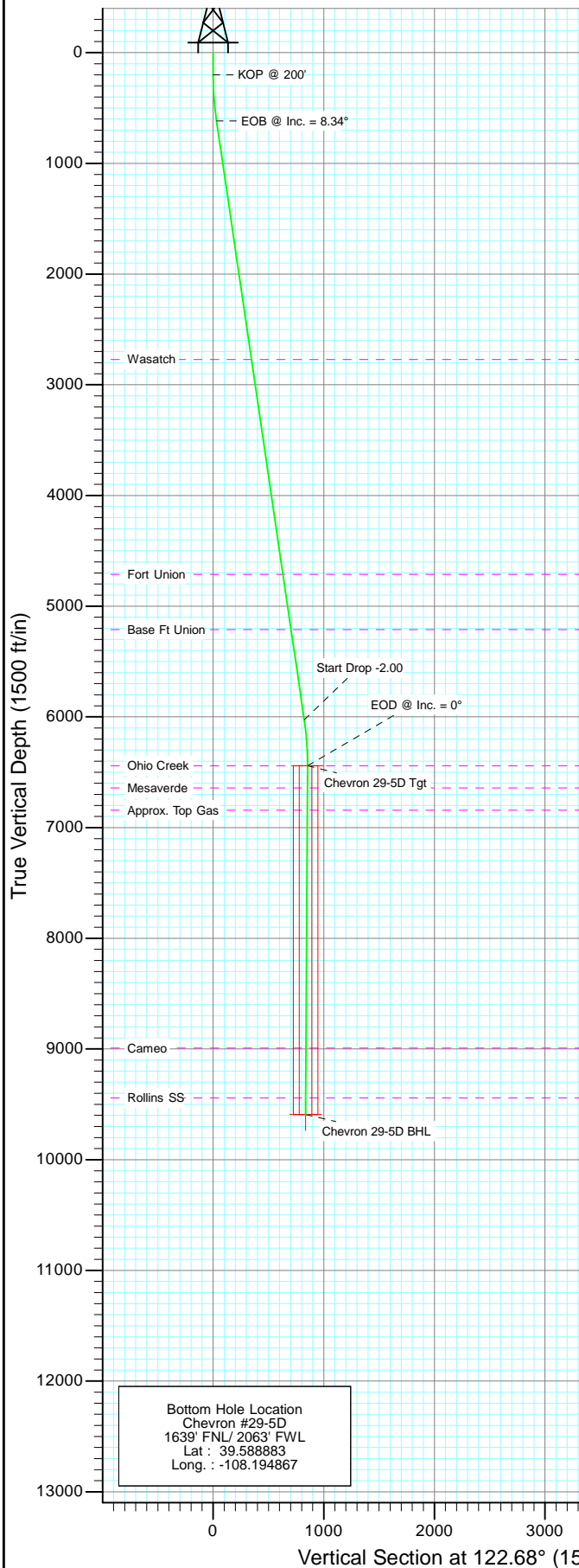
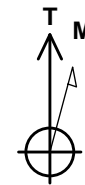
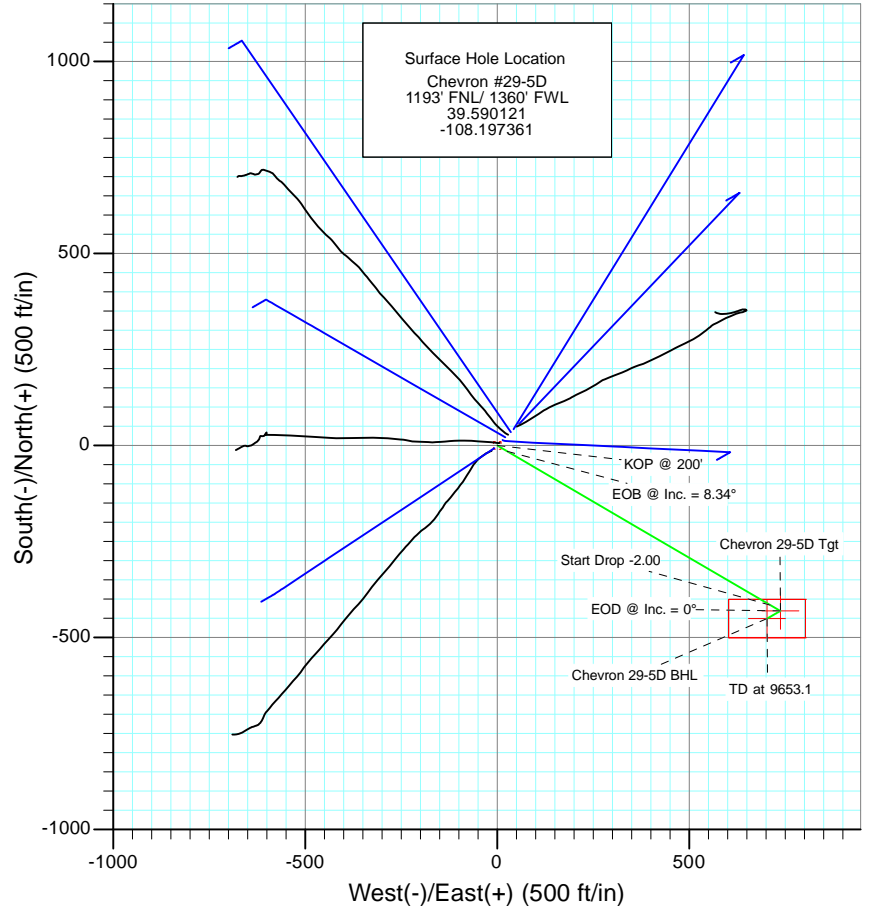




Project: Garfield County
Site: Chevron C-D29-596
Well: Chevron #29-5D
Wellbore: DD
Design: Plan #3



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	617.2	8.34	120.29	615.7	-15.3	26.2	2.00	120.29	30.3	
4	6085.6	8.34	120.29	6026.3	-415.6	711.4	0.00	0.00	823.2	
5	6502.8	0.00	0.00	6442.0	-430.9	737.5	2.00	180.00	853.5	Chevron 29-5D Tgt
6	6651.9	0.75	240.03	6591.1	-431.4	736.7	0.50	240.03	853.0	
7	9653.1	0.75	240.03	9592.0	-450.9	702.9	0.00	0.00	835.1	Chevron 29-5D BHL



Azimuths to True North
Magnetic North: 10.80°

Magnetic Field
Strength: 52536.9snT
Dip Angle: 65.85°
Date: 9/22/2008
Model: IGRF2010

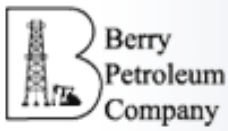
FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
2772.0	2796.5	Wasatch
4712.0	4757.3	Fort Union
5212.0	5262.6	Base Ft Union
6442.0	6502.8	Ohio Creek
6642.0	6702.8	Mesaverde
6842.0	6902.9	Approx. Top Gas
8992.0	9053.0	Cameo
9442.0	9503.1	Rollins SS

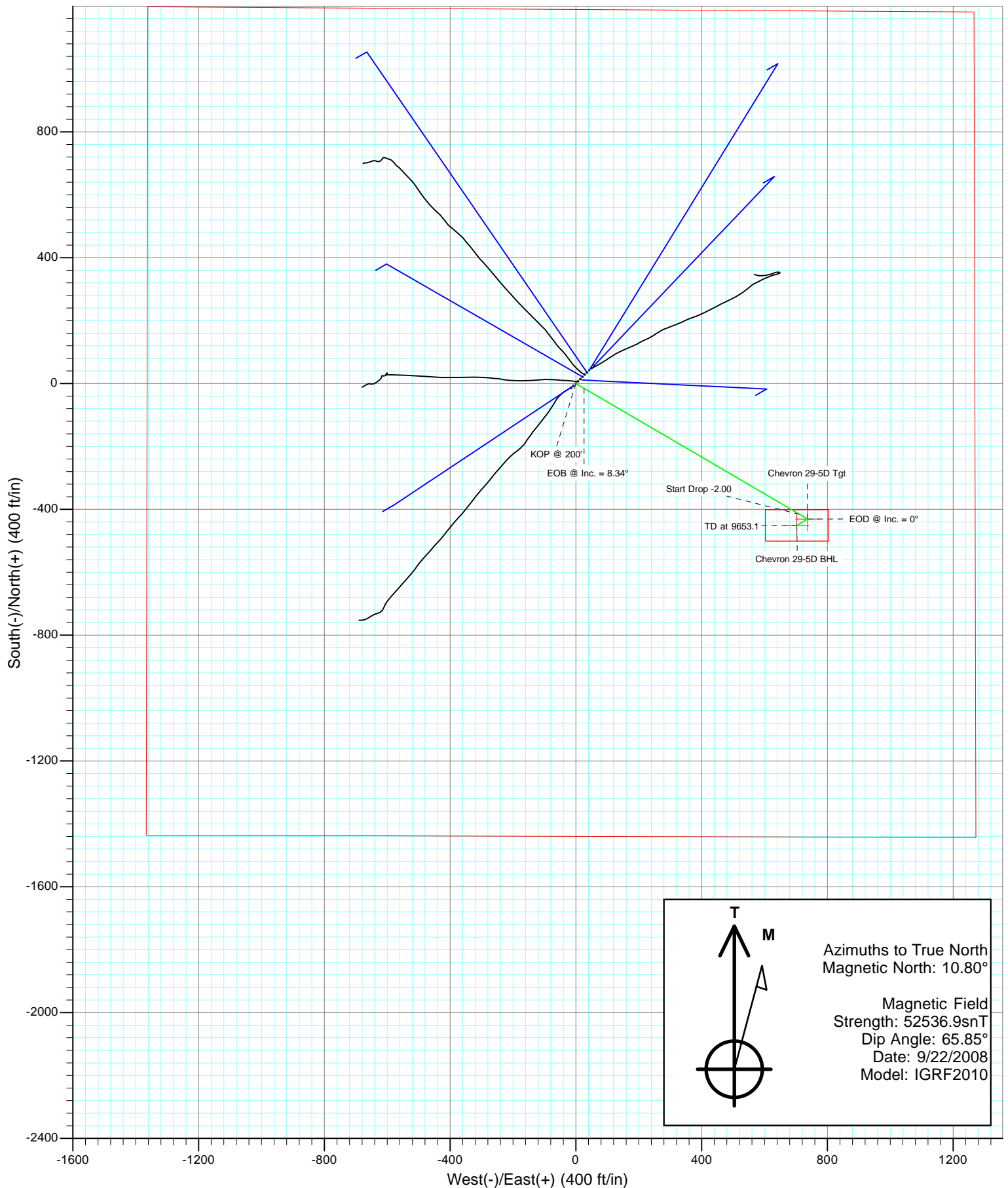
DESIGN DETAILS: Plan #3

JOB#:11XXXX: SC
Well @ 7896.0ft

Target	Azimuth	Origin	N/S	E/W From TVD
Chevron 29-5D BHL	122.68	Slot	0.0	0.0



Project: Garfield County
Site: Chevron C-D29-596
Well: Chevron #29-5D
Wellbore: DD
Design: Plan #3



Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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 #29-5D					
Well Position	+N/-S	0.0 ft	Northing:	1,651,117.78 ft	Latitude:	39.590121
	+E/-W	0.0 ft	Easting:	2,239,937.54 ft	Longitude:	-108.197361
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	9/22/2008	10.80	65.85	52,537

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	122.68

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	
617.2	8.34	120.29	615.7	-15.3	26.2	2.00	2.00	0.00	120.29	
6,085.6	8.34	120.29	6,026.3	-415.6	711.4	0.00	0.00	0.00	0.00	
6,502.8	0.00	0.00	6,442.0	-430.9	737.5	2.00	-2.00	0.00	180.00	Chevron 29-5D Tgt
6,651.9	0.75	240.03	6,591.1	-431.4	736.7	0.50	0.50	-80.46	240.03	
9,653.1	0.75	240.03	9,592.0	-450.9	702.9	0.00	0.00	0.00	0.00	Chevron 29-5D BHL

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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	120.29	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	120.29	240.0	-0.1	0.2	0.3	2.00	2.00	
270.0	1.40	120.29	270.0	-0.4	0.7	0.9	2.00	2.00	
300.0	2.00	120.29	300.0	-0.9	1.5	1.7	2.00	2.00	
330.0	2.60	120.29	330.0	-1.5	2.5	2.9	2.00	2.00	
360.0	3.20	120.29	359.9	-2.3	3.9	4.5	2.00	2.00	
390.0	3.80	120.29	389.9	-3.2	5.4	6.3	2.00	2.00	
420.0	4.40	120.29	419.8	-4.3	7.3	8.4	2.00	2.00	
450.0	5.00	120.29	449.7	-5.5	9.4	10.9	2.00	2.00	
480.0	5.60	120.29	479.6	-6.9	11.8	13.7	2.00	2.00	
510.0	6.20	120.29	509.4	-8.5	14.5	16.7	2.00	2.00	
540.0	6.80	120.29	539.2	-10.2	17.4	20.1	2.00	2.00	
570.0	7.40	120.29	569.0	-12.0	20.6	23.8	2.00	2.00	
600.0	8.00	120.29	598.7	-14.1	24.1	27.9	2.00	2.00	
617.2	8.34	120.29	615.7	-15.3	26.2	30.3	2.00	2.00	EOB @ Inc. = 8.34°
630.0	8.34	120.29	628.4	-16.2	27.8	32.2	0.00	0.00	
660.0	8.34	120.29	658.1	-18.4	31.5	36.5	0.00	0.00	
690.0	8.34	120.29	687.8	-20.6	35.3	40.9	0.00	0.00	
720.0	8.34	120.29	717.4	-22.8	39.1	45.2	0.00	0.00	
750.0	8.34	120.29	747.1	-25.0	42.8	49.6	0.00	0.00	
780.0	8.34	120.29	776.8	-27.2	46.6	53.9	0.00	0.00	
810.0	8.34	120.29	806.5	-29.4	50.3	58.3	0.00	0.00	
840.0	8.34	120.29	836.2	-31.6	54.1	62.6	0.00	0.00	
870.0	8.34	120.29	865.9	-33.8	57.9	67.0	0.00	0.00	
900.0	8.34	120.29	895.5	-36.0	61.6	71.3	0.00	0.00	
930.0	8.34	120.29	925.2	-38.2	65.4	75.7	0.00	0.00	
960.0	8.34	120.29	954.9	-40.4	69.1	80.0	0.00	0.00	
990.0	8.34	120.29	984.6	-42.6	72.9	84.4	0.00	0.00	
1,020.0	8.34	120.29	1,014.3	-44.8	76.7	88.7	0.00	0.00	
1,050.0	8.34	120.29	1,043.9	-47.0	80.4	93.0	0.00	0.00	
1,080.0	8.34	120.29	1,073.6	-49.2	84.2	97.4	0.00	0.00	
1,110.0	8.34	120.29	1,103.3	-51.4	87.9	101.7	0.00	0.00	
1,140.0	8.34	120.29	1,133.0	-53.6	91.7	106.1	0.00	0.00	
1,170.0	8.34	120.29	1,162.7	-55.8	95.4	110.4	0.00	0.00	
1,200.0	8.34	120.29	1,192.4	-58.0	99.2	114.8	0.00	0.00	
1,230.0	8.34	120.29	1,222.0	-60.2	103.0	119.1	0.00	0.00	
1,260.0	8.34	120.29	1,251.7	-62.4	106.7	123.5	0.00	0.00	
1,290.0	8.34	120.29	1,281.4	-64.5	110.5	127.8	0.00	0.00	
1,320.0	8.34	120.29	1,311.1	-66.7	114.2	132.2	0.00	0.00	
1,350.0	8.34	120.29	1,340.8	-68.9	118.0	136.5	0.00	0.00	
1,380.0	8.34	120.29	1,370.5	-71.1	121.8	140.9	0.00	0.00	
1,410.0	8.34	120.29	1,400.1	-73.3	125.5	145.2	0.00	0.00	
1,440.0	8.34	120.29	1,429.8	-75.5	129.3	149.6	0.00	0.00	
1,470.0	8.34	120.29	1,459.5	-77.7	133.0	153.9	0.00	0.00	
1,500.0	8.34	120.29	1,489.2	-79.9	136.8	158.3	0.00	0.00	

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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	8.34	120.29	1,518.9	-82.1	140.6	162.6	0.00	0.00	
1,560.0	8.34	120.29	1,548.5	-84.3	144.3	167.0	0.00	0.00	
1,590.0	8.34	120.29	1,578.2	-86.5	148.1	171.3	0.00	0.00	
1,620.0	8.34	120.29	1,607.9	-88.7	151.8	175.7	0.00	0.00	
1,650.0	8.34	120.29	1,637.6	-90.9	155.6	180.0	0.00	0.00	
1,680.0	8.34	120.29	1,667.3	-93.1	159.4	184.4	0.00	0.00	
1,710.0	8.34	120.29	1,697.0	-95.3	163.1	188.7	0.00	0.00	
1,740.0	8.34	120.29	1,726.6	-97.5	166.9	193.1	0.00	0.00	
1,770.0	8.34	120.29	1,756.3	-99.7	170.6	197.4	0.00	0.00	
1,800.0	8.34	120.29	1,786.0	-101.9	174.4	201.8	0.00	0.00	
1,830.0	8.34	120.29	1,815.7	-104.1	178.1	206.1	0.00	0.00	
1,860.0	8.34	120.29	1,845.4	-106.3	181.9	210.5	0.00	0.00	
1,890.0	8.34	120.29	1,875.1	-108.5	185.7	214.8	0.00	0.00	
1,920.0	8.34	120.29	1,904.7	-110.7	189.4	219.2	0.00	0.00	
1,950.0	8.34	120.29	1,934.4	-112.9	193.2	223.5	0.00	0.00	
1,980.0	8.34	120.29	1,964.1	-115.1	196.9	227.9	0.00	0.00	
2,010.0	8.34	120.29	1,993.8	-117.3	200.7	232.2	0.00	0.00	
2,040.0	8.34	120.29	2,023.5	-119.5	204.5	236.6	0.00	0.00	
2,070.0	8.34	120.29	2,053.1	-121.6	208.2	240.9	0.00	0.00	
2,100.0	8.34	120.29	2,082.8	-123.8	212.0	245.3	0.00	0.00	
2,130.0	8.34	120.29	2,112.5	-126.0	215.7	249.6	0.00	0.00	
2,160.0	8.34	120.29	2,142.2	-128.2	219.5	254.0	0.00	0.00	
2,190.0	8.34	120.29	2,171.9	-130.4	223.3	258.3	0.00	0.00	
2,220.0	8.34	120.29	2,201.6	-132.6	227.0	262.7	0.00	0.00	
2,250.0	8.34	120.29	2,231.2	-134.8	230.8	267.0	0.00	0.00	
2,280.0	8.34	120.29	2,260.9	-137.0	234.5	271.4	0.00	0.00	
2,310.0	8.34	120.29	2,290.6	-139.2	238.3	275.7	0.00	0.00	
2,340.0	8.34	120.29	2,320.3	-141.4	242.0	280.1	0.00	0.00	
2,370.0	8.34	120.29	2,350.0	-143.6	245.8	284.4	0.00	0.00	
2,400.0	8.34	120.29	2,379.7	-145.8	249.6	288.8	0.00	0.00	
2,430.0	8.34	120.29	2,409.3	-148.0	253.3	293.1	0.00	0.00	
2,460.0	8.34	120.29	2,439.0	-150.2	257.1	297.5	0.00	0.00	
2,490.0	8.34	120.29	2,468.7	-152.4	260.8	301.8	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 29-5D BHL	0.00	0.00	9,592.0	-450.9	702.9	1,650,646.22	2,240,626.72	39.588883	-108.194867
- plan misses target center by 7143.2ft at 2490.0ft MD (2468.7 TVD, -152.4 N, 260.8 E)									
- Rectangle (sides W100.0 H200.0 D0.0)									
Chevron 29-5D Tgt	0.00	0.00	6,442.0	-430.9	737.5	1,650,665.17	2,240,661.97	39.588938	-108.194744
- plan misses target center by 4011.5ft at 2490.0ft MD (2468.7 TVD, -152.4 N, 260.8 E)									
- Point									

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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	8.34	120.29	2,478.6	-153.1	262.1	303.3	0.00	0.00	
2,600.0	8.34	120.29	2,577.5	-160.4	274.6	317.8	0.00	0.00	
2,700.0	8.34	120.29	2,676.5	-167.8	287.2	332.3	0.00	0.00	
2,796.5	8.34	120.29	2,772.0	-174.8	299.3	346.3	0.00	0.00	Wasatch
2,800.0	8.34	120.29	2,775.4	-175.1	299.7	346.8	0.00	0.00	
2,900.0	8.34	120.29	2,874.4	-182.4	312.2	361.3	0.00	0.00	
3,000.0	8.34	120.29	2,973.3	-189.7	324.7	375.8	0.00	0.00	
3,100.0	8.34	120.29	3,072.2	-197.0	337.3	390.3	0.00	0.00	
3,200.0	8.34	120.29	3,171.2	-204.4	349.8	404.8	0.00	0.00	
3,300.0	8.34	120.29	3,270.1	-211.7	362.3	419.3	0.00	0.00	
3,400.0	8.34	120.29	3,369.1	-219.0	374.9	433.8	0.00	0.00	
3,500.0	8.34	120.29	3,468.0	-226.3	387.4	448.3	0.00	0.00	
3,600.0	8.34	120.29	3,567.0	-233.6	399.9	462.8	0.00	0.00	
3,700.0	8.34	120.29	3,665.9	-241.0	412.5	477.3	0.00	0.00	
3,800.0	8.34	120.29	3,764.8	-248.3	425.0	491.8	0.00	0.00	
3,900.0	8.34	120.29	3,863.8	-255.6	437.5	506.3	0.00	0.00	
4,000.0	8.34	120.29	3,962.7	-262.9	450.0	520.8	0.00	0.00	
4,100.0	8.34	120.29	4,061.7	-270.2	462.6	535.3	0.00	0.00	
4,200.0	8.34	120.29	4,160.6	-277.6	475.1	549.8	0.00	0.00	
4,300.0	8.34	120.29	4,259.5	-284.9	487.6	564.3	0.00	0.00	
4,400.0	8.34	120.29	4,358.5	-292.2	500.2	578.8	0.00	0.00	
4,500.0	8.34	120.29	4,457.4	-299.5	512.7	593.3	0.00	0.00	
4,600.0	8.34	120.29	4,556.4	-306.9	525.2	607.8	0.00	0.00	
4,700.0	8.34	120.29	4,655.3	-314.2	537.7	622.3	0.00	0.00	
4,757.3	8.34	120.29	4,712.0	-318.4	544.9	630.6	0.00	0.00	Fort Union
4,800.0	8.34	120.29	4,754.3	-321.5	550.3	636.8	0.00	0.00	
4,900.0	8.34	120.29	4,853.2	-328.8	562.8	651.3	0.00	0.00	
5,000.0	8.34	120.29	4,952.1	-336.1	575.3	665.8	0.00	0.00	
5,100.0	8.34	120.29	5,051.1	-343.5	587.9	680.3	0.00	0.00	
5,200.0	8.34	120.29	5,150.0	-350.8	600.4	694.8	0.00	0.00	
5,262.6	8.34	120.29	5,212.0	-355.4	608.2	703.8	0.00	0.00	Base Ft Union
5,300.0	8.34	120.29	5,249.0	-358.1	612.9	709.3	0.00	0.00	
5,400.0	8.34	120.29	5,347.9	-365.4	625.5	723.8	0.00	0.00	
5,500.0	8.34	120.29	5,446.8	-372.7	638.0	738.3	0.00	0.00	
5,600.0	8.34	120.29	5,545.8	-380.1	650.5	752.7	0.00	0.00	
5,700.0	8.34	120.29	5,644.7	-387.4	663.0	767.2	0.00	0.00	
5,800.0	8.34	120.29	5,743.7	-394.7	675.6	781.7	0.00	0.00	
5,900.0	8.34	120.29	5,842.6	-402.0	688.1	796.2	0.00	0.00	
6,000.0	8.34	120.29	5,941.5	-409.3	700.6	810.7	0.00	0.00	
6,085.6	8.34	120.29	6,026.3	-415.6	711.4	823.2	0.00	0.00	Start Drop -2.00
6,100.0	8.06	120.29	6,040.5	-416.6	713.1	825.2	2.00	-2.00	
6,200.0	6.06	120.29	6,139.7	-422.8	723.7	837.5	2.00	-2.00	
6,300.0	4.06	120.29	6,239.3	-427.3	731.4	846.3	2.00	-2.00	
6,400.0	2.06	120.29	6,339.2	-430.0	736.0	851.6	2.00	-2.00	
6,500.0	0.06	120.29	6,439.2	-430.9	737.5	853.5	2.00	-2.00	
6,502.8	0.00	0.00	6,442.0	-430.9	737.5	853.5	2.00	-2.00	EOD @ Inc. = 0° - Ohio Creek - Chevron 29-5D
6,600.0	0.49	240.03	6,539.2	-431.1	737.2	853.3	0.50	0.50	
6,651.9	0.75	240.03	6,591.1	-431.4	736.7	853.0	0.50	0.50	
6,700.0	0.75	240.03	6,639.2	-431.7	736.2	852.7	0.00	0.00	
6,702.8	0.75	240.03	6,642.0	-431.7	736.1	852.7	0.00	0.00	Mesaverde
6,800.0	0.75	240.03	6,739.2	-432.3	735.0	852.1	0.00	0.00	
6,900.0	0.75	240.03	6,839.1	-433.0	733.9	851.5	0.00	0.00	

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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
6,902.9	0.75	240.03	6,842.0	-433.0	733.9	851.5	0.00	0.00	Approx. Top Gas
7,000.0	0.75	240.03	6,939.1	-433.6	732.8	850.9	0.00	0.00	
7,100.0	0.75	240.03	7,039.1	-434.3	731.7	850.3	0.00	0.00	
7,200.0	0.75	240.03	7,139.1	-434.9	730.5	849.7	0.00	0.00	
7,300.0	0.75	240.03	7,239.1	-435.6	729.4	849.1	0.00	0.00	
7,400.0	0.75	240.03	7,339.1	-436.2	728.3	848.5	0.00	0.00	
7,500.0	0.75	240.03	7,439.1	-436.9	727.2	847.9	0.00	0.00	
7,600.0	0.75	240.03	7,539.1	-437.5	726.0	847.3	0.00	0.00	
7,700.0	0.75	240.03	7,639.1	-438.2	724.9	846.7	0.00	0.00	
7,800.0	0.75	240.03	7,739.1	-438.8	723.8	846.1	0.00	0.00	
7,900.0	0.75	240.03	7,839.1	-439.5	722.6	845.6	0.00	0.00	
8,000.0	0.75	240.03	7,939.1	-440.1	721.5	845.0	0.00	0.00	
8,100.0	0.75	240.03	8,039.0	-440.8	720.4	844.4	0.00	0.00	
8,200.0	0.75	240.03	8,139.0	-441.4	719.3	843.8	0.00	0.00	
8,300.0	0.75	240.03	8,239.0	-442.1	718.1	843.2	0.00	0.00	
8,400.0	0.75	240.03	8,339.0	-442.7	717.0	842.6	0.00	0.00	
8,500.0	0.75	240.03	8,439.0	-443.4	715.9	842.0	0.00	0.00	
8,600.0	0.75	240.03	8,539.0	-444.0	714.8	841.4	0.00	0.00	
8,700.0	0.75	240.03	8,639.0	-444.7	713.6	840.8	0.00	0.00	
8,800.0	0.75	240.03	8,739.0	-445.3	712.5	840.2	0.00	0.00	
8,900.0	0.75	240.03	8,839.0	-446.0	711.4	839.6	0.00	0.00	
9,000.0	0.75	240.03	8,939.0	-446.6	710.2	839.0	0.00	0.00	
9,053.0	0.75	240.03	8,992.0	-447.0	709.6	838.7	0.00	0.00	Cameo
9,100.0	0.75	240.03	9,039.0	-447.3	709.1	838.4	0.00	0.00	
9,200.0	0.75	240.03	9,138.9	-447.9	708.0	837.8	0.00	0.00	
9,300.0	0.75	240.03	9,238.9	-448.6	706.9	837.2	0.00	0.00	
9,400.0	0.75	240.03	9,338.9	-449.2	705.7	836.6	0.00	0.00	
9,500.0	0.75	240.03	9,438.9	-449.9	704.6	836.0	0.00	0.00	
9,503.1	0.75	240.03	9,442.0	-449.9	704.6	836.0	0.00	0.00	Rollins SS
9,600.0	0.75	240.03	9,538.9	-450.5	703.5	835.4	0.00	0.00	
9,653.1	0.75	240.03	9,592.0	-450.9	702.9	835.1	0.00	0.00	Chevron 29-5D 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 29-5D BHL - plan hits target center - Rectangle (sides W100.0 H200.0 D0.0)	0.00	0.00	9,592.0	-450.9	702.9	1,650,646.22	2,240,626.72	39.588883	-108.194867
Chevron 29-5D Tgt - plan hits target center - Point	0.00	0.00	6,442.0	-430.9	737.5	1,650,665.17	2,240,661.97	39.588938	-108.194744

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,796.5	2,772.0	Wasatch				
4,757.3	4,712.0	Fort Union				
5,262.6	5,212.0	Base Ft Union				
6,502.8	6,442.0	Ohio Creek				
6,702.8	6,642.0	Mesaverde				
6,902.9	6,842.0	Approx. Top Gas				
9,053.0	8,992.0	Cameo				
9,503.1	9,442.0	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'	
617.2	615.7	-15.3	26.2	EOB @ Inc. = 8.34°	
6,085.6	6,026.3	-415.6	711.4	Start Drop -2.00	
6,502.8	6,442.0	-430.9	737.5	EOD @ Inc. = 0°	
9,653.1	9,592.0	-450.9	702.9	TD at 9653.1	

Berry Petroleum Company (NAD 83)

Garfield County

Chevron C-D29-596

Chevron #29-5D

DD

Plan #3

Anticollision Report

06 January, 2011

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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 1,165.3ft	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	9,653.1	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	80.1	79.5	124.063	CC, ES
Chevron #29-7D - DD - Plan #4	9,653.1	9,655.1	1,094.2	1,054.0	27.239	SF
Chevron #29-11D - DD - DD	310.8	320.8	7.4	6.3	7.094	CC, ES, SF
Chevron #29-12D - DD - DD	0.0	10.0	70.3			
Chevron #29-12D - DD - DD	9,653.1	9,603.0	810.3	770.9	20.570	SF
Chevron #29-13D - DD - Plan #3	314.0	313.8	20.1	19.0	19.019	CC, ES
Chevron #29-13D - DD - Plan #3	9,653.1	9,622.5	433.6	395.2	11.314	SF
Chevron #29-14D - DD - Plan #3	350.7	350.7	29.0	27.8	24.207	CC, ES
Chevron #29-14D - DD - Plan #3	500.0	497.6	37.2	35.5	20.914	SF
Chevron #29-15D - DD - DD	265.0	275.1	38.4	37.5	41.995	CC, ES
Chevron #29-15D - DD - DD	400.0	408.2	42.7	41.2	29.229	SF
Chevron #29-16D - DD - Plan #3	284.7	284.4	50.0	49.0	52.808	CC
Chevron #29-16D - DD - Plan #3	300.0	299.6	50.0	49.0	49.936	ES
Chevron #29-16D - DD - Plan #3	500.0	496.0	57.3	55.5	31.849	SF
Chevron #29-3D - DD - DD	0.0	10.0	19.8			
Chevron #29-3D - DD - DD	100.0	109.9	20.0	19.7	64.807	ES
Chevron #29-3D - DD - DD	300.0	308.5	25.6	24.6	25.827	SF
Chevron #29-6D - DD - Plan #3	200.0	200.0	9.9	9.2	15.284	CC, ES
Chevron #29-6D - DD - Plan #3	300.0	299.6	12.2	11.2	12.238	SF
Chevron #29-8D - DD - Plan #3	200.0	200.0	60.2	59.5	93.174	CC, ES
Chevron #29-8D - DD - Plan #3	700.0	683.2	103.4	100.8	39.065	SF

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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:		O-MWD											Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	45.57	56.1	57.2	80.1					
100.0	100.0	100.0	100.0	0.1	0.1	45.57	56.1	57.2	80.1	79.8	0.30	270.019		
200.0	200.0	200.0	200.0	0.3	0.3	45.57	56.1	57.2	80.1	79.5	0.65	124.063	CC, ES	
300.0	300.0	297.2	297.2	0.5	0.5	-75.89	57.3	58.3	81.4	80.4	0.99	81.900		
400.0	399.8	394.2	394.1	0.7	0.7	-79.17	60.8	61.8	85.3	84.0	1.36	62.855		
500.0	499.5	490.7	490.2	0.9	0.9	-83.93	66.7	67.4	92.5	90.8	1.75	52.765		
600.0	598.7	586.4	585.2	1.2	1.2	-89.37	74.9	75.2	103.5	101.3	2.20	47.136		
700.0	697.7	684.3	682.1	1.5	1.4	-94.78	84.8	84.6	117.5	114.9	2.67	44.032		
800.0	796.6	782.7	779.6	1.8	1.7	-99.10	94.7	94.1	132.4	129.3	3.16	41.935		
900.0	895.5	881.1	877.1	2.1	2.0	-102.53	104.7	103.6	148.0	144.3	3.66	40.455		
1,000.0	994.5	979.6	974.6	2.4	2.3	-105.31	114.6	113.1	163.9	159.7	4.16	39.373		
1,100.0	1,093.4	1,078.0	1,072.0	2.7	2.6	-107.59	124.6	122.5	180.1	175.5	4.67	38.556		
1,200.0	1,192.4	1,176.5	1,169.5	3.0	2.9	-109.50	134.5	132.0	196.6	191.4	5.18	37.923		
1,300.0	1,291.3	1,274.9	1,267.0	3.3	3.2	-111.11	144.5	141.5	213.3	207.6	5.70	37.423		
1,400.0	1,390.2	1,373.3	1,364.5	3.6	3.4	-112.48	154.4	151.0	230.1	223.8	6.21	37.020		
1,500.0	1,489.2	1,471.8	1,461.9	3.9	3.7	-113.67	164.4	160.5	247.0	240.2	6.73	36.690		
1,600.0	1,588.1	1,570.2	1,559.4	4.2	4.0	-114.71	174.3	170.0	264.0	256.7	7.25	36.415		
1,700.0	1,687.1	1,668.7	1,656.9	4.5	4.3	-115.62	184.3	179.5	281.0	273.3	7.77	36.185		
1,800.0	1,786.0	1,767.1	1,754.4	4.8	4.6	-116.43	194.2	189.0	298.2	289.9	8.28	35.989		
1,900.0	1,884.9	1,865.5	1,851.8	5.1	4.9	-117.14	204.2	198.5	315.4	306.5	8.80	35.821		
2,000.0	1,983.9	1,964.0	1,949.3	5.4	5.2	-117.79	214.1	208.0	332.6	323.3	9.32	35.676		
2,100.0	2,082.8	2,062.4	2,046.8	5.7	5.5	-118.37	224.1	217.5	349.8	340.0	9.84	35.549		
2,200.0	2,181.8	2,160.9	2,144.2	6.0	5.8	-118.90	234.0	227.0	367.1	356.8	10.36	35.438		
2,300.0	2,280.7	2,259.3	2,241.7	6.4	6.1	-119.38	244.0	236.5	384.5	373.6	10.88	35.339		
2,400.0	2,379.7	2,357.7	2,339.2	6.7	6.4	-119.81	253.9	245.9	401.8	390.4	11.40	35.252		
2,500.0	2,478.6	2,456.2	2,436.7	7.0	6.7	-120.22	263.9	255.4	419.2	407.3	11.92	35.173		
2,600.0	2,577.5	2,554.6	2,534.1	7.3	7.0	-120.58	273.8	264.9	436.6	424.1	12.44	35.103		
2,700.0	2,676.5	2,653.1	2,631.6	7.6	7.3	-120.93	283.8	274.4	454.0	441.0	12.96	35.039		
2,800.0	2,775.4	2,751.5	2,729.1	7.9	7.6	-121.24	293.8	283.9	471.4	457.9	13.48	34.982		
2,900.0	2,874.4	2,849.9	2,826.6	8.2	7.9	-121.54	303.7	293.4	488.8	474.8	13.99	34.929		
3,000.0	2,973.3	2,948.4	2,924.0	8.5	8.2	-121.81	313.7	302.9	506.3	491.7	14.51	34.882		
3,100.0	3,072.2	3,046.8	3,021.5	8.8	8.5	-122.06	323.6	312.4	523.7	508.7	15.03	34.838		
3,200.0	3,171.2	3,145.2	3,119.0	9.1	8.8	-122.30	333.6	321.9	541.2	525.6	15.55	34.797		
3,300.0	3,270.1	3,243.7	3,216.5	9.4	9.1	-122.53	343.5	331.4	558.6	542.6	16.07	34.760		
3,400.0	3,369.1	3,342.1	3,313.9	9.8	9.3	-122.74	353.5	340.9	576.1	559.5	16.59	34.726		
3,500.0	3,468.0	3,440.6	3,411.4	10.1	9.6	-122.94	363.4	350.4	593.6	576.5	17.11	34.694		
3,600.0	3,567.0	3,539.0	3,508.9	10.4	9.9	-123.12	373.4	359.9	611.1	593.5	17.63	34.664		
3,700.0	3,665.9	3,637.4	3,606.4	10.7	10.2	-123.30	383.3	369.3	628.6	610.4	18.15	34.637		
3,800.0	3,764.8	3,735.9	3,703.8	11.0	10.5	-123.46	393.3	378.8	646.1	627.4	18.67	34.611		
3,900.0	3,863.8	3,834.3	3,801.3	11.3	10.8	-123.62	403.2	388.3	663.6	644.4	19.19	34.587		
4,000.0	3,962.7	3,932.8	3,898.8	11.6	11.1	-123.77	413.2	397.8	681.1	661.4	19.71	34.565		
4,100.0	4,061.7	4,031.2	3,996.3	11.9	11.4	-123.91	423.1	407.3	698.6	678.4	20.22	34.544		
4,200.0	4,160.6	4,129.6	4,093.7	12.2	11.7	-124.05	433.1	416.8	716.2	695.4	20.74	34.524		
4,300.0	4,259.5	4,228.1	4,191.2	12.5	12.0	-124.18	443.0	426.3	733.7	712.4	21.26	34.505		
4,400.0	4,358.5	4,326.5	4,288.7	12.8	12.3	-124.30	453.0	435.8	751.2	729.4	21.78	34.487		
4,500.0	4,457.4	4,425.0	4,386.2	13.1	12.6	-124.42	462.9	445.3	768.7	746.4	22.30	34.471		
4,600.0	4,556.4	4,523.4	4,483.6	13.5	12.9	-124.53	472.9	454.8	786.3	763.4	22.82	34.455		
4,700.0	4,655.3	4,621.8	4,581.1	13.8	13.2	-124.64	482.8	464.3	803.8	780.5	23.34	34.440		
4,800.0	4,754.3	4,720.3	4,678.6	14.1	13.5	-124.74	492.8	473.8	821.3	797.5	23.86	34.426		
4,900.0	4,853.2	4,818.7	4,776.0	14.4	13.8	-124.84	502.7	483.3	838.9	814.5	24.38	34.412		
5,000.0	4,952.1	4,917.2	4,873.5	14.7	14.1	-124.93	512.7	492.7	856.4	831.5	24.90	34.399		
5,100.0	5,051.1	5,015.6	4,971.0	15.0	14.4	-125.02	522.6	502.2	874.0	848.6	25.42	34.387		

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 #29-5D
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 #29-5D	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 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	5,150.0	5,114.0	5,068.5	15.3	14.7	-125.11	532.6	511.7	891.5	865.6	25.93	34.376		
5,300.0	5,249.0	5,212.5	5,165.9	15.6	15.0	-125.19	542.5	521.2	909.1	882.6	26.45	34.365		
5,400.0	5,347.9	5,310.9	5,263.4	15.9	15.3	-125.27	552.5	530.7	926.6	899.7	26.97	34.354		
5,500.0	5,446.8	5,409.4	5,360.9	16.2	15.6	-125.35	562.4	540.2	944.2	916.7	27.49	34.344		
5,600.0	5,545.8	5,507.8	5,458.4	16.5	15.9	-125.43	572.4	549.7	961.7	933.7	28.01	34.334		
5,700.0	5,644.7	5,606.2	5,555.8	16.9	16.2	-125.50	582.3	559.2	979.3	950.8	28.53	34.325		
5,800.0	5,743.7	5,704.7	5,653.3	17.2	16.5	-125.57	592.3	568.7	996.9	967.8	29.05	34.316		
5,900.0	5,842.6	5,803.1	5,750.8	17.5	16.7	-125.63	602.2	578.2	1,014.4	984.8	29.57	34.308		
6,000.0	5,941.5	5,901.6	5,848.3	17.8	17.0	-125.70	612.2	587.7	1,032.0	1,001.9	30.09	34.300		
6,100.0	6,040.5	6,000.0	5,945.7	18.1	17.3	-125.80	622.1	597.2	1,049.5	1,018.9	30.61	34.285		
6,200.0	6,139.7	6,098.7	6,043.4	18.3	17.6	-126.03	632.1	606.7	1,065.8	1,034.7	31.13	34.238		
6,300.0	6,239.3	6,212.2	6,155.9	18.5	18.0	-126.06	643.1	617.2	1,079.7	1,048.1	31.62	34.143		
6,400.0	6,339.2	6,344.2	6,287.3	18.7	18.2	-126.00	652.3	626.0	1,089.1	1,057.1	32.05	33.977		
6,500.0	6,439.2	6,477.0	6,420.0	18.8	18.4	-125.91	657.1	630.5	1,093.5	1,061.1	32.39	33.764		
6,600.0	6,539.2	6,602.0	6,544.9	18.9	18.6	114.39	657.6	630.8	1,093.9	1,061.3	32.65	33.506		
6,664.9	6,604.0	6,666.9	6,609.8	19.0	18.6	114.38	657.2	630.1	1,093.9	1,061.1	32.79	33.359		
6,700.0	6,639.2	6,702.0	6,644.9	19.0	18.7	114.38	657.0	629.7	1,093.9	1,061.0	32.87	33.283		
6,800.0	6,739.2	6,802.0	6,744.9	19.1	18.8	114.38	656.3	628.6	1,093.9	1,060.8	33.09	33.061		
6,900.0	6,839.1	6,902.0	6,844.9	19.2	18.9	114.39	655.7	627.5	1,093.9	1,060.6	33.31	32.840		
7,000.0	6,939.1	7,002.0	6,944.9	19.3	18.9	114.39	655.1	626.4	1,093.9	1,060.4	33.53	32.620		
7,100.0	7,039.1	7,102.0	7,044.9	19.4	19.0	114.39	654.4	625.3	1,093.9	1,060.2	33.76	32.401		
7,200.0	7,139.1	7,202.0	7,144.9	19.5	19.1	114.39	653.8	624.2	1,093.9	1,059.9	33.99	32.183		
7,300.0	7,239.1	7,302.0	7,244.9	19.6	19.2	114.39	653.2	623.1	1,093.9	1,059.7	34.22	31.966		
7,400.0	7,339.1	7,402.0	7,344.9	19.7	19.3	114.39	652.5	622.0	1,094.0	1,059.5	34.46	31.750		
7,500.0	7,439.1	7,502.0	7,444.9	19.8	19.4	114.39	651.9	620.9	1,094.0	1,059.3	34.69	31.535		
7,600.0	7,539.1	7,602.0	7,544.9	19.9	19.5	114.39	651.2	619.8	1,094.0	1,059.1	34.93	31.321		
7,700.0	7,639.1	7,702.0	7,644.8	20.0	19.6	114.40	650.6	618.7	1,094.0	1,058.8	35.17	31.108		
7,800.0	7,739.1	7,802.0	7,744.8	20.1	19.8	114.40	650.0	617.6	1,094.0	1,058.6	35.41	30.897		
7,900.0	7,839.1	7,902.0	7,844.8	20.3	19.9	114.40	649.3	616.5	1,094.0	1,058.4	35.65	30.687		
8,000.0	7,939.1	8,002.0	7,944.8	20.4	20.0	114.40	648.7	615.4	1,094.0	1,058.1	35.90	30.478		
8,100.0	8,039.0	8,102.0	8,044.8	20.5	20.1	114.40	648.1	614.3	1,094.0	1,057.9	36.14	30.270		
8,200.0	8,139.0	8,202.0	8,144.8	20.6	20.2	114.40	647.4	613.2	1,094.0	1,057.7	36.39	30.064		
8,300.0	8,239.0	8,302.0	8,244.8	20.7	20.3	114.40	646.8	612.1	1,094.1	1,057.4	36.64	29.859		
8,400.0	8,339.0	8,402.0	8,344.8	20.8	20.4	114.41	646.2	611.0	1,094.1	1,057.2	36.89	29.656		
8,500.0	8,439.0	8,502.0	8,444.8	20.9	20.5	114.41	645.5	609.9	1,094.1	1,056.9	37.14	29.454		
8,600.0	8,539.0	8,602.0	8,544.8	21.1	20.6	114.41	644.9	608.8	1,094.1	1,056.7	37.40	29.254		
8,700.0	8,639.0	8,702.0	8,644.8	21.2	20.7	114.41	644.2	607.7	1,094.1	1,056.4	37.66	29.055		
8,800.0	8,739.0	8,802.0	8,744.8	21.3	20.8	114.41	643.6	606.6	1,094.1	1,056.2	37.91	28.858		
8,900.0	8,839.0	8,902.0	8,844.7	21.4	21.0	114.41	643.0	605.4	1,094.1	1,055.9	38.17	28.662		
9,000.0	8,939.0	9,002.0	8,944.7	21.5	21.1	114.41	642.3	604.3	1,094.1	1,055.7	38.43	28.468		
9,100.0	9,039.0	9,102.0	9,044.7	21.6	21.2	114.42	641.7	603.2	1,094.1	1,055.4	38.70	28.275		
9,200.0	9,138.9	9,202.0	9,144.7	21.8	21.3	114.42	641.1	602.1	1,094.1	1,055.2	38.96	28.084		
9,300.0	9,238.9	9,302.0	9,244.7	21.9	21.4	114.42	640.4	601.0	1,094.2	1,054.9	39.22	27.895		
9,400.0	9,338.9	9,402.0	9,344.7	22.0	21.5	114.42	639.8	599.9	1,094.2	1,054.7	39.49	27.707		
9,500.0	9,438.9	9,502.0	9,444.7	22.1	21.7	114.42	639.1	598.8	1,094.2	1,054.4	39.76	27.521		
9,600.0	9,538.9	9,602.0	9,544.7	22.3	21.8	114.42	638.5	597.7	1,094.2	1,054.2	40.03	27.336		
9,653.1	9,592.0	9,655.1	9,597.8	22.3	21.8	114.42	638.2	597.1	1,094.2	1,054.0	40.17	27.239 SF		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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		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			
0.0	0.0	10.0	10.0	0.0	0.0	46.57	6.9	7.3	10.1						
100.0	100.0	110.1	110.1	0.1	0.2	45.61	6.8	7.0	9.8	9.4	0.31	31.081			
200.0	200.0	210.1	210.1	0.3	0.3	42.71	6.5	6.0	8.9	8.3	0.64	13.888			
300.0	300.0	310.1	310.1	0.5	0.5	-98.47	6.0	4.3	7.4	6.4	1.00	7.417			
310.8	310.7	320.8	320.8	0.5	0.5	-103.33	6.0	4.0	7.4	6.3	1.04	7.094 CC, ES, SF			
400.0	399.8	409.6	409.6	0.7	0.7	-146.58	6.2	1.2	10.9	9.5	1.36	8.001			
500.0	499.5	508.1	507.8	0.9	0.9	-170.84	7.2	-4.9	23.9	22.2	1.70	14.107			
600.0	598.7	605.0	604.2	1.2	1.1	-179.81	8.4	-14.1	44.5	42.4	2.04	21.846			
700.0	697.7	700.4	698.9	1.5	1.4	175.91	9.4	-25.6	69.9	67.6	2.38	29.368			
800.0	796.6	793.1	790.5	1.8	1.6	172.87	9.9	-40.0	98.4	95.7	2.73	36.040			
900.0	895.5	886.1	881.9	2.1	2.0	171.15	11.3	-56.9	129.8	126.7	3.08	42.149			
1,000.0	994.5	979.4	973.4	2.4	2.3	169.83	12.6	-75.4	162.6	159.2	3.44	47.329			
1,100.0	1,093.4	1,072.9	1,065.0	2.7	2.7	168.57	12.8	-94.3	195.6	191.8	3.80	51.513			
1,200.0	1,192.4	1,169.9	1,159.9	3.0	3.0	167.40	12.1	-114.2	228.6	224.4	4.17	54.829			
1,300.0	1,291.3	1,266.4	1,254.6	3.3	3.4	166.41	10.5	-133.1	260.5	256.0	4.54	57.332			
1,400.0	1,390.2	1,365.2	1,351.7	3.6	3.7	165.66	8.8	-151.4	291.5	286.6	4.92	59.268			
1,500.0	1,489.2	1,465.6	1,450.6	3.9	4.1	165.40	8.5	-168.3	321.3	316.0	5.29	60.743			
1,600.0	1,588.1	1,565.5	1,549.4	4.2	4.4	165.42	9.1	-183.3	349.7	344.0	5.65	61.840			
1,700.0	1,687.1	1,663.5	1,646.4	4.5	4.7	165.46	9.5	-196.9	377.0	371.0	6.02	62.666			
1,800.0	1,786.0	1,765.1	1,747.1	4.8	5.0	165.54	10.0	-210.1	403.4	397.0	6.38	63.193			
1,900.0	1,884.9	1,859.2	1,840.5	5.1	5.2	165.71	11.2	-221.8	429.5	422.8	6.73	63.805			
2,000.0	1,983.9	1,953.4	1,933.8	5.4	5.5	165.96	13.2	-234.0	456.4	449.3	7.08	64.482			
2,100.0	2,082.8	2,055.7	2,035.4	5.7	5.8	166.22	15.5	-246.7	482.8	475.4	7.44	64.908			
2,200.0	2,181.8	2,150.9	2,129.9	6.0	6.0	166.29	16.2	-258.4	508.7	500.9	7.79	65.276			
2,300.0	2,280.7	2,246.9	2,225.0	6.4	6.3	166.36	17.0	-270.5	534.9	526.8	8.15	65.657			
2,400.0	2,379.7	2,338.2	2,315.7	6.7	6.6	166.46	18.2	-282.0	561.2	552.7	8.49	66.076			
2,500.0	2,478.6	2,421.9	2,398.5	7.0	6.9	166.46	19.0	-294.3	589.3	580.5	8.83	66.740			
2,600.0	2,577.5	2,506.7	2,482.0	7.3	7.2	166.43	20.0	-308.3	619.3	610.2	9.17	67.539			
2,700.0	2,676.5	2,596.0	2,569.9	7.6	7.5	166.32	20.6	-324.7	650.7	641.2	9.52	68.328			
2,800.0	2,775.4	2,702.9	2,675.1	7.9	7.9	166.17	20.7	-343.4	681.3	671.4	9.91	68.751			
2,900.0	2,874.4	2,799.7	2,770.4	8.2	8.2	166.00	20.1	-360.0	711.3	701.0	10.28	69.189			
3,000.0	2,973.3	2,901.3	2,870.7	8.5	8.5	165.84	19.2	-376.6	740.5	729.8	10.66	69.470			
3,100.0	3,072.2	2,991.5	2,959.6	8.8	8.8	165.71	18.6	-391.3	769.7	758.7	11.01	69.880			
3,200.0	3,171.2	3,079.9	3,046.7	9.1	9.1	165.64	18.8	-406.6	800.0	788.7	11.36	70.402			
3,300.0	3,270.1	3,180.7	3,146.1	9.4	9.5	165.58	19.0	-423.4	829.8	818.1	11.73	70.712			
3,400.0	3,369.1	3,264.9	3,229.0	9.8	9.8	165.57	19.9	-438.1	860.5	848.5	12.07	71.282			
3,500.0	3,468.0	3,368.5	3,331.1	10.1	10.2	165.56	21.0	-455.8	890.9	878.5	12.45	71.581			
3,600.0	3,567.0	3,460.1	3,421.3	10.4	10.5	165.56	22.1	-471.6	921.5	908.7	12.80	72.007			
3,700.0	3,665.9	3,561.2	3,521.0	10.7	10.8	165.56	23.2	-488.5	951.6	938.4	13.17	72.280			
3,800.0	3,764.8	3,655.4	3,613.8	11.0	11.1	165.56	24.3	-504.4	981.8	968.3	13.52	72.611			
3,900.0	3,863.8	3,752.1	3,709.2	11.3	11.5	165.56	25.3	-520.4	1,011.7	997.8	13.88	72.871			
4,000.0	3,962.7	3,844.4	3,800.1	11.6	11.8	165.54	26.0	-536.1	1,042.0	1,027.8	14.24	73.185			
4,100.0	4,061.7	3,947.6	3,901.9	11.9	12.1	165.51	26.6	-553.3	1,071.9	1,057.2	14.61	73.350			
4,200.0	4,160.6	4,069.7	4,022.5	12.2	12.5	165.50	27.1	-572.2	1,100.8	1,085.7	15.02	73.289			
4,300.0	4,259.5	4,219.8	4,171.6	12.5	12.9	165.57	27.8	-588.9	1,125.3	1,109.9	15.47	72.754			
4,400.0	4,358.5	4,346.7	4,298.2	12.8	13.1	165.66	27.7	-599.0	1,146.9	1,131.1	15.87	72.256			
4,500.0	4,457.4	4,504.8	4,456.1	13.1	13.3	165.90	28.5	-604.6	1,164.5	1,148.2	16.32	71.361			

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 #29-5D
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 #29-5D	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	45.56	49.2	50.2	70.3					
100.0	100.0	109.6	109.6	0.1	0.2	45.70	49.3	50.5	70.6	70.3	0.31	225.481		
200.0	200.0	209.1	209.0	0.3	0.3	46.05	49.6	51.5	71.5	70.8	0.64	111.711		
300.0	300.0	307.2	307.1	0.5	0.5	-74.56	50.5	54.1	73.5	72.6	0.99	74.225		
400.0	399.8	404.5	404.3	0.7	0.7	-76.63	52.9	59.4	77.8	76.5	1.36	57.244		
500.0	499.5	501.9	501.3	0.9	0.9	-80.32	57.1	67.0	84.6	82.8	1.77	47.893		
600.0	598.7	599.2	597.9	1.2	1.2	-84.84	62.6	76.9	93.8	91.5	2.23	42.085		
700.0	697.7	696.2	694.0	1.5	1.5	-89.57	69.5	88.2	105.4	102.6	2.73	38.639		
800.0	796.6	792.8	789.4	1.8	1.8	-92.99	77.6	101.1	119.6	116.3	3.25	36.830		
900.0	895.5	891.2	886.4	2.1	2.1	-95.52	87.0	115.2	135.5	131.7	3.79	35.793		
1,000.0	994.5	993.5	987.3	2.4	2.4	-97.62	95.4	129.2	150.3	145.9	4.34	34.633		
1,100.0	1,093.4	1,095.0	1,087.8	2.7	2.7	-99.58	101.8	141.6	162.7	157.8	4.89	33.251		
1,200.0	1,192.4	1,195.6	1,187.5	3.0	3.0	-101.28	107.3	153.5	174.6	169.1	5.45	32.028		
1,300.0	1,291.3	1,294.5	1,285.6	3.3	3.3	-102.70	112.2	165.2	186.0	180.0	6.01	30.956		
1,400.0	1,390.2	1,393.1	1,383.4	3.6	3.6	-103.86	117.3	177.3	197.9	191.4	6.56	30.158		
1,500.0	1,489.2	1,494.3	1,483.8	3.9	3.8	-105.18	122.7	188.7	209.7	202.6	7.11	29.496		
1,600.0	1,588.1	1,595.6	1,584.6	4.2	4.1	-106.90	127.4	197.8	220.5	212.9	7.64	28.872		
1,700.0	1,687.1	1,696.5	1,685.1	4.5	4.3	-108.73	131.6	205.7	230.7	222.5	8.16	28.261		
1,800.0	1,786.0	1,793.2	1,781.4	4.8	4.5	-110.19	135.6	213.8	241.2	232.5	8.68	27.781		
1,900.0	1,884.9	1,893.9	1,881.6	5.1	4.8	-111.53	140.0	222.6	252.1	242.9	9.21	27.388		
2,000.0	1,983.9	1,992.0	1,979.2	5.4	5.0	-112.69	144.2	231.2	263.1	253.4	9.73	27.052		
2,100.0	2,082.8	2,089.1	2,075.7	5.7	5.3	-113.59	148.9	240.6	274.8	264.6	10.25	26.811		
2,200.0	2,181.8	2,187.0	2,173.0	6.0	5.5	-114.46	154.3	250.0	287.2	276.4	10.76	26.680		
2,300.0	2,280.7	2,284.5	2,270.0	6.4	5.8	-115.38	160.1	258.7	300.1	288.8	11.27	26.627		
2,400.0	2,379.7	2,383.1	2,368.0	6.7	6.1	-116.18	166.4	267.8	313.4	301.6	11.79	26.580		
2,500.0	2,478.6	2,487.6	2,471.7	7.0	6.3	-116.62	172.1	279.4	326.2	313.8	12.36	26.399		
2,600.0	2,577.5	2,587.2	2,570.5	7.3	6.6	-116.89	176.6	291.0	337.8	324.9	12.89	26.198		
2,700.0	2,676.5	2,685.8	2,668.3	7.6	6.9	-117.14	181.0	302.5	349.6	336.2	13.45	26.000		
2,800.0	2,775.4	2,786.7	2,768.5	7.9	7.2	-117.50	185.6	313.5	361.3	347.3	13.97	25.856		
2,900.0	2,874.4	2,887.3	2,868.4	8.2	7.4	-117.88	189.5	324.2	372.5	357.9	14.52	25.656		
3,000.0	2,973.3	2,979.9	2,960.3	8.5	7.7	-118.10	194.0	334.8	384.5	369.5	15.04	25.560		
3,100.0	3,072.2	3,076.2	3,055.7	8.8	8.0	-118.20	199.9	346.6	397.9	382.3	15.59	25.519		
3,200.0	3,171.2	3,182.7	3,161.3	9.1	8.3	-118.30	205.4	359.7	410.4	394.2	16.17	25.384		
3,300.0	3,270.1	3,281.5	3,259.1	9.4	8.6	-118.27	209.9	372.7	422.3	405.5	16.73	25.233		
3,400.0	3,369.1	3,380.0	3,356.7	9.8	8.9	-118.32	214.6	385.0	434.3	417.0	17.28	25.130		
3,500.0	3,468.0	3,479.8	3,455.8	10.1	9.1	-118.55	219.5	396.1	446.4	428.6	17.81	25.062		
3,600.0	3,567.0	3,578.3	3,553.6	10.4	9.4	-118.87	224.0	406.2	458.3	440.0	18.34	24.990		
3,700.0	3,665.9	3,675.0	3,649.6	10.7	9.7	-119.13	229.2	416.5	470.9	452.1	18.86	24.967		
3,800.0	3,764.8	3,773.7	3,747.6	11.0	9.9	-119.39	234.5	426.9	483.6	464.2	19.40	24.931		
3,900.0	3,863.8	3,871.1	3,844.2	11.3	10.2	-119.51	240.1	438.3	496.6	476.7	19.93	24.917		
4,000.0	3,962.7	3,970.4	3,942.8	11.6	10.5	-119.72	246.0	449.0	509.8	489.4	20.47	24.909		
4,100.0	4,061.7	4,070.1	4,041.7	11.9	10.8	-119.87	251.8	460.3	522.9	501.9	21.00	24.899		
4,200.0	4,160.6	4,174.6	4,145.5	12.2	11.0	-120.11	257.4	471.1	535.6	514.0	21.54	24.864		
4,300.0	4,259.5	4,271.5	4,241.7	12.5	11.3	-120.33	262.1	481.2	547.7	525.7	22.06	24.829		
4,400.0	4,358.5	4,369.1	4,338.5	12.8	11.6	-120.46	267.3	492.2	560.4	537.8	22.61	24.789		
4,500.0	4,457.4	4,468.2	4,436.8	13.1	11.9	-120.53	272.8	503.8	573.2	550.0	23.14	24.767		
4,600.0	4,556.4	4,562.9	4,530.9	13.5	12.1	-120.74	278.3	513.5	586.3	562.7	23.65	24.796		
4,700.0	4,655.3	4,656.5	4,623.8	13.8	12.4	-120.94	284.5	523.0	600.3	576.2	24.16	24.844		
4,800.0	4,754.3	4,749.9	4,716.2	14.1	12.7	-121.02	291.6	533.6	615.2	590.5	24.69	24.916		
4,900.0	4,853.2	4,852.9	4,818.4	14.4	12.9	-121.21	299.6	544.2	630.3	605.1	25.21	25.006		
5,000.0	4,952.1	4,959.3	4,924.2	14.7	13.2	-121.60	306.8	552.9	644.5	618.8	25.71	25.071		
5,100.0	5,051.1	5,069.5	5,034.1	15.0	13.4	-122.17	312.7	559.8	657.3	631.1	26.18	25.110		

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 #29-5D
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 #29-5D	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	5,150.0	5,176.0	5,140.3	15.3	13.6	-122.77	316.3	565.9	668.2	641.6	26.65	25.074		
5,300.0	5,249.0	5,268.1	5,232.0	15.6	13.9	-123.12	319.9	572.9	679.7	652.6	27.13	25.057		
5,400.0	5,347.9	5,364.2	5,327.6	15.9	14.1	-123.31	324.5	582.0	692.0	664.4	27.63	25.045		
5,500.0	5,446.8	5,466.3	5,429.1	16.2	14.4	-123.53	329.5	591.4	704.3	676.2	28.13	25.033		
5,600.0	5,545.8	5,571.9	5,534.3	16.5	14.6	-123.83	333.7	600.2	715.9	687.2	28.64	24.995		
5,700.0	5,644.7	5,671.9	5,633.8	16.9	14.9	-124.05	337.2	609.3	726.8	697.7	29.14	24.941		
5,800.0	5,743.7	5,769.2	5,730.7	17.2	15.1	-124.29	340.7	617.7	738.1	708.4	29.63	24.913		
5,900.0	5,842.6	5,880.3	5,841.4	17.5	15.3	-124.63	344.3	626.5	749.0	718.8	30.12	24.863		
6,000.0	5,941.5	5,985.7	5,946.5	17.8	15.5	-125.01	345.9	633.9	758.2	727.6	30.59	24.785		
6,100.0	6,040.5	6,082.4	6,043.1	18.1	15.7	-125.49	347.2	639.3	767.4	736.4	31.01	24.745		
6,200.0	6,139.7	6,180.9	6,141.5	18.3	15.9	-126.05	348.6	643.2	775.7	744.3	31.40	24.700		
6,300.0	6,239.3	6,280.6	6,241.1	18.5	16.0	-126.40	350.0	646.7	782.0	750.2	31.76	24.623		
6,400.0	6,339.2	6,386.6	6,347.1	18.7	16.2	-126.67	350.9	648.5	785.7	753.7	32.04	24.523		
6,500.0	6,439.2	6,485.8	6,446.2	18.8	16.3	-126.76	351.2	648.9	787.2	754.9	32.28	24.382		
6,600.0	6,539.2	6,585.3	6,545.7	18.9	16.4	113.56	351.7	649.3	787.8	755.2	32.53	24.217		
6,700.0	6,639.2	6,686.4	6,646.9	19.0	16.6	113.66	352.0	649.6	788.5	755.7	32.77	24.062		
6,800.0	6,739.2	6,782.7	6,743.2	19.1	16.7	113.71	352.5	649.1	789.6	756.6	32.99	23.932		
6,900.0	6,839.1	6,882.2	6,842.7	19.2	16.8	113.74	353.2	648.2	790.9	757.7	33.22	23.809		
7,000.0	6,939.1	6,983.8	6,944.2	19.3	16.9	113.73	353.9	646.8	792.2	758.8	33.44	23.690		
7,100.0	7,039.1	7,087.7	7,048.1	19.4	17.0	113.71	354.1	645.3	793.1	759.4	33.67	23.555		
7,200.0	7,139.1	7,188.9	7,149.4	19.5	17.1	113.71	354.0	644.1	793.6	759.7	33.90	23.411		
7,300.0	7,239.1	7,286.6	7,247.0	19.6	17.2	113.69	353.9	642.7	794.2	760.1	34.13	23.273		
7,400.0	7,339.1	7,385.5	7,345.9	19.7	17.4	113.69	354.1	641.5	795.2	760.8	34.36	23.143		
7,500.0	7,439.1	7,488.9	7,449.3	19.8	17.5	113.69	354.3	640.1	795.9	761.3	34.59	23.008		
7,600.0	7,539.1	7,590.6	7,550.9	19.9	17.6	113.64	353.9	638.3	796.3	761.4	34.82	22.867		
7,700.0	7,639.1	7,692.5	7,652.8	20.0	17.7	113.57	353.3	636.2	796.4	761.4	35.05	22.725		
7,800.0	7,739.1	7,790.9	7,751.2	20.1	17.8	113.49	352.6	633.9	796.6	761.3	35.27	22.586		
7,900.0	7,839.1	7,896.9	7,857.2	20.3	17.9	113.38	351.7	631.3	796.5	761.0	35.50	22.439		
8,000.0	7,939.1	7,994.0	7,954.3	20.4	18.0	113.29	350.6	628.9	796.2	760.4	35.72	22.290		
8,039.0	7,978.0	8,031.9	7,992.1	20.4	18.0	113.25	350.3	627.9	796.1	760.3	35.81	22.235		
8,100.0	8,039.0	8,091.3	8,051.6	20.5	18.1	113.19	349.8	626.4	796.2	760.3	35.94	22.153		
8,200.0	8,139.0	8,194.6	8,154.8	20.6	18.2	113.09	348.9	623.9	796.1	759.9	36.17	22.008		
8,227.3	8,166.4	8,220.2	8,180.4	20.6	18.2	113.06	348.7	623.3	796.1	759.9	36.24	21.970		
8,300.0	8,239.0	8,289.6	8,249.7	20.7	18.3	112.99	348.3	621.4	796.3	759.9	36.40	21.878		
8,400.0	8,339.0	8,394.1	8,354.2	20.8	18.4	112.85	347.4	618.4	796.3	759.7	36.63	21.742		
8,454.0	8,393.0	8,446.9	8,407.0	20.9	18.5	112.78	346.9	616.8	796.3	759.6	36.75	21.670		
8,500.0	8,439.0	8,492.2	8,452.3	20.9	18.5	112.71	346.6	615.3	796.3	759.5	36.85	21.610		
8,600.0	8,539.0	8,591.8	8,551.8	21.1	18.6	112.54	345.8	611.8	796.5	759.4	37.07	21.486		
8,700.0	8,639.0	8,691.8	8,651.7	21.2	18.7	112.36	344.9	608.2	796.6	759.3	37.29	21.359		
8,800.0	8,739.0	8,790.8	8,750.7	21.3	18.8	112.21	344.2	604.9	796.9	759.3	37.52	21.237		
8,900.0	8,839.0	8,889.9	8,849.7	21.4	18.9	112.02	343.4	601.2	797.1	759.3	37.74	21.119		
9,000.0	8,939.0	8,985.4	8,945.1	21.5	19.0	111.78	343.0	596.6	797.8	759.9	37.95	21.022		
9,100.0	9,039.0	9,086.1	9,045.7	21.6	19.1	111.51	342.9	591.7	798.9	760.7	38.17	20.931		
9,200.0	9,138.9	9,185.7	9,145.1	21.8	19.2	111.26	342.5	587.0	799.6	761.2	38.39	20.829		
9,300.0	9,238.9	9,280.2	9,239.6	21.9	19.4	111.07	342.6	583.1	800.9	762.3	38.61	20.743		
9,400.0	9,338.9	9,375.1	9,334.4	22.0	19.5	110.83	343.4	578.5	802.9	764.0	38.83	20.676		
9,500.0	9,438.9	9,470.7	9,429.9	22.1	19.6	110.61	344.6	573.9	805.4	766.4	39.06	20.622		
9,600.0	9,538.9	9,568.6	9,527.6	22.3	19.7	110.39	346.4	569.3	808.5	769.2	39.29	20.578		
9,653.1	9,592.0	9,603.0	9,562.0	22.3	19.7	110.31	347.1	567.7	810.3	770.9	39.39	20.570 SF		

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 #29-5D
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 #29-5D	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 #29-13D - 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	45.31	14.2	14.4	20.2					
100.0	100.0	100.0	100.0	0.1	0.1	45.31	14.2	14.4	20.2	19.9	0.30	68.141		
200.0	200.0	200.0	200.0	0.3	0.3	45.31	14.2	14.4	20.2	19.6	0.65	31.308		
300.0	300.0	299.9	299.9	0.5	0.5	-74.91	13.2	15.8	20.1	19.1	1.00	20.044		
314.0	314.0	313.8	313.8	0.5	0.5	-74.92	12.9	16.2	20.1	19.0	1.05	19.019 CC, ES		
400.0	399.8	399.3	399.1	0.7	0.7	-76.78	11.6	20.3	20.8	19.4	1.38	15.047		
500.0	499.5	498.6	498.1	0.9	0.9	-81.79	10.7	28.2	23.7	21.9	1.82	13.055		
600.0	598.7	598.4	597.4	1.2	1.1	-89.94	10.2	38.1	28.0	25.7	2.31	12.132		
700.0	697.7	698.1	696.7	1.5	1.4	-99.80	9.7	48.0	33.1	30.3	2.83	11.694		
800.0	796.6	797.8	795.9	1.8	1.6	-106.97	9.2	57.8	38.9	35.6	3.35	11.631		
900.0	895.5	897.6	895.1	2.1	1.9	-112.23	8.8	67.7	45.2	41.3	3.85	11.730		
1,000.0	994.5	997.3	994.4	2.4	2.1	-116.19	8.3	77.6	51.7	47.4	4.35	11.893		
1,100.0	1,093.4	1,097.0	1,093.6	2.7	2.3	-119.25	7.8	87.5	58.4	53.6	4.84	12.076		
1,200.0	1,192.4	1,196.8	1,192.9	3.0	2.6	-121.67	7.3	97.4	65.3	60.0	5.33	12.260		
1,300.0	1,291.3	1,296.5	1,292.1	3.3	2.8	-123.63	6.8	107.3	72.3	66.4	5.81	12.436		
1,400.0	1,390.2	1,396.2	1,391.3	3.6	3.1	-125.25	6.4	117.2	79.3	73.0	6.29	12.601		
1,500.0	1,489.2	1,496.0	1,490.6	3.9	3.3	-126.60	5.9	127.0	86.4	79.6	6.77	12.753		
1,600.0	1,588.1	1,595.7	1,589.8	4.2	3.6	-127.74	5.4	136.9	93.5	86.2	7.25	12.894		
1,700.0	1,687.1	1,695.4	1,689.0	4.5	3.8	-128.73	4.9	146.8	100.6	92.9	7.73	13.023		
1,800.0	1,786.0	1,795.1	1,788.3	4.8	4.0	-129.58	4.4	156.7	107.8	99.6	8.20	13.141		
1,900.0	1,884.9	1,894.9	1,887.5	5.1	4.3	-130.33	4.0	166.6	115.0	106.3	8.68	13.250		
2,000.0	1,983.9	1,994.6	1,986.8	5.4	4.5	-130.98	3.5	176.5	122.2	113.1	9.15	13.350		
2,100.0	2,082.8	2,094.3	2,086.0	5.7	4.8	-131.57	3.0	186.3	129.4	119.8	9.63	13.442		
2,200.0	2,181.8	2,194.1	2,185.2	6.0	5.0	-132.09	2.5	196.2	136.7	126.6	10.10	13.527		
2,300.0	2,280.7	2,293.8	2,284.5	6.4	5.3	-132.56	2.0	206.1	143.9	133.3	10.58	13.606		
2,400.0	2,379.7	2,393.5	2,383.7	6.7	5.5	-132.99	1.5	216.0	151.2	140.1	11.05	13.680		
2,500.0	2,478.6	2,493.3	2,483.0	7.0	5.8	-133.37	1.1	225.9	158.4	146.9	11.52	13.748		
2,600.0	2,577.5	2,593.0	2,582.2	7.3	6.0	-133.73	0.6	235.8	165.7	153.7	12.00	13.812		
2,700.0	2,676.5	2,692.7	2,681.4	7.6	6.3	-134.05	0.1	245.7	173.0	160.5	12.47	13.871		
2,800.0	2,775.4	2,792.4	2,780.7	7.9	6.5	-134.35	-0.4	255.5	180.3	167.3	12.94	13.927		
2,900.0	2,874.4	2,892.2	2,879.9	8.2	6.7	-134.62	-0.9	265.4	187.6	174.1	13.42	13.979		
3,000.0	2,973.3	2,991.9	2,979.1	8.5	7.0	-134.87	-1.3	275.3	194.9	181.0	13.89	14.028		
3,100.0	3,072.2	3,091.6	3,078.4	8.8	7.2	-135.11	-1.8	285.2	202.1	187.8	14.36	14.074		
3,200.0	3,171.2	3,191.4	3,177.6	9.1	7.5	-135.33	-2.3	295.1	209.4	194.6	14.84	14.118		
3,300.0	3,270.1	3,291.1	3,276.9	9.4	7.7	-135.53	-2.8	305.0	216.7	201.4	15.31	14.159		
3,400.0	3,369.1	3,390.8	3,376.1	9.8	8.0	-135.72	-3.3	314.8	224.0	208.3	15.78	14.198		
3,500.0	3,468.0	3,490.6	3,475.3	10.1	8.2	-135.90	-3.7	324.7	231.4	215.1	16.25	14.234		
3,600.0	3,567.0	3,590.3	3,574.6	10.4	8.5	-136.07	-4.2	334.6	238.7	221.9	16.73	14.269		
3,700.0	3,665.9	3,690.0	3,673.8	10.7	8.7	-136.22	-4.7	344.5	246.0	228.8	17.20	14.302		
3,800.0	3,764.8	3,789.8	3,773.0	11.0	9.0	-136.37	-5.2	354.4	253.3	235.6	17.67	14.334		
3,900.0	3,863.8	3,889.5	3,872.3	11.3	9.2	-136.51	-5.7	364.3	260.6	242.4	18.14	14.364		
4,000.0	3,962.7	3,989.2	3,971.5	11.6	9.4	-136.64	-6.1	374.2	267.9	249.3	18.61	14.393		
4,100.0	4,061.7	4,088.9	4,070.8	11.9	9.7	-136.77	-6.6	384.0	275.2	256.1	19.09	14.420		
4,200.0	4,160.6	4,188.7	4,170.0	12.2	9.9	-136.89	-7.1	393.9	282.5	263.0	19.56	14.446		
4,300.0	4,259.5	4,288.4	4,269.2	12.5	10.2	-137.00	-7.6	403.8	289.9	269.8	20.03	14.471		
4,400.0	4,358.5	4,388.1	4,368.5	12.8	10.4	-137.11	-8.1	413.7	297.2	276.7	20.50	14.495		
4,500.0	4,457.4	4,487.9	4,467.7	13.1	10.7	-137.21	-8.6	423.6	304.5	283.5	20.97	14.517		
4,600.0	4,556.4	4,587.6	4,567.0	13.5	10.9	-137.31	-9.0	433.5	311.8	290.4	21.45	14.539		
4,700.0	4,655.3	4,687.3	4,666.2	13.8	11.2	-137.40	-9.5	443.3	319.1	297.2	21.92	14.560		
4,800.0	4,754.3	4,787.1	4,765.4	14.1	11.4	-137.49	-10.0	453.2	326.5	304.1	22.39	14.580		
4,900.0	4,853.2	4,886.8	4,864.7	14.4	11.7	-137.58	-10.5	463.1	333.8	310.9	22.86	14.600		
5,000.0	4,952.1	4,986.5	4,963.9	14.7	11.9	-137.66	-11.0	473.0	341.1	317.8	23.33	14.618		

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 #29-5D
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 #29-5D	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 #29-13D - 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	5,051.1	5,086.2	5,063.1	15.0	12.1	-137.73	-11.4	482.9	348.4	324.6	23.81	14.636				
5,200.0	5,150.0	5,186.0	5,162.4	15.3	12.4	-137.81	-11.9	492.8	355.7	331.5	24.28	14.653				
5,300.0	5,249.0	5,285.7	5,261.6	15.6	12.6	-137.88	-12.4	502.6	363.1	338.3	24.75	14.670				
5,400.0	5,347.9	5,385.4	5,360.9	15.9	12.9	-137.95	-12.9	512.5	370.4	345.2	25.22	14.686				
5,500.0	5,446.8	5,485.2	5,460.1	16.2	13.1	-138.02	-13.4	522.4	377.7	352.0	25.69	14.701				
5,600.0	5,545.8	5,584.9	5,559.3	16.5	13.4	-138.08	-13.8	532.3	385.1	358.9	26.16	14.716				
5,700.0	5,644.7	5,684.6	5,658.6	16.9	13.6	-138.14	-14.3	542.2	392.4	365.7	26.64	14.731				
5,800.0	5,743.7	5,784.4	5,757.8	17.2	13.9	-138.20	-14.8	552.1	399.7	372.6	27.11	14.745				
5,900.0	5,842.6	5,884.1	5,857.0	17.5	14.1	-138.26	-15.3	562.0	407.0	379.5	27.58	14.758				
6,000.0	5,941.5	5,983.8	5,956.3	17.8	14.4	-138.31	-15.8	571.8	414.4	386.3	28.05	14.771				
6,100.0	6,040.5	6,083.6	6,055.5	18.1	14.6	-138.37	-16.3	581.7	421.7	393.1	28.52	14.783				
6,200.0	6,139.7	6,183.4	6,154.9	18.3	14.8	-138.30	-16.7	591.6	427.3	398.3	29.00	14.733				
6,300.0	6,239.3	6,278.9	6,250.0	18.5	15.1	-138.06	-17.1	599.9	430.8	401.4	29.43	14.638				
6,400.0	6,339.2	6,373.9	6,344.8	18.7	15.2	-137.90	-17.4	605.0	432.9	403.1	29.78	14.539				
6,500.0	6,439.2	6,468.9	6,439.8	18.8	15.3	-137.82	-17.5	607.0	433.5	403.5	30.04	14.433				
6,530.3	6,469.5	6,498.7	6,469.6	18.8	15.4	117.46	-17.5	607.0	433.6	403.4	30.12	14.396				
6,600.0	6,539.2	6,568.9	6,539.9	18.9	15.5	102.45	-17.6	606.7	433.6	403.3	30.29	14.314				
6,700.0	6,639.2	6,669.4	6,640.4	19.0	15.6	102.46	-18.2	605.7	433.6	403.0	30.53	14.202				
6,800.0	6,739.2	6,769.4	6,740.4	19.1	15.7	102.46	-18.9	604.6	433.6	402.8	30.77	14.092				
6,900.0	6,839.1	6,869.4	6,840.4	19.2	15.8	102.46	-19.5	603.5	433.6	402.6	31.01	13.983				
7,000.0	6,939.1	6,969.4	6,940.4	19.3	15.9	102.46	-20.2	602.4	433.6	402.3	31.25	13.874				
7,100.0	7,039.1	7,069.4	7,040.3	19.4	16.1	102.46	-20.8	601.2	433.6	402.1	31.50	13.766				
7,200.0	7,139.1	7,169.4	7,140.3	19.5	16.2	102.46	-21.5	600.1	433.6	401.8	31.74	13.659				
7,300.0	7,239.1	7,269.4	7,240.3	19.6	16.3	102.46	-22.1	599.0	433.6	401.6	31.99	13.552				
7,400.0	7,339.1	7,369.4	7,340.3	19.7	16.4	102.46	-22.8	597.9	433.6	401.3	32.24	13.447				
7,500.0	7,439.1	7,469.4	7,440.3	19.8	16.6	102.46	-23.4	596.7	433.6	401.1	32.50	13.342				
7,600.0	7,539.1	7,569.4	7,540.3	19.9	16.7	102.46	-24.1	595.6	433.6	400.8	32.75	13.238				
7,700.0	7,639.1	7,669.4	7,640.3	20.0	16.8	102.46	-24.7	594.5	433.6	400.6	33.01	13.136				
7,800.0	7,739.1	7,769.4	7,740.3	20.1	16.9	102.46	-25.4	593.4	433.6	400.3	33.26	13.034				
7,900.0	7,839.1	7,869.4	7,840.3	20.3	17.1	102.46	-26.0	592.2	433.6	400.0	33.52	12.932				
8,000.0	7,939.1	7,969.4	7,940.3	20.4	17.2	102.46	-26.7	591.1	433.6	399.8	33.79	12.832				
8,100.0	8,039.0	8,069.4	8,040.3	20.5	17.3	102.46	-27.3	590.0	433.6	399.5	34.05	12.733				
8,200.0	8,139.0	8,169.4	8,140.3	20.6	17.5	102.46	-28.0	588.8	433.6	399.2	34.31	12.635				
8,300.0	8,239.0	8,269.4	8,240.2	20.7	17.6	102.46	-28.6	587.7	433.6	399.0	34.58	12.538				
8,400.0	8,339.0	8,369.4	8,340.2	20.8	17.7	102.46	-29.3	586.6	433.6	398.7	34.85	12.441				
8,500.0	8,439.0	8,469.4	8,440.2	20.9	17.9	102.46	-29.9	585.5	433.6	398.4	35.12	12.346				
8,600.0	8,539.0	8,569.4	8,540.2	21.1	18.0	102.46	-30.6	584.3	433.6	398.2	35.39	12.251				
8,700.0	8,639.0	8,669.4	8,640.2	21.2	18.1	102.46	-31.2	583.2	433.6	397.9	35.66	12.158				
8,800.0	8,739.0	8,769.4	8,740.2	21.3	18.3	102.46	-31.9	582.1	433.6	397.6	35.93	12.065				
8,900.0	8,839.0	8,869.4	8,840.2	21.4	18.4	102.46	-32.5	581.0	433.6	397.3	36.21	11.974				
9,000.0	8,939.0	8,969.4	8,940.2	21.5	18.5	102.46	-33.2	579.8	433.6	397.1	36.49	11.883				
9,100.0	9,039.0	9,069.4	9,040.2	21.6	18.7	102.46	-33.8	578.7	433.6	396.8	36.76	11.793				
9,200.0	9,138.9	9,169.4	9,140.2	21.8	18.8	102.46	-34.5	577.6	433.6	396.5	37.04	11.704				
9,300.0	9,238.9	9,269.4	9,240.2	21.9	18.9	102.46	-35.1	576.5	433.6	396.2	37.32	11.617				
9,400.0	9,338.9	9,369.4	9,340.2	22.0	19.1	102.46	-35.8	575.3	433.6	396.0	37.60	11.530				
9,500.0	9,438.9	9,469.4	9,440.1	22.1	19.2	102.46	-36.4	574.2	433.6	395.7	37.89	11.444				
9,600.0	9,538.9	9,569.4	9,540.1	22.3	19.4	102.46	-37.1	573.1	433.6	395.4	38.17	11.359				
9,653.1	9,592.0	9,622.5	9,593.2	22.3	19.4	102.46	-37.4	572.5	433.6	395.2	38.32	11.314 SF				

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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	45.38	21.1	21.4	30.1					
100.0	100.0	100.0	100.0	0.1	0.1	45.38	21.1	21.4	30.1	29.8	0.30	101.416		
200.0	200.0	200.0	200.0	0.3	0.3	45.38	21.1	21.4	30.1	29.4	0.65	46.597		
300.0	300.0	300.2	300.1	0.5	0.5	-81.52	22.0	19.9	29.4	28.4	1.00	29.294		
350.7	350.6	350.7	350.6	0.6	0.6	-90.18	23.1	18.0	29.0	27.8	1.20	24.207 CC, ES		
400.0	399.8	399.6	399.4	0.7	0.7	-101.79	24.6	15.4	29.6	28.3	1.39	21.328		
500.0	499.5	497.6	497.0	0.9	0.9	-128.37	28.8	8.0	37.2	35.5	1.78	20.914 SF		
600.0	598.7	594.2	593.1	1.2	1.2	-147.59	34.4	-1.7	55.2	53.1	2.12	26.054		
700.0	697.7	690.7	688.8	1.5	1.4	-157.85	40.2	-11.8	78.8	76.3	2.44	32.279		
800.0	796.6	787.2	784.6	1.8	1.7	-163.36	46.0	-21.8	103.7	100.9	2.77	37.482		
900.0	895.5	883.7	880.4	2.1	1.9	-166.73	51.8	-31.9	129.2	126.1	3.10	41.716		
1,000.0	994.5	980.2	976.2	2.4	2.2	-168.99	57.6	-42.0	154.9	151.5	3.43	45.183		
1,100.0	1,093.4	1,076.6	1,071.9	2.7	2.4	-170.61	63.4	-52.0	180.9	177.1	3.76	48.059		
1,200.0	1,192.4	1,173.1	1,167.7	3.0	2.7	-171.82	69.2	-62.1	206.9	202.8	4.10	50.476		
1,300.0	1,291.3	1,269.6	1,263.5	3.3	3.0	-172.76	75.0	-72.2	233.0	228.5	4.43	52.533		
1,400.0	1,390.2	1,366.1	1,359.3	3.6	3.2	-173.51	80.8	-82.2	259.1	254.3	4.77	54.303		
1,500.0	1,489.2	1,462.5	1,455.0	3.9	3.5	-174.12	86.6	-92.3	285.3	280.2	5.11	55.841		
1,600.0	1,588.1	1,559.0	1,550.8	4.2	3.7	-174.63	92.4	-102.4	311.5	306.0	5.45	57.189		
1,700.0	1,687.1	1,655.5	1,646.6	4.5	4.0	-175.06	98.2	-112.4	337.7	331.9	5.78	58.381		
1,800.0	1,786.0	1,752.0	1,742.3	4.8	4.3	-175.43	104.0	-122.5	363.9	357.8	6.12	59.441		
1,900.0	1,884.9	1,848.4	1,838.1	5.1	4.5	-175.75	109.8	-132.6	390.1	383.7	6.46	60.390		
2,000.0	1,983.9	1,944.9	1,933.9	5.4	4.8	-176.03	115.6	-142.6	416.4	409.6	6.80	61.244		
2,100.0	2,082.8	2,041.4	2,029.7	5.7	5.1	-176.27	121.4	-152.7	442.6	435.5	7.14	62.018		
2,200.0	2,181.8	2,137.9	2,125.4	6.0	5.3	-176.49	127.1	-162.8	468.9	461.4	7.48	62.721		
2,300.0	2,280.7	2,234.3	2,221.2	6.4	5.6	-176.69	132.9	-172.8	495.2	487.4	7.81	63.364		
2,400.0	2,379.7	2,330.8	2,317.0	6.7	5.9	-176.86	138.7	-182.9	521.4	513.3	8.15	63.953		
2,500.0	2,478.6	2,427.3	2,412.8	7.0	6.1	-177.02	144.5	-193.0	547.7	539.2	8.49	64.495		
2,600.0	2,577.5	2,523.8	2,508.5	7.3	6.4	-177.17	150.3	-203.0	574.0	565.2	8.83	64.995		
2,700.0	2,676.5	2,620.2	2,604.3	7.6	6.6	-177.30	156.1	-213.1	600.3	591.1	9.17	65.458		
2,800.0	2,775.4	2,716.7	2,700.1	7.9	6.9	-177.42	161.9	-223.2	626.6	617.1	9.51	65.888		
2,900.0	2,874.4	2,813.2	2,795.9	8.2	7.2	-177.53	167.7	-233.2	652.9	643.0	9.85	66.289		
3,000.0	2,973.3	2,909.7	2,891.6	8.5	7.4	-177.63	173.5	-243.3	679.2	669.0	10.19	66.662		
3,100.0	3,072.2	3,006.1	2,987.4	8.8	7.7	-177.73	179.3	-253.4	705.5	694.9	10.53	67.012		
3,200.0	3,171.2	3,102.6	3,083.2	9.1	8.0	-177.81	185.1	-263.4	731.8	720.9	10.87	67.340		
3,300.0	3,270.1	3,199.1	3,178.9	9.4	8.2	-177.90	190.9	-273.5	758.1	746.8	11.21	67.648		
3,400.0	3,369.1	3,295.6	3,274.7	9.8	8.5	-177.97	196.7	-283.6	784.4	772.8	11.55	67.937		
3,500.0	3,468.0	3,392.0	3,370.5	10.1	8.8	-178.04	202.5	-293.6	810.7	798.8	11.88	68.210		
3,600.0	3,567.0	3,488.5	3,466.3	10.4	9.0	-178.11	208.3	-303.7	837.0	824.7	12.22	68.468		
3,700.0	3,665.9	3,585.0	3,562.0	10.7	9.3	-178.17	214.1	-313.8	863.3	850.7	12.56	68.712		
3,800.0	3,764.8	3,681.5	3,657.8	11.0	9.5	-178.23	219.9	-323.8	889.6	876.7	12.90	68.943		
3,900.0	3,863.8	3,777.9	3,753.6	11.3	9.8	-178.29	225.6	-333.9	915.9	902.6	13.24	69.163		
4,000.0	3,962.7	3,874.4	3,849.4	11.6	10.1	-178.34	231.4	-343.9	942.2	928.6	13.58	69.371		
4,100.0	4,061.7	3,970.9	3,945.1	11.9	10.3	-178.39	237.2	-354.0	968.5	954.5	13.92	69.569		
4,200.0	4,160.6	4,067.4	4,040.9	12.2	10.6	-178.44	243.0	-364.1	994.8	980.5	14.26	69.758		
4,300.0	4,259.5	4,163.8	4,136.7	12.5	10.9	-178.48	248.8	-374.1	1,021.1	1,006.5	14.60	69.938		
4,400.0	4,358.5	4,260.3	4,232.5	12.8	11.1	-178.52	254.6	-384.2	1,047.4	1,032.4	14.94	70.109		
4,500.0	4,457.4	4,356.8	4,328.2	13.1	11.4	-178.56	260.4	-394.3	1,073.7	1,058.4	15.28	70.273		
4,600.0	4,556.4	4,453.3	4,424.0	13.5	11.7	-178.60	266.2	-404.3	1,100.0	1,084.4	15.62	70.430		
4,700.0	4,655.3	4,549.7	4,519.8	13.8	11.9	-178.64	272.0	-414.4	1,126.3	1,110.4	15.96	70.580		
4,800.0	4,754.3	4,646.2	4,615.5	14.1	12.2	-178.67	277.8	-424.5	1,152.6	1,136.3	16.30	70.724		

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 #29-5D
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 #29-5D	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	45.67	28.1	28.7	40.2					
100.0	100.0	110.3	110.3	0.1	0.2	44.12	28.5	27.7	39.8	39.4	0.31	126.475		
200.0	200.0	210.4	210.4	0.3	0.3	39.84	29.8	24.8	38.8	38.1	0.64	60.287		
265.0	265.0	275.1	274.9	0.4	0.5	-86.43	31.5	22.0	38.4	37.5	0.91	41.995	CC, ES	
300.0	300.0	309.8	309.5	0.5	0.6	-91.34	32.9	20.2	38.6	37.5	1.05	36.648		
400.0	399.8	408.2	407.6	0.7	0.8	-109.74	38.4	13.7	42.7	41.2	1.46	29.229	SF	
500.0	499.5	505.5	504.2	0.9	1.0	-128.44	45.7	5.3	54.5	52.7	1.83	29.731		
600.0	598.7	601.5	599.5	1.2	1.3	-141.22	54.3	-3.3	74.2	72.0	2.16	34.294		
700.0	697.7	696.0	693.1	1.5	1.6	-148.79	64.5	-11.8	99.6	97.1	2.48	40.146		
800.0	796.6	789.6	785.5	1.8	1.9	-153.11	76.1	-20.7	127.6	124.8	2.80	45.503		
900.0	895.5	881.7	876.2	2.1	2.2	-155.82	89.0	-30.5	158.1	154.9	3.13	50.454		
1,000.0	994.5	977.4	970.2	2.4	2.6	-158.05	102.9	-42.3	190.0	186.6	3.47	54.807		
1,100.0	1,093.4	1,077.0	1,068.3	2.7	2.9	-159.87	115.1	-53.5	219.9	216.1	3.81	57.755		
1,200.0	1,192.4	1,171.7	1,161.8	3.0	3.2	-160.98	126.7	-63.1	249.2	245.0	4.15	60.103		
1,300.0	1,291.3	1,265.6	1,254.4	3.3	3.5	-161.76	139.0	-72.8	279.3	274.8	4.49	62.263		
1,400.0	1,390.2	1,359.3	1,346.7	3.6	3.9	-162.30	151.8	-82.3	309.7	304.8	4.83	64.143		
1,500.0	1,489.2	1,456.5	1,442.5	3.9	4.2	-162.82	165.2	-92.7	340.5	335.4	5.18	65.801		
1,600.0	1,588.1	1,558.3	1,543.0	4.2	4.5	-163.40	177.4	-102.9	369.8	364.2	5.53	66.874		
1,700.0	1,687.1	1,659.3	1,642.9	4.5	4.8	-164.12	187.5	-113.3	397.7	391.8	5.88	67.659		
1,800.0	1,786.0	1,755.6	1,738.4	4.8	5.1	-164.77	196.1	-122.8	424.8	418.6	6.22	68.307		
1,900.0	1,884.9	1,852.1	1,834.0	5.1	5.4	-165.23	205.6	-132.0	452.2	445.7	6.56	68.897		
2,000.0	1,983.9	1,948.7	1,929.7	5.4	5.7	-165.59	215.2	-140.7	479.4	472.5	6.91	69.384		
2,100.0	2,082.8	2,046.8	2,026.9	5.7	5.9	-165.96	224.5	-149.8	506.5	499.2	7.26	69.802		
2,200.0	2,181.8	2,138.5	2,117.9	6.0	6.2	-166.33	232.9	-158.5	533.6	526.0	7.59	70.291		
2,300.0	2,280.7	2,232.2	2,210.6	6.4	6.5	-166.67	242.2	-168.1	561.7	553.7	7.93	70.826		
2,400.0	2,379.7	2,322.6	2,300.0	6.7	6.8	-166.94	251.6	-177.6	590.3	582.0	8.26	71.427		
2,500.0	2,478.6	2,419.9	2,396.2	7.0	7.1	-167.15	262.1	-187.4	618.9	610.3	8.61	71.868		
2,600.0	2,577.5	2,506.3	2,481.5	7.3	7.4	-167.27	272.5	-196.3	648.5	639.5	8.94	72.519		
2,700.0	2,676.5	2,602.5	2,576.4	7.6	7.7	-167.41	284.2	-206.9	678.6	669.3	9.29	73.064		
2,800.0	2,775.4	2,697.0	2,669.7	7.9	8.0	-167.55	295.5	-217.2	708.5	698.9	9.63	73.567		
2,900.0	2,874.4	2,780.4	2,751.8	8.2	8.3	-167.65	306.3	-226.8	739.6	729.6	9.96	74.284		
3,000.0	2,973.3	2,900.5	2,870.4	8.5	8.7	-167.81	320.3	-239.8	769.2	758.8	10.34	74.374		
3,100.0	3,072.2	2,988.2	2,957.1	8.8	9.0	-167.87	330.5	-248.2	798.0	787.3	10.68	74.739		
3,200.0	3,171.2	3,063.6	3,031.3	9.1	9.2	-167.87	340.8	-256.1	828.7	817.8	10.99	75.395		
3,300.0	3,270.1	3,165.9	3,131.9	9.4	9.6	-167.90	355.0	-267.8	860.3	849.0	11.35	75.796		
3,400.0	3,369.1	3,278.6	3,243.3	9.8	10.0	-167.99	368.5	-279.6	889.9	878.1	11.73	75.889		
3,500.0	3,468.0	3,375.5	3,339.0	10.1	10.3	-168.07	379.9	-289.7	919.4	907.3	12.07	76.147		
3,600.0	3,567.0	3,475.8	3,438.3	10.4	10.6	-168.19	390.2	-299.6	947.5	935.1	12.43	76.251		
3,700.0	3,665.9	3,555.8	3,517.2	10.7	10.9	-168.24	399.7	-307.9	977.0	964.2	12.75	76.640		
3,800.0	3,764.8	3,649.8	3,609.9	11.0	11.2	-168.23	412.3	-317.5	1,007.4	994.3	13.10	76.927		
3,900.0	3,863.8	3,753.2	3,711.9	11.3	11.5	-168.26	424.9	-327.9	1,036.9	1,023.4	13.46	77.053		
4,000.0	3,962.7	3,835.7	3,793.4	11.6	11.8	-168.27	435.6	-336.2	1,066.9	1,053.1	13.78	77.403		
4,100.0	4,061.7	3,918.2	3,874.6	11.9	12.1	-168.29	446.8	-345.6	1,098.3	1,084.2	14.11	77.841		
4,200.0	4,160.6	4,020.6	3,975.3	12.2	12.5	-168.30	460.7	-357.1	1,129.5	1,115.1	14.47	78.066		
4,300.0	4,259.5	4,112.5	4,065.8	12.5	12.8	-168.39	472.2	-368.6	1,161.0	1,146.2	14.80	78.424		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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		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	45.66	35.0	35.8	50.0					
100.0	100.0	100.0	100.0	0.1	0.1	45.66	35.0	35.8	50.0	49.7	0.30	168.666		
200.0	200.0	200.0	200.0	0.3	0.3	45.66	35.0	35.8	50.0	49.4	0.65	77.495		
284.7	284.7	284.4	284.4	0.5	0.5	-77.42	36.0	35.1	50.0	49.0	0.95	52.808 CC		
300.0	300.0	299.6	299.6	0.5	0.5	-78.51	36.4	34.8	50.0	49.0	1.00	49.936 ES		
400.0	399.8	398.5	398.3	0.7	0.7	-89.81	40.6	31.9	51.2	49.8	1.39	36.957		
500.0	499.5	496.0	495.5	0.9	0.9	-106.05	47.6	27.1	57.3	55.5	1.80	31.849 SF		
600.0	598.7	591.6	590.4	1.2	1.2	-122.00	57.0	20.7	71.6	69.4	2.20	32.605		
700.0	697.7	685.0	682.6	1.5	1.5	-133.92	68.7	12.6	94.4	91.9	2.55	37.025		
800.0	796.6	776.4	772.6	1.8	1.8	-141.43	82.6	3.1	122.8	119.9	2.88	42.597		
900.0	895.5	868.2	862.3	2.1	2.1	-146.33	98.6	-8.0	155.2	151.9	3.21	48.318		
1,000.0	994.5	962.0	953.8	2.4	2.5	-149.64	115.3	-19.4	188.6	185.1	3.54	53.209		
1,100.0	1,093.4	1,055.8	1,045.4	2.7	2.9	-151.95	132.0	-30.9	222.5	218.6	3.88	57.311		
1,200.0	1,192.4	1,149.5	1,136.9	3.0	3.3	-153.65	148.7	-42.4	256.6	252.3	4.22	60.769		
1,300.0	1,291.3	1,243.3	1,228.5	3.3	3.7	-154.95	165.4	-53.9	290.8	286.3	4.56	63.710		
1,400.0	1,390.2	1,337.1	1,320.1	3.6	4.0	-155.98	182.1	-65.3	325.2	320.3	4.91	66.236		
1,500.0	1,489.2	1,430.9	1,411.6	3.9	4.4	-156.82	198.8	-76.8	359.6	354.3	5.26	68.424		
1,600.0	1,588.1	1,524.6	1,503.2	4.2	4.8	-157.51	215.5	-88.3	394.1	388.5	5.60	70.334		
1,700.0	1,687.1	1,618.4	1,594.7	4.5	5.2	-158.08	232.2	-99.7	428.6	422.7	5.95	72.016		
1,800.0	1,786.0	1,712.2	1,686.3	4.8	5.6	-158.57	248.9	-111.2	463.2	456.9	6.30	73.507		
1,900.0	1,884.9	1,805.9	1,777.8	5.1	6.0	-159.00	265.5	-122.7	497.8	491.1	6.65	74.836		
2,000.0	1,983.9	1,899.7	1,869.4	5.4	6.4	-159.36	282.2	-134.2	532.4	525.4	7.00	76.029		
2,100.0	2,082.8	1,993.5	1,961.0	5.7	6.8	-159.69	298.9	-145.6	567.0	559.6	7.35	77.104		
2,200.0	2,181.8	2,087.2	2,052.5	6.0	7.1	-159.97	315.6	-157.1	601.6	593.9	7.71	78.078		
2,300.0	2,280.7	2,181.0	2,144.1	6.4	7.5	-160.23	332.3	-168.6	636.3	628.2	8.06	78.966		
2,400.0	2,379.7	2,274.8	2,235.6	6.7	7.9	-160.46	349.0	-180.0	670.9	662.5	8.41	79.776		
2,500.0	2,478.6	2,368.6	2,327.2	7.0	8.3	-160.66	365.7	-191.5	705.6	696.8	8.76	80.520		
2,600.0	2,577.5	2,462.3	2,418.7	7.3	8.7	-160.85	382.4	-203.0	740.3	731.1	9.12	81.205		
2,700.0	2,676.5	2,556.1	2,510.3	7.6	9.1	-161.02	399.1	-214.5	774.9	765.5	9.47	81.837		
2,800.0	2,775.4	2,649.9	2,601.9	7.9	9.5	-161.18	415.8	-225.9	809.6	799.8	9.82	82.422		
2,900.0	2,874.4	2,743.6	2,693.4	8.2	9.9	-161.32	432.4	-237.4	844.3	834.1	10.18	82.966		
3,000.0	2,973.3	2,837.4	2,785.0	8.5	10.3	-161.45	449.1	-248.9	879.0	868.5	10.53	83.473		
3,100.0	3,072.2	2,931.2	2,876.5	8.8	10.7	-161.57	465.8	-260.4	913.7	902.8	10.88	83.945		
3,200.0	3,171.2	3,025.0	2,968.1	9.1	11.1	-161.69	482.5	-271.8	948.4	937.2	11.24	84.388		
3,300.0	3,270.1	3,118.7	3,059.6	9.4	11.4	-161.79	499.2	-283.3	983.1	971.5	11.59	84.802		
3,400.0	3,369.1	3,212.5	3,151.2	9.8	11.8	-161.89	515.9	-294.8	1,017.8	1,005.9	11.95	85.192		
3,500.0	3,468.0	3,306.3	3,242.7	10.1	12.2	-161.98	532.6	-306.2	1,052.5	1,040.2	12.30	85.558		
3,600.0	3,567.0	3,400.0	3,334.3	10.4	12.6	-162.06	549.3	-317.7	1,087.2	1,074.6	12.66	85.904		
3,700.0	3,665.9	3,493.8	3,425.9	10.7	13.0	-162.14	566.0	-329.2	1,122.0	1,109.0	13.01	86.230		
3,800.0	3,764.8	3,587.6	3,517.4	11.0	13.4	-162.22	582.7	-340.7	1,156.7	1,143.3	13.37	86.538		

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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		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	10.0	10.0	0.0	0.0	-134.47	-13.8	-14.1	19.8					
100.0	100.0	109.9	109.9	0.1	0.2	-133.98	-13.9	-14.4	20.0	19.7	0.31	64.807 ES		
200.0	200.0	209.6	209.6	0.3	0.3	-132.57	-14.1	-15.4	20.9	20.2	0.64	32.578		
300.0	300.0	308.5	308.4	0.5	0.5	113.71	-15.8	-19.2	25.6	24.6	0.99	25.827 SF		
400.0	399.8	407.0	406.6	0.7	0.7	123.34	-19.0	-25.8	35.6	34.2	1.35	26.342		
500.0	499.5	504.1	503.1	0.9	1.0	129.69	-24.9	-34.9	51.7	50.0	1.72	29.993		
600.0	598.7	600.1	598.2	1.2	1.2	133.33	-33.1	-45.7	73.1	71.0	2.12	34.421		
700.0	697.7	697.0	693.6	1.5	1.6	134.25	-45.3	-57.4	97.9	95.4	2.56	38.181		
800.0	796.6	795.1	790.1	1.8	1.9	133.53	-60.0	-67.3	121.6	118.6	3.04	40.043		
900.0	895.5	893.3	886.6	2.1	2.2	132.74	-75.3	-76.9	145.2	141.7	3.52	41.214		
1,000.0	994.5	990.8	982.6	2.4	2.6	132.46	-89.5	-85.7	167.8	163.8	4.01	41.896		
1,100.0	1,093.4	1,087.3	1,077.7	2.7	2.9	132.66	-102.5	-95.4	191.1	186.6	4.49	42.592		
1,200.0	1,192.4	1,185.0	1,174.0	3.0	3.2	132.90	-115.4	-105.3	214.3	209.3	4.96	43.181		
1,300.0	1,291.3	1,283.5	1,271.3	3.3	3.5	133.28	-127.5	-115.0	237.1	231.6	5.44	43.553		
1,400.0	1,390.2	1,380.0	1,366.6	3.6	3.8	133.65	-139.2	-124.9	260.1	254.2	5.91	43.981		
1,500.0	1,489.2	1,484.8	1,470.4	3.9	4.1	134.16	-150.7	-134.5	281.8	275.4	6.40	44.064		
1,600.0	1,588.1	1,589.4	1,574.2	4.2	4.4	134.70	-161.0	-141.6	301.1	294.2	6.88	43.791		
1,700.0	1,687.1	1,689.0	1,673.3	4.5	4.7	135.41	-169.1	-147.6	319.2	311.8	7.33	43.563		
1,800.0	1,786.0	1,789.0	1,772.8	4.8	4.9	136.13	-176.7	-153.0	336.6	328.8	7.77	43.292		
1,900.0	1,884.9	1,889.9	1,873.3	5.1	5.1	136.74	-184.4	-157.8	353.5	345.3	8.23	42.941		
2,000.0	1,983.9	1,984.2	1,967.2	5.4	5.3	137.28	-191.6	-162.6	370.7	362.0	8.67	42.780		
2,100.0	2,082.8	2,079.5	2,062.2	5.7	5.6	137.97	-197.7	-168.3	388.6	379.6	9.09	42.759		
2,200.0	2,181.8	2,172.1	2,154.2	6.0	5.8	138.49	-204.6	-175.2	408.1	398.6	9.52	42.887		
2,300.0	2,280.7	2,264.0	2,245.5	6.4	6.0	138.96	-211.5	-183.2	428.9	419.0	9.93	43.210		
2,400.0	2,379.7	2,350.8	2,331.6	6.7	6.3	139.44	-217.9	-192.2	451.3	441.0	10.35	43.622		
2,500.0	2,478.6	2,441.7	2,421.3	7.0	6.6	139.54	-227.6	-203.4	476.2	465.4	10.79	44.118		
2,600.0	2,577.5	2,541.2	2,519.4	7.3	7.0	139.55	-239.1	-215.5	501.0	489.8	11.28	44.432		
2,700.0	2,676.5	2,634.9	2,611.6	7.6	7.3	139.35	-251.6	-226.4	525.7	513.9	11.75	44.720		
2,800.0	2,775.4	2,734.0	2,709.0	7.9	7.6	139.19	-264.7	-238.7	551.1	538.8	12.24	45.019		
2,900.0	2,874.4	2,833.6	2,807.2	8.2	8.0	139.06	-277.5	-249.9	575.3	562.5	12.73	45.177		
3,000.0	2,973.3	2,924.0	2,896.1	8.5	8.3	138.86	-290.1	-260.4	600.0	586.8	13.22	45.402		
3,100.0	3,072.2	3,020.5	2,990.7	8.8	8.7	138.57	-304.7	-272.3	625.7	612.0	13.72	45.611		
3,200.0	3,171.2	3,113.9	3,082.4	9.1	9.0	138.31	-318.7	-283.5	651.1	636.9	14.21	45.816		
3,300.0	3,270.1	3,204.0	3,170.7	9.4	9.4	138.10	-332.3	-295.4	677.6	662.9	14.69	46.115		
3,400.0	3,369.1	3,301.9	3,266.5	9.8	9.8	137.87	-347.3	-308.6	704.5	689.3	15.20	46.339		
3,500.0	3,468.0	3,402.3	3,364.8	10.1	10.2	137.59	-363.2	-321.5	730.8	715.1	15.72	46.479		
3,600.0	3,567.0	3,498.1	3,458.6	10.4	10.6	137.32	-378.6	-333.5	756.9	740.6	16.23	46.625		
3,700.0	3,665.9	3,595.2	3,553.7	10.7	10.9	137.06	-394.4	-345.7	783.1	766.4	16.75	46.765		
3,800.0	3,764.8	3,691.7	3,648.2	11.0	11.3	136.86	-409.5	-357.9	809.2	792.0	17.24	46.927		
3,900.0	3,863.8	3,793.6	3,748.2	11.3	11.7	136.77	-423.9	-370.8	835.2	817.4	17.74	47.073		
4,000.0	3,962.7	3,890.4	3,843.4	11.6	12.0	136.72	-437.1	-382.8	860.6	842.4	18.24	47.195		
4,100.0	4,061.7	3,991.3	3,942.5	11.9	12.4	136.62	-451.6	-395.0	886.0	867.2	18.74	47.271		
4,200.0	4,160.6	4,092.3	4,041.8	12.2	12.8	136.52	-465.9	-406.6	910.8	891.5	19.25	47.322		
4,300.0	4,259.5	4,192.3	4,140.1	12.5	13.1	136.43	-480.0	-417.7	935.2	915.4	19.75	47.347		
4,400.0	4,358.5	4,278.0	4,224.3	12.8	13.5	136.36	-492.3	-427.9	960.2	940.0	20.22	47.498		
4,500.0	4,457.4	4,377.7	4,322.3	13.1	13.8	136.32	-506.0	-440.2	985.8	965.0	20.71	47.604		
4,600.0	4,556.4	4,485.4	4,428.4	13.5	14.2	136.33	-519.7	-452.6	1,010.2	989.0	21.21	47.625		
4,700.0	4,655.3	4,575.2	4,516.8	13.8	14.5	136.31	-531.5	-462.8	1,034.6	1,012.9	21.69	47.711		
4,800.0	4,754.3	4,661.3	4,601.5	14.1	14.8	136.27	-543.4	-473.3	1,059.9	1,037.8	22.15	47.860		
4,900.0	4,853.2	4,779.0	4,717.4	14.4	15.2	136.27	-558.7	-487.3	1,084.8	1,062.1	22.67	47.846		
5,000.0	4,952.1	4,895.7	4,832.6	14.7	15.6	136.31	-572.5	-499.0	1,107.6	1,084.4	23.20	47.742		
5,100.0	5,051.1	4,993.0	4,928.7	15.0	15.9	136.29	-584.8	-507.7	1,129.6	1,105.9	23.69	47.685		

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 #29-5D
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 #29-5D	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							
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	5,150.0	5,084.2	5,018.7	15.3	16.2	136.28	-596.4	-516.3	1,152.1	1,127.9	24.16	47.695	

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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				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	-134.45	-6.9	-7.0	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	-134.45	-6.9	-7.0	9.9	9.6	0.30	33.265		
200.0	200.0	200.0	200.0	0.3	0.3	-134.45	-6.9	-7.0	9.9	9.2	0.65	15.284 CC, ES		
300.0	300.0	299.6	299.6	0.5	0.5	114.67	-7.9	-8.5	12.2	11.2	1.00	12.238 SF		
400.0	399.8	398.6	398.5	0.7	0.7	128.48	-10.7	-12.8	20.2	18.8	1.36	14.875		
500.0	499.5	496.7	496.1	0.9	0.9	136.52	-15.4	-19.8	34.4	32.6	1.73	19.873		
600.0	598.7	594.2	593.0	1.2	1.2	140.87	-21.6	-29.1	54.0	51.9	2.12	25.484		
700.0	697.7	691.7	689.8	1.5	1.4	143.95	-27.9	-38.6	75.9	73.4	2.52	30.112		
800.0	796.6	789.2	786.7	1.8	1.7	145.70	-34.2	-48.2	97.9	95.0	2.92	33.471		
900.0	895.5	886.7	883.5	2.1	1.9	146.80	-40.5	-57.7	120.0	116.6	3.33	36.000		
1,000.0	994.5	984.2	980.4	2.4	2.2	147.56	-46.8	-67.2	142.1	138.3	3.74	37.967		
1,100.0	1,093.4	1,081.7	1,077.2	2.7	2.4	148.12	-53.1	-76.7	164.2	160.1	4.15	39.539		
1,200.0	1,192.4	1,179.2	1,174.0	3.0	2.7	148.54	-59.5	-86.2	186.3	181.8	4.56	40.821		
1,300.0	1,291.3	1,276.7	1,270.9	3.3	2.9	148.88	-65.8	-95.7	208.5	203.5	4.98	41.887		
1,400.0	1,390.2	1,374.3	1,367.7	3.6	3.2	149.15	-72.1	-105.3	230.6	225.2	5.39	42.787		
1,500.0	1,489.2	1,471.8	1,464.6	3.9	3.5	149.37	-78.4	-114.8	252.8	247.0	5.80	43.557		
1,600.0	1,588.1	1,569.3	1,561.4	4.2	3.7	149.56	-84.7	-124.3	274.9	268.7	6.22	44.222		
1,700.0	1,687.1	1,666.8	1,658.2	4.5	4.0	149.71	-91.0	-133.8	297.1	290.5	6.63	44.803		
1,800.0	1,786.0	1,764.3	1,755.1	4.8	4.3	149.85	-97.3	-143.3	319.2	312.2	7.05	45.314		
1,900.0	1,884.9	1,861.8	1,851.9	5.1	4.5	149.97	-103.7	-152.8	341.4	333.9	7.46	45.768		
2,000.0	1,983.9	1,959.3	1,948.8	5.4	4.8	150.07	-110.0	-162.4	363.6	355.7	7.87	46.173		
2,100.0	2,082.8	2,056.8	2,045.6	5.7	5.0	150.17	-116.3	-171.9	385.7	377.4	8.29	46.537		
2,200.0	2,181.8	2,154.4	2,142.4	6.0	5.3	150.25	-122.6	-181.4	407.9	399.2	8.70	46.866		
2,300.0	2,280.7	2,251.9	2,239.3	6.4	5.6	150.32	-128.9	-190.9	430.0	420.9	9.12	47.164		
2,400.0	2,379.7	2,349.4	2,336.1	6.7	5.8	150.39	-135.2	-200.4	452.2	442.7	9.53	47.436		
2,500.0	2,478.6	2,446.9	2,433.0	7.0	6.1	150.45	-141.6	-209.9	474.4	464.4	9.95	47.686		
2,600.0	2,577.5	2,544.4	2,529.8	7.3	6.4	150.51	-147.9	-219.5	496.5	486.2	10.36	47.915		
2,700.0	2,676.5	2,641.9	2,626.6	7.6	6.6	150.56	-154.2	-229.0	518.7	507.9	10.78	48.126		
2,800.0	2,775.4	2,739.4	2,723.5	7.9	6.9	150.60	-160.5	-238.5	540.9	529.7	11.19	48.321		
2,900.0	2,874.4	2,836.9	2,820.3	8.2	7.1	150.65	-166.8	-248.0	563.0	551.4	11.61	48.502		
3,000.0	2,973.3	2,934.4	2,917.2	8.5	7.4	150.68	-173.1	-257.5	585.2	573.2	12.02	48.670		
3,100.0	3,072.2	3,032.0	3,014.0	8.8	7.7	150.72	-179.5	-267.0	607.4	594.9	12.44	48.827		
3,200.0	3,171.2	3,129.5	3,110.8	9.1	7.9	150.75	-185.8	-276.5	629.5	616.7	12.85	48.974		
3,300.0	3,270.1	3,227.0	3,207.7	9.4	8.2	150.79	-192.1	-286.1	651.7	638.4	13.27	49.112		
3,400.0	3,369.1	3,324.5	3,304.5	9.8	8.4	150.82	-198.4	-295.6	673.9	660.2	13.68	49.241		
3,500.0	3,468.0	3,422.0	3,401.4	10.1	8.7	150.84	-204.7	-305.1	696.0	681.9	14.10	49.362		
3,600.0	3,567.0	3,519.5	3,498.2	10.4	9.0	150.87	-211.0	-314.6	718.2	703.7	14.52	49.477		
3,700.0	3,665.9	3,617.0	3,595.1	10.7	9.2	150.89	-217.3	-324.1	740.4	725.4	14.93	49.585		
3,800.0	3,764.8	3,714.5	3,691.9	11.0	9.5	150.92	-223.7	-333.6	762.5	747.2	15.35	49.687		
3,900.0	3,863.8	3,812.1	3,788.7	11.3	9.8	150.94	-230.0	-343.2	784.7	768.9	15.76	49.784		
4,000.0	3,962.7	3,909.6	3,885.6	11.6	10.0	150.96	-236.3	-352.7	806.9	790.7	16.18	49.875		
4,100.0	4,061.7	4,007.1	3,982.4	11.9	10.3	150.98	-242.6	-362.2	829.0	812.4	16.59	49.962		
4,200.0	4,160.6	4,104.6	4,079.3	12.2	10.6	151.00	-248.9	-371.7	851.2	834.2	17.01	50.045		
4,300.0	4,259.5	4,202.1	4,176.1	12.5	10.8	151.01	-255.2	-381.2	873.4	855.9	17.42	50.124		
4,400.0	4,358.5	4,299.6	4,272.9	12.8	11.1	151.03	-261.6	-390.7	895.5	877.7	17.84	50.199		
4,500.0	4,457.4	4,397.1	4,369.8	13.1	11.3	151.05	-267.9	-400.3	917.7	899.4	18.26	50.270		
4,600.0	4,556.4	4,494.6	4,466.6	13.5	11.6	151.06	-274.2	-409.8	939.9	921.2	18.67	50.339		
4,700.0	4,655.3	4,592.1	4,563.5	13.8	11.9	151.08	-280.5	-419.3	962.0	942.9	19.09	50.404		
4,800.0	4,754.3	4,689.7	4,660.3	14.1	12.1	151.09	-286.8	-428.8	984.2	964.7	19.50	50.467		
4,900.0	4,853.2	4,787.2	4,757.1	14.4	12.4	151.10	-293.1	-438.3	1,006.4	986.5	19.92	50.527		
5,000.0	4,952.1	4,884.7	4,854.0	14.7	12.7	151.12	-299.4	-447.8	1,028.5	1,008.2	20.33	50.584		
5,100.0	5,051.1	4,982.2	4,950.8	15.0	12.9	151.13	-305.8	-457.4	1,050.7	1,030.0	20.75	50.639		

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 #29-5D
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 #29-5D	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						Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)						
5,200.0	5,150.0	5,079.7	5,047.7	15.3	13.2	151.14	-312.1	-466.9	1,072.9	1,051.7	21.16	50.692				
5,300.0	5,249.0	5,177.2	5,144.5	15.6	13.4	151.15	-318.4	-476.4	1,095.0	1,073.5	21.58	50.743				
5,400.0	5,347.9	5,274.7	5,241.3	15.9	13.7	151.16	-324.7	-485.9	1,117.2	1,095.2	22.00	50.792				
5,500.0	5,446.8	5,372.2	5,338.2	16.2	14.0	151.17	-331.0	-495.4	1,139.4	1,117.0	22.41	50.839				
5,600.0	5,545.8	5,469.8	5,435.0	16.5	14.2	151.18	-337.3	-504.9	1,161.5	1,138.7	22.83	50.885				

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Chevron #29-5D
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 #29-5D	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	45.39	42.3	42.8	60.2					
100.0	100.0	100.0	100.0	0.1	0.1	45.39	42.3	42.8	60.2	59.9	0.30	202.791		
200.0	200.0	200.0	200.0	0.3	0.3	45.39	42.3	42.8	60.2	59.5	0.65	93.174 CC, ES		
300.0	300.0	297.9	297.9	0.5	0.5	-76.79	43.7	43.7	61.4	60.4	0.99	61.722		
400.0	399.8	395.5	395.4	0.7	0.7	-81.97	47.9	46.3	65.5	64.2	1.36	48.151		
500.0	499.5	492.5	492.0	0.9	0.9	-89.13	55.0	50.7	73.4	71.6	1.76	41.797		
600.0	598.7	588.4	587.2	1.2	1.2	-96.69	64.6	56.6	85.9	83.7	2.19	39.220		
700.0	697.7	683.2	680.9	1.5	1.5	-103.13	76.9	64.1	103.4	100.8	2.65	39.065 SF		
800.0	796.6	777.6	773.7	1.8	1.8	-107.28	91.6	73.2	124.8	121.7	3.12	40.056		
900.0	895.5	874.7	868.9	2.1	2.1	-110.13	107.8	83.2	147.8	144.2	3.60	40.999		
1,000.0	994.5	971.8	964.2	2.4	2.5	-112.22	123.9	93.1	171.0	166.9	4.10	41.690		
1,100.0	1,093.4	1,068.9	1,059.4	2.7	2.8	-113.80	140.0	103.0	194.4	189.8	4.61	42.204		
1,200.0	1,192.4	1,166.0	1,154.6	3.0	3.2	-115.05	156.2	113.0	217.9	212.8	5.11	42.596		
1,300.0	1,291.3	1,263.1	1,249.9	3.3	3.6	-116.05	172.3	122.9	241.4	235.8	5.63	42.903		
1,400.0	1,390.2	1,360.2	1,345.1	3.6	3.9	-116.88	188.5	132.8	265.1	258.9	6.14	43.149		
1,500.0	1,489.2	1,457.3	1,440.4	3.9	4.3	-117.57	204.6	142.8	288.7	282.1	6.66	43.348		
1,600.0	1,588.1	1,554.4	1,535.6	4.2	4.7	-118.15	220.7	152.7	312.4	305.3	7.18	43.513		
1,700.0	1,687.1	1,651.5	1,630.8	4.5	5.1	-118.66	236.9	162.6	336.2	328.5	7.70	43.652		
1,800.0	1,786.0	1,748.6	1,726.1	4.8	5.4	-119.09	253.0	172.6	359.9	351.7	8.22	43.770		
1,900.0	1,884.9	1,845.7	1,821.3	5.1	5.8	-119.48	269.1	182.5	383.7	374.9	8.75	43.871		
2,000.0	1,983.9	1,942.8	1,916.5	5.4	6.2	-119.81	285.3	192.4	407.5	398.2	9.27	43.958		
2,100.0	2,082.8	2,039.9	2,011.8	5.7	6.5	-120.11	301.4	202.4	431.3	421.5	9.79	44.035		
2,200.0	2,181.8	2,137.0	2,107.0	6.0	6.9	-120.38	317.6	212.3	455.1	444.7	10.32	44.102		
2,300.0	2,280.7	2,234.2	2,202.3	6.4	7.3	-120.63	333.7	222.2	478.9	468.0	10.84	44.162		
2,400.0	2,379.7	2,331.3	2,297.5	6.7	7.7	-120.85	349.8	232.2	502.7	491.3	11.37	44.216		
2,500.0	2,478.6	2,428.4	2,392.7	7.0	8.0	-121.05	366.0	242.1	526.5	514.6	11.90	44.264		
2,600.0	2,577.5	2,525.5	2,488.0	7.3	8.4	-121.23	382.1	252.0	550.4	537.9	12.42	44.307		
2,700.0	2,676.5	2,622.6	2,583.2	7.6	8.8	-121.39	398.2	262.0	574.2	561.2	12.95	44.346		
2,800.0	2,775.4	2,719.7	2,678.4	7.9	9.1	-121.55	414.4	271.9	598.0	584.6	13.47	44.382		
2,900.0	2,874.4	2,816.8	2,773.7	8.2	9.5	-121.69	430.5	281.8	621.9	607.9	14.00	44.415		
3,000.0	2,973.3	2,913.9	2,868.9	8.5	9.9	-121.82	446.7	291.8	645.7	631.2	14.53	44.445		
3,100.0	3,072.2	3,011.0	2,964.2	8.8	10.3	-121.94	462.8	301.7	669.6	654.5	15.06	44.473		
3,200.0	3,171.2	3,108.1	3,059.4	9.1	10.6	-122.06	478.9	311.6	693.4	677.8	15.58	44.498		
3,300.0	3,270.1	3,205.2	3,154.6	9.4	11.0	-122.16	495.1	321.6	717.3	701.2	16.11	44.522		
3,400.0	3,369.1	3,302.3	3,249.9	9.8	11.4	-122.26	511.2	331.5	741.1	724.5	16.64	44.544		
3,500.0	3,468.0	3,399.4	3,345.1	10.1	11.7	-122.36	527.3	341.4	765.0	747.8	17.17	44.565		
3,600.0	3,567.0	3,496.5	3,440.3	10.4	12.1	-122.45	543.5	351.3	788.9	771.2	17.69	44.584		
3,700.0	3,665.9	3,593.6	3,535.6	10.7	12.5	-122.53	559.6	361.3	812.7	794.5	18.22	44.602		
3,800.0	3,764.8	3,690.7	3,630.8	11.0	12.9	-122.61	575.7	371.2	836.6	817.8	18.75	44.619		
3,900.0	3,863.8	3,787.8	3,726.1	11.3	13.2	-122.68	591.9	381.1	860.5	841.2	19.28	44.634		
4,000.0	3,962.7	3,884.9	3,821.3	11.6	13.6	-122.75	608.0	391.1	884.3	864.5	19.81	44.649		
4,100.0	4,061.7	3,982.0	3,916.5	11.9	14.0	-122.81	624.2	401.0	908.2	887.9	20.33	44.663		
4,200.0	4,160.6	4,079.1	4,011.8	12.2	14.4	-122.88	640.3	410.9	932.1	911.2	20.86	44.676		
4,300.0	4,259.5	4,176.2	4,107.0	12.5	14.7	-122.94	656.4	420.9	955.9	934.5	21.39	44.689		
4,400.0	4,358.5	4,273.3	4,202.2	12.8	15.1	-122.99	672.6	430.8	979.8	957.9	21.92	44.701		
4,500.0	4,457.4	4,370.5	4,297.5	13.1	15.5	-123.05	688.7	440.7	1,003.7	981.2	22.45	44.712		
4,600.0	4,556.4	4,467.6	4,392.7	13.5	15.8	-123.10	704.8	450.7	1,027.6	1,004.6	22.98	44.723		
4,700.0	4,655.3	4,564.7	4,488.0	13.8	16.2	-123.15	721.0	460.6	1,051.4	1,027.9	23.50	44.733		
4,800.0	4,754.3	4,661.8	4,583.2	14.1	16.6	-123.19	737.1	470.5	1,075.3	1,051.3	24.03	44.743		
4,900.0	4,853.2	4,758.9	4,678.4	14.4	17.0	-123.24	753.3	480.5	1,099.2	1,074.6	24.56	44.752		
5,000.0	4,952.1	4,856.0	4,773.7	14.7	17.3	-123.28	769.4	490.4	1,123.0	1,098.0	25.09	44.761		
5,100.0	5,051.1	4,953.1	4,868.9	15.0	17.7	-123.32	785.5	500.3	1,146.9	1,121.3	25.62	44.769		

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 #29-5D
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 #29-5D	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 #29-5D
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.70°

