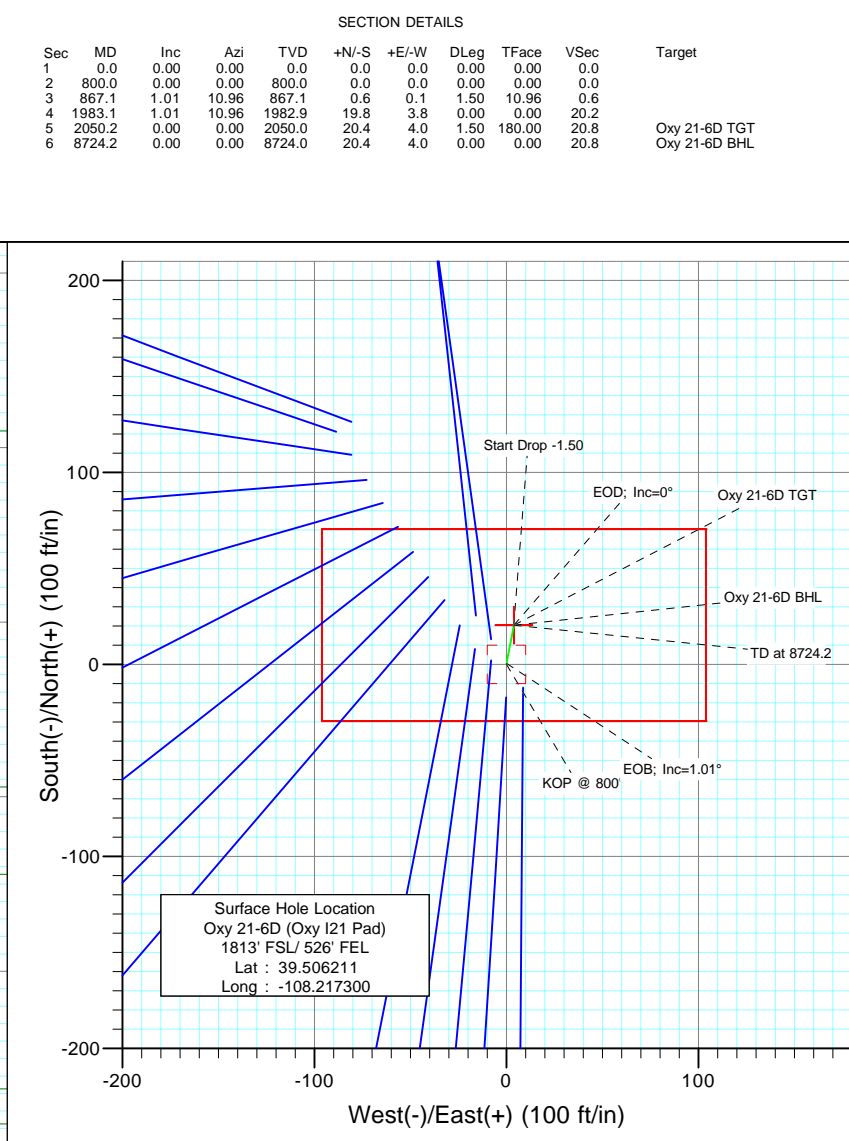
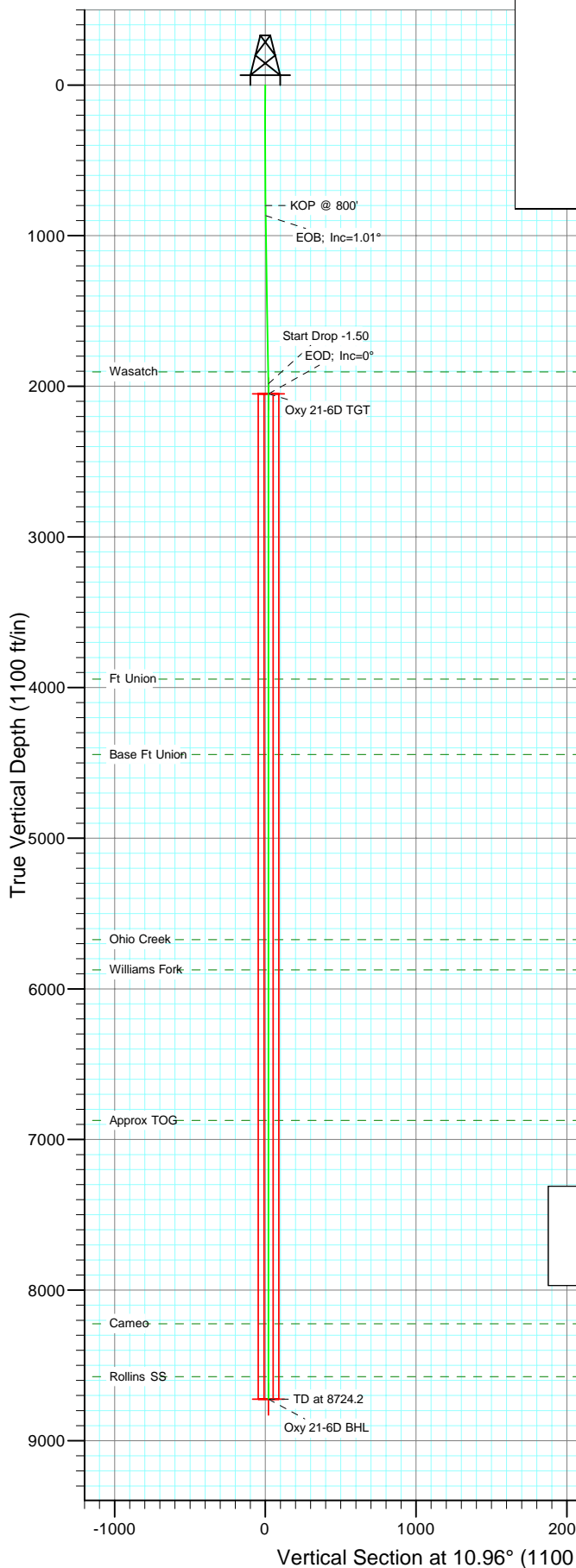


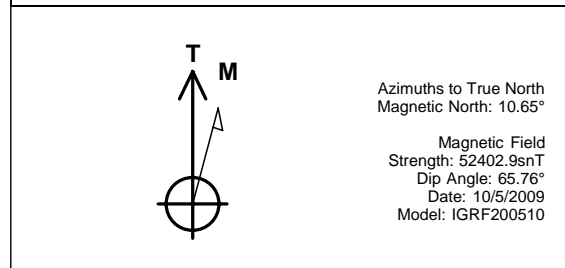


Berry Petroleum Company

Project: Garfield County
Site: NESE S21-T6S-R97W (Oxy I21 pad)
Well: Oxy 21-6D (Oxy I21 Pad)
Wellbore: DD
Design: Plan #2



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1904.0	1904.2	Wasatch
3944.0	3944.2	Ft Union
4444.0	4444.2	Base Ft Union
5674.0	5674.2	Ohio Creek
5874.0	5874.2	Williams Fork
6874.0	6874.2	Approx TOG
8224.0	8224.2	Cameo
8574.0	8574.2	Rollins SS



DESIGN DETAILS: Plan #2					
95XXX; BH					
KBE @ 8681.0ft (Original Well Elev)					
Target	Azimuth	Origin	N/S	E/W	From TVD
Oxy 21-6D BHL	10.96	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 21-6D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-6D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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		NESE S21-T6S-R97W (Oxy I21 pad)			
Site Position:		Northing:	1,620,717.92 ft	Latitude:	39.506164
From:	Lat/Long	Easting:	2,233,406.18 ft	Longitude:	-108.217300
Position Uncertainty:	0.0 ft	Slot Radius:	in	Grid Convergence:	-1.71 °

Well	Oxy 21-6D (Oxy I21 Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,620,735.03 ft	Latitude:	39.506211
	+E/-W	0.0 ft	Easting:	2,233,406.69 ft	Longitude:	-108.217300
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	8,366.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/5/2009	10.65	65.76	52,403

Design	Plan #2			
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	10.96

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	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
867.1	1.01	10.96	867.1	0.6	0.1	1.50	1.50	0.00	10.96	
1,983.1	1.01	10.96	1,982.9	19.8	3.8	0.00	0.00	0.00	0.00	
2,050.2	0.00	0.00	2,050.0	20.4	4.0	1.50	-1.50	0.00	180.00	Oxy 21-6D TGT
8,724.2	0.00	0.00	8,724.0	20.4	4.0	0.00	0.00	0.00	0.00	Oxy 21-6D BHL

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-6D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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	
330.0	0.00	0.00	330.0	0.0	0.0	0.0	0.00	0.00	
360.0	0.00	0.00	360.0	0.0	0.0	0.0	0.00	0.00	
390.0	0.00	0.00	390.0	0.0	0.0	0.0	0.00	0.00	
420.0	0.00	0.00	420.0	0.0	0.0	0.0	0.00	0.00	
450.0	0.00	0.00	450.0	0.0	0.0	0.0	0.00	0.00	
480.0	0.00	0.00	480.0	0.0	0.0	0.0	0.00	0.00	
510.0	0.00	0.00	510.0	0.0	0.0	0.0	0.00	0.00	
540.0	0.00	0.00	540.0	0.0	0.0	0.0	0.00	0.00	
570.0	0.00	0.00	570.0	0.0	0.0	0.0	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	
630.0	0.00	0.00	630.0	0.0	0.0	0.0	0.00	0.00	
660.0	0.00	0.00	660.0	0.0	0.0	0.0	0.00	0.00	
690.0	0.00	0.00	690.0	0.0	0.0	0.0	0.00	0.00	
720.0	0.00	0.00	720.0	0.0	0.0	0.0	0.00	0.00	
750.0	0.00	0.00	750.0	0.0	0.0	0.0	0.00	0.00	
780.0	0.00	0.00	780.0	0.0	0.0	0.0	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	KOP @ 800'
810.0	0.15	10.96	810.0	0.0	0.0	0.0	1.50	1.50	
840.0	0.60	10.96	840.0	0.2	0.0	0.2	1.50	1.50	
867.1	1.01	10.96	867.1	0.6	0.1	0.6	1.50	1.50	EOB; Inc=1.01°
870.0	1.01	10.96	870.0	0.6	0.1	0.6	0.00	0.00	
900.0	1.01	10.96	900.0	1.1	0.2	1.2	0.00	0.00	
930.0	1.01	10.96	930.0	1.7	0.3	1.7	0.00	0.00	
960.0	1.01	10.96	960.0	2.2	0.4	2.2	0.00	0.00	
990.0	1.01	10.96	990.0	2.7	0.5	2.7	0.00	0.00	
1,020.0	1.01	10.96	1,020.0	3.2	0.6	3.3	0.00	0.00	
1,050.0	1.01	10.96	1,050.0	3.7	0.7	3.8	0.00	0.00	
1,080.0	1.01	10.96	1,080.0	4.3	0.8	4.3	0.00	0.00	
1,110.0	1.01	10.96	1,110.0	4.8	0.9	4.9	0.00	0.00	
1,140.0	1.01	10.96	1,140.0	5.3	1.0	5.4	0.00	0.00	
1,170.0	1.01	10.96	1,169.9	5.8	1.1	5.9	0.00	0.00	
1,200.0	1.01	10.96	1,199.9	6.3	1.2	6.4	0.00	0.00	
1,230.0	1.01	10.96	1,229.9	6.8	1.3	7.0	0.00	0.00	
1,260.0	1.01	10.96	1,259.9	7.4	1.4	7.5	0.00	0.00	
1,290.0	1.01	10.96	1,289.9	7.9	1.5	8.0	0.00	0.00	
1,320.0	1.01	10.96	1,319.9	8.4	1.6	8.5	0.00	0.00	
1,350.0	1.01	10.96	1,349.9	8.9	1.7	9.1	0.00	0.00	
1,380.0	1.01	10.96	1,379.9	9.4	1.8	9.6	0.00	0.00	
1,410.0	1.01	10.96	1,409.9	9.9	1.9	10.1	0.00	0.00	
1,440.0	1.01	10.96	1,439.9	10.5	2.0	10.7	0.00	0.00	
1,470.0	1.01	10.96	1,469.9	11.0	2.1	11.2	0.00	0.00	

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-6D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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	1.01	10.96	1,499.9	11.5	2.2	11.7	0.00	0.00	
1,530.0	1.01	10.96	1,529.9	12.0	2.3	12.2	0.00	0.00	
1,560.0	1.01	10.96	1,559.9	12.5	2.4	12.8	0.00	0.00	
1,590.0	1.01	10.96	1,589.9	13.0	2.5	13.3	0.00	0.00	
1,620.0	1.01	10.96	1,619.9	13.6	2.6	13.8	0.00	0.00	
1,650.0	1.01	10.96	1,649.9	14.1	2.7	14.3	0.00	0.00	
1,680.0	1.01	10.96	1,679.9	14.6	2.8	14.9	0.00	0.00	
1,710.0	1.01	10.96	1,709.9	15.1	2.9	15.4	0.00	0.00	
1,740.0	1.01	10.96	1,739.9	15.6	3.0	15.9	0.00	0.00	
1,770.0	1.01	10.96	1,769.9	16.2	3.1	16.5	0.00	0.00	
1,800.0	1.01	10.96	1,799.9	16.7	3.2	17.0	0.00	0.00	
1,830.0	1.01	10.96	1,829.8	17.2	3.3	17.5	0.00	0.00	
1,860.0	1.01	10.96	1,859.8	17.7	3.4	18.0	0.00	0.00	
1,890.0	1.01	10.96	1,889.8	18.2	3.5	18.6	0.00	0.00	
1,904.2	1.01	10.96	1,904.0	18.5	3.6	18.8	0.00	0.00	Wasatch
1,920.0	1.01	10.96	1,919.8	18.7	3.6	19.1	0.00	0.00	
1,950.0	1.01	10.96	1,949.8	19.3	3.7	19.6	0.00	0.00	
1,980.0	1.01	10.96	1,979.8	19.8	3.8	20.1	0.00	0.00	
1,983.1	1.01	10.96	1,982.9	19.8	3.8	20.2	0.00	0.00	Start Drop -1.50
2,010.0	0.60	10.96	2,009.8	20.2	3.9	20.6	1.50	-1.50	
2,040.0	0.15	10.96	2,039.8	20.4	3.9	20.8	1.50	-1.50	
2,050.2	0.00	0.00	2,050.0	20.4	4.0	20.8	1.50	-1.50	EOD; Inc=0° - Oxy 21-6D TGT
2,070.0	0.00	0.00	2,069.8	20.4	4.0	20.8	0.00	0.00	
2,100.0	0.00	0.00	2,099.8	20.4	4.0	20.8	0.00	0.00	
2,130.0	0.00	0.00	2,129.8	20.4	4.0	20.8	0.00	0.00	
2,160.0	0.00	0.00	2,159.8	20.4	4.0	20.8	0.00	0.00	
2,190.0	0.00	0.00	2,189.8	20.4	4.0	20.8	0.00	0.00	
2,220.0	0.00	0.00	2,219.8	20.4	4.0	20.8	0.00	0.00	
2,250.0	0.00	0.00	2,249.8	20.4	4.0	20.8	0.00	0.00	
2,280.0	0.00	0.00	2,279.8	20.4	4.0	20.8	0.00	0.00	
2,310.0	0.00	0.00	2,309.8	20.4	4.0	20.8	0.00	0.00	
2,340.0	0.00	0.00	2,339.8	20.4	4.0	20.8	0.00	0.00	
2,370.0	0.00	0.00	2,369.8	20.4	4.0	20.8	0.00	0.00	
2,400.0	0.00	0.00	2,399.8	20.4	4.0	20.8	0.00	0.00	
2,430.0	0.00	0.00	2,429.8	20.4	4.0	20.8	0.00	0.00	
2,460.0	0.00	0.00	2,459.8	20.4	4.0	20.8	0.00	0.00	
2,490.0	0.00	0.00	2,489.8	20.4	4.0	20.8	0.00	0.00	

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Oxy 21-6D BHL	0.00	0.00	8,724.0	20.4	4.0	1,620,755.30	2,233,411.25	39.506267	-108.217286
- plan misses target center by 6234.2ft at 2490.0ft MD (2489.8 TVD, 20.4 N, 4.0 E)									
- Rectangle (sides W100.0 H200.0 D0.0)									
Oxy 21-6D TGT	0.00	0.00	2,050.0	20.4	4.0	1,620,755.30	2,233,411.25	39.506267	-108.217286
- plan hits target center									
- Point									

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-6D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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	0.00	0.00	2,499.8	20.4	4.0	20.8	0.00	0.00	
2,600.0	0.00	0.00	2,599.8	20.4	4.0	20.8	0.00	0.00	
2,700.0	0.00	0.00	2,699.8	20.4	4.0	20.8	0.00	0.00	
2,800.0	0.00	0.00	2,799.8	20.4	4.0	20.8	0.00	0.00	
2,900.0	0.00	0.00	2,899.8	20.4	4.0	20.8	0.00	0.00	
3,000.0	0.00	0.00	2,999.8	20.4	4.0	20.8	0.00	0.00	
3,100.0	0.00	0.00	3,099.8	20.4	4.0	20.8	0.00	0.00	
3,200.0	0.00	0.00	3,199.8	20.4	4.0	20.8	0.00	0.00	
3,300.0	0.00	0.00	3,299.8	20.4	4.0	20.8	0.00	0.00	
3,400.0	0.00	0.00	3,399.8	20.4	4.0	20.8	0.00	0.00	
3,500.0	0.00	0.00	3,499.8	20.4	4.0	20.8	0.00	0.00	
3,600.0	0.00	0.00	3,599.8	20.4	4.0	20.8	0.00	0.00	
3,700.0	0.00	0.00	3,699.8	20.4	4.0	20.8	0.00	0.00	
3,800.0	0.00	0.00	3,799.8	20.4	4.0	20.8	0.00	0.00	
3,900.0	0.00	0.00	3,899.8	20.4	4.0	20.8	0.00	0.00	
3,944.2	0.00	0.00	3,944.0	20.4	4.0	20.8	0.00	0.00	Ft Union
4,000.0	0.00	0.00	3,999.8	20.4	4.0	20.8	0.00	0.00	
4,100.0	0.00	0.00	4,099.8	20.4	4.0	20.8	0.00	0.00	
4,200.0	0.00	0.00	4,199.8	20.4	4.0	20.8	0.00	0.00	
4,300.0	0.00	0.00	4,299.8	20.4	4.0	20.8	0.00	0.00	
4,400.0	0.00	0.00	4,399.8	20.4	4.0	20.8	0.00	0.00	
4,444.2	0.00	0.00	4,444.0	20.4	4.0	20.8	0.00	0.00	Base Ft Union
4,500.0	0.00	0.00	4,499.8	20.4	4.0	20.8	0.00	0.00	
4,600.0	0.00	0.00	4,599.8	20.4	4.0	20.8	0.00	0.00	
4,700.0	0.00	0.00	4,699.8	20.4	4.0	20.8	0.00	0.00	
4,800.0	0.00	0.00	4,799.8	20.4	4.0	20.8	0.00	0.00	
4,900.0	0.00	0.00	4,899.8	20.4	4.0	20.8	0.00	0.00	
5,000.0	0.00	0.00	4,999.8	20.4	4.0	20.8	0.00	0.00	
5,100.0	0.00	0.00	5,099.8	20.4	4.0	20.8	0.00	0.00	
5,200.0	0.00	0.00	5,199.8	20.4	4.0	20.8	0.00	0.00	
5,300.0	0.00	0.00	5,299.8	20.4	4.0	20.8	0.00	0.00	
5,400.0	0.00	0.00	5,399.8	20.4	4.0	20.8	0.00	0.00	
5,500.0	0.00	0.00	5,499.8	20.4	4.0	20.8	0.00	0.00	
5,600.0	0.00	0.00	5,599.8	20.4	4.0	20.8	0.00	0.00	
5,674.2	0.00	0.00	5,674.0	20.4	4.0	20.8	0.00	0.00	Ohio Creek
5,700.0	0.00	0.00	5,699.8	20.4	4.0	20.8	0.00	0.00	
5,800.0	0.00	0.00	5,799.8	20.4	4.0	20.8	0.00	0.00	
5,874.2	0.00	0.00	5,874.0	20.4	4.0	20.8	0.00	0.00	Williams Fork
5,900.0	0.00	0.00	5,899.8	20.4	4.0	20.8	0.00	0.00	
6,000.0	0.00	0.00	5,999.8	20.4	4.0	20.8	0.00	0.00	
6,100.0	0.00	0.00	6,099.8	20.4	4.0	20.8	0.00	0.00	
6,200.0	0.00	0.00	6,199.8	20.4	4.0	20.8	0.00	0.00	
6,300.0	0.00	0.00	6,299.8	20.4	4.0	20.8	0.00	0.00	
6,400.0	0.00	0.00	6,399.8	20.4	4.0	20.8	0.00	0.00	
6,500.0	0.00	0.00	6,499.8	20.4	4.0	20.8	0.00	0.00	
6,600.0	0.00	0.00	6,599.8	20.4	4.0	20.8	0.00	0.00	
6,700.0	0.00	0.00	6,699.8	20.4	4.0	20.8	0.00	0.00	
6,800.0	0.00	0.00	6,799.8	20.4	4.0	20.8	0.00	0.00	
6,874.2	0.00	0.00	6,874.0	20.4	4.0	20.8	0.00	0.00	Approx TOG
6,900.0	0.00	0.00	6,899.8	20.4	4.0	20.8	0.00	0.00	
7,000.0	0.00	0.00	6,999.8	20.4	4.0	20.8	0.00	0.00	
7,100.0	0.00	0.00	7,099.8	20.4	4.0	20.8	0.00	0.00	

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-6D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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	0.00	0.00	7,199.8	20.4	4.0	20.8	0.00	0.00	
7,300.0	0.00	0.00	7,299.8	20.4	4.0	20.8	0.00	0.00	
7,400.0	0.00	0.00	7,399.8	20.4	4.0	20.8	0.00	0.00	
7,500.0	0.00	0.00	7,499.8	20.4	4.0	20.8	0.00	0.00	
7,600.0	0.00	0.00	7,599.8	20.4	4.0	20.8	0.00	0.00	
7,700.0	0.00	0.00	7,699.8	20.4	4.0	20.8	0.00	0.00	
7,800.0	0.00	0.00	7,799.8	20.4	4.0	20.8	0.00	0.00	
7,900.0	0.00	0.00	7,899.8	20.4	4.0	20.8	0.00	0.00	
8,000.0	0.00	0.00	7,999.8	20.4	4.0	20.8	0.00	0.00	
8,100.0	0.00	0.00	8,099.8	20.4	4.0	20.8	0.00	0.00	
8,200.0	0.00	0.00	8,199.8	20.4	4.0	20.8	0.00	0.00	
8,224.2	0.00	0.00	8,224.0	20.4	4.0	20.8	0.00	0.00	Cameo
8,300.0	0.00	0.00	8,299.8	20.4	4.0	20.8	0.00	0.00	
8,400.0	0.00	0.00	8,399.8	20.4	4.0	20.8	0.00	0.00	
8,500.0	0.00	0.00	8,499.8	20.4	4.0	20.8	0.00	0.00	
8,574.2	0.00	0.00	8,574.0	20.4	4.0	20.8	0.00	0.00	Rollins SS
8,600.0	0.00	0.00	8,599.8	20.4	4.0	20.8	0.00	0.00	
8,700.0	0.00	0.00	8,699.8	20.4	4.0	20.8	0.00	0.00	
8,724.2	0.00	0.00	8,724.0	20.4	4.0	20.8	0.00	0.00	TD at 8724.2 - Oxy 21-6D BHL

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Oxy 21-6D BHL	0.00	0.00	8,724.0	20.4	4.0	1,620,755.30	2,233,411.25	39.506267	-108.217286
- hit/miss target									
- Shape									
- plan hits target center									
- Rectangle (sides W100.0 H200.0 D0.0)									
Oxy 21-6D TGT	0.00	0.00	2,050.0	20.4	4.0	1,620,755.30	2,233,411.25	39.506267	-108.217286
- plan misses target center by 449.8ft at 2500.0ft MD (2499.8 TVD, 20.4 N, 4.0 E)									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,904.2	1,904.0	Wasatch		0.00		
3,944.2	3,944.0	Ft Union		0.00		
4,444.2	4,444.0	Base Ft Union		0.00		
5,674.2	5,674.0	Ohio Creek		0.00		
5,874.2	5,874.0	Williams Fork		0.00		
6,874.2	6,874.0	Approx TOG		0.00		
8,224.2	8,224.0	Cameo		0.00		
8,574.2	8,574.0	Rollins SS		0.00		

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-6D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
800.0	800.0	0.0	0.0	KOP @ 800'
867.1	867.1	0.6	0.1	EOB; Inc=1.01°
1,983.1	1,982.9	19.8	3.8	Start Drop -1.50
2,050.2	2,050.0	20.4	4.0	EOD; Inc=0°
8,724.2	8,724.0	20.4	4.0	TD at 8724.2

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
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	11/2/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	8,724.1	Plan #2 (DD)	MWD	Geolink MWD	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

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						
NESE S21-T6S-R97W (Oxy I21 pad)						
Oxy 21-10D (Oxy I21 Pad) - DD - Plan #1	661.8	361.8	60.9	59.7	49.971	CC
Oxy 21-10D (Oxy I21 Pad) - DD - Plan #1	700.0	400.0	61.0	59.6	44.915	ES
Oxy 21-10D (Oxy I21 Pad) - DD - Plan #1	1,100.0	795.0	75.1	72.1	25.683	SF
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	600.0	300.0	76.1	75.1	76.515	CC
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	900.0	599.1	76.7	74.7	36.977	ES
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	1,200.0	894.0	89.7	86.4	27.497	SF
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	600.0	300.0	91.3	90.3	91.761	CC
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	700.0	399.5	91.5	90.2	68.097	ES
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	1,300.0	988.3	119.5	115.9	32.859	SF
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	600.0	300.0	105.9	104.9	106.465	CC, ES
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	1,300.0	984.8	139.3	135.7	38.623	SF
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1	600.0	300.0	120.6	119.6	121.233	CC, ES
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1	1,400.0	1,075.2	175.1	171.2	44.528	SF
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1	600.0	300.0	135.8	134.8	136.545	CC, ES
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1	1,400.0	1,069.6	197.1	193.2	50.963	SF
Oxy 21-16D (Oxy I21 Pad) - DD - Plan #1	600.0	300.0	150.0	149.0	150.735	CC, ES
Oxy 21-16D (Oxy I21 Pad) - DD - Plan #1	1,300.0	971.8	198.0	194.6	57.100	SF
Oxy 21-17D (Oxy I21 pad) - DD - Plan #1	500.0	200.0	150.2	149.6	232.597	CC, ES
Oxy 21-17D (Oxy I21 pad) - DD - Plan #1	1,100.0	776.9	186.5	183.7	67.535	SF
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	600.0	300.0	17.1	16.1	17.204	CC, ES
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	800.0	498.9	22.3	20.6	13.191	SF
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #2	500.0	200.0	14.9	14.2	23.020	CC, ES
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #2	700.0	399.2	19.3	18.0	14.328	SF
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	866.5	566.5	8.1	6.2	4.216	CC, ES
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	900.0	600.0	8.2	6.2	4.035	SF
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	1,024.4	724.4	17.5	15.0	7.051	CC, ES
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	1,100.0	799.8	18.1	15.3	6.568	SF
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	1,168.5	868.7	27.7	24.7	9.240	CC, ES
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	1,300.0	999.6	30.3	26.8	8.694	SF
Oxy 21-7D (Oxy I21 Pad) - DD - Plan #2	1,049.1	749.0	13.0	10.4	5.074	CC, ES
Oxy 21-7D (Oxy I21 Pad) - DD - Plan #2	1,100.0	799.7	13.3	10.5	4.848	SF
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #2	500.0	200.0	30.0	29.4	46.450	CC, ES
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #2	900.0	595.9	48.5	46.5	23.764	SF
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	684.8	384.9	46.2	44.9	35.495	CC
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	700.0	400.1	46.2	44.9	34.069	ES
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	1,000.0	697.4	54.3	51.8	21.587	SF

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-10D (Oxy I21 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	
200.0	200.0	0.0	0.0	0.0	0.0	-41.75	45.5	-40.6	117.1				
300.0	300.0	0.0	0.0	0.0	0.0	-41.75	45.5	-40.6	61.0				
400.0	400.0	100.0	100.0	0.1	0.1	-41.75	45.5	-40.6	61.0	60.7	0.30	205.670	
500.0	500.0	200.0	200.0	0.3	0.3	-41.75	45.5	-40.6	61.0	60.4	0.65	94.497	
600.0	600.0	300.1	300.1	0.5	0.5	-42.98	44.6	-41.6	61.0	60.0	1.00	61.147	
661.8	661.8	361.8	361.8	0.6	0.6	-44.97	43.1	-43.1	60.9	59.7	1.22	49.971 CC	
700.0	700.0	400.0	399.9	0.7	0.7	-46.66	41.8	-44.3	61.0	59.6	1.36	44.915 ES	
800.0	800.0	499.7	499.3	0.8	0.9	-52.74	37.2	-48.9	61.5	59.8	1.73	35.522	
900.0	900.0	598.8	598.1	1.0	1.1	-72.82	30.8	-55.3	63.0	60.9	2.13	29.599	
1,000.0	1,000.0	697.3	695.9	1.2	1.4	-83.71	22.7	-63.5	67.2	64.6	2.53	26.540	
1,100.0	1,100.0	795.0	792.6	1.4	1.7	-94.52	12.8	-73.4	75.1	72.1	2.92	25.683 SF	
1,200.0	1,199.9	891.9	888.1	1.5	2.0	-104.12	1.4	-84.9	87.0	83.7	3.29	26.426	
1,300.0	1,299.9	987.9	982.3	1.7	2.3	-112.01	-11.7	-97.9	102.9	99.3	3.64	28.255	
1,400.0	1,399.9	1,082.7	1,074.9	1.9	2.7	-118.24	-26.2	-112.5	122.5	118.5	3.98	30.786	
1,500.0	1,499.9	1,176.4	1,165.8	2.1	3.1	-123.08	-42.2	-128.5	145.3	141.0	4.31	33.754	
1,600.0	1,599.9	1,268.9	1,255.0	2.3	3.6	-126.84	-59.5	-145.8	171.2	166.5	4.63	36.992	
1,700.0	1,699.9	1,360.0	1,342.2	2.4	4.1	-129.79	-78.0	-164.3	199.8	194.8	4.95	40.395	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-11D (Oxy I21 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		
200.0	200.0	0.0	0.0	0.0	0.0	-39.61	58.6	-48.5	125.7					
300.0	300.0	0.0	0.0	0.0	0.0	-39.61	58.6	-48.5	76.1					
400.0	400.0	100.0	100.0	0.1	0.1	-39.61	58.6	-48.5	76.1	75.8	0.30	256.551		
500.0	500.0	200.0	200.0	0.3	0.3	-39.61	58.6	-48.5	76.1	75.5	0.65	117.875		
600.0	600.0	300.0	300.0	0.5	0.5	-39.61	58.6	-48.5	76.1	75.1	0.99	76.515 CC		
700.0	700.0	399.9	399.9	0.7	0.7	-40.59	57.8	-49.6	76.2	74.8	1.35	56.620		
800.0	800.0	499.7	499.6	0.8	0.9	-43.52	55.4	-52.6	76.4	74.7	1.70	44.897		
900.0	900.0	599.1	598.8	1.0	1.1	-60.01	51.4	-57.8	76.7	74.7	2.08	36.977 ES		
1,000.0	1,000.0	698.1	697.4	1.2	1.3	-67.61	45.9	-64.8	78.3	75.9	2.46	31.780		
1,100.0	1,100.0	796.4	795.0	1.4	1.5	-76.33	38.8	-73.9	82.4	79.5	2.86	28.763		
1,200.0	1,199.9	894.0	891.6	1.5	1.8	-85.34	30.2	-84.8	89.7	86.4	3.26	27.497 SF		
1,300.0	1,299.9	990.8	987.0	1.7	2.1	-93.81	20.2	-97.6	100.7	97.1	3.65	27.617		
1,400.0	1,399.9	1,086.6	1,081.1	1.9	2.5	-101.23	8.9	-112.1	115.5	111.5	4.01	28.786		
1,500.0	1,499.9	1,181.4	1,173.6	2.1	2.8	-107.43	-3.8	-128.2	134.0	129.6	4.36	30.706		
1,600.0	1,599.9	1,275.0	1,264.4	2.3	3.3	-112.47	-17.6	-146.0	155.8	151.1	4.70	33.149		
1,700.0	1,699.9	1,367.3	1,353.5	2.4	3.7	-116.53	-32.7	-165.2	180.7	175.7	5.03	35.948		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-12D (Oxy I21 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 (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
200.0	200.0	0.0	0.0	0.0	0.0	-38.18	71.8	-56.4	135.4					
300.0	300.0	0.0	0.0	0.0	0.0	-38.18	71.8	-56.4	91.3					
400.0	400.0	100.0	100.0	0.1	0.1	-38.18	71.8	-56.4	91.3	91.0	0.30	307.670		
500.0	500.0	200.0	200.0	0.3	0.3	-38.18	71.8	-56.4	91.3	90.6	0.65	141.362		
600.0	600.0	300.0	300.0	0.5	0.5	-38.18	71.8	-56.4	91.3	90.3	0.99	91.761 CC		
700.0	700.0	399.5	399.5	0.7	0.7	-38.98	71.2	-57.6	91.5	90.2	1.34	68.097 ES		
800.0	800.0	498.9	498.8	0.8	0.9	-41.33	69.4	-61.0	92.4	90.7	1.70	54.372		
900.0	900.0	598.0	597.7	1.0	1.1	-56.66	66.5	-66.8	93.6	91.5	2.07	45.199		
1,000.0	1,000.0	696.5	695.8	1.2	1.3	-62.59	62.4	-74.7	96.1	93.6	2.46	39.131		
1,100.0	1,100.0	794.5	793.1	1.4	1.5	-69.37	57.2	-84.9	100.9	98.0	2.85	35.387		
1,200.0	1,199.9	891.8	889.4	1.5	1.8	-76.47	50.9	-97.2	108.5	105.3	3.25	33.425		
1,300.0	1,299.9	988.3	984.5	1.7	2.1	-83.37	43.6	-111.5	119.5	115.9	3.64	32.859 SF		
1,400.0	1,399.9	1,083.8	1,078.3	1.9	2.5	-89.66	35.3	-127.8	133.9	129.9	4.01	33.368		
1,500.0	1,499.9	1,178.3	1,170.6	2.1	2.8	-95.17	26.0	-145.9	151.7	147.4	4.37	34.687		
1,600.0	1,599.9	1,271.6	1,261.2	2.3	3.3	-99.85	15.8	-165.9	172.8	168.1	4.72	36.601		
1,700.0	1,699.9	1,363.8	1,350.1	2.4	3.7	-103.76	4.8	-187.5	197.0	192.0	5.06	38.964		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-13D (Oxy I21 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 (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
200.0	200.0	0.0	0.0	0.0	0.0	-37.40	84.1	-64.3	145.7					
300.0	300.0	0.0	0.0	0.0	0.0	-37.40	84.1	-64.3	105.9					
400.0	400.0	100.0	100.0	0.1	0.1	-37.40	84.1	-64.3	105.9	105.6	0.30	356.972		
500.0	500.0	200.0	200.0	0.3	0.3	-37.40	84.1	-64.3	105.9	105.3	0.65	164.014		
600.0	600.0	300.0	300.0	0.5	0.5	-37.40	84.1	-64.3	105.9	104.9	0.99	106.465 CC, ES		
700.0	700.0	399.0	399.0	0.7	0.7	-38.04	83.8	-65.6	106.4	105.1	1.34	79.209		
800.0	800.0	497.8	497.7	0.8	0.9	-39.94	82.7	-69.3	107.9	106.2	1.70	63.606		
900.0	900.0	596.4	596.1	1.0	1.0	-54.38	81.0	-75.4	110.0	107.9	2.06	53.297		
1,000.0	1,000.0	694.4	693.7	1.2	1.3	-59.06	78.5	-83.9	113.5	111.1	2.44	46.492		
1,100.0	1,100.0	792.0	790.6	1.4	1.5	-64.38	75.4	-94.7	119.3	116.5	2.83	42.178		
1,200.0	1,199.9	888.8	886.5	1.5	1.8	-69.96	71.6	-107.9	127.8	124.6	3.22	39.699		
1,300.0	1,299.9	984.8	981.2	1.7	2.1	-75.46	67.2	-123.2	139.3	135.7	3.61	38.623 SF		
1,400.0	1,399.9	1,080.0	1,074.6	1.9	2.4	-80.60	62.2	-140.6	153.9	149.9	3.98	38.628		
1,500.0	1,499.9	1,174.1	1,166.5	2.1	2.8	-85.23	56.6	-160.0	171.7	167.3	4.35	39.459		
1,600.0	1,599.9	1,268.4	1,258.1	2.3	3.2	-89.33	50.4	-181.5	192.4	187.7	4.70	40.912		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-14D (Oxy I21 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
200.0	200.0	0.0	0.0	0.0	0.0	-37.13	96.2	-72.8	156.7				
300.0	300.0	0.0	0.0	0.0	0.0	-37.13	96.2	-72.8	120.6				
400.0	400.0	100.0	100.0	0.1	0.1	-37.13	96.2	-72.8	120.6	120.3	0.30	406.487	
500.0	500.0	200.0	200.0	0.3	0.3	-37.13	96.2	-72.8	120.6	120.0	0.65	186.765	
600.0	600.0	300.0	300.0	0.5	0.5	-37.13	96.2	-72.8	120.6	119.6	0.99	121.233 CC, ES	
700.0	700.0	398.3	398.3	0.7	0.7	-37.63	96.1	-74.1	121.3	120.0	1.34	90.408	
800.0	800.0	496.5	496.4	0.8	0.9	-39.11	95.8	-77.8	123.4	121.8	1.69	72.955	
900.0	900.0	594.4	594.1	1.0	1.0	-52.78	95.2	-84.1	126.5	124.4	2.05	61.562	
1,000.0	1,000.0	691.8	691.2	1.2	1.3	-56.43	94.5	-92.8	131.1	128.7	2.42	54.088	
1,100.0	1,100.0	788.8	787.4	1.4	1.5	-60.53	93.7	-103.9	138.1	135.3	2.80	49.289	
1,200.0	1,199.9	885.1	882.8	1.5	1.8	-64.83	92.6	-117.4	147.6	144.5	3.18	46.395	
1,300.0	1,299.9	980.6	977.0	1.7	2.1	-69.09	91.3	-133.1	159.9	156.4	3.56	44.922	
1,400.0	1,399.9	1,075.2	1,069.9	1.9	2.4	-73.13	89.9	-150.9	175.1	171.2	3.93	44.528 SF	
1,500.0	1,499.9	1,168.9	1,161.4	2.1	2.8	-76.84	88.3	-170.9	193.2	188.9	4.30	44.960	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-15D (Oxy I21 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)				
200.0	200.0	0.0	0.0	0.0	0.0	-36.45	109.3	-80.7	168.7					
300.0	300.0	0.0	0.0	0.0	0.0	-36.45	109.3	-80.7	135.8					
400.0	400.0	100.0	100.0	0.1	0.1	-36.45	109.3	-80.7	135.8	135.5	0.30	457.827		
500.0	500.0	200.0	200.0	0.3	0.3	-36.45	109.3	-80.7	135.8	135.2	0.65	210.353		
600.0	600.0	300.0	300.0	0.5	0.5	-36.45	109.3	-80.7	135.8	134.8	0.99	136.545	CC, ES	
700.0	700.0	397.5	397.5	0.7	0.7	-36.82	109.5	-81.9	136.7	135.4	1.34	102.043		
800.0	800.0	494.9	494.8	0.8	0.8	-37.89	110.0	-85.6	139.5	137.8	1.69	82.674		
900.0	900.0	592.1	591.8	1.0	1.0	-50.87	110.9	-91.7	143.4	141.4	2.04	70.181		
1,000.0	1,000.0	688.8	688.1	1.2	1.3	-53.58	112.2	-100.3	149.2	146.8	2.40	62.035		
1,100.0	1,100.0	785.1	783.8	1.4	1.5	-56.60	113.8	-111.1	157.3	154.5	2.77	56.773		
1,200.0	1,199.9	880.7	878.5	1.5	1.8	-59.76	115.8	-124.3	167.9	164.8	3.14	53.507		
1,300.0	1,299.9	975.6	972.1	1.7	2.1	-62.90	118.0	-139.6	181.1	177.6	3.50	51.692		
1,400.0	1,399.9	1,069.6	1,064.4	1.9	2.4	-65.90	120.7	-157.1	197.1	193.2	3.87	50.963	SF	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-16D (Oxy I21 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	
200.0	200.0	0.0	0.0	0.0	0.0	-32.56	126.4	-80.7	180.2					
300.0	300.0	0.0	0.0	0.0	0.0	-32.56	126.4	-80.7	150.0					
400.0	400.0	100.0	100.0	0.1	0.1	-32.56	126.4	-80.7	150.0	149.7	0.30	505.404		
500.0	500.0	200.0	200.0	0.3	0.3	-32.56	126.4	-80.7	150.0	149.3	0.65	232.213		
600.0	600.0	300.0	300.0	0.5	0.5	-32.56	126.4	-80.7	150.0	149.0	0.99	150.735 CC, ES		
700.0	700.0	396.9	396.9	0.7	0.7	-32.84	126.8	-81.8	151.0	149.6	1.34	112.764		
800.0	800.0	493.7	493.7	0.8	0.8	-33.65	128.1	-85.3	154.0	152.4	1.68	91.479		
900.0	900.0	590.3	590.0	1.0	1.0	-46.16	130.3	-91.0	158.4	156.4	2.04	77.799		
1,000.0	1,000.0	686.5	685.9	1.2	1.2	-48.25	133.3	-99.0	164.7	162.3	2.39	68.855		
1,100.0	1,100.0	782.2	781.0	1.4	1.5	-50.59	137.1	-109.2	173.3	170.5	2.75	63.018		
1,200.0	1,199.9	877.4	875.2	1.5	1.8	-53.03	141.7	-121.5	184.4	181.3	3.11	59.300		
1,300.0	1,299.9	971.8	968.4	1.7	2.1	-55.48	147.1	-135.9	198.0	194.6	3.47	57.100 SF		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design													NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-17D (Oxy I21 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				
200.0	200.0	0.0	0.0	0.0	0.0	-36.15	121.3	-88.6	180.4								
300.0	300.0	0.0	0.0	0.0	0.0	-36.15	121.3	-88.6	150.2								
400.0	400.0	100.0	100.0	0.1	0.1	-36.15	121.3	-88.6	150.2	149.9	0.30	506.241					
500.0	500.0	200.0	200.0	0.3	0.3	-36.15	121.3	-88.6	150.2	149.6	0.65	232.597	CC, ES				
600.0	600.0	296.9	296.9	0.5	0.5	-36.41	121.7	-89.8	151.2	150.3	0.99	152.815					
700.0	700.0	393.6	393.5	0.7	0.7	-37.20	122.9	-93.2	154.4	153.0	1.33	115.651					
800.0	800.0	490.1	489.8	0.8	0.9	-38.43	124.8	-99.0	159.7	158.0	1.68	94.946					
900.0	900.0	586.2	585.6	1.0	1.1	-51.22	127.5	-107.1	166.4	164.4	2.04	81.449					
1,000.0	1,000.0	681.9	680.6	1.2	1.3	-53.48	131.0	-117.4	175.2	172.8	2.40	72.952					
1,100.0	1,100.0	776.9	774.7	1.4	1.6	-55.85	135.2	-129.8	186.5	183.7	2.76	67.535	SF				

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-1D (Oxy I21 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)				
200.0	200.0	0.0	0.0	0.0	0.0	-180.00	-17.1	0.0	101.5					
300.0	300.0	0.0	0.0	0.0	0.0	-180.00	-17.1	0.0	17.1					
300.0	300.0	0.0	0.0	0.0	0.0	-180.00	-17.1	0.0	17.1					
400.0	400.0	100.0	100.0	0.1	0.1	-180.00	-17.1	0.0	17.1	16.8	0.30	57.683		
500.0	500.0	200.0	200.0	0.3	0.3	-180.00	-17.1	0.0	17.1	16.5	0.65	26.503		
600.0	600.0	300.0	300.0	0.5	0.5	-180.00	-17.1	0.0	17.1	16.1	0.99	17.204 CC, ES		
700.0	700.0	399.5	399.5	0.7	0.7	-179.75	-18.4	-0.1	18.4	17.1	1.34	13.710		
800.0	800.0	498.9	498.8	0.8	0.9	-179.18	-22.3	-0.3	22.3	20.6	1.69	13.191 SF		
900.0	900.0	598.0	597.7	1.0	1.1	170.84	-28.7	-0.7	30.0	27.9	2.04	14.700		
1,000.0	1,000.0	696.5	695.8	1.2	1.3	171.61	-37.6	-1.3	40.8	38.4	2.38	17.096		
1,100.0	1,100.0	794.4	793.0	1.4	1.5	172.09	-49.0	-2.0	54.1	51.4	2.73	19.830		
1,200.0	1,199.9	891.5	889.1	1.5	1.8	172.38	-62.7	-2.8	70.0	66.9	3.07	22.783		
1,300.0	1,299.9	987.8	984.1	1.7	2.1	172.57	-78.8	-3.8	88.4	85.0	3.41	25.886		
1,400.0	1,399.9	1,083.1	1,077.7	1.9	2.4	172.69	-97.0	-5.0	109.2	105.5	3.75	29.093		
1,500.0	1,499.9	1,177.4	1,169.7	2.1	2.8	172.76	-117.3	-6.2	132.5	128.4	4.09	32.376		
1,600.0	1,599.9	1,270.5	1,260.1	2.3	3.2	172.81	-139.5	-7.6	158.2	153.7	4.43	35.713		
1,700.0	1,699.9	1,362.4	1,348.8	2.4	3.7	172.85	-163.6	-9.1	186.1	181.4	4.76	39.090		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-2D (Oxy I21 Pad) - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					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)	Total Uncertainty Axis			
200.0	200.0	0.0	0.0	0.0	0.0	143.96	-12.0	8.7	101.1					
300.0	300.0	0.0	0.0	0.0	0.0	143.96	-12.0	8.7	14.9					
300.0	300.0	0.0	0.0	0.0	0.0	143.96	-12.0	8.7	14.9					
400.0	400.0	100.0	100.0	0.1	0.1	143.96	-12.0	8.7	14.9	14.6	0.30	50.102		
500.0	500.0	200.0	200.0	0.3	0.3	143.96	-12.0	8.7	14.9	14.2	0.65	23.020 CC, ES		
600.0	600.0	299.7	299.7	0.5	0.5	146.74	-13.3	8.7	15.9	14.9	1.00	16.009		
700.0	700.0	399.2	399.1	0.7	0.7	153.16	-17.2	8.7	19.3	18.0	1.35	14.328 SF		
800.0	800.0	498.5	498.2	0.8	0.9	159.91	-23.7	8.7	25.3	23.6	1.70	14.849		
900.0	900.0	597.2	596.5	1.0	1.1	155.09	-32.7	8.6	35.0	33.0	2.04	17.131		
1,000.0	1,000.0	695.2	693.9	1.2	1.4	159.38	-44.1	8.5	48.0	45.6	2.39	20.105		
1,100.0	1,100.0	792.6	790.2	1.4	1.6	162.14	-57.9	8.4	63.7	61.0	2.73	23.319		
1,200.0	1,199.9	889.0	885.3	1.5	2.0	163.97	-74.0	8.3	81.9	78.9	3.07	26.668		
1,300.0	1,299.9	984.5	979.0	1.7	2.3	165.23	-92.3	8.1	102.7	99.3	3.41	30.099		
1,400.0	1,399.9	1,080.7	1,073.0	1.9	2.7	166.14	-112.7	8.0	125.6	121.8	3.75	33.457		
1,500.0	1,499.9	1,178.0	1,168.0	2.1	3.1	166.78	-133.6	7.8	148.7	144.6	4.10	36.303		
1,600.0	1,599.9	1,275.3	1,263.0	2.3	3.5	167.25	-154.5	7.7	171.8	167.4	4.44	38.713		
1,700.0	1,699.9	1,372.5	1,358.0	2.4	3.8	167.60	-175.4	7.5	194.9	190.1	4.78	40.780		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-3D (Oxy I21 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)	
200.0	200.0	0.0	0.0	0.0	0.0	-74.54	2.2	-7.9	100.3					
300.0	300.0	0.0	0.0	0.0	0.0	-74.54	2.2	-7.9	8.2					
400.0	400.0	100.0	100.0	0.1	0.1	-74.54	2.2	-7.9	8.2	7.9	0.30	27.627		
500.0	500.0	200.0	200.0	0.3	0.3	-74.54	2.2	-7.9	8.2	7.6	0.65	12.694		
600.0	600.0	300.0	300.0	0.5	0.5	-74.54	2.2	-7.9	8.2	7.2	0.99	8.240		
700.0	700.0	400.0	400.0	0.7	0.7	-74.54	2.2	-7.9	8.2	6.9	1.34	6.100		
800.0	800.0	500.0	500.0	0.8	0.8	-74.54	2.2	-7.9	8.2	6.5	1.69	4.842		
866.5	866.5	566.5	566.5	1.0	1.0	-92.25	1.6	-8.0	8.1	6.2	1.93	4.216 CC, ES		
900.0	900.0	600.0	600.0	1.0	1.0	-102.78	0.9	-8.0	8.2	6.2	2.04	4.035 SF		
1,000.0	1,000.0	699.7	699.6	1.2	1.2	-134.31	-3.0	-8.4	10.7	8.3	2.40	4.465		
1,100.0	1,100.0	799.1	798.8	1.4	1.4	-155.92	-9.5	-9.0	17.2	14.5	2.75	6.269		
1,200.0	1,199.9	898.0	897.3	1.5	1.6	-166.98	-18.4	-9.8	27.2	24.1	3.09	8.806		
1,300.0	1,299.9	996.2	994.8	1.7	1.8	-172.87	-29.9	-10.8	40.2	36.8	3.44	11.697		
1,400.0	1,399.9	1,093.8	1,091.4	1.9	2.1	-176.31	-43.7	-12.1	55.9	52.1	3.78	14.783		
1,500.0	1,499.9	1,191.2	1,187.5	2.1	2.4	-178.47	-59.7	-13.5	74.0	69.8	4.12	17.933		
1,600.0	1,599.9	1,289.5	1,284.3	2.3	2.7	-179.83	-76.3	-15.0	92.5	88.0	4.47	20.699		
1,700.0	1,699.9	1,387.7	1,381.1	2.4	3.0	179.26	-92.8	-16.5	111.1	106.3	4.81	23.075		
1,800.0	1,799.9	1,485.9	1,478.0	2.6	3.3	178.62	-109.4	-18.0	129.7	124.5	5.16	25.138		
1,900.0	1,899.8	1,584.2	1,574.8	2.8	3.6	178.14	-125.9	-19.6	148.3	142.8	5.50	26.944		
2,000.0	1,999.8	1,682.4	1,671.6	3.0	4.0	177.76	-142.5	-21.1	166.9	161.0	5.85	28.528		
2,100.0	2,099.8	1,780.9	1,768.7	3.1	4.3	-171.60	-159.1	-22.6	184.1	177.9	6.20	29.706		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-4D (Oxy I21 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)				
200.0	200.0	0.0	0.0	0.0	0.0	-63.91	8.0	-16.4	101.6					
300.0	300.0	0.0	0.0	0.0	0.0	-63.91	8.0	-16.4	18.2					
400.0	400.0	100.0	100.0	0.1	0.1	-63.91	8.0	-16.4	18.2	17.9	0.30	61.414		
500.0	500.0	200.0	200.0	0.3	0.3	-63.91	8.0	-16.4	18.2	17.6	0.65	28.217		
600.0	600.0	300.0	300.0	0.5	0.5	-63.91	8.0	-16.4	18.2	17.2	0.99	18.316		
700.0	700.0	400.0	400.0	0.7	0.7	-63.91	8.0	-16.4	18.2	16.9	1.34	13.559		
800.0	800.0	500.0	500.0	0.8	0.8	-63.91	8.0	-16.4	18.2	16.5	1.69	10.763		
900.0	900.0	600.0	600.0	1.0	1.0	-78.47	8.0	-16.4	18.0	15.9	2.04	8.790		
1,000.0	1,000.0	700.0	700.0	1.2	1.2	-88.29	6.7	-16.5	17.5	15.1	2.39	7.322		
1,024.4	1,024.4	724.4	724.4	1.2	1.2	-92.02	6.0	-16.6	17.5	15.0	2.48	7.051 CC, ES		
1,100.0	1,100.0	799.8	799.7	1.4	1.4	-106.53	2.8	-17.1	18.1	15.3	2.75	6.568 SF		
1,200.0	1,199.9	899.3	899.0	1.5	1.6	-128.24	-3.6	-18.0	21.6	18.5	3.11	6.959		
1,300.0	1,299.9	998.2	997.5	1.7	1.8	-145.66	-12.5	-19.2	29.3	25.9	3.46	8.478		
1,400.0	1,399.9	1,097.2	1,095.9	1.9	2.0	-156.65	-23.4	-20.7	40.3	36.5	3.80	10.596		
1,500.0	1,499.9	1,196.4	1,194.4	2.1	2.2	-162.88	-34.4	-22.2	52.3	48.1	4.15	12.590		
1,600.0	1,599.9	1,295.5	1,293.0	2.3	2.5	-166.77	-45.4	-23.7	64.6	60.1	4.50	14.363		
1,700.0	1,699.9	1,394.7	1,391.5	2.4	2.7	-169.40	-56.3	-25.2	77.1	72.2	4.84	15.923		
1,800.0	1,799.9	1,493.8	1,490.0	2.6	2.9	-171.30	-67.3	-26.7	89.7	84.5	5.19	17.297		
1,900.0	1,899.8	1,593.0	1,588.6	2.8	3.2	-172.73	-78.3	-28.3	102.4	96.9	5.53	18.512		
2,000.0	1,999.8	1,692.2	1,687.1	3.0	3.4	-173.84	-89.3	-29.8	115.1	109.3	5.88	19.584		
2,100.0	2,099.8	1,791.5	1,785.8	3.1	3.7	-163.73	-100.3	-31.3	126.5	120.3	6.23	20.315		
2,200.0	2,199.8	1,890.9	1,884.6	3.3	3.9	-164.41	-111.3	-32.8	137.6	131.0	6.57	20.927		
2,300.0	2,299.8	1,990.3	1,983.3	3.5	4.2	-164.99	-122.3	-34.3	148.7	141.8	6.92	21.480		
2,400.0	2,399.8	2,089.6	2,082.1	3.7	4.4	-165.49	-133.3	-35.8	159.8	152.5	7.27	21.981		
2,500.0	2,499.8	2,189.0	2,180.8	3.8	4.7	-165.93	-144.3	-37.3	170.9	163.3	7.62	22.439		
2,600.0	2,599.8	2,288.4	2,279.6	4.0	5.0	-166.31	-155.3	-38.9	182.0	174.1	7.96	22.857		
2,700.0	2,699.8	2,387.7	2,378.3	4.2	5.2	-166.65	-166.4	-40.4	193.1	184.8	8.31	23.241		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design		NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-5D (Oxy I21 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			
200.0	200.0	0.0	0.0	0.0	0.0	-49.95	20.4	-24.3	104.9						
300.0	300.0	0.0	0.0	0.0	0.0	-49.95	20.4	-24.3	31.7						
400.0	400.0	100.0	100.0	0.1	0.1	-49.95	20.4	-24.3	31.7	31.4	0.30	106.839			
500.0	500.0	200.0	200.0	0.3	0.3	-49.95	20.4	-24.3	31.7	31.1	0.65	49.088			
600.0	600.0	300.0	300.0	0.5	0.5	-49.95	20.4	-24.3	31.7	30.7	0.99	31.864			
700.0	700.0	400.0	400.0	0.7	0.7	-49.95	20.4	-24.3	31.7	30.4	1.34	23.588			
800.0	800.0	500.0	500.0	0.8	0.8	-49.95	20.4	-24.3	31.7	30.0	1.69	18.724			
900.0	900.0	600.0	600.0	1.0	1.0	-62.79	20.4	-24.3	31.1	29.1	2.04	15.252			
1,000.0	1,000.0	700.3	700.3	1.2	1.2	-68.05	19.1	-24.5	29.9	27.5	2.39	12.481			
1,100.0	1,100.0	800.3	800.2	1.4	1.4	-78.83	15.2	-25.3	28.3	25.5	2.75	10.274			
1,168.5	1,168.5	868.7	868.5	1.5	1.5	-89.83	11.1	-26.1	27.7	24.7	3.00	9.240	CC, ES		
1,200.0	1,199.9	900.0	899.7	1.5	1.6	-95.71	8.9	-26.5	27.9	24.8	3.12	8.946			
1,300.0	1,299.9	999.6	999.0	1.7	1.8	-113.35	1.5	-28.0	30.3	26.8	3.48	8.694	SF		
1,400.0	1,399.9	1,099.2	1,098.3	1.9	2.0	-127.33	-5.8	-29.4	35.0	31.2	3.84	9.125			
1,500.0	1,499.9	1,198.7	1,197.6	2.1	2.2	-137.54	-13.1	-30.9	41.3	37.1	4.19	9.871			
1,600.0	1,599.9	1,298.3	1,296.9	2.3	2.4	-144.89	-20.4	-32.3	48.6	44.0	4.53	10.720			
1,700.0	1,699.9	1,397.9	1,396.2	2.4	2.6	-150.28	-27.8	-33.8	56.4	51.5	4.88	11.571			
1,800.0	1,799.9	1,497.5	1,495.5	2.6	2.8	-154.32	-35.1	-35.2	64.6	59.4	5.22	12.382			
1,900.0	1,899.8	1,597.0	1,594.8	2.8	3.0	-157.44	-42.4	-36.7	73.1	67.5	5.56	13.136			
2,000.0	1,999.8	1,696.6	1,694.1	3.0	3.2	-159.91	-49.8	-38.1	81.7	75.8	5.91	13.823			
2,100.0	2,099.8	1,796.3	1,793.5	3.1	3.4	-150.69	-57.1	-39.6	89.1	82.8	6.26	14.239			
2,200.0	2,199.8	1,896.0	1,892.9	3.3	3.6	-152.08	-64.4	-41.0	96.3	89.7	6.60	14.575			
2,300.0	2,299.8	1,995.7	1,992.3	3.5	3.9	-153.27	-71.8	-42.5	103.5	96.5	6.95	14.885			
2,400.0	2,399.8	2,095.5	2,091.8	3.7	4.1	-154.32	-79.1	-43.9	110.7	103.4	7.30	15.170			
2,500.0	2,499.8	2,195.2	2,191.2	3.8	4.3	-155.23	-86.4	-45.4	118.0	110.3	7.65	15.433			
2,600.0	2,599.8	2,294.9	2,290.7	4.0	4.5	-156.04	-93.8	-46.8	125.3	117.3	7.99	15.676			
2,700.0	2,699.8	2,394.6	2,390.1	4.2	4.7	-156.75	-101.1	-48.3	132.6	124.3	8.34	15.902			
2,800.0	2,799.8	2,494.3	2,489.5	4.4	4.9	-157.40	-108.5	-49.7	140.0	131.3	8.69	16.111			
2,900.0	2,899.8	2,594.0	2,589.0	4.5	5.1	-157.97	-115.8	-51.2	147.3	138.3	9.04	16.306			
3,000.0	2,999.8	2,693.8	2,688.4	4.7	5.4	-158.50	-123.1	-52.6	154.7	145.3	9.38	16.488			
3,100.0	3,099.8	2,793.5	2,787.8	4.9	5.6	-158.97	-130.5	-54.0	162.1	152.4	9.73	16.658			
3,200.0	3,199.8	2,893.2	2,887.3	5.0	5.8	-159.41	-137.8	-55.5	169.5	159.4	10.08	16.817			
3,300.0	3,299.8	2,992.9	2,986.7	5.2	6.0	-159.81	-145.2	-56.9	176.9	166.5	10.43	16.967			
3,400.0	3,399.8	3,092.6	3,086.2	5.4	6.2	-160.17	-152.5	-58.4	184.3	173.5	10.77	17.107			
3,500.0	3,499.8	3,192.4	3,185.6	5.6	6.4	-160.51	-159.8	-59.8	191.7	180.6	11.12	17.240			
3,600.0	3,599.8	3,292.1	3,285.0	5.7	6.7	-160.82	-167.2	-61.3	199.1	187.7	11.47	17.364			

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design		NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-7D (Oxy I21 Pad) - DD - Plan #2										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	
200.0	200.0	0.0	0.0	0.0	0.0	-31.07	13.1	-7.9	101.2					
300.0	300.0	0.0	0.0	0.0	0.0	-31.07	13.1	-7.9	15.3					
400.0	400.0	100.0	100.0	0.1	0.1	-31.07	13.1	-7.9	15.3	15.0	0.30	51.596		
500.0	500.0	200.0	200.0	0.3	0.3	-31.07	13.1	-7.9	15.3	14.7	0.65	23.706		
600.0	600.0	300.0	300.0	0.5	0.5	-31.07	13.1	-7.9	15.3	14.3	0.99	15.388		
700.0	700.0	400.0	400.0	0.7	0.7	-31.07	13.1	-7.9	15.3	14.0	1.34	11.391		
800.0	800.0	500.0	500.0	0.8	0.8	-31.07	13.1	-7.9	15.3	13.6	1.69	9.043		
900.0	900.0	600.0	600.0	1.0	1.0	-45.13	13.1	-7.9	14.5	12.4	2.04	7.082		
1,000.0	1,000.0	700.0	700.0	1.2	1.2	-50.51	13.1	-7.9	13.3	10.9	2.39	5.553		
1,049.1	1,049.1	749.0	749.0	1.3	1.3	-52.71	13.4	-7.9	13.0	10.4	2.56	5.074 CC, ES		
1,100.0	1,100.0	799.7	799.7	1.4	1.4	-53.39	14.4	-8.1	13.3	10.5	2.74	4.848 SF		
1,200.0	1,199.9	899.3	899.3	1.5	1.5	-50.40	18.3	-8.6	15.5	12.4	3.09	5.008		
1,300.0	1,299.9	998.8	998.5	1.7	1.7	-44.52	24.7	-9.5	20.0	16.6	3.44	5.816		
1,400.0	1,399.9	1,098.0	1,097.3	1.9	1.9	-38.80	33.6	-10.7	27.1	23.3	3.79	7.151		
1,500.0	1,499.9	1,196.9	1,195.5	2.1	2.2	-34.34	45.0	-12.3	36.8	32.7	4.14	8.890		
1,600.0	1,599.9	1,296.3	1,294.1	2.3	2.4	-31.49	57.3	-14.0	47.5	43.0	4.49	10.575		
1,700.0	1,699.9	1,395.7	1,392.7	2.4	2.6	-29.69	69.7	-15.7	58.2	53.4	4.84	12.033		
1,800.0	1,799.9	1,495.1	1,491.3	2.6	2.9	-28.46	82.0	-17.4	69.0	63.8	5.19	13.302		
1,900.0	1,899.8	1,594.5	1,590.0	2.8	3.2	-27.55	94.3	-19.1	79.8	74.3	5.54	14.416		
2,000.0	1,999.8	1,693.9	1,688.6	3.0	3.4	-26.87	106.6	-20.8	90.7	84.8	5.89	15.406		
2,100.0	2,099.8	1,793.1	1,787.1	3.1	3.7	-15.06	118.9	-22.5	102.8	96.5	6.23	16.495		
2,200.0	2,199.8	1,892.4	1,885.5	3.3	3.9	-14.28	131.2	-24.2	115.2	108.6	6.58	17.515		
2,300.0	2,299.8	1,991.6	1,983.9	3.5	4.2	-13.65	143.5	-25.9	127.6	120.7	6.92	18.435		
2,400.0	2,399.8	2,090.8	2,082.4	3.7	4.5	-13.14	155.8	-27.6	140.1	132.8	7.27	19.269		
2,500.0	2,499.8	2,190.0	2,180.8	3.8	4.7	-12.71	168.0	-29.3	152.5	144.9	7.62	20.027		
2,600.0	2,599.8	2,289.2	2,279.3	4.0	5.0	-12.34	180.3	-31.0	165.0	157.0	7.96	20.721		
2,700.0	2,699.8	2,388.4	2,377.7	4.2	5.3	-12.03	192.6	-32.8	177.5	169.2	8.31	21.357		
2,800.0	2,799.8	2,487.6	2,476.1	4.4	5.5	-11.76	204.9	-34.5	189.9	181.3	8.66	21.942		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-8D (Oxy I21 Pad) - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
200.0	200.0	0.0	0.0	0.0	0.0	-31.79	25.5	-15.8	104.4					
300.0	300.0	0.0	0.0	0.0	0.0	-31.79	25.5	-15.8	30.0					
400.0	400.0	100.0	100.0	0.1	0.1	-31.79	25.5	-15.8	30.0	29.7	0.30	101.097		
500.0	500.0	200.0	200.0	0.3	0.3	-31.79	25.5	-15.8	30.0	29.4	0.65	46.450 CC, ES		
600.0	600.0	299.3	299.3	0.5	0.5	-30.76	26.8	-15.9	31.2	30.2	0.99	31.352		
700.0	700.0	398.4	398.3	0.7	0.7	-28.11	30.6	-16.4	34.8	33.4	1.35	25.835		
800.0	800.0	497.3	497.0	0.8	0.9	-24.74	37.0	-17.0	40.8	39.1	1.70	24.042		
900.0	900.0	595.9	595.2	1.0	1.1	-33.08	45.9	-18.0	48.5	46.5	2.04	23.764 SF		
1,000.0	1,000.0	695.2	693.9	1.2	1.3	-31.08	56.5	-19.2	57.5	55.1	2.39	24.016		
1,100.0	1,100.0	794.8	792.9	1.4	1.6	-29.61	67.2	-20.3	66.5	63.8	2.74	24.240		
1,200.0	1,199.9	894.4	891.9	1.5	1.8	-28.49	77.9	-21.5	75.6	72.5	3.09	24.427		
1,300.0	1,299.9	994.0	990.9	1.7	2.1	-27.61	88.7	-22.6	84.6	81.2	3.44	24.585		
1,400.0	1,399.9	1,093.5	1,089.9	1.9	2.3	-26.91	99.4	-23.8	93.7	90.0	3.79	24.720		
1,500.0	1,499.9	1,193.1	1,188.9	2.1	2.6	-26.32	110.1	-25.0	102.9	98.7	4.14	24.836		
1,600.0	1,599.9	1,292.7	1,287.9	2.3	2.8	-25.84	120.8	-26.1	112.0	107.5	4.49	24.936		
1,700.0	1,699.9	1,392.3	1,386.9	2.4	3.1	-25.42	131.5	-27.3	121.1	116.3	4.84	25.023		
1,800.0	1,799.9	1,491.9	1,485.9	2.6	3.4	-25.07	142.2	-28.4	130.2	125.0	5.19	25.101		
1,900.0	1,899.8	1,591.4	1,584.9	2.8	3.6	-24.76	152.9	-29.6	139.4	133.8	5.54	25.169		
2,000.0	1,999.8	1,691.0	1,683.9	3.0	3.9	-24.49	163.7	-30.8	148.5	142.7	5.89	25.238		
2,100.0	2,099.8	1,790.5	1,782.7	3.1	4.1	-13.11	174.3	-31.9	159.0	152.8	6.23	25.516		
2,200.0	2,199.8	1,889.9	1,881.6	3.3	4.4	-12.67	185.0	-33.1	169.7	163.2	6.58	25.806		
2,300.0	2,299.8	1,989.3	1,980.4	3.5	4.6	-12.28	195.7	-34.2	180.5	173.6	6.92	26.068		
2,400.0	2,399.8	2,088.7	2,079.2	3.7	4.9	-11.94	206.4	-35.4	191.3	184.0	7.27	26.305		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-6D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8681.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8681.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-6D (Oxy I21 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 #2	Offset TVD Reference:	Offset Datum

Offset Design NESE S21-T6S-R97W (Oxy I21 pad) - Oxy 21-9D (Oxy I21 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		
200.0	200.0	0.0	0.0	0.0	0.0	-43.83	33.5	-32.2	110.3					
300.0	300.0	0.0	0.0	0.0	0.0	-43.83	33.5	-32.2	46.4					
400.0	400.0	100.0	100.0	0.1	0.1	-43.83	33.5	-32.2	46.4	46.2	0.30	156.552		
500.0	500.0	200.0	200.0	0.3	0.3	-43.83	33.5	-32.2	46.4	45.8	0.65	71.929		
600.0	600.0	300.1	300.1	0.5	0.5	-45.44	32.5	-33.0	46.3	45.3	1.00	46.478		
684.8	684.8	384.9	384.8	0.6	0.7	-49.36	30.1	-35.1	46.2	44.9	1.30	35.495 CC		
700.0	700.0	400.1	400.0	0.7	0.7	-50.30	29.5	-35.6	46.2	44.9	1.36	34.069 ES		
800.0	800.0	499.7	499.4	0.8	0.9	-58.30	24.6	-39.8	46.8	45.1	1.73	27.043		
900.0	900.0	598.9	598.2	1.0	1.1	-81.08	17.7	-45.7	48.9	46.7	2.13	22.991		
1,000.0	1,000.0	697.4	696.0	1.2	1.4	-94.41	9.0	-53.2	54.3	51.8	2.51	21.587 SF		
1,100.0	1,100.0	795.2	792.8	1.4	1.7	-106.44	-1.6	-62.3	63.9	61.0	2.88	22.158		
1,200.0	1,199.9	892.1	888.3	1.5	2.0	-116.10	-13.9	-72.9	77.7	74.5	3.23	24.035		
1,300.0	1,299.9	988.0	982.4	1.7	2.3	-123.39	-27.9	-84.9	95.3	91.7	3.57	26.699		
1,400.0	1,399.9	1,082.9	1,075.0	1.9	2.7	-128.80	-43.6	-98.3	116.2	112.3	3.90	29.818		
1,500.0	1,499.9	1,176.6	1,166.0	2.1	3.1	-132.83	-60.7	-113.0	140.2	136.0	4.22	33.194		
1,600.0	1,599.9	1,269.0	1,255.1	2.3	3.6	-135.87	-79.3	-129.0	166.9	162.4	4.55	36.714		
1,700.0	1,699.9	1,360.1	1,342.3	2.4	4.1	-138.20	-99.1	-146.0	196.2	191.4	4.87	40.314		

Directional Plus

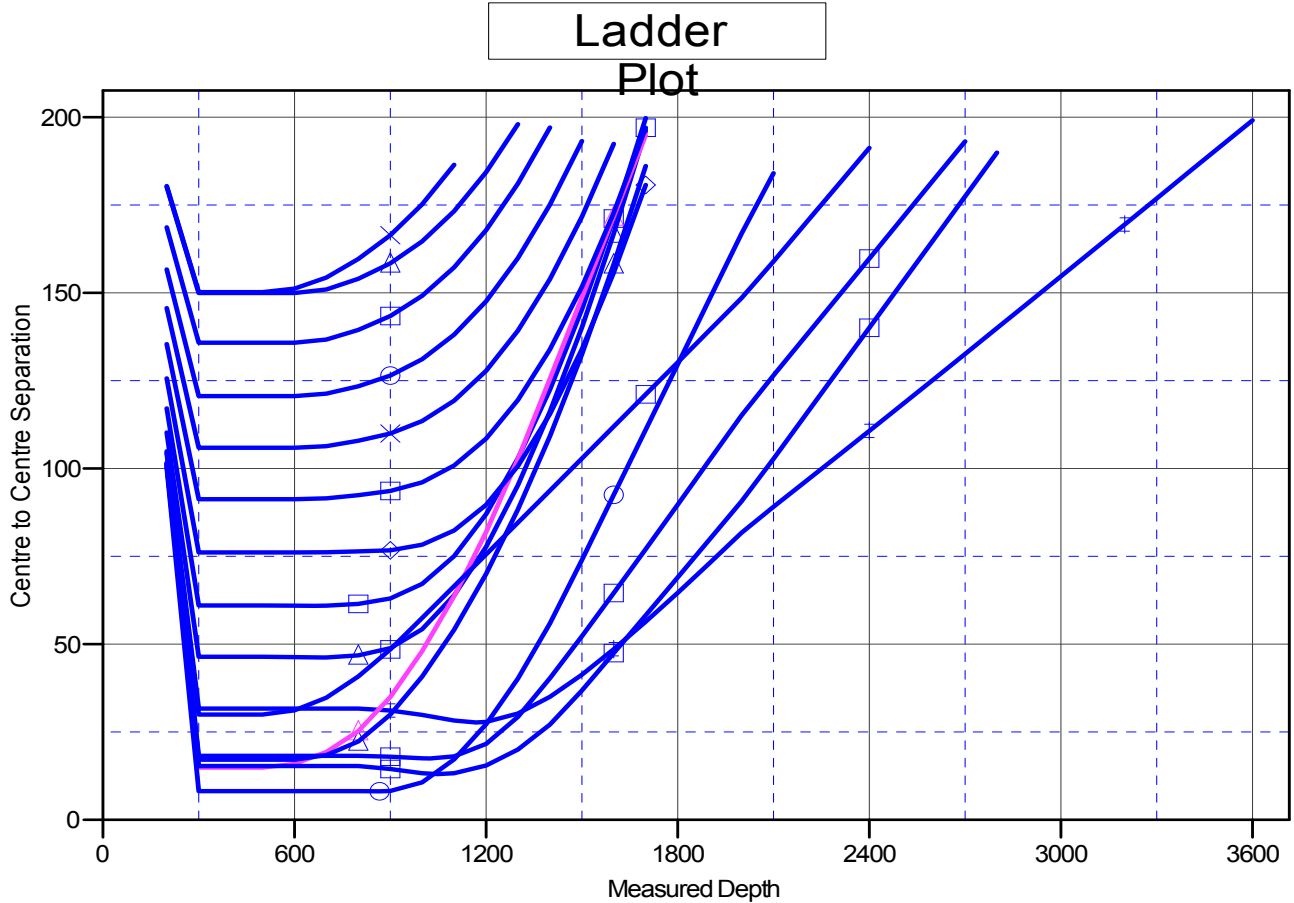
Anticollision Report

Company: Berry Petroleum Company (NAD 83)
Project: Garfield County
Reference Site: NESE S21-T6S-R97W (Oxy I21 pad)
Site Error: 0.0ft
Reference Well: Oxy 21-6D (Oxy I21 Pad)
Well Error: 0.0ft
Reference Wellbore DD
Reference Design: Plan #2

Local Co-ordinate Reference: Well Oxy 21-6D (Oxy I21 Pad)
TVD Reference: KBE @ 8681.0ft (Original Well Elev)
MD Reference: KBE @ 8681.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 2003.21 US Multi User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KBE @ 8681.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Oxy 21-6D (Oxy I21 Pad)
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.71°



LEGEND

- | | | |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| △ Oxy 21-9D (Oxy I21 Pad), DD, Plan #1 V0 | □ Oxy 21-8D (Oxy I21 Pad), DD, Plan #2 V0 | △ Oxy 21-16D (Oxy I21 Pad), DD, Plan #1 V0 |
| ✱ Oxy 21-5D (Oxy I21 Pad), DD, Plan #1 V0 | ✱ Oxy 21-13D (Oxy I21 Pad), DD, Plan #1 V0 | □ Oxy 21-15D (Oxy I21 Pad), DD, Plan #1 V0 |
| □ Oxy 21-10D (Oxy I21 Pad), DD, Plan #1 V0 | ○ Oxy 21-14D (Oxy I21 Pad), DD, Plan #1 V0 | □ Oxy 21-12D (Oxy I21 Pad), DD, Plan #1 V0 |
| △ Oxy 21-2D (Oxy I21 Pad), DD, Plan #2 V0 | □ Oxy 21-4D (Oxy I21 Pad), DD, Plan #1 V0 | ◇ Oxy 21-11D (Oxy I21 Pad), DD, Plan #1 V0 |
| ○ Oxy 21-3D (Oxy I21 Pad), DD, Plan #1 V0 | ✱ Oxy 21-17D (Oxy I21 pad), DD, Plan #1 V0 | |
| △ Oxy 21-1D (Oxy I21 Pad), DD, Plan #1 V0 | □ Oxy 21-7D (Oxy I21 Pad), DD, Plan #2 V0 | |