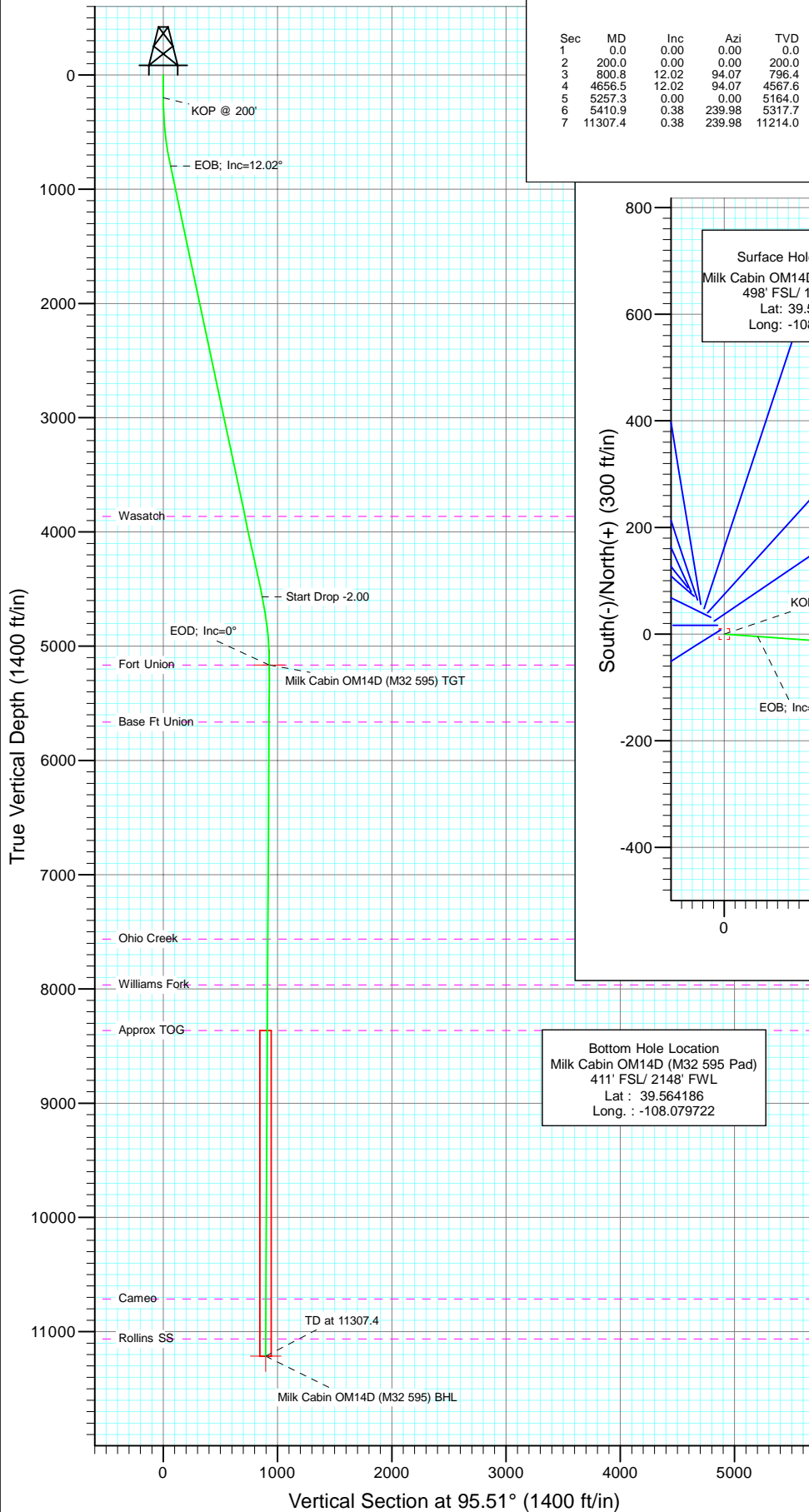
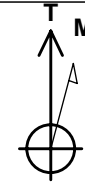
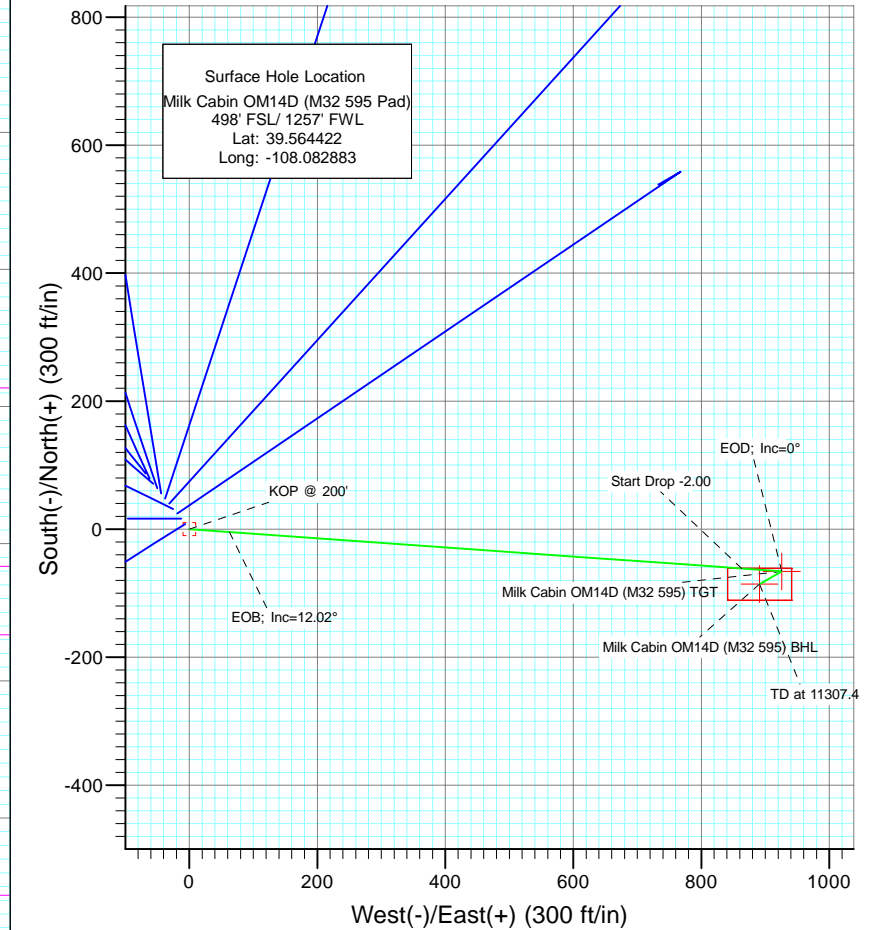




Project: Garfield County
Site: SWSW S32-T5S-R95W (M32 595 Pad)
Well: Milk Cabin OM14D (M32 595 Pad)
Wellbore: DD
Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	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	800.8	12.02	94.07	796.4	-4.5	62.6	2.00	94.07	62.7	
4	4656.5	12.02	94.07	4567.6	-61.4	863.2	0.00	0.00	865.2	
5	5257.3	0.00	0.00	5164.0	-65.9	925.8	2.00	180.00	927.9	Milk Cabin OM14D (M32 595) TGT
6	5410.9	0.38	239.98	5317.7	-66.2	925.4	0.25	239.98	927.5	
7	11307.4	0.38	239.98	11214.0	-85.9	891.2	0.00	0.00	895.3	Milk Cabin OM14D (M32 595) BHL



Azimuths to True North
Magnetic North: 10.53°

Magnetic Field
Strength: 52359.3snT
Dip Angle: 65.81°
Date: 6/16/2010
Model: IGRF2010

FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
3864.0	3937.1	Wasatch
5164.0	5257.3	Fort Union
5664.0	5757.3	Base Ft Union
7564.0	7657.3	Ohio Creek
7964.0	8057.3	Williams Fork
8364.0	8457.3	Approx TOG
10714.0	10807.4	Cameo
11064.0	11157.4	Rollins SS

DESIGN DETAILS: Plan #1

105XXX; BH
KBE @ 8144.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Milk Cabin OM14D (M32 595)	89.51	Slot	0.0	0.0	0.0

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM14D (M32 595 Pad)	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		SWSW S32-T5S-R95W (M32 595 Pad)			
Site Position:		Northing:	1,640,872.06 ft	Latitude:	39.564553
From:	Lat/Long	Easting:	2,271,884.01 ft	Longitude:	-108.083017
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	-1.63 °

Well	Milk Cabin OM14D (M32 595 Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,640,823.28 ft	Latitude:	39.564422
	+E/-W	0.0 ft	Easting:	2,271,920.42 ft	Longitude:	-108.082883
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,121.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	6/16/2010	10.53	65.81	52,359

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	95.51

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.00	0.00	0.00	0.00	
800.8	12.02	94.07	796.4	-4.5	62.6	2.00	2.00	0.00	94.07	
4,656.5	12.02	94.07	4,567.6	-61.4	863.2	0.00	0.00	0.00	0.00	
5,257.3	0.00	0.00	5,164.0	-65.9	925.8	2.00	-2.00	0.00	180.00	Milk Cabin OM14D (N
5,410.9	0.38	239.98	5,317.7	-66.2	925.4	0.25	0.25	-78.11	239.98	
11,307.4	0.38	239.98	11,214.0	-85.9	891.2	0.00	0.00	0.00	0.00	Milk Cabin OM14D (N

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM14D (M32 595 Pad)	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	94.07	210.0	0.0	0.0	0.0	2.00	2.00	
240.0	0.80	94.07	240.0	0.0	0.3	0.3	2.00	2.00	
270.0	1.40	94.07	270.0	-0.1	0.9	0.9	2.00	2.00	
300.0	2.00	94.07	300.0	-0.1	1.7	1.7	2.00	2.00	
330.0	2.60	94.07	330.0	-0.2	2.9	2.9	2.00	2.00	
360.0	3.20	94.07	359.9	-0.3	4.5	4.5	2.00	2.00	
390.0	3.80	94.07	389.9	-0.4	6.3	6.3	2.00	2.00	
420.0	4.40	94.07	419.8	-0.6	8.4	8.4	2.00	2.00	
450.0	5.00	94.07	449.7	-0.8	10.9	10.9	2.00	2.00	
480.0	5.60	94.07	479.6	-1.0	13.6	13.7	2.00	2.00	
510.0	6.20	94.07	509.4	-1.2	16.7	16.8	2.00	2.00	
540.0	6.80	94.07	539.2	-1.4	20.1	20.1	2.00	2.00	
570.0	7.40	94.07	569.0	-1.7	23.8	23.9	2.00	2.00	
600.0	8.00	94.07	598.7	-2.0	27.8	27.9	2.00	2.00	
630.0	8.60	94.07	628.4	-2.3	32.1	32.2	2.00	2.00	
660.0	9.20	94.07	658.0	-2.6	36.8	36.8	2.00	2.00	
690.0	9.80	94.07	687.6	-3.0	41.7	41.8	2.00	2.00	
720.0	10.40	94.07	717.1	-3.3	46.9	47.0	2.00	2.00	
750.0	11.00	94.07	746.6	-3.7	52.5	52.6	2.00	2.00	
780.0	11.60	94.07	776.0	-4.2	58.4	58.5	2.00	2.00	
800.8	12.02	94.07	796.4	-4.5	62.6	62.7	2.00	2.00	EOB; Inc=12.02°
810.0	12.02	94.07	805.4	-4.6	64.5	64.7	0.00	0.00	
840.0	12.02	94.07	834.7	-5.0	70.8	70.9	0.00	0.00	
870.0	12.02	94.07	864.1	-5.5	77.0	77.2	0.00	0.00	
900.0	12.02	94.07	893.4	-5.9	83.2	83.4	0.00	0.00	
930.0	12.02	94.07	922.8	-6.4	89.4	89.6	0.00	0.00	
960.0	12.02	94.07	952.1	-6.8	95.7	95.9	0.00	0.00	
990.0	12.02	94.07	981.5	-7.3	101.9	102.1	0.00	0.00	
1,020.0	12.02	94.07	1,010.8	-7.7	108.1	108.4	0.00	0.00	
1,050.0	12.02	94.07	1,040.1	-8.1	114.4	114.6	0.00	0.00	
1,080.0	12.02	94.07	1,069.5	-8.6	120.6	120.9	0.00	0.00	
1,110.0	12.02	94.07	1,098.8	-9.0	126.8	127.1	0.00	0.00	
1,140.0	12.02	94.07	1,128.2	-9.5	133.0	133.3	0.00	0.00	
1,170.0	12.02	94.07	1,157.5	-9.9	139.3	139.6	0.00	0.00	
1,200.0	12.02	94.07	1,186.9	-10.4	145.5	145.8	0.00	0.00	
1,230.0	12.02	94.07	1,216.2	-10.8	151.7	152.1	0.00	0.00	
1,260.0	12.02	94.07	1,245.5	-11.2	158.0	158.3	0.00	0.00	
1,290.0	12.02	94.07	1,274.9	-11.7	164.2	164.6	0.00	0.00	
1,320.0	12.02	94.07	1,304.2	-12.1	170.4	170.8	0.00	0.00	
1,350.0	12.02	94.07	1,333.6	-12.6	176.7	177.0	0.00	0.00	
1,380.0	12.02	94.07	1,362.9	-13.0	182.9	183.3	0.00	0.00	
1,410.0	12.02	94.07	1,392.3	-13.5	189.1	189.5	0.00	0.00	
1,440.0	12.02	94.07	1,421.6	-13.9	195.3	195.8	0.00	0.00	
1,470.0	12.02	94.07	1,450.9	-14.3	201.6	202.0	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM14D (M32 595 Pad)	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	12.02	94.07	1,480.3	-14.8	207.8	208.3	0.00	0.00	
1,530.0	12.02	94.07	1,509.6	-15.2	214.0	214.5	0.00	0.00	
1,560.0	12.02	94.07	1,539.0	-15.7	220.3	220.7	0.00	0.00	
1,590.0	12.02	94.07	1,568.3	-16.1	226.5	227.0	0.00	0.00	
1,620.0	12.02	94.07	1,597.7	-16.6	232.7	233.2	0.00	0.00	
1,650.0	12.02	94.07	1,627.0	-17.0	238.9	239.5	0.00	0.00	
1,680.0	12.02	94.07	1,656.3	-17.5	245.2	245.7	0.00	0.00	
1,710.0	12.02	94.07	1,685.7	-17.9	251.4	252.0	0.00	0.00	
1,740.0	12.02	94.07	1,715.0	-18.3	257.6	258.2	0.00	0.00	
1,770.0	12.02	94.07	1,744.4	-18.8	263.9	264.4	0.00	0.00	
1,800.0	12.02	94.07	1,773.7	-19.2	270.1	270.7	0.00	0.00	
1,830.0	12.02	94.07	1,803.1	-19.7	276.3	276.9	0.00	0.00	
1,860.0	12.02	94.07	1,832.4	-20.1	282.6	283.2	0.00	0.00	
1,890.0	12.02	94.07	1,861.7	-20.6	288.8	289.4	0.00	0.00	
1,920.0	12.02	94.07	1,891.1	-21.0	295.0	295.7	0.00	0.00	
1,950.0	12.02	94.07	1,920.4	-21.4	301.2	301.9	0.00	0.00	
1,980.0	12.02	94.07	1,949.8	-21.9	307.5	308.2	0.00	0.00	
2,010.0	12.02	94.07	1,979.1	-22.3	313.7	314.4	0.00	0.00	
2,040.0	12.02	94.07	2,008.5	-22.8	319.9	320.6	0.00	0.00	
2,070.0	12.02	94.07	2,037.8	-23.2	326.2	326.9	0.00	0.00	
2,100.0	12.02	94.07	2,067.1	-23.7	332.4	333.1	0.00	0.00	
2,130.0	12.02	94.07	2,096.5	-24.1	338.6	339.4	0.00	0.00	
2,160.0	12.02	94.07	2,125.8	-24.5	344.8	345.6	0.00	0.00	
2,190.0	12.02	94.07	2,155.2	-25.0	351.1	351.9	0.00	0.00	
2,220.0	12.02	94.07	2,184.5	-25.4	357.3	358.1	0.00	0.00	
2,250.0	12.02	94.07	2,213.9	-25.9	363.5	364.3	0.00	0.00	
2,280.0	12.02	94.07	2,243.2	-26.3	369.8	370.6	0.00	0.00	
2,310.0	12.02	94.07	2,272.5	-26.8	376.0	376.8	0.00	0.00	
2,340.0	12.02	94.07	2,301.9	-27.2	382.2	383.1	0.00	0.00	
2,370.0	12.02	94.07	2,331.2	-27.6	388.5	389.3	0.00	0.00	
2,400.0	12.02	94.07	2,360.6	-28.1	394.7	395.6	0.00	0.00	
2,430.0	12.02	94.07	2,389.9	-28.5	400.9	401.8	0.00	0.00	
2,460.0	12.02	94.07	2,419.3	-29.0	407.1	408.0	0.00	0.00	
2,490.0	12.02	94.07	2,448.6	-29.4	413.4	414.3	0.00	0.00	

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Milk Cabin OM14D (M32	0.00	0.00	5,164.0	-65.9	925.8	1,640,731.09	2,272,844.02	39.564241	-108.079599
- plan misses target center by 2763.6ft at 2490.0ft MD (2448.6 TVD, -29.4 N, 413.4 E)									
- Point									
Milk Cabin OM14D (M32	0.00	0.00	11,214.0	-85.9	891.2	1,640,712.05	2,272,808.79	39.564186	-108.079722
- plan misses target center by 8778.6ft at 2490.0ft MD (2448.6 TVD, -29.4 N, 413.4 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM14D (M32 595 Pad)	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	12.02	94.07	2,458.4	-29.6	415.4	416.4	0.00	0.00	
2,600.0	12.02	94.07	2,556.2	-31.0	436.2	437.2	0.00	0.00	
2,700.0	12.02	94.07	2,654.0	-32.5	457.0	458.0	0.00	0.00	
2,800.0	12.02	94.07	2,751.8	-34.0	477.7	478.8	0.00	0.00	
2,900.0	12.02	94.07	2,849.6	-35.5	498.5	499.6	0.00	0.00	
3,000.0	12.02	94.07	2,947.4	-37.0	519.3	520.4	0.00	0.00	
3,100.0	12.02	94.07	3,045.2	-38.4	540.0	541.2	0.00	0.00	
3,200.0	12.02	94.07	3,143.0	-39.9	560.8	562.0	0.00	0.00	
3,300.0	12.02	94.07	3,240.9	-41.4	581.6	582.9	0.00	0.00	
3,400.0	12.02	94.07	3,338.7	-42.9	602.3	603.7	0.00	0.00	
3,500.0	12.02	94.07	3,436.5	-44.4	623.1	624.5	0.00	0.00	
3,600.0	12.02	94.07	3,534.3	-45.8	643.9	645.3	0.00	0.00	
3,700.0	12.02	94.07	3,632.1	-47.3	664.6	666.1	0.00	0.00	
3,800.0	12.02	94.07	3,729.9	-48.8	685.4	686.9	0.00	0.00	
3,900.0	12.02	94.07	3,827.7	-50.3	706.2	707.7	0.00	0.00	
3,937.1	12.02	94.07	3,864.0	-50.8	713.9	715.4	0.00	0.00	Wasatch
4,000.0	12.02	94.07	3,925.5	-51.7	726.9	728.5	0.00	0.00	
4,100.0	12.02	94.07	4,023.3	-53.2	747.7	749.3	0.00	0.00	
4,200.0	12.02	94.07	4,121.1	-54.7	768.5	770.2	0.00	0.00	
4,300.0	12.02	94.07	4,218.9	-56.2	789.2	791.0	0.00	0.00	
4,400.0	12.02	94.07	4,316.8	-57.7	810.0	811.8	0.00	0.00	
4,500.0	12.02	94.07	4,414.6	-59.1	830.8	832.6	0.00	0.00	
4,600.0	12.02	94.07	4,512.4	-60.6	851.5	853.4	0.00	0.00	
4,656.5	12.02	94.07	4,567.6	-61.4	863.2	865.2	0.00	0.00	Start Drop -2.00
4,700.0	11.15	94.07	4,610.2	-62.1	872.0	873.9	2.00	-2.00	
4,800.0	9.15	94.07	4,708.7	-63.3	889.5	891.5	2.00	-2.00	
4,900.0	7.15	94.07	4,807.7	-64.3	903.7	905.7	2.00	-2.00	
5,000.0	5.15	94.07	4,907.1	-65.1	914.3	916.4	2.00	-2.00	
5,100.0	3.15	94.07	5,006.8	-65.6	921.5	923.6	2.00	-2.00	
5,200.0	1.15	94.07	5,106.7	-65.9	925.3	927.3	2.00	-2.00	
5,257.3	0.00	0.00	5,164.0	-65.9	925.8	927.9	2.00	-2.00	EOD; Inc=0° - Fort Union - Milk Cabin OM14D (
5,300.0	0.11	239.98	5,206.7	-65.9	925.8	927.9	0.25	0.25	
5,400.0	0.36	239.98	5,306.7	-66.1	925.5	927.5	0.25	0.25	
5,410.9	0.38	239.98	5,317.7	-66.2	925.4	927.5	0.25	0.25	
5,500.0	0.38	239.98	5,406.7	-66.5	924.9	927.0	0.00	0.00	
5,600.0	0.38	239.98	5,506.7	-66.8	924.3	926.4	0.00	0.00	
5,700.0	0.38	239.98	5,606.7	-67.1	923.7	925.9	0.00	0.00	
5,757.3	0.38	239.98	5,664.0	-67.3	923.4	925.6	0.00	0.00	Base Ft Union
5,800.0	0.38	239.98	5,706.7	-67.5	923.1	925.4	0.00	0.00	
5,900.0	0.38	239.98	5,806.7	-67.8	922.6	924.8	0.00	0.00	
6,000.0	0.38	239.98	5,906.7	-68.1	922.0	924.3	0.00	0.00	
6,100.0	0.38	239.98	6,006.7	-68.5	921.4	923.7	0.00	0.00	
6,200.0	0.38	239.98	6,106.7	-68.8	920.8	923.2	0.00	0.00	
6,300.0	0.38	239.98	6,206.7	-69.1	920.2	922.6	0.00	0.00	
6,400.0	0.38	239.98	6,306.7	-69.5	919.7	922.1	0.00	0.00	
6,500.0	0.38	239.98	6,406.7	-69.8	919.1	921.5	0.00	0.00	
6,600.0	0.38	239.98	6,506.7	-70.1	918.5	921.0	0.00	0.00	
6,700.0	0.38	239.98	6,606.7	-70.5	917.9	920.4	0.00	0.00	
6,800.0	0.38	239.98	6,706.7	-70.8	917.3	919.9	0.00	0.00	
6,900.0	0.38	239.98	6,806.7	-71.2	916.8	919.4	0.00	0.00	
7,000.0	0.38	239.98	6,906.7	-71.5	916.2	918.8	0.00	0.00	
7,100.0	0.38	239.98	7,006.7	-71.8	915.6	918.3	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM14D (M32 595 Pad)	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
7,200.0	0.38	239.98	7,106.7	-72.2	915.0	917.7	0.00	0.00	
7,300.0	0.38	239.98	7,206.7	-72.5	914.4	917.2	0.00	0.00	
7,400.0	0.38	239.98	7,306.7	-72.8	913.9	916.6	0.00	0.00	
7,500.0	0.38	239.98	7,406.7	-73.2	913.3	916.1	0.00	0.00	
7,600.0	0.38	239.98	7,506.7	-73.5	912.7	915.5	0.00	0.00	
7,657.3	0.38	239.98	7,564.0	-73.7	912.4	915.2	0.00	0.00	Ohio Creek
7,700.0	0.38	239.98	7,606.7	-73.8	912.1	915.0	0.00	0.00	
7,800.0	0.38	239.98	7,706.7	-74.2	911.5	914.4	0.00	0.00	
7,900.0	0.38	239.98	7,806.7	-74.5	911.0	913.9	0.00	0.00	
8,000.0	0.38	239.98	7,906.7	-74.8	910.4	913.4	0.00	0.00	
8,057.3	0.38	239.98	7,964.0	-75.0	910.0	913.0	0.00	0.00	Williams Fork
8,100.0	0.38	239.98	8,006.7	-75.2	909.8	912.8	0.00	0.00	
8,200.0	0.38	239.98	8,106.7	-75.5	909.2	912.3	0.00	0.00	
8,300.0	0.38	239.98	8,206.7	-75.8	908.6	911.7	0.00	0.00	
8,400.0	0.38	239.98	8,306.7	-76.2	908.1	911.2	0.00	0.00	
8,457.3	0.38	239.98	8,364.0	-76.4	907.7	910.9	0.00	0.00	Approx TOG
8,500.0	0.38	239.98	8,406.7	-76.5	907.5	910.6	0.00	0.00	
8,600.0	0.38	239.98	8,506.7	-76.9	906.9	910.1	0.00	0.00	
8,700.0	0.38	239.98	8,606.7	-77.2	906.3	909.5	0.00	0.00	
8,800.0	0.38	239.98	8,706.7	-77.5	905.7	909.0	0.00	0.00	
8,900.0	0.38	239.98	8,806.7	-77.9	905.1	908.4	0.00	0.00	
9,000.0	0.38	239.98	8,906.7	-78.2	904.6	907.9	0.00	0.00	
9,100.0	0.38	239.98	9,006.7	-78.5	904.0	907.4	0.00	0.00	
9,200.0	0.38	239.98	9,106.7	-78.9	903.4	906.8	0.00	0.00	
9,300.0	0.38	239.98	9,206.7	-79.2	902.8	906.3	0.00	0.00	
9,400.0	0.38	239.98	9,306.6	-79.5	902.2	905.7	0.00	0.00	
9,500.0	0.38	239.98	9,406.6	-79.9	901.7	905.2	0.00	0.00	
9,600.0	0.38	239.98	9,506.6	-80.2	901.1	904.6	0.00	0.00	
9,700.0	0.38	239.98	9,606.6	-80.5	900.5	904.1	0.00	0.00	
9,800.0	0.38	239.98	9,706.6	-80.9	899.9	903.5	0.00	0.00	
9,900.0	0.38	239.98	9,806.6	-81.2	899.3	903.0	0.00	0.00	
10,000.0	0.38	239.98	9,906.6	-81.6	898.8	902.4	0.00	0.00	
10,100.0	0.38	239.98	10,006.6	-81.9	898.2	901.9	0.00	0.00	
10,200.0	0.38	239.98	10,106.6	-82.2	897.6	901.3	0.00	0.00	
10,300.0	0.38	239.98	10,206.6	-82.6	897.0	900.8	0.00	0.00	
10,400.0	0.38	239.98	10,306.6	-82.9	896.4	900.3	0.00	0.00	
10,500.0	0.38	239.98	10,406.6	-83.2	895.9	899.7	0.00	0.00	
10,600.0	0.38	239.98	10,506.6	-83.6	895.3	899.2	0.00	0.00	
10,700.0	0.38	239.98	10,606.6	-83.9	894.7	898.6	0.00	0.00	
10,800.0	0.38	239.98	10,706.6	-84.2	894.1	898.1	0.00	0.00	
10,807.4	0.38	239.98	10,714.0	-84.3	894.1	898.0	0.00	0.00	Cameo
10,900.0	0.38	239.98	10,806.6	-84.6	893.5	897.5	0.00	0.00	
11,000.0	0.38	239.98	10,906.6	-84.9	893.0	897.0	0.00	0.00	
11,100.0	0.38	239.98	11,006.6	-85.2	892.4	896.4	0.00	0.00	
11,157.4	0.38	239.98	11,064.0	-85.4	892.0	896.1	0.00	0.00	Rollins SS
11,200.0	0.38	239.98	11,106.6	-85.6	891.8	895.9	0.00	0.00	
11,300.0	0.38	239.98	11,206.6	-85.9	891.2	895.3	0.00	0.00	
11,307.4	0.38	239.98	11,214.0	-85.9	891.2	895.3	0.00	0.00	Milk Cabin OM14D (M32 595) BHL

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site:	SWSW S32-T5S-R95W (M32 595 Pad)	North Reference:	True
Well:	Milk Cabin OM14D (M32 595 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Milk Cabin OM14D (M32 - plan hits target center - Point	0.00	0.00	5,164.0	-65.9	925.8	1,640,731.09	2,272,844.02	39.564241	-108.079599
Milk Cabin OM14D (M32 - plan hits target center - Rectangle (sides W50.0 H100.0 D0.0)	0.00	0.00	11,214.0	-85.9	891.2	1,640,712.05	2,272,808.79	39.564186	-108.079722

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
3,937.1	3,864.0	Wasatch		0.00		
5,257.3	5,164.0	Fort Union		0.00		
5,757.3	5,664.0	Base Ft Union		0.00		
7,657.3	7,564.0	Ohio Creek		0.00		
8,057.3	7,964.0	Williams Fork		0.00		
8,457.3	8,364.0	Approx TOG		0.00		
10,807.4	10,714.0	Cameo		0.00		
11,157.4	11,064.0	Rollins SS		0.00		

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
200.0	200.0	0.0	0.0	KOP @ 200'	
800.8	796.4	-4.5	62.6	EOB; Inc=12.02°	
4,656.5	4,567.6	-61.4	863.2	Start Drop -2.00	
5,257.3	5,164.0	-65.9	925.8	EOD; Inc=0°	
11,307.4	11,214.0	-66.2	925.4	TD at 11307.4	

Berry Petroleum Company (NAD 83)

Garfield County

SWSW S32-T5S-R95W (M32 595 Pad)

Milk Cabin OM14D (M32 595 Pad)

DD

Plan #1

Anticollision Report

16 June, 2010

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	6/16/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,307.4	Plan #1 (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						
SWSW S32-T5S-R95W (M32 595 Pad)						
Milk Cabin OM11B (M32 595 Pad) - DD - Plan #1	200.0	200.0	60.9	60.2	98.499	CC, ES
Milk Cabin OM11B (M32 595 Pad) - DD - Plan #1	600.0	592.5	94.8	92.6	42.928	SF
Milk Cabin OM11D (M32 595 Pad) - DD - Plan #1	200.0	200.0	50.6	49.9	81.822	CC, ES
Milk Cabin OM11D (M32 595 Pad) - DD - Plan #1	700.0	695.7	87.7	84.8	30.774	SF
Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1	200.0	200.0	71.0	70.4	114.900	CC, ES
Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1	500.0	491.7	95.0	93.3	55.649	SF
Milk Cabin OM12B (M32 595 Pad) - DD - Plan #1						Out of range
Milk Cabin OM12C (M32 595 Pad) - DD - Plan #1						Out of range
Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1	200.0	200.0	81.1	80.5	131.306	CC, ES
Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1	400.0	394.2	92.2	90.9	69.823	SF
Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1	200.0	200.0	90.7	90.1	146.781	CC, ES
Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1	300.0	296.9	93.5	92.6	97.089	SF
Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1	200.0	200.0	40.1	39.5	64.949	CC, ES
Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1	400.0	396.6	51.7	50.4	39.154	SF
Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1	200.0	200.0	20.7	20.1	33.548	CC, ES
Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1	400.0	398.2	31.5	30.2	23.772	SF
Milk Cabin OM13D (M32 595 Pad) - DD - Plan #1	200.0	200.0	10.3	9.7	16.684	CC, ES
Milk Cabin OM13D (M32 595 Pad) - DD - Plan #1	300.0	299.8	12.1	11.1	12.449	SF
Milk Cabin OM14B (M32 595 Pad) - DD - Plan #1	200.0	200.0	30.9	30.2	49.949	CC, ES
Milk Cabin OM14B (M32 595 Pad) - DD - Plan #1	1,000.0	995.7	97.5	92.4	19.169	SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM11B (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-38.37	47.7	-37.8	60.9					
100.0	100.0	100.0	100.0	0.1	0.1	-38.37	47.7	-37.8	60.9	60.6	0.27	226.420		
200.0	200.0	200.0	200.0	0.3	0.3	-38.37	47.7	-37.8	60.9	60.2	0.62	98.499 CC, ES		
300.0	300.0	298.8	298.8	0.5	0.5	-132.28	49.3	-37.2	63.0	62.0	0.97	64.975		
400.0	399.8	397.3	397.2	0.7	0.7	-131.83	54.2	-35.7	69.4	68.0	1.34	51.718		
500.0	499.5	495.3	494.8	0.9	0.9	-131.22	62.2	-33.0	80.0	78.2	1.75	45.711		
600.0	598.7	592.5	591.3	1.2	1.2	-130.57	73.2	-29.4	94.8	92.6	2.21	42.928 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM11D (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
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	
0.0	0.0	0.0	0.0	0.0	0.0	-38.25	39.7	-31.3	50.6					
100.0	100.0	100.0	100.0	0.1	0.1	-38.25	39.7	-31.3	50.6	50.3	0.27	188.084		
200.0	200.0	200.0	200.0	0.3	0.3	-38.25	39.7	-31.3	50.6	49.9	0.62	81.822 CC, ES		
300.0	300.0	299.7	299.7	0.5	0.5	-131.83	41.0	-30.1	52.0	51.0	0.97	53.517		
400.0	399.8	399.2	399.1	0.7	0.7	-130.51	44.8	-26.6	56.4	55.1	1.35	41.738		
500.0	499.5	498.5	498.0	0.9	0.9	-128.72	51.2	-20.9	63.8	62.1	1.78	35.862		
600.0	598.7	597.4	596.1	1.2	1.2	-126.78	60.1	-12.8	74.2	72.0	2.27	32.645		
700.0	697.5	695.7	693.2	1.5	1.5	-124.95	71.4	-2.6	87.7	84.8	2.85	30.774 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM12A (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-38.28	55.7	-44.0	71.0					
100.0	100.0	100.0	100.0	0.1	0.1	-38.28	55.7	-44.0	71.0	70.7	0.27	264.119		
200.0	200.0	200.0	200.0	0.3	0.3	-38.28	55.7	-44.0	71.0	70.4	0.62	114.900 CC, ES		
300.0	300.0	297.8	297.8	0.5	0.5	-132.67	57.4	-44.3	73.7	72.7	0.97	76.263		
400.0	399.8	395.2	395.0	0.7	0.7	-133.48	62.3	-45.1	81.7	80.3	1.33	61.598		
500.0	499.5	491.7	491.2	0.9	0.9	-134.50	70.4	-46.4	95.0	93.3	1.71	55.649 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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													SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM12D (M32 595 Pad) - DD - Plan #1		Offset Site Error:		0.0 ft
Survey Program: 0-MWD													Offset Well Error:		0.0 ft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor					
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)							
0.0	0.0	0.0	0.0	0.0	0.0	-38.21	63.7	-50.2	81.1								
100.0	100.0	100.0	100.0	0.1	0.1	-38.21	63.7	-50.2	81.1	80.9	0.27	301.832					
200.0	200.0	200.0	200.0	0.3	0.3	-38.21	63.7	-50.2	81.1	80.5	0.62	131.306 CC, ES					
300.0	300.0	297.3	297.3	0.5	0.5	-132.72	65.3	-50.7	83.9	82.9	0.96	86.982					
400.0	399.8	394.2	394.0	0.7	0.7	-133.86	70.0	-52.3	92.2	90.9	1.32	69.823 SF					

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13A (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
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	
0.0	0.0	0.0	0.0	0.0	0.0	-38.44	71.0	-56.4	90.7					
100.0	100.0	100.0	100.0	0.1	0.1	-38.44	71.0	-56.4	90.7	90.4	0.27	337.405		
200.0	200.0	200.0	200.0	0.3	0.3	-38.44	71.0	-56.4	90.7	90.1	0.62	146.781 CC, ES		
300.0	300.0	296.9	296.9	0.5	0.5	-133.43	72.1	-57.6	93.5	92.6	0.96	97.089 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13B (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-38.70	31.3	-25.1	40.1					
100.0	100.0	100.0	100.0	0.1	0.1	-38.70	31.3	-25.1	40.1	39.9	0.27	149.299		
200.0	200.0	200.0	200.0	0.3	0.3	-38.70	31.3	-25.1	40.1	39.5	0.62	64.949 CC, ES		
300.0	300.0	298.6	298.6	0.5	0.5	-135.39	32.1	-26.6	42.9	42.0	0.97	44.393		
400.0	399.8	396.6	396.4	0.7	0.7	-141.44	34.3	-31.1	51.7	50.4	1.32	39.154 SF		
500.0	499.5	493.2	492.7	0.9	0.9	-147.84	37.9	-38.5	67.1	65.5	1.67	40.110		
600.0	598.7	587.8	586.7	1.2	1.1	-152.94	42.9	-48.6	89.4	87.4	2.02	44.235		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13C (M32 595 Pad) - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
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
0.0	0.0	0.0	0.0	0.0	0.0	-37.74	16.4	-12.7	20.7				
100.0	100.0	100.0	100.0	0.1	0.1	-37.74	16.4	-12.7	20.7	20.5	0.27	77.116	
200.0	200.0	200.0	200.0	0.3	0.3	-37.74	16.4	-12.7	20.7	20.1	0.62	33.548 CC, ES	
300.0	300.0	299.4	299.4	0.5	0.5	-138.38	16.4	-14.4	23.1	22.1	0.97	23.840	
400.0	399.8	398.2	398.0	0.7	0.7	-151.38	16.4	-19.5	31.5	30.2	1.32	23.772 SF	
500.0	499.5	495.5	494.9	0.9	0.9	-161.89	16.4	-27.9	47.2	45.5	1.67	28.238	
600.0	598.7	590.7	589.5	1.2	1.2	-168.41	16.4	-39.3	70.2	68.2	2.01	34.994	
700.0	697.5	686.2	684.0	1.5	1.4	-172.27	16.4	-52.5	98.8	96.5	2.33	42.327	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM13D (M32 595 Pad) - DD - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						
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
0.0	0.0	0.0	0.0	0.0	0.0	-38.98	8.0	-6.5	10.3				
100.0	100.0	100.0	100.0	0.1	0.1	-38.98	8.0	-6.5	10.3	10.0	0.27	38.352	
200.0	200.0	200.0	200.0	0.3	0.3	-38.98	8.0	-6.5	10.3	9.7	0.62	16.684 CC, ES	
300.0	300.0	299.8	299.8	0.5	0.5	-147.41	7.1	-8.0	12.1	11.1	0.97	12.449 SF	
400.0	399.8	399.0	398.9	0.7	0.7	-169.97	4.3	-12.3	19.9	18.6	1.33	15.015	
500.0	499.5	496.9	496.4	0.9	0.9	177.42	-0.2	-19.5	35.3	33.6	1.68	21.037	
600.0	598.7	593.6	592.4	1.2	1.1	171.45	-6.2	-29.1	57.4	55.4	2.03	28.310	
700.0	697.5	690.1	688.1	1.5	1.4	169.00	-12.6	-39.2	83.7	81.3	2.38	35.137	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 SWSW S32-T5S-R95W (M32 595 Pad) - Milk Cabin OM14B (M32 595 Pad) - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-37.74	24.4	-18.9	30.9					
100.0	100.0	100.0	100.0	0.1	0.1	-37.74	24.4	-18.9	30.9	30.6	0.27	114.817		
200.0	200.0	200.0	200.0	0.3	0.3	-37.74	24.4	-18.9	30.9	30.2	0.62	49.949 CC, ES		
300.0	300.0	300.1	300.0	0.5	0.5	-131.00	25.4	-17.4	31.9	30.9	0.97	32.809		
400.0	399.8	400.0	399.9	0.7	0.7	-128.86	28.3	-13.1	35.1	33.8	1.36	25.911		
500.0	499.5	499.8	499.3	0.9	0.9	-126.05	33.2	-5.9	40.5	38.8	1.79	22.639		
600.0	598.7	599.4	598.1	1.2	1.2	-123.17	40.0	4.1	48.2	45.9	2.30	20.961		
700.0	697.5	698.7	696.2	1.5	1.5	-120.56	48.7	16.9	58.2	55.3	2.90	20.061		
800.8	796.4	798.4	794.0	1.9	1.9	-118.34	59.4	32.6	70.6	67.0	3.61	19.557		
900.0	893.4	896.6	890.1	2.3	2.2	-116.60	71.0	49.8	84.0	79.6	4.34	19.356		
1,000.0	991.2	995.7	986.9	2.7	2.6	-115.32	82.8	67.1	97.5	92.4	5.09	19.169 SF		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Milk Cabin OM14D (M32 595 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8144.0ft (Original Well Elev)
Reference Site:	SWSW S32-T5S-R95W (M32 595 Pad)	MD Reference:	KBE @ 8144.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Milk Cabin OM14D (M32 595 Pad)	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 KBE @ 8144.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Milk Cabin OM14D (M32 595 Pad)
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.63°

