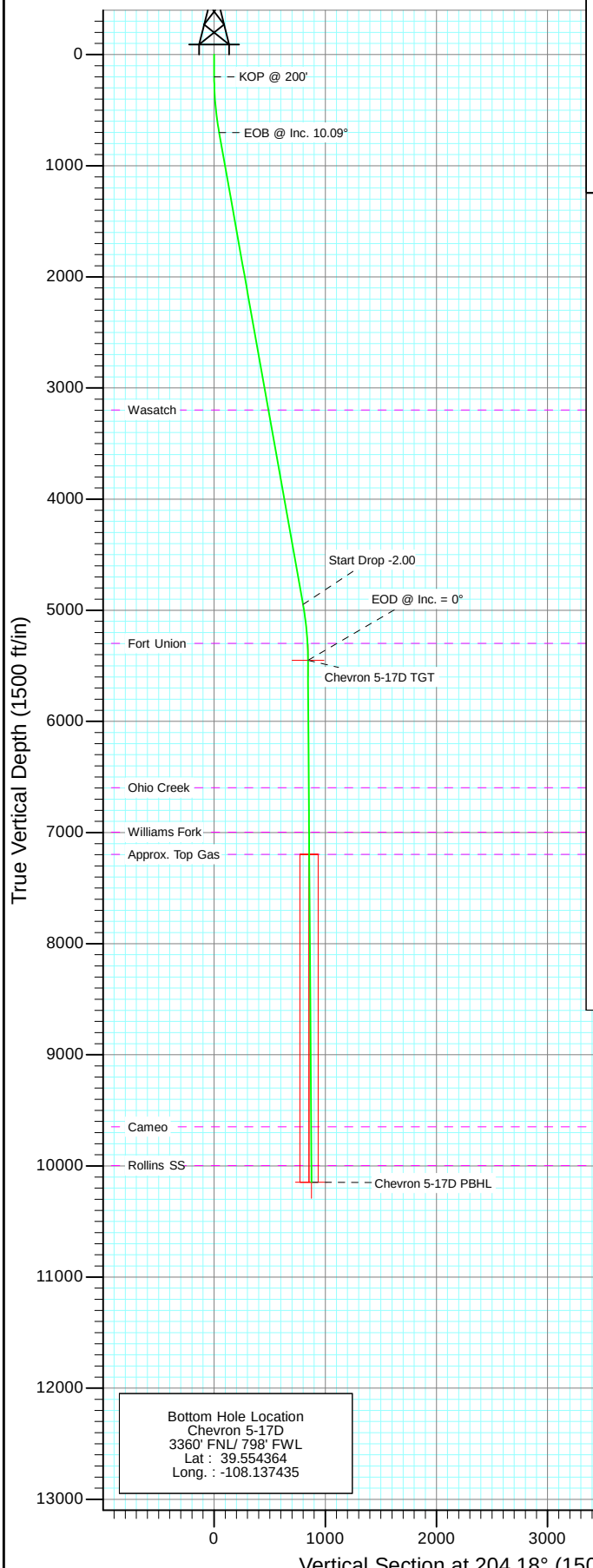
Berry Petroleum Company

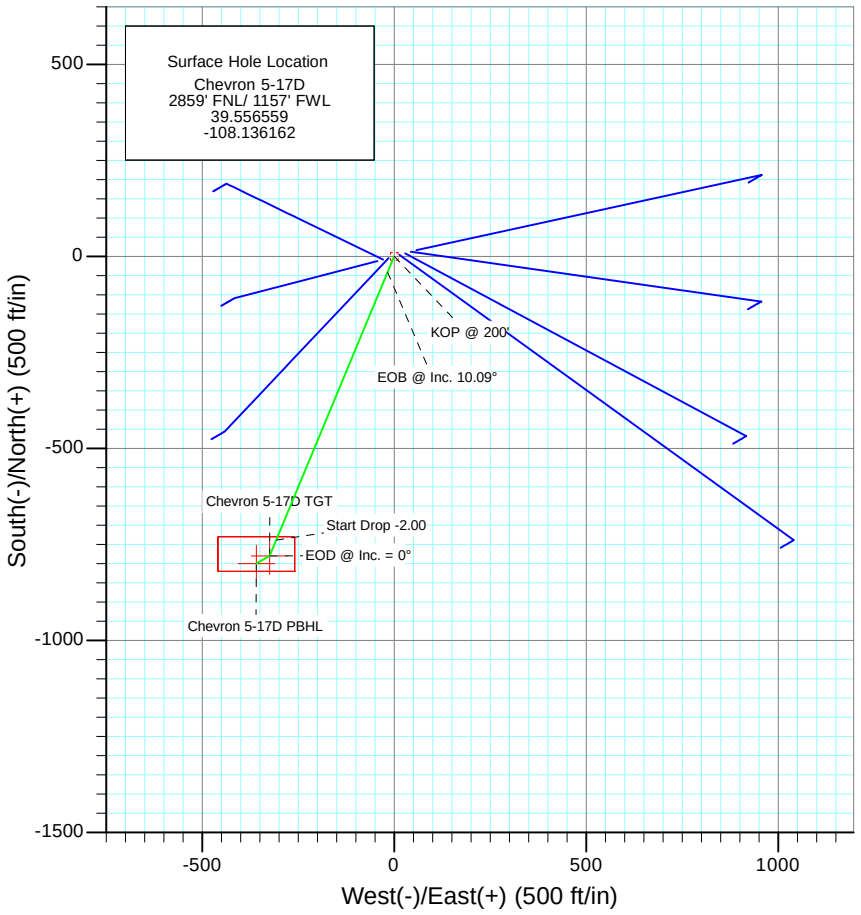
Project: Garfield County
Site: Chevron E05 696
Well: Chevron 5-17D
Wellbore: DD
Design: Plan #1

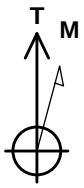
CATHEDRAL

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.0	
3	704.5	10.09	202.59	701.9	-40.9	-17.0	2.00	202.59	44.3	
4	5017.4	10.09	202.59	4948.1	-738.6	-307.2	0.00	0.00	799.6	
5	5521.9	0.00	0.00	5450.0	-779.5	-324.2	2.00	180.00	843.9	Chevron 5-17D TGT
6	5721.6	0.50	240.02	5649.7	-779.9	-325.0	0.25	240.02	844.6	
7	10219.1	0.50	240.02	10147.0	-799.5	-358.9	0.00	0.00	876.4	Chevron 5-17D PBHL







Azimuths to True North
Magnetic North: 10.48°

Magnetic Field
Strength: 52289.6snT
Dip Angle: 65.77°
Date: 1/13/2011
Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3197.0	3238.8	Wasatch
5297.0	5368.8	Fort Union
6597.0	6669.0	Ohio Creek
6997.0	7069.0	Williams Fork
7197.0	7269.0	Approx. Top Gas
9647.0	9719.1	Cameo
9997.0	10069.1	Rollins SS

DESIGN DETAILS: Plan #1

WELL @ 8144.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
No Target (Freehand)	204.18	Slot	0.0	0.0	0.0

Berry Petroleum Company

Project: Garfield County
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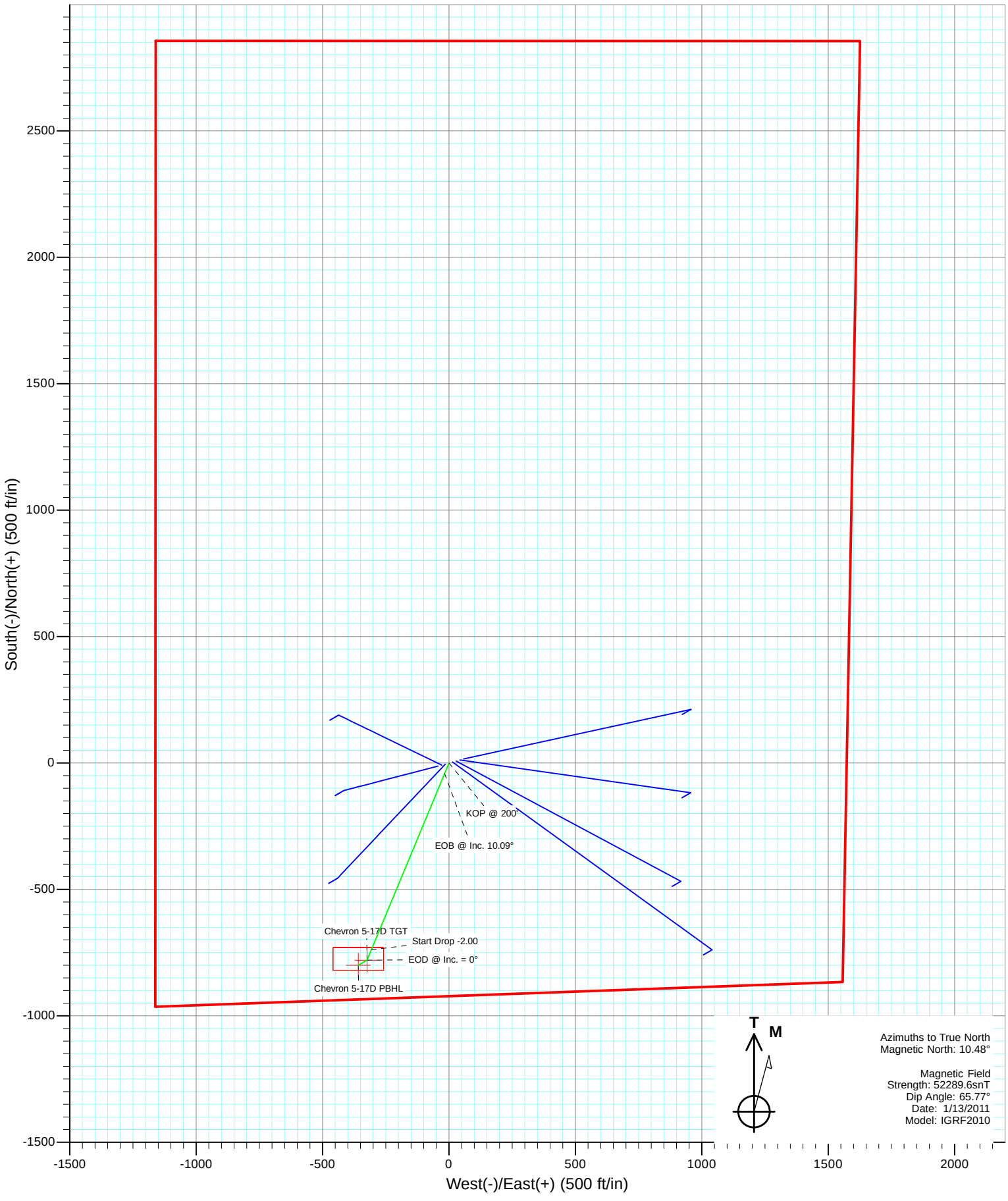
Well: Chevron 5-17D
Wellbore: DD
Design: Pad Layout

CATHEDRAL



Planning Report

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Company:	Berry Petroleum Company (NAD 83)	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Project:	Garfield County	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site:	Chevron E05 696	**North Reference:**	True
Well:	Chevron 5-17D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project Garfield County

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site Chevron E05 696

Site Position:		**Northing:**	1,638,406.53 ft	**Latitude:**	39.556604
From:	Lat/Long	**Easting:**	2,256,881.00 ft	**Longitude:**	-108.135957
Position Uncertainty:	0.0 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-1.66 °

Well Chevron 5-17D

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,638,391.82 ft	**Latitude:**	39.556559
	+E/-W	0.0 ft	**Easting:**	2,256,822.74 ft	**Longitude:**	-108.136162
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	8,124.0 ft

Wellbore DD

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/13/2011	10.48	65.77	52,290

Design Plan #1

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	204.18

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	
704.5	10.09	202.59	701.9	-40.9	-17.0	2.00	2.00	0.00	202.59	
5,017.4	10.09	202.59	4,948.1	-738.6	-307.2	0.00	0.00	0.00	0.00	
5,521.9	0.00	0.00	5,450.0	-779.5	-324.2	2.00	-2.00	0.00	180.00	Chevron 5-17D TGT
5,721.6	0.50	240.02	5,649.7	-779.9	-325.0	0.25	0.25	-60.09	240.02	
10,219.1	0.50	240.02	10,147.0	-799.5	-358.9	0.00	0.00	0.00	0.00	Chevron 5-17D PBHL

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Project:	Garfield County	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site:	Chevron E05 696	**North Reference:**	True
Well:	Chevron 5-17D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
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	202.59	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	202.59	240.0	-0.3	-0.1	0.3	2.00	2.00	
270.0	1.40	202.59	270.0	-0.8	-0.3	0.9	2.00	2.00	
300.0	2.00	202.59	300.0	-1.6	-0.7	1.7	2.00	2.00	
330.0	2.60	202.59	330.0	-2.7	-1.1	2.9	2.00	2.00	
360.0	3.20	202.59	359.9	-4.1	-1.7	4.5	2.00	2.00	
390.0	3.80	202.59	389.9	-5.8	-2.4	6.3	2.00	2.00	
420.0	4.40	202.59	419.8	-7.8	-3.2	8.4	2.00	2.00	
450.0	5.00	202.59	449.7	-10.1	-4.2	10.9	2.00	2.00	
480.0	5.60	202.59	479.6	-12.6	-5.3	13.7	2.00	2.00	
510.0	6.20	202.59	509.4	-15.5	-6.4	16.7	2.00	2.00	
540.0	6.80	202.59	539.2	-18.6	-7.7	20.1	2.00	2.00	
570.0	7.40	202.59	569.0	-22.0	-9.2	23.9	2.00	2.00	
600.0	8.00	202.59	598.7	-25.7	-10.7	27.9	2.00	2.00	
630.0	8.60	202.59	628.4	-29.7	-12.4	32.2	2.00	2.00	
660.0	9.20	202.59	658.0	-34.0	-14.2	36.8	2.00	2.00	
690.0	9.80	202.59	687.6	-38.6	-16.1	41.8	2.00	2.00	
704.5	10.09	202.59	701.9	-40.9	-17.0	44.3	2.00	2.00	EOB @ Inc. 10.09°
720.0	10.09	202.59	717.2	-43.4	-18.1	47.0	0.00	0.00	
750.0	10.09	202.59	746.7	-48.3	-20.1	52.3	0.00	0.00	
780.0	10.09	202.59	776.2	-53.1	-22.1	57.5	0.00	0.00	
810.0	10.09	202.59	805.8	-58.0	-24.1	62.8	0.00	0.00	
840.0	10.09	202.59	835.3	-62.8	-26.1	68.0	0.00	0.00	
870.0	10.09	202.59	864.8	-67.7	-28.2	73.3	0.00	0.00	
900.0	10.09	202.59	894.4	-72.5	-30.2	78.5	0.00	0.00	
930.0	10.09	202.59	923.9	-77.4	-32.2	83.8	0.00	0.00	
960.0	10.09	202.59	953.4	-82.2	-34.2	89.0	0.00	0.00	
990.0	10.09	202.59	983.0	-87.1	-36.2	94.3	0.00	0.00	
1,020.0	10.09	202.59	1,012.5	-91.9	-38.2	99.5	0.00	0.00	
1,050.0	10.09	202.59	1,042.1	-96.8	-40.3	104.8	0.00	0.00	
1,080.0	10.09	202.59	1,071.6	-101.7	-42.3	110.1	0.00	0.00	
1,110.0	10.09	202.59	1,101.1	-106.5	-44.3	115.3	0.00	0.00	
1,140.0	10.09	202.59	1,130.7	-111.4	-46.3	120.6	0.00	0.00	
1,170.0	10.09	202.59	1,160.2	-116.2	-48.3	125.8	0.00	0.00	
1,200.0	10.09	202.59	1,189.7	-121.1	-50.4	131.1	0.00	0.00	
1,230.0	10.09	202.59	1,219.3	-125.9	-52.4	136.3	0.00	0.00	
1,260.0	10.09	202.59	1,248.8	-130.8	-54.4	141.6	0.00	0.00	
1,290.0	10.09	202.59	1,278.3	-135.6	-56.4	146.8	0.00	0.00	
1,320.0	10.09	202.59	1,307.9	-140.5	-58.4	152.1	0.00	0.00	
1,350.0	10.09	202.59	1,337.4	-145.3	-60.5	157.3	0.00	0.00	
1,380.0	10.09	202.59	1,366.9	-150.2	-62.5	162.6	0.00	0.00	
1,410.0	10.09	202.59	1,396.5	-155.0	-64.5	167.8	0.00	0.00	
1,440.0	10.09	202.59	1,426.0	-159.9	-66.5	173.1	0.00	0.00	
1,470.0	10.09	202.59	1,455.6	-164.7	-68.5	178.4	0.00	0.00	

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Site:	Chevron E05 696	**North Reference:**	True
Well:	Chevron 5-17D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
1,500.0	10.09	202.59	1,485.1	-169.6	-70.5	183.6	0.00	0.00	
1,530.0	10.09	202.59	1,514.6	-174.4	-72.6	188.9	0.00	0.00	
1,560.0	10.09	202.59	1,544.2	-179.3	-74.6	194.1	0.00	0.00	
1,590.0	10.09	202.59	1,573.7	-184.2	-76.6	199.4	0.00	0.00	
1,620.0	10.09	202.59	1,603.2	-189.0	-78.6	204.6	0.00	0.00	
1,650.0	10.09	202.59	1,632.8	-193.9	-80.6	209.9	0.00	0.00	
1,680.0	10.09	202.59	1,662.3	-198.7	-82.7	215.1	0.00	0.00	
1,710.0	10.09	202.59	1,691.8	-203.6	-84.7	220.4	0.00	0.00	
1,740.0	10.09	202.59	1,721.4	-208.4	-86.7	225.6	0.00	0.00	
1,770.0	10.09	202.59	1,750.9	-213.3	-88.7	230.9	0.00	0.00	
1,800.0	10.09	202.59	1,780.5	-218.1	-90.7	236.2	0.00	0.00	
1,830.0	10.09	202.59	1,810.0	-223.0	-92.8	241.4	0.00	0.00	
1,860.0	10.09	202.59	1,839.5	-227.8	-94.8	246.7	0.00	0.00	
1,890.0	10.09	202.59	1,869.1	-232.7	-96.8	251.9	0.00	0.00	
1,920.0	10.09	202.59	1,898.6	-237.5	-98.8	257.2	0.00	0.00	
1,950.0	10.09	202.59	1,928.1	-242.4	-100.8	262.4	0.00	0.00	
1,980.0	10.09	202.59	1,957.7	-247.2	-102.8	267.7	0.00	0.00	
2,010.0	10.09	202.59	1,987.2	-252.1	-104.9	272.9	0.00	0.00	
2,040.0	10.09	202.59	2,016.7	-256.9	-106.9	278.2	0.00	0.00	
2,070.0	10.09	202.59	2,046.3	-261.8	-108.9	283.4	0.00	0.00	
2,100.0	10.09	202.59	2,075.8	-266.7	-110.9	288.7	0.00	0.00	
2,130.0	10.09	202.59	2,105.3	-271.5	-112.9	293.9	0.00	0.00	
2,160.0	10.09	202.59	2,134.9	-276.4	-115.0	299.2	0.00	0.00	
2,190.0	10.09	202.59	2,164.4	-281.2	-117.0	304.5	0.00	0.00	
2,220.0	10.09	202.59	2,194.0	-286.1	-119.0	309.7	0.00	0.00	
2,250.0	10.09	202.59	2,223.5	-290.9	-121.0	315.0	0.00	0.00	
2,280.0	10.09	202.59	2,253.0	-295.8	-123.0	320.2	0.00	0.00	
2,310.0	10.09	202.59	2,282.6	-300.6	-125.1	325.5	0.00	0.00	
2,340.0	10.09	202.59	2,312.1	-305.5	-127.1	330.7	0.00	0.00	
2,370.0	10.09	202.59	2,341.6	-310.3	-129.1	336.0	0.00	0.00	
2,400.0	10.09	202.59	2,371.2	-315.2	-131.1	341.2	0.00	0.00	
2,430.0	10.09	202.59	2,400.7	-320.0	-133.1	346.5	0.00	0.00	
2,460.0	10.09	202.59	2,430.2	-324.9	-135.1	351.7	0.00	0.00	
2,490.0	10.09	202.59	2,459.8	-329.7	-137.2	357.0	0.00	0.00	

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 5-17D TGT	0.00	0.00	5,450.0	-779.5	-324.2	1,637,622.05	2,256,476.01	39.554419	-108.137312
- plan misses target center by 3029.6ft at 2490.0ft MD (2459.8 TVD, -329.7 N, -137.2 E)									
- Point									
Chevron 5-17D PBHL	0.00	0.00	10,147.0	-799.5	-358.9	1,637,603.06	2,256,440.75	39.554364	-108.137435
- plan misses target center by 7704.8ft at 2490.0ft MD (2459.8 TVD, -329.7 N, -137.2 E)									
- Polygon									
Point 1			10,147.0	70.0	100.0	1,637,670.13	2,256,542.74		
Point 2			10,147.0	70.0	-100.0	1,637,675.93	2,256,342.83		
Point 3			10,147.0	-20.0	-100.0	1,637,585.97	2,256,340.22		
Point 4			10,147.0	-20.0	100.0	1,637,580.17	2,256,540.13		

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Well:	Chevron 5-17D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
2,500.0	10.09	202.59	2,469.6	-331.4	-137.8	358.7	0.00	0.00	
2,600.0	10.09	202.59	2,568.1	-347.5	-144.6	376.3	0.00	0.00	
2,700.0	10.09	202.59	2,666.5	-363.7	-151.3	393.8	0.00	0.00	
2,800.0	10.09	202.59	2,765.0	-379.9	-158.0	411.3	0.00	0.00	
2,900.0	10.09	202.59	2,863.4	-396.1	-164.8	428.8	0.00	0.00	
3,000.0	10.09	202.59	2,961.9	-412.2	-171.5	446.3	0.00	0.00	
3,100.0	10.09	202.59	3,060.3	-428.4	-178.2	463.8	0.00	0.00	
3,200.0	10.09	202.59	3,158.8	-444.6	-184.9	481.3	0.00	0.00	
3,238.8	10.09	202.59	3,197.0	-450.9	-187.6	488.1	0.00	0.00	Wasatch
3,300.0	10.09	202.59	3,257.3	-460.8	-191.7	498.9	0.00	0.00	
3,400.0	10.09	202.59	3,355.7	-476.9	-198.4	516.4	0.00	0.00	
3,500.0	10.09	202.59	3,454.2	-493.1	-205.1	533.9	0.00	0.00	
3,600.0	10.09	202.59	3,552.6	-509.3	-211.9	551.4	0.00	0.00	
3,700.0	10.09	202.59	3,651.1	-525.5	-218.6	568.9	0.00	0.00	
3,800.0	10.09	202.59	3,749.5	-541.7	-225.3	586.4	0.00	0.00	
3,900.0	10.09	202.59	3,848.0	-557.8	-232.0	603.9	0.00	0.00	
4,000.0	10.09	202.59	3,946.4	-574.0	-238.8	621.4	0.00	0.00	
4,100.0	10.09	202.59	4,044.9	-590.2	-245.5	639.0	0.00	0.00	
4,200.0	10.09	202.59	4,143.3	-606.4	-252.2	656.5	0.00	0.00	
4,300.0	10.09	202.59	4,241.8	-622.5	-259.0	674.0	0.00	0.00	
4,400.0	10.09	202.59	4,340.2	-638.7	-265.7	691.5	0.00	0.00	
4,500.0	10.09	202.59	4,438.7	-654.9	-272.4	709.0	0.00	0.00	
4,600.0	10.09	202.59	4,537.1	-671.1	-279.1	726.5	0.00	0.00	
4,700.0	10.09	202.59	4,635.6	-687.2	-285.9	744.0	0.00	0.00	
4,800.0	10.09	202.59	4,734.0	-703.4	-292.6	761.6	0.00	0.00	
4,900.0	10.09	202.59	4,832.5	-719.6	-299.3	779.1	0.00	0.00	
5,000.0	10.09	202.59	4,931.0	-735.8	-306.1	796.6	0.00	0.00	
5,017.4	10.09	202.59	4,948.1	-738.6	-307.2	799.6	0.00	0.00	Start Drop -2.00
5,100.0	8.44	202.59	5,029.6	-750.9	-312.3	812.9	2.00	-2.00	
5,200.0	6.44	202.59	5,128.8	-762.8	-317.3	825.9	2.00	-2.00	
5,300.0	4.44	202.59	5,228.3	-771.6	-321.0	835.3	2.00	-2.00	
5,368.8	3.06	202.59	5,297.0	-775.7	-322.7	839.8	2.00	-2.00	Fort Union
5,400.0	2.44	202.59	5,328.1	-777.1	-323.3	841.3	2.00	-2.00	
5,500.0	0.44	202.59	5,428.1	-779.4	-324.2	843.8	2.00	-2.00	
5,521.9	0.00	0.00	5,450.0	-779.5	-324.2	843.9	2.00	-2.00	EOD @ Inc. = 0° - Chevron 5-17D TGT
5,600.0	0.20	240.02	5,528.1	-779.6	-324.4	844.0	0.25	0.25	
5,700.0	0.45	240.02	5,628.1	-779.8	-324.8	844.5	0.25	0.25	
5,721.6	0.50	240.02	5,649.7	-779.9	-325.0	844.6	0.25	0.25	
5,800.0	0.50	240.02	5,728.1	-780.3	-325.6	845.2	0.00	0.00	
5,900.0	0.50	240.02	5,828.1	-780.7	-326.3	845.9	0.00	0.00	
6,000.0	0.50	240.02	5,928.1	-781.1	-327.1	846.6	0.00	0.00	
6,100.0	0.50	240.02	6,028.1	-781.6	-327.9	847.3	0.00	0.00	
6,200.0	0.50	240.02	6,128.1	-782.0	-328.6	848.0	0.00	0.00	
6,300.0	0.50	240.02	6,228.1	-782.5	-329.4	848.7	0.00	0.00	
6,400.0	0.50	240.02	6,328.1	-782.9	-330.1	849.4	0.00	0.00	
6,500.0	0.50	240.02	6,428.1	-783.3	-330.9	850.1	0.00	0.00	
6,600.0	0.50	240.02	6,528.0	-783.8	-331.6	850.8	0.00	0.00	
6,669.0	0.50	240.02	6,597.0	-784.1	-332.2	851.3	0.00	0.00	Ohio Creek
6,700.0	0.50	240.02	6,628.0	-784.2	-332.4	851.5	0.00	0.00	
6,800.0	0.50	240.02	6,728.0	-784.6	-333.1	852.2	0.00	0.00	
6,900.0	0.50	240.02	6,828.0	-785.1	-333.9	853.0	0.00	0.00	
7,000.0	0.50	240.02	6,928.0	-785.5	-334.7	853.7	0.00	0.00	

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Company:	Berry Petroleum Company (NAD 83)	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Project:	Garfield County	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site:	Chevron E05 696	**North Reference:**	True
Well:	Chevron 5-17D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
7,069.0	0.50	240.02	6,997.0	-785.8	-335.2	854.1	0.00	0.00	Williams Fork
7,100.0	0.50	240.02	7,028.0	-785.9	-335.4	854.4	0.00	0.00	
7,200.0	0.50	240.02	7,128.0	-786.4	-336.2	855.1	0.00	0.00	
7,269.0	0.50	240.02	7,197.0	-786.7	-336.7	855.6	0.00	0.00	Approx. Top Gas
7,300.0	0.50	240.02	7,228.0	-786.8	-336.9	855.8	0.00	0.00	
7,400.0	0.50	240.02	7,328.0	-787.2	-337.7	856.5	0.00	0.00	
7,500.0	0.50	240.02	7,428.0	-787.7	-338.4	857.2	0.00	0.00	
7,600.0	0.50	240.02	7,528.0	-788.1	-339.2	857.9	0.00	0.00	
7,700.0	0.50	240.02	7,628.0	-788.5	-339.9	858.6	0.00	0.00	
7,800.0	0.50	240.02	7,728.0	-789.0	-340.7	859.3	0.00	0.00	
7,900.0	0.50	240.02	7,828.0	-789.4	-341.4	860.0	0.00	0.00	
8,000.0	0.50	240.02	7,928.0	-789.9	-342.2	860.7	0.00	0.00	
8,100.0	0.50	240.02	8,028.0	-790.3	-343.0	861.4	0.00	0.00	
8,200.0	0.50	240.02	8,128.0	-790.7	-343.7	862.1	0.00	0.00	
8,300.0	0.50	240.02	8,228.0	-791.2	-344.5	862.8	0.00	0.00	
8,400.0	0.50	240.02	8,328.0	-791.6	-345.2	863.5	0.00	0.00	
8,500.0	0.50	240.02	8,428.0	-792.0	-346.0	864.2	0.00	0.00	
8,600.0	0.50	240.02	8,528.0	-792.5	-346.7	865.0	0.00	0.00	
8,700.0	0.50	240.02	8,628.0	-792.9	-347.5	865.7	0.00	0.00	
8,800.0	0.50	240.02	8,728.0	-793.3	-348.2	866.4	0.00	0.00	
8,900.0	0.50	240.02	8,828.0	-793.8	-349.0	867.1	0.00	0.00	
9,000.0	0.50	240.02	8,928.0	-794.2	-349.7	867.8	0.00	0.00	
9,100.0	0.50	240.02	9,028.0	-794.6	-350.5	868.5	0.00	0.00	
9,200.0	0.50	240.02	9,127.9	-795.1	-351.3	869.2	0.00	0.00	
9,300.0	0.50	240.02	9,227.9	-795.5	-352.0	869.9	0.00	0.00	
9,400.0	0.50	240.02	9,327.9	-795.9	-352.8	870.6	0.00	0.00	
9,500.0	0.50	240.02	9,427.9	-796.4	-353.5	871.3	0.00	0.00	
9,600.0	0.50	240.02	9,527.9	-796.8	-354.3	872.0	0.00	0.00	
9,700.0	0.50	240.02	9,627.9	-797.3	-355.0	872.7	0.00	0.00	
9,719.1	0.50	240.02	9,647.0	-797.3	-355.2	872.9	0.00	0.00	Cameo
9,800.0	0.50	240.02	9,727.9	-797.7	-355.8	873.4	0.00	0.00	
9,900.0	0.50	240.02	9,827.9	-798.1	-356.5	874.1	0.00	0.00	
10,000.0	0.50	240.02	9,927.9	-798.6	-357.3	874.8	0.00	0.00	
10,069.1	0.50	240.02	9,997.0	-798.9	-357.8	875.3	0.00	0.00	Rollins SS
10,100.0	0.50	240.02	10,027.9	-799.0	-358.0	875.5	0.00	0.00	
10,200.0	0.50	240.02	10,127.9	-799.4	-358.8	876.3	0.00	0.00	
10,219.1	0.50	240.02	10,147.0	-799.5	-358.9	876.4	0.00	0.00	Chevron 5-17D PBHL

Database:	EDM 5000.1 US Multi Users DB	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Company:	Berry Petroleum Company (NAD 83)	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Project:	Garfield County	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site:	Chevron E05 696	**North Reference:**	True
Well:	Chevron 5-17D	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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 5-17D TGT - plan hits target center - Point	0.00	0.00	5,450.0	-779.5	-324.2	1,637,622.05	2,256,476.01	39.554419	-108.137312
Chevron 5-17D PBHL - plan hits target center - Polygon	0.00	0.00	10,147.0	-799.5	-358.9	1,637,603.06	2,256,440.75	39.554364	-108.137435
Point 1			10,147.0	70.0	100.0	1,637,670.13	2,256,542.74		
Point 2			10,147.0	70.0	-100.0	1,637,675.93	2,256,342.83		
Point 3			10,147.0	-20.0	-100.0	1,637,585.97	2,256,340.22		
Point 4			10,147.0	-20.0	100.0	1,637,580.17	2,256,540.13		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,238.8	3,197.0	Wasatch			
5,368.8	5,297.0	Fort Union			
6,669.0	6,597.0	Ohio Creek			
7,069.0	6,997.0	Williams Fork			
7,269.0	7,197.0	Approx. Top Gas			
9,719.1	9,647.0	Cameo			
10,069.1	9,997.0	Rollins SS			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
200.0	200.0	0.0	0.0	KOP @ 200'
704.5	701.9	-40.9	-17.0	EOB @ Inc. 10.09°
5,017.4	4,948.1	-738.6	-307.2	Start Drop -2.00
5,521.9	5,450.0	-779.5	-324.2	EOD @ Inc. = 0°
10,219.1	10,147.0	-799.5	-358.9	TD @ 10,219' MD

Berry Petroleum Company (NAD 83)

Garfield County
Chevron E05 696
Chevron 5-17D
DD
Plan #1

Anticollision Report

14 January, 2011

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

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 1,221.9ft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**		

Survey Tool Program **Date** 1/14/2011

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	10,218.3	Plan #1 (DD)	MWD	Geolink MWD

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Chevron E05 696						
Chevron 5-18D - DD - Plan #1	200.0	200.0	14.9	14.3	23.758	CC, ES
Chevron 5-18D - DD - Plan #1	10,219.1	10,199.7	344.2	302.9	8.327	SF
Chevron 5-19D - DD - Plan #1	200.0	200.0	45.1	44.4	71.707	CC, ES
Chevron 5-19D - DD - Plan #1	10,219.1	10,180.1	677.2	638.4	17.470	SF
Chevron 5-20D - DD - Plan #1	200.0	200.0	29.9	29.2	47.516	CC
Chevron 5-20D - DD - Plan #1	300.0	299.2	30.2	29.2	30.801	ES
Chevron 5-20D - DD - Plan #1	500.0	496.0	39.0	37.2	22.329	SF
Chevron 5-5D - DD - Plan #1	200.0	200.0	14.9	14.3	23.758	CC, ES, SF
Chevron 5-6D - DD - Plan #1	200.0	200.0	29.9	29.2	47.516	CC, ES
Chevron 5-6D - DD - Plan #1	500.0	496.3	50.8	49.0	29.006	SF
Chevron 5-7D - DD - Plan #1	200.0	200.0	45.2	44.5	71.863	CC, ES
Chevron 5-7D - DD - Plan #1	500.0	493.8	69.2	67.5	40.242	SF
Chevron 5-8D - DD - Plan #1	200.0	200.0	60.1	59.5	95.623	CC, ES
Chevron 5-8D - DD - Plan #1	500.0	491.4	85.8	84.1	50.531	SF

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-18D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-105.57	-4.0	-14.4	14.9				
100.0	100.0	100.0	100.0	0.1	0.1	-105.57	-4.0	-14.4	14.9	14.6	0.28	53.456	
200.0	200.0	200.0	200.0	0.3	0.3	-105.57	-4.0	-14.4	14.9	14.3	0.63	23.758	CC, ES
300.0	300.0	299.6	299.5	0.5	0.5	53.61	-5.3	-15.6	15.3	14.4	0.98	15.657	
400.0	399.8	399.1	398.9	0.7	0.7	58.34	-9.0	-19.1	16.7	15.3	1.35	12.336	
500.0	499.5	498.6	498.0	0.9	0.9	64.67	-15.3	-25.1	19.1	17.3	1.77	10.773	
600.0	598.7	598.0	596.7	1.2	1.2	71.14	-24.1	-33.3	22.8	20.5	2.28	10.007	
700.0	697.5	697.3	694.8	1.5	1.5	76.82	-35.3	-43.9	27.8	24.9	2.89	9.625	
800.0	795.9	797.1	793.0	1.8	1.8	81.12	-48.0	-55.9	33.7	30.1	3.54	9.514	
900.0	894.4	896.9	891.3	2.2	2.2	84.12	-60.7	-67.9	39.7	35.5	4.21	9.428	
1,000.0	992.8	996.7	989.6	2.5	2.5	86.33	-73.4	-79.9	45.8	40.9	4.89	9.364	
1,100.0	1,091.3	1,096.5	1,087.8	2.9	2.8	88.02	-86.1	-91.9	51.9	46.4	5.57	9.317	
1,200.0	1,189.7	1,196.3	1,186.1	3.2	3.2	89.35	-98.8	-103.9	58.1	51.9	6.26	9.280	
1,300.0	1,288.2	1,296.1	1,284.3	3.5	3.5	90.43	-111.5	-115.9	64.3	57.4	6.95	9.251	
1,400.0	1,386.6	1,395.9	1,382.6	3.9	3.9	91.31	-124.2	-127.9	70.6	62.9	7.65	9.229	
1,500.0	1,485.1	1,495.7	1,480.8	4.2	4.2	92.05	-136.9	-139.9	76.8	68.5	8.34	9.210	
1,600.0	1,583.5	1,595.5	1,579.1	4.6	4.6	92.68	-149.6	-151.9	83.0	74.0	9.03	9.195	
1,700.0	1,682.0	1,695.3	1,677.4	4.9	4.9	93.23	-162.3	-163.9	89.3	79.6	9.73	9.182	
1,800.0	1,780.5	1,795.1	1,775.6	5.3	5.3	93.70	-175.0	-175.9	95.6	85.2	10.42	9.172	
1,900.0	1,878.9	1,894.9	1,873.9	5.6	5.6	94.11	-187.7	-187.9	101.9	90.7	11.12	9.163	
2,000.0	1,977.4	1,994.7	1,972.1	6.0	6.0	94.47	-200.4	-199.9	108.1	96.3	11.81	9.155	
2,100.0	2,075.8	2,094.5	2,070.4	6.3	6.3	94.80	-213.1	-211.9	114.4	101.9	12.51	9.148	
2,200.0	2,174.3	2,194.3	2,168.7	6.7	6.7	95.09	-225.8	-223.9	120.7	107.5	13.20	9.142	
2,300.0	2,272.7	2,294.1	2,266.9	7.0	7.0	95.35	-238.5	-235.9	127.0	113.1	13.90	9.137	
2,400.0	2,371.2	2,393.9	2,365.2	7.4	7.4	95.59	-251.2	-247.9	133.3	118.7	14.59	9.132	
2,500.0	2,469.6	2,493.7	2,463.4	7.8	7.8	95.80	-263.9	-259.9	139.6	124.3	15.29	9.128	
2,600.0	2,568.1	2,593.5	2,561.7	8.1	8.1	96.00	-276.6	-271.9	145.9	129.9	15.99	9.125	
2,700.0	2,666.5	2,693.3	2,660.0	8.5	8.5	96.18	-289.3	-283.9	152.2	135.5	16.68	9.121	
2,800.0	2,765.0	2,793.1	2,758.2	8.8	8.8	96.35	-302.0	-295.9	158.5	141.1	17.38	9.118	
2,900.0	2,863.4	2,892.9	2,856.5	9.2	9.2	96.50	-314.7	-307.9	164.8	146.7	18.07	9.116	
3,000.0	2,961.9	2,992.7	2,954.7	9.5	9.5	96.65	-327.4	-319.8	171.1	152.3	18.77	9.113	
3,100.0	3,060.3	3,092.5	3,053.0	9.9	9.9	96.78	-340.1	-331.8	177.4	157.9	19.47	9.111	
3,200.0	3,158.8	3,192.3	3,151.3	10.2	10.2	96.90	-352.8	-343.8	183.7	163.5	20.16	9.109	
3,300.0	3,257.3	3,292.1	3,249.5	10.6	10.6	97.02	-365.5	-355.8	190.0	169.1	20.86	9.107	
3,400.0	3,355.7	3,391.9	3,347.8	10.9	10.9	97.12	-378.2	-367.8	196.3	174.7	21.56	9.105	
3,500.0	3,454.2	3,491.7	3,446.0	11.3	11.3	97.23	-390.9	-379.8	202.6	180.3	22.25	9.103	
3,600.0	3,552.6	3,591.5	3,544.3	11.6	11.6	97.32	-403.6	-391.8	208.9	185.9	22.95	9.102	
3,700.0	3,651.1	3,691.3	3,642.6	12.0	12.0	97.41	-416.3	-403.8	215.2	191.5	23.64	9.100	
3,800.0	3,749.5	3,791.8	3,741.6	12.3	12.3	97.58	-428.9	-415.7	221.4	197.1	24.33	9.099	
3,900.0	3,848.0	3,893.3	3,842.1	12.7	12.6	98.48	-439.4	-425.6	227.0	202.0	24.97	9.091	
4,000.0	3,946.4	3,994.5	3,942.7	13.0	12.8	100.21	-447.3	-433.1	232.0	206.5	25.56	9.079	
4,100.0	4,044.9	4,095.2	4,043.1	13.4	13.0	102.69	-452.6	-438.1	236.7	210.6	26.06	9.083	
4,200.0	4,143.3	4,195.1	4,142.9	13.7	13.1	105.88	-455.3	-440.6	241.5	215.0	26.45	9.130	
4,300.0	4,241.8	4,293.8	4,241.6	14.1	13.2	109.61	-455.7	-441.1	247.0	220.2	26.72	9.242	
4,400.0	4,340.2	4,392.1	4,339.9	14.4	13.3	113.21	-455.9	-441.4	253.6	226.6	26.92	9.418	
4,500.0	4,438.7	4,490.6	4,438.4	14.8	13.4	116.56	-456.3	-442.0	261.2	234.1	27.07	9.648	
4,600.0	4,537.1	4,589.1	4,536.9	15.1	13.6	119.72	-456.6	-442.6	269.6	242.5	27.17	9.926	
4,700.0	4,635.6	4,687.7	4,635.5	15.5	13.7	122.68	-456.9	-443.1	278.9	251.7	27.23	10.243	
4,800.0	4,734.0	4,786.2	4,734.0	15.9	13.8	125.45	-457.3	-443.7	288.8	261.6	27.26	10.595	
4,900.0	4,832.5	4,884.7	4,832.5	16.2	13.9	128.03	-457.6	-444.3	299.4	272.2	27.28	10.975	
5,000.0	4,931.0	4,983.3	4,931.1	16.6	14.0	130.43	-457.9	-444.9	310.6	283.3	27.29	11.380	
5,100.0	5,029.6	5,082.0	5,029.8	16.9	14.1	132.64	-458.3	-445.5	321.5	294.2	27.30	11.777	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-18D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,128.8	5,181.3	5,129.0	17.1	14.2	134.30	-458.6	-446.0	330.3	303.0	27.34	12.082	
5,300.0	5,228.3	5,280.8	5,228.6	17.3	14.4	135.43	-458.9	-446.6	336.9	309.5	27.44	12.279	
5,400.0	5,328.1	5,380.7	5,328.5	17.5	14.5	136.08	-459.3	-447.2	341.1	313.6	27.59	12.365	
5,500.0	5,428.1	5,480.7	5,428.4	17.6	14.6	136.29	-459.6	-447.8	342.9	315.1	27.79	12.336	
5,600.0	5,528.1	5,580.7	5,528.4	17.7	14.7	98.77	-460.0	-448.4	342.8	314.8	28.06	12.219	
5,677.8	5,605.9	5,658.5	5,606.3	17.8	14.8	98.74	-460.2	-448.9	342.8	314.5	28.27	12.128	
5,700.0	5,628.1	5,680.7	5,628.4	17.8	14.9	98.75	-460.3	-449.0	342.8	314.5	28.32	12.104	
5,800.0	5,728.1	5,780.7	5,728.4	17.9	15.0	98.78	-460.6	-449.6	342.8	314.3	28.58	11.995	
5,900.0	5,828.1	5,880.7	5,828.4	18.0	15.1	98.81	-461.0	-450.2	342.9	314.0	28.84	11.888	
6,000.0	5,928.1	5,980.7	5,928.4	18.1	15.2	98.84	-461.3	-450.7	342.9	313.8	29.10	11.782	
6,100.0	6,028.1	6,080.7	6,028.4	18.2	15.4	98.87	-461.7	-451.3	342.9	313.6	29.37	11.678	
6,200.0	6,128.1	6,180.7	6,128.4	18.4	15.5	98.90	-462.0	-451.9	343.0	313.3	29.63	11.574	
6,300.0	6,228.1	6,280.7	6,228.4	18.5	15.6	98.93	-462.3	-452.5	343.0	313.1	29.90	11.472	
6,400.0	6,328.1	6,380.7	6,328.4	18.6	15.7	98.97	-462.7	-453.1	343.0	312.9	30.17	11.370	
6,500.0	6,428.1	6,480.7	6,428.4	18.7	15.9	99.00	-463.0	-453.7	343.0	312.6	30.44	11.270	
6,600.0	6,528.0	6,580.7	6,528.4	18.8	16.0	99.03	-463.4	-454.3	343.1	312.4	30.71	11.172	
6,700.0	6,628.0	6,680.7	6,628.4	18.9	16.1	99.06	-463.7	-454.9	343.1	312.1	30.98	11.074	
6,800.0	6,728.0	6,780.7	6,728.4	19.0	16.3	99.09	-464.0	-455.5	343.1	311.9	31.26	10.977	
6,900.0	6,828.0	6,880.7	6,828.4	19.2	16.4	99.12	-464.4	-456.0	343.2	311.6	31.53	10.882	
7,000.0	6,928.0	6,980.7	6,928.4	19.3	16.5	99.16	-464.7	-456.6	343.2	311.4	31.81	10.788	
7,100.0	7,028.0	7,080.7	7,028.4	19.4	16.7	99.19	-465.0	-457.2	343.2	311.1	32.09	10.695	
7,200.0	7,128.0	7,180.7	7,128.4	19.5	16.8	99.22	-465.4	-457.8	343.3	310.9	32.37	10.603	
7,300.0	7,228.0	7,280.7	7,228.4	19.6	17.0	99.25	-465.7	-458.4	343.3	310.6	32.65	10.513	
7,400.0	7,328.0	7,380.7	7,328.4	19.8	17.1	99.28	-466.1	-459.0	343.3	310.4	32.94	10.423	
7,500.0	7,428.0	7,480.7	7,428.4	19.9	17.2	99.31	-466.4	-459.6	343.4	310.1	33.22	10.335	
7,600.0	7,528.0	7,580.7	7,528.4	20.0	17.4	99.35	-466.7	-460.2	343.4	309.9	33.51	10.248	
7,700.0	7,628.0	7,680.7	7,628.4	20.1	17.5	99.38	-467.1	-460.8	343.4	309.6	33.80	10.162	
7,800.0	7,728.0	7,780.7	7,728.4	20.3	17.7	99.41	-467.4	-461.3	343.4	309.4	34.08	10.077	
7,900.0	7,828.0	7,880.7	7,828.4	20.4	17.8	99.44	-467.8	-461.9	343.5	309.1	34.37	9.993	
8,000.0	7,928.0	7,980.7	7,928.4	20.5	17.9	99.47	-468.1	-462.5	343.5	308.8	34.66	9.910	
8,100.0	8,028.0	8,080.7	8,028.4	20.6	18.1	99.50	-468.4	-463.1	343.5	308.6	34.95	9.828	
8,200.0	8,128.0	8,180.7	8,128.4	20.8	18.2	99.53	-468.8	-463.7	343.6	308.3	35.25	9.748	
8,300.0	8,228.0	8,280.7	8,228.4	20.9	18.4	99.57	-469.1	-464.3	343.6	308.1	35.54	9.668	
8,400.0	8,328.0	8,380.7	8,328.4	21.0	18.5	99.60	-469.5	-464.9	343.6	307.8	35.83	9.589	
8,500.0	8,428.0	8,480.7	8,428.4	21.2	18.7	99.63	-469.8	-465.5	343.7	307.5	36.13	9.512	
8,600.0	8,528.0	8,580.7	8,528.4	21.3	18.8	99.66	-470.1	-466.1	343.7	307.3	36.43	9.435	
8,700.0	8,628.0	8,680.7	8,628.4	21.4	19.0	99.69	-470.5	-466.6	343.7	307.0	36.72	9.360	
8,800.0	8,728.0	8,780.7	8,728.4	21.6	19.1	99.72	-470.8	-467.2	343.8	306.7	37.02	9.285	
8,900.0	8,828.0	8,880.7	8,828.4	21.7	19.2	99.75	-471.2	-467.8	343.8	306.5	37.32	9.212	
9,000.0	8,928.0	8,980.7	8,928.4	21.8	19.4	99.79	-471.5	-468.4	343.8	306.2	37.62	9.139	
9,100.0	9,028.0	9,080.7	9,028.4	22.0	19.5	99.82	-471.8	-469.0	343.9	305.9	37.92	9.067	
9,200.0	9,127.9	9,180.7	9,128.3	22.1	19.7	99.85	-472.2	-469.6	343.9	305.7	38.22	8.997	
9,300.0	9,227.9	9,280.7	9,228.3	22.2	19.8	99.88	-472.5	-470.2	343.9	305.4	38.53	8.927	
9,400.0	9,327.9	9,380.7	9,328.3	22.4	20.0	99.91	-472.9	-470.8	344.0	305.1	38.83	8.858	
9,500.0	9,427.9	9,480.7	9,428.3	22.5	20.1	99.94	-473.2	-471.4	344.0	304.9	39.13	8.790	
9,600.0	9,527.9	9,580.7	9,528.3	22.6	20.3	99.97	-473.5	-471.9	344.0	304.6	39.44	8.723	
9,700.0	9,627.9	9,680.7	9,628.3	22.8	20.4	100.01	-473.9	-472.5	344.1	304.3	39.74	8.657	
9,800.0	9,727.9	9,780.7	9,728.3	22.9	20.6	100.04	-474.2	-473.1	344.1	304.0	40.05	8.591	
9,900.0	9,827.9	9,880.7	9,828.3	23.1	20.7	100.07	-474.6	-473.7	344.1	303.8	40.36	8.527	
10,000.0	9,927.9	9,980.7	9,928.3	23.2	20.9	100.10	-474.9	-474.3	344.2	303.5	40.66	8.463	
10,100.0	10,027.9	10,080.7	10,028.3	23.3	21.0	100.13	-475.2	-474.9	344.2	303.2	40.97	8.400	
10,200.0	10,127.9	10,180.7	10,128.3	23.5	21.2	100.16	-475.6	-475.5	344.2	302.9	41.28	8.338	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-18D - DD - Plan #1

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,219.1	10,147.0	10,199.7	10,147.4	23.5	21.2	100.17	-475.6	-475.6	344.2	302.9	41.34	8.327 SF	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-19D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-105.47	-12.0	-43.4	45.1				
100.0	100.0	100.0	100.0	0.1	0.1	-105.47	-12.0	-43.4	45.1	44.8	0.28	161.340	
200.0	200.0	200.0	200.0	0.3	0.3	-105.47	-12.0	-43.4	45.1	44.4	0.63	71.707	CC, ES
300.0	300.0	298.4	298.4	0.5	0.5	53.66	-12.4	-45.1	45.7	44.7	0.98	46.793	
400.0	399.8	396.7	396.6	0.7	0.7	58.50	-13.7	-50.0	47.9	46.6	1.34	35.811	
500.0	499.5	494.7	494.2	0.9	0.9	65.52	-15.8	-58.1	52.3	50.6	1.73	30.191	
600.0	598.7	592.3	591.1	1.2	1.2	73.37	-18.8	-69.4	59.6	57.4	2.19	27.218	
700.0	697.5	689.4	687.0	1.5	1.5	80.84	-22.5	-83.8	70.2	67.4	2.73	25.662	
800.0	795.9	787.7	783.8	1.8	1.8	86.92	-26.8	-100.6	83.5	80.1	3.33	25.089	
900.0	894.4	886.5	881.0	2.2	2.1	91.31	-31.2	-117.5	97.5	93.6	3.94	24.723	
1,000.0	992.8	985.3	978.3	2.5	2.5	94.59	-35.6	-134.4	112.0	107.4	4.57	24.479	
1,100.0	1,091.3	1,084.1	1,075.5	2.9	2.8	97.11	-40.0	-151.3	126.7	121.5	5.21	24.315	
1,200.0	1,189.7	1,182.8	1,172.7	3.2	3.2	99.10	-44.4	-168.2	141.7	135.8	5.85	24.200	
1,300.0	1,288.2	1,281.6	1,269.9	3.5	3.5	100.71	-48.8	-185.2	156.7	150.2	6.50	24.120	
1,400.0	1,386.6	1,380.4	1,367.1	3.9	3.9	102.04	-53.1	-202.1	171.9	164.8	7.14	24.063	
1,500.0	1,485.1	1,479.1	1,464.3	4.2	4.2	103.16	-57.5	-219.0	187.1	179.4	7.79	24.021	
1,600.0	1,583.5	1,577.9	1,561.5	4.6	4.6	104.10	-61.9	-235.9	202.5	194.0	8.44	23.991	
1,700.0	1,682.0	1,676.7	1,658.7	4.9	4.9	104.92	-66.3	-252.8	217.8	208.7	9.09	23.969	
1,800.0	1,780.5	1,775.5	1,756.0	5.3	5.3	105.62	-70.7	-269.7	233.2	223.5	9.74	23.952	
1,900.0	1,878.9	1,874.2	1,853.2	5.6	5.6	106.24	-75.1	-286.7	248.6	238.2	10.38	23.941	
2,000.0	1,977.4	1,973.0	1,950.4	6.0	6.0	106.78	-79.5	-303.6	264.1	253.0	11.03	23.932	
2,100.0	2,075.8	2,071.8	2,047.6	6.3	6.3	107.27	-83.8	-320.5	279.5	267.8	11.68	23.926	
2,200.0	2,174.3	2,170.5	2,144.8	6.7	6.7	107.71	-88.2	-337.4	295.0	282.7	12.33	23.922	
2,300.0	2,272.7	2,269.3	2,242.0	7.0	7.0	108.10	-92.6	-354.3	310.5	297.5	12.98	23.919	
2,400.0	2,371.2	2,368.1	2,339.2	7.4	7.4	108.45	-97.0	-371.2	326.0	312.4	13.63	23.917	
2,500.0	2,469.6	2,473.4	2,443.2	7.8	7.7	109.05	-101.2	-387.6	340.6	326.4	14.27	23.878	
2,600.0	2,568.1	2,579.4	2,548.3	8.1	8.0	110.13	-104.5	-400.3	353.3	338.4	14.86	23.771	
2,700.0	2,666.5	2,685.3	2,653.8	8.5	8.2	111.67	-106.8	-409.2	364.2	348.8	15.42	23.625	
2,800.0	2,765.0	2,790.9	2,759.3	8.8	8.3	113.62	-108.2	-414.3	373.5	357.6	15.92	23.471	
2,900.0	2,863.4	2,895.0	2,863.4	9.2	8.5	115.95	-108.5	-415.7	381.6	365.3	16.36	23.334	
3,000.0	2,961.9	2,993.2	2,961.6	9.5	8.6	118.20	-108.7	-415.9	389.8	373.0	16.77	23.242	
3,100.0	3,060.3	3,091.7	3,060.1	9.9	8.7	120.32	-108.9	-416.4	398.5	381.3	17.16	23.218	
3,200.0	3,158.8	3,190.2	3,158.6	10.2	8.8	122.34	-109.2	-416.8	407.8	390.2	17.54	23.251	
3,300.0	3,257.3	3,288.7	3,257.1	10.6	8.9	124.28	-109.5	-417.3	417.5	399.6	17.89	23.332	
3,400.0	3,355.7	3,387.3	3,355.7	10.9	9.0	126.13	-109.7	-417.8	427.7	409.5	18.24	23.456	
3,500.0	3,454.2	3,485.8	3,454.2	11.3	9.1	127.89	-110.0	-418.3	438.4	419.8	18.56	23.615	
3,600.0	3,552.6	3,584.3	3,552.7	11.6	9.3	129.57	-110.3	-418.7	449.5	430.6	18.88	23.805	
3,700.0	3,651.1	3,682.9	3,651.3	12.0	9.4	131.17	-110.6	-419.2	460.9	441.7	19.19	24.020	
3,800.0	3,749.5	3,781.4	3,749.8	12.3	9.5	132.69	-110.8	-419.7	472.6	453.1	19.48	24.258	
3,900.0	3,848.0	3,879.9	3,848.3	12.7	9.6	134.14	-111.1	-420.1	484.7	464.9	19.77	24.513	
4,000.0	3,946.4	3,978.4	3,946.8	13.0	9.8	135.52	-111.4	-420.6	497.1	477.0	20.06	24.784	
4,100.0	4,044.9	4,077.0	4,045.4	13.4	9.9	136.83	-111.6	-421.1	509.7	489.4	20.34	25.066	
4,200.0	4,143.3	4,175.5	4,143.9	13.7	10.0	138.08	-111.9	-421.5	522.6	502.0	20.61	25.359	
4,300.0	4,241.8	4,274.0	4,242.4	14.1	10.2	139.26	-112.2	-422.0	535.8	514.9	20.88	25.658	
4,400.0	4,340.2	4,372.6	4,340.9	14.4	10.3	140.39	-112.5	-422.5	549.1	528.0	21.15	25.964	
4,500.0	4,438.7	4,471.1	4,439.5	14.8	10.4	141.47	-112.7	-422.9	562.7	541.3	21.42	26.274	
4,600.0	4,537.1	4,569.6	4,538.0	15.1	10.6	142.50	-113.0	-423.4	576.4	554.7	21.68	26.586	
4,700.0	4,635.6	4,668.1	4,636.5	15.5	10.7	143.48	-113.3	-423.9	590.3	568.4	21.95	26.900	
4,800.0	4,734.0	4,766.7	4,735.0	15.9	10.8	144.41	-113.5	-424.4	604.4	582.2	22.21	27.214	
4,900.0	4,832.5	4,865.2	4,833.6	16.2	11.0	145.30	-113.8	-424.8	618.6	596.2	22.47	27.528	
5,000.0	4,931.0	4,963.7	4,932.1	16.6	11.1	146.16	-114.1	-425.3	633.0	610.3	22.74	27.840	
5,100.0	5,029.6	5,062.4	5,030.8	16.9	11.3	147.03	-114.4	-425.8	646.5	623.5	23.01	28.103	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-19D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,128.8	5,161.7	5,130.0	17.1	11.4	147.72	-114.6	-426.2	657.3	634.0	23.27	28.243	
5,300.0	5,228.3	5,261.2	5,229.6	17.3	11.5	148.19	-114.9	-426.7	665.1	641.6	23.54	28.259	
5,400.0	5,328.1	5,361.1	5,329.5	17.5	11.7	148.47	-115.2	-427.2	670.0	646.2	23.80	28.153	
5,500.0	5,428.1	5,461.1	5,429.4	17.6	11.8	148.56	-115.5	-427.7	672.0	647.9	24.06	27.929	
5,600.0	5,528.1	5,561.1	5,529.4	17.7	12.0	111.09	-115.7	-428.1	671.9	647.5	24.35	27.597	
5,648.7	5,576.8	5,609.8	5,578.1	17.8	12.0	111.09	-115.9	-428.4	671.9	647.4	24.49	27.435	
5,700.0	5,628.1	5,661.1	5,629.4	17.8	12.1	111.09	-116.0	-428.6	671.9	647.3	24.64	27.269	
5,800.0	5,728.1	5,761.1	5,729.4	17.9	12.3	111.12	-116.3	-429.1	672.0	647.1	24.93	26.955	
5,900.0	5,828.1	5,861.1	5,829.4	18.0	12.4	111.14	-116.6	-429.6	672.1	646.9	25.22	26.647	
6,000.0	5,928.1	5,961.1	5,929.4	18.1	12.6	111.17	-116.8	-430.0	672.2	646.7	25.52	26.344	
6,100.0	6,028.1	6,061.1	6,029.4	18.2	12.7	111.19	-117.1	-430.5	672.3	646.5	25.81	26.048	
6,200.0	6,128.1	6,161.1	6,129.4	18.4	12.9	111.22	-117.4	-431.0	672.5	646.4	26.11	25.756	
6,300.0	6,228.1	6,261.1	6,229.4	18.5	13.0	111.24	-117.7	-431.5	672.6	646.2	26.41	25.470	
6,400.0	6,328.1	6,361.1	6,329.4	18.6	13.2	111.27	-117.9	-432.0	672.7	646.0	26.71	25.189	
6,500.0	6,428.1	6,461.1	6,429.4	18.7	13.3	111.29	-118.2	-432.4	672.8	645.8	27.01	24.913	
6,600.0	6,528.0	6,561.1	6,529.4	18.8	13.5	111.32	-118.5	-432.9	672.9	645.6	27.31	24.642	
6,700.0	6,628.0	6,661.0	6,629.4	18.9	13.6	111.35	-118.8	-433.4	673.0	645.4	27.61	24.376	
6,800.0	6,728.0	6,761.0	6,729.4	19.0	13.8	111.37	-119.1	-433.9	673.2	645.2	27.91	24.115	
6,900.0	6,828.0	6,861.0	6,829.4	19.2	13.9	111.40	-119.3	-434.3	673.3	645.1	28.22	23.859	
7,000.0	6,928.0	6,961.0	6,929.4	19.3	14.1	111.42	-119.6	-434.8	673.4	644.9	28.52	23.607	
7,100.0	7,028.0	7,061.0	7,029.4	19.4	14.2	111.45	-119.9	-435.3	673.5	644.7	28.83	23.360	
7,200.0	7,128.0	7,161.0	7,129.4	19.5	14.4	111.47	-120.2	-435.8	673.6	644.5	29.14	23.117	
7,300.0	7,228.0	7,261.0	7,229.4	19.6	14.6	111.50	-120.4	-436.2	673.7	644.3	29.45	22.879	
7,400.0	7,328.0	7,361.0	7,329.4	19.8	14.7	111.52	-120.7	-436.7	673.9	644.1	29.76	22.645	
7,500.0	7,428.0	7,461.0	7,429.4	19.9	14.9	111.55	-121.0	-437.2	674.0	643.9	30.07	22.415	
7,600.0	7,528.0	7,561.0	7,529.4	20.0	15.0	111.57	-121.3	-437.7	674.1	643.7	30.38	22.189	
7,700.0	7,628.0	7,661.0	7,629.4	20.1	15.2	111.60	-121.5	-438.1	674.2	643.5	30.69	21.967	
7,800.0	7,728.0	7,761.0	7,729.4	20.3	15.3	111.62	-121.8	-438.6	674.3	643.3	31.00	21.750	
7,900.0	7,828.0	7,861.0	7,829.4	20.4	15.5	111.65	-122.1	-439.1	674.4	643.1	31.32	21.535	
8,000.0	7,928.0	7,961.0	7,929.4	20.5	15.7	111.68	-122.4	-439.6	674.6	642.9	31.63	21.325	
8,100.0	8,028.0	8,061.0	8,029.4	20.6	15.8	111.70	-122.6	-440.1	674.7	642.7	31.95	21.118	
8,200.0	8,128.0	8,161.0	8,129.4	20.8	16.0	111.73	-122.9	-440.5	674.8	642.5	32.26	20.915	
8,300.0	8,228.0	8,261.0	8,229.4	20.9	16.1	111.75	-123.2	-441.0	674.9	642.3	32.58	20.716	
8,400.0	8,328.0	8,361.0	8,329.4	21.0	16.3	111.78	-123.5	-441.5	675.0	642.1	32.90	20.520	
8,500.0	8,428.0	8,461.0	8,429.4	21.2	16.5	111.80	-123.7	-442.0	675.1	641.9	33.21	20.327	
8,600.0	8,528.0	8,561.0	8,529.4	21.3	16.6	111.83	-124.0	-442.4	675.3	641.7	33.53	20.137	
8,700.0	8,628.0	8,661.0	8,629.4	21.4	16.8	111.85	-124.3	-442.9	675.4	641.5	33.85	19.951	
8,800.0	8,728.0	8,761.0	8,729.4	21.6	16.9	111.88	-124.6	-443.4	675.5	641.3	34.17	19.768	
8,900.0	8,828.0	8,861.0	8,829.4	21.7	17.1	111.90	-124.8	-443.9	675.6	641.1	34.49	19.588	
9,000.0	8,928.0	8,961.0	8,929.4	21.8	17.3	111.93	-125.1	-444.3	675.7	640.9	34.81	19.411	
9,100.0	9,028.0	9,061.0	9,029.3	22.0	17.4	111.95	-125.4	-444.8	675.9	640.7	35.13	19.237	
9,200.0	9,127.9	9,161.0	9,129.3	22.1	17.6	111.98	-125.7	-445.3	676.0	640.5	35.46	19.065	
9,300.0	9,227.9	9,261.0	9,229.3	22.2	17.7	112.00	-126.0	-445.8	676.1	640.3	35.78	18.897	
9,400.0	9,327.9	9,361.0	9,329.3	22.4	17.9	112.03	-126.2	-446.2	676.2	640.1	36.10	18.731	
9,500.0	9,427.9	9,461.0	9,429.3	22.5	18.1	112.05	-126.5	-446.7	676.3	639.9	36.42	18.568	
9,600.0	9,527.9	9,561.0	9,529.3	22.6	18.2	112.08	-126.8	-447.2	676.5	639.7	36.75	18.408	
9,700.0	9,627.9	9,661.0	9,629.3	22.8	18.4	112.10	-127.1	-447.7	676.6	639.5	37.07	18.250	
9,800.0	9,727.9	9,761.0	9,729.3	22.9	18.6	112.13	-127.3	-448.2	676.7	639.3	37.40	18.095	
9,900.0	9,827.9	9,861.0	9,829.3	23.1	18.7	112.15	-127.6	-448.6	676.8	639.1	37.72	17.942	
10,000.0	9,927.9	9,961.0	9,929.3	23.2	18.9	112.18	-127.9	-449.1	676.9	638.9	38.05	17.792	
10,100.0	10,027.9	10,061.0	10,029.3	23.3	19.0	112.21	-128.2	-449.6	677.1	638.7	38.37	17.644	
10,200.0	10,127.9	10,161.0	10,129.3	23.5	19.2	112.23	-128.4	-450.1	677.2	638.5	38.70	17.498	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-19D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,219.1	10,147.0	10,180.1	10,148.4	23.5	19.2	112.24	-128.5	-450.2	677.2	638.4	38.76	17.470 SF	

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-20D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-105.57	-8.0	-28.8	29.9				
100.0	100.0	100.0	100.0	0.1	0.1	-105.57	-8.0	-28.8	29.9	29.6	0.28	106.911	
200.0	200.0	200.0	200.0	0.3	0.3	-105.57	-8.0	-28.8	29.9	29.2	0.63	47.516	CC
300.0	300.0	299.2	299.1	0.5	0.5	56.58	-7.3	-30.3	30.2	29.2	0.98	30.801	ES
400.0	399.8	397.9	397.8	0.7	0.7	69.73	-5.0	-34.9	32.3	31.0	1.35	23.971	
500.0	499.5	496.0	495.5	0.9	0.9	86.63	-1.3	-42.5	39.0	37.2	1.75	22.329	SF
600.0	598.7	592.9	591.7	1.2	1.2	101.12	3.7	-53.0	52.0	49.8	2.18	23.879	
700.0	697.5	688.4	686.0	1.5	1.5	111.10	10.1	-66.1	71.4	68.8	2.65	26.913	
800.0	795.9	784.4	780.5	1.8	1.8	117.42	17.6	-81.5	95.3	92.1	3.15	30.258	
900.0	894.4	881.0	875.6	2.2	2.1	121.21	25.2	-97.1	119.9	116.3	3.66	32.789	
1,000.0	992.8	977.7	970.7	2.5	2.5	123.70	32.7	-112.8	144.9	140.7	4.17	34.714	
1,100.0	1,091.3	1,074.4	1,065.8	2.9	2.8	125.46	40.3	-128.4	170.1	165.4	4.70	36.213	
1,200.0	1,189.7	1,171.1	1,160.9	3.2	3.1	126.77	47.9	-144.0	195.3	190.1	5.22	37.408	
1,300.0	1,288.2	1,267.7	1,256.0	3.5	3.5	127.78	55.5	-159.7	220.7	214.9	5.75	38.380	
1,400.0	1,386.6	1,364.4	1,351.1	3.9	3.8	128.58	63.1	-175.3	246.1	239.8	6.28	39.184	
1,500.0	1,485.1	1,461.1	1,446.2	4.2	4.2	129.23	70.6	-190.9	271.5	264.7	6.81	39.861	
1,600.0	1,583.5	1,557.7	1,541.3	4.6	4.5	129.76	78.2	-206.5	297.0	289.6	7.34	40.437	
1,700.0	1,682.0	1,654.4	1,636.3	4.9	4.9	130.22	85.8	-222.2	322.5	314.6	7.88	40.933	
1,800.0	1,780.5	1,751.1	1,731.4	5.3	5.2	130.61	93.4	-237.8	348.0	339.5	8.41	41.365	
1,900.0	1,878.9	1,847.7	1,826.5	5.6	5.6	130.94	101.0	-253.4	373.5	364.5	8.95	41.744	
2,000.0	1,977.4	1,944.4	1,921.6	6.0	5.9	131.23	108.6	-269.1	399.0	389.5	9.48	42.079	
2,100.0	2,075.8	2,041.1	2,016.7	6.3	6.3	131.49	116.1	-284.7	424.5	414.5	10.02	42.378	
2,200.0	2,174.3	2,137.8	2,111.8	6.7	6.6	131.72	123.7	-300.3	450.1	439.5	10.55	42.645	
2,300.0	2,272.7	2,234.4	2,206.9	7.0	7.0	131.92	131.3	-315.9	475.6	464.5	11.09	42.886	
2,400.0	2,371.2	2,331.1	2,302.0	7.4	7.3	132.10	138.9	-331.6	501.1	489.5	11.63	43.105	
2,500.0	2,469.6	2,427.8	2,397.1	7.8	7.7	132.27	146.5	-347.2	526.7	514.5	12.16	43.304	
2,600.0	2,568.1	2,524.4	2,492.2	8.1	8.0	132.42	154.0	-362.8	552.3	539.6	12.70	43.486	
2,700.0	2,666.5	2,621.1	2,587.3	8.5	8.4	132.55	161.6	-378.5	577.8	564.6	13.24	43.652	
2,800.0	2,765.0	2,717.8	2,682.4	8.8	8.7	132.68	169.2	-394.1	603.4	589.6	13.77	43.806	
2,900.0	2,863.4	2,833.2	2,796.3	9.2	9.1	132.95	177.3	-410.8	627.5	613.2	14.33	43.800	
3,000.0	2,961.9	2,950.6	2,912.9	9.5	9.4	133.48	183.5	-423.5	648.7	633.9	14.85	43.689	
3,100.0	3,060.3	3,069.1	3,031.0	9.9	9.6	134.26	187.6	-432.0	666.9	651.6	15.33	43.495	
3,200.0	3,158.8	3,188.2	3,150.0	10.2	9.7	135.27	189.6	-436.1	682.2	666.4	15.78	43.243	
3,300.0	3,257.3	3,295.8	3,257.5	10.6	9.8	136.34	189.8	-436.6	695.1	678.9	16.18	42.966	
3,400.0	3,355.7	3,394.7	3,356.4	10.9	9.9	137.28	189.5	-437.0	707.9	691.3	16.57	42.728	
3,500.0	3,454.2	3,493.2	3,455.0	11.3	10.1	138.18	189.2	-437.5	720.8	703.9	16.95	42.525	
3,600.0	3,552.6	3,591.7	3,553.5	11.6	10.2	139.04	189.0	-437.9	733.9	716.6	17.33	42.356	
3,700.0	3,651.1	3,690.3	3,652.0	12.0	10.3	139.87	188.7	-438.4	747.2	729.5	17.70	42.215	
3,800.0	3,749.5	3,788.8	3,750.6	12.3	10.4	140.68	188.4	-438.9	760.7	742.6	18.07	42.100	
3,900.0	3,848.0	3,887.3	3,849.1	12.7	10.5	141.45	188.1	-439.4	774.2	755.8	18.43	42.007	
4,000.0	3,946.4	3,985.9	3,947.6	13.0	10.6	142.20	187.8	-439.9	787.9	769.1	18.79	41.935	
4,100.0	4,044.9	4,084.4	4,046.1	13.4	10.7	142.93	187.5	-440.4	801.8	782.6	19.14	41.880	
4,200.0	4,143.3	4,182.9	4,144.7	13.7	10.9	143.63	187.3	-440.9	815.7	796.2	19.50	41.841	
4,300.0	4,241.8	4,281.5	4,243.2	14.1	11.0	144.30	187.0	-441.4	829.8	810.0	19.84	41.817	
4,400.0	4,340.2	4,380.0	4,341.7	14.4	11.1	144.96	186.7	-441.9	844.0	823.8	20.19	41.804	
4,500.0	4,438.7	4,478.5	4,440.3	14.8	11.2	145.59	186.4	-442.4	858.3	837.8	20.53	41.803	
4,600.0	4,537.1	4,577.0	4,538.8	15.1	11.3	146.20	186.1	-442.9	872.7	851.8	20.87	41.812	
4,700.0	4,635.6	4,675.6	4,637.3	15.5	11.5	146.79	185.8	-443.4	887.2	866.0	21.21	41.829	
4,800.0	4,734.0	4,774.1	4,735.9	15.9	11.6	147.37	185.5	-443.8	901.7	880.2	21.54	41.854	
4,900.0	4,832.5	4,872.6	4,834.4	16.2	11.7	147.92	185.3	-444.3	916.4	894.5	21.88	41.886	
5,000.0	4,931.0	4,971.2	4,932.9	16.6	11.8	148.46	185.0	-444.8	931.1	908.9	22.21	41.924	
5,100.0	5,029.6	5,069.9	5,031.6	16.9	12.0	149.06	184.7	-445.3	945.0	922.4	22.56	41.884	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-20D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,128.8	5,169.1	5,130.9	17.1	12.1	149.54	184.4	-445.8	955.9	933.0	22.90	41.748	
5,300.0	5,228.3	5,268.7	5,230.4	17.3	12.2	149.87	184.1	-446.3	963.9	940.7	23.21	41.522	
5,400.0	5,328.1	5,368.5	5,330.3	17.5	12.4	150.07	183.8	-446.8	968.8	945.3	23.51	41.208	
5,500.0	5,428.1	5,468.5	5,430.2	17.6	12.5	150.13	183.5	-447.3	970.8	947.0	23.79	40.806	
5,600.0	5,528.1	5,568.5	5,530.2	17.7	12.6	112.67	183.3	-447.8	970.7	946.6	24.08	40.313	
5,654.4	5,582.5	5,622.9	5,584.7	17.8	12.7	112.67	183.1	-448.1	970.7	946.4	24.24	40.044	
5,700.0	5,628.1	5,668.5	5,630.2	17.8	12.8	112.67	183.0	-448.3	970.7	946.3	24.38	39.823	
5,800.0	5,728.1	5,768.5	5,730.2	17.9	12.9	112.68	182.7	-448.8	970.8	946.1	24.67	39.349	
5,900.0	5,828.1	5,868.5	5,830.2	18.0	13.1	112.70	182.4	-449.3	970.9	945.9	24.97	38.885	
6,000.0	5,928.1	5,968.5	5,930.2	18.1	13.2	112.72	182.1	-449.8	971.0	945.8	25.27	38.430	
6,100.0	6,028.1	6,068.5	6,030.2	18.2	13.3	112.73	181.8	-450.3	971.1	945.6	25.57	37.983	
6,200.0	6,128.1	6,168.5	6,130.2	18.4	13.5	112.75	181.5	-450.8	971.3	945.4	25.87	37.545	
6,300.0	6,228.1	6,268.5	6,230.2	18.5	13.6	112.76	181.2	-451.3	971.4	945.2	26.17	37.115	
6,400.0	6,328.1	6,368.5	6,330.2	18.6	13.8	112.78	180.9	-451.8	971.5	945.0	26.48	36.694	
6,500.0	6,428.1	6,468.5	6,430.2	18.7	13.9	112.80	180.7	-452.3	971.6	944.8	26.78	36.281	
6,600.0	6,528.0	6,568.5	6,530.2	18.8	14.1	112.81	180.4	-452.8	971.7	944.6	27.09	35.875	
6,700.0	6,628.0	6,668.5	6,630.2	18.9	14.2	112.83	180.1	-453.3	971.8	944.4	27.39	35.477	
6,800.0	6,728.0	6,768.5	6,730.2	19.0	14.4	112.84	179.8	-453.8	971.9	944.2	27.70	35.087	
6,900.0	6,828.0	6,868.5	6,830.2	19.2	14.5	112.86	179.5	-454.3	972.1	944.0	28.01	34.704	
7,000.0	6,928.0	6,968.5	6,930.2	19.3	14.7	112.88	179.2	-454.8	972.2	943.8	28.32	34.328	
7,100.0	7,028.0	7,068.5	7,030.2	19.4	14.8	112.89	178.9	-455.3	972.3	943.6	28.63	33.960	
7,200.0	7,128.0	7,168.5	7,130.2	19.5	14.9	112.91	178.6	-455.8	972.4	943.5	28.94	33.598	
7,300.0	7,228.0	7,268.5	7,230.2	19.6	15.1	112.92	178.3	-456.3	972.5	943.3	29.25	33.243	
7,400.0	7,328.0	7,368.5	7,330.2	19.8	15.2	112.94	178.1	-456.8	972.6	943.1	29.57	32.894	
7,500.0	7,428.0	7,468.5	7,430.2	19.9	15.4	112.96	177.8	-457.3	972.7	942.9	29.88	32.552	
7,600.0	7,528.0	7,568.5	7,530.2	20.0	15.5	112.97	177.5	-457.8	972.8	942.7	30.20	32.217	
7,700.0	7,628.0	7,668.5	7,630.2	20.1	15.7	112.99	177.2	-458.3	973.0	942.5	30.51	31.887	
7,800.0	7,728.0	7,768.5	7,730.2	20.3	15.9	113.00	176.9	-458.8	973.1	942.2	30.83	31.564	
7,900.0	7,828.0	7,868.5	7,830.2	20.4	16.0	113.02	176.6	-459.3	973.2	942.0	31.15	31.246	
8,000.0	7,928.0	7,968.5	7,930.2	20.5	16.2	113.04	176.3	-459.8	973.3	941.8	31.46	30.934	
8,100.0	8,028.0	8,068.5	8,030.2	20.6	16.3	113.05	176.0	-460.3	973.4	941.6	31.78	30.628	
8,200.0	8,128.0	8,168.5	8,130.2	20.8	16.5	113.07	175.7	-460.8	973.5	941.4	32.10	30.327	
8,300.0	8,228.0	8,268.5	8,230.2	20.9	16.6	113.08	175.5	-461.3	973.7	941.2	32.42	30.031	
8,400.0	8,328.0	8,368.5	8,330.2	21.0	16.8	113.10	175.2	-461.8	973.8	941.0	32.74	29.741	
8,500.0	8,428.0	8,468.5	8,430.2	21.2	16.9	113.12	174.9	-462.3	973.9	940.8	33.06	29.456	
8,600.0	8,528.0	8,568.5	8,530.2	21.3	17.1	113.13	174.6	-462.8	974.0	940.6	33.38	29.175	
8,700.0	8,628.0	8,668.5	8,630.2	21.4	17.2	113.15	174.3	-463.3	974.1	940.4	33.71	28.900	
8,800.0	8,728.0	8,768.5	8,730.2	21.6	17.4	113.16	174.0	-463.8	974.2	940.2	34.03	28.629	
8,900.0	8,828.0	8,868.5	8,830.2	21.7	17.5	113.18	173.7	-464.3	974.3	940.0	34.35	28.363	
9,000.0	8,928.0	8,968.5	8,930.2	21.8	17.7	113.20	173.4	-464.8	974.5	939.8	34.68	28.102	
9,100.0	9,028.0	9,068.5	9,030.2	22.0	17.9	113.21	173.1	-465.3	974.6	939.6	35.00	27.845	
9,200.0	9,127.9	9,168.5	9,130.2	22.1	18.0	113.23	172.9	-465.8	974.7	939.4	35.32	27.592	
9,300.0	9,227.9	9,268.5	9,230.2	22.2	18.2	113.24	172.6	-466.3	974.8	939.2	35.65	27.344	
9,400.0	9,327.9	9,368.5	9,330.2	22.4	18.3	113.26	172.3	-466.8	974.9	938.9	35.98	27.100	
9,500.0	9,427.9	9,468.5	9,430.2	22.5	18.5	113.28	172.0	-467.3	975.0	938.7	36.30	26.860	
9,600.0	9,527.9	9,568.5	9,530.2	22.6	18.7	113.29	171.7	-467.8	975.2	938.5	36.63	26.623	
9,700.0	9,627.9	9,668.5	9,630.2	22.8	18.8	113.31	171.4	-468.3	975.3	938.3	36.95	26.391	
9,800.0	9,727.9	9,768.5	9,730.2	22.9	19.0	113.32	171.1	-468.8	975.4	938.1	37.28	26.162	
9,900.0	9,827.9	9,868.5	9,830.2	23.1	19.1	113.34	170.8	-469.3	975.5	937.9	37.61	25.938	
10,000.0	9,927.9	9,968.5	9,930.2	23.2	19.3	113.36	170.6	-469.8	975.6	937.7	37.94	25.716	
10,100.0	10,027.9	10,068.5	10,030.2	23.3	19.4	113.37	170.3	-470.3	975.7	937.5	38.27	25.499	
10,200.0	10,127.9	10,168.5	10,130.1	23.5	19.6	113.39	170.0	-470.8	975.8	937.3	38.59	25.284	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-20D - DD - Plan #1

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,219.1	10,147.0	10,187.6	10,149.2	23.5	19.6	113.39	169.9	-470.9	975.9	937.2	38.66	25.244	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-5D - DD - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	74.43	4.0	14.4	14.9				
100.0	100.0	100.0	100.0	0.1	0.1	74.43	4.0	14.4	14.9	14.6	0.28	53.456	
200.0	200.0	200.0	200.0	0.3	0.3	74.43	4.0	14.4	14.9	14.3	0.63	23.758	CC, ES, SF
300.0	300.0	296.9	295.9	0.5	0.6	-107.85	-3.6	24.9	25.9	24.9	0.99	26.080	
400.0	399.8	395.3	392.6	0.7	0.9	-101.51	-14.2	39.5	43.5	42.1	1.39	31.384	
500.0	499.5	493.6	489.2	0.9	1.2	-101.86	-24.7	54.1	61.9	60.0	1.82	33.997	
600.0	598.7	591.7	585.6	1.2	1.6	-104.31	-35.3	68.7	81.0	78.7	2.31	35.038	
700.0	697.5	689.4	681.7	1.5	1.9	-107.59	-45.8	83.2	101.3	98.5	2.87	35.281	
800.0	795.9	787.0	777.6	1.8	2.3	-110.87	-56.3	97.7	122.6	119.1	3.46	35.452	
900.0	894.4	884.5	873.5	2.2	2.6	-113.19	-66.8	112.2	144.1	140.0	4.05	35.593	
1,000.0	992.8	982.0	969.3	2.5	3.0	-114.91	-77.3	126.7	165.7	161.1	4.64	35.719	
1,100.0	1,091.3	1,079.5	1,065.2	2.9	3.4	-116.23	-87.8	141.2	187.5	182.2	5.23	35.830	
1,200.0	1,189.7	1,177.1	1,161.1	3.2	3.7	-117.28	-98.3	155.7	209.3	203.5	5.83	35.928	
1,300.0	1,288.2	1,274.6	1,256.9	3.5	4.1	-118.13	-108.8	170.2	231.2	224.8	6.42	36.016	
1,400.0	1,386.6	1,372.1	1,352.8	3.9	4.4	-118.83	-119.3	184.7	253.2	246.2	7.01	36.094	
1,500.0	1,485.1	1,469.6	1,448.6	4.2	4.8	-119.42	-129.8	199.2	275.1	267.5	7.61	36.163	
1,600.0	1,583.5	1,567.1	1,544.5	4.6	5.1	-119.92	-140.3	213.7	297.1	288.9	8.20	36.226	
1,700.0	1,682.0	1,664.7	1,640.4	4.9	5.5	-120.35	-150.7	228.2	319.1	310.3	8.80	36.282	
1,800.0	1,780.5	1,762.2	1,736.2	5.3	5.9	-120.73	-161.2	242.7	341.2	331.8	9.39	36.333	
1,900.0	1,878.9	1,859.7	1,832.1	5.6	6.2	-121.06	-171.7	257.2	363.2	353.2	9.98	36.379	
2,000.0	1,977.4	1,957.2	1,928.0	6.0	6.6	-121.36	-182.2	271.7	385.3	374.7	10.58	36.421	
2,100.0	2,075.8	2,054.7	2,023.8	6.3	6.9	-121.62	-192.7	286.2	407.3	396.1	11.17	36.459	
2,200.0	2,174.3	2,152.3	2,119.7	6.7	7.3	-121.85	-203.2	300.7	429.4	417.6	11.77	36.494	
2,300.0	2,272.7	2,249.8	2,215.6	7.0	7.7	-122.07	-213.7	315.2	451.5	439.1	12.36	36.527	
2,400.0	2,371.2	2,347.3	2,311.4	7.4	8.0	-122.26	-224.2	329.7	473.5	460.6	12.95	36.557	
2,500.0	2,469.6	2,444.8	2,407.3	7.8	8.4	-122.43	-234.7	344.2	495.6	482.1	13.55	36.584	
2,600.0	2,568.1	2,542.3	2,503.1	8.1	8.7	-122.59	-245.2	358.7	517.7	503.6	14.14	36.610	
2,700.0	2,666.5	2,639.9	2,599.0	8.5	9.1	-122.74	-255.7	373.2	539.8	525.1	14.73	36.634	
2,800.0	2,765.0	2,737.4	2,694.9	8.8	9.4	-122.88	-266.2	387.7	561.9	546.6	15.33	36.656	
2,900.0	2,863.4	2,834.9	2,790.7	9.2	9.8	-123.00	-276.7	402.2	584.0	568.1	15.92	36.677	
3,000.0	2,961.9	2,932.4	2,886.6	9.5	10.2	-123.12	-287.2	416.7	606.1	589.6	16.52	36.697	
3,100.0	3,060.3	3,029.9	2,982.5	9.9	10.5	-123.22	-297.7	431.2	628.2	611.1	17.11	36.715	
3,200.0	3,158.8	3,127.5	3,078.3	10.2	10.9	-123.33	-308.1	445.7	650.3	632.6	17.70	36.733	
3,300.0	3,257.3	3,225.0	3,174.2	10.6	11.2	-123.42	-318.6	460.2	672.4	654.1	18.30	36.749	
3,400.0	3,355.7	3,322.5	3,270.1	10.9	11.6	-123.51	-329.1	474.7	694.5	675.6	18.89	36.764	
3,500.0	3,454.2	3,420.0	3,365.9	11.3	12.0	-123.59	-339.6	489.2	716.6	697.1	19.48	36.779	
3,600.0	3,552.6	3,517.5	3,461.8	11.6	12.3	-123.67	-350.1	503.7	738.7	718.6	20.08	36.792	
3,700.0	3,651.1	3,615.1	3,557.7	12.0	12.7	-123.74	-360.6	518.2	760.8	740.1	20.67	36.805	
3,800.0	3,749.5	3,712.6	3,653.5	12.3	13.0	-123.81	-371.1	532.7	782.9	761.7	21.26	36.818	
3,900.0	3,848.0	3,810.1	3,749.4	12.7	13.4	-123.87	-381.6	547.2	805.0	783.2	21.86	36.830	
4,000.0	3,946.4	3,907.6	3,845.2	13.0	13.8	-123.94	-392.1	561.7	827.1	804.7	22.45	36.841	
4,100.0	4,044.9	4,005.2	3,941.1	13.4	14.1	-124.00	-402.6	576.3	849.3	826.2	23.05	36.851	
4,200.0	4,143.3	4,102.7	4,037.0	13.7	14.5	-124.05	-413.1	590.8	871.4	847.7	23.64	36.862	
4,300.0	4,241.8	4,200.2	4,132.8	14.1	14.8	-124.10	-423.6	605.3	893.5	869.3	24.23	36.871	
4,400.0	4,340.2	4,297.7	4,228.7	14.4	15.2	-124.15	-434.1	619.8	915.6	890.8	24.83	36.880	
4,500.0	4,438.7	4,395.2	4,324.6	14.8	15.5	-124.20	-444.6	634.3	937.7	912.3	25.42	36.889	
4,600.0	4,537.1	4,492.8	4,420.4	15.1	15.9	-124.25	-455.0	648.8	959.8	933.8	26.01	36.898	
4,700.0	4,635.6	4,590.3	4,516.3	15.5	16.3	-124.29	-465.5	663.3	982.0	955.3	26.61	36.906	
4,800.0	4,734.0	4,687.8	4,612.2	15.9	16.6	-124.33	-476.0	677.8	1,004.1	976.9	27.20	36.914	
4,900.0	4,832.5	4,785.3	4,708.0	16.2	17.0	-124.37	-486.5	692.3	1,026.2	998.4	27.79	36.921	
5,000.0	4,931.0	4,882.8	4,803.9	16.6	17.3	-124.41	-497.0	706.8	1,048.3	1,019.9	28.39	36.929	
5,100.0	5,029.6	4,980.5	4,899.9	16.9	17.7	-124.69	-507.5	721.3	1,069.8	1,040.8	29.00	36.883	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-5D - DD - Plan #1

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,128.8	5,078.5	4,996.2	17.1	18.1	-124.85	-518.1	735.8	1,089.3	1,059.7	29.58	36.832	
5,300.0	5,228.3	5,176.8	5,092.8	17.3	18.4	-124.83	-528.6	750.5	1,106.9	1,076.8	30.09	36.784	
5,400.0	5,328.1	5,275.1	5,189.5	17.5	18.8	-124.64	-539.2	765.1	1,122.6	1,092.1	30.55	36.742	
5,500.0	5,428.1	5,373.5	5,286.2	17.6	19.1	-124.29	-549.8	779.7	1,136.4	1,105.5	30.96	36.710	
5,600.0	5,528.1	5,471.8	5,382.9	17.7	19.5	-161.10	-560.4	794.3	1,149.2	1,117.8	31.33	36.683	
5,700.0	5,628.1	5,570.1	5,479.4	17.8	19.9	-160.44	-571.0	808.9	1,162.4	1,130.7	31.69	36.679	
5,800.0	5,728.1	5,668.3	5,576.0	17.9	20.2	-159.81	-581.5	823.5	1,176.1	1,144.0	32.05	36.692	
5,900.0	5,828.1	5,766.5	5,672.6	18.0	20.6	-159.20	-592.1	838.2	1,189.9	1,157.5	32.41	36.713	
6,000.0	5,928.1	5,864.8	5,769.1	18.1	20.9	-158.60	-602.7	852.8	1,203.8	1,171.1	32.76	36.743	
6,100.0	6,028.1	5,963.0	5,865.7	18.2	21.3	-158.02	-613.2	867.4	1,217.9	1,184.8	33.11	36.780	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-6D - DD - Plan #1 — **Offset Site Error:** 0.0 ft

Survey Program: 0-MWD — **Offset Well Error:** 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	74.43	8.0	28.8	29.9				
100.0	100.0	100.0	100.0	0.1	0.1	74.43	8.0	28.8	29.9	29.6	0.28	106.911	
200.0	200.0	200.0	200.0	0.3	0.3	74.43	8.0	28.8	29.9	29.2	0.63	47.516	CC, ES
300.0	300.0	299.2	299.2	0.5	0.5	-128.43	7.2	30.3	32.2	31.2	0.98	32.842	
400.0	399.8	398.1	397.9	0.7	0.7	-129.04	4.8	34.8	39.2	37.8	1.35	29.027	
500.0	499.5	496.3	495.8	0.9	0.9	-129.65	0.8	42.3	50.8	49.0	1.75	29.006	SF
600.0	598.7	593.6	592.4	1.2	1.2	-130.10	-4.7	52.6	67.0	64.8	2.20	30.501	
700.0	697.5	689.6	687.3	1.5	1.5	-130.36	-11.7	65.6	87.7	85.0	2.69	32.533	
800.0	795.9	786.6	782.8	1.8	1.8	-130.69	-19.7	80.4	111.0	107.7	3.22	34.481	
900.0	894.4	883.9	878.5	2.2	2.1	-130.91	-27.6	95.4	134.3	130.5	3.75	35.775	
1,000.0	992.8	981.1	974.3	2.5	2.4	-131.06	-35.6	110.3	157.6	153.3	4.29	36.689	
1,100.0	1,091.3	1,078.4	1,070.1	2.9	2.8	-131.18	-43.6	125.2	180.9	176.0	4.84	37.364	
1,200.0	1,189.7	1,175.6	1,165.8	3.2	3.1	-131.27	-51.6	140.2	204.2	198.8	5.39	37.880	
1,300.0	1,288.2	1,272.9	1,261.6	3.5	3.5	-131.34	-59.6	155.1	227.5	221.6	5.94	38.286	
1,400.0	1,386.6	1,370.1	1,357.3	3.9	3.8	-131.39	-67.6	170.0	250.8	244.3	6.50	38.613	
1,500.0	1,485.1	1,467.4	1,453.1	4.2	4.1	-131.44	-75.6	185.0	274.1	267.1	7.05	38.882	
1,600.0	1,583.5	1,564.6	1,548.9	4.6	4.5	-131.48	-83.6	199.9	297.4	289.8	7.61	39.107	
1,700.0	1,682.0	1,661.8	1,644.6	4.9	4.8	-131.52	-91.6	214.8	320.7	312.6	8.16	39.297	
1,800.0	1,780.5	1,759.1	1,740.4	5.3	5.2	-131.55	-99.6	229.8	344.1	335.3	8.72	39.460	
1,900.0	1,878.9	1,856.3	1,836.1	5.6	5.5	-131.57	-107.6	244.7	367.4	358.1	9.28	39.601	
2,000.0	1,977.4	1,953.6	1,931.9	6.0	5.8	-131.60	-115.6	259.6	390.7	380.8	9.83	39.724	
2,100.0	2,075.8	2,050.8	2,027.6	6.3	6.2	-131.62	-123.6	274.6	414.0	403.6	10.39	39.833	
2,200.0	2,174.3	2,148.1	2,123.4	6.7	6.5	-131.63	-131.6	289.5	437.3	426.3	10.95	39.929	
2,300.0	2,272.7	2,245.3	2,219.2	7.0	6.9	-131.65	-139.6	304.4	460.6	449.1	11.51	40.015	
2,400.0	2,371.2	2,342.6	2,314.9	7.4	7.2	-131.66	-147.6	319.4	483.9	471.8	12.07	40.093	
2,500.0	2,469.6	2,439.8	2,410.7	7.8	7.6	-131.68	-155.6	334.3	507.2	494.6	12.63	40.163	
2,600.0	2,568.1	2,537.1	2,506.4	8.1	7.9	-131.69	-163.6	349.2	530.5	517.4	13.19	40.226	
2,700.0	2,666.5	2,634.3	2,602.2	8.5	8.2	-131.70	-171.6	364.2	553.9	540.1	13.75	40.284	
2,800.0	2,765.0	2,731.5	2,697.9	8.8	8.6	-131.71	-179.6	379.1	577.2	562.9	14.31	40.337	
2,900.0	2,863.4	2,828.8	2,793.7	9.2	8.9	-131.72	-187.6	394.0	600.5	585.6	14.87	40.386	
3,000.0	2,961.9	2,926.0	2,889.5	9.5	9.3	-131.73	-195.6	409.0	623.8	608.4	15.43	40.431	
3,100.0	3,060.3	3,023.3	2,985.2	9.9	9.6	-131.74	-203.6	423.9	647.1	631.1	15.99	40.472	
3,200.0	3,158.8	3,120.5	3,081.0	10.2	10.0	-131.75	-211.5	438.8	670.4	653.9	16.55	40.510	
3,300.0	3,257.3	3,217.8	3,176.7	10.6	10.3	-131.75	-219.5	453.8	693.7	676.6	17.11	40.546	
3,400.0	3,355.7	3,315.0	3,272.5	10.9	10.6	-131.76	-227.5	468.7	717.0	699.4	17.67	40.580	
3,500.0	3,454.2	3,412.3	3,368.3	11.3	11.0	-131.76	-235.5	483.6	740.3	722.1	18.23	40.611	
3,600.0	3,552.6	3,509.5	3,464.0	11.6	11.3	-131.77	-243.5	498.6	763.7	744.9	18.79	40.640	
3,700.0	3,651.1	3,606.7	3,559.8	12.0	11.7	-131.78	-251.5	513.5	787.0	767.6	19.35	40.667	
3,800.0	3,749.5	3,704.0	3,655.5	12.3	12.0	-131.78	-259.5	528.4	810.3	790.4	19.91	40.693	
3,900.0	3,848.0	3,801.2	3,751.3	12.7	12.4	-131.79	-267.5	543.4	833.6	813.1	20.47	40.717	
4,000.0	3,946.4	3,898.5	3,847.0	13.0	12.7	-131.79	-275.5	558.3	856.9	835.9	21.03	40.740	
4,100.0	4,044.9	3,995.7	3,942.8	13.4	13.1	-131.80	-283.5	573.2	880.2	858.6	21.59	40.762	
4,200.0	4,143.3	4,093.0	4,038.6	13.7	13.4	-131.80	-291.5	588.2	903.5	881.4	22.16	40.782	
4,300.0	4,241.8	4,190.2	4,134.3	14.1	13.7	-131.80	-299.5	603.1	926.8	904.1	22.72	40.801	
4,400.0	4,340.2	4,287.5	4,230.1	14.4	14.1	-131.81	-307.5	618.0	950.2	926.9	23.28	40.820	
4,500.0	4,438.7	4,384.7	4,325.8	14.8	14.4	-131.81	-315.5	633.0	973.5	949.6	23.84	40.837	
4,600.0	4,537.1	4,481.9	4,421.6	15.1	14.8	-131.81	-323.5	647.9	996.8	972.4	24.40	40.854	
4,700.0	4,635.6	4,579.2	4,517.4	15.5	15.1	-131.82	-331.5	662.8	1,020.1	995.1	24.96	40.870	
4,800.0	4,734.0	4,676.4	4,613.1	15.9	15.5	-131.82	-339.5	677.8	1,043.4	1,017.9	25.52	40.885	
4,900.0	4,832.5	4,773.7	4,708.9	16.2	15.8	-131.82	-347.5	692.7	1,066.7	1,040.6	26.08	40.899	
5,000.0	4,931.0	4,870.9	4,804.6	16.6	16.1	-131.83	-355.5	707.6	1,090.0	1,063.4	26.64	40.913	
5,100.0	5,029.6	4,968.3	4,900.6	16.9	16.5	-132.06	-363.5	722.6	1,112.6	1,085.3	27.23	40.861	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-6D - DD - Plan #1

Survey Program: 0-MWD

Offset Site Error: 0.0 ft

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
5,200.0	5,128.8	5,066.2	4,996.9	17.1	16.8	-132.20	-371.5	737.6	1,132.9	1,105.1	27.78	40.784	
5,300.0	5,228.3	5,164.4	5,093.6	17.3	17.2	-132.17	-379.6	752.7	1,150.9	1,122.6	28.28	40.693	
5,400.0	5,328.1	5,262.8	5,190.5	17.5	17.5	-131.99	-387.7	767.8	1,166.6	1,137.9	28.74	40.592	
5,500.0	5,428.1	5,361.3	5,287.5	17.6	17.9	-131.66	-395.8	782.9	1,180.1	1,151.0	29.15	40.486	
5,600.0	5,528.1	5,459.7	5,384.4	17.7	18.2	-168.53	-403.9	798.0	1,192.3	1,162.8	29.54	40.366	
5,700.0	5,628.1	5,558.1	5,481.3	17.8	18.6	-167.93	-412.0	813.2	1,205.0	1,175.0	29.92	40.271	
5,800.0	5,728.1	5,656.5	5,578.2	17.9	18.9	-167.35	-420.1	828.3	1,218.0	1,187.7	30.30	40.197	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-7D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	74.08	12.4	43.4	45.2				
100.0	100.0	100.0	100.0	0.1	0.1	74.08	12.4	43.4	45.2	44.9	0.28	161.693	
200.0	200.0	200.0	200.0	0.3	0.3	74.08	12.4	43.4	45.2	44.5	0.63	71.863	CC, ES
300.0	300.0	298.5	298.5	0.5	0.5	-129.25	12.1	45.1	47.8	46.8	0.98	48.913	
400.0	399.8	396.6	396.4	0.7	0.7	-131.05	11.4	50.1	55.8	54.5	1.34	41.708	
500.0	499.5	493.8	493.3	0.9	0.9	-133.08	10.3	58.3	69.2	67.5	1.72	40.242	SF
600.0	598.7	589.7	588.5	1.2	1.2	-134.83	8.7	69.6	88.0	85.9	2.13	41.301	
700.0	697.5	683.9	681.6	1.5	1.5	-136.14	6.6	83.8	112.0	109.4	2.58	43.482	
800.0	795.9	779.5	775.7	1.8	1.8	-137.26	4.3	100.3	139.2	136.2	3.04	45.781	
900.0	894.4	875.6	870.4	2.2	2.1	-138.02	1.9	116.9	166.6	163.1	3.52	47.353	
1,000.0	992.8	971.8	965.1	2.5	2.4	-138.56	-0.4	133.5	193.9	189.9	4.00	48.487	
1,100.0	1,091.3	1,068.0	1,059.8	2.9	2.8	-138.98	-2.8	150.2	221.3	216.8	4.49	49.339	
1,200.0	1,189.7	1,164.2	1,154.5	3.2	3.1	-139.30	-5.1	166.8	248.7	243.7	4.97	49.999	
1,300.0	1,288.2	1,260.3	1,249.2	3.5	3.4	-139.55	-7.5	183.4	276.0	270.6	5.46	50.524	
1,400.0	1,386.6	1,356.5	1,343.9	3.9	3.8	-139.76	-9.9	200.1	303.4	297.5	5.96	50.950	
1,500.0	1,485.1	1,452.7	1,438.6	4.2	4.1	-139.94	-12.2	216.7	330.8	324.4	6.45	51.303	
1,600.0	1,583.5	1,548.8	1,533.3	4.6	4.4	-140.09	-14.6	233.3	358.2	351.2	6.94	51.599	
1,700.0	1,682.0	1,645.0	1,628.0	4.9	4.8	-140.21	-17.0	250.0	385.6	378.1	7.44	51.852	
1,800.0	1,780.5	1,741.2	1,722.6	5.3	5.1	-140.32	-19.3	266.6	413.0	405.0	7.93	52.069	
1,900.0	1,878.9	1,837.4	1,817.3	5.6	5.5	-140.42	-21.7	283.2	440.4	431.9	8.43	52.258	
2,000.0	1,977.4	1,933.5	1,912.0	6.0	5.8	-140.51	-24.1	299.9	467.7	458.8	8.92	52.424	
2,100.0	2,075.8	2,029.7	2,006.7	6.3	6.1	-140.58	-26.4	316.5	495.1	485.7	9.42	52.570	
2,200.0	2,174.3	2,125.9	2,101.4	6.7	6.5	-140.65	-28.8	333.1	522.5	512.6	9.92	52.700	
2,300.0	2,272.7	2,222.1	2,196.1	7.0	6.8	-140.71	-31.2	349.8	549.9	539.5	10.41	52.817	
2,400.0	2,371.2	2,318.2	2,290.8	7.4	7.2	-140.77	-33.5	366.4	577.3	566.4	10.91	52.922	
2,500.0	2,469.6	2,414.4	2,385.5	7.8	7.5	-140.82	-35.9	383.0	604.7	593.3	11.41	53.017	
2,600.0	2,568.1	2,510.6	2,480.2	8.1	7.8	-140.86	-38.2	399.7	632.1	620.2	11.90	53.104	
2,700.0	2,666.5	2,606.8	2,574.9	8.5	8.2	-140.91	-40.6	416.3	659.5	647.1	12.40	53.183	
2,800.0	2,765.0	2,702.9	2,669.6	8.8	8.5	-140.95	-43.0	432.9	686.9	674.0	12.90	53.255	
2,900.0	2,863.4	2,799.1	2,764.3	9.2	8.9	-140.98	-45.3	449.6	714.3	700.9	13.40	53.322	
3,000.0	2,961.9	2,895.3	2,859.0	9.5	9.2	-141.02	-47.7	466.2	741.7	727.8	13.89	53.383	
3,100.0	3,060.3	2,991.4	2,953.7	9.9	9.5	-141.05	-50.1	482.8	769.1	754.7	14.39	53.440	
3,200.0	3,158.8	3,087.6	3,048.4	10.2	9.9	-141.07	-52.4	499.5	796.5	781.6	14.89	53.493	
3,300.0	3,257.3	3,183.8	3,143.1	10.6	10.2	-141.10	-54.8	516.1	823.9	808.5	15.39	53.542	
3,400.0	3,355.7	3,280.0	3,237.8	10.9	10.6	-141.13	-57.2	532.7	851.3	835.4	15.89	53.588	
3,500.0	3,454.2	3,376.1	3,332.5	11.3	10.9	-141.15	-59.5	549.4	878.7	862.3	16.38	53.631	
3,600.0	3,552.6	3,472.3	3,427.1	11.6	11.2	-141.17	-61.9	566.0	906.1	889.2	16.88	53.671	
3,700.0	3,651.1	3,568.5	3,521.8	12.0	11.6	-141.19	-64.2	582.6	933.5	916.1	17.38	53.709	
3,800.0	3,749.5	3,664.7	3,616.5	12.3	11.9	-141.21	-66.6	599.3	960.9	943.0	17.88	53.744	
3,900.0	3,848.0	3,760.8	3,711.2	12.7	12.3	-141.23	-69.0	615.9	988.3	969.9	18.38	53.778	
4,000.0	3,946.4	3,857.0	3,805.9	13.0	12.6	-141.25	-71.3	632.5	1,015.7	996.8	18.88	53.809	
4,100.0	4,044.9	3,953.2	3,900.6	13.4	13.0	-141.27	-73.7	649.2	1,043.1	1,023.7	19.37	53.839	
4,200.0	4,143.3	4,049.3	3,995.3	13.7	13.3	-141.28	-76.1	665.8	1,070.5	1,050.6	19.87	53.867	
4,300.0	4,241.8	4,145.5	4,090.0	14.1	13.6	-141.30	-78.4	682.4	1,097.9	1,077.5	20.37	53.894	
4,400.0	4,340.2	4,241.7	4,184.7	14.4	14.0	-141.31	-80.8	699.1	1,125.3	1,104.4	20.87	53.920	
4,500.0	4,438.7	4,337.9	4,279.4	14.8	14.3	-141.32	-83.2	715.7	1,152.7	1,131.3	21.37	53.944	
4,600.0	4,537.1	4,434.0	4,374.1	15.1	14.7	-141.34	-85.5	732.3	1,180.1	1,158.2	21.87	53.967	
4,700.0	4,635.6	4,530.2	4,468.8	15.5	15.0	-141.35	-87.9	749.0	1,207.5	1,185.1	22.36	53.989	

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

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
Project:	Garfield County	**TVD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Reference Site:	Chevron E05 696	**MD Reference:**	WELL @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	**North Reference:**	True
Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design Chevron E05 696 - Chevron 5-8D - DD - Plan #1

Offset Site Error: 0.0 ft

Survey Program: 0-MWD

Offset Well Error: 0.0 ft

Reference Measured Depth (ft)	Reference Vertical Depth (ft)	Offset Measured Depth (ft)	Offset Vertical Depth (ft)	Semi Major Axis Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	74.16	16.4	57.8	60.1				
100.0	100.0	100.0	100.0	0.1	0.1	74.16	16.4	57.8	60.1	59.8	0.28	215.152	
200.0	200.0	200.0	200.0	0.3	0.3	74.16	16.4	57.8	60.1	59.5	0.63	95.623	CC, ES
300.0	300.0	297.9	297.8	0.5	0.5	-129.50	16.8	59.4	62.9	61.9	0.98	64.444	
400.0	399.8	395.2	395.0	0.7	0.7	-132.22	17.8	64.3	71.4	70.1	1.33	53.635	
500.0	499.5	491.4	490.9	0.9	0.9	-135.50	19.5	72.3	85.8	84.1	1.70	50.531	SF
600.0	598.7	586.1	584.9	1.2	1.1	-138.53	21.9	83.2	106.2	104.1	2.08	51.084	
700.0	697.5	678.7	676.4	1.5	1.4	-140.97	24.9	96.8	132.5	130.0	2.48	53.494	
800.0	795.9	772.8	769.2	1.8	1.7	-143.03	28.4	112.7	162.6	159.7	2.89	56.327	
900.0	894.4	868.0	862.9	2.2	2.1	-144.47	31.9	129.0	192.9	189.6	3.30	58.395	
1,000.0	992.8	963.2	956.6	2.5	2.4	-145.52	35.4	145.2	223.3	219.6	3.72	59.963	
1,100.0	1,091.3	1,058.4	1,050.4	2.9	2.7	-146.32	39.0	161.4	253.8	249.6	4.15	61.186	
1,200.0	1,189.7	1,153.6	1,144.1	3.2	3.0	-146.94	42.5	177.6	284.3	279.7	4.57	62.164	
1,300.0	1,288.2	1,248.8	1,237.8	3.5	3.4	-147.45	46.0	193.9	314.8	309.8	5.00	62.962	
1,400.0	1,386.6	1,344.0	1,331.6	3.9	3.7	-147.86	49.6	210.1	345.3	339.9	5.43	63.624	
1,500.0	1,485.1	1,439.2	1,425.3	4.2	4.0	-148.21	53.1	226.3	375.9	370.0	5.86	64.182	
1,600.0	1,583.5	1,534.4	1,519.0	4.6	4.4	-148.51	56.7	242.5	406.5	400.2	6.29	64.657	
1,700.0	1,682.0	1,629.6	1,612.8	4.9	4.7	-148.76	60.2	258.8	437.0	430.3	6.72	65.068	
1,800.0	1,780.5	1,724.8	1,706.5	5.3	5.1	-148.98	63.7	275.0	467.6	460.5	7.15	65.426	
1,900.0	1,878.9	1,820.0	1,800.3	5.6	5.4	-149.18	67.3	291.2	498.2	490.6	7.58	65.740	
2,000.0	1,977.4	1,915.2	1,894.0	6.0	5.7	-149.35	70.8	307.4	528.8	520.8	8.01	66.018	
2,100.0	2,075.8	2,010.4	1,987.7	6.3	6.1	-149.50	74.3	323.7	559.4	550.9	8.44	66.266	
2,200.0	2,174.3	2,105.5	2,081.5	6.7	6.4	-149.64	77.9	339.9	590.0	581.1	8.87	66.488	
2,300.0	2,272.7	2,200.7	2,175.2	7.0	6.7	-149.76	81.4	356.1	620.6	611.2	9.31	66.689	
2,400.0	2,371.2	2,295.9	2,268.9	7.4	7.1	-149.87	84.9	372.3	651.2	641.4	9.74	66.870	
2,500.0	2,469.6	2,391.1	2,362.7	7.8	7.4	-149.97	88.5	388.6	681.8	671.6	10.17	67.036	
2,600.0	2,568.1	2,486.3	2,456.4	8.1	7.7	-150.07	92.0	404.8	712.4	701.8	10.60	67.187	
2,700.0	2,666.5	2,581.5	2,550.1	8.5	8.1	-150.15	95.5	421.0	743.0	731.9	11.04	67.326	
2,800.0	2,765.0	2,676.7	2,643.9	8.8	8.4	-150.23	99.1	437.2	773.6	762.1	11.47	67.453	
2,900.0	2,863.4	2,771.9	2,737.6	9.2	8.8	-150.30	102.6	453.5	804.2	792.3	11.90	67.571	
3,000.0	2,961.9	2,867.1	2,831.4	9.5	9.1	-150.37	106.1	469.7	834.8	822.4	12.33	67.680	
3,100.0	3,060.3	2,962.3	2,925.1	9.9	9.4	-150.43	109.7	485.9	865.4	852.6	12.77	67.782	
3,200.0	3,158.8	3,057.5	3,018.8	10.2	9.8	-150.49	113.2	502.1	896.0	882.8	13.20	67.876	
3,300.0	3,257.3	3,152.7	3,112.6	10.6	10.1	-150.55	116.8	518.4	926.6	913.0	13.63	67.965	
3,400.0	3,355.7	3,247.9	3,206.3	10.9	10.4	-150.60	120.3	534.6	957.2	943.2	14.07	68.047	
3,500.0	3,454.2	3,343.1	3,300.0	11.3	10.8	-150.65	123.8	550.8	987.8	973.3	14.50	68.125	
3,600.0	3,552.6	3,438.3	3,393.8	11.6	11.1	-150.69	127.4	567.0	1,018.4	1,003.5	14.93	68.197	
3,700.0	3,651.1	3,533.5	3,487.5	12.0	11.5	-150.73	130.9	583.3	1,049.1	1,033.7	15.37	68.266	
3,800.0	3,749.5	3,628.7	3,581.3	12.3	11.8	-150.77	134.4	599.5	1,079.7	1,063.9	15.80	68.331	
3,900.0	3,848.0	3,723.9	3,675.0	12.7	12.1	-150.81	138.0	615.7	1,110.3	1,094.1	16.23	68.392	
4,000.0	3,946.4	3,819.1	3,768.7	13.0	12.5	-150.85	141.5	631.9	1,140.9	1,124.2	16.67	68.449	
4,100.0	4,044.9	3,914.3	3,862.5	13.4	12.8	-150.88	145.0	648.2	1,171.5	1,154.4	17.10	68.504	
4,200.0	4,143.3	4,009.5	3,956.2	13.7	13.1	-150.91	148.6	664.4	1,202.1	1,184.6	17.54	68.556	

Company:	Berry Petroleum Company (NAD 83)	**Local Co-ordinate Reference:**	Well Chevron 5-17D
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Reference Well:	Chevron 5-17D	**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 #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 8144.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Chevron 5-17D
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.66°