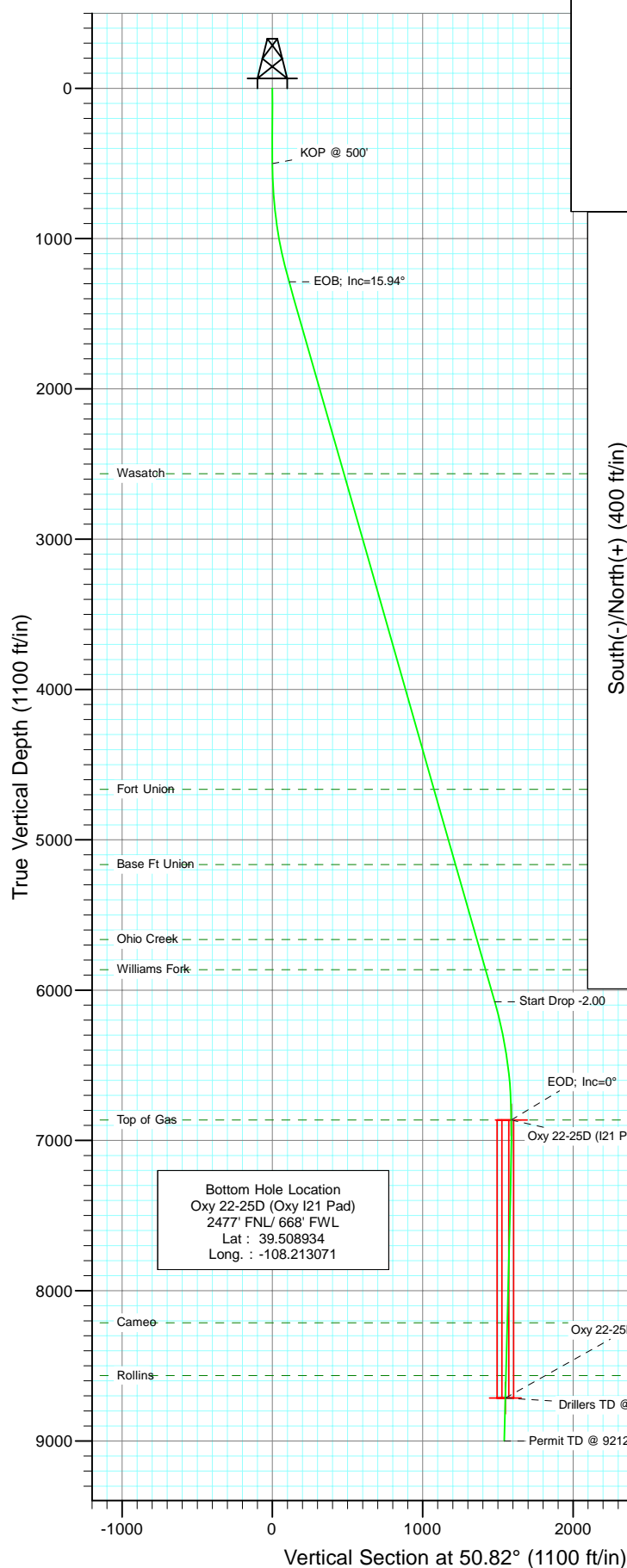


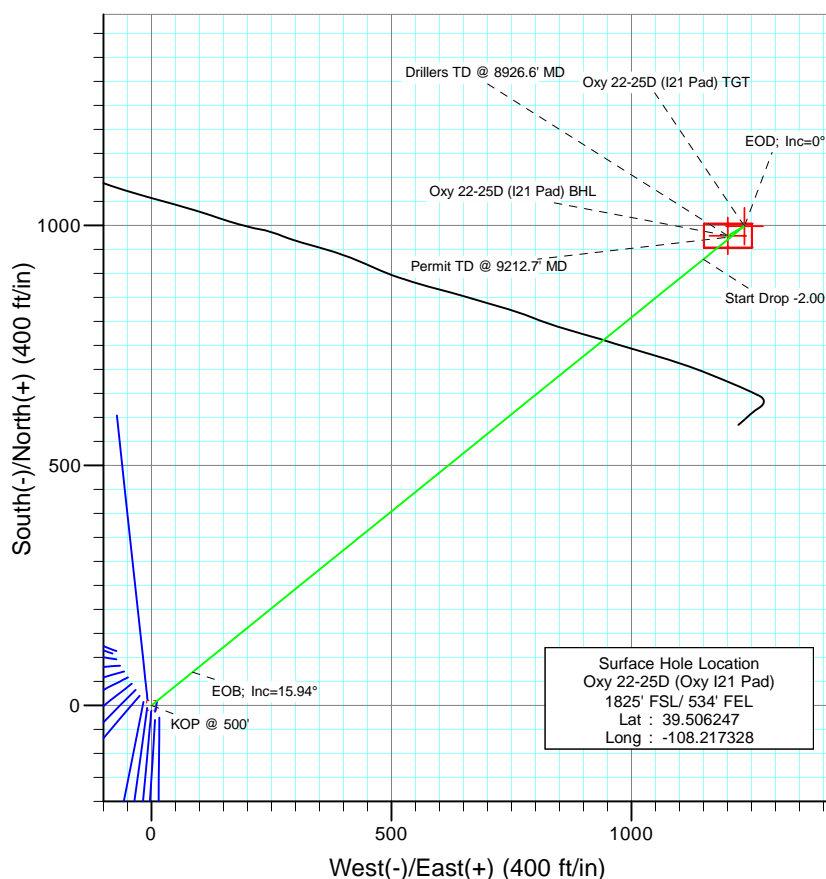


Berry Petroleum Company

Project: Garfield County
Site: NESE S21-T6S-R97W (Oxy I21 pad)
Well: Oxy 22-25D (Oxy I21 Pad)
Wellbore: DD
Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.0	
3	1297.2	15.94	51.05	1287.0	69.3	85.7	2.00	51.05	110.2	
4	6278.9	15.94	51.05	6077.0	929.5	1150.0	0.00	0.00	1478.7	
5	7076.2	0.00	0.00	6864.0	998.8	1235.8	2.00	180.00	1588.9	Oxy 22-25D (I21 Pad) TGT
6	7665.8	1.47	239.94	7453.6	995.0	1229.2	0.25	239.94	1581.4	Oxy 22-25D (I21 Pad) BHL
7	8926.6	1.47	239.94	8714.0	978.8	1201.1	0.00	0.00	1549.4	
8	9212.7	1.47	239.94	9000.0	975.1	1194.7	0.00	0.00	1542.1	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
2564.0	2625.3	Wasatch
4664.0	4809.4	Fort Union
5164.0	5329.4	Base Ft Union
5664.0	5849.4	Ohio Creek
5864.0	6057.4	Williams Fork
6864.0	7076.2	Top of Gas
8214.0	8426.5	Cameo
8564.0	8776.6	Rollins



Azimuths to True North
Magnetic North: 10.58°

Magnetic Field
Strength: 52311.2snT
Dip Angle: 65.73°
Date: 6/3/2010
Model: IGRF2010

DESIGN DETAILS: Plan #1

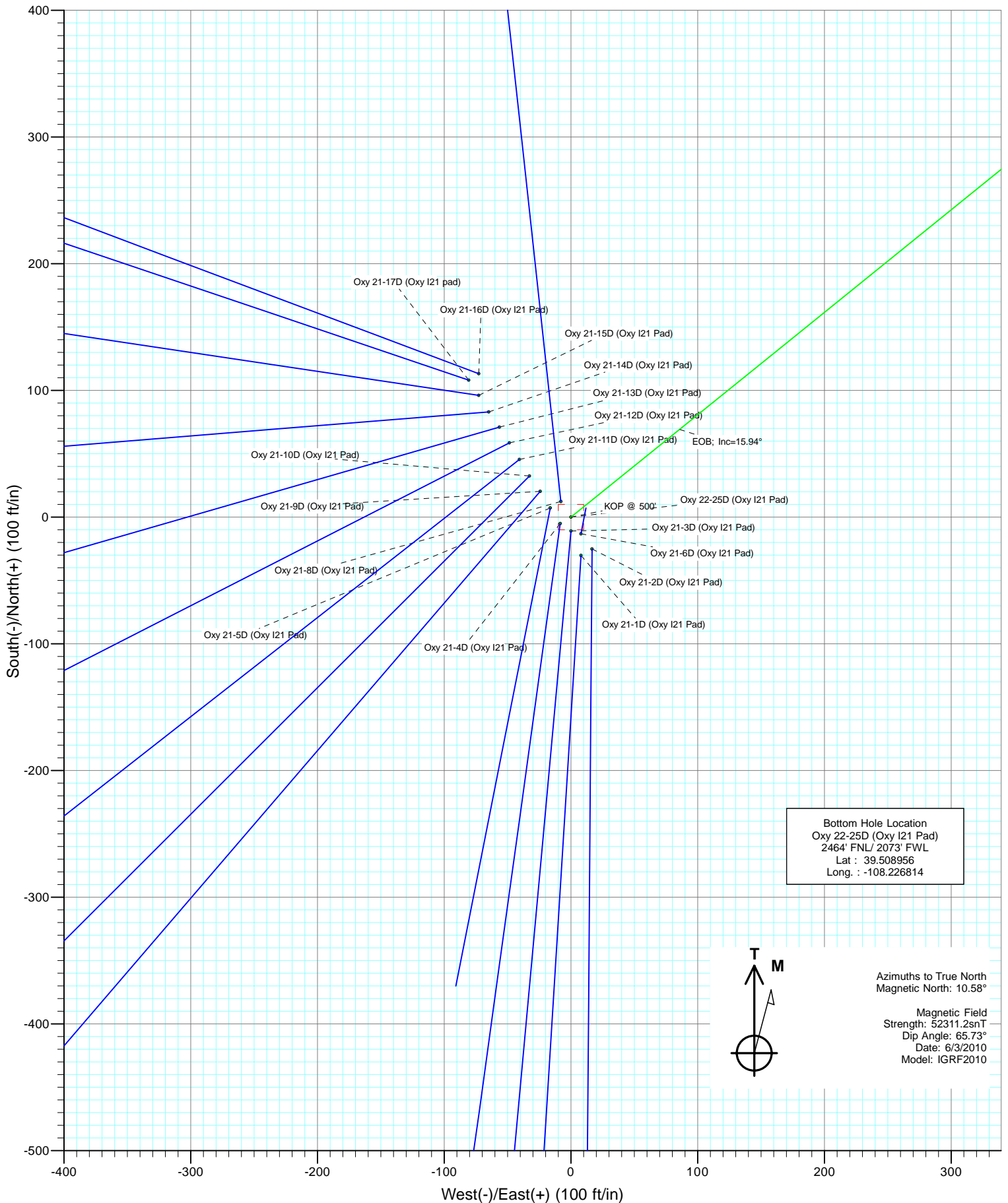
105XXX; BH
KBE @ 8389.0ft (Patterson 302)

Target	Azimuth	Origin	N/S	E/W	From TVD
Oxy 22-25D (I21 Pad) BHL	50.82	Slot	0.0	0.0	0.0



Berry Petroleum Company

Project: Garfield County
Site: NESE S21-T6S-R97W (Oxy I21 pad)
Well: Oxy 22-25D (Oxy I21 Pad)
Wellbore: DD
Design: Plan #1



Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

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

Site		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:	13.200 in	Grid Convergence:	-1.71 °

Well	Oxy 22-25D (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)
	IGRF2010	6/3/2010	10.58	65.73	52,311

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	50.82

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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,297.2	15.94	51.05	1,287.0	69.3	85.7	2.00	2.00	0.00	51.05	
6,278.9	15.94	51.05	6,077.0	929.5	1,150.0	0.00	0.00	0.00	0.00	
7,076.2	0.00	0.00	6,864.0	998.8	1,235.8	2.00	-2.00	0.00	180.00	Oxy 22-25D (I21 Pad)
7,665.8	1.47	239.94	7,453.6	995.0	1,229.2	0.25	0.25	-20.36	239.94	
8,926.6	1.47	239.94	8,714.0	978.8	1,201.1	0.00	0.00	0.00	0.00	Oxy 22-25D (I21 Pad)
9,212.7	1.47	239.94	9,000.0	975.1	1,194.7	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
30.0	0.00	0.00	30.0	0.0	0.0	0.0	0.00	0.00	
60.0	0.00	0.00	60.0	0.0	0.0	0.0	0.00	0.00	
90.0	0.00	0.00	90.0	0.0	0.0	0.0	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	
180.0	0.00	0.00	180.0	0.0	0.0	0.0	0.00	0.00	
210.0	0.00	0.00	210.0	0.0	0.0	0.0	0.00	0.00	
240.0	0.00	0.00	240.0	0.0	0.0	0.0	0.00	0.00	
270.0	0.00	0.00	270.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
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	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 500'
510.0	0.20	51.05	510.0	0.0	0.0	0.0	2.00	2.00	
540.0	0.80	51.05	540.0	0.2	0.2	0.3	2.00	2.00	
570.0	1.40	51.05	570.0	0.5	0.7	0.9	2.00	2.00	
600.0	2.00	51.05	600.0	1.1	1.4	1.7	2.00	2.00	
630.0	2.60	51.05	630.0	1.9	2.3	2.9	2.00	2.00	
660.0	3.20	51.05	659.9	2.8	3.5	4.5	2.00	2.00	
690.0	3.80	51.05	689.9	4.0	4.9	6.3	2.00	2.00	
720.0	4.40	51.05	719.8	5.3	6.6	8.4	2.00	2.00	
750.0	5.00	51.05	749.7	6.9	8.5	10.9	2.00	2.00	
780.0	5.60	51.05	779.6	8.6	10.6	13.7	2.00	2.00	
810.0	6.20	51.05	809.4	10.5	13.0	16.8	2.00	2.00	
840.0	6.80	51.05	839.2	12.7	15.7	20.2	2.00	2.00	
870.0	7.40	51.05	869.0	15.0	18.6	23.9	2.00	2.00	
900.0	8.00	51.05	898.7	17.5	21.7	27.9	2.00	2.00	
930.0	8.60	51.05	928.4	20.2	25.1	32.2	2.00	2.00	
960.0	9.20	51.05	958.0	23.2	28.7	36.9	2.00	2.00	
990.0	9.80	51.05	987.6	26.3	32.5	41.8	2.00	2.00	
1,020.0	10.40	51.05	1,017.1	29.6	36.6	47.1	2.00	2.00	
1,050.0	11.00	51.05	1,046.6	33.1	40.9	52.6	2.00	2.00	
1,080.0	11.60	51.05	1,076.0	36.8	45.5	58.5	2.00	2.00	
1,110.0	12.20	51.05	1,105.4	40.7	50.3	64.7	2.00	2.00	
1,140.0	12.80	51.05	1,134.7	44.8	55.4	71.2	2.00	2.00	
1,170.0	13.40	51.05	1,163.9	49.0	60.7	78.0	2.00	2.00	
1,200.0	14.00	51.05	1,193.1	53.5	66.2	85.1	2.00	2.00	
1,230.0	14.60	51.05	1,222.1	58.1	71.9	92.5	2.00	2.00	
1,260.0	15.20	51.05	1,251.1	63.0	77.9	100.2	2.00	2.00	
1,290.0	15.80	51.05	1,280.0	68.0	84.2	108.2	2.00	2.00	
1,297.2	15.94	51.05	1,287.0	69.3	85.7	110.2	2.00	2.00	EOB; Inc=15.94°
1,320.0	15.94	51.05	1,308.9	73.2	90.6	116.5	0.00	0.00	
1,350.0	15.94	51.05	1,337.7	78.4	97.0	124.7	0.00	0.00	
1,380.0	15.94	51.05	1,366.6	83.6	103.4	133.0	0.00	0.00	
1,410.0	15.94	51.05	1,395.4	88.8	109.8	141.2	0.00	0.00	
1,440.0	15.94	51.05	1,424.3	93.9	116.2	149.4	0.00	0.00	
1,470.0	15.94	51.05	1,453.1	99.1	122.6	157.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
1,500.0	15.94	51.05	1,481.9	104.3	129.0	165.9	0.00	0.00	
1,530.0	15.94	51.05	1,510.8	109.5	135.4	174.2	0.00	0.00	
1,560.0	15.94	51.05	1,539.6	114.7	141.9	182.4	0.00	0.00	
1,590.0	15.94	51.05	1,568.5	119.8	148.3	190.6	0.00	0.00	
1,620.0	15.94	51.05	1,597.3	125.0	154.7	198.9	0.00	0.00	
1,650.0	15.94	51.05	1,626.2	130.2	161.1	207.1	0.00	0.00	
1,680.0	15.94	51.05	1,655.0	135.4	167.5	215.4	0.00	0.00	
1,710.0	15.94	51.05	1,683.9	140.6	173.9	223.6	0.00	0.00	
1,740.0	15.94	51.05	1,712.7	145.7	180.3	231.8	0.00	0.00	
1,770.0	15.94	51.05	1,741.6	150.9	186.7	240.1	0.00	0.00	
1,800.0	15.94	51.05	1,770.4	156.1	193.1	248.3	0.00	0.00	
1,830.0	15.94	51.05	1,799.3	161.3	199.5	256.6	0.00	0.00	
1,860.0	15.94	51.05	1,828.1	166.5	206.0	264.8	0.00	0.00	
1,890.0	15.94	51.05	1,856.9	171.6	212.4	273.0	0.00	0.00	
1,920.0	15.94	51.05	1,885.8	176.8	218.8	281.3	0.00	0.00	
1,950.0	15.94	51.05	1,914.6	182.0	225.2	289.5	0.00	0.00	
1,980.0	15.94	51.05	1,943.5	187.2	231.6	297.8	0.00	0.00	
2,010.0	15.94	51.05	1,972.3	192.4	238.0	306.0	0.00	0.00	
2,040.0	15.94	51.05	2,001.2	197.5	244.4	314.3	0.00	0.00	
2,070.0	15.94	51.05	2,030.0	202.7	250.8	322.5	0.00	0.00	
2,100.0	15.94	51.05	2,058.9	207.9	257.2	330.7	0.00	0.00	
2,130.0	15.94	51.05	2,087.7	213.1	263.6	339.0	0.00	0.00	
2,160.0	15.94	51.05	2,116.6	218.3	270.0	347.2	0.00	0.00	
2,190.0	15.94	51.05	2,145.4	223.4	276.5	355.5	0.00	0.00	
2,220.0	15.94	51.05	2,174.2	228.6	282.9	363.7	0.00	0.00	
2,250.0	15.94	51.05	2,203.1	233.8	289.3	371.9	0.00	0.00	
2,280.0	15.94	51.05	2,231.9	239.0	295.7	380.2	0.00	0.00	
2,310.0	15.94	51.05	2,260.8	244.2	302.1	388.4	0.00	0.00	
2,340.0	15.94	51.05	2,289.6	249.3	308.5	396.7	0.00	0.00	
2,370.0	15.94	51.05	2,318.5	254.5	314.9	404.9	0.00	0.00	
2,400.0	15.94	51.05	2,347.3	259.7	321.3	413.1	0.00	0.00	
2,430.0	15.94	51.05	2,376.2	264.9	327.7	421.4	0.00	0.00	
2,460.0	15.94	51.05	2,405.0	270.1	334.1	429.6	0.00	0.00	
2,490.0	15.94	51.05	2,433.9	275.2	340.5	437.9	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
Oxy 22-25D (I21 Pad) T1	0.00	0.00	6,864.0	998.8	1,235.8	1,621,709.76	2,234,664.26	39.508989	-108.212948
- hit/miss target									
- Shape									
- plan misses target center by 4577.2ft at 2490.0ft MD (2433.9 TVD, 275.2 N, 340.5 E)									
- Point									
Oxy 22-25D (I21 Pad) B	0.00	0.00	8,714.0	978.8	1,201.1	1,621,690.76	2,234,629.03	39.508934	-108.213071
- hit/miss target									
- Shape									
- plan misses target center by 6377.7ft at 2490.0ft MD (2433.9 TVD, 275.2 N, 340.5 E)									
- Rectangle (sides W50.0 H100.0 D0.0)									

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
2,500.0	15.94	51.05	2,443.5	277.0	342.7	440.6	0.00	0.00	
2,600.0	15.94	51.05	2,539.6	294.2	364.0	468.1	0.00	0.00	
2,625.3	15.94	51.05	2,564.0	298.6	369.5	475.1	0.00	0.00	Wasatch
2,700.0	15.94	51.05	2,635.8	311.5	385.4	495.6	0.00	0.00	
2,800.0	15.94	51.05	2,731.9	328.8	406.8	523.0	0.00	0.00	
2,900.0	15.94	51.05	2,828.1	346.0	428.1	550.5	0.00	0.00	
3,000.0	15.94	51.05	2,924.2	363.3	449.5	578.0	0.00	0.00	
3,100.0	15.94	51.05	3,020.4	380.6	470.9	605.4	0.00	0.00	
3,200.0	15.94	51.05	3,116.5	397.9	492.2	632.9	0.00	0.00	
3,300.0	15.94	51.05	3,212.7	415.1	513.6	660.4	0.00	0.00	
3,400.0	15.94	51.05	3,308.9	432.4	535.0	687.9	0.00	0.00	
3,500.0	15.94	51.05	3,405.0	449.7	556.3	715.3	0.00	0.00	
3,600.0	15.94	51.05	3,501.2	466.9	577.7	742.8	0.00	0.00	
3,700.0	15.94	51.05	3,597.3	484.2	599.1	770.3	0.00	0.00	
3,800.0	15.94	51.05	3,693.5	501.5	620.4	797.7	0.00	0.00	
3,900.0	15.94	51.05	3,789.6	518.7	641.8	825.2	0.00	0.00	
4,000.0	15.94	51.05	3,885.8	536.0	663.2	852.7	0.00	0.00	
4,100.0	15.94	51.05	3,981.9	553.3	684.5	880.1	0.00	0.00	
4,200.0	15.94	51.05	4,078.1	570.5	705.9	907.6	0.00	0.00	
4,300.0	15.94	51.05	4,174.2	587.8	727.2	935.1	0.00	0.00	
4,400.0	15.94	51.05	4,270.4	605.1	748.6	962.6	0.00	0.00	
4,500.0	15.94	51.05	4,366.5	622.3	770.0	990.0	0.00	0.00	
4,600.0	15.94	51.05	4,462.7	639.6	791.3	1,017.5	0.00	0.00	
4,700.0	15.94	51.05	4,558.8	656.9	812.7	1,045.0	0.00	0.00	
4,800.0	15.94	51.05	4,655.0	674.1	834.1	1,072.4	0.00	0.00	
4,809.4	15.94	51.05	4,664.0	675.8	836.1	1,075.0	0.00	0.00	Fort Union
4,900.0	15.94	51.05	4,751.1	691.4	855.4	1,099.9	0.00	0.00	
5,000.0	15.94	51.05	4,847.3	708.7	876.8	1,127.4	0.00	0.00	
5,100.0	15.94	51.05	4,943.5	725.9	898.2	1,154.8	0.00	0.00	
5,200.0	15.94	51.05	5,039.6	743.2	919.5	1,182.3	0.00	0.00	
5,300.0	15.94	51.05	5,135.8	760.5	940.9	1,209.8	0.00	0.00	
5,329.4	15.94	51.05	5,164.0	765.6	947.2	1,217.9	0.00	0.00	Base Ft Union
5,400.0	15.94	51.05	5,231.9	777.7	962.3	1,237.3	0.00	0.00	
5,500.0	15.94	51.05	5,328.1	795.0	983.6	1,264.7	0.00	0.00	
5,600.0	15.94	51.05	5,424.2	812.3	1,005.0	1,292.2	0.00	0.00	
5,700.0	15.94	51.05	5,520.4	829.6	1,026.3	1,319.7	0.00	0.00	
5,800.0	15.94	51.05	5,616.5	846.8	1,047.7	1,347.1	0.00	0.00	
5,849.4	15.94	51.05	5,664.0	855.3	1,058.3	1,360.7	0.00	0.00	Ohio Creek
5,900.0	15.94	51.05	5,712.7	864.1	1,069.1	1,374.6	0.00	0.00	
6,000.0	15.94	51.05	5,808.8	881.4	1,090.4	1,402.1	0.00	0.00	
6,057.4	15.94	51.05	5,864.0	891.3	1,102.7	1,417.8	0.00	0.00	Williams Fork
6,100.0	15.94	51.05	5,905.0	898.6	1,111.8	1,429.5	0.00	0.00	
6,200.0	15.94	51.05	6,001.1	915.9	1,133.2	1,457.0	0.00	0.00	
6,278.9	15.94	51.05	6,077.0	929.5	1,150.0	1,478.7	0.00	0.00	Start Drop -2.00
6,300.0	15.52	51.05	6,097.3	933.1	1,154.5	1,484.4	2.00	-2.00	
6,400.0	13.52	51.05	6,194.1	948.9	1,174.0	1,509.5	2.00	-2.00	
6,500.0	11.52	51.05	6,291.7	962.5	1,190.8	1,531.2	2.00	-2.00	
6,600.0	9.52	51.05	6,390.0	974.0	1,205.0	1,549.4	2.00	-2.00	
6,700.0	7.52	51.05	6,488.9	983.3	1,216.6	1,564.3	2.00	-2.00	
6,800.0	5.52	51.05	6,588.3	990.4	1,225.4	1,575.6	2.00	-2.00	
6,900.0	3.52	51.05	6,688.0	995.4	1,231.5	1,583.5	2.00	-2.00	
7,000.0	1.52	51.05	6,787.9	998.2	1,235.0	1,587.9	2.00	-2.00	

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
7,076.2	0.00	0.00	6,864.0	998.8	1,235.8	1,588.9	2.00	-2.00	EOD; Inc=0° - Top of Gas - Oxy 22-25D (I21 Pad)
7,100.0	0.06	239.94	6,887.8	998.8	1,235.7	1,588.9	0.25	0.25	
7,200.0	0.31	239.94	6,987.8	998.6	1,235.5	1,588.6	0.25	0.25	
7,300.0	0.56	239.94	7,087.8	998.3	1,234.8	1,587.8	0.25	0.25	
7,400.0	0.81	239.94	7,187.8	997.7	1,233.8	1,586.7	0.25	0.25	
7,500.0	1.06	239.94	7,287.8	996.8	1,232.4	1,585.0	0.25	0.25	
7,600.0	1.31	239.94	7,387.8	995.8	1,230.6	1,583.0	0.25	0.25	
7,665.8	1.47	239.94	7,453.6	995.0	1,229.2	1,581.4	0.25	0.25	
7,700.0	1.47	239.94	7,487.8	994.6	1,228.4	1,580.6	0.00	0.00	
7,800.0	1.47	239.94	7,587.7	993.3	1,226.2	1,578.0	0.00	0.00	
7,900.0	1.47	239.94	7,687.7	992.0	1,224.0	1,575.5	0.00	0.00	
8,000.0	1.47	239.94	7,787.7	990.7	1,221.7	1,572.9	0.00	0.00	
8,100.0	1.47	239.94	7,887.6	989.4	1,219.5	1,570.4	0.00	0.00	
8,200.0	1.47	239.94	7,987.6	988.1	1,217.3	1,567.9	0.00	0.00	
8,300.0	1.47	239.94	8,087.6	986.8	1,215.1	1,565.3	0.00	0.00	
8,400.0	1.47	239.94	8,187.5	985.5	1,212.8	1,562.8	0.00	0.00	
8,426.5	1.47	239.94	8,214.0	985.2	1,212.2	1,562.1	0.00	0.00	Cameo
8,500.0	1.47	239.94	8,287.5	984.3	1,210.6	1,560.2	0.00	0.00	
8,600.0	1.47	239.94	8,387.5	983.0	1,208.4	1,557.7	0.00	0.00	
8,700.0	1.47	239.94	8,487.4	981.7	1,206.2	1,555.2	0.00	0.00	
8,776.6	1.47	239.94	8,564.0	980.7	1,204.5	1,553.2	0.00	0.00	Rollins
8,800.0	1.47	239.94	8,587.4	980.4	1,203.9	1,552.6	0.00	0.00	
8,900.0	1.47	239.94	8,687.4	979.1	1,201.7	1,550.1	0.00	0.00	
8,926.6	1.47	239.94	8,714.0	978.8	1,201.1	1,549.4	0.00	0.00	Drillers TD @ 8926.6' MD - Oxy 22-25D (I21 Pad)
9,000.0	1.47	239.94	8,787.3	977.8	1,199.5	1,547.5	0.00	0.00	
9,100.0	1.47	239.94	8,887.3	976.5	1,197.2	1,545.0	0.00	0.00	
9,200.0	1.47	239.94	8,987.3	975.2	1,195.0	1,542.5	0.00	0.00	
9,212.7	1.47	239.94	9,000.0	975.1	1,194.7	1,542.1	0.00	0.00	Permit TD @ 9212.7' MD

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Oxy 22-25D (I21 Pad) Target - hit/miss target - Shape - Point	0.00	0.00	6,864.0	998.8	1,235.8	1,621,709.76	2,234,664.26	39.508989	-108.212948
Oxy 22-25D (I21 Pad) Boundary - plan hits target center - Rectangle (sides W50.0 H100.0 D0.0)	0.00	0.00	8,714.0	978.8	1,201.1	1,621,690.76	2,234,629.03	39.508934	-108.213071

Cathedral Energy Services

Planning Report

Database:	EDM 5000.1 US Multi Users DB	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Company:	Berry Petroleum Company (NAD 83)	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Project:	Garfield County	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site:	NESE S21-T6S-R97W (Oxy I21 pad)	North Reference:	True
Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,625.3	2,564.0	Wasatch		0.00		
4,809.4	4,664.0	Fort Union		0.00		
5,329.4	5,164.0	Base Ft Union		0.00		
5,849.4	5,664.0	Ohio Creek		0.00		
6,057.4	5,864.0	Williams Fork		0.00		
7,076.2	6,864.0	Top of Gas		0.00		
8,426.5	8,214.0	Cameo		0.00		
8,776.6	8,564.0	Rollins		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
500.0	500.0	0.0	0.0	KOP @ 500'	
1,297.2	1,287.0	69.3	85.7	EOB; Inc=15.94°	
6,278.9	6,077.0	929.5	1,150.0	Start Drop -2.00	
7,076.2	6,864.0	998.8	1,235.8	EOD; Inc=0°	
8,926.6	8,714.0	995.0	1,229.2	Drillers TD @ 8926.6' MD	
9,212.7	9,000.0	978.8	1,201.1	Permit TD @ 9212.7' MD	

Berry Petroleum Company (NAD 83)

Garfield County

NESE S21-T6S-R97W (Oxy I21 pad)

Oxy 22-25D (Oxy I21 Pad)

DD

Plan #1

Anticollision Report

03 June, 2010

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 100.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	6/3/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	9,212.7	Plan #1 (DD)	MWD	Geolink MWD

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

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	192.0	46.1	45.4	74.561	CC
Oxy 21-10D (Oxy I21 Pad) - DD - Plan #1	400.0	391.8	46.3	45.0	35.122	ES
Oxy 21-10D (Oxy I21 Pad) - DD - Plan #1	600.0	590.4	51.2	49.1	24.531	SF
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	300.0	292.0	61.0	60.1	63.112	CC
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	400.0	391.9	61.1	59.8	46.424	ES
Oxy 21-11D (Oxy I21 Pad) - DD - Plan #1	700.0	689.4	68.2	65.8	28.029	SF
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	300.0	292.0	76.1	75.2	78.725	CC
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	400.0	391.6	76.4	75.1	58.051	ES
Oxy 21-12D (Oxy I21 Pad) - DD - Plan #1	800.0	784.8	95.0	92.2	33.680	SF
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	300.0	292.0	90.7	89.7	93.820	CC, ES
Oxy 21-13D (Oxy I21 Pad) - DD - Plan #1	600.0	588.7	95.7	93.6	46.995	SF
Oxy 21-14D (Oxy I21 Pad) - DD - Plan #1						Out of range
Oxy 21-15D (Oxy I21 Pad) - DD - Plan #1						Out of range
Oxy 21-16D (Oxy I21 Pad) - DD - Plan #1						Out of range
Oxy 21-17D (Oxy I21 pad) - DD - Plan #3 (800')						Out of range
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	300.0	292.0	31.2	30.3	32.312	CC, ES
Oxy 21-1D (Oxy I21 Pad) - DD - Plan #1	600.0	589.1	42.8	40.7	21.260	SF
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #2	200.0	192.0	30.1	29.5	48.792	CC, ES
Oxy 21-2D (Oxy I21 Pad) - DD - Plan #2	500.0	489.5	39.8	38.1	23.439	SF
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	500.0	492.0	10.9	9.3	6.563	CC, ES
Oxy 21-3D (Oxy I21 Pad) - DD - Plan #1	600.0	591.7	13.2	11.2	6.556	SF
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	500.0	492.0	9.9	8.2	5.935	CC, ES
Oxy 21-4D (Oxy I21 Pad) - DD - Plan #1	600.0	592.0	11.6	9.6	5.768	SF
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	500.0	492.0	17.9	16.2	10.759	CC, ES
Oxy 21-5D (Oxy I21 Pad) - DD - Plan #1	600.0	592.0	18.8	16.8	9.315	SF
Oxy 21-6D (Oxy I21 Pad) - DD - Plan #2	643.5	935.7	14.7	12.5	6.748	CC, ES
Oxy 21-6D (Oxy I21 Pad) - DD - Plan #2	700.0	992.1	15.1	12.7	6.347	SF
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #2	200.0	192.0	14.7	14.1	23.776	CC, ES
Oxy 21-8D (Oxy I21 Pad) - DD - Plan #2	400.0	391.2	19.1	17.8	14.416	SF
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	200.0	192.0	31.7	31.1	51.307	CC
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	300.0	292.0	31.7	30.8	32.794	ES
Oxy 21-9D (Oxy I21 Pad) - DD - Plan #1	600.0	590.4	38.9	36.8	18.743	SF
S21-T6S-R97W (Marathon plan)						
697-21C-21 - DD - DD						Out of range
697-22C-11 - DD - DD	5,215.7	5,203.4	54.4	27.6	2.027	CC, ES, SF

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 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		
0.0	0.0	0.0	0.0	0.0	0.0	-45.28	32.4	-32.7	46.8					
100.0	100.0	92.0	92.0	0.1	0.1	-45.28	32.4	-32.7	46.1	45.8	0.27	170.068		
200.0	200.0	192.0	192.0	0.3	0.3	-45.28	32.4	-32.7	46.1	45.4	0.62	74.561 CC		
221.3	221.3	213.3	213.3	0.3	0.3	-45.30	32.4	-32.7	46.1	45.4	0.69	66.554		
300.0	300.0	292.0	292.0	0.5	0.5	-46.65	31.6	-33.5	46.1	45.1	0.97	47.630		
400.0	400.0	391.8	391.7	0.7	0.7	-51.24	29.0	-36.1	46.3	45.0	1.32	35.122 ES		
500.0	500.0	491.4	491.1	0.8	0.9	-58.82	24.6	-40.6	47.5	45.8	1.67	28.388		
600.0	600.0	590.4	589.7	1.0	1.1	-121.29	18.3	-46.8	51.2	49.1	2.09	24.531 SF		
700.0	699.8	688.2	686.9	1.2	1.3	-135.05	10.4	-54.8	60.7	58.2	2.47	24.597		
800.0	799.5	784.4	782.1	1.4	1.6	-147.21	0.9	-64.3	77.6	74.8	2.82	27.488		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 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		
0.0	0.0	0.0	0.0	0.0	0.0	-41.75	45.5	-40.6	61.5					
100.0	100.0	92.0	92.0	0.1	0.1	-41.75	45.5	-40.6	61.0	60.8	0.27	225.283		
200.0	200.0	192.0	192.0	0.3	0.3	-41.75	45.5	-40.6	61.0	60.4	0.62	98.768		
300.0	300.0	292.0	292.0	0.5	0.5	-41.75	45.5	-40.6	61.0	60.1	0.97	63.112 CC		
400.0	400.0	391.9	391.9	0.7	0.7	-42.78	44.8	-41.5	61.1	59.8	1.32	46.424 ES		
500.0	500.0	491.6	491.6	0.8	0.8	-46.22	42.6	-44.4	61.5	59.9	1.67	36.902		
600.0	600.0	591.0	590.7	1.0	1.0	-104.45	38.7	-49.4	63.1	61.1	2.05	30.872		
700.0	699.8	689.4	688.7	1.2	1.3	-115.71	33.3	-56.2	68.2	65.8	2.43	28.029 SF		
800.0	799.5	786.3	785.0	1.4	1.5	-128.37	26.5	-65.0	79.2	76.4	2.82	28.082		
900.0	898.7	881.3	879.1	1.6	1.8	-139.69	18.3	-75.4	97.8	94.6	3.19	30.677		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	-39.61	58.6	-48.5	76.5						
100.0	100.0	92.0	92.0	0.1	0.1	-39.61	58.6	-48.5	76.1	75.8	0.27	281.016			
200.0	200.0	192.0	192.0	0.3	0.3	-39.61	58.6	-48.5	76.1	75.5	0.62	123.202			
300.0	300.0	292.0	292.0	0.5	0.5	-39.61	58.6	-48.5	76.1	75.2	0.97	78.725 CC			
400.0	400.0	391.6	391.6	0.7	0.7	-40.41	58.1	-49.5	76.4	75.1	1.32	58.051 ES			
500.0	500.0	491.0	490.9	0.8	0.8	-43.07	56.5	-52.8	77.3	75.6	1.66	46.432			
600.0	600.0	590.0	589.8	1.0	1.0	-99.64	53.6	-58.3	79.5	77.5	2.04	38.965			
700.0	699.8	688.1	687.4	1.2	1.3	-108.46	49.7	-66.1	84.8	82.3	2.43	34.913			
800.0	799.5	784.8	783.5	1.4	1.5	-118.92	44.7	-75.9	95.0	92.2	2.82	33.680 SF			

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	91.1								
100.0	100.0	92.0	92.0	0.1	0.1	-38.47	71.0	-56.4	90.7	90.4	0.27	334.900					
200.0	200.0	192.0	192.0	0.3	0.3	-38.47	71.0	-56.4	90.7	90.1	0.62	146.826					
300.0	300.0	292.0	292.0	0.5	0.5	-38.47	71.0	-56.4	90.7	89.7	0.97	93.820	CC, ES				
400.0	400.0	391.2	391.1	0.7	0.7	-39.10	70.7	-57.5	91.1	89.8	1.31	69.328					
500.0	500.0	490.1	490.0	0.8	0.8	-41.17	69.7	-61.0	92.6	91.0	1.66	55.729					
600.0	600.0	588.7	588.4	1.0	1.0	-96.55	68.0	-66.9	95.7	93.6	2.04	46.995	SF				

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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)						
0.0	0.0	0.0	0.0	0.0	0.0	165.35	-30.2	7.9	32.3								
100.0	100.0	92.0	92.0	0.1	0.1	165.35	-30.2	7.9	31.2	31.0	0.27	115.341					
200.0	200.0	192.0	192.0	0.3	0.3	165.35	-30.2	7.9	31.2	30.6	0.62	50.568					
300.0	300.0	292.0	292.0	0.5	0.5	165.35	-30.2	7.9	31.2	30.3	0.97	32.312	CC, ES				
400.0	400.0	391.3	391.3	0.7	0.7	165.96	-31.3	7.8	32.3	31.0	1.32	24.537					
500.0	500.0	490.4	490.3	0.8	0.8	167.72	-35.0	7.6	35.8	34.1	1.67	21.440					
600.0	600.0	589.1	588.8	1.0	1.0	120.90	-41.1	7.2	42.8	40.7	2.01	21.260	SF				
700.0	699.8	687.0	686.3	1.2	1.3	127.22	-49.8	6.7	54.5	52.1	2.36	23.056					
800.0	799.5	783.7	782.4	1.4	1.5	133.25	-60.8	6.0	71.5	68.7	2.72	26.299					
900.0	898.7	878.8	876.6	1.6	1.8	138.08	-73.9	5.2	94.0	90.9	3.08	30.513					

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 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	31.2					
100.0	100.0	92.0	92.0	0.1	0.1	146.48	-25.1	16.6	30.1	29.9	0.27	111.291		
200.0	200.0	192.0	192.0	0.3	0.3	146.48	-25.1	16.6	30.1	29.5	0.62	48.792 CC, ES		
300.0	300.0	291.4	291.4	0.5	0.5	147.61	-26.2	16.6	31.1	30.1	0.97	32.101		
400.0	400.0	390.6	390.5	0.7	0.7	150.93	-29.9	16.6	34.2	32.9	1.33	25.813		
500.0	500.0	489.5	489.3	0.8	0.9	155.35	-36.1	16.6	39.8	38.1	1.70	23.439 SF		
600.0	600.0	588.0	587.3	1.0	1.1	110.50	-44.8	16.5	48.6	46.6	2.02	24.067		
700.0	699.8	685.4	684.1	1.2	1.3	118.12	-55.9	16.4	61.8	59.4	2.37	26.101		
800.0	799.5	781.6	779.3	1.4	1.6	125.07	-69.3	16.3	80.2	77.5	2.72	29.463		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 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							
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	180.00	-10.9	0.0	13.5				
100.0	100.0	92.0	92.0	0.1	0.1	180.00	-10.9	0.0	10.9	10.7	0.27	40.340	
200.0	200.0	192.0	192.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.62	17.686	
300.0	300.0	292.0	292.0	0.5	0.5	180.00	-10.9	0.0	10.9	10.0	0.97	11.301	
400.0	400.0	392.0	392.0	0.7	0.7	180.00	-10.9	0.0	10.9	9.6	1.32	8.304	
500.0	500.0	492.0	492.0	0.8	0.8	180.00	-10.9	0.0	10.9	9.3	1.67	6.563 CC, ES	
600.0	600.0	591.7	591.7	1.0	1.0	135.23	-12.0	-0.1	13.2	11.2	2.01	6.556 SF	
700.0	699.8	690.9	690.8	1.2	1.2	145.05	-15.7	-0.4	20.9	18.6	2.36	8.854	
800.0	799.5	789.2	789.0	1.4	1.4	151.21	-21.8	-1.0	34.4	31.7	2.71	12.684	
900.0	898.7	886.3	885.6	1.6	1.6	154.49	-30.4	-1.8	53.6	50.5	3.07	17.471	
1,000.0	997.5	981.7	980.4	1.9	1.8	156.27	-41.1	-2.7	78.2	74.8	3.42	22.851	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 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					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			
0.0	0.0	0.0	0.0	0.0	0.0	-121.07	-5.1	-8.5	12.7					
100.0	100.0	92.0	92.0	0.1	0.1	-121.07	-5.1	-8.5	9.9	9.6	0.27	36.482		
200.0	200.0	192.0	192.0	0.3	0.3	-121.07	-5.1	-8.5	9.9	9.3	0.62	15.994		
300.0	300.0	292.0	292.0	0.5	0.5	-121.07	-5.1	-8.5	9.9	8.9	0.97	10.220		
400.0	400.0	392.0	392.0	0.7	0.7	-121.07	-5.1	-8.5	9.9	8.6	1.32	7.509		
500.0	500.0	492.0	492.0	0.8	0.8	-121.07	-5.1	-8.5	9.9	8.2	1.67	5.935 CC, ES		
600.0	600.0	592.0	592.0	1.0	1.0	-173.30	-5.1	-8.5	11.6	9.6	2.01	5.768 SF		
700.0	699.8	691.5	691.5	1.2	1.2	-178.02	-6.2	-8.6	17.6	15.2	2.36	7.451		
800.0	799.5	790.4	790.3	1.4	1.4	176.22	-9.8	-9.1	29.0	26.3	2.70	10.735		
900.0	898.7	888.1	887.9	1.6	1.5	172.26	-15.9	-9.9	46.1	43.0	3.05	15.121		
1,000.0	997.5	984.3	983.7	1.9	1.7	169.71	-24.2	-11.1	68.7	65.3	3.39	20.247		
1,100.0	1,095.6	1,079.7	1,078.4	2.3	2.0	168.09	-34.6	-12.5	96.4	92.7	3.74	25.791		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 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							
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	-66.00	7.3	-16.4	19.6				
100.0	100.0	92.0	92.0	0.1	0.1	-66.00	7.3	-16.4	17.9	17.6	0.27	66.132	
200.0	200.0	192.0	192.0	0.3	0.3	-66.00	7.3	-16.4	17.9	17.3	0.62	28.993	
300.0	300.0	292.0	292.0	0.5	0.5	-66.00	7.3	-16.4	17.9	16.9	0.97	18.526	
400.0	400.0	392.0	392.0	0.7	0.7	-66.00	7.3	-16.4	17.9	16.6	1.32	13.612	
500.0	500.0	492.0	492.0	0.8	0.8	-66.00	7.3	-16.4	17.9	16.2	1.67	10.759 CC, ES	
600.0	600.0	592.0	592.0	1.0	1.0	-121.79	7.3	-16.4	18.8	16.8	2.02	9.315 SF	
700.0	699.8	691.8	691.8	1.2	1.2	-136.26	6.2	-16.6	22.1	19.7	2.37	9.323	
800.0	799.5	790.9	790.8	1.4	1.4	-154.70	2.6	-17.3	30.4	27.7	2.72	11.180	
900.0	898.7	888.8	888.6	1.6	1.5	-168.42	-3.4	-18.5	45.3	42.3	3.06	14.833	
1,000.0	997.5	986.4	985.9	1.9	1.7	-176.20	-10.6	-19.9	65.9	62.5	3.39	19.424	
1,100.0	1,095.6	1,083.2	1,082.4	2.3	1.9	179.74	-17.7	-21.3	90.5	86.7	3.73	24.282	

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	292.0	292.0	0.0	0.0	148.93	-13.1	7.9	15.3						
100.0	100.0	392.0	392.0	0.1	0.1	148.93	-13.1	7.9	15.3	15.0	0.27	56.516			
200.0	200.0	492.0	492.0	0.3	0.3	148.93	-13.1	7.9	15.3	14.7	0.62	24.778			
300.0	300.0	592.0	592.0	0.5	0.5	148.93	-13.1	7.9	15.3	14.3	0.97	15.833			
400.0	400.0	692.0	692.0	0.7	0.7	148.93	-13.1	7.9	15.3	14.0	1.32	11.633			
500.0	500.0	792.0	792.0	0.8	0.8	148.93	-13.1	7.9	15.3	13.6	1.67	9.194			
600.0	600.0	892.2	892.2	1.0	1.0	101.92	-12.1	8.1	14.8	12.8	2.02	7.350			
643.5	643.5	935.7	935.7	1.1	1.1	107.16	-11.4	8.2	14.7	12.5	2.17	6.748 CC, ES			
700.0	699.8	992.1	992.1	1.2	1.2	117.45	-10.4	8.4	15.1	12.7	2.37	6.347 SF			
800.0	799.5	1,091.8	1,091.8	1.4	1.4	139.39	-8.7	8.8	18.8	16.1	2.73	6.907			
900.0	898.7	1,191.2	1,191.2	1.6	1.5	156.02	-6.9	9.1	27.5	24.5	3.07	8.971			
1,000.0	997.5	1,290.2	1,290.1	1.9	1.7	165.62	-5.2	9.4	40.7	37.3	3.40	11.982			
1,100.0	1,095.6	1,388.6	1,388.5	2.3	1.9	171.01	-3.5	9.8	57.9	54.2	3.73	15.541			
1,200.0	1,193.1	1,486.3	1,486.2	2.7	2.1	174.18	-1.9	10.1	78.8	74.8	4.05	19.450			

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design 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						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	-32.54	12.4	-7.9	16.7					
100.0	100.0	92.0	92.0	0.1	0.1	-32.54	12.4	-7.9	14.7	14.4	0.27	54.230		
200.0	200.0	192.0	192.0	0.3	0.3	-32.54	12.4	-7.9	14.7	14.1	0.62	23.776 CC, ES		
300.0	300.0	291.7	291.7	0.5	0.5	-30.75	13.5	-8.0	15.7	14.7	0.97	16.203		
400.0	400.0	391.2	391.1	0.7	0.7	-26.15	17.1	-8.4	19.1	17.8	1.33	14.416 SF		
500.0	500.0	490.4	490.2	0.8	0.9	-21.26	23.4	-9.1	25.1	23.4	1.70	14.815		
600.0	600.0	589.4	588.7	1.0	1.1	-71.05	32.1	-10.0	33.2	31.2	2.02	16.457		
700.0	699.8	688.7	687.5	1.2	1.3	-74.12	42.7	-11.2	42.0	39.6	2.38	17.610		
800.0	799.5	788.3	786.5	1.4	1.6	-79.92	53.4	-12.3	50.2	47.5	2.79	18.015		
900.0	898.7	887.7	885.2	1.6	1.8	-87.39	64.1	-13.5	58.6	55.4	3.25	18.034		
1,000.0	997.5	986.8	983.8	1.9	2.1	-95.77	74.8	-14.7	68.1	64.3	3.78	18.001		
1,100.0	1,095.6	1,085.5	1,081.9	2.3	2.3	-104.37	85.4	-15.8	79.4	75.1	4.37	18.191		
1,200.0	1,193.1	1,183.6	1,179.5	2.7	2.6	-112.59	96.0	-16.9	93.5	88.5	4.98	18.773		

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty	Separation					
Depth (ft)	Depth (ft)	Depth (ft)	Depth (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	-49.95	20.4	-24.3	32.7								
100.0	100.0	92.0	92.0	0.1	0.1	-49.95	20.4	-24.3	31.7	31.4	0.27	117.028					
200.0	200.0	192.0	192.0	0.3	0.3	-49.95	20.4	-24.3	31.7	31.1	0.62	51.307	CC				
217.7	217.7	209.7	209.7	0.3	0.3	-49.97	20.4	-24.3	31.7	31.0	0.68	46.634					
300.0	300.0	292.0	292.0	0.5	0.5	-51.95	19.6	-25.0	31.7	30.8	0.97	32.794	ES				
400.0	400.0	391.8	391.7	0.7	0.7	-58.57	16.7	-27.4	32.1	30.8	1.32	24.348					
500.0	500.0	491.4	491.1	0.8	0.9	-69.20	12.0	-31.5	33.7	32.0	1.67	20.202					
600.0	600.0	590.4	589.7	1.0	1.1	-134.78	5.3	-37.2	38.9	36.8	2.08	18.743	SF				
700.0	699.8	688.2	686.9	1.2	1.3	-149.48	-3.2	-44.6	50.8	48.4	2.43	20.880					
800.0	799.5	784.4	782.1	1.4	1.6	-160.27	-13.5	-53.3	70.2	67.4	2.77	25.334					
900.0	898.7	878.5	874.9	1.6	1.9	-167.31	-25.2	-63.4	96.5	93.4	3.09	31.199					

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design													S21-T6S-R97W (Marathon plan) - 697-22C-11 - DD - DD		Offset Site Error:		0.0 ft
Survey Program:													34-Gyro, 618-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					
4,900.0	4,751.1	4,896.6	4,731.5	21.6	22.8	-22.66	773.7	900.7	94.1	60.8	33.29	2.826					
5,000.0	4,847.3	4,994.2	4,825.9	22.1	23.3	-11.99	766.8	924.2	75.4	44.5	30.89	2.441					
5,100.0	4,943.5	5,090.9	4,919.4	22.6	23.8	4.75	759.6	947.7	60.8	33.0	27.78	2.187					
5,200.0	5,039.6	5,188.0	5,013.2	23.2	24.2	28.50	752.1	971.9	54.6	27.7	26.81	2.035					
5,215.7	5,054.7	5,203.4	5,028.1	23.2	24.3	32.51	750.9	975.6	54.4	27.6	26.86	2.027	CC, ES, SF				
5,300.0	5,135.8	5,284.5	5,106.5	23.7	24.7	52.66	744.9	995.1	58.4	29.9	28.49	2.050					
5,400.0	5,231.9	5,381.3	5,199.9	24.2	25.2	70.79	737.4	1,019.7	72.4	38.5	33.86	2.138					
5,500.0	5,328.1	5,479.7	5,295.1	24.7	25.7	82.81	730.5	1,043.6	90.1	51.5	38.63	2.332					

Cathedral Energy Services

Anticollision Report

Company:	Berry Petroleum Company (NAD 83)	Local Co-ordinate Reference:	Well Oxy 22-25D (Oxy I21 Pad)
Project:	Garfield County	TVD Reference:	KBE @ 8389.0ft (Patterson 302)
Reference Site:	NESE S21-T6S-R97W (Oxy I21 pad)	MD Reference:	KBE @ 8389.0ft (Patterson 302)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Oxy 22-25D (Oxy I21 Pad)	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	EDM 5000.1 US Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KBE @ 8389.0ft (Patterson 302)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Oxy 22-25D (Oxy I21 Pad)
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: -1.71°

