2	2,524.8	2,499.8	6.0	7.2	179.25	6.0	-325.9	557.3	548.5	8.81	63.257		
2,700.0	2,688.7	2,619.0	2,592.5	6.3	7.6	179.25	6.5	-343.3	585.4	576.2	9.15	64.005		
2,800.0	2,788.2	2,721.9	2,693.8	6.5	7.9	179.20	6.5	-361.1	612.3	602.8	9.50	64.478		
2,900.0	2,887.7	2,821.0	2,791.4	6.8	8.3	179.09	5.7	-378.0	639.1	629.2	9.84	64.943		
3,000.0	2,987.2	2,920.9	2,890.0	7.0	8.6	178.98	4.8	-394.2	664.9	654.7	10.19	65.276		
3,100.0	3,086.7	3,011.5	2,979.3	7.3	8.9	178.91	4.3	-409.1	691.1	680.5	10.52	65.713		
3,200.0	3,186.2	3,108.5	3,074.9	7.5	9.2	178.91	4.7	-425.9	718.1	707.2	10.86	66.140		
3,300.0	3,285.7	3,203.0	3,168.1	7.7	9.6	178.90	4.9	-441.6	744.4	733.2	11.19	66.502		
3,400.0	3,385.2	3,298.2	3,261.8	8.0	9.9	178.98	6.2	-458.3	771.7	760.1	11.53	66.923		
3,500.0	3,484.7	3,395.5	3,357.7	8.2	10.2	179.02	7.1	-474.8	798.3	786.4	11.87	67.245		
3,600.0	3,584.2	3,494.2	3,454.9	8.5	10.6	179.08	8.3	-491.8	825.3	813.0	12.21	67.562		
3,700.0	3,683.7	3,591.1	3,550.4	8.7	10.9	179.13	9.3	-507.9	851.6	839.1	12.56	67.831		
3,800.0	3,783.2	3,690.1	3,648.0	9.0	11.3	179.18	10.5	-524.5	878.2	865.3	12.90	68.078		
3,900.0	3,882.8	3,782.1	3,738.7	9.2	11.6	179.21	11.3	-539.8	904.5	891.2	13.23	68.359		
4,000.0	3,982.3	3,881.3	3,836.5	9.5	11.9	179.22	12.0	-556.7	931.3	917.7	13.58	68.598		
4,100.0	4,081.8	3,982.7	3,936.5	9.7	12.3	179.23	12.5	-573.4	957.4	943.5	13.92	68.759		
4,200.0	4,181.3	4,121.0	4,073.4	10.0	12.7	179.23	13.1	-593.3	981.7	967.3	14.34	68.478		
4,300.0	4,280.8	4,252.9	4,204.6	10.2	12.9	179.24	13.6	-606.2	1,001.2	986.4	14.74	67.935		
4,400.0	4,380.3	4,388.5	4,339.9	10.5	13.2	179.24	13.7	-615.8	1,018.1	1,003.0	15.15	67.218		
4,500.0	4,479.8	4,539.1	4,490.5	10.7	13.4	179.28	14.4	-619.2	1,030.2	1,014.6	15.58	66.112		
4,600.0	4,579.3	4,643.5	4,594.9	10.9	13.5	179.29	14.4	-618.6	1,039.6	1,023.6	15.94	65.218		
4,700.0	4,678.8	4,744.7	4,696.0	11.2	13.6	179.30	14.5	-618.0	1,048.9	1,032.6	16.29	64.384		
4,800.0	4,778.3	4,855.8	4,807.1	11.4	13.7	179.35	15.2	-616.5	1,057.6	1,040.9	16.66	63.477		
4,900.0	4,877.8	4,946.6	4,897.9	11.7	13.7	179.43	16.5	-615.2	1,066.1	1,049.1	16.99	62.736		
5,000.0	4,977.3	5,038.0	4,989.3	11.9	13.8	179.50	17.8	-614.7	1,075.5	1,058.2	17.33	62.069		
5,100.0	5,076.8	5,137.6	5,088.9	12.2	13.9	179.57	18.9	-614.6	1,085.3	1,067.7	17.68	61.400		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-11D - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 201-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	5,176.3	5,229.0	5,180.3	12.4	14.1	179.61	19.6	-614.4	1,095.2	1,077.2	18.01	60.808		
5,300.0	5,275.8	5,324.0	5,275.3	12.7	14.2	179.60	19.3	-615.0	1,105.7	1,087.4	18.35	60.254		
5,400.0	5,375.3	5,426.8	5,378.0	12.9	14.3	179.51	17.5	-616.0	1,116.6	1,097.9	18.71	59.692		
5,500.0	5,474.9	5,525.2	5,476.4	13.2	14.4	179.42	15.7	-616.8	1,127.2	1,108.1	19.05	59.165		
5,600.0	5,574.4	5,626.0	5,577.2	13.4	14.5	179.36	14.6	-617.5	1,137.8	1,118.4	19.40	58.642		
5,700.0	5,673.9	5,724.5	5,675.7	13.7	14.7	179.32	13.6	-618.2	1,148.4	1,128.6	19.75	58.148		
5,800.0	5,773.4	5,820.6	5,771.8	13.9	14.8	179.28	12.7	-619.1	1,159.1	1,139.1	20.09	57.694		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-12D - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 199-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	10.0	10.0	0.0	0.0	45.66	35.0	35.8	50.0					
100.0	100.0	109.7	109.7	0.1	0.2	45.85	35.1	36.1	50.4	50.1	0.31	160.853		
200.0	200.0	209.3	209.3	0.3	0.3	46.35	35.4	37.1	51.3	50.6	0.64	80.084		
300.0	300.0	307.9	307.9	0.5	0.5	-79.14	36.3	39.7	53.5	52.5	0.99	53.897		
400.0	399.9	406.0	405.8	0.7	0.7	-57.86	38.7	45.1	57.1	55.7	1.36	42.062		
500.0	499.5	504.2	503.6	0.9	0.9	-52.95	43.0	52.9	60.9	59.2	1.75	34.897		
600.0	599.0	602.6	601.3	1.1	1.2	-55.78	48.6	62.9	66.0	63.9	2.16	30.600		
700.0	698.5	700.9	698.6	1.4	1.5	-58.18	55.6	74.4	73.2	70.7	2.58	28.340		
800.0	798.0	798.9	795.4	1.6	1.8	-59.70	64.0	87.5	82.7	79.7	3.02	27.371		
900.0	897.6	898.3	893.4	1.9	2.1	-60.72	73.4	101.8	93.5	90.0	3.47	26.956		
1,000.0	997.1	1,000.5	994.2	2.1	2.4	-61.51	81.7	115.7	102.8	98.9	3.93	26.193		
1,100.0	1,096.6	1,101.7	1,094.4	2.3	2.7	-62.29	87.9	128.0	109.7	105.3	4.39	25.006		
1,200.0	1,196.1	1,202.4	1,194.4	2.6	3.0	-62.94	93.4	140.0	115.8	110.9	4.85	23.875		
1,300.0	1,295.6	1,301.8	1,292.9	2.8	3.3	-63.41	98.3	151.7	121.5	116.2	5.31	22.859		
1,400.0	1,395.1	1,401.3	1,391.5	3.1	3.6	-63.76	103.6	163.9	127.6	121.9	5.78	22.101		
1,500.0	1,494.6	1,503.2	1,492.6	3.3	3.9	-64.50	108.9	175.2	133.2	127.0	6.24	21.342		
1,600.0	1,594.1	1,605.0	1,593.9	3.6	4.1	-65.95	113.6	184.2	137.3	130.6	6.72	20.432		
1,700.0	1,693.6	1,705.5	1,694.0	3.8	4.3	-67.57	117.7	192.0	140.4	133.2	7.21	19.486		
1,800.0	1,793.1	1,803.8	1,791.9	4.1	4.6	-68.85	121.9	200.4	144.2	136.5	7.69	18.749		
1,900.0	1,892.6	1,904.4	1,892.1	4.3	4.8	-70.05	126.2	209.1	148.1	139.9	8.18	18.108		
2,000.0	1,992.1	2,003.3	1,990.5	4.5	5.1	-71.09	130.5	217.9	152.2	143.5	8.67	17.562		
2,100.0	2,091.6	2,101.9	2,088.4	4.8	5.3	-71.85	135.4	227.5	157.2	148.0	9.15	17.181		
2,200.0	2,191.1	2,201.3	2,187.3	5.0	5.6	-72.76	140.9	236.9	162.6	153.0	9.63	16.886		
2,300.0	2,290.6	2,300.4	2,285.8	5.3	5.8	-73.82	146.9	245.8	168.5	158.4	10.12	16.651		
2,400.0	2,390.2	2,399.5	2,384.2	5.5	6.1	-74.68	153.2	255.1	174.8	164.2	10.62	16.467		
2,500.0	2,489.7	2,501.5	2,485.4	5.8	6.4	-74.82	158.5	266.7	180.7	169.6	11.12	16.258		
2,600.0	2,589.2	2,601.7	2,584.8	6.0	6.7	-74.81	163.0	278.2	185.9	174.3	11.59	16.034		
2,700.0	2,688.7	2,700.9	2,683.3	6.3	6.9	-74.72	167.5	290.0	191.3	179.2	12.08	15.843		
2,800.0	2,788.2	2,802.7	2,784.4	6.5	7.2	-74.97	172.0	300.7	196.2	183.6	12.56	15.619		
2,900.0	2,887.7	2,901.8	2,882.9	6.8	7.5	-75.10	175.9	311.5	200.7	187.6	13.05	15.378		
3,000.0	2,987.2	2,998.1	2,978.4	7.0	7.8	-75.15	180.8	322.5	206.4	192.9	13.53	15.264		
3,100.0	3,086.7	3,097.4	3,076.7	7.3	8.0	-75.04	187.0	334.9	213.6	199.6	14.01	15.250		
3,200.0	3,186.2	3,199.8	3,178.2	7.5	8.3	-74.88	192.0	347.4	219.4	204.9	14.50	15.136		
3,300.0	3,285.7	3,299.2	3,276.6	7.7	8.6	-74.45	196.5	360.6	225.3	210.3	14.97	15.052		
3,400.0	3,385.2	3,399.6	3,376.1	8.0	8.9	-74.30	201.3	372.9	231.0	215.6	15.44	14.962		
3,500.0	3,484.7	3,500.9	3,476.7	8.2	9.2	-74.49	206.3	384.0	236.4	220.5	15.93	14.844		
3,600.0	3,584.2	3,599.3	3,574.5	8.5	9.5	-74.78	210.9	394.1	241.5	225.0	16.41	14.709		
3,700.0	3,683.7	3,698.8	3,673.3	8.7	9.7	-75.04	216.3	404.7	247.3	230.4	16.90	14.634		
3,800.0	3,783.2	3,797.0	3,770.7	9.0	10.0	-75.25	221.6	415.2	253.3	235.9	17.39	14.559		
3,900.0	3,882.8	3,896.8	3,869.8	9.2	10.3	-75.33	227.4	426.7	259.7	241.9	17.87	14.533		
4,000.0	3,982.3	3,996.3	3,968.4	9.5	10.6	-75.53	233.3	437.6	266.2	247.8	18.37	14.492		
4,100.0	4,081.8	4,097.3	4,068.7	9.7	10.8	-75.69	239.1	448.8	272.5	253.6	18.85	14.454		
4,200.0	4,181.3	4,199.9	4,170.6	10.0	11.1	-75.94	244.4	459.4	277.9	258.6	19.35	14.363		
4,300.0	4,280.8	4,297.8	4,267.8	10.2	11.4	-76.16	249.3	469.6	283.3	263.5	19.84	14.282		
4,400.0	4,380.3	4,395.9	4,365.1	10.5	11.7	-76.14	254.6	481.1	289.5	269.2	20.32	14.245		
4,500.0	4,479.8	4,496.5	4,464.9	10.7	11.9	-76.21	260.1	492.4	295.6	274.8	20.80	14.211		
4,600.0	4,579.3	4,594.4	4,562.1	10.9	12.2	-76.56	266.1	502.1	301.9	280.6	21.29	14.181		
4,700.0	4,678.8	4,690.1	4,657.1	11.2	12.5	-76.79	272.8	512.4	309.4	287.6	21.78	14.204		
4,800.0	4,778.3	4,789.1	4,755.1	11.4	12.8	-76.94	280.6	523.7	317.8	295.6	22.26	14.277		
4,900.0	4,877.8	4,893.9	4,859.1	11.7	13.0	-77.46	288.3	533.3	325.2	302.5	22.77	14.286		
5,000.0	4,977.3	4,999.3	4,964.0	11.9	13.3	-78.18	294.9	541.4	331.2	307.9	23.28	14.229		
5,100.0	5,076.8	5,106.7	5,071.1	12.2	13.5	-79.17	299.9	547.5	335.1	311.3	23.81	14.076		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-12D - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 199-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)				
5,200.0	5,176.3	5,204.6	5,168.8	12.4	13.7	-79.92	303.1	553.5	337.9	313.5	24.32	13.891		
5,300.0	5,275.8	5,299.4	5,263.2	12.7	13.9	-80.35	307.1	561.3	342.2	317.3	24.82	13.786		
5,400.0	5,375.3	5,398.6	5,361.8	12.9	14.2	-80.58	312.0	570.9	347.4	322.1	25.31	13.726		
5,500.0	5,474.9	5,502.0	5,464.6	13.2	14.4	-80.93	316.8	580.1	352.2	326.4	25.81	13.646		
5,600.0	5,574.4	5,603.9	5,566.2	13.4	14.7	-81.30	320.6	588.7	356.1	329.7	26.32	13.528		
5,700.0	5,673.9	5,703.1	5,664.9	13.7	14.9	-81.56	324.1	597.7	359.8	332.9	26.81	13.419		
5,800.0	5,773.4	5,803.1	5,764.4	13.9	15.2	-81.92	327.8	606.1	363.6	336.3	27.30	13.317		
5,900.0	5,872.9	5,911.4	5,872.4	14.2	15.4	-82.40	330.7	614.4	366.3	338.4	27.82	13.164		
6,000.0	5,972.4	6,013.4	5,974.1	14.4	15.6	-82.94	332.1	621.3	367.5	339.2	28.32	12.977		
6,100.0	6,071.9	6,113.8	6,074.4	14.6	15.8	-83.77	333.4	626.2	368.5	339.7	28.82	12.788		
6,200.0	6,171.4	6,213.7	6,174.2	14.9	15.9	-84.75	334.9	630.0	369.5	340.2	29.32	12.603		
6,300.0	6,271.1	6,315.9	6,276.4	15.1	16.1	-85.56	336.3	633.3	370.6	340.9	29.75	12.458		
6,400.0	6,371.0	6,419.1	6,379.5	15.3	16.2	-86.17	336.8	634.2	370.9	340.8	30.10	12.322		
6,500.0	6,470.9	6,518.5	6,478.9	15.4	16.3	126.49	337.2	634.7	371.3	340.9	30.37	12.225		
6,600.0	6,570.9	6,619.1	6,579.5	15.5	16.5	126.61	337.7	635.1	372.2	341.6	30.61	12.157		
6,700.0	6,670.9	6,719.0	6,679.4	15.6	16.6	126.78	338.0	635.2	373.2	342.4	30.85	12.100		
6,800.0	6,770.9	6,818.3	6,778.8	15.7	16.7	126.81	338.6	634.4	374.5	343.4	31.08	12.049		
6,900.0	6,870.9	6,918.5	6,878.9	15.9	16.8	126.79	339.3	633.4	375.9	344.5	31.33	11.999		
7,000.0	6,970.9	7,020.2	6,980.7	16.0	16.9	126.72	339.8	631.9	377.0	345.4	31.57	11.940		
7,100.0	7,070.9	7,121.4	7,081.8	16.1	17.0	126.67	339.9	630.5	377.7	345.8	31.83	11.866		
7,200.0	7,170.9	7,221.9	7,182.3	16.2	17.2	126.64	339.7	629.2	378.1	346.0	32.07	11.789		
7,300.0	7,270.9	7,319.9	7,280.3	16.3	17.3	126.59	339.7	627.9	378.8	346.5	32.33	11.718		
7,400.0	7,370.9	7,420.1	7,380.5	16.5	17.4	126.57	340.0	626.7	379.7	347.1	32.58	11.655		
7,500.0	7,470.9	7,522.7	7,483.1	16.6	17.5	126.51	339.9	625.2	380.2	347.4	32.84	11.580		
7,600.0	7,570.9	7,623.3	7,583.6	16.7	17.6	126.39	339.5	623.3	380.4	347.3	33.09	11.494		
7,700.0	7,670.9	7,724.1	7,684.5	16.8	17.7	126.24	338.8	621.2	380.2	346.9	33.35	11.401		
7,800.0	7,770.8	7,824.2	7,784.5	17.0	17.8	126.04	338.2	618.7	380.1	346.5	33.61	11.310		
7,900.0	7,870.8	7,926.1	7,886.4	17.1	17.9	125.84	337.1	616.2	379.6	345.7	33.88	11.204		
8,000.0	7,970.8	8,024.7	7,984.9	17.2	18.0	125.64	336.1	613.7	379.0	344.9	34.14	11.104		
8,100.0	8,070.8	8,124.5	8,084.7	17.4	18.1	125.44	335.4	611.2	378.8	344.4	34.40	11.012		
8,200.0	8,170.8	8,224.5	8,184.6	17.5	18.3	125.24	334.4	608.8	378.4	343.8	34.67	10.916		
8,300.0	8,270.8	8,324.2	8,284.4	17.6	18.4	125.00	333.9	606.1	378.4	343.4	34.93	10.832		
8,400.0	8,370.8	8,425.3	8,385.4	17.8	18.5	124.72	332.9	603.1	377.9	342.7	35.20	10.736		
8,500.0	8,470.8	8,524.8	8,484.8	17.9	18.6	124.41	332.1	599.8	377.5	342.1	35.47	10.645		
8,600.0	8,570.8	8,625.2	8,585.1	18.0	18.7	124.04	331.3	596.2	377.2	341.5	35.74	10.555		
8,700.0	8,670.8	8,724.2	8,684.1	18.2	18.8	123.67	330.4	592.7	376.8	340.8	36.01	10.465		
8,800.0	8,770.8	8,824.8	8,784.6	18.3	18.9	123.34	329.8	589.4	376.7	340.4	36.28	10.383		
8,900.0	8,870.8	8,923.8	8,883.5	18.4	19.0	122.90	329.0	585.3	376.5	339.9	36.54	10.301		
8,906.2	8,877.0	8,929.9	8,889.6	18.4	19.0	122.86	329.0	585.0	376.5	339.9	36.56	10.296		
9,000.0	8,970.7	9,022.2	8,981.8	18.6	19.1	122.32	328.7	580.5	376.6	339.8	36.81	10.231		
9,100.0	9,070.7	9,123.8	9,083.3	18.7	19.2	121.74	328.5	575.5	376.9	339.8	37.09	10.163		
9,105.1	9,075.8	9,129.0	9,088.5	18.7	19.2	121.71	328.5	575.3	376.9	339.8	37.10	10.159		
9,200.0	9,170.7	9,221.2	9,180.6	18.8	19.3	121.25	328.2	571.2	377.2	339.8	37.36	10.097		
9,300.0	9,270.7	9,318.9	9,278.3	19.0	19.4	120.77	328.6	566.9	378.2	340.6	37.62	10.053		
9,400.0	9,370.7	9,416.7	9,375.9	19.1	19.5	120.20	329.6	562.1	379.8	342.0	37.90	10.024		
9,500.0	9,470.7	9,516.0	9,475.1	19.3	19.6	119.66	331.2	557.4	382.1	343.9	38.17	10.011 SF		
9,600.0	9,570.7	9,603.0	9,562.0	19.4	19.7	119.20	332.8	553.3	384.8	346.4	38.42	10.015		
9,631.3	9,602.0	9,603.0	9,562.0	19.5	19.7	119.20	332.8	553.3	387.8	349.3	38.47	10.081		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-14D - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	45.53	6.9	7.0	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	45.53	6.9	7.0	9.9	9.6	0.30	33.275		
200.0	200.0	200.0	200.0	0.3	0.3	45.53	6.9	7.0	9.9	9.2	0.65	15.289		
280.0	280.0	280.0	280.0	0.5	0.5	-92.54	7.5	6.1	9.6	8.7	0.93	10.334 CC, ES		
300.0	300.0	300.0	300.0	0.5	0.5	-99.95	7.8	5.5	9.7	8.7	1.00	9.679 SF		
400.0	399.9	399.3	399.1	0.7	0.7	-122.06	10.4	1.0	13.9	12.6	1.36	10.217		
500.0	499.5	497.3	496.8	0.9	0.9	-140.85	14.6	-6.3	27.3	25.6	1.71	16.021		
600.0	599.0	594.6	593.4	1.1	1.2	-151.07	20.2	-16.1	47.1	45.1	2.05	23.011		
700.0	698.5	692.3	690.4	1.4	1.4	-155.39	26.1	-26.3	67.9	65.5	2.39	28.371		
800.0	798.0	790.0	787.4	1.6	1.7	-157.68	32.0	-36.5	88.9	86.2	2.74	32.417		
900.0	897.6	887.7	884.4	1.9	1.9	-159.09	37.8	-46.7	110.0	106.9	3.09	35.560		
1,000.0	997.1	985.4	981.4	2.1	2.2	-160.04	43.7	-56.9	131.2	127.7	3.45	38.067		
1,100.0	1,096.6	1,083.2	1,078.4	2.3	2.5	-160.74	49.6	-67.1	152.4	148.6	3.80	40.111		
1,200.0	1,196.1	1,180.9	1,175.4	2.6	2.7	-161.26	55.5	-77.3	173.5	169.4	4.15	41.808		
1,300.0	1,295.6	1,278.6	1,272.4	2.8	3.0	-161.67	61.3	-87.5	194.7	190.2	4.50	43.240		
1,400.0	1,395.1	1,376.3	1,369.4	3.1	3.2	-162.00	67.2	-97.7	215.9	211.1	4.86	44.463		
1,500.0	1,494.6	1,474.0	1,466.4	3.3	3.5	-162.27	73.1	-107.9	237.1	231.9	5.21	45.520		
1,600.0	1,594.1	1,571.8	1,563.5	3.6	3.8	-162.49	78.9	-118.1	258.4	252.8	5.56	46.443		
1,700.0	1,693.6	1,669.5	1,660.5	3.8	4.0	-162.68	84.8	-128.3	279.6	273.7	5.92	47.255		
1,800.0	1,793.1	1,767.2	1,757.5	4.1	4.3	-162.85	90.7	-138.5	300.8	294.5	6.27	47.975		
1,900.0	1,892.6	1,864.9	1,854.5	4.3	4.6	-162.99	96.5	-148.7	322.0	315.4	6.62	48.618		
2,000.0	1,992.1	1,962.6	1,951.5	4.5	4.8	-163.11	102.4	-158.9	343.2	336.3	6.98	49.196		
2,100.0	2,091.6	2,060.4	2,048.5	4.8	5.1	-163.23	108.3	-169.0	364.5	357.1	7.33	49.718		
2,200.0	2,191.1	2,158.1	2,145.5	5.0	5.4	-163.32	114.1	-179.2	385.7	378.0	7.68	50.192		
2,300.0	2,290.6	2,255.8	2,242.5	5.3	5.6	-163.41	120.0	-189.4	406.9	398.9	8.04	50.624		
2,400.0	2,390.2	2,353.5	2,339.5	5.5	5.9	-163.49	125.9	-199.6	428.1	419.7	8.39	51.019		
2,500.0	2,489.7	2,451.2	2,436.5	5.8	6.2	-163.56	131.8	-209.8	449.4	440.6	8.75	51.382		
2,600.0	2,589.2	2,549.0	2,533.5	6.0	6.4	-163.63	137.6	-220.0	470.6	461.5	9.10	51.718		
2,700.0	2,688.7	2,646.7	2,630.6	6.3	6.7	-163.69	143.5	-230.2	491.8	482.4	9.45	52.027		
2,800.0	2,788.2	2,744.4	2,727.6	6.5	7.0	-163.74	149.4	-240.4	513.0	503.2	9.81	52.315		
2,900.0	2,887.7	2,842.1	2,824.6	6.8	7.3	-163.79	155.2	-250.6	534.3	524.1	10.16	52.582		
3,000.0	2,987.2	2,939.8	2,921.6	7.0	7.5	-163.84	161.1	-260.8	555.5	545.0	10.51	52.832		
3,100.0	3,086.7	3,037.6	3,018.6	7.3	7.8	-163.88	167.0	-271.0	576.7	565.9	10.87	53.065		
3,200.0	3,186.2	3,135.3	3,115.6	7.5	8.1	-163.92	172.8	-281.2	598.0	586.7	11.22	53.283		
3,300.0	3,285.7	3,233.0	3,212.6	7.7	8.3	-163.96	178.7	-291.4	619.2	607.6	11.58	53.488		
3,400.0	3,385.2	3,330.7	3,309.6	8.0	8.6	-164.00	184.6	-301.6	640.4	628.5	11.93	53.681		
3,500.0	3,484.7	3,428.4	3,406.6	8.2	8.9	-164.03	190.4	-311.8	661.6	649.4	12.28	53.863		
3,600.0	3,584.2	3,526.2	3,503.6	8.5	9.1	-164.06	196.3	-322.0	682.9	670.2	12.64	54.034		
3,700.0	3,683.7	3,623.9	3,600.6	8.7	9.4	-164.09	202.2	-332.2	704.1	691.1	12.99	54.196		
3,800.0	3,783.2	3,721.6	3,697.7	9.0	9.7	-164.11	208.0	-342.4	725.3	712.0	13.35	54.350		
3,900.0	3,882.8	3,819.3	3,794.7	9.2	9.9	-164.14	213.9	-352.6	746.6	732.9	13.70	54.495		
4,000.0	3,982.3	3,917.0	3,891.7	9.5	10.2	-164.16	219.8	-362.8	767.8	753.8	14.05	54.633		
4,100.0	4,081.8	4,014.7	3,988.7	9.7	10.5	-164.19	225.7	-373.0	789.0	774.6	14.41	54.765		
4,200.0	4,181.3	4,112.5	4,085.7	10.0	10.7	-164.21	231.5	-383.2	810.3	795.5	14.76	54.890		
4,300.0	4,280.8	4,210.2	4,182.7	10.2	11.0	-164.23	237.4	-393.4	831.5	816.4	15.12	55.009		
4,400.0	4,380.3	4,307.9	4,279.7	10.5	11.3	-164.25	243.3	-403.6	852.7	837.3	15.47	55.123		
4,500.0	4,479.8	4,405.6	4,376.7	10.7	11.5	-164.27	249.1	-413.7	874.0	858.1	15.82	55.231		
4,600.0	4,579.3	4,503.3	4,473.7	10.9	11.8	-164.28	255.0	-423.9	895.2	879.0	16.18	55.335		
4,700.0	4,678.8	4,601.1	4,570.7	11.2	12.1	-164.30	260.9	-434.1	916.4	899.9	16.53	55.435		
4,800.0	4,778.3	4,698.8	4,667.7	11.4	12.3	-164.32	266.7	-444.3	937.7	920.8	16.89	55.530		
4,900.0	4,877.8	4,796.5	4,764.8	11.7	12.6	-164.33	272.6	-454.5	958.9	941.7	17.24	55.621		
5,000.0	4,977.3	4,894.2	4,861.8	11.9	12.9	-164.35	278.5	-464.7	980.1	962.5	17.59	55.709		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-14D - 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
5,100.0	5,076.8	4,991.9	4,958.8	12.2	13.1	-164.36	284.3	-474.9	1,001.4	983.4	17.95	55.793	
5,200.0	5,176.3	5,089.7	5,055.8	12.4	13.4	-164.38	290.2	-485.1	1,022.6	1,004.3	18.30	55.874	
5,300.0	5,275.8	5,187.4	5,152.8	12.7	13.7	-164.39	296.1	-495.3	1,043.8	1,025.2	18.66	55.952	
5,400.0	5,375.3	5,285.1	5,249.8	12.9	13.9	-164.40	301.9	-505.5	1,065.1	1,046.0	19.01	56.027	
5,500.0	5,474.9	5,382.8	5,346.8	13.2	14.2	-164.41	307.8	-515.7	1,086.3	1,066.9	19.36	56.099	
5,600.0	5,574.4	5,480.5	5,443.8	13.4	14.5	-164.42	313.7	-525.9	1,107.5	1,087.8	19.72	56.168	
5,700.0	5,673.9	5,578.3	5,540.8	13.7	14.7	-164.43	319.6	-536.1	1,128.8	1,108.7	20.07	56.236	
5,800.0	5,773.4	5,676.0	5,637.8	13.9	15.0	-164.45	325.4	-546.3	1,150.0	1,129.6	20.43	56.300	

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-15D - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 200-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	10.0	10.0	0.0	0.0	46.03	13.9	14.4	20.0					
100.0	100.0	110.1	110.1	0.1	0.2	42.90	14.3	13.3	19.5	19.2	0.31	62.127		
200.0	200.0	210.2	210.1	0.3	0.3	33.98	15.6	10.5	18.8	18.1	0.65	29.046		
222.5	222.5	232.6	232.6	0.4	0.4	-94.35	16.0	9.6	18.7	17.9	0.75	24.880	CC, ES	
300.0	300.0	309.6	309.4	0.5	0.6	-112.37	18.7	5.8	20.1	19.1	1.05	19.262	SF	
400.0	399.9	408.1	407.5	0.7	0.8	-115.16	24.2	-0.7	27.7	26.3	1.41	19.735		
500.0	499.5	505.7	504.5	0.9	1.0	-125.85	31.5	-9.1	42.3	40.5	1.74	24.281		
600.0	599.0	602.9	600.9	1.1	1.3	-135.40	40.2	-17.8	61.3	59.2	2.08	29.537		
700.0	698.5	699.4	696.4	1.4	1.6	-139.64	50.7	-26.5	82.6	80.2	2.43	34.030		
800.0	798.0	795.0	790.8	1.6	1.9	-141.65	62.6	-35.6	105.6	102.8	2.79	37.862		
900.0	897.6	889.3	883.6	1.9	2.3	-142.70	75.9	-45.8	130.7	127.5	3.15	41.430		
1,000.0	997.1	987.0	979.6	2.1	2.6	-143.73	89.9	-57.8	157.1	153.5	3.52	44.567		
1,100.0	1,096.6	1,087.2	1,078.4	2.3	2.9	-144.83	102.1	-69.0	181.2	177.3	3.90	46.464		
1,200.0	1,196.1	1,183.5	1,173.5	2.6	3.2	-145.41	114.0	-78.7	204.8	200.5	4.28	47.899		
1,300.0	1,295.6	1,280.0	1,268.6	2.8	3.6	-145.72	126.7	-88.6	229.0	224.4	4.65	49.217		
1,400.0	1,395.1	1,375.2	1,362.4	3.1	3.9	-145.87	139.8	-98.3	253.4	248.4	5.03	50.388		
1,500.0	1,494.6	1,475.2	1,460.9	3.3	4.2	-146.08	153.4	-109.0	278.2	272.8	5.41	51.389		
1,600.0	1,594.1	1,576.0	1,560.5	3.6	4.6	-146.50	165.1	-119.1	301.3	295.5	5.79	52.021		
1,700.0	1,693.6	1,677.0	1,660.5	3.8	4.9	-147.17	174.8	-129.5	323.4	317.3	6.17	52.453		
1,800.0	1,793.1	1,774.1	1,756.7	4.1	5.1	-147.77	183.7	-139.0	345.0	338.5	6.54	52.778		
1,900.0	1,892.6	1,873.2	1,854.9	4.3	5.4	-148.17	193.5	-148.3	366.6	359.7	6.91	53.021		
2,000.0	1,992.1	1,970.6	1,951.4	4.5	5.7	-148.48	203.1	-157.1	388.0	380.7	7.29	53.243		
2,100.0	2,091.6	2,069.8	2,049.7	4.8	6.0	-148.86	212.4	-166.3	409.3	401.6	7.66	53.432		
2,200.0	2,191.1	2,162.0	2,141.1	5.0	6.3	-149.20	221.0	-175.3	431.0	423.0	8.02	53.732		
2,300.0	2,290.6	2,259.1	2,237.2	5.3	6.6	-149.51	230.6	-185.2	453.4	445.0	8.39	54.037		
2,400.0	2,390.2	2,354.4	2,331.4	5.5	6.9	-149.72	240.8	-195.3	476.5	467.7	8.76	54.388		
2,500.0	2,489.7	2,448.9	2,424.9	5.8	7.2	-149.85	251.2	-204.7	499.3	490.2	9.13	54.666		
2,600.0	2,589.2	2,541.9	2,516.6	6.0	7.5	-149.87	262.7	-214.5	523.3	513.8	9.50	55.070		
2,700.0	2,688.7	2,639.9	2,613.3	6.3	7.8	-149.96	274.5	-225.4	547.5	537.6	9.88	55.416		
2,800.0	2,788.2	2,731.3	2,703.5	6.5	8.1	-150.02	285.6	-235.4	571.8	561.5	10.25	55.795		
2,900.0	2,887.7	2,835.0	2,805.6	6.8	8.5	-150.05	298.9	-247.5	597.0	586.3	10.63	56.135		
3,000.0	2,987.2	2,939.6	2,909.1	7.0	8.8	-150.15	310.5	-258.0	619.8	608.8	11.03	56.209		
3,100.0	3,086.7	3,024.5	2,992.9	7.3	9.1	-150.12	321.1	-266.2	643.2	631.9	11.39	56.483		
3,200.0	3,186.2	3,115.0	3,081.9	7.5	9.4	-150.03	333.9	-276.3	668.7	656.9	11.76	56.872		
3,300.0	3,285.7	3,227.3	3,192.5	7.7	9.8	-150.03	348.4	-288.8	693.5	681.3	12.16	57.016		
3,400.0	3,385.2	3,321.7	3,285.8	8.0	10.1	-150.08	359.3	-298.4	716.7	704.2	12.54	57.176		
3,500.0	3,484.7	3,433.9	3,396.7	8.2	10.4	-150.18	371.7	-309.9	739.8	726.9	12.93	57.200		
3,600.0	3,584.2	3,516.8	3,478.7	8.5	10.7	-150.25	380.7	-318.2	762.5	749.2	13.29	57.387		
3,700.0	3,683.7	3,607.9	3,568.6	8.7	11.0	-150.23	392.3	-327.6	786.6	772.9	13.66	57.577		
3,800.0	3,783.2	3,715.0	3,674.2	9.0	11.4	-150.18	406.2	-338.4	810.5	796.5	14.06	57.655		
3,900.0	3,882.8	3,805.0	3,763.1	9.2	11.7	-150.17	417.3	-347.4	834.1	819.7	14.43	57.805		
4,000.0	3,982.3	3,888.2	3,845.0	9.5	12.0	-150.13	428.5	-356.4	858.9	844.1	14.78	58.097		
4,100.0	4,081.8	3,991.0	3,946.2	9.7	12.3	-150.10	442.5	-368.3	884.4	869.2	15.18	58.265		
4,200.0	4,181.3	4,078.8	4,032.6	10.0	12.7	-150.11	453.9	-378.6	909.7	894.2	15.53	58.571		
4,300.0	4,280.8	4,186.0	4,138.2	10.2	13.0	-150.26	466.2	-392.4	935.2	919.2	15.92	58.756		
4,400.0	4,380.3	4,299.2	4,250.0	10.5	13.4	-150.43	478.0	-405.8	959.3	943.0	16.31	58.810		
4,500.0	4,479.8	4,407.6	4,357.3	10.7	13.7	-150.64	487.2	-417.3	981.2	964.5	16.70	58.757		
4,600.0	4,579.3	4,492.7	4,441.5	10.9	14.0	-150.66	496.9	-425.7	1,004.1	987.0	17.06	58.858		
4,700.0	4,678.8	4,599.2	4,546.8	11.2	14.3	-150.64	509.7	-435.8	1,027.0	1,009.6	17.46	58.833		
4,800.0	4,778.3	4,703.3	4,649.8	11.4	14.6	-150.67	520.9	-445.1	1,048.8	1,031.0	17.84	58.781		
4,900.0	4,877.8	4,789.0	4,734.7	11.7	14.9	-150.75	529.3	-453.6	1,071.0	1,052.8	18.19	58.874		
5,000.0	4,977.3	4,876.4	4,821.0	11.9	15.2	-150.86	538.1	-463.6	1,094.6	1,076.0	18.54	59.032		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design												Chevron C-D29-596 - Chevron #29-15D - DD - DD					Offset Site Error:		0.0 ft						
Survey Program: 200-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													
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor													
5,100.0	5,076.8	4,989.7	4,933.1	12.2	15.5	-150.95	549.8	-475.6	1,117.5	1,098.6	18.95	58.982													
5,200.0	5,176.3	5,081.3	5,023.7	12.4	15.8	-150.96	560.0	-484.0	1,139.7	1,120.4	19.32	59.000													

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-16D - 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				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	45.90	20.8	21.4	29.8					
100.0	100.0	100.0	100.0	0.1	0.1	45.90	20.8	21.4	29.8	29.5	0.30	100.527		
200.0	200.0	200.0	200.0	0.3	0.3	45.90	20.8	21.4	29.8	29.2	0.65	46.188		
234.3	234.3	234.2	234.2	0.4	0.4	-79.88	20.9	21.3	29.8	29.1	0.77	38.877	CC	
300.0	300.0	299.7	299.7	0.5	0.5	-85.64	22.2	20.4	30.0	29.0	1.00	29.941	ES	
400.0	399.9	398.8	398.6	0.7	0.7	-79.71	26.4	17.5	31.3	29.9	1.38	22.687		
500.0	499.5	496.8	496.3	0.9	0.9	-94.59	33.4	12.7	37.1	35.3	1.77	20.934	SF	
600.0	599.0	593.5	592.3	1.1	1.2	-112.64	43.0	6.1	50.7	48.6	2.14	23.737		
700.0	698.5	688.9	686.6	1.4	1.5	-122.94	55.1	-2.2	70.6	68.1	2.49	28.352		
800.0	798.0	782.9	778.9	1.6	1.8	-128.55	69.5	-12.1	95.0	92.1	2.85	33.352		
900.0	897.6	877.4	871.2	1.9	2.2	-131.81	86.0	-23.5	122.5	119.3	3.21	38.136		
1,000.0	997.1	973.3	964.8	2.1	2.6	-133.89	103.1	-35.2	150.6	147.0	3.59	41.995		
1,100.0	1,096.6	1,069.1	1,058.4	2.3	2.9	-135.31	120.2	-46.9	178.8	174.8	3.96	45.110		
1,200.0	1,196.1	1,165.0	1,152.0	2.6	3.3	-136.35	137.2	-58.6	207.1	202.7	4.34	47.667		
1,300.0	1,295.6	1,260.8	1,245.6	2.8	3.7	-137.14	154.3	-70.4	235.4	230.7	4.73	49.798		
1,400.0	1,395.1	1,356.7	1,339.2	3.1	4.1	-137.76	171.4	-82.1	263.8	258.6	5.11	51.598		
1,500.0	1,494.6	1,452.6	1,432.8	3.3	4.5	-138.26	188.4	-93.8	292.1	286.6	5.50	53.137		
1,600.0	1,594.1	1,548.4	1,526.4	3.6	4.9	-138.67	205.5	-105.6	320.5	314.7	5.89	54.467		
1,700.0	1,693.6	1,644.3	1,620.0	3.8	5.3	-139.01	222.5	-117.3	349.0	342.7	6.27	55.627		
1,800.0	1,793.1	1,740.1	1,713.6	4.1	5.7	-139.30	239.6	-129.0	377.4	370.7	6.66	56.648		
1,900.0	1,892.6	1,836.0	1,807.2	4.3	6.1	-139.56	256.7	-140.7	405.8	398.8	7.05	57.552		
2,000.0	1,992.1	1,931.9	1,900.8	4.5	6.5	-139.77	273.7	-152.5	434.2	426.8	7.44	58.358		
2,100.0	2,091.6	2,027.7	1,994.4	4.8	6.9	-139.97	290.8	-164.2	462.7	454.9	7.83	59.082		
2,200.0	2,191.1	2,123.6	2,088.0	5.0	7.3	-140.13	307.9	-175.9	491.1	482.9	8.22	59.735		
2,300.0	2,290.6	2,219.4	2,181.6	5.3	7.7	-140.29	324.9	-187.6	519.6	511.0	8.61	60.327		
2,400.0	2,390.2	2,315.3	2,275.2	5.5	8.1	-140.42	342.0	-199.4	548.0	539.0	9.00	60.866		
2,500.0	2,489.7	2,411.1	2,368.8	5.8	8.5	-140.54	359.0	-211.1	576.5	567.1	9.40	61.360		
2,600.0	2,589.2	2,507.0	2,462.4	6.0	8.9	-140.65	376.1	-222.8	604.9	595.2	9.79	61.812		
2,700.0	2,688.7	2,602.9	2,556.0	6.3	9.3	-140.75	393.2	-234.6	633.4	623.2	10.18	62.229		
2,800.0	2,788.2	2,698.7	2,649.6	6.5	9.7	-140.84	410.2	-246.3	661.9	651.3	10.57	62.614		
2,900.0	2,887.7	2,794.6	2,743.2	6.8	10.1	-140.93	427.3	-258.0	690.3	679.4	10.96	62.971		
3,000.0	2,987.2	2,890.4	2,836.7	7.0	10.5	-141.01	444.4	-269.7	718.8	707.4	11.35	63.303		
3,100.0	3,086.7	2,986.3	2,930.3	7.3	10.9	-141.08	461.4	-281.5	747.3	735.5	11.75	63.612		
3,200.0	3,186.2	3,082.2	3,023.9	7.5	11.3	-141.14	478.5	-293.2	775.7	763.6	12.14	63.901		
3,300.0	3,285.7	3,178.0	3,117.5	7.7	11.7	-141.21	495.5	-304.9	804.2	791.7	12.53	64.171		
3,400.0	3,385.2	3,273.9	3,211.1	8.0	12.1	-141.26	512.6	-316.7	832.7	819.7	12.92	64.424		
3,500.0	3,484.7	3,369.7	3,304.7	8.2	12.5	-141.32	529.7	-328.4	861.1	847.8	13.32	64.662		
3,600.0	3,584.2	3,465.6	3,398.3	8.5	12.9	-141.37	546.7	-340.1	889.6	875.9	13.71	64.887		
3,700.0	3,683.7	3,561.5	3,491.9	8.7	13.3	-141.41	563.8	-351.8	918.1	904.0	14.10	65.098		
3,800.0	3,783.2	3,657.3	3,585.5	9.0	13.7	-141.46	580.9	-363.6	946.5	932.0	14.50	65.298		
3,900.0	3,882.8	3,753.2	3,679.1	9.2	14.1	-141.50	597.9	-375.3	975.0	960.1	14.89	65.487		
4,000.0	3,982.3	3,849.0	3,772.7	9.5	14.5	-141.54	615.0	-387.0	1,003.5	988.2	15.28	65.666		
4,100.0	4,081.8	3,944.9	3,866.3	9.7	14.9	-141.58	632.0	-398.8	1,031.9	1,016.3	15.67	65.836		
4,200.0	4,181.3	4,040.8	3,959.9	10.0	15.3	-141.61	649.1	-410.5	1,060.4	1,044.3	16.07	65.998		
4,300.0	4,280.8	4,136.6	4,053.5	10.2	15.7	-141.65	666.2	-422.2	1,088.9	1,072.4	16.46	66.152		
4,400.0	4,380.3	4,232.5	4,147.1	10.5	16.1	-141.68	683.2	-433.9	1,117.4	1,100.5	16.85	66.298		
4,500.0	4,479.8	4,328.3	4,240.7	10.7	16.5	-141.71	700.3	-445.7	1,145.8	1,128.6	17.25	66.438		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-3D - DD - DD													Offset Site Error:	0.0 ft
Survey Program: 170-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	10.0	10.0	0.0	0.0	-134.58	-28.1	-28.5	40.0					
100.0	100.0	109.8	109.8	0.1	0.2	-134.34	-28.1	-28.8	40.2	39.9	0.31	130.371 ES		
200.0	200.0	209.3	209.3	0.3	0.3	-133.62	-28.3	-29.7	41.1	40.4	0.64	64.207		
300.0	300.0	307.2	307.1	0.5	0.5	105.14	-30.0	-33.5	45.5	44.5	0.99	45.964		
400.0	399.9	405.2	404.9	0.7	0.7	134.69	-33.2	-40.0	55.5	54.1	1.34	41.257 SF		
500.0	499.5	501.3	500.4	0.9	1.0	147.00	-38.9	-48.9	72.7	71.0	1.70	42.863		
600.0	599.0	596.4	594.5	1.1	1.2	149.44	-46.9	-59.6	95.0	92.9	2.05	46.311		
700.0	698.5	692.2	688.8	1.4	1.5	149.25	-58.8	-71.2	119.8	117.4	2.42	49.504		
800.0	798.0	789.7	784.8	1.6	1.9	147.90	-73.3	-81.1	144.2	141.4	2.81	51.390		
900.0	897.6	887.7	881.0	1.9	2.2	146.62	-88.7	-90.7	168.7	165.5	3.20	52.726		
1,000.0	997.1	985.9	977.8	2.1	2.5	145.82	-103.1	-99.6	192.1	188.5	3.59	53.463		
1,100.0	1,096.6	1,082.3	1,072.8	2.3	2.9	145.60	-116.1	-109.3	215.7	211.7	3.98	54.185		
1,200.0	1,196.1	1,180.5	1,169.7	2.6	3.2	145.50	-129.1	-119.2	239.3	234.9	4.37	54.762		
1,300.0	1,295.6	1,279.1	1,267.0	2.8	3.5	145.56	-141.2	-129.0	262.2	257.5	4.76	55.082		
1,400.0	1,395.1	1,376.1	1,362.7	3.1	3.8	145.66	-153.0	-138.9	285.3	280.2	5.15	55.458		
1,500.0	1,494.6	1,482.1	1,467.7	3.3	4.1	145.85	-164.6	-148.6	307.0	301.5	5.55	55.362		
1,600.0	1,594.1	1,587.4	1,572.2	3.6	4.4	145.97	-175.0	-155.9	326.2	320.2	5.95	54.832		
1,700.0	1,693.6	1,688.8	1,673.0	3.8	4.7	146.25	-183.3	-161.9	343.7	337.4	6.34	54.248		
1,800.0	1,793.1	1,789.5	1,773.4	4.1	4.9	146.55	-190.9	-167.4	360.4	353.7	6.72	53.619		
1,900.0	1,892.6	1,889.5	1,872.9	4.3	5.1	146.74	-198.6	-172.2	376.7	369.6	7.11	52.967		
2,000.0	1,992.1	1,985.4	1,968.4	4.5	5.3	146.95	-205.9	-177.0	393.2	385.7	7.49	52.511		
2,100.0	2,091.6	2,081.4	2,064.1	4.8	5.6	147.34	-212.0	-182.9	409.9	402.1	7.86	52.174		
2,200.0	2,191.1	2,172.6	2,154.7	5.0	5.8	147.66	-218.8	-189.6	428.3	420.1	8.22	52.111		
2,300.0	2,290.6	2,266.8	2,248.3	5.3	6.1	148.02	-225.9	-197.8	447.9	439.4	8.57	52.240		
2,400.0	2,390.2	2,351.5	2,332.4	5.5	6.3	148.43	-232.1	-206.6	469.0	460.1	8.92	52.558		
2,500.0	2,489.7	2,439.7	2,419.3	5.8	6.6	148.61	-241.6	-217.6	493.3	484.0	9.28	53.129		
2,600.0	2,589.2	2,537.1	2,515.4	6.0	7.0	148.70	-252.8	-229.4	517.7	508.0	9.67	53.538		
2,700.0	2,688.7	2,629.6	2,606.4	6.3	7.3	148.59	-265.1	-240.1	542.5	532.5	10.05	53.986		
2,800.0	2,788.2	2,728.4	2,703.6	6.5	7.6	148.52	-278.2	-252.4	568.1	557.7	10.44	54.420		
2,900.0	2,887.7	2,828.2	2,801.9	6.8	8.0	148.44	-291.0	-263.6	592.4	581.6	10.83	54.681		
3,000.0	2,987.2	2,916.7	2,888.9	7.0	8.3	148.32	-303.2	-273.9	617.5	606.3	11.21	55.075		
3,100.0	3,086.7	3,010.6	2,981.0	7.3	8.7	148.13	-317.4	-285.5	643.9	632.3	11.60	55.496		
3,200.0	3,186.2	3,106.0	3,074.7	7.5	9.0	147.94	-331.8	-296.9	669.9	657.9	11.99	55.852		
3,300.0	3,285.7	3,195.6	3,162.4	7.7	9.4	147.82	-345.2	-308.6	696.9	684.5	12.37	56.329		
3,400.0	3,385.2	3,291.5	3,256.3	8.0	9.7	147.70	-359.9	-321.6	724.3	711.5	12.76	56.745		
3,500.0	3,484.7	3,390.5	3,353.2	8.2	10.1	147.52	-375.6	-334.4	751.5	738.3	13.17	57.072		
3,600.0	3,584.2	3,486.4	3,447.1	8.5	10.5	147.33	-391.0	-346.3	778.5	764.9	13.57	57.387		
3,700.0	3,683.7	3,582.8	3,541.4	8.7	10.9	147.15	-406.6	-358.5	805.6	791.7	13.96	57.695		
3,800.0	3,783.2	3,682.0	3,638.7	9.0	11.3	147.00	-422.2	-371.0	832.5	818.1	14.36	57.969		
3,900.0	3,882.8	3,786.9	3,741.6	9.2	11.7	146.96	-437.2	-384.4	858.9	844.1	14.76	58.175		
4,000.0	3,982.3	3,882.8	3,835.9	9.5	12.0	146.94	-450.2	-396.2	884.5	869.3	15.15	58.372		
4,100.0	4,081.8	3,981.8	3,933.1	9.7	12.4	146.88	-464.4	-408.2	910.3	894.8	15.55	58.539		
4,200.0	4,181.3	4,083.5	4,033.0	10.0	12.7	146.80	-478.9	-420.0	935.6	919.7	15.95	58.650		
4,300.0	4,280.8	4,184.1	4,132.0	10.2	13.1	146.73	-493.1	-431.2	960.5	944.2	16.36	58.726		
4,400.0	4,380.3	4,267.0	4,213.6	10.5	13.4	146.68	-504.9	-440.9	985.9	969.2	16.72	58.970		
4,500.0	4,479.8	4,370.7	4,315.4	10.7	13.8	146.66	-519.3	-453.7	1,011.7	994.6	17.12	59.101		
4,600.0	4,579.3	4,481.4	4,424.5	10.9	14.2	146.68	-533.4	-466.6	1,036.3	1,018.8	17.53	59.110		
4,700.0	4,678.8	4,568.1	4,509.8	11.2	14.5	146.67	-544.8	-476.4	1,060.8	1,042.9	17.90	59.253		
4,800.0	4,778.3	4,658.0	4,598.2	11.4	14.8	146.65	-557.1	-487.3	1,086.3	1,068.1	18.28	59.436		
4,900.0	4,877.8	4,773.9	4,712.3	11.7	15.2	146.66	-572.2	-501.1	1,111.4	1,092.7	18.70	59.436		
5,000.0	4,977.3	4,890.2	4,827.2	11.9	15.6	146.67	-586.1	-512.9	1,134.3	1,115.1	19.13	59.299		
5,100.0	5,076.8	4,985.9	4,921.7	12.2	15.9	146.63	-598.1	-521.4	1,156.5	1,137.0	19.52	59.248		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-5D - 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		
0.0	0.0	0.0	0.0	0.0	0.0	-134.69	-14.2	-14.4	20.2					
100.0	100.0	100.0	100.0	0.1	0.1	-134.69	-14.2	-14.4	20.2	19.9	0.30	68.141		
200.0	200.0	200.0	200.0	0.3	0.3	-134.69	-14.2	-14.4	20.2	19.6	0.65	31.308		
300.0	300.0	300.2	300.2	0.5	0.5	100.39	-15.1	-12.9	20.1	19.1	1.00	20.032		
313.8	313.8	314.0	314.0	0.5	0.5	105.66	-15.4	-12.4	20.1	19.0	1.05	19.019 CC, ES		
400.0	399.9	400.4	400.2	0.7	0.7	122.01	-17.8	-8.3	20.8	19.4	1.39	15.034		
500.0	499.5	500.4	499.9	0.9	0.9	125.16	-22.2	-0.8	23.8	21.9	1.82	13.056		
600.0	599.0	600.3	599.0	1.1	1.2	117.29	-28.3	9.7	28.1	25.8	2.32	12.132		
700.0	698.5	700.1	697.7	1.4	1.5	107.44	-35.6	22.2	33.2	30.3	2.84	11.696		
800.0	798.0	799.8	796.4	1.6	1.8	100.28	-42.9	34.7	39.0	35.6	3.35	11.633		
900.0	897.6	899.5	895.1	1.9	2.1	95.04	-50.2	47.2	45.2	41.4	3.86	11.731		
1,000.0	997.1	999.3	993.7	2.1	2.4	91.09	-57.5	59.7	51.8	47.4	4.35	11.893		
1,100.0	1,096.6	1,099.0	1,092.4	2.3	2.7	88.04	-64.8	72.2	58.5	53.7	4.85	12.076		
1,200.0	1,196.1	1,198.7	1,191.1	2.6	3.0	85.62	-72.1	84.7	65.4	60.0	5.33	12.259		
1,300.0	1,295.6	1,298.4	1,289.8	2.8	3.3	83.67	-79.4	97.2	72.3	66.5	5.82	12.435		
1,400.0	1,395.1	1,398.2	1,388.4	3.1	3.6	82.06	-86.7	109.7	79.4	73.1	6.30	12.600		
1,500.0	1,494.6	1,497.9	1,487.1	3.3	3.9	80.71	-94.0	122.2	86.4	79.7	6.78	12.752		
1,600.0	1,594.1	1,597.6	1,585.8	3.6	4.2	79.56	-101.3	134.7	93.5	86.3	7.26	12.892		
1,700.0	1,693.6	1,697.4	1,684.5	3.8	4.5	78.58	-108.6	147.2	100.7	93.0	7.73	13.021		
1,800.0	1,793.1	1,797.1	1,783.1	4.1	4.8	77.73	-115.9	159.6	107.9	99.7	8.21	13.139		
1,900.0	1,892.6	1,896.8	1,881.8	4.3	5.1	76.98	-123.2	172.1	115.1	106.4	8.69	13.248		
2,000.0	1,992.1	1,996.6	1,980.5	4.5	5.4	76.33	-130.5	184.6	122.3	113.1	9.16	13.348		
2,100.0	2,091.6	2,096.3	2,079.2	4.8	5.7	75.74	-137.8	197.1	129.5	119.9	9.64	13.440		
2,200.0	2,191.1	2,196.0	2,177.8	5.0	6.0	75.22	-145.1	209.6	136.7	126.6	10.11	13.525		
2,300.0	2,290.6	2,295.7	2,276.5	5.3	6.3	74.75	-152.4	222.1	144.0	133.4	10.58	13.604		
2,400.0	2,390.2	2,395.5	2,375.2	5.5	6.7	74.33	-159.7	234.6	151.3	140.2	11.06	13.678		
2,500.0	2,489.7	2,495.2	2,473.9	5.8	7.0	73.94	-167.0	247.1	158.5	147.0	11.53	13.746		
2,600.0	2,589.2	2,594.9	2,572.5	6.0	7.3	73.59	-174.3	259.6	165.8	153.8	12.01	13.810		
2,700.0	2,688.7	2,694.7	2,671.2	6.3	7.6	73.27	-181.6	272.1	173.1	160.6	12.48	13.869		
2,800.0	2,788.2	2,794.4	2,769.9	6.5	7.9	72.97	-188.9	284.6	180.3	167.4	12.95	13.925		
2,900.0	2,887.7	2,894.1	2,868.6	6.8	8.2	72.70	-196.2	297.1	187.6	174.2	13.42	13.977		
3,000.0	2,987.2	2,993.9	2,967.2	7.0	8.5	72.44	-203.5	309.6	194.9	181.0	13.90	14.026		
3,100.0	3,086.7	3,093.6	3,065.9	7.3	8.8	72.21	-210.8	322.1	202.2	187.8	14.37	14.072		
3,200.0	3,186.2	3,193.3	3,164.6	7.5	9.1	71.99	-218.1	334.6	209.5	194.7	14.84	14.116		
3,300.0	3,285.7	3,293.0	3,263.3	7.7	9.4	71.79	-225.4	347.1	216.8	201.5	15.31	14.157		
3,400.0	3,385.2	3,392.8	3,361.9	8.0	9.7	71.60	-232.7	359.6	224.1	208.3	15.79	14.196		
3,500.0	3,484.7	3,492.5	3,460.6	8.2	10.0	71.42	-240.0	372.1	231.4	215.2	16.26	14.233		
3,600.0	3,584.2	3,592.2	3,559.3	8.5	10.3	71.25	-247.3	384.6	238.7	222.0	16.73	14.268		
3,700.0	3,683.7	3,692.0	3,658.0	8.7	10.7	71.09	-254.6	397.1	246.0	228.8	17.20	14.301		
3,800.0	3,783.2	3,791.7	3,756.6	9.0	11.0	70.94	-261.9	409.6	253.3	235.7	17.68	14.332		
3,900.0	3,882.8	3,891.4	3,855.3	9.2	11.3	70.80	-269.2	422.1	260.7	242.5	18.15	14.362		
4,000.0	3,982.3	3,991.2	3,954.0	9.5	11.6	70.67	-276.5	434.6	268.0	249.4	18.62	14.391		
4,100.0	4,081.8	4,090.9	4,052.6	9.7	11.9	70.55	-283.8	447.1	275.3	256.2	19.09	14.418		
4,200.0	4,181.3	4,190.6	4,151.3	10.0	12.2	70.43	-291.1	459.6	282.6	263.0	19.57	14.444		
4,300.0	4,280.8	4,290.4	4,250.0	10.2	12.5	70.32	-298.4	472.0	289.9	269.9	20.04	14.469		
4,400.0	4,380.3	4,390.1	4,348.7	10.5	12.8	70.21	-305.7	484.5	297.2	276.7	20.51	14.493		
4,500.0	4,479.8	4,489.8	4,447.3	10.7	13.1	70.11	-313.0	497.0	304.6	283.6	20.98	14.516		
4,600.0	4,579.3	4,589.5	4,546.0	10.9	13.4	70.01	-320.3	509.5	311.9	290.4	21.45	14.538		
4,700.0	4,678.8	4,689.3	4,644.7	11.2	13.7	69.92	-327.6	522.0	319.2	297.3	21.93	14.559		
4,800.0	4,778.3	4,789.0	4,743.4	11.4	14.0	69.83	-334.9	534.5	326.5	304.1	22.40	14.579		
4,900.0	4,877.8	4,888.7	4,842.0	11.7	14.4	69.74	-342.2	547.0	333.8	311.0	22.87	14.598		
5,000.0	4,977.3	4,988.5	4,940.7	11.9	14.7	69.66	-349.5	559.5	341.2	317.8	23.34	14.617		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-5D - 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		
5,100.0	5,076.8	5,088.2	5,039.4	12.2	15.0	69.58	-356.8	572.0	348.5	324.7	23.81	14.635		
5,200.0	5,176.3	5,187.9	5,138.1	12.4	15.3	69.51	-364.1	584.5	355.8	331.5	24.28	14.652		
5,300.0	5,275.8	5,287.7	5,236.7	12.7	15.6	69.44	-371.4	597.0	363.1	338.4	24.76	14.669		
5,400.0	5,375.3	5,387.4	5,335.4	12.9	15.9	69.37	-378.7	609.5	370.5	345.2	25.23	14.685		
5,500.0	5,474.9	5,487.1	5,434.1	13.2	16.2	69.30	-386.0	622.0	377.8	352.1	25.70	14.700		
5,600.0	5,574.4	5,586.8	5,532.8	13.4	16.5	69.24	-393.3	634.5	385.1	359.0	26.17	14.715		
5,700.0	5,673.9	5,686.6	5,631.4	13.7	16.8	69.18	-400.6	647.0	392.5	365.8	26.64	14.730		
5,800.0	5,773.4	5,786.3	5,730.1	13.9	17.1	69.12	-407.9	659.5	399.8	372.7	27.12	14.744		
5,900.0	5,872.9	5,886.0	5,828.8	14.2	17.4	69.06	-415.2	672.0	407.1	379.5	27.59	14.757		
6,000.0	5,972.4	5,985.8	5,927.5	14.4	17.7	69.01	-422.5	684.5	414.4	386.4	28.06	14.770		
6,100.0	6,071.9	6,085.5	6,026.1	14.6	18.0	68.95	-429.8	697.0	421.8	393.2	28.53	14.783		
6,200.0	6,171.4	6,197.7	6,137.5	14.9	18.3	69.09	-436.9	709.2	427.6	398.6	29.03	14.729		
6,300.0	6,271.1	6,310.2	6,249.5	15.1	18.6	69.42	-441.9	717.6	431.3	401.8	29.49	14.626		
6,400.0	6,371.0	6,422.8	6,362.0	15.3	18.7	69.62	-444.6	722.2	433.2	403.4	29.84	14.515		
6,500.0	6,470.9	6,531.5	6,470.7	15.4	18.8	-77.53	-445.1	723.1	433.5	403.4	30.12	14.394		
6,600.0	6,570.9	6,630.7	6,569.9	15.5	18.9	-77.52	-445.5	722.6	433.6	403.2	30.36	14.279		
6,700.0	6,670.9	6,730.6	6,669.7	15.6	19.0	-77.52	-446.1	721.5	433.6	403.0	30.60	14.168		
6,800.0	6,770.9	6,830.6	6,769.7	15.7	19.1	-77.52	-446.8	720.3	433.6	402.7	30.84	14.058		
6,900.0	6,870.9	6,930.6	6,869.7	15.9	19.2	-77.52	-447.4	719.2	433.6	402.5	31.08	13.949		
7,000.0	6,970.9	7,030.6	6,969.7	16.0	19.3	-77.52	-448.1	718.1	433.6	402.2	31.33	13.841		
7,100.0	7,070.9	7,130.6	7,069.7	16.1	19.4	-77.52	-448.7	716.9	433.6	402.0	31.57	13.733		
7,200.0	7,170.9	7,230.6	7,169.7	16.2	19.5	-77.52	-449.4	715.8	433.6	401.7	31.82	13.626		
7,300.0	7,270.9	7,330.6	7,269.7	16.3	19.6	-77.52	-450.0	714.7	433.6	401.5	32.07	13.520		
7,400.0	7,370.9	7,430.6	7,369.7	16.5	19.8	-77.52	-450.7	713.6	433.6	401.2	32.32	13.415		
7,500.0	7,470.9	7,530.6	7,469.7	16.6	19.9	-77.52	-451.3	712.4	433.6	401.0	32.57	13.310		
7,600.0	7,570.9	7,630.6	7,569.6	16.7	20.0	-77.52	-452.0	711.3	433.6	400.7	32.83	13.207		
7,700.0	7,670.9	7,730.6	7,669.6	16.8	20.1	-77.52	-452.6	710.2	433.6	400.5	33.09	13.104		
7,800.0	7,770.8	7,830.6	7,769.6	17.0	20.2	-77.52	-453.3	709.1	433.6	400.2	33.34	13.003		
7,900.0	7,870.8	7,930.6	7,869.6	17.1	20.3	-77.52	-453.9	707.9	433.6	400.0	33.60	12.902		
8,000.0	7,970.8	8,030.6	7,969.6	17.2	20.4	-77.52	-454.6	706.8	433.6	399.7	33.87	12.802		
8,100.0	8,070.8	8,130.6	8,069.6	17.4	20.5	-77.52	-455.2	705.7	433.6	399.4	34.13	12.703		
8,200.0	8,170.8	8,230.6	8,169.6	17.5	20.6	-77.52	-455.9	704.5	433.6	399.2	34.40	12.605		
8,300.0	8,270.8	8,330.6	8,269.6	17.6	20.7	-77.52	-456.5	703.4	433.6	398.9	34.66	12.508		
8,400.0	8,370.8	8,430.6	8,369.6	17.8	20.9	-77.52	-457.2	702.3	433.6	398.6	34.93	12.412		
8,500.0	8,470.8	8,530.6	8,469.6	17.9	21.0	-77.52	-457.8	701.2	433.6	398.4	35.20	12.317		
8,600.0	8,570.8	8,630.6	8,569.6	18.0	21.1	-77.52	-458.5	700.0	433.6	398.1	35.47	12.223		
8,700.0	8,670.8	8,730.6	8,669.6	18.2	21.2	-77.52	-459.1	698.9	433.6	397.8	35.74	12.129		
8,800.0	8,770.8	8,830.6	8,769.5	18.3	21.3	-77.52	-459.8	697.8	433.6	397.5	36.02	12.037		
8,900.0	8,870.8	8,930.6	8,869.5	18.4	21.4	-77.52	-460.4	696.7	433.6	397.3	36.29	11.946		
9,000.0	8,970.7	9,030.6	8,969.5	18.6	21.6	-77.52	-461.1	695.5	433.6	397.0	36.57	11.855		
9,100.0	9,070.7	9,130.6	9,069.5	18.7	21.7	-77.52	-461.7	694.4	433.6	396.7	36.85	11.766		
9,200.0	9,170.7	9,230.6	9,169.5	18.8	21.8	-77.52	-462.4	693.3	433.6	396.4	37.13	11.677		
9,300.0	9,270.7	9,330.6	9,269.5	19.0	21.9	-77.52	-463.0	692.1	433.6	396.1	37.41	11.590		
9,400.0	9,370.7	9,430.6	9,369.5	19.1	22.1	-77.52	-463.7	691.0	433.6	395.9	37.69	11.503		
9,500.0	9,470.7	9,530.6	9,469.5	19.3	22.2	-77.52	-464.3	689.9	433.6	395.6	37.97	11.418		
9,600.0	9,570.7	9,630.6	9,569.5	19.4	22.3	-77.52	-465.0	688.8	433.6	395.3	38.26	11.333		
9,621.8	9,592.5	9,652.4	9,591.3	19.4	22.3	-77.52	-465.1	688.5	433.6	395.2	38.32	11.315		
9,631.3	9,602.0	9,653.1	9,592.0	19.5	22.3	-77.52	-465.1	688.5	433.6	395.3	38.33	11.313 SF		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-6D - DD - Plan #3													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	-134.61	-21.1	-21.4	30.1					
100.0	100.0	100.0	100.0	0.1	0.1	-134.61	-21.1	-21.4	30.1	29.8	0.30	101.406		
200.0	200.0	200.0	200.0	0.3	0.3	-134.61	-21.1	-21.4	30.1	29.4	0.65	46.592 CC, ES		
300.0	300.0	298.9	298.9	0.5	0.5	103.96	-22.1	-22.8	32.2	31.2	1.00	32.275		
400.0	399.9	397.3	397.1	0.7	0.7	134.39	-24.9	-27.1	40.0	38.6	1.35	29.550 SF		
500.0	499.5	494.4	493.9	0.9	0.9	148.00	-29.5	-34.0	54.8	53.1	1.71	32.115		
600.0	599.0	591.5	590.4	1.1	1.1	151.57	-35.6	-43.2	74.7	72.6	2.06	36.187		
700.0	698.5	689.4	687.6	1.4	1.4	153.41	-42.0	-52.8	95.0	92.5	2.42	39.204		
800.0	798.0	787.3	784.8	1.6	1.7	154.61	-48.3	-62.3	115.3	112.5	2.78	41.456		
900.0	897.6	885.2	882.0	1.9	1.9	155.44	-54.6	-71.9	135.7	132.5	3.14	43.194		
1,000.0	997.1	983.1	979.2	2.1	2.2	156.06	-61.0	-81.4	156.1	152.6	3.50	44.575		
1,100.0	1,096.6	1,081.0	1,076.4	2.3	2.4	156.53	-67.3	-91.0	176.5	172.6	3.86	45.698		
1,200.0	1,196.1	1,178.8	1,173.7	2.6	2.7	156.91	-73.6	-100.6	196.9	192.7	4.22	46.628		
1,300.0	1,295.6	1,276.7	1,270.9	2.8	2.9	157.22	-80.0	-110.1	217.3	212.7	4.58	47.411		
1,400.0	1,395.1	1,374.6	1,368.1	3.1	3.2	157.47	-86.3	-119.7	237.8	232.8	4.95	48.079		
1,500.0	1,494.6	1,472.5	1,465.3	3.3	3.5	157.68	-92.7	-129.2	258.2	252.9	5.31	48.655		
1,600.0	1,594.1	1,570.4	1,562.5	3.6	3.7	157.86	-99.0	-138.8	278.6	273.0	5.67	49.157		
1,700.0	1,693.6	1,668.3	1,659.7	3.8	4.0	158.02	-105.3	-148.3	299.1	293.0	6.03	49.599		
1,800.0	1,793.1	1,766.2	1,756.9	4.1	4.3	158.16	-111.7	-157.9	319.5	313.1	6.39	49.991		
1,900.0	1,892.6	1,864.0	1,854.1	4.3	4.5	158.28	-118.0	-167.4	340.0	333.2	6.75	50.340		
2,000.0	1,992.1	1,961.9	1,951.3	4.5	4.8	158.38	-124.4	-177.0	360.4	353.3	7.12	50.653		
2,100.0	2,091.6	2,059.8	2,048.6	4.8	5.0	158.48	-130.7	-186.5	380.9	373.4	7.48	50.936		
2,200.0	2,191.1	2,157.7	2,145.8	5.0	5.3	158.56	-137.0	-196.1	401.3	393.5	7.84	51.193		
2,300.0	2,290.6	2,255.6	2,243.0	5.3	5.6	158.64	-143.4	-205.6	421.8	413.6	8.20	51.427		
2,400.0	2,390.2	2,353.5	2,340.2	5.5	5.8	158.71	-149.7	-215.2	442.2	433.6	8.56	51.641		
2,500.0	2,489.7	2,451.4	2,437.4	5.8	6.1	158.78	-156.1	-224.7	462.7	453.7	8.93	51.837		
2,600.0	2,589.2	2,549.2	2,534.6	6.0	6.4	158.83	-162.4	-234.3	483.1	473.8	9.29	52.018		
2,700.0	2,688.7	2,647.1	2,631.8	6.3	6.6	158.89	-168.7	-243.8	503.6	493.9	9.65	52.186		
2,800.0	2,788.2	2,745.0	2,729.0	6.5	6.9	158.94	-175.1	-253.4	524.0	514.0	10.01	52.341		
2,900.0	2,887.7	2,842.9	2,826.3	6.8	7.2	158.98	-181.4	-263.0	544.5	534.1	10.37	52.485		
3,000.0	2,987.2	2,940.8	2,923.5	7.0	7.4	159.03	-187.8	-272.5	564.9	554.2	10.74	52.620		
3,100.0	3,086.7	3,038.7	3,020.7	7.3	7.7	159.07	-194.1	-282.1	585.4	574.3	11.10	52.746		
3,200.0	3,186.2	3,136.6	3,117.9	7.5	7.9	159.10	-200.4	-291.6	605.8	594.4	11.46	52.863		
3,300.0	3,285.7	3,234.4	3,215.1	7.7	8.2	159.14	-206.8	-301.2	626.3	614.4	11.82	52.974		
3,400.0	3,385.2	3,332.3	3,312.3	8.0	8.5	159.17	-213.1	-310.7	646.7	634.5	12.18	53.078		
3,500.0	3,484.7	3,430.2	3,409.5	8.2	8.7	159.20	-219.5	-320.3	667.2	654.6	12.55	53.176		
3,600.0	3,584.2	3,528.1	3,506.7	8.5	9.0	159.23	-225.8	-329.8	687.6	674.7	12.91	53.268		
3,700.0	3,683.7	3,626.0	3,603.9	8.7	9.3	159.25	-232.1	-339.4	708.1	694.8	13.27	53.355		
3,800.0	3,783.2	3,723.9	3,701.2	9.0	9.5	159.28	-238.5	-348.9	728.5	714.9	13.63	53.438		
3,900.0	3,882.8	3,821.8	3,798.4	9.2	9.8	159.30	-244.8	-358.5	749.0	735.0	14.00	53.516		
4,000.0	3,982.3	3,919.6	3,895.6	9.5	10.1	159.33	-251.2	-368.0	769.4	755.1	14.36	53.591		
4,100.0	4,081.8	4,017.5	3,992.8	9.7	10.3	159.35	-257.5	-377.6	789.9	775.2	14.72	53.661		
4,200.0	4,181.3	4,115.4	4,090.0	10.0	10.6	159.37	-263.8	-387.1	810.3	795.3	15.08	53.729		
4,300.0	4,280.8	4,213.3	4,187.2	10.2	10.8	159.39	-270.2	-396.7	830.8	815.4	15.44	53.793		
4,400.0	4,380.3	4,311.2	4,284.4	10.5	11.1	159.41	-276.5	-406.3	851.2	835.4	15.81	53.854		
4,500.0	4,479.8	4,409.1	4,381.6	10.7	11.4	159.42	-282.9	-415.8	871.7	855.5	16.17	53.912		
4,600.0	4,579.3	4,507.0	4,478.9	10.9	11.6	159.44	-289.2	-425.4	892.2	875.6	16.53	53.968		
4,700.0	4,678.8	4,604.8	4,576.1	11.2	11.9	159.46	-295.5	-434.9	912.6	895.7	16.89	54.022		
4,800.0	4,778.3	4,702.7	4,673.3	11.4	12.2	159.47	-301.9	-444.5	933.1	915.8	17.26	54.073		
4,900.0	4,877.8	4,800.6	4,770.5	11.7	12.4	159.49	-308.2	-454.0	953.5	935.9	17.62	54.122		
5,000.0	4,977.3	4,898.5	4,867.7	11.9	12.7	159.50	-314.6	-463.6	974.0	956.0	17.98	54.169		
5,100.0	5,076.8	4,996.4	4,964.9	12.2	13.0	159.51	-320.9	-473.1	994.4	976.1	18.34	54.214		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design													Chevron C-D29-596 - Chevron #29-6D - 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					
5,200.0	5,176.3	5,094.3	5,062.1	12.4	13.2	159.53	-327.2	-482.7	1,014.9	996.2	18.70	54.258						
5,300.0	5,275.8	5,192.2	5,159.3	12.7	13.5	159.54	-333.6	-492.2	1,035.3	1,016.3	19.07	54.300						
5,400.0	5,375.3	5,290.0	5,256.5	12.9	13.7	159.55	-339.9	-501.8	1,055.8	1,036.4	19.43	54.340						
5,500.0	5,474.9	5,387.9	5,353.8	13.2	14.0	159.56	-346.3	-511.3	1,076.2	1,056.5	19.79	54.379						
5,600.0	5,574.4	5,485.8	5,451.0	13.4	14.3	159.57	-352.6	-520.9	1,096.7	1,076.5	20.15	54.416						
5,700.0	5,673.9	5,583.7	5,548.2	13.7	14.5	159.59	-358.9	-530.4	1,117.2	1,096.6	20.52	54.452						
5,800.0	5,773.4	5,681.6	5,645.4	13.9	14.8	159.60	-365.3	-540.0	1,137.6	1,116.7	20.88	54.487						
5,900.0	5,872.9	5,779.5	5,742.6	14.2	15.1	159.61	-371.6	-549.5	1,158.1	1,136.8	21.24	54.520						

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-8D - 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		
0.0	0.0	0.0	0.0	0.0	0.0	45.44	28.0	28.5	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	45.44	28.0	28.5	40.0	39.7	0.30	134.650		
200.0	200.0	200.0	200.0	0.3	0.3	45.44	28.0	28.5	40.0	39.3	0.65	61.866 CC, ES		
300.0	300.0	298.6	298.6	0.5	0.5	-82.44	29.5	29.4	41.4	40.4	1.00	41.519		
400.0	399.9	396.9	396.8	0.7	0.7	-65.73	33.8	32.0	44.9	43.5	1.36	33.042		
500.0	499.5	494.9	494.4	0.9	0.9	-65.96	41.0	36.4	50.1	48.4	1.75	28.698		
600.0	599.0	592.5	591.2	1.1	1.2	-73.35	50.9	42.5	58.5	56.4	2.15	27.167		
700.0	698.5	689.4	687.0	1.4	1.5	-78.26	63.6	50.3	71.0	68.4	2.58	27.496		
800.0	798.0	786.2	782.2	1.6	1.8	-80.94	78.9	59.7	86.8	83.8	3.02	28.733		
900.0	897.6	884.8	878.8	1.9	2.2	-82.63	95.2	69.8	103.7	100.2	3.48	29.832		
1,000.0	997.1	983.3	975.4	2.1	2.5	-83.84	111.6	79.9	120.6	116.7	3.94	30.640		
1,100.0	1,096.6	1,081.8	1,072.1	2.3	2.9	-84.76	128.0	90.0	137.6	133.2	4.40	31.249		
1,200.0	1,196.1	1,180.3	1,168.7	2.6	3.3	-85.47	144.3	100.1	154.6	149.8	4.87	31.723		
1,300.0	1,295.6	1,278.9	1,265.3	2.8	3.6	-86.05	160.7	110.1	171.7	166.3	5.35	32.099		
1,400.0	1,395.1	1,377.4	1,362.0	3.1	4.0	-86.52	177.1	120.2	188.7	182.9	5.82	32.405		
1,500.0	1,494.6	1,475.9	1,458.6	3.3	4.4	-86.91	193.5	130.3	205.7	199.4	6.30	32.657		
1,600.0	1,594.1	1,574.5	1,555.2	3.6	4.8	-87.24	209.8	140.4	222.8	216.0	6.78	32.868		
1,700.0	1,693.6	1,673.0	1,651.9	3.8	5.1	-87.53	226.2	150.4	239.9	232.6	7.26	33.047		
1,800.0	1,793.1	1,771.5	1,748.5	4.1	5.5	-87.77	242.6	160.5	256.9	249.2	7.74	33.201		
1,900.0	1,892.6	1,870.0	1,845.1	4.3	5.9	-87.99	259.0	170.6	274.0	265.8	8.22	33.334		
2,000.0	1,992.1	1,968.6	1,941.8	4.5	6.3	-88.18	275.3	180.7	291.1	282.4	8.70	33.451		
2,100.0	2,091.6	2,067.1	2,038.4	4.8	6.6	-88.35	291.7	190.8	308.1	299.0	9.18	33.553		
2,200.0	2,191.1	2,165.6	2,135.0	5.0	7.0	-88.50	308.1	200.8	325.2	315.6	9.67	33.645		
2,300.0	2,290.6	2,264.1	2,231.7	5.3	7.4	-88.64	324.5	210.9	342.3	332.2	10.15	33.726		
2,400.0	2,390.2	2,362.7	2,328.3	5.5	7.8	-88.76	340.8	221.0	359.4	348.8	10.63	33.799		
2,500.0	2,489.7	2,461.2	2,424.9	5.8	8.1	-88.87	357.2	231.1	376.5	365.4	11.12	33.865		
2,600.0	2,589.2	2,559.7	2,521.6	6.0	8.5	-88.98	373.6	241.2	393.6	382.0	11.60	33.925		
2,700.0	2,688.7	2,658.2	2,618.2	6.3	8.9	-89.07	390.0	251.2	410.7	398.6	12.09	33.980		
2,800.0	2,788.2	2,756.8	2,714.8	6.5	9.3	-89.16	406.3	261.3	427.7	415.2	12.57	34.030		
2,900.0	2,887.7	2,855.3	2,811.5	6.8	9.7	-89.24	422.7	271.4	444.8	431.8	13.05	34.076		
3,000.0	2,987.2	2,953.8	2,908.1	7.0	10.0	-89.31	439.1	281.5	461.9	448.4	13.54	34.118		
3,100.0	3,086.7	3,052.4	3,004.7	7.3	10.4	-89.38	455.4	291.5	479.0	465.0	14.02	34.157		
3,200.0	3,186.2	3,150.9	3,101.4	7.5	10.8	-89.44	471.8	301.6	496.1	481.6	14.51	34.193		
3,300.0	3,285.7	3,249.4	3,198.0	7.7	11.2	-89.50	488.2	311.7	513.2	498.2	14.99	34.227		
3,400.0	3,385.2	3,347.9	3,294.6	8.0	11.5	-89.56	504.6	321.8	530.3	514.8	15.48	34.258		
3,500.0	3,484.7	3,446.5	3,391.3	8.2	11.9	-89.61	520.9	331.9	547.4	531.4	15.96	34.287		
3,600.0	3,584.2	3,545.0	3,487.9	8.5	12.3	-89.66	537.3	341.9	564.5	548.0	16.45	34.315		
3,700.0	3,683.7	3,643.5	3,584.5	8.7	12.7	-89.71	553.7	352.0	581.6	564.6	16.94	34.340		
3,800.0	3,783.2	3,742.0	3,681.2	9.0	13.1	-89.75	570.1	362.1	598.7	581.2	17.42	34.364		
3,900.0	3,882.8	3,840.6	3,777.8	9.2	13.4	-89.79	586.4	372.2	615.8	597.8	17.91	34.387		
4,000.0	3,982.3	3,939.1	3,874.4	9.5	13.8	-89.83	602.8	382.2	632.8	614.5	18.39	34.409		
4,100.0	4,081.8	4,037.6	3,971.1	9.7	14.2	-89.87	619.2	392.3	649.9	631.1	18.88	34.429		
4,200.0	4,181.3	4,136.2	4,067.7	10.0	14.6	-89.90	635.6	402.4	667.0	647.7	19.36	34.448		
4,300.0	4,280.8	4,234.7	4,164.3	10.2	15.0	-89.94	651.9	412.5	684.1	664.3	19.85	34.466		
4,400.0	4,380.3	4,333.2	4,261.0	10.5	15.3	-89.97	668.3	422.6	701.2	680.9	20.34	34.483		
4,500.0	4,479.8	4,431.7	4,357.6	10.7	15.7	-90.00	684.7	432.6	718.3	697.5	20.82	34.499		
4,600.0	4,579.3	4,530.3	4,454.2	10.9	16.1	-90.03	701.0	442.7	735.4	714.1	21.31	34.515		
4,700.0	4,678.8	4,628.8	4,550.9	11.2	16.5	-90.06	717.4	452.8	752.5	730.7	21.79	34.530		
4,800.0	4,778.3	4,727.3	4,647.5	11.4	16.8	-90.08	733.8	462.9	769.6	747.3	22.28	34.544		
4,900.0	4,877.8	4,825.8	4,744.1	11.7	17.2	-90.11	750.2	473.0	786.7	763.9	22.77	34.557		
5,000.0	4,977.3	4,924.4	4,840.8	11.9	17.6	-90.13	766.5	483.0	803.8	780.6	23.25	34.570		
5,100.0	5,076.8	5,022.9	4,937.4	12.2	18.0	-90.15	782.9	493.1	820.9	797.2	23.74	34.583		

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

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Offset Design Chevron C-D29-596 - Chevron #29-8D - 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 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)				
5,200.0	5,176.3	5,121.4	5,034.0	12.4	18.4	-90.18	799.3	503.2	838.0	813.8	24.22	34.594		
5,300.0	5,275.8	5,220.0	5,130.7	12.7	18.7	-90.20	815.7	513.3	855.1	830.4	24.71	34.606		
5,400.0	5,375.3	5,318.5	5,227.3	12.9	19.1	-90.22	832.0	523.3	872.2	847.0	25.20	34.616		
5,500.0	5,474.9	5,417.0	5,323.9	13.2	19.5	-90.24	848.4	533.4	889.3	863.6	25.68	34.627		
5,600.0	5,574.4	5,515.5	5,420.6	13.4	19.9	-90.26	864.8	543.5	906.4	880.2	26.17	34.637		
5,700.0	5,673.9	5,614.1	5,517.2	13.7	20.3	-90.27	881.2	553.6	923.5	896.8	26.65	34.646		
5,800.0	5,773.4	5,712.6	5,613.8	13.9	20.6	-90.29	897.5	563.7	940.6	913.4	27.14	34.656		
5,900.0	5,872.9	5,811.1	5,710.5	14.2	21.0	-90.31	913.9	573.7	957.7	930.0	27.63	34.664		
6,000.0	5,972.4	5,909.6	5,807.1	14.4	21.4	-90.33	930.3	583.8	974.8	946.7	28.11	34.673		
6,100.0	6,071.9	6,008.2	5,903.7	14.6	21.8	-90.34	946.6	593.9	991.9	963.3	28.60	34.681		
6,200.0	6,171.4	6,125.7	6,019.2	14.9	22.2	-90.39	965.6	605.6	1,008.6	979.4	29.13	34.624		
6,300.0	6,271.1	6,269.0	6,160.8	15.1	22.6	-90.71	983.8	616.8	1,021.6	991.9	29.69	34.413		
6,400.0	6,371.0	6,413.6	6,304.6	15.3	22.9	-90.85	996.0	624.3	1,030.3	1,000.2	30.13	34.191		
6,500.0	6,470.9	6,559.0	6,449.9	15.4	23.1	121.94	1,002.1	628.0	1,034.6	1,004.1	30.47	33.952		
6,600.0	6,570.9	6,682.8	6,573.7	15.5	23.2	121.99	1,002.7	628.3	1,035.3	1,004.6	30.74	33.679		
6,700.0	6,670.9	6,787.2	6,678.1	15.6	23.3	122.00	1,002.2	627.4	1,035.5	1,004.5	30.98	33.423		
6,800.0	6,770.9	6,887.2	6,778.1	15.7	23.4	122.00	1,001.5	626.3	1,035.5	1,004.3	31.22	33.165		
6,900.0	6,870.9	6,987.2	6,878.0	15.9	23.4	122.00	1,000.9	625.2	1,035.5	1,004.0	31.46	32.910		
7,000.0	6,970.9	7,087.2	6,978.0	16.0	23.5	122.00	1,000.2	624.1	1,035.5	1,003.8	31.71	32.656		
7,100.0	7,070.9	7,187.2	7,078.0	16.1	23.6	122.00	999.6	622.9	1,035.5	1,003.5	31.96	32.404		
7,200.0	7,170.9	7,287.2	7,178.0	16.2	23.7	122.00	998.9	621.8	1,035.5	1,003.3	32.20	32.154		
7,300.0	7,270.9	7,387.2	7,278.0	16.3	23.7	122.00	998.3	620.7	1,035.5	1,003.0	32.45	31.905		
7,400.0	7,370.9	7,487.2	7,378.0	16.5	23.8	122.00	997.6	619.6	1,035.5	1,002.8	32.71	31.659		
7,500.0	7,470.9	7,587.2	7,478.0	16.6	23.9	122.00	997.0	618.4	1,035.5	1,002.5	32.96	31.415		
7,600.0	7,570.9	7,687.2	7,578.0	16.7	24.0	122.00	996.3	617.3	1,035.5	1,002.3	33.22	31.173		
7,700.0	7,670.9	7,787.2	7,678.0	16.8	24.0	122.00	995.7	616.2	1,035.5	1,002.0	33.48	30.933		
7,800.0	7,770.8	7,887.2	7,778.0	17.0	24.1	122.00	995.0	615.1	1,035.5	1,001.8	33.73	30.695		
7,900.0	7,870.8	7,987.2	7,878.0	17.1	24.2	122.00	994.4	613.9	1,035.5	1,001.5	34.00	30.460		
8,000.0	7,970.8	8,087.2	7,978.0	17.2	24.3	122.00	993.7	612.8	1,035.5	1,001.2	34.26	30.226		
8,100.0	8,070.8	8,187.2	8,077.9	17.4	24.4	122.00	993.1	611.7	1,035.5	1,001.0	34.52	29.995		
8,200.0	8,170.8	8,287.2	8,177.9	17.5	24.5	122.00	992.4	610.5	1,035.5	1,000.7	34.79	29.766		
8,300.0	8,270.8	8,387.2	8,277.9	17.6	24.6	122.00	991.8	609.4	1,035.5	1,000.4	35.06	29.539		
8,400.0	8,370.8	8,487.2	8,377.9	17.8	24.6	122.00	991.1	608.3	1,035.5	1,000.2	35.32	29.314		
8,500.0	8,470.8	8,587.2	8,477.9	17.9	24.7	122.00	990.5	607.2	1,035.5	999.9	35.59	29.092		
8,600.0	8,570.8	8,687.2	8,577.9	18.0	24.8	122.00	989.8	606.0	1,035.5	999.6	35.87	28.872		
8,700.0	8,670.8	8,787.2	8,677.9	18.2	24.9	122.00	989.2	604.9	1,035.5	999.4	36.14	28.654		
8,800.0	8,770.8	8,887.2	8,777.9	18.3	25.0	122.00	988.6	603.8	1,035.5	999.1	36.41	28.438		
8,900.0	8,870.8	8,987.2	8,877.9	18.4	25.1	122.00	987.9	602.7	1,035.5	998.8	36.69	28.224		
9,000.0	8,970.7	9,087.2	8,977.9	18.6	25.2	122.00	987.3	601.5	1,035.5	998.5	36.97	28.013		
9,100.0	9,070.7	9,187.2	9,077.9	18.7	25.3	122.00	986.6	600.4	1,035.5	998.3	37.24	27.804		
9,200.0	9,170.7	9,287.2	9,177.9	18.8	25.4	122.00	986.0	599.3	1,035.5	998.0	37.52	27.597		
9,300.0	9,270.7	9,387.2	9,277.8	19.0	25.5	122.00	985.3	598.2	1,035.5	997.7	37.80	27.392		
9,400.0	9,370.7	9,487.2	9,377.8	19.1	25.6	122.00	984.7	597.0	1,035.5	997.4	38.09	27.189		
9,500.0	9,470.7	9,587.2	9,477.8	19.3	25.7	122.00	984.0	595.9	1,035.5	997.1	38.37	26.989		
9,600.0	9,570.7	9,687.2	9,577.8	19.4	25.8	122.00	983.4	594.8	1,035.5	996.9	38.65	26.791		
9,631.3	9,602.0	9,718.5	9,609.1	19.5	25.8	122.00	983.2	594.4	1,035.5	996.8	38.74	26.729 SF		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-13D
Project:	Garfield County	TVD Reference:	Well @ 7896.0ft
Reference Site:	Chevron C-D29-596	MD Reference:	Well @ 7896.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Chevron #29-13D	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 #3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to Well @ 7896.0ft

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Chevron #29-13D

Coordinate System is US State Plane 1983, Colorado Central Zone

Grid Convergence at Surface is: -1.70°

