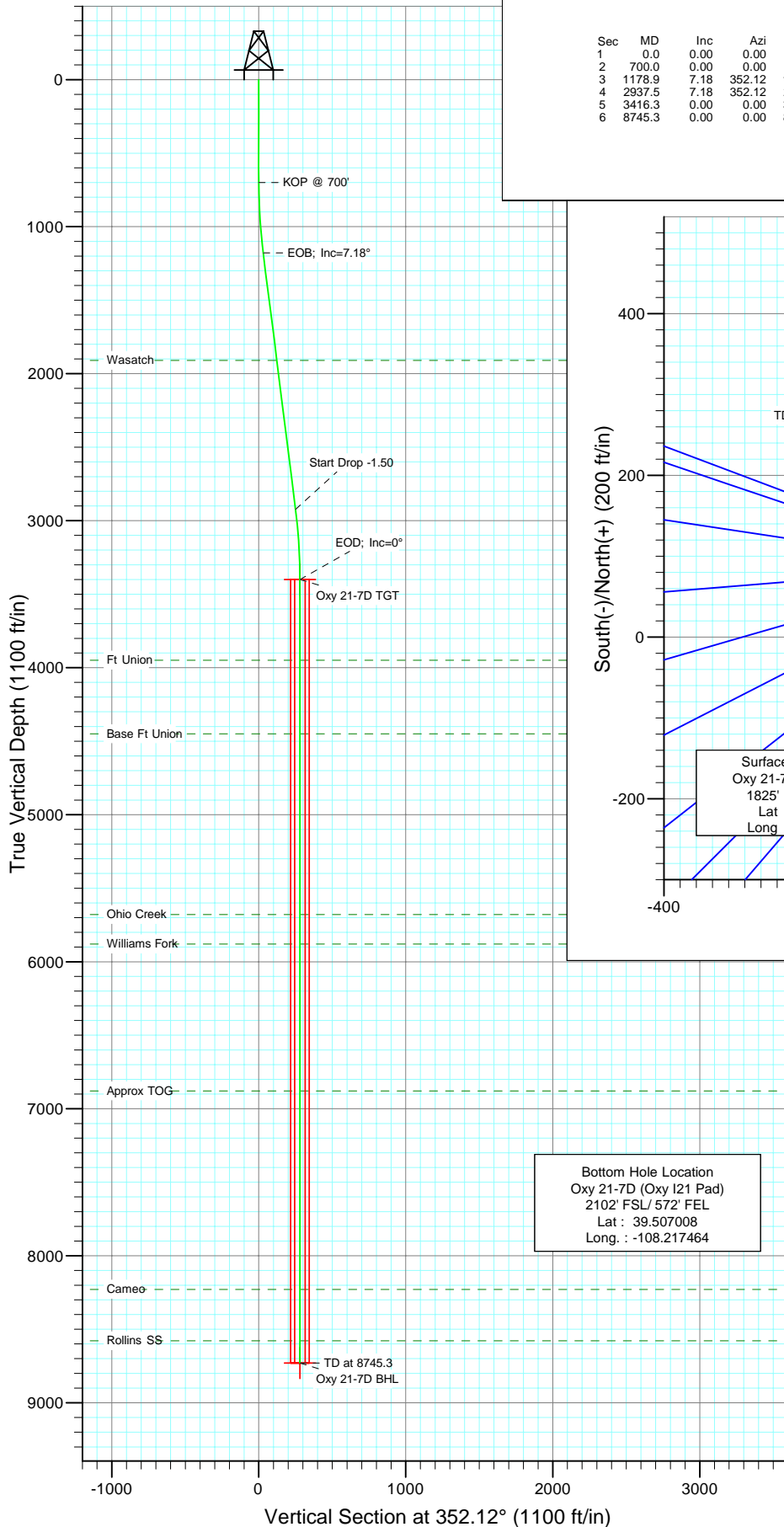




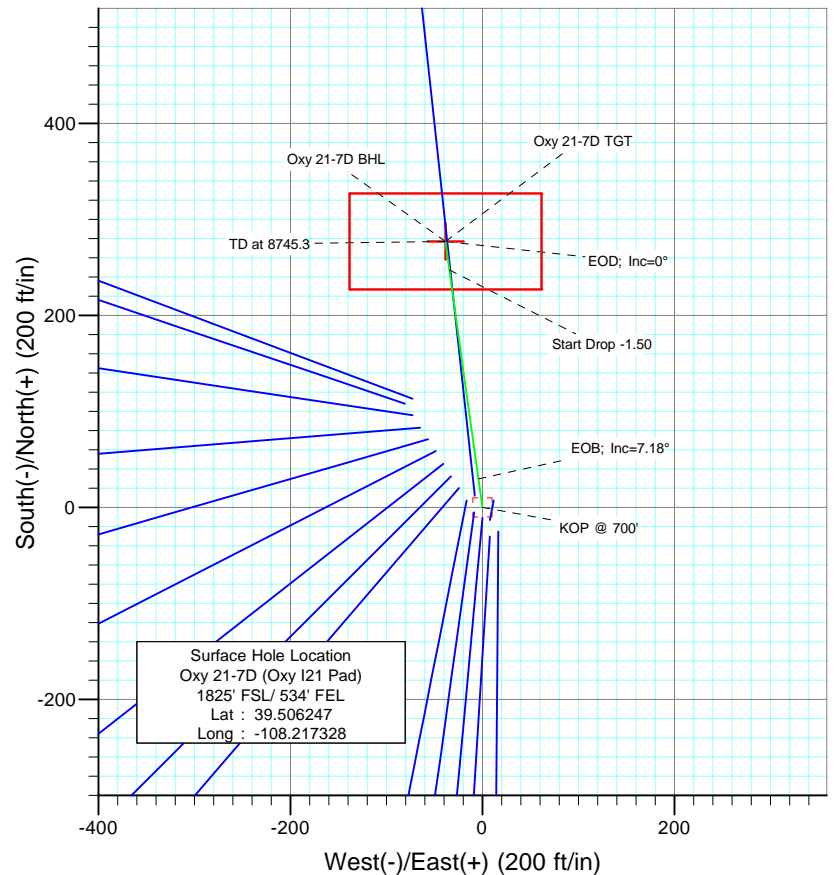
Berry Petroleum Company

Project: Garfield County
Site: NESE S21-T6S-R97W (Oxy I21 pad)
Well: Oxy 21-7D (Oxy I21 Pad)
Wellbore: DD
Design: Plan #2



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	700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.0	
3	1178.9	7.18	352.12	1177.6	29.7	-4.1	1.50	352.12	30.0	
4	2937.5	7.18	352.12	2922.4	247.5	-34.3	0.00	0.00	249.9	
5	3416.3	0.00	0.00	3400.0	277.2	-38.4	1.50	180.00	279.8	Oxy 21-7D TGT
6	8745.3	0.00	0.00	8729.0	277.2	-38.4	0.00	0.00	279.8	Oxy 21-7D BHL



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1909.0	1916.0	Wasatch
3949.0	3965.3	Ft Union
4449.0	4465.3	Base Ft Union
5679.0	5695.3	Ohio Creek
5879.0	5895.3	Williams Fork
6879.0	6895.3	Approx TOG
8229.0	8245.3	Cameo
8579.0	8595.3	Rollins SS

Bottom Hole Location
Oxy 21-7D (Oxy I21 Pad)
2102' FSL/ 572' FEL
Lat : 39.507008
Long : -108.217464



Azimuths to True North
Magnetic North: 10.65°

Magnetic Field
Strength: 52405.4nT
Dip Angle: 65.76°
Date: 10/5/2009
Model: IGRF200510

DESIGN DETAILS: Plan #2

95XXX; BH
KBE @ 8381.0ft (Original Well Elev)

Target	Azimuth	Origin	N/S	E/W	From TVD
Oxy 21-7D BHL	352.12	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 21-7D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-7D (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 21-7D (Oxy I21 Pad)					
Well Position	+N/-S	0.0 ft	Northing:	1,620,748.37 ft	Latitude:	39.506247
	+E/-W	0.0 ft	Easting:	2,233,399.19 ft	Longitude:	-108.217328
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	52,405

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	352.12

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,178.9	7.18	352.12	1,177.6	29.7	-4.1	1.50	1.50	0.00	352.12	
2,937.5	7.18	352.12	2,922.4	247.5	-34.3	0.00	0.00	0.00	0.00	
3,416.3	0.00	0.00	3,400.0	277.2	-38.4	1.50	-1.50	0.00	180.00	Oxy 21-7D TGT
8,745.3	0.00	0.00	8,729.0	277.2	-38.4	0.00	0.00	0.00	0.00	Oxy 21-7D BHL

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-7D (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	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	KOP @ 700'
720.0	0.30	352.12	720.0	0.1	0.0	0.1	1.50	1.50	
750.0	0.75	352.12	750.0	0.3	0.0	0.3	1.50	1.50	
780.0	1.20	352.12	780.0	0.8	-0.1	0.8	1.50	1.50	
810.0	1.65	352.12	810.0	1.6	-0.2	1.6	1.50	1.50	
840.0	2.10	352.12	840.0	2.5	-0.4	2.6	1.50	1.50	
870.0	2.55	352.12	869.9	3.7	-0.5	3.8	1.50	1.50	
900.0	3.00	352.12	899.9	5.2	-0.7	5.2	1.50	1.50	
930.0	3.45	352.12	929.9	6.9	-0.9	6.9	1.50	1.50	
960.0	3.90	352.12	959.8	8.8	-1.2	8.8	1.50	1.50	
990.0	4.35	352.12	989.7	10.9	-1.5	11.0	1.50	1.50	
1,020.0	4.80	352.12	1,019.6	13.3	-1.8	13.4	1.50	1.50	
1,050.0	5.25	352.12	1,049.5	15.9	-2.2	16.0	1.50	1.50	
1,080.0	5.70	352.12	1,079.4	18.7	-2.6	18.9	1.50	1.50	
1,110.0	6.15	352.12	1,109.2	21.8	-3.0	22.0	1.50	1.50	
1,140.0	6.60	352.12	1,139.0	25.1	-3.5	25.3	1.50	1.50	
1,170.0	7.05	352.12	1,168.8	28.6	-4.0	28.9	1.50	1.50	
1,178.9	7.18	352.12	1,177.6	29.7	-4.1	30.0	1.50	1.50	EOB; Inc=7.18°
1,200.0	7.18	352.12	1,198.6	32.3	-4.5	32.6	0.00	0.00	
1,230.0	7.18	352.12	1,228.3	36.0	-5.0	36.4	0.00	0.00	
1,260.0	7.18	352.12	1,258.1	39.7	-5.5	40.1	0.00	0.00	
1,290.0	7.18	352.12	1,287.9	43.5	-6.0	43.9	0.00	0.00	
1,320.0	7.18	352.12	1,317.6	47.2	-6.5	47.6	0.00	0.00	
1,350.0	7.18	352.12	1,347.4	50.9	-7.0	51.4	0.00	0.00	
1,380.0	7.18	352.12	1,377.2	54.6	-7.6	55.1	0.00	0.00	
1,410.0	7.18	352.12	1,406.9	58.3	-8.1	58.9	0.00	0.00	
1,440.0	7.18	352.12	1,436.7	62.0	-8.6	62.6	0.00	0.00	
1,470.0	7.18	352.12	1,466.5	65.8	-9.1	66.4	0.00	0.00	

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-7D (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	7.18	352.12	1,496.2	69.5	-9.6	70.1	0.00	0.00	
1,530.0	7.18	352.12	1,526.0	73.2	-10.1	73.9	0.00	0.00	
1,560.0	7.18	352.12	1,555.8	76.9	-10.6	77.6	0.00	0.00	
1,590.0	7.18	352.12	1,585.5	80.6	-11.2	81.4	0.00	0.00	
1,620.0	7.18	352.12	1,615.3	84.3	-11.7	85.1	0.00	0.00	
1,650.0	7.18	352.12	1,645.0	88.0	-12.2	88.9	0.00	0.00	
1,680.0	7.18	352.12	1,674.8	91.8	-12.7	92.6	0.00	0.00	
1,710.0	7.18	352.12	1,704.6	95.5	-13.2	96.4	0.00	0.00	
1,740.0	7.18	352.12	1,734.3	99.2	-13.7	100.1	0.00	0.00	
1,770.0	7.18	352.12	1,764.1	102.9	-14.2	103.9	0.00	0.00	
1,800.0	7.18	352.12	1,793.9	106.6	-14.8	107.6	0.00	0.00	
1,830.0	7.18	352.12	1,823.6	110.3	-15.3	111.4	0.00	0.00	
1,860.0	7.18	352.12	1,853.4	114.1	-15.8	115.1	0.00	0.00	
1,890.0	7.18	352.12	1,883.2	117.8	-16.3	118.9	0.00	0.00	
1,916.0	7.18	352.12	1,909.0	121.0	-16.8	122.2	0.00	0.00	Wasatch
1,920.0	7.18	352.12	1,912.9	121.5	-16.8	122.6	0.00	0.00	
1,950.0	7.18	352.12	1,942.7	125.2	-17.3	126.4	0.00	0.00	
1,980.0	7.18	352.12	1,972.5	128.9	-17.8	130.1	0.00	0.00	
2,010.0	7.18	352.12	2,002.2	132.6	-18.4	133.9	0.00	0.00	
2,040.0	7.18	352.12	2,032.0	136.3	-18.9	137.7	0.00	0.00	
2,070.0	7.18	352.12	2,061.8	140.1	-19.4	141.4	0.00	0.00	
2,100.0	7.18	352.12	2,091.5	143.8	-19.9	145.2	0.00	0.00	
2,130.0	7.18	352.12	2,121.3	147.5	-20.4	148.9	0.00	0.00	
2,160.0	7.18	352.12	2,151.0	151.2	-20.9	152.7	0.00	0.00	
2,190.0	7.18	352.12	2,180.8	154.9	-21.4	156.4	0.00	0.00	
2,220.0	7.18	352.12	2,210.6	158.6	-22.0	160.2	0.00	0.00	
2,250.0	7.18	352.12	2,240.3	162.4	-22.5	163.9	0.00	0.00	
2,280.0	7.18	352.12	2,270.1	166.1	-23.0	167.7	0.00	0.00	
2,310.0	7.18	352.12	2,299.9	169.8	-23.5	171.4	0.00	0.00	
2,340.0	7.18	352.12	2,329.6	173.5	-24.0	175.2	0.00	0.00	
2,370.0	7.18	352.12	2,359.4	177.2	-24.5	178.9	0.00	0.00	
2,400.0	7.18	352.12	2,389.2	180.9	-25.0	182.7	0.00	0.00	
2,430.0	7.18	352.12	2,418.9	184.7	-25.6	186.4	0.00	0.00	
2,460.0	7.18	352.12	2,448.7	188.4	-26.1	190.2	0.00	0.00	
2,490.0	7.18	352.12	2,478.5	192.1	-26.6	193.9	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 21-7D BHL	0.00	0.00	8,729.0	277.2	-38.4	1,621,026.59	2,233,369.12	39.507008	-108.217464
- plan misses target center by 6251.1ft at 2490.0ft MD (2478.5 TVD, 192.1 N, -26.6 E)									
- Rectangle (sides W100.0 H200.0 D0.0)									
Oxy 21-7D TGT	0.00	0.00	3,400.0	277.2	-38.4	1,621,026.59	2,233,369.12	39.507008	-108.217464
- plan misses target center by 925.5ft at 2490.0ft MD (2478.5 TVD, 192.1 N, -26.6 E)									
- Point									

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-7D (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	7.18	352.12	2,488.4	193.3	-26.8	195.2	0.00	0.00	
2,600.0	7.18	352.12	2,587.6	205.7	-28.5	207.7	0.00	0.00	
2,700.0	7.18	352.12	2,686.8	218.1	-30.2	220.2	0.00	0.00	
2,800.0	7.18	352.12	2,786.0	230.5	-31.9	232.7	0.00	0.00	
2,900.0	7.18	352.12	2,885.2	242.9	-33.6	245.2	0.00	0.00	
2,937.5	7.18	352.12	2,922.4	247.5	-34.3	249.9	0.00	0.00	Start Drop -1.50
3,000.0	6.24	352.12	2,984.5	254.7	-35.3	257.2	1.50	-1.50	
3,100.0	4.74	352.12	3,084.1	264.2	-36.6	266.8	1.50	-1.50	
3,200.0	3.24	352.12	3,183.8	271.1	-37.5	273.7	1.50	-1.50	
3,300.0	1.74	352.12	3,283.7	275.4	-38.1	278.1	1.50	-1.50	
3,400.0	0.24	352.12	3,383.7	277.2	-38.4	279.8	1.50	-1.50	
3,416.3	0.00	0.00	3,400.0	277.2	-38.4	279.8	1.50	-1.50	EOD; Inc=0° - Oxy 21-7D TGT
3,500.0	0.00	0.00	3,483.7	277.2	-38.4	279.8	0.00	0.00	
3,600.0	0.00	0.00	3,583.7	277.2	-38.4	279.8	0.00	0.00	
3,700.0	0.00	0.00	3,683.7	277.2	-38.4	279.8	0.00	0.00	
3,800.0	0.00	0.00	3,783.7	277.2	-38.4	279.8	0.00	0.00	
3,900.0	0.00	0.00	3,883.7	277.2	-38.4	279.8	0.00	0.00	
3,965.3	0.00	0.00	3,949.0	277.2	-38.4	279.8	0.00	0.00	Ft Union
4,000.0	0.00	0.00	3,983.7	277.2	-38.4	279.8	0.00	0.00	
4,100.0	0.00	0.00	4,083.7	277.2	-38.4	279.8	0.00	0.00	
4,200.0	0.00	0.00	4,183.7	277.2	-38.4	279.8	0.00	0.00	
4,300.0	0.00	0.00	4,283.7	277.2	-38.4	279.8	0.00	0.00	
4,400.0	0.00	0.00	4,383.7	277.2	-38.4	279.8	0.00	0.00	
4,465.3	0.00	0.00	4,449.0	277.2	-38.4	279.8	0.00	0.00	Base Ft Union
4,500.0	0.00	0.00	4,483.7	277.2	-38.4	279.8	0.00	0.00	
4,600.0	0.00	0.00	4,583.7	277.2	-38.4	279.8	0.00	0.00	
4,700.0	0.00	0.00	4,683.7	277.2	-38.4	279.8	0.00	0.00	
4,800.0	0.00	0.00	4,783.7	277.2	-38.4	279.8	0.00	0.00	
4,900.0	0.00	0.00	4,883.7	277.2	-38.4	279.8	0.00	0.00	
5,000.0	0.00	0.00	4,983.7	277.2	-38.4	279.8	0.00	0.00	
5,100.0	0.00	0.00	5,083.7	277.2	-38.4	279.8	0.00	0.00	
5,200.0	0.00	0.00	5,183.7	277.2	-38.4	279.8	0.00	0.00	
5,300.0	0.00	0.00	5,283.7	277.2	-38.4	279.8	0.00	0.00	
5,400.0	0.00	0.00	5,383.7	277.2	-38.4	279.8	0.00	0.00	
5,500.0	0.00	0.00	5,483.7	277.2	-38.4	279.8	0.00	0.00	
5,600.0	0.00	0.00	5,583.7	277.2	-38.4	279.8	0.00	0.00	
5,695.3	0.00	0.00	5,679.0	277.2	-38.4	279.8	0.00	0.00	Ohio Creek
5,700.0	0.00	0.00	5,683.7	277.2	-38.4	279.8	0.00	0.00	
5,800.0	0.00	0.00	5,783.7	277.2	-38.4	279.8	0.00	0.00	
5,895.3	0.00	0.00	5,879.0	277.2	-38.4	279.8	0.00	0.00	Williams Fork
5,900.0	0.00	0.00	5,883.7	277.2	-38.4	279.8	0.00	0.00	
6,000.0	0.00	0.00	5,983.7	277.2	-38.4	279.8	0.00	0.00	
6,100.0	0.00	0.00	6,083.7	277.2	-38.4	279.8	0.00	0.00	
6,200.0	0.00	0.00	6,183.7	277.2	-38.4	279.8	0.00	0.00	
6,300.0	0.00	0.00	6,283.7	277.2	-38.4	279.8	0.00	0.00	
6,400.0	0.00	0.00	6,383.7	277.2	-38.4	279.8	0.00	0.00	
6,500.0	0.00	0.00	6,483.7	277.2	-38.4	279.8	0.00	0.00	
6,600.0	0.00	0.00	6,583.7	277.2	-38.4	279.8	0.00	0.00	
6,700.0	0.00	0.00	6,683.7	277.2	-38.4	279.8	0.00	0.00	
6,800.0	0.00	0.00	6,783.7	277.2	-38.4	279.8	0.00	0.00	
6,895.3	0.00	0.00	6,879.0	277.2	-38.4	279.8	0.00	0.00	Approx TOG
6,900.0	0.00	0.00	6,883.7	277.2	-38.4	279.8	0.00	0.00	

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-7D (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
7,000.0	0.00	0.00	6,983.7	277.2	-38.4	279.8	0.00	0.00	
7,100.0	0.00	0.00	7,083.7	277.2	-38.4	279.8	0.00	0.00	
7,200.0	0.00	0.00	7,183.7	277.2	-38.4	279.8	0.00	0.00	
7,300.0	0.00	0.00	7,283.7	277.2	-38.4	279.8	0.00	0.00	
7,400.0	0.00	0.00	7,383.7	277.2	-38.4	279.8	0.00	0.00	
7,500.0	0.00	0.00	7,483.7	277.2	-38.4	279.8	0.00	0.00	
7,600.0	0.00	0.00	7,583.7	277.2	-38.4	279.8	0.00	0.00	
7,700.0	0.00	0.00	7,683.7	277.2	-38.4	279.8	0.00	0.00	
7,800.0	0.00	0.00	7,783.7	277.2	-38.4	279.8	0.00	0.00	
7,900.0	0.00	0.00	7,883.7	277.2	-38.4	279.8	0.00	0.00	
8,000.0	0.00	0.00	7,983.7	277.2	-38.4	279.8	0.00	0.00	
8,100.0	0.00	0.00	8,083.7	277.2	-38.4	279.8	0.00	0.00	
8,200.0	0.00	0.00	8,183.7	277.2	-38.4	279.8	0.00	0.00	
8,245.3	0.00	0.00	8,229.0	277.2	-38.4	279.8	0.00	0.00	Cameo
8,300.0	0.00	0.00	8,283.7	277.2	-38.4	279.8	0.00	0.00	
8,400.0	0.00	0.00	8,383.7	277.2	-38.4	279.8	0.00	0.00	
8,500.0	0.00	0.00	8,483.7	277.2	-38.4	279.8	0.00	0.00	
8,595.3	0.00	0.00	8,579.0	277.2	-38.4	279.8	0.00	0.00	Rollins SS
8,600.0	0.00	0.00	8,583.7	277.2	-38.4	279.8	0.00	0.00	
8,700.0	0.00	0.00	8,683.7	277.2	-38.4	279.8	0.00	0.00	
8,745.3	0.00	0.00	8,729.0	277.2	-38.4	279.8	0.00	0.00	TD at 8745.3 - Oxy 21-7D BHL

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Oxy 21-7D BHL - hit/miss target - Shape - plan hits target center - Rectangle (sides W100.0 H200.0 D0.0)	0.00	0.00	8,729.0	277.2	-38.4	1,621,026.59	2,233,369.12	39.507008	-108.217464
Oxy 21-7D TGT - plan hits target center - Point	0.00	0.00	3,400.0	277.2	-38.4	1,621,026.59	2,233,369.12	39.507008	-108.217464

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,916.0	1,909.0	Wasatch		0.00		
3,965.3	3,949.0	Ft Union		0.00		
4,465.3	4,449.0	Base Ft Union		0.00		
5,695.3	5,679.0	Ohio Creek		0.00		
5,895.3	5,879.0	Williams Fork		0.00		
6,895.3	6,879.0	Approx TOG		0.00		
8,245.3	8,229.0	Cameo		0.00		
8,595.3	8,579.0	Rollins SS		0.00		

Directional Plus

Planning Report

Database:	EDM 2003.21 US Multi User Db	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Project:	Garfield County	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 21-7D (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)	
700.0	700.0	0.0	0.0	KOP @ 700'
1,178.9	1,177.6	29.7	-4.1	EOB; Inc=7.18°
2,937.5	2,922.4	247.5	-34.3	Start Drop -1.50
3,416.3	3,400.0	277.2	-38.4	EOD; Inc=0°
8,745.3	8,729.0	277.2	-38.4	TD at 8745.3

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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	8,745.3	Plan #2 (DD)	MWD	Geolink MWD	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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	200.0	200.0	46.1	45.4	71.337	CC
Oxy 21-10D (Oxy I21 Pad) - DD - Plan #1	400.0	399.8	46.4	45.0	34.177	ES
Oxy 21-10D (Oxy I21 Pad) - DD - Plan #1	700.0	697.1	56.6	54.0	22.357	SF
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	61.0	60.0	61.340	CC
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	400.0	399.9	61.1	59.8	45.436	ES
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	900.0	894.0	77.6	74.3	23.989	SF
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	76.1	75.1	76.515	CC
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	400.0	399.5	76.4	75.1	56.828	ES
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	1,000.0	988.4	104.8	101.2	29.085	SF
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	90.7	89.7	91.187	CC, ES
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	1,100.0	1,080.4	135.1	131.2	34.175	SF
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	105.4	104.4	105.943	CC, ES
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1	1,100.0	1,076.7	153.8	149.9	39.234	SF
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	120.6	119.6	121.233	CC, ES
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1	1,200.0	1,165.7	186.9	182.7	44.143	SF
Oxy 21-16D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	134.7	133.7	135.352	CC, ES
Oxy 21-16D (Oxy I21 Pad) - DD - Plan #1	1,100.0	1,068.7	189.2	185.3	49.404	SF
Oxy 21-17D (Oxy I21 pad) - DD - Plan #1	200.0	200.0	135.0	134.3	208.994	CC, ES
Oxy 21-17D (Oxy I21 pad) - DD - Plan #1	1,000.0	967.6	197.8	194.4	56.924	SF
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	31.2	30.2	31.405	CC, ES
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	600.0	597.1	42.5	40.5	20.855	SF
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #2	200.0	200.0	30.1	29.5	46.682	CC, ES
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #2	500.0	497.4	40.4	38.7	23.858	SF
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	500.0	500.0	10.9	9.2	6.454	CC, ES
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	600.0	599.7	12.2	10.2	5.989	SF
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	600.0	600.0	9.9	7.8	4.839	CC, ES
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	700.0	699.8	10.8	8.4	4.496	SF
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	791.2	791.2	17.2	14.5	6.336	CC
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	800.0	799.9	17.2	14.5	6.268	ES, SF
Oxy 21-6D (Oxy I21 Pad) - DD - Plan #2	749.0	1,049.1	13.0	10.4	5.074	CC, ES
Oxy 21-6D (Oxy I21 Pad) - DD - Plan #2	800.0	1,100.2	13.3	10.6	4.848	SF
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #2	200.0	200.0	14.7	14.0	22.747	CC, ES
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #2	3,001.6	2,997.0	36.4	26.0	3.491	SF
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	200.0	200.0	31.7	31.1	49.088	CC
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	300.0	300.0	31.7	30.7	31.840	ES
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	600.0	598.5	38.1	36.0	18.004	SF

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	-45.28	32.4	-32.7	46.1				
100.0	100.0	100.0	100.0	0.1	0.1	-45.28	32.4	-32.7	46.1	45.8	0.30	155.262	
200.0	200.0	200.0	200.0	0.3	0.3	-45.28	32.4	-32.7	46.1	45.4	0.65	71.337 CC	
215.1	215.1	215.1	215.1	0.3	0.3	-45.31	32.4	-32.8	46.1	45.4	0.70	65.951	
300.0	300.0	300.0	300.0	0.5	0.5	-46.90	31.5	-33.7	46.1	45.1	1.00	46.238	
400.0	400.0	399.8	399.7	0.7	0.7	-51.74	28.7	-36.4	46.4	45.0	1.36	34.177 ES	
500.0	500.0	499.4	499.1	0.8	0.9	-59.54	24.1	-41.0	47.6	45.9	1.73	27.448	
600.0	600.0	598.5	597.8	1.0	1.1	-69.49	17.7	-47.4	50.7	48.6	2.13	23.810	
700.0	700.0	697.1	695.7	1.2	1.4	-80.21	9.6	-55.6	56.6	54.0	2.53	22.357 SF	
800.0	800.0	795.0	792.6	1.4	1.7	-83.32	-0.3	-65.4	65.7	62.8	2.88	22.805	
900.0	899.9	891.6	887.9	1.6	2.0	-94.15	-11.7	-76.9	79.0	75.7	3.23	24.486	
1,000.0	999.7	986.8	981.3	1.7	2.3	-103.60	-24.7	-89.9	97.2	93.6	3.55	27.383	
1,100.0	1,099.3	1,080.3	1,072.6	1.9	2.7	-111.24	-39.0	-104.2	120.6	116.7	3.87	31.150	
1,200.0	1,198.6	1,171.9	1,161.4	2.2	3.1	-117.26	-54.5	-119.7	149.0	144.8	4.20	35.467	
1,300.0	1,297.8	1,261.7	1,248.1	2.4	3.6	-121.83	-71.2	-136.5	181.3	176.8	4.54	39.925	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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													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	Separation			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-41.75	45.5	-40.6	61.0						
100.0	100.0	100.0	100.0	0.1	0.1	-41.75	45.5	-40.6	61.0	60.7	0.30	205.670			
200.0	200.0	200.0	200.0	0.3	0.3	-41.75	45.5	-40.6	61.0	60.4	0.65	94.497			
300.0	300.0	300.0	300.0	0.5	0.5	-41.75	45.5	-40.6	61.0	60.0	0.99	61.340 CC			
400.0	400.0	399.9	399.9	0.7	0.7	-42.97	44.7	-41.7	61.1	59.8	1.35	45.436 ES			
500.0	500.0	499.6	499.5	0.8	0.9	-46.59	42.3	-44.7	61.6	59.9	1.70	36.154			
600.0	600.0	599.1	598.8	1.0	1.1	-52.45	38.3	-49.8	62.9	60.8	2.08	30.291			
700.0	700.0	698.1	697.4	1.2	1.3	-60.10	32.8	-57.0	65.7	63.3	2.47	26.657			
800.0	800.0	796.6	795.2	1.4	1.5	-61.73	25.7	-66.0	70.4	67.5	2.85	24.668			
900.0	899.9	894.0	891.7	1.6	1.8	-72.94	17.1	-76.9	77.6	74.3	3.23	23.989 SF			
1,000.0	999.7	990.3	986.5	1.7	2.1	-84.38	7.2	-89.6	89.1	85.5	3.59	24.792			
1,100.0	1,099.3	1,085.0	1,079.5	1.9	2.5	-94.71	-4.0	-103.9	105.9	102.0	3.94	26.908			
1,200.0	1,198.6	1,178.0	1,170.3	2.2	2.8	-103.34	-16.4	-119.7	128.3	124.0	4.27	30.014			
1,300.0	1,297.8	1,269.5	1,259.1	2.4	3.2	-109.93	-29.9	-137.0	155.5	150.9	4.62	33.678			
1,400.0	1,397.0	1,359.6	1,346.1	2.7	3.7	-114.60	-44.5	-155.6	186.4	181.4	4.97	37.504			

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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 (°)	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	-39.61	58.6	-48.5	76.1					
100.0	100.0	100.0	100.0	0.1	0.1	-39.61	58.6	-48.5	76.1	75.8	0.30	256.551		
200.0	200.0	200.0	200.0	0.3	0.3	-39.61	58.6	-48.5	76.1	75.5	0.65	117.875		
300.0	300.0	300.0	300.0	0.5	0.5	-39.61	58.6	-48.5	76.1	75.1	0.99	76.515 CC		
400.0	400.0	399.5	399.5	0.7	0.7	-40.56	58.1	-49.7	76.4	75.1	1.34	56.828 ES		
500.0	500.0	499.0	498.9	0.8	0.9	-43.36	56.3	-53.1	77.4	75.7	1.70	45.491		
600.0	600.0	598.1	597.8	1.0	1.1	-47.82	53.4	-58.9	79.5	77.4	2.07	38.350		
700.0	700.0	696.8	696.1	1.2	1.3	-53.62	49.3	-66.9	83.2	80.7	2.46	33.797		
800.0	800.0	795.0	793.6	1.4	1.5	-52.95	44.1	-77.0	88.2	85.4	2.84	31.021		
900.0	899.9	892.3	889.9	1.6	1.8	-61.67	37.8	-89.3	95.0	91.7	3.23	29.394		
1,000.0	999.7	988.4	984.7	1.7	2.1	-71.10	30.5	-103.6	104.8	101.2	3.60	29.085 SF		
1,100.0	1,099.3	1,083.2	1,077.8	1.9	2.5	-80.35	22.2	-119.8	118.9	114.9	3.96	30.004		
1,200.0	1,198.6	1,176.5	1,168.8	2.2	2.8	-88.75	13.1	-137.7	137.8	133.5	4.31	31.945		
1,300.0	1,297.8	1,268.4	1,258.0	2.4	3.2	-95.66	3.1	-157.2	161.7	157.0	4.67	34.643		
1,400.0	1,397.0	1,358.9	1,345.4	2.7	3.7	-100.85	-7.7	-178.4	189.6	184.5	5.03	37.718		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-38.47	71.0	-56.4	90.7						
100.0	100.0	100.0	100.0	0.1	0.1	-38.47	71.0	-56.4	90.7	90.4	0.30	305.744			
200.0	200.0	200.0	200.0	0.3	0.3	-38.47	71.0	-56.4	90.7	90.1	0.65	140.477			
300.0	300.0	300.0	300.0	0.5	0.5	-38.47	71.0	-56.4	90.7	89.7	0.99	91.187 CC, ES			
400.0	400.0	399.1	399.1	0.7	0.7	-39.21	70.7	-57.7	91.2	89.9	1.34	67.884			
500.0	500.0	498.0	497.9	0.8	0.9	-41.40	69.6	-61.4	92.8	91.1	1.70	54.616			
600.0	600.0	596.7	596.4	1.0	1.1	-44.86	67.8	-67.5	95.8	93.7	2.07	46.325			
700.0	700.0	695.0	694.3	1.2	1.3	-49.31	65.4	-76.0	100.4	98.0	2.45	40.999			
800.0	800.0	792.7	791.4	1.4	1.5	-46.95	62.2	-86.9	106.4	103.5	2.83	37.648			
900.0	899.9	889.7	887.3	1.6	1.8	-53.70	58.4	-100.1	113.4	110.2	3.21	35.343			
1,000.0	999.7	985.7	982.0	1.7	2.1	-61.20	54.0	-115.4	122.7	119.1	3.59	34.215			
1,100.0	1,099.3	1,080.4	1,075.0	1.9	2.4	-68.91	49.0	-132.8	135.1	131.2	3.95	34.175 SF			
1,200.0	1,198.6	1,173.9	1,166.3	2.2	2.8	-76.37	43.5	-152.1	151.5	147.2	4.32	35.077			
1,300.0	1,297.8	1,267.2	1,257.0	2.4	3.2	-82.95	37.3	-173.4	172.3	167.6	4.68	36.794			
1,400.0	1,397.0	1,363.0	1,349.9	2.7	3.6	-88.29	30.9	-195.8	195.5	190.4	5.06	38.651			

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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												Offset Site Error:		0.0 ft
Survey Program: 0-MWD												Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-38.01	83.0	-64.9	105.4					
100.0	100.0	100.0	100.0	0.1	0.1	-38.01	83.0	-64.9	105.4	105.1	0.30	355.221		
200.0	200.0	200.0	200.0	0.3	0.3	-38.01	83.0	-64.9	105.4	104.8	0.65	163.210		
300.0	300.0	300.0	300.0	0.5	0.5	-38.01	83.0	-64.9	105.4	104.4	0.99	105.943	CC, ES	
400.0	400.0	398.5	398.5	0.7	0.7	-38.58	82.9	-66.2	106.1	104.8	1.34	79.041		
500.0	500.0	496.8	496.7	0.8	0.9	-40.25	82.6	-70.0	108.3	106.6	1.70	63.873		
600.0	600.0	594.9	594.6	1.0	1.0	-42.87	82.1	-76.2	112.2	110.1	2.06	54.481		
700.0	700.0	692.6	691.9	1.2	1.3	-46.23	81.4	-85.0	118.0	115.5	2.43	48.455		
800.0	800.0	789.8	788.5	1.4	1.5	-42.49	80.5	-96.2	125.0	122.2	2.80	44.638		
900.0	899.9	886.3	884.0	1.6	1.8	-47.61	79.4	-109.7	132.8	129.6	3.18	41.803		
1,000.0	999.7	982.0	978.4	1.7	2.1	-53.41	78.2	-125.4	142.1	138.6	3.55	40.043		
1,100.0	1,099.3	1,076.7	1,071.3	1.9	2.4	-59.56	76.7	-143.3	153.8	149.9	3.92	39.234	SF	
1,200.0	1,198.6	1,170.2	1,162.7	2.2	2.8	-65.76	75.1	-163.3	168.3	164.1	4.29	39.243		
1,300.0	1,297.8	1,265.4	1,255.3	2.4	3.2	-71.57	73.3	-185.4	186.4	181.7	4.66	39.963		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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 (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-37.13	96.2	-72.8	120.6					
100.0	100.0	100.0	100.0	0.1	0.1	-37.13	96.2	-72.8	120.6	120.3	0.30	406.487		
200.0	200.0	200.0	200.0	0.3	0.3	-37.13	96.2	-72.8	120.6	120.0	0.65	186.764		
300.0	300.0	300.0	300.0	0.5	0.5	-37.13	96.2	-72.8	120.6	119.6	0.99	121.233 CC, ES		
400.0	400.0	397.8	397.8	0.7	0.7	-37.54	96.3	-74.0	121.5	120.2	1.34	90.625		
500.0	500.0	495.4	495.3	0.8	0.8	-38.74	96.9	-77.7	124.3	122.6	1.69	73.500		
600.0	600.0	592.8	592.5	1.0	1.0	-40.62	97.8	-83.9	129.1	127.0	2.05	62.990		
700.0	700.0	689.8	689.1	1.2	1.3	-43.02	99.1	-92.5	136.0	133.5	2.42	56.277		
800.0	800.0	786.4	785.0	1.4	1.5	-38.10	100.7	-103.4	144.1	141.3	2.77	52.012		
900.0	899.9	882.3	880.1	1.6	1.8	-41.82	102.7	-116.6	152.7	149.6	3.14	48.706		
1,000.0	999.7	977.6	974.1	1.7	2.1	-46.11	105.0	-132.1	162.4	158.9	3.50	46.400		
1,100.0	1,099.3	1,072.1	1,066.9	1.9	2.4	-50.78	107.6	-149.7	173.7	169.8	3.87	44.926		
1,200.0	1,198.6	1,165.7	1,158.3	2.2	2.8	-55.64	110.5	-169.4	186.9	182.7	4.23	44.143 SF		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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						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	-32.73	113.3	-72.8	134.7					
100.0	100.0	100.0	100.0	0.1	0.1	-32.73	113.3	-72.8	134.7	134.4	0.30	453.828		
200.0	200.0	200.0	200.0	0.3	0.3	-32.73	113.3	-72.8	134.7	134.0	0.65	208.516		
300.0	300.0	300.0	300.0	0.5	0.5	-32.73	113.3	-72.8	134.7	133.7	0.99	135.352 CC, ES		
400.0	400.0	397.2	397.2	0.7	0.7	-33.04	113.7	-74.0	135.7	134.3	1.34	101.265		
500.0	500.0	494.3	494.2	0.8	0.8	-33.95	115.0	-77.4	138.8	137.1	1.69	82.204		
600.0	600.0	591.2	590.9	1.0	1.0	-35.37	117.2	-83.2	144.0	141.9	2.04	70.512		
700.0	700.0	687.7	687.0	1.2	1.3	-37.19	120.2	-91.2	151.4	149.0	2.40	63.020		
800.0	800.0	783.7	782.4	1.4	1.5	-31.56	124.0	-101.4	160.1	157.3	2.75	58.186		
900.0	899.9	879.3	877.1	1.6	1.8	-34.41	128.7	-113.8	169.0	165.9	3.11	54.342		
1,000.0	999.7	974.3	970.8	1.7	2.1	-37.73	134.2	-128.4	178.6	175.2	3.47	51.481		
1,100.0	1,099.3	1,068.7	1,063.5	1.9	2.4	-41.41	140.4	-145.0	189.2	185.3	3.83	49.404 SF		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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												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	Separation			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	Axis	Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-36.72	108.2	-80.7	135.0						
100.0	100.0	100.0	100.0	0.1	0.1	-36.72	108.2	-80.7	135.0	134.7	0.30	454.870			
200.0	200.0	200.0	200.0	0.3	0.3	-36.72	108.2	-80.7	135.0	134.3	0.65	208.994	CC, ES		
300.0	300.0	297.2	297.1	0.5	0.5	-37.02	108.6	-81.9	136.0	135.0	0.99	137.275			
400.0	400.0	394.2	394.1	0.7	0.7	-37.88	109.8	-85.4	139.2	137.8	1.34	103.899			
500.0	500.0	491.0	490.7	0.8	0.9	-39.22	111.7	-91.2	144.5	142.8	1.69	85.297			
600.0	600.0	587.4	586.7	1.0	1.1	-40.94	114.5	-99.3	152.1	150.1	2.06	73.988			
700.0	700.0	683.3	682.0	1.2	1.3	-42.90	118.0	-109.6	162.0	159.6	2.42	66.851			
800.0	800.0	778.6	776.4	1.4	1.6	-37.25	122.2	-122.1	173.3	170.6	2.76	62.755			
900.0	899.9	873.5	870.0	1.6	1.9	-39.97	127.2	-136.8	185.2	182.1	3.12	59.350			
1,000.0	999.7	967.6	962.5	1.7	2.3	-43.04	132.8	-153.5	197.8	194.4	3.48	56.924	SF		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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												Offset Site Error:		0.0 ft	
Survey Program: 0-MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance					Warning			
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis		Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)					
0.0	0.0	0.0	0.0	0.0	0.0	165.35	-30.2	7.9	31.2						
100.0	100.0	100.0	100.0	0.1	0.1	165.35	-30.2	7.9	31.2	30.9	0.30	105.300			
200.0	200.0	200.0	200.0	0.3	0.3	165.35	-30.2	7.9	31.2	30.6	0.65	48.381			
300.0	300.0	300.0	300.0	0.5	0.5	165.35	-30.2	7.9	31.2	30.2	0.99	31.405 CC, ES			
400.0	400.0	399.2	399.2	0.7	0.7	166.06	-31.5	7.8	32.5	31.1	1.34	24.192			
500.0	500.0	498.3	498.2	0.8	0.9	167.90	-35.4	7.6	36.2	34.5	1.69	21.425			
600.0	600.0	597.1	596.8	1.0	1.1	170.24	-41.8	7.2	42.5	40.5	2.04	20.855 SF			
700.0	700.0	695.5	694.8	1.2	1.3	172.54	-50.6	6.6	51.3	49.0	2.38	21.541			
800.0	800.0	793.2	791.8	1.4	1.5	-177.63	-62.0	5.9	64.1	61.3	2.73	23.465			
900.0	899.9	889.8	887.4	1.6	1.8	-176.19	-75.6	5.1	81.9	78.9	3.07	26.680			
1,000.0	999.7	984.8	981.1	1.7	2.1	-175.22	-91.3	4.1	104.8	101.4	3.41	30.774			
1,100.0	1,099.3	1,078.0	1,072.6	1.9	2.4	-174.57	-109.0	3.0	132.6	128.9	3.73	35.504			
1,200.0	1,198.6	1,169.0	1,161.5	2.2	2.8	-174.14	-128.5	1.8	165.1	161.1	4.06	40.675			

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	146.48	-25.1	16.6	30.1				
100.0	100.0	100.0	100.0	0.1	0.1	146.48	-25.1	16.6	30.1	29.8	0.30	101.603	
200.0	200.0	200.0	200.0	0.3	0.3	146.48	-25.1	16.6	30.1	29.5	0.65	46.682 CC, ES	
300.0	300.0	299.3	299.3	0.5	0.5	147.80	-26.4	16.6	31.2	30.2	0.99	31.421	
400.0	400.0	398.5	398.4	0.7	0.7	151.26	-30.3	16.6	34.6	33.2	1.34	25.746	
500.0	500.0	497.4	497.1	0.8	0.9	155.72	-36.7	16.6	40.4	38.7	1.69	23.858 SF	
600.0	600.0	596.0	595.3	1.0	1.1	160.13	-45.6	16.5	48.8	46.7	2.04	23.906	
700.0	700.0	694.0	692.6	1.2	1.4	163.95	-57.0	16.4	59.8	57.4	2.38	25.078	
800.0	800.0	791.1	788.8	1.4	1.6	174.98	-70.8	16.3	74.8	72.0	2.74	27.300	
900.0	899.9	886.9	883.2	1.6	2.0	177.43	-86.7	16.2	94.9	91.9	3.08	30.851	
1,000.0	999.7	981.0	975.6	1.7	2.3	179.23	-104.7	16.1	120.1	116.7	3.41	35.243	
1,100.0	1,099.3	1,074.9	1,067.4	1.9	2.7	-179.46	-124.6	15.9	150.0	146.2	3.74	40.136	
1,200.0	1,198.6	1,169.4	1,159.7	2.2	3.0	-178.58	-144.9	15.7	182.5	178.5	4.06	44.916	

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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			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	180.00	-10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.1	0.1	180.00	-10.9	0.0	10.9	10.6	0.30	36.828		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.65	16.921		
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-10.9	0.0	10.9	9.9	0.99	10.984		
400.0	400.0	400.0	400.0	0.7	0.7	180.00	-10.9	0.0	10.9	9.6	1.34	8.131		
500.0	500.0	500.0	500.0	0.8	0.8	180.00	-10.9	0.0	10.9	9.2	1.69	6.454	CC, ES	
600.0	600.0	599.7	599.7	1.0	1.0	-179.45	-12.2	-0.1	12.2	10.2	2.04	5.989	SF	
700.0	700.0	699.3	699.2	1.2	1.2	-178.33	-16.1	-0.5	16.1	13.7	2.39	6.749		
800.0	800.0	798.4	798.1	1.4	1.4	-169.99	-22.5	-1.1	23.9	21.2	2.74	8.739		
900.0	899.9	896.8	896.1	1.6	1.6	-170.26	-31.4	-1.9	36.8	33.8	3.08	11.958		
1,000.0	999.7	994.0	992.6	1.7	1.8	-170.65	-42.7	-2.9	54.8	51.4	3.42	16.032		
1,100.0	1,099.3	1,089.7	1,087.3	1.9	2.1	-171.00	-56.2	-4.1	77.8	74.1	3.76	20.725		
1,200.0	1,198.6	1,184.4	1,180.8	2.2	2.4	-171.29	-71.7	-5.5	105.5	101.4	4.09	25.809		
1,300.0	1,297.8	1,280.1	1,275.1	2.4	2.7	-171.52	-87.8	-7.0	134.4	130.0	4.43	30.353		
1,400.0	1,397.0	1,375.9	1,369.5	2.7	3.0	-171.68	-103.9	-8.5	163.4	158.6	4.77	34.246		
1,500.0	1,496.2	1,471.6	1,463.8	2.9	3.3	-171.79	-120.1	-9.9	192.3	187.2	5.11	37.619		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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		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)		Between Centres (ft)	Between Ellipses (ft)				Measured Depth (ft)	Vertical Depth (ft)	Offset (ft)
0.0	0.0	0.0	0.0	0.0	0.0	-121.07	-5.1	-8.5	9.9					
100.0	100.0	100.0	100.0	0.1	0.1	-121.07	-5.1	-8.5	9.9	9.6	0.30	33.306		
200.0	200.0	200.0	200.0	0.3	0.3	-121.07	-5.1	-8.5	9.9	9.2	0.65	15.303		
300.0	300.0	300.0	300.0	0.5	0.5	-121.07	-5.1	-8.5	9.9	8.9	0.99	9.933		
400.0	400.0	400.0	400.0	0.7	0.7	-121.07	-5.1	-8.5	9.9	8.5	1.34	7.353		
500.0	500.0	500.0	500.0	0.8	0.8	-121.07	-5.1	-8.5	9.9	8.2	1.69	5.837		
600.0	600.0	600.0	600.0	1.0	1.0	-121.07	-5.1	-8.5	9.9	7.8	2.04	4.839 CC, ES		
700.0	700.0	699.8	699.8	1.2	1.2	-126.48	-6.4	-8.6	10.8	8.4	2.39	4.496 SF		
800.0	800.0	799.4	799.3	1.4	1.4	-134.15	-10.3	-9.2	14.7	11.9	2.74	5.347		
900.0	899.9	898.4	898.1	1.6	1.6	-148.81	-16.6	-10.1	23.8	20.7	3.09	7.711		
1,000.0	999.7	996.4	995.7	1.7	1.8	-157.30	-25.5	-11.3	38.6	35.1	3.43	11.245		
1,100.0	1,099.3	1,094.1	1,092.8	1.9	2.0	-161.97	-36.2	-12.7	58.1	54.3	3.77	15.415		
1,200.0	1,198.6	1,191.5	1,189.6	2.2	2.2	-164.78	-46.9	-14.2	80.4	76.3	4.11	19.566		
1,300.0	1,297.8	1,288.8	1,286.2	2.4	2.4	-166.52	-57.7	-15.7	103.5	99.1	4.45	23.252		
1,400.0	1,397.0	1,386.0	1,382.9	2.7	2.7	-167.62	-68.5	-17.2	126.7	121.9	4.80	26.418		
1,500.0	1,496.2	1,483.3	1,479.5	2.9	2.9	-168.38	-79.3	-18.7	149.9	144.8	5.14	29.165		
1,600.0	1,595.4	1,580.5	1,576.1	3.2	3.2	-168.94	-90.0	-20.2	173.2	167.7	5.49	31.568		
1,700.0	1,694.7	1,677.8	1,672.8	3.4	3.4	-169.36	-100.8	-21.6	196.5	190.6	5.83	33.688		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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		
0.0	0.0	0.0	0.0	0.0	0.0	-66.00	7.3	-16.4	17.9					
100.0	100.0	100.0	100.0	0.1	0.1	-66.00	7.3	-16.4	17.9	17.6	0.30	60.374		
200.0	200.0	200.0	200.0	0.3	0.3	-66.00	7.3	-16.4	17.9	17.3	0.65	27.740		
300.0	300.0	300.0	300.0	0.5	0.5	-66.00	7.3	-16.4	17.9	16.9	0.99	18.006		
400.0	400.0	400.0	400.0	0.7	0.7	-66.00	7.3	-16.4	17.9	16.6	1.34	13.329		
500.0	500.0	500.0	500.0	0.8	0.8	-66.00	7.3	-16.4	17.9	16.2	1.69	10.581		
600.0	600.0	600.0	600.0	1.0	1.0	-66.00	7.3	-16.4	17.9	15.9	2.04	8.772		
700.0	700.0	700.1	700.1	1.2	1.2	-70.15	6.0	-16.6	17.7	15.3	2.39	7.386		
791.2	791.2	791.2	791.1	1.4	1.4	-77.07	2.6	-17.3	17.2	14.5	2.72	6.336 CC		
800.0	800.0	799.9	799.9	1.4	1.4	-79.26	2.2	-17.4	17.2	14.5	2.75	6.268 ES, SF		
900.0	899.9	899.3	899.0	1.6	1.6	-109.59	-4.2	-18.6	20.2	17.1	3.11	6.515		
1,000.0	999.7	998.3	997.7	1.7	1.8	-133.24	-11.5	-20.1	29.7	26.2	3.45	8.592		
1,100.0	1,099.3	1,096.9	1,096.1	1.9	2.0	-146.46	-18.7	-21.5	43.8	40.0	3.79	11.538		
1,200.0	1,198.6	1,195.1	1,194.0	2.2	2.2	-154.14	-26.0	-22.9	61.3	57.2	4.13	14.836		
1,300.0	1,297.8	1,293.2	1,291.8	2.4	2.4	-158.64	-33.2	-24.4	80.2	75.7	4.48	17.915		
1,400.0	1,397.0	1,391.2	1,389.6	2.7	2.6	-161.42	-40.4	-25.8	99.4	94.6	4.82	20.611		
1,500.0	1,496.2	1,489.3	1,487.3	2.9	2.8	-163.30	-47.6	-27.2	118.7	113.6	5.17	22.972		
1,600.0	1,595.4	1,587.3	1,585.1	3.2	3.0	-164.65	-54.8	-28.6	138.2	132.6	5.52	25.051		
1,700.0	1,694.7	1,685.4	1,682.9	3.4	3.2	-165.67	-62.0	-30.1	157.6	151.8	5.86	26.893		
1,800.0	1,793.9	1,783.4	1,780.6	3.7	3.4	-166.46	-69.3	-31.5	177.2	171.0	6.21	28.533		
1,900.0	1,893.1	1,881.5	1,878.4	4.0	3.6	-167.10	-76.5	-32.9	196.7	190.2	6.56	30.004		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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 21-6D (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		
0.0	0.0	300.0	300.0	0.0	0.0	148.93	-13.1	7.9	15.3					
100.0	100.0	400.0	400.0	0.1	0.1	148.93	-13.1	7.9	15.3	15.0	0.30	51.596		
200.0	200.0	500.0	500.0	0.3	0.3	148.93	-13.1	7.9	15.3	14.7	0.65	23.706		
300.0	300.0	600.0	600.0	0.5	0.5	148.93	-13.1	7.9	15.3	14.3	0.99	15.388		
400.0	400.0	700.0	700.0	0.7	0.7	148.93	-13.1	7.9	15.3	14.0	1.34	11.391		
500.0	500.0	800.0	800.0	0.8	0.8	148.93	-13.1	7.9	15.3	13.6	1.69	9.043		
600.0	600.0	900.2	900.2	1.0	1.0	145.82	-12.0	8.1	14.5	12.4	2.04	7.080		
700.0	700.0	1,000.2	1,000.1	1.2	1.2	140.44	-10.2	8.5	13.3	10.9	2.39	5.552		
749.0	749.0	1,049.1	1,049.1	1.3	1.3	146.13	-9.4	8.6	13.0	10.4	2.56	5.074 CC, ES		
800.0	800.0	1,100.2	1,100.1	1.4	1.4	145.44	-8.5	8.8	13.3	10.6	2.74	4.848 SF		
900.0	899.9	1,200.1	1,200.1	1.6	1.5	148.45	-6.8	9.1	15.5	12.4	3.09	5.013		
1,000.0	999.7	1,300.0	1,299.9	1.7	1.7	154.34	-5.1	9.5	20.1	16.6	3.44	5.831		
1,100.0	1,099.3	1,399.7	1,399.6	1.9	1.9	160.07	-3.3	9.8	27.2	23.4	3.79	7.183		
1,200.0	1,198.6	1,499.2	1,499.1	2.2	2.1	164.52	-1.6	10.1	37.0	32.8	4.13	8.944		
1,300.0	1,297.8	1,598.6	1,598.5	2.4	2.3	167.35	0.1	10.5	47.6	43.1	4.48	10.630		
1,400.0	1,397.0	1,698.0	1,697.9	2.7	2.4	169.14	1.8	10.8	58.4	53.5	4.83	12.088		
1,500.0	1,496.2	1,797.4	1,797.3	2.9	2.6	170.37	3.5	11.1	69.1	64.0	5.18	13.356		
1,600.0	1,595.4	1,896.8	1,896.7	3.2	2.8	171.27	5.2	11.5	80.0	74.4	5.53	14.469		
1,700.0	1,694.7	1,996.0	1,995.8	3.4	3.0	171.96	6.9	11.8	90.8	84.9	5.87	15.457		
1,800.0	1,793.9	2,094.1	2,093.9	3.7	3.1	172.83	7.3	11.9	102.8	96.6	6.22	16.538		
1,900.0	1,893.1	2,193.3	2,193.1	4.0	3.3	173.60	7.3	11.9	115.3	108.7	6.56	17.558		
2,000.0	1,992.3	2,292.5	2,292.3	4.2	3.5	174.23	7.3	11.9	127.7	120.8	6.91	18.477		
2,100.0	2,091.5	2,391.7	2,391.5	4.5	3.6	174.74	7.3	11.9	140.1	132.9	7.26	19.310		
2,200.0	2,190.7	2,490.9	2,490.7	4.8	3.8	175.17	7.3	11.9	152.6	145.0	7.60	20.069		
2,300.0	2,289.9	2,590.1	2,589.9	5.0	4.0	175.54	7.3	11.9	165.1	157.1	7.95	20.761		
2,400.0	2,389.2	2,689.3	2,689.2	5.3	4.2	175.85	7.3	11.9	177.5	169.2	8.30	21.397		
2,500.0	2,488.4	2,788.6	2,788.4	5.6	4.3	176.13	7.3	11.9	190.0	181.4	8.64	21.981		

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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 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	-32.54	12.4	-7.9	14.7					
100.0	100.0	100.0	100.0	0.1	0.1	-32.54	12.4	-7.9	14.7	14.4	0.30	49.509		
200.0	200.0	200.0	200.0	0.3	0.3	-32.54	12.4	-7.9	14.7	14.0	0.65	22.747 CC, ES		
300.0	300.0	299.6	299.6	0.5	0.5	-30.45	13.7	-8.0	15.9	14.9	0.99	15.959		
400.0	400.0	399.1	399.0	0.7	0.7	-25.74	17.5	-8.5	19.5	18.2	1.34	14.520		
500.0	500.0	498.4	498.1	0.8	0.9	-20.91	24.0	-9.2	25.7	24.0	1.69	15.215		
600.0	600.0	597.2	596.5	1.0	1.1	-17.10	32.9	-10.1	34.6	32.6	2.04	16.982		
700.0	700.0	696.5	695.2	1.2	1.4	-14.51	43.5	-11.3	45.2	42.8	2.38	18.969		
800.0	800.0	796.0	794.1	1.4	1.6	-5.13	54.2	-12.4	54.7	51.9	2.74	19.974		
900.0	899.9	895.8	893.3	1.6	1.8	-4.25	65.0	-13.6	61.5	58.4	3.09	19.942		
1,000.0	999.7	995.7	992.6	1.7	2.1	-3.69	75.7	-14.8	65.8	62.3	3.43	19.162		
1,100.0	1,099.3	1,095.6	1,092.0	1.9	2.3	-3.32	86.5	-15.9	67.4	63.7	3.78	17.842		
1,200.0	1,198.6	1,195.6	1,191.4	2.2	2.6	-3.09	97.2	-17.1	66.5	62.4	4.13	16.125		
1,300.0	1,297.8	1,295.6	1,290.8	2.4	2.9	-2.89	108.0	-18.2	64.8	60.3	4.48	14.480		
1,400.0	1,397.0	1,395.6	1,390.2	2.7	3.1	-2.67	118.8	-19.4	63.1	58.3	4.83	13.074		
1,500.0	1,496.2	1,495.6	1,489.6	2.9	3.4	-2.45	129.5	-20.6	61.4	56.2	5.18	11.860		
1,600.0	1,595.4	1,595.6	1,589.0	3.2	3.6	-2.21	140.3	-21.7	59.7	54.2	5.53	10.799		
1,700.0	1,694.7	1,695.6	1,688.4	3.4	3.9	-1.95	151.0	-22.9	58.0	52.1	5.88	9.866		
1,800.0	1,793.9	1,795.5	1,787.8	3.7	4.1	-1.69	161.8	-24.1	56.3	50.0	6.23	9.038		
1,900.0	1,893.1	1,895.5	1,887.2	4.0	4.4	-1.40	172.5	-25.2	54.6	48.0	6.58	8.298		
2,000.0	1,992.3	1,995.5	1,986.6	4.2	4.6	-1.10	183.3	-26.4	52.9	45.9	6.92	7.633		
2,100.0	2,091.5	2,095.5	2,086.0	4.5	4.9	-0.77	194.1	-27.6	51.2	43.9	7.27	7.033		
2,200.0	2,190.7	2,195.5	2,185.4	4.8	5.2	-0.42	204.8	-28.7	49.4	41.8	7.62	6.487		
2,300.0	2,289.9	2,295.5	2,284.8	5.0	5.4	-0.05	215.6	-29.9	47.7	39.8	7.97	5.990		
2,400.0	2,389.2	2,395.5	2,384.2	5.3	5.7	0.35	226.3	-31.1	46.1	37.7	8.32	5.535		
2,500.0	2,488.4	2,495.4	2,483.6	5.6	5.9	0.77	237.1	-32.2	44.4	35.7	8.67	5.116		
2,600.0	2,587.6	2,595.4	2,583.0	5.9	6.2	1.24	247.8	-33.4	42.7	33.6	9.02	4.730		
2,700.0	2,686.8	2,695.4	2,682.4	6.1	6.4	1.74	258.6	-34.5	41.0	31.6	9.37	4.373		
2,800.0	2,786.0	2,795.4	2,781.8	6.4	6.7	2.28	269.4	-35.7	39.3	29.6	9.72	4.041		
2,900.0	2,885.2	2,895.4	2,881.2	6.7	6.9	2.88	280.1	-36.9	37.6	27.5	10.07	3.733		
3,000.0	2,984.5	2,995.4	2,980.6	6.9	7.2	3.48	290.9	-38.0	36.4	26.0	10.43	3.493		
3,001.6	2,986.1	2,997.0	2,982.2	6.9	7.2	3.49	291.0	-38.1	36.4	26.0	10.44	3.491 SF		
3,100.0	3,084.1	3,095.4	3,080.0	7.2	7.5	3.85	301.6	-39.2	37.7	26.9	10.78	3.496		
3,200.0	3,183.8	3,195.3	3,179.3	7.4	7.7	3.94	312.4	-40.4	41.6	30.5	11.13	3.736		
3,300.0	3,283.7	3,295.1	3,278.5	7.5	8.0	3.80	323.1	-41.5	48.1	36.6	11.47	4.191		
3,400.0	3,383.7	3,394.6	3,377.5	7.7	8.2	3.53	333.8	-42.7	57.2	45.4	11.80	4.844		
3,500.0	3,483.7	3,494.1	3,476.3	7.8	8.5	-4.64	344.5	-43.8	67.9	55.8	12.14	5.595		
3,600.0	3,583.7	3,593.5	3,575.2	7.9	8.7	-4.85	355.2	-45.0	78.8	66.3	12.49	6.306		
3,700.0	3,683.7	3,692.9	3,674.0	8.1	9.0	-5.01	365.9	-46.2	89.6	76.7	12.84	6.978		
3,800.0	3,783.7	3,792.3	3,772.8	8.2	9.2	-5.14	376.6	-47.3	100.4	87.2	13.18	7.615		
3,900.0	3,883.7	3,891.7	3,871.7	8.4	9.5	-5.24	387.3	-48.5	111.2	97.7	13.53	8.219		
4,000.0	3,983.7	3,991.1	3,970.5	8.5	9.8	-5.32	398.0	-49.6	122.0	108.2	13.88	8.793		
4,100.0	4,083.7	4,090.5	4,069.3	8.6	10.0	-5.39	408.7	-50.8	132.9	118.6	14.23	9.339		
4,200.0	4,183.7	4,190.0	4,168.1	8.8	10.3	-5.45	419.4	-51.9	143.7	129.1	14.57	9.859		
4,300.0	4,283.7	4,289.4	4,267.0	8.9	10.5	-5.50	430.1	-53.1	154.5	139.6	14.92	10.355		
4,400.0	4,383.7	4,388.8	4,365.8	9.1	10.8	-5.55	440.8	-54.3	165.3	150.0	15.27	10.828		
4,500.0	4,483.7	4,488.2	4,464.6	9.2	11.0	-5.58	451.5	-55.4	176.1	160.5	15.62	11.280		
4,600.0	4,583.7	4,587.6	4,563.5	9.4	11.3	-5.62	462.2	-56.6	187.0	171.0	15.96	11.712		
4,700.0	4,683.7	4,687.0	4,662.3	9.5	11.5	-5.65	472.9	-57.7	197.8	181.5	16.31	12.126		

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

Directional Plus

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 21-7D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8381.0ft (Original Well Elev)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8381.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 21-7D (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		
0.0	0.0	0.0	0.0	0.0	0.0	-49.95	20.4	-24.3	31.7					
100.0	100.0	100.0	100.0	0.1	0.1	-49.95	20.4	-24.3	31.7	31.4	0.30	106.839		
200.0	200.0	200.0	200.0	0.3	0.3	-49.95	20.4	-24.3	31.7	31.1	0.65	49.088 CC		
210.9	210.9	210.9	210.9	0.3	0.3	-49.98	20.4	-24.3	31.7	31.0	0.68	46.341		
300.0	300.0	300.0	300.0	0.5	0.5	-52.31	19.4	-25.1	31.7	30.7	1.00	31.840 ES		
400.0	400.0	399.8	399.7	0.7	0.7	-59.29	16.4	-27.7	32.2	30.8	1.36	23.710		
500.0	500.0	499.4	499.1	0.8	0.9	-70.18	11.5	-31.9	33.9	32.2	1.73	19.578		
600.0	600.0	598.5	597.8	1.0	1.1	-83.00	4.6	-37.8	38.1	36.0	2.12	18.004 SF		
700.0	700.0	697.1	695.7	1.2	1.4	-95.19	-4.1	-45.3	45.7	43.2	2.50	18.271		
800.0	800.0	794.9	792.5	1.4	1.7	-98.35	-14.7	-54.4	57.0	54.2	2.83	20.166		
900.0	899.9	891.6	887.8	1.6	2.0	-108.22	-27.0	-64.9	72.8	69.7	3.16	23.074		
1,000.0	999.7	986.7	981.1	1.7	2.3	-116.15	-40.9	-76.8	93.6	90.1	3.48	26.901		
1,100.0	1,099.3	1,080.0	1,072.3	1.9	2.7	-122.23	-56.2	-90.0	119.3	115.5	3.81	31.332		
1,200.0	1,198.6	1,171.4	1,160.9	2.2	3.1	-126.89	-72.8	-104.3	149.8	145.6	4.15	36.118		
1,300.0	1,297.8	1,261.0	1,247.4	2.4	3.6	-130.37	-90.7	-119.6	183.7	179.2	4.50	40.862		

Directional Plus

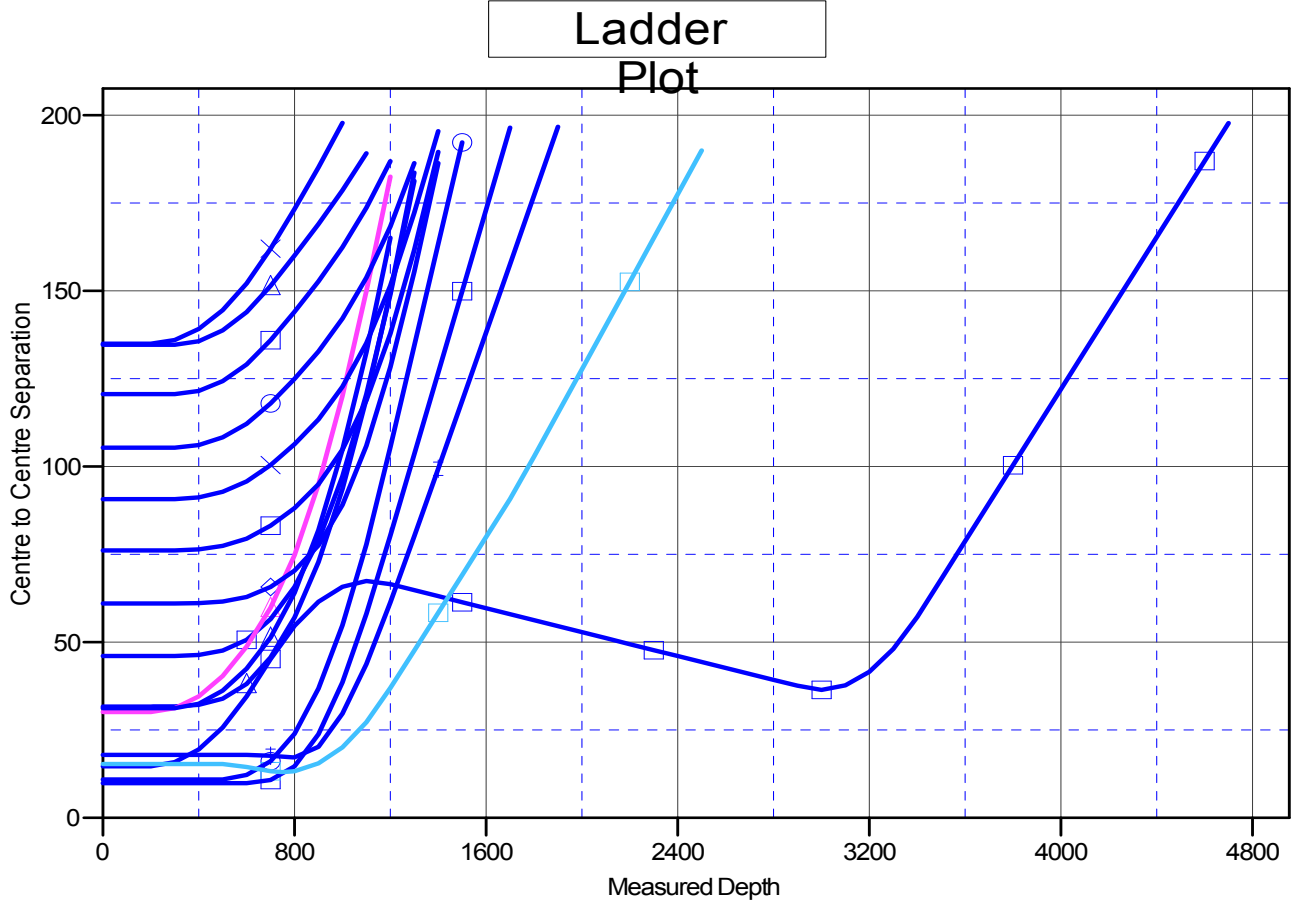
Anticollision Report

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 21-7D (Oxy I21 Pad)
Well Error: 0.0ft
Reference Wellbore: DD
Reference Design: Plan #2

Local Co-ordinate Reference: Well Oxy 21-7D (Oxy I21 Pad)
TVD Reference: KBE @ 8381.0ft (Original Well Elev)
MD Reference: KBE @ 8381.0ft (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 @ 8381.0ft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: Oxy 21-7D (Oxy I21 Pad)
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.71°



LEGEND

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|--|--|--|
| ▲ Oxy 21-9D (Oxy I21 Pad), DD, Plan #1 V0 | ■ Oxy 21-8D (Oxy I21 Pad), DD, Plan #2 V0 | ■ Oxy 21-6D (Oxy I21 Pad), DD, Plan #2 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 21-16D (Oxy I21 Pad), DD, Plan #1 V0 | |