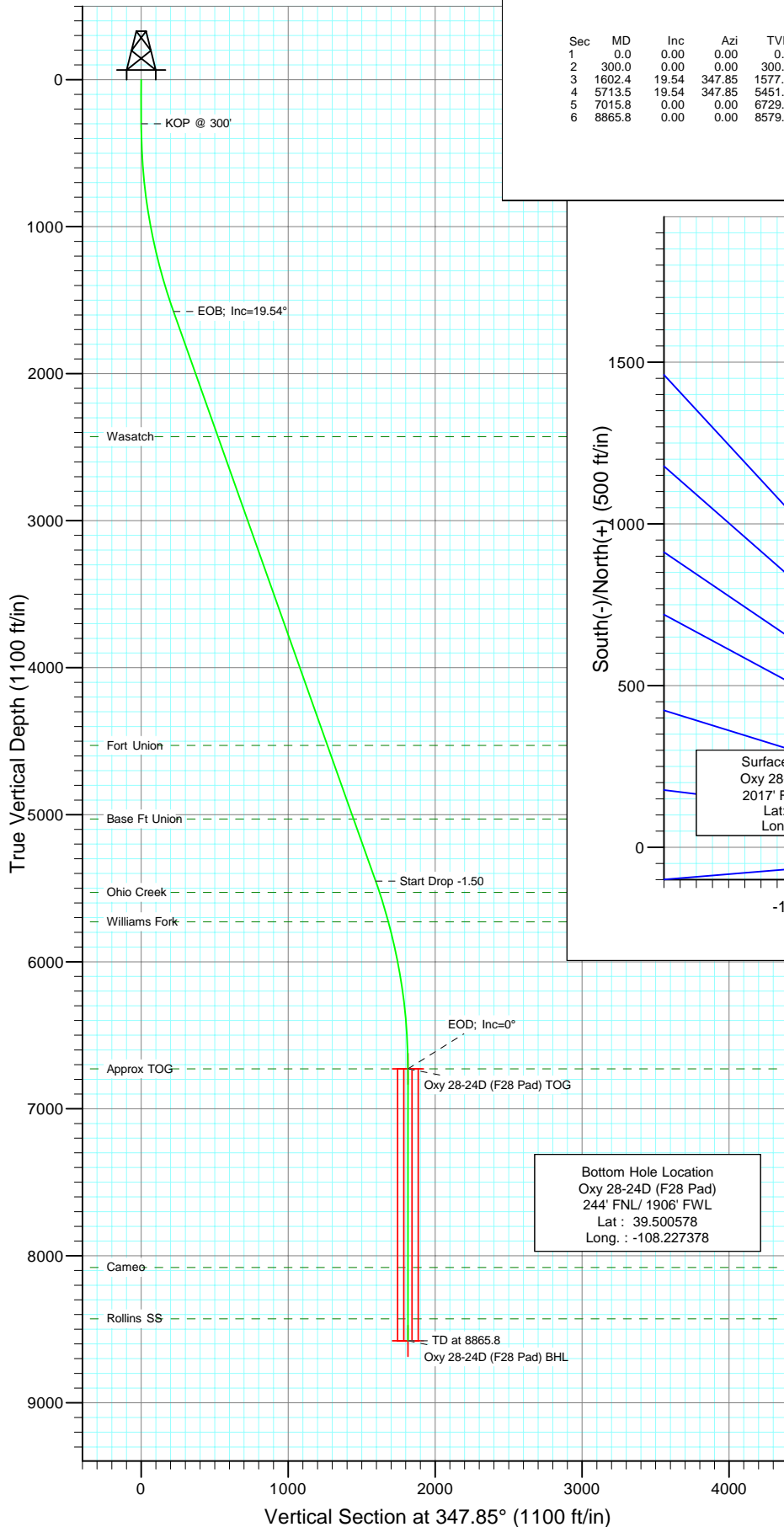




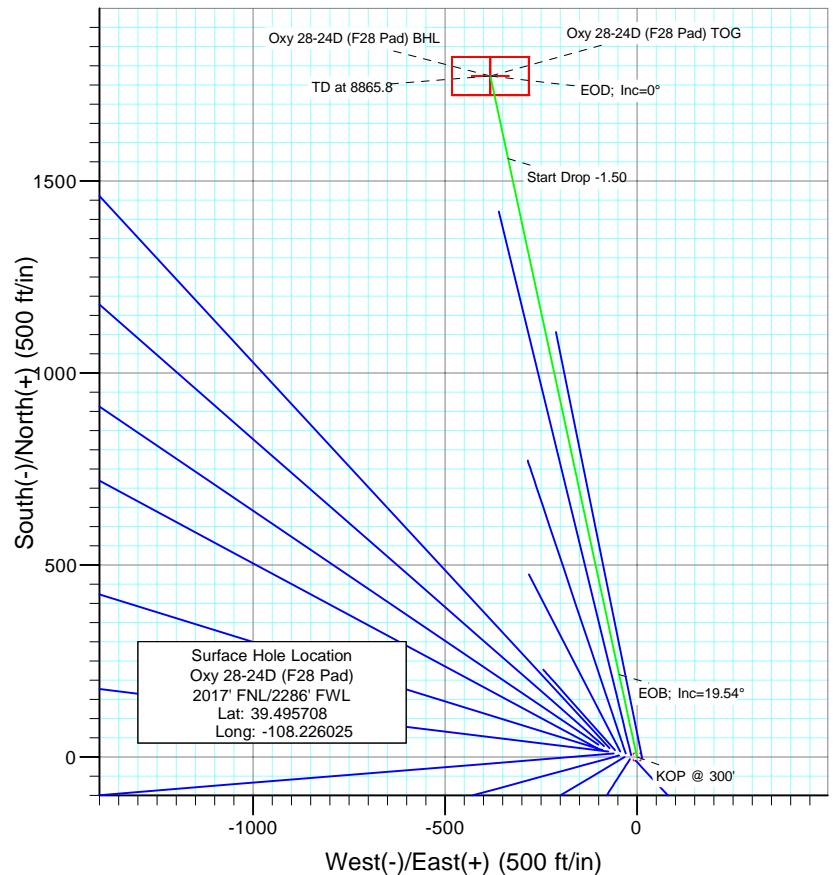
Berry Petroleum Company

Project: Garfield County
Site: SENW S28-T6S-R97W (F28 Pad)
Well: Oxy 28-24D (F28 Pad)
Wellbore: DD
Design: Plan #1



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	
3	1602.4	19.54	347.85	1577.3	215.0	-46.3	1.50	347.85	219.9	
4	5713.5	19.54	347.85	5451.7	1558.9	-335.5	0.00	0.00	1594.6	
5	7015.8	0.00	0.00	6729.0	1773.9	-381.8	1.50	180.00	1814.5	Oxy 28-24D (F28 Pad) TOG
6	8865.8	0.00	0.00	8579.0	1773.9	-381.8	0.00	0.00	1814.5	Oxy 28-24D (F28 Pad) BHL



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2429.0	2506.1	Wasatch
4529.0	4734.4	Fort Union
5029.0	5264.9	Base Ft Union
5529.0	5795.2	Ohio Creek
5729.0	6004.0	Williams Fork
6729.0	7015.8	Approx TOG
8079.0	8365.8	Cameo
8429.0	8715.8	Rollins SS



Azimuths to True North
Magnetic North: 10.64°

Magnetic Field
Strength: 52394.5snT
Dip Angle: 65.75°
Date: 10/22/2009
Model: IGRF200510

DESIGN DETAILS: Plan #1

95XXX; BH
KBE @ 8308.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Oxy 28-24D (F28 Pad) BH	347.85	Slot	0.0	0.0	0.0

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site:	SENW S28-T6S-R97W (F28 Pad)	North Reference:	True
Well:	Oxy 28-24D (F28 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	SENW S28-T6S-R97W (F28 Pad)			
Site Position:		Northing:	1,616,975.87 ft	Latitude: 39.495683
From:	Lat/Long	Easting:	2,230,827.80 ft	Longitude: -108.226036
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence: -1.72 °

Well	Oxy 28-24D (F28 Pad)			
Well Position	+N/-S	0.0 ft	Northing:	1,616,984.87 ft
	+E/-W	0.0 ft	Easting:	2,230,831.17 ft
Position Uncertainty	0.0 ft		Wellhead Elevation:	ft
			Ground Level:	8,293.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/22/2009	10.64	65.75	52,395

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	347.85

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,602.4	19.54	347.85	1,577.3	215.0	-46.3	1.50	1.50	0.00	347.85	
5,713.5	19.54	347.85	5,451.7	1,558.9	-335.5	0.00	0.00	0.00	0.00	
7,015.8	0.00	0.00	6,729.0	1,773.9	-381.8	1.50	-1.50	0.00	180.00	Oxy 28-24D (F28 Pad
8,865.8	0.00	0.00	8,579.0	1,773.9	-381.8	0.00	0.00	0.00	0.00	Oxy 28-24D (F28 Pad

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site:	SENW S28-T6S-R97W (F28 Pad)	North Reference:	True
Well:	Oxy 28-24D (F28 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	
210.0	0.00	0.00	210.0	0.0	0.0	0.0	0.00	0.00	
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	
270.0	0.00	0.00	270.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300'
330.0	0.45	347.85	330.0	0.1	0.0	0.1	1.50	1.50	
360.0	0.90	347.85	360.0	0.5	-0.1	0.5	1.50	1.50	
390.0	1.35	347.85	390.0	1.0	-0.2	1.1	1.50	1.50	
420.0	1.80	347.85	420.0	1.8	-0.4	1.9	1.50	1.50	
450.0	2.25	347.85	450.0	2.9	-0.6	2.9	1.50	1.50	
480.0	2.70	347.85	479.9	4.1	-0.9	4.2	1.50	1.50	
510.0	3.15	347.85	509.9	5.6	-1.2	5.8	1.50	1.50	
540.0	3.60	347.85	539.8	7.4	-1.6	7.5	1.50	1.50	
570.0	4.05	347.85	569.8	9.3	-2.0	9.5	1.50	1.50	
600.0	4.50	347.85	599.7	11.5	-2.5	11.8	1.50	1.50	
630.0	4.95	347.85	629.6	13.9	-3.0	14.2	1.50	1.50	
660.0	5.40	347.85	659.5	16.6	-3.6	17.0	1.50	1.50	
690.0	5.85	347.85	689.3	19.4	-4.2	19.9	1.50	1.50	
720.0	6.30	347.85	719.2	22.6	-4.9	23.1	1.50	1.50	
750.0	6.75	347.85	749.0	25.9	-5.6	26.5	1.50	1.50	
780.0	7.20	347.85	778.7	29.4	-6.3	30.1	1.50	1.50	
810.0	7.65	347.85	808.5	33.2	-7.2	34.0	1.50	1.50	
840.0	8.10	347.85	838.2	37.3	-8.0	38.1	1.50	1.50	
870.0	8.55	347.85	867.9	41.5	-8.9	42.5	1.50	1.50	
900.0	9.00	347.85	897.5	46.0	-9.9	47.0	1.50	1.50	
930.0	9.45	347.85	927.1	50.7	-10.9	51.8	1.50	1.50	
960.0	9.90	347.85	956.7	55.6	-12.0	56.9	1.50	1.50	
990.0	10.35	347.85	986.3	60.8	-13.1	62.2	1.50	1.50	
1,020.0	10.80	347.85	1,015.7	66.1	-14.2	67.7	1.50	1.50	
1,050.0	11.25	347.85	1,045.2	71.8	-15.4	73.4	1.50	1.50	
1,080.0	11.70	347.85	1,074.6	77.6	-16.7	79.4	1.50	1.50	
1,110.0	12.15	347.85	1,103.9	83.6	-18.0	85.6	1.50	1.50	
1,140.0	12.60	347.85	1,133.2	89.9	-19.4	92.0	1.50	1.50	
1,170.0	13.05	347.85	1,162.5	96.4	-20.8	98.7	1.50	1.50	
1,200.0	13.50	347.85	1,191.7	103.2	-22.2	105.5	1.50	1.50	
1,230.0	13.95	347.85	1,220.8	110.1	-23.7	112.7	1.50	1.50	
1,260.0	14.40	347.85	1,249.9	117.3	-25.3	120.0	1.50	1.50	
1,290.0	14.85	347.85	1,279.0	124.7	-26.8	127.6	1.50	1.50	
1,320.0	15.30	347.85	1,307.9	132.3	-28.5	135.4	1.50	1.50	
1,350.0	15.75	347.85	1,336.8	140.2	-30.2	143.4	1.50	1.50	
1,380.0	16.20	347.85	1,365.7	148.3	-31.9	151.7	1.50	1.50	
1,410.0	16.65	347.85	1,394.4	156.6	-33.7	160.1	1.50	1.50	
1,440.0	17.10	347.85	1,423.2	165.1	-35.5	168.9	1.50	1.50	
1,470.0	17.55	347.85	1,451.8	173.8	-37.4	177.8	1.50	1.50	
1,500.0	18.00	347.85	1,480.4	182.8	-39.3	187.0	1.50	1.50	
1,530.0	18.45	347.85	1,508.9	191.9	-41.3	196.3	1.50	1.50	

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site:	SENW S28-T6S-R97W (F28 Pad)	North Reference:	True
Well:	Oxy 28-24D (F28 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
1,560.0	18.90	347.85	1,537.3	201.3	-43.3	205.9	1.50	1.50	
1,590.0	19.35	347.85	1,565.6	210.9	-45.4	215.8	1.50	1.50	
1,602.4	19.54	347.85	1,577.3	215.0	-46.3	219.9	1.50	1.50	EOB; Inc=19.54°
1,620.0	19.54	347.85	1,593.9	220.7	-47.5	225.8	0.00	0.00	
1,650.0	19.54	347.85	1,622.2	230.5	-49.6	235.8	0.00	0.00	
1,680.0	19.54	347.85	1,650.4	240.3	-51.7	245.8	0.00	0.00	
1,710.0	19.54	347.85	1,678.7	250.1	-53.8	255.9	0.00	0.00	
1,740.0	19.54	347.85	1,707.0	260.0	-56.0	265.9	0.00	0.00	
1,770.0	19.54	347.85	1,735.3	269.8	-58.1	275.9	0.00	0.00	
1,800.0	19.54	347.85	1,763.5	279.6	-60.2	286.0	0.00	0.00	
1,830.0	19.54	347.85	1,791.8	289.4	-62.3	296.0	0.00	0.00	
1,860.0	19.54	347.85	1,820.1	299.2	-64.4	306.0	0.00	0.00	
1,890.0	19.54	347.85	1,848.4	309.0	-66.5	316.1	0.00	0.00	
1,920.0	19.54	347.85	1,876.6	318.8	-68.6	326.1	0.00	0.00	
1,950.0	19.54	347.85	1,904.9	328.6	-70.7	336.1	0.00	0.00	
1,980.0	19.54	347.85	1,933.2	338.4	-72.8	346.2	0.00	0.00	
2,010.0	19.54	347.85	1,961.4	348.2	-74.9	356.2	0.00	0.00	
2,040.0	19.54	347.85	1,989.7	358.0	-77.1	366.2	0.00	0.00	
2,070.0	19.54	347.85	2,018.0	367.8	-79.2	376.3	0.00	0.00	
2,100.0	19.54	347.85	2,046.3	377.6	-81.3	386.3	0.00	0.00	
2,130.0	19.54	347.85	2,074.5	387.4	-83.4	396.3	0.00	0.00	
2,160.0	19.54	347.85	2,102.8	397.3	-85.5	406.4	0.00	0.00	
2,190.0	19.54	347.85	2,131.1	407.1	-87.6	416.4	0.00	0.00	
2,220.0	19.54	347.85	2,159.4	416.9	-89.7	426.4	0.00	0.00	
2,250.0	19.54	347.85	2,187.6	426.7	-91.8	436.4	0.00	0.00	
2,280.0	19.54	347.85	2,215.9	436.5	-93.9	446.5	0.00	0.00	
2,310.0	19.54	347.85	2,244.2	446.3	-96.1	456.5	0.00	0.00	
2,340.0	19.54	347.85	2,272.4	456.1	-98.2	466.5	0.00	0.00	
2,370.0	19.54	347.85	2,300.7	465.9	-100.3	476.6	0.00	0.00	
2,400.0	19.54	347.85	2,329.0	475.7	-102.4	486.6	0.00	0.00	
2,430.0	19.54	347.85	2,357.3	485.5	-104.5	496.6	0.00	0.00	
2,460.0	19.54	347.85	2,385.5	495.3	-106.6	506.7	0.00	0.00	
2,490.0	19.54	347.85	2,413.8	505.1	-108.7	516.7	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									
Oxy 28-24D (F28 Pad) E	0.00	0.00	8,579.0	1,773.9	-381.8	1,618,769.39	2,230,502.77	39.500578	-108.227378
- plan misses target center by 6300.3ft at 2490.0ft MD (2413.8 TVD, 505.1 N, -108.7 E)									
- Rectangle (sides W100.0 H200.0 D0.0)									
Oxy 28-24D (F28 Pad) T	0.00	0.00	6,729.0	1,773.9	-381.8	1,618,769.39	2,230,502.77	39.500578	-108.227378
- plan misses target center by 4506.1ft at 2490.0ft MD (2413.8 TVD, 505.1 N, -108.7 E)									
- Point									

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site:	SENW S28-T6S-R97W (F28 Pad)	North Reference:	True
Well:	Oxy 28-24D (F28 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	19.54	347.85	2,423.2	508.4	-109.4	520.0	0.00	0.00	
2,506.1	19.54	347.85	2,429.0	510.4	-109.9	522.1	0.00	0.00	Wasatch
2,600.0	19.54	347.85	2,517.5	541.1	-116.5	553.5	0.00	0.00	
2,700.0	19.54	347.85	2,611.7	573.8	-123.5	586.9	0.00	0.00	
2,800.0	19.54	347.85	2,706.0	606.5	-130.5	620.4	0.00	0.00	
2,900.0	19.54	347.85	2,800.2	639.2	-137.6	653.8	0.00	0.00	
3,000.0	19.54	347.85	2,894.5	671.9	-144.6	687.2	0.00	0.00	
3,100.0	19.54	347.85	2,988.7	704.5	-151.6	720.7	0.00	0.00	
3,200.0	19.54	347.85	3,082.9	737.2	-158.7	754.1	0.00	0.00	
3,300.0	19.54	347.85	3,177.2	769.9	-165.7	787.6	0.00	0.00	
3,400.0	19.54	347.85	3,271.4	802.6	-172.7	821.0	0.00	0.00	
3,500.0	19.54	347.85	3,365.7	835.3	-179.8	854.4	0.00	0.00	
3,600.0	19.54	347.85	3,459.9	868.0	-186.8	887.9	0.00	0.00	
3,700.0	19.54	347.85	3,554.2	900.7	-193.9	921.3	0.00	0.00	
3,800.0	19.54	347.85	3,648.4	933.4	-200.9	954.8	0.00	0.00	
3,900.0	19.54	347.85	3,742.6	966.1	-207.9	988.2	0.00	0.00	
4,000.0	19.54	347.85	3,836.9	998.8	-215.0	1,021.6	0.00	0.00	
4,100.0	19.54	347.85	3,931.1	1,031.5	-222.0	1,055.1	0.00	0.00	
4,200.0	19.54	347.85	4,025.4	1,064.1	-229.0	1,088.5	0.00	0.00	
4,300.0	19.54	347.85	4,119.6	1,096.8	-236.1	1,121.9	0.00	0.00	
4,400.0	19.54	347.85	4,213.9	1,129.5	-243.1	1,155.4	0.00	0.00	
4,500.0	19.54	347.85	4,308.1	1,162.2	-250.1	1,188.8	0.00	0.00	
4,600.0	19.54	347.85	4,402.4	1,194.9	-257.2	1,222.3	0.00	0.00	
4,700.0	19.54	347.85	4,496.6	1,227.6	-264.2	1,255.7	0.00	0.00	
4,734.4	19.54	347.85	4,529.0	1,238.8	-266.6	1,267.2	0.00	0.00	Fort Union
4,800.0	19.54	347.85	4,590.8	1,260.3	-271.3	1,289.1	0.00	0.00	
4,900.0	19.54	347.85	4,685.1	1,293.0	-278.3	1,322.6	0.00	0.00	
5,000.0	19.54	347.85	4,779.3	1,325.7	-285.3	1,356.0	0.00	0.00	
5,100.0	19.54	347.85	4,873.6	1,358.4	-292.4	1,389.5	0.00	0.00	
5,200.0	19.54	347.85	4,967.8	1,391.0	-299.4	1,422.9	0.00	0.00	
5,264.9	19.54	347.85	5,029.0	1,412.3	-304.0	1,444.6	0.00	0.00	Base Ft Union
5,300.0	19.54	347.85	5,062.1	1,423.7	-306.4	1,456.3	0.00	0.00	
5,400.0	19.54	347.85	5,156.3	1,456.4	-313.5	1,489.8	0.00	0.00	
5,500.0	19.54	347.85	5,250.5	1,489.1	-320.5	1,523.2	0.00	0.00	
5,600.0	19.54	347.85	5,344.8	1,521.8	-327.5	1,556.7	0.00	0.00	
5,700.0	19.54	347.85	5,439.0	1,554.5	-334.6	1,590.1	0.00	0.00	
5,713.5	19.54	347.85	5,451.7	1,558.9	-335.5	1,594.6	0.00	0.00	Start Drop -1.50
5,795.2	18.31	347.85	5,529.0	1,584.8	-341.1	1,621.1	1.50	-1.50	Ohio Creek
5,800.0	18.24	347.85	5,533.6	1,586.3	-341.4	1,622.6	1.50	-1.50	
5,900.0	16.74	347.85	5,629.0	1,615.7	-347.7	1,652.7	1.50	-1.50	
6,000.0	15.24	347.85	5,725.1	1,642.6	-353.5	1,680.2	1.50	-1.50	
6,004.0	15.18	347.85	5,729.0	1,643.6	-353.8	1,681.3	1.50	-1.50	Williams Fork
6,100.0	13.74	347.85	5,821.9	1,667.0	-358.8	1,705.2	1.50	-1.50	
6,200.0	12.24	347.85	5,919.4	1,689.0	-363.5	1,727.7	1.50	-1.50	
6,300.0	10.74	347.85	6,017.3	1,708.5	-367.7	1,747.6	1.50	-1.50	
6,400.0	9.24	347.85	6,115.8	1,725.4	-371.4	1,764.9	1.50	-1.50	
6,500.0	7.74	347.85	6,214.7	1,739.9	-374.5	1,779.7	1.50	-1.50	
6,600.0	6.24	347.85	6,314.0	1,751.8	-377.0	1,791.9	1.50	-1.50	
6,700.0	4.74	347.85	6,413.5	1,761.1	-379.0	1,801.4	1.50	-1.50	
6,800.0	3.24	347.85	6,513.3	1,767.9	-380.5	1,808.4	1.50	-1.50	
6,900.0	1.74	347.85	6,613.2	1,772.1	-381.4	1,812.7	1.50	-1.50	
7,000.0	0.24	347.85	6,713.2	1,773.8	-381.8	1,814.5	1.50	-1.50	

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site:	SENW S28-T6S-R97W (F28 Pad)	North Reference:	True
Well:	Oxy 28-24D (F28 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
7,015.8	0.00	0.00	6,729.0	1,773.9	-381.8	1,814.5	1.50	-1.50	EOD; Inc=0° - Approx TOG - Oxy 28-24D (F28
7,100.0	0.00	0.00	6,813.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,200.0	0.00	0.00	6,913.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,300.0	0.00	0.00	7,013.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,400.0	0.00	0.00	7,113.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,500.0	0.00	0.00	7,213.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,600.0	0.00	0.00	7,313.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,700.0	0.00	0.00	7,413.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,800.0	0.00	0.00	7,513.2	1,773.9	-381.8	1,814.5	0.00	0.00	
7,900.0	0.00	0.00	7,613.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,000.0	0.00	0.00	7,713.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,100.0	0.00	0.00	7,813.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,200.0	0.00	0.00	7,913.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,300.0	0.00	0.00	8,013.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,365.8	0.00	0.00	8,079.0	1,773.9	-381.8	1,814.5	0.00	0.00	Cameo
8,400.0	0.00	0.00	8,113.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,500.0	0.00	0.00	8,213.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,600.0	0.00	0.00	8,313.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,700.0	0.00	0.00	8,413.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,715.8	0.00	0.00	8,429.0	1,773.9	-381.8	1,814.5	0.00	0.00	Rollins SS
8,800.0	0.00	0.00	8,513.2	1,773.9	-381.8	1,814.5	0.00	0.00	
8,865.8	0.00	0.00	8,579.0	1,773.9	-381.8	1,814.5	0.00	0.00	TD at 8865.8 - Oxy 28-24D (F28 Pad) BHL

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									
Oxy 28-24D (F28 Pad) E	0.00	0.00	8,579.0	1,773.9	-381.8	1,618,769.39	2,230,502.77	39.500578	-108.227378
- plan hits target center									
- Rectangle (sides W100.0 H200.0 D0.0)									
Oxy 28-24D (F28 Pad) T	0.00	0.00	6,729.0	1,773.9	-381.8	1,618,769.39	2,230,502.77	39.500578	-108.227378
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,506.1	2,429.0	Wasatch		0.00	
4,734.4	4,529.0	Fort Union		0.00	
5,264.9	5,029.0	Base Ft Union		0.00	
5,795.2	5,529.0	Ohio Creek		0.00	
6,004.0	5,729.0	Williams Fork		0.00	
7,015.8	6,729.0	Approx TOG		0.00	
8,365.8	8,079.0	Cameo		0.00	
8,715.8	8,429.0	Rollins SS		0.00	

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site:	SENW S28-T6S-R97W (F28 Pad)	North Reference:	True
Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300'
1,602.4	1,577.3	215.0	-46.3	EOB; Inc=19.54°
5,713.5	5,451.7	1,558.9	-335.5	Start Drop -1.50
7,015.8	6,729.0	1,773.9	-381.8	EOD; Inc=0°
8,865.8	8,579.0	1,773.9	-381.8	TD at 8865.8

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User 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:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 200.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	10/26/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	8,865.8	Plan #1 (DD)	MWD	Geolink MWD

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference	Offset	Distance		Separation	Warning
	Measured Depth (ft)	Measured Depth (ft)	Between Centres (ft)	Between Ellipses (ft)		
SENW S28-T6S-R97W (F28 Pad)						
687-28A-18 (Marathon offset) - DD - Plan #1						Out of range
Oxy 28-15D (F28 Pad) - DD - Plan #1	300.0	300.0	9.6	8.6	9.666	CC, ES
Oxy 28-15D (F28 Pad) - DD - Plan #1	400.0	400.0	10.8	9.4	8.006	SF
Oxy 28-17D (F28 Pad) - DD - Plan #1	300.0	300.0	18.8	17.8	18.864	CC
Oxy 28-17D (F28 Pad) - DD - Plan #1	400.0	400.0	18.9	17.5	14.044	ES
Oxy 28-17D (F28 Pad) - DD - Plan #1	600.0	599.7	22.8	20.7	11.029	SF
Oxy 28-18D (F28 pad) - DD - Plan #1	527.4	527.3	31.5	29.6	17.411	CC, ES
Oxy 28-18D (F28 pad) - DD - Plan #1	700.0	698.4	35.8	33.3	14.549	SF
Oxy 28-19D (F28 Pad) - DD - Plan #1	711.9	710.1	53.7	51.2	21.314	CC, ES
Oxy 28-19D (F28 Pad) - DD - Plan #1	1,000.0	995.6	63.9	60.0	16.549	SF
Oxy 28-20D (F28 Pad) - DD - Plan #1	671.4	670.0	41.1	38.8	17.422	CC
Oxy 28-20D (F28 Pad) - DD - Plan #1	700.0	698.5	41.2	38.7	16.630	ES
Oxy 28-20D (F28 Pad) - DD - Plan #1	1,100.0	1,096.5	54.7	50.3	12.386	SF
Oxy 28-21D (F28 Pad) - DD - Plan #1	645.2	644.2	28.3	26.0	12.476	CC
Oxy 28-21D (F28 Pad) - DD - Plan #1	700.0	698.9	28.4	25.9	11.364	ES
Oxy 28-21D (F28 Pad) - DD - Plan #1	1,100.0	1,098.2	34.3	29.6	7.336	SF
Oxy 28-22D (F28 Pad) - DD - Plan #1	300.0	300.0	15.0	14.0	15.081	CC, ES
Oxy 28-22D (F28 Pad) - DD - Plan #1	500.0	499.9	18.3	16.6	10.795	SF
Oxy 28-23D (F28 Pad) - DD - Plan #1	553.5	553.3	13.6	11.7	7.121	CC, ES
Oxy 28-23D (F28 Pad) - DD - Plan #1	700.0	699.7	15.6	13.2	6.361	SF
Oxy 28-25D (F28 Pad) - DD - Plan #1	435.1	434.7	46.0	44.5	31.261	CC, ES
Oxy 28-25D (F28 Pad) - DD - Plan #1	700.0	695.2	56.5	54.0	22.920	SF
Oxy 28-26D (F28 Pad) - DD - Plan #1	447.5	446.7	60.4	58.9	39.908	CC, ES
Oxy 28-26D (F28 Pad) - DD - Plan #1	800.0	791.5	77.8	75.0	26.948	SF
Oxy 28-27D (F28 Pad) - DD - Plan #1	456.4	455.2	75.1	73.5	48.592	CC, ES
Oxy 28-27D (F28 Pad) - DD - Plan #1	1,000.0	983.1	114.6	110.7	29.585	SF
Oxy 28-28D (F28 Pad) - DD - Plan #1	461.9	460.4	90.5	88.9	57.849	CC
Oxy 28-28D (F28 Pad) - DD - Plan #1	500.0	497.6	90.6	88.9	53.336	ES
Oxy 28-28D (F28 Pad) - DD - Plan #1	1,300.0	1,267.1	177.5	171.6	30.401	SF
Oxy 28-29D (F28 Pad) - DD - Plan #1	472.6	470.7	105.2	103.6	65.711	CC
Oxy 28-29D (F28 Pad) - DD - Plan #1	500.0	497.4	105.3	103.6	62.012	ES
Oxy 28-29D (F28 Pad) - DD - Plan #1	1,400.0	1,363.8	194.1	187.4	28.749	SF
Oxy 28-30D (F28 Pad) - DD - Plan #1	200.0	200.0	105.6	104.9	163.470	CC, ES
Oxy 28-30D (F28 Pad) - DD - Plan #1	1,300.0	1,258.6	199.0	193.0	32.952	SF
Oxy 28-31D (F28 Pad) - DD - Plan #1	300.0	300.0	90.1	89.1	90.571	CC, ES
Oxy 28-31D (F28 Pad) - DD - Plan #1	1,500.0	1,464.0	185.9	177.9	23.229	SF
Oxy 28-32D (F28 Pad) - DD - Plan #1	200.0	200.0	75.1	74.5	116.305	CC, ES
Oxy 28-32D (F28 Pad) - DD - Plan #1	1,600.0	1,560.2	193.4	184.2	20.936	SF

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													SENW S28-T6S-R97W (F28 Pad) - Oxy 28-15D (F28 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
(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	-161.17	-9.1	-3.1	9.6								
100.0	100.0	100.0	100.0	0.1	0.1	-161.17	-9.1	-3.1	9.6	9.3	0.30	32.411					
200.0	200.0	200.0	200.0	0.3	0.3	-161.17	-9.1	-3.1	9.6	9.0	0.65	14.891					
300.0	300.0	300.0	300.0	0.5	0.5	-161.17	-9.1	-3.1	9.6	8.6	0.99	9.666	CC, ES				
400.0	400.0	400.0	400.0	0.7	0.7	-152.60	-9.1	-3.1	10.8	9.4	1.34	8.006	SF				
500.0	499.9	499.9	499.9	0.9	0.8	-159.81	-9.1	-3.1	14.4	12.7	1.69	8.482					
600.0	599.7	599.3	599.3	1.1	1.0	-168.46	-10.1	-2.2	21.6	19.5	2.04	10.576					
700.0	699.3	697.9	697.8	1.3	1.2	-175.95	-12.9	0.4	33.7	31.3	2.38	14.141					
800.0	798.6	795.4	795.1	1.5	1.4	179.05	-17.5	4.6	50.9	48.2	2.73	18.670					
900.0	897.5	891.5	890.8	1.8	1.6	175.79	-23.9	10.5	73.1	70.0	3.07	23.814					
1,000.0	996.1	985.8	984.5	2.1	1.8	173.60	-31.8	17.8	100.1	96.7	3.41	29.357					
1,100.0	1,094.2	1,078.0	1,075.8	2.5	2.1	172.05	-41.3	26.4	131.8	128.0	3.75	35.157					
1,200.0	1,191.7	1,167.9	1,164.5	2.9	2.3	170.90	-52.0	36.3	168.1	164.0	4.09	41.124					

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-17D (F28 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	-105.77	-5.1	-18.1	18.8					
100.0	100.0	100.0	100.0	0.1	0.1	-105.77	-5.1	-18.1	18.8	18.5	0.30	63.251		
200.0	200.0	200.0	200.0	0.3	0.3	-105.77	-5.1	-18.1	18.8	18.1	0.65	29.061		
300.0	300.0	300.0	300.0	0.5	0.5	-105.77	-5.1	-18.1	18.8	17.8	0.99	18.864 CC		
400.0	400.0	400.0	400.0	0.7	0.7	-97.58	-5.1	-18.1	18.9	17.5	1.35	14.044 ES		
500.0	499.9	499.9	499.9	0.9	0.8	-108.90	-5.1	-18.1	19.8	18.1	1.70	11.629		
600.0	599.7	599.7	599.7	1.1	1.0	-124.60	-5.1	-18.1	22.8	20.7	2.07	11.029 SF		
700.0	699.3	698.5	698.5	1.3	1.2	-139.29	-6.2	-18.7	30.3	27.8	2.42	12.495		
800.0	798.6	796.5	796.4	1.5	1.4	-148.85	-9.4	-20.8	43.6	40.9	2.77	15.750		
900.0	897.5	893.3	893.0	1.8	1.6	-154.09	-14.6	-24.1	62.4	59.3	3.12	19.995		
1,000.0	996.1	989.6	988.9	2.1	1.8	-156.99	-21.6	-28.6	85.8	82.3	3.47	24.711		
1,100.0	1,094.2	1,086.0	1,085.0	2.5	2.0	-159.02	-28.9	-33.2	112.0	108.2	3.83	29.272		
1,200.0	1,191.7	1,181.7	1,180.3	2.9	2.2	-160.60	-36.2	-37.8	140.7	136.5	4.18	33.651		
1,300.0	1,288.6	1,276.7	1,274.9	3.4	2.4	-161.87	-43.4	-42.4	171.9	167.3	4.54	37.892		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-18D (F28 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	-90.00	0.0	-32.2	32.2					
100.0	100.0	100.0	100.0	0.1	0.1	-90.00	0.0	-32.2	32.2	31.9	0.30	108.427		
200.0	200.0	200.0	200.0	0.3	0.3	-90.00	0.0	-32.2	32.2	31.5	0.65	49.818		
300.0	300.0	300.0	300.0	0.5	0.5	-90.00	0.0	-32.2	32.2	31.2	0.99	32.338		
400.0	400.0	400.0	400.0	0.7	0.7	-80.15	0.0	-32.2	31.9	30.6	1.35	23.727		
500.0	499.9	499.9	499.9	0.9	0.8	-87.21	0.0	-32.2	31.5	29.8	1.70	18.481		
527.4	527.3	527.3	527.3	0.9	0.9	-90.00	0.0	-32.2	31.5	29.6	1.81	17.411	CC, ES	
600.0	599.7	599.7	599.7	1.1	1.0	-99.02	0.0	-32.2	31.8	29.8	2.08	15.335		
700.0	699.3	698.4	698.4	1.3	1.2	-113.78	-0.7	-33.3	35.8	33.3	2.46	14.549	SF	
800.0	798.6	796.4	796.4	1.5	1.4	-126.70	-2.6	-36.5	45.6	42.7	2.84	16.065		
900.0	897.5	894.0	893.7	1.8	1.6	-135.43	-5.8	-41.8	60.9	57.7	3.21	18.960		
1,000.0	996.1	991.9	991.4	2.1	1.7	-141.49	-9.3	-47.7	79.7	76.2	3.59	22.198		
1,100.0	1,094.2	1,089.3	1,088.5	2.5	1.9	-145.99	-12.8	-53.6	101.3	97.3	3.97	25.488		
1,200.0	1,191.7	1,186.1	1,185.1	2.9	2.1	-149.47	-16.4	-59.5	125.4	121.0	4.35	28.800		
1,300.0	1,288.6	1,282.2	1,281.0	3.4	2.3	-152.23	-19.8	-65.3	152.1	147.3	4.73	32.127		
1,400.0	1,384.9	1,377.6	1,376.1	3.8	2.5	-154.48	-23.3	-71.1	181.3	176.2	5.11	35.465		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-19D (F28 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	-72.36	18.2	-57.3	60.1					
100.0	100.0	100.0	100.0	0.1	0.1	-72.36	18.2	-57.3	60.1	59.8	0.30	202.598		
200.0	200.0	200.0	200.0	0.3	0.3	-72.36	18.2	-57.3	60.1	59.5	0.65	93.086		
300.0	300.0	300.0	300.0	0.5	0.5	-72.36	18.2	-57.3	60.1	59.1	0.99	60.424		
400.0	400.0	400.0	400.0	0.7	0.7	-61.32	18.2	-57.3	59.5	58.1	1.35	44.217		
500.0	499.9	499.9	499.9	0.9	0.8	-64.76	18.2	-57.3	57.7	56.0	1.70	33.904		
600.0	599.7	599.7	599.7	1.1	1.0	-70.94	18.2	-57.3	55.2	53.1	2.07	26.630		
700.0	699.3	698.4	698.4	1.3	1.2	-79.20	19.2	-58.1	53.7	51.3	2.47	21.762		
711.9	711.1	710.1	710.1	1.3	1.2	-80.24	19.4	-58.3	53.7	51.2	2.52	21.314	CC, ES	
800.0	798.6	797.2	797.1	1.5	1.4	-88.13	22.0	-60.7	54.7	51.8	2.90	18.862		
900.0	897.5	896.2	896.0	1.8	1.6	-96.82	26.7	-64.9	58.3	54.9	3.37	17.293		
1,000.0	996.1	995.6	995.1	2.1	1.8	-105.96	32.0	-69.6	63.9	60.0	3.86	16.549	SF	
1,100.0	1,094.2	1,094.6	1,093.8	2.5	2.0	-115.32	37.3	-74.3	72.0	67.6	4.35	16.555		
1,200.0	1,191.7	1,193.3	1,192.2	2.9	2.1	-124.08	42.5	-78.9	83.1	78.2	4.81	17.274		
1,300.0	1,288.6	1,291.5	1,290.2	3.4	2.4	-131.78	47.8	-83.6	97.4	92.1	5.23	18.606		
1,400.0	1,384.9	1,389.2	1,387.6	3.8	2.6	-138.26	52.9	-88.2	114.9	109.3	5.63	20.433		
1,500.0	1,480.4	1,486.3	1,484.5	4.4	2.8	-143.59	58.1	-92.8	135.7	129.7	5.99	22.643		
1,600.0	1,575.0	1,582.7	1,580.7	5.0	3.0	-147.95	63.2	-97.4	159.5	153.2	6.34	25.147		
1,700.0	1,669.3	1,678.8	1,676.5	5.5	3.2	-151.52	68.4	-101.9	185.2	178.5	6.69	27.693		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-20D (F28 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				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-71.79	14.2	-43.2	45.5					
100.0	100.0	100.0	100.0	0.1	0.1	-71.79	14.2	-43.2	45.5	45.2	0.30	153.194		
200.0	200.0	200.0	200.0	0.3	0.3	-71.79	14.2	-43.2	45.5	44.8	0.65	70.387		
300.0	300.0	300.0	300.0	0.5	0.5	-71.79	14.2	-43.2	45.5	44.5	0.99	45.690		
400.0	400.0	400.0	400.0	0.7	0.7	-61.09	14.2	-43.2	44.8	43.5	1.35	33.313		
500.0	499.9	499.9	499.9	0.9	0.8	-65.69	14.2	-43.2	43.0	41.3	1.70	25.295		
600.0	599.7	599.1	599.1	1.1	1.0	-72.53	15.3	-43.8	41.5	39.4	2.07	19.997		
671.4	670.8	670.0	669.9	1.2	1.1	-77.89	17.6	-44.9	41.1	38.8	2.36	17.422 CC		
700.0	699.3	698.5	698.4	1.3	1.2	-80.10	18.8	-45.5	41.2	38.7	2.48	16.630 ES		
800.0	798.6	797.9	797.6	1.5	1.4	-87.81	24.5	-48.5	42.3	39.4	2.92	14.474		
900.0	897.5	897.6	896.9	1.8	1.6	-95.65	32.2	-52.4	44.7	41.3	3.41	13.116		
1,000.0	996.1	997.2	996.1	2.1	1.8	-105.29	40.0	-56.5	48.6	44.7	3.92	12.386		
1,100.0	1,094.2	1,096.5	1,095.1	2.5	2.0	-115.79	47.8	-60.5	54.7	50.3	4.41	12.386 SF		
1,200.0	1,191.7	1,195.6	1,193.7	2.9	2.2	-125.85	55.5	-64.5	63.7	58.9	4.86	13.126		
1,300.0	1,288.6	1,294.2	1,292.0	3.4	2.5	-134.62	63.3	-68.5	76.1	70.9	5.24	14.518		
1,400.0	1,384.9	1,392.4	1,389.8	3.8	2.7	-141.82	71.0	-72.5	91.8	86.2	5.59	16.435		
1,500.0	1,480.4	1,490.0	1,487.1	4.4	2.9	-147.55	78.6	-76.4	110.8	104.9	5.91	18.752		
1,600.0	1,575.0	1,587.1	1,583.7	5.0	3.1	-152.09	86.2	-80.3	132.8	126.5	6.21	21.368		
1,700.0	1,669.3	1,683.8	1,680.1	5.5	3.3	-155.66	93.8	-84.3	156.6	150.1	6.52	24.001		
1,800.0	1,763.5	1,780.5	1,776.4	6.1	3.6	-158.29	101.4	-88.2	180.8	174.0	6.85	26.418		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-21D (F28 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	-72.61	9.1	-29.1	30.5					
100.0	100.0	100.0	100.0	0.1	0.1	-72.61	9.1	-29.1	30.5	30.2	0.30	102.660		
200.0	200.0	200.0	200.0	0.3	0.3	-72.61	9.1	-29.1	30.5	29.8	0.65	47.168		
300.0	300.0	300.0	300.0	0.5	0.5	-72.61	9.1	-29.1	30.5	29.5	0.99	30.618		
400.0	400.0	400.0	400.0	0.7	0.7	-62.65	9.1	-29.1	29.8	28.5	1.35	22.182		
500.0	499.9	499.6	499.5	0.9	0.8	-67.43	10.3	-29.5	28.9	27.2	1.70	16.950		
600.0	599.7	599.2	599.1	1.1	1.0	-72.72	14.0	-30.7	28.4	26.3	2.08	13.626		
645.2	644.7	644.2	644.1	1.2	1.1	-75.22	16.5	-31.5	28.3	26.0	2.27	12.476 CC		
700.0	699.3	698.9	698.6	1.3	1.2	-78.31	20.2	-32.8	28.4	25.9	2.50	11.364 ES		
800.0	798.6	798.7	797.9	1.5	1.4	-83.95	28.8	-35.7	29.0	26.0	2.97	9.760		
900.0	897.5	898.5	897.1	1.8	1.7	-89.35	39.9	-39.4	30.1	26.6	3.50	8.598		
1,000.0	996.1	998.4	996.0	2.1	1.9	-95.47	52.9	-43.7	31.8	27.7	4.09	7.774		
1,100.0	1,094.2	1,098.2	1,094.9	2.5	2.2	-105.00	65.9	-48.1	34.3	29.6	4.68	7.336 SF		
1,200.0	1,191.7	1,197.8	1,193.6	2.9	2.5	-116.53	78.9	-52.4	38.8	33.6	5.20	7.456		
1,300.0	1,288.6	1,297.2	1,292.0	3.4	2.8	-127.99	91.9	-56.8	46.1	40.5	5.61	8.219		
1,400.0	1,384.9	1,396.2	1,390.1	3.8	3.1	-137.88	104.9	-61.1	56.6	50.7	5.90	9.588		
1,500.0	1,480.4	1,494.9	1,487.8	4.4	3.3	-145.73	117.8	-65.4	70.4	64.3	6.15	11.458		
1,600.0	1,575.0	1,593.1	1,585.0	5.0	3.6	-151.74	130.6	-69.7	87.4	81.1	6.38	13.710		
1,700.0	1,669.3	1,691.0	1,682.0	5.5	3.9	-156.16	143.4	-74.0	106.3	99.7	6.63	16.038		
1,800.0	1,763.5	1,788.9	1,779.0	6.1	4.2	-159.25	156.2	-78.3	125.7	118.7	6.91	18.179		
1,900.0	1,857.8	1,886.8	1,876.0	6.7	4.5	-161.51	169.0	-82.6	145.2	138.0	7.21	20.133		
2,000.0	1,952.0	1,984.8	1,973.0	7.3	4.8	-163.23	181.8	-86.9	165.0	157.5	7.53	21.915		
2,100.0	2,046.3	2,082.7	2,070.0	7.9	5.1	-164.58	194.6	-91.1	184.8	177.0	7.85	23.540		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-22D (F28 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		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	109.87	-5.1	14.1	15.0					
100.0	100.0	100.0	100.0	0.1	0.1	109.87	-5.1	14.1	15.0	14.7	50.566			
200.0	200.0	200.0	200.0	0.3	0.3	109.87	-5.1	14.1	15.0	14.4	0.65	23.233		
300.0	300.0	300.0	300.0	0.5	0.5	109.87	-5.1	14.1	15.0	14.0	0.99	15.081 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	126.05	-5.1	14.1	15.7	14.4	1.34	11.702		
500.0	499.9	499.9	499.9	0.9	0.8	135.99	-5.1	14.1	18.3	16.6	1.70	10.795 SF		
600.0	599.7	600.2	600.2	1.1	1.0	145.30	-3.8	13.8	22.4	20.3	2.05	10.913		
700.0	699.3	700.6	700.5	1.3	1.2	151.56	0.1	13.1	26.9	24.5	2.41	11.159		
800.0	798.6	801.1	800.8	1.5	1.4	155.94	6.5	11.8	31.6	28.8	2.77	11.419		
900.0	897.5	901.8	901.1	1.8	1.6	159.10	15.6	9.9	36.4	33.3	3.13	11.657		
1,000.0	996.1	1,002.7	1,001.2	2.1	1.9	161.47	27.3	7.6	41.4	37.9	3.49	11.863		
1,100.0	1,094.2	1,103.6	1,101.1	2.5	2.1	163.28	41.6	4.7	46.3	42.5	3.85	12.038		
1,200.0	1,191.7	1,204.7	1,200.7	2.9	2.4	164.70	58.4	1.3	51.3	47.1	4.21	12.184		
1,300.0	1,288.6	1,305.7	1,299.8	3.4	2.8	165.83	77.8	-2.7	56.4	51.8	4.58	12.316		
1,400.0	1,384.9	1,405.5	1,397.4	3.8	3.2	167.11	97.9	-6.7	63.1	58.2	4.93	12.803		
1,500.0	1,480.4	1,505.0	1,494.9	4.4	3.5	168.56	117.8	-10.8	72.4	67.2	5.27	13.749		
1,600.0	1,575.0	1,604.3	1,592.0	5.0	3.9	169.99	137.7	-14.8	84.3	78.7	5.60	15.072		
1,700.0	1,669.3	1,703.4	1,689.0	5.5	4.3	171.21	157.6	-18.8	97.6	91.7	5.94	16.442		
1,800.0	1,763.5	1,802.5	1,786.0	6.1	4.6	172.14	177.5	-22.8	111.0	104.7	6.28	17.661		
1,900.0	1,857.8	1,901.6	1,883.0	6.7	5.0	172.87	197.4	-26.8	124.4	117.7	6.63	18.754		
2,000.0	1,952.0	2,000.7	1,980.0	7.3	5.4	173.46	217.3	-30.9	137.7	130.8	6.98	19.738		
2,100.0	2,046.3	2,099.7	2,077.0	7.9	5.8	173.95	237.1	-34.9	151.1	143.8	7.33	20.629		
2,200.0	2,140.5	2,198.8	2,174.0	8.5	6.2	174.35	257.0	-38.9	164.5	156.9	7.67	21.439		
2,300.0	2,234.8	2,297.9	2,271.0	9.1	6.6	174.70	276.9	-42.9	177.9	169.9	8.02	22.178		
2,400.0	2,329.0	2,397.0	2,368.0	9.7	6.9	174.99	296.8	-46.9	191.3	183.0	8.37	22.857		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-23D (F28 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	-71.17	5.1	-15.0	15.8					
100.0	100.0	100.0	100.0	0.1	0.1	-71.17	5.1	-15.0	15.8	15.5	0.30	53.258		
200.0	200.0	200.0	200.0	0.3	0.3	-71.17	5.1	-15.0	15.8	15.2	0.65	24.470		
300.0	300.0	300.0	300.0	0.5	0.5	-71.17	5.1	-15.0	15.8	14.8	0.99	15.884		
400.0	400.0	400.0	400.0	0.7	0.7	-63.28	5.1	-15.0	15.2	13.8	1.35	11.278		
500.0	499.9	499.9	499.9	0.9	0.8	-77.94	5.1	-15.0	13.9	12.2	1.70	8.134		
553.5	553.3	553.3	553.3	1.0	0.9	-89.59	5.5	-15.0	13.6	11.7	1.90	7.121	CC, ES	
600.0	599.7	599.8	599.7	1.1	1.0	-99.76	6.4	-15.3	13.8	11.7	2.08	6.635		
700.0	699.3	699.7	699.6	1.3	1.2	-118.95	10.2	-16.2	15.6	13.2	2.46	6.361	SF	
800.0	798.6	799.9	799.5	1.5	1.4	-132.72	16.5	-17.7	18.9	16.0	2.84	6.650		
900.0	897.5	900.1	899.4	1.8	1.6	-141.95	25.4	-19.9	22.9	19.7	3.22	7.126		
1,000.0	996.1	1,000.5	999.1	2.1	1.9	-148.18	36.9	-22.7	27.4	23.8	3.59	7.626		
1,100.0	1,094.2	1,101.0	1,098.6	2.5	2.1	-152.49	50.9	-26.1	32.1	28.2	3.97	8.092		
1,200.0	1,191.7	1,201.7	1,197.8	2.9	2.4	-155.58	67.5	-30.2	37.0	32.7	4.35	8.504		
1,300.0	1,288.6	1,302.5	1,296.6	3.4	2.8	-157.84	86.7	-34.8	42.0	37.2	4.74	8.860		
1,400.0	1,384.9	1,403.5	1,395.1	3.8	3.2	-159.53	108.4	-40.1	47.0	41.9	5.13	9.162		
1,500.0	1,480.4	1,504.6	1,493.0	4.4	3.6	-160.81	132.7	-46.0	52.1	46.5	5.53	9.414		
1,600.0	1,575.0	1,605.0	1,589.8	5.0	4.1	-161.91	158.9	-52.4	57.5	51.6	5.93	9.699		
1,700.0	1,669.3	1,704.8	1,685.8	5.5	4.6	-163.12	185.3	-58.9	64.0	57.7	6.32	10.126		
1,800.0	1,763.5	1,804.6	1,781.8	6.1	5.0	-164.11	211.6	-65.3	70.6	63.9	6.71	10.511		
1,900.0	1,857.8	1,904.3	1,877.9	6.7	5.5	-164.93	237.9	-71.7	77.1	70.0	7.10	10.859		
2,000.0	1,952.0	2,004.1	1,973.9	7.3	6.0	-165.62	264.3	-78.1	83.7	76.2	7.49	11.177		
2,100.0	2,046.3	2,103.9	2,069.9	7.9	6.5	-166.21	290.6	-84.5	90.3	82.4	7.87	11.467		
2,200.0	2,140.5	2,203.7	2,165.9	8.5	7.0	-166.72	316.9	-90.9	96.9	88.6	8.25	11.733		
2,300.0	2,234.8	2,303.5	2,262.0	9.1	7.5	-167.16	343.2	-97.3	103.4	94.8	8.64	11.977		
2,400.0	2,329.0	2,403.2	2,358.0	9.7	8.0	-167.55	369.6	-103.7	110.0	101.0	9.02	12.202		
2,500.0	2,423.2	2,503.0	2,454.0	10.3	8.5	-167.90	395.9	-110.2	116.6	107.2	9.40	12.411		
2,600.0	2,517.5	2,602.8	2,550.1	10.9	9.0	-168.21	422.2	-116.6	123.2	113.5	9.78	12.604		
2,700.0	2,611.7	2,702.6	2,646.1	11.5	9.5	-168.49	448.6	-123.0	129.9	119.7	10.16	12.784		
2,800.0	2,706.0	2,802.4	2,742.1	12.2	10.0	-168.74	474.9	-129.4	136.5	125.9	10.54	12.952		
2,900.0	2,800.2	2,902.1	2,838.2	12.8	10.5	-168.97	501.2	-135.8	143.1	132.2	10.92	13.109		
3,000.0	2,894.5	3,001.9	2,934.2	13.4	11.0	-169.18	527.5	-142.2	149.7	138.4	11.29	13.256		
3,100.0	2,988.7	3,101.7	3,030.2	14.0	11.5	-169.37	553.9	-148.6	156.3	144.6	11.67	13.393		
3,200.0	3,082.9	3,201.5	3,126.2	14.6	12.0	-169.54	580.2	-155.1	162.9	150.9	12.05	13.523		
3,300.0	3,177.2	3,301.3	3,222.3	15.2	12.5	-169.70	606.5	-161.5	169.6	157.1	12.43	13.645		
3,400.0	3,271.4	3,401.0	3,318.3	15.8	13.0	-169.85	632.9	-167.9	176.2	163.4	12.80	13.760		
3,500.0	3,365.7	3,500.8	3,414.3	16.4	13.5	-169.99	659.2	-174.3	182.8	169.6	13.18	13.869		
3,600.0	3,459.9	3,600.6	3,510.4	17.0	14.0	-170.12	685.5	-180.7	189.4	175.9	13.56	13.972		
3,700.0	3,554.2	3,700.4	3,606.4	17.6	14.5	-170.24	711.8	-187.1	196.1	182.1	13.94	14.069		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												SENW S28-T6S-R97W (F28 Pad) - Oxy 28-25D (F28 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning				
(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	-85.05	4.0	-46.3	46.5								
100.0	100.0	100.0	100.0	0.1	0.1	-85.05	4.0	-46.3	46.5	46.2	0.30	156.566					
200.0	200.0	200.0	200.0	0.3	0.3	-85.05	4.0	-46.3	46.5	45.8	0.65	71.936					
300.0	300.0	300.0	300.0	0.5	0.5	-85.05	4.0	-46.3	46.5	45.5	0.99	46.695					
400.0	400.0	400.0	400.0	0.7	0.7	-74.47	4.0	-46.3	46.1	44.7	1.35	34.257					
435.1	435.1	434.7	434.7	0.7	0.7	-75.81	4.0	-46.4	46.0	44.5	1.47	31.261	CC, ES				
500.0	499.9	498.8	498.7	0.9	0.8	-79.58	3.7	-47.5	46.4	44.7	1.70	27.299					
600.0	599.7	597.2	597.1	1.1	1.0	-87.91	2.7	-51.2	49.6	47.5	2.07	23.911					
700.0	699.3	695.2	694.9	1.3	1.2	-97.54	1.0	-57.3	56.5	54.0	2.47	22.920	SF				
800.0	798.6	792.5	791.8	1.5	1.4	-106.44	-1.3	-65.7	67.9	65.0	2.88	23.595					
900.0	897.5	888.9	887.6	1.8	1.7	-113.61	-4.2	-76.4	83.9	80.6	3.31	25.322					
1,000.0	996.1	984.2	982.0	2.1	1.9	-118.97	-7.7	-89.3	104.3	100.5	3.78	27.619					
1,100.0	1,094.2	1,078.3	1,074.8	2.5	2.2	-122.84	-11.7	-104.2	128.9	124.6	4.27	30.159					
1,200.0	1,191.7	1,171.0	1,165.8	2.9	2.5	-125.63	-16.3	-121.1	157.3	152.5	4.80	32.741					
1,300.0	1,288.6	1,262.1	1,254.8	3.4	2.9	-127.62	-21.4	-139.8	189.4	184.0	5.37	35.251					

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-26D (F28 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	-81.43	9.1	-60.4	61.1					
100.0	100.0	100.0	100.0	0.1	0.1	-81.43	9.1	-60.4	61.1	60.8	0.30	205.840		
200.0	200.0	200.0	200.0	0.3	0.3	-81.43	9.1	-60.4	61.1	60.4	0.65	94.575		
300.0	300.0	300.0	300.0	0.5	0.5	-81.43	9.1	-60.4	61.1	60.1	0.99	61.391		
400.0	400.0	400.0	400.0	0.7	0.7	-70.44	9.1	-60.4	60.6	59.3	1.35	45.065		
447.5	447.4	446.7	446.7	0.8	0.8	-71.85	9.1	-60.7	60.4	58.9	1.51	39.908	CC, ES	
500.0	499.9	498.4	498.4	0.9	0.8	-74.13	9.0	-61.7	60.7	59.0	1.70	35.698		
600.0	599.7	596.5	596.4	1.1	1.0	-80.21	8.7	-65.4	63.1	61.0	2.07	30.467		
700.0	699.3	694.3	694.0	1.3	1.2	-87.73	8.2	-71.7	68.6	66.1	2.47	27.821		
800.0	798.6	791.5	790.8	1.5	1.4	-95.46	7.5	-80.4	77.8	75.0	2.89	26.948	SF	
900.0	897.5	888.0	886.7	1.8	1.7	-102.42	6.6	-91.4	91.2	87.8	3.34	27.269		
1,000.0	996.1	983.6	981.4	2.1	1.9	-108.17	5.5	-104.7	108.6	104.8	3.83	28.328		
1,100.0	1,094.2	1,078.2	1,074.7	2.5	2.2	-112.68	4.3	-120.3	130.0	125.6	4.36	29.786		
1,200.0	1,191.7	1,171.7	1,166.4	2.9	2.5	-116.13	2.9	-137.8	155.1	150.2	4.94	31.415		
1,300.0	1,288.6	1,263.8	1,256.5	3.4	2.9	-118.74	1.3	-157.3	183.8	178.2	5.56	33.076		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-27D (F28 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	-79.20	14.2	-74.5	75.8				
100.0	100.0	100.0	100.0	0.1	0.1	-79.20	14.2	-74.5	75.8	75.5	0.30	255.618	
200.0	200.0	200.0	200.0	0.3	0.3	-79.20	14.2	-74.5	75.8	75.2	0.65	117.446	
300.0	300.0	300.0	300.0	0.5	0.5	-79.20	14.2	-74.5	75.8	74.8	0.99	76.237	
400.0	400.0	400.0	400.0	0.7	0.7	-67.98	14.2	-74.5	75.3	74.0	1.35	56.010	
456.4	456.3	455.2	455.2	0.8	0.8	-69.31	14.3	-74.9	75.1	73.5	1.54	48.592	CC, ES
500.0	499.9	498.0	498.0	0.9	0.8	-70.75	14.4	-75.7	75.2	73.5	1.70	44.282	
600.0	599.7	595.8	595.7	1.1	1.0	-75.22	14.8	-79.5	77.2	75.1	2.07	37.310	
700.0	699.3	693.4	693.1	1.3	1.2	-80.89	15.6	-85.7	81.7	79.2	2.46	33.158	
800.0	798.6	790.5	789.9	1.5	1.4	-87.07	16.6	-94.3	89.2	86.3	2.89	30.855	
900.0	897.5	887.2	885.8	1.8	1.7	-93.10	18.0	-105.3	100.1	96.7	3.36	29.806	
1,000.0	996.1	983.1	980.8	2.1	1.9	-98.50	19.6	-118.6	114.6	110.7	3.87	29.585	SF
1,100.0	1,094.2	1,078.3	1,074.7	2.5	2.2	-103.08	21.5	-134.1	132.6	128.1	4.44	29.880	
1,200.0	1,191.7	1,172.6	1,167.3	2.9	2.6	-106.82	23.7	-151.8	154.0	148.9	5.05	30.469	
1,300.0	1,288.6	1,265.9	1,258.5	3.4	2.9	-109.81	26.1	-171.5	178.6	172.9	5.72	31.205	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-28D (F28 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	-78.49	18.2	-89.5	91.3					
100.0	100.0	100.0	100.0	0.1	0.1	-78.49	18.2	-89.5	91.3	91.0	0.30	307.688		
200.0	200.0	200.0	200.0	0.3	0.3	-78.49	18.2	-89.5	91.3	90.6	0.65	141.370		
300.0	300.0	300.0	300.0	0.5	0.5	-78.49	18.2	-89.5	91.3	90.3	0.99	91.767		
400.0	400.0	400.0	400.0	0.7	0.7	-67.11	18.2	-89.5	90.8	89.4	1.35	67.483		
461.9	461.8	460.4	460.4	0.8	0.8	-68.29	18.4	-89.9	90.5	88.9	1.56	57.849 CC		
500.0	499.9	497.6	497.6	0.9	0.8	-69.26	18.6	-90.6	90.6	88.9	1.70	53.336 ES		
600.0	599.7	595.2	595.1	1.1	1.0	-72.60	19.7	-94.2	92.2	90.2	2.07	44.621		
700.0	699.3	692.5	692.2	1.3	1.2	-76.86	21.5	-100.2	96.0	93.6	2.46	39.026		
800.0	798.6	789.6	788.9	1.5	1.4	-81.65	24.1	-108.4	102.3	99.4	2.89	35.408		
900.0	897.5	886.2	884.9	1.8	1.7	-86.55	27.3	-119.0	111.4	108.0	3.36	33.111		
1,000.0	996.1	982.4	980.1	2.1	1.9	-91.23	31.3	-131.8	123.4	119.5	3.89	31.714		
1,100.0	1,094.2	1,078.0	1,074.4	2.5	2.2	-95.45	35.9	-146.8	138.5	134.0	4.48	30.924		
1,200.0	1,191.7	1,172.9	1,167.7	2.9	2.6	-99.10	41.2	-163.9	156.5	151.4	5.13	30.534		
1,300.0	1,288.6	1,267.1	1,259.7	3.4	2.9	-102.18	47.2	-183.1	177.5	171.6	5.84	30.401 SF		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-29D (F28 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		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-77.31	23.3	-103.6	106.2					
100.0	100.0	100.0	100.0	0.1	0.1	-77.31	23.3	-103.6	106.2	105.9	0.30	357.792		
200.0	200.0	200.0	200.0	0.3	0.3	-77.31	23.3	-103.6	106.2	105.5	0.65	164.391		
300.0	300.0	300.0	300.0	0.5	0.5	-77.31	23.3	-103.6	106.2	105.2	0.99	106.710		
400.0	400.0	400.0	400.0	0.7	0.7	-65.82	23.3	-103.6	105.6	104.3	1.35	78.518		
472.6	472.6	470.7	470.7	0.8	0.8	-66.98	23.6	-104.1	105.2	103.6	1.60	65.711 CC		
500.0	499.9	497.4	497.4	0.9	0.8	-67.53	23.9	-104.7	105.3	103.6	1.70	62.012 ES		
600.0	599.7	594.7	594.6	1.1	1.0	-70.07	25.7	-107.9	106.5	104.5	2.07	51.572		
700.0	699.3	691.9	691.6	1.3	1.2	-73.27	28.6	-113.4	109.6	107.1	2.46	44.554		
800.0	798.6	788.9	788.3	1.5	1.4	-76.93	32.7	-121.0	114.6	111.7	2.89	39.658		
900.0	897.5	885.7	884.4	1.8	1.7	-80.82	37.9	-130.7	121.8	118.5	3.37	36.165		
1,000.0	996.1	982.2	979.9	2.1	1.9	-84.69	44.3	-142.6	131.4	127.5	3.91	33.640		
1,100.0	1,094.2	1,078.3	1,074.7	2.5	2.2	-88.36	51.7	-156.5	143.4	138.9	4.51	31.802		
1,200.0	1,191.7	1,174.0	1,168.7	2.9	2.6	-91.71	60.3	-172.4	157.9	152.7	5.18	30.457		
1,300.0	1,288.6	1,269.1	1,261.7	3.4	2.9	-94.69	69.9	-190.3	174.8	168.9	5.93	29.471		
1,400.0	1,384.9	1,363.8	1,353.6	3.8	3.3	-97.27	80.5	-210.1	194.1	187.4	6.75	28.749 SF		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	-72.12	32.4	-100.5	105.6					
100.0	100.0	100.0	100.0	0.1	0.1	-72.12	32.4	-100.5	105.6	105.3	0.30	355.788		
200.0	200.0	200.0	200.0	0.3	0.3	-72.12	32.4	-100.5	105.6	104.9	0.65	163.470	CC, ES	
300.0	300.0	297.4	297.4	0.5	0.5	-71.93	33.1	-101.5	106.8	105.8	0.99	107.833		
400.0	400.0	394.7	394.6	0.7	0.7	-59.78	35.2	-104.6	109.8	108.5	1.34	82.136		
500.0	499.9	491.9	491.6	0.9	0.9	-60.53	38.7	-109.7	114.0	112.3	1.69	67.403		
600.0	599.7	588.9	588.2	1.1	1.1	-61.91	43.5	-116.8	119.3	117.2	2.06	57.909		
700.0	699.3	685.6	684.3	1.3	1.3	-63.81	49.7	-126.0	125.9	123.5	2.46	51.281		
800.0	798.6	782.1	779.8	1.5	1.6	-66.07	57.2	-137.1	134.0	131.1	2.89	46.360		
900.0	897.5	878.2	874.7	1.8	1.9	-68.57	66.1	-150.2	143.6	140.2	3.38	42.526		
1,000.0	996.1	974.0	968.7	2.1	2.3	-71.18	76.2	-165.2	154.8	150.8	3.93	39.431		
1,100.0	1,094.2	1,069.3	1,061.8	2.5	2.7	-73.79	87.7	-182.0	167.7	163.2	4.55	36.875		
1,200.0	1,191.7	1,164.2	1,154.0	2.9	3.1	-76.33	100.3	-200.7	182.4	177.2	5.25	34.740		
1,300.0	1,288.6	1,258.6	1,245.1	3.4	3.6	-78.73	114.2	-221.1	199.0	193.0	6.04	32.952	SF	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												SENW S28-T6S-R97W (F28 Pad) - Oxy 28-31D (F28 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning						
(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	-71.62	28.4	-85.5	90.1										
100.0	100.0	100.0	100.0	0.1	0.1	-71.62	28.4	-85.5	90.1	89.8	0.30	303.679							
200.0	200.0	200.0	200.0	0.3	0.3	-71.62	28.4	-85.5	90.1	89.5	0.65	139.528							
300.0	300.0	300.0	300.0	0.5	0.5	-71.62	28.4	-85.5	90.1	89.1	0.99	90.571	CC, ES						
400.0	400.0	397.9	397.9	0.7	0.7	-59.86	29.2	-86.5	90.6	89.3	1.34	67.551							
500.0	499.9	495.7	495.6	0.9	0.8	-60.98	31.7	-89.3	92.2	90.5	1.70	54.378							
600.0	599.7	593.4	593.2	1.1	1.0	-62.77	35.8	-94.0	94.9	92.8	2.07	45.943							
700.0	699.3	691.1	690.4	1.3	1.3	-65.09	41.6	-100.6	98.9	96.4	2.46	40.124							
800.0	798.6	788.6	787.2	1.5	1.5	-67.81	49.0	-109.0	104.1	101.2	2.90	35.881							
900.0	897.5	885.9	883.6	1.8	1.8	-70.75	57.9	-119.3	110.9	107.5	3.40	32.654							
1,000.0	996.1	983.0	979.3	2.1	2.1	-73.77	68.5	-131.3	119.2	115.3	3.96	30.125							
1,100.0	1,094.2	1,079.8	1,074.4	2.5	2.4	-76.74	80.6	-145.2	129.2	124.6	4.60	28.104							
1,200.0	1,191.7	1,176.4	1,168.7	2.9	2.8	-79.56	94.3	-160.8	140.8	135.5	5.32	26.475							
1,300.0	1,288.6	1,272.6	1,262.1	3.4	3.2	-82.18	109.5	-178.2	154.1	148.0	6.13	25.157							
1,400.0	1,384.9	1,368.5	1,354.6	3.8	3.7	-84.56	126.2	-197.2	169.2	162.2	7.02	24.091							
1,500.0	1,480.4	1,464.0	1,446.0	4.4	4.2	-86.69	144.3	-218.0	185.9	177.9	8.00	23.229	SF						

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design SENW S28-T6S-R97W (F28 Pad) - Oxy 28-32D (F28 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		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)				Between Centres (ft)	Between Ellipses (ft)	
0.0	0.0	0.0	0.0	0.0	0.0	-71.92	23.3	-71.4	75.1					
100.0	100.0	100.0	100.0	0.1	0.1	-71.92	23.3	-71.4	75.1	74.8	0.30	253.134		
200.0	200.0	200.0	200.0	0.3	0.3	-71.92	23.3	-71.4	75.1	74.5	0.65	116.305 CC, ES		
300.0	300.0	298.3	298.3	0.5	0.5	-71.45	24.2	-72.3	76.2	75.2	0.99	76.844		
400.0	400.0	396.5	396.4	0.7	0.7	-58.75	27.0	-74.8	79.0	77.6	1.34	58.833		
500.0	499.9	494.6	494.3	0.9	0.9	-58.93	31.7	-79.1	82.6	80.9	1.70	48.542		
600.0	599.7	592.6	591.9	1.1	1.1	-59.73	38.1	-85.1	87.1	85.0	2.08	41.905		
700.0	699.3	690.4	689.1	1.3	1.4	-61.03	46.4	-92.7	92.6	90.1	2.49	37.248		
800.0	798.6	788.1	785.8	1.5	1.6	-62.72	56.5	-102.1	99.1	96.2	2.94	33.758		
900.0	897.5	885.5	881.9	1.8	2.0	-64.66	68.4	-113.0	106.7	103.3	3.44	31.004		
1,000.0	996.1	982.8	977.3	2.1	2.3	-66.75	82.0	-125.6	115.4	111.4	4.01	28.748		
1,100.0	1,094.2	1,079.7	1,072.0	2.5	2.7	-68.89	97.4	-139.8	125.3	120.6	4.66	26.859		
1,200.0	1,191.7	1,176.5	1,165.9	2.9	3.1	-71.01	114.5	-155.6	136.4	131.0	5.40	25.258		
1,300.0	1,288.6	1,272.9	1,258.8	3.4	3.6	-73.06	133.3	-173.0	148.7	142.5	6.22	23.898		
1,400.0	1,384.9	1,369.0	1,350.8	3.8	4.1	-75.00	153.7	-191.9	162.4	155.2	7.14	22.744		
1,500.0	1,480.4	1,464.8	1,441.8	4.4	4.7	-76.81	175.7	-212.2	177.3	169.1	8.14	21.766		
1,600.0	1,575.0	1,560.2	1,531.7	5.0	5.3	-78.49	199.3	-234.0	193.4	184.2	9.24	20.936 SF		

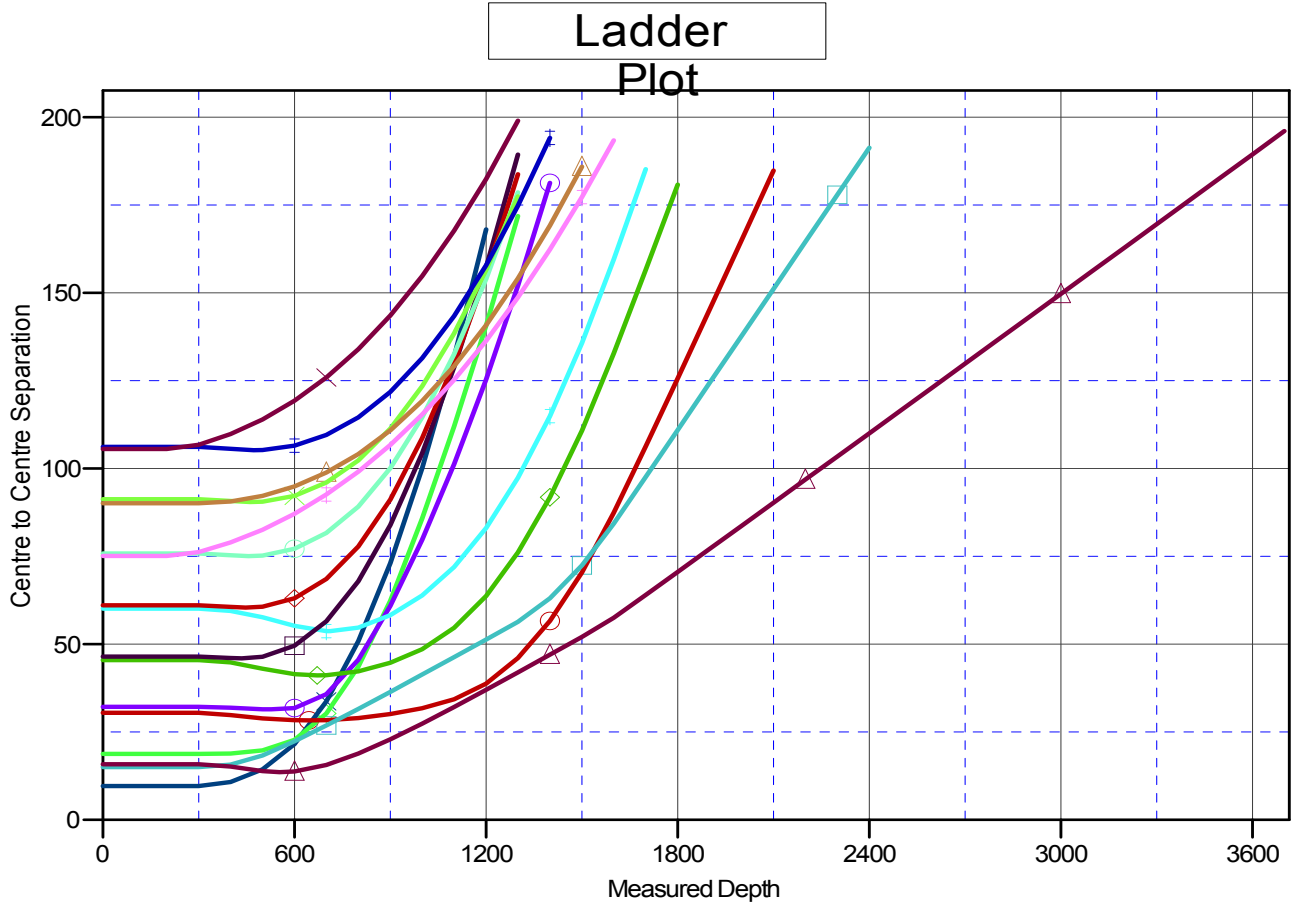
Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 28-24D (F28 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8308.0ft (Original Well Elev)
Reference Site:	SENW S28-T6S-R97W (F28 Pad)	MD Reference:	KBE @ 8308.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 28-24D (F28 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 2003.21 US Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 8308.0ft (Original Well Elev)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Oxy 28-24D (F28 Pad)
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.72°



LEGEND

✕ Oxy 28-15D (F28 Pad), DD, Plan #1 V0	⊞ Oxy 28-22D (F28 Pad), DD, Plan #1 V0	✱ Oxy 28-29D (F28 Pad), DD, Plan #1 V0
◆ Oxy 28-17D (F28 Pad), DD, Plan #1 V0	△ Oxy 28-23D (F28 Pad), DD, Plan #1 V0	✱ Oxy 28-30D (F28 Pad), DD, Plan #1 V0
○ Oxy 28-18D (F28 Pad), DD, Plan #1 V0	⊞ Oxy 28-25D (F28 Pad), DD, Plan #1 V0	⊞ Oxy 28-31D (F28 Pad), DD, Plan #1 V0
⊞ Oxy 28-19D (F28 Pad), DD, Plan #1 V0	◆ Oxy 28-26D (F28 Pad), DD, Plan #1 V0	✱ Oxy 28-32D (F28 Pad), DD, Plan #1 V0
◆ Oxy 28-20D (F28 Pad), DD, Plan #1 V0	⊞ Oxy 28-27D (F28 Pad), DD, Plan #1 V0	
⊞ Oxy 28-21D (F28 Pad), DD, Plan #1 V0	✱ Oxy 28-28D (F28 Pad), DD, Plan #1 V0	