

WESTERN DIVISION

PBNM

Dzurisin

Jayhawk 7-6 Fed Com 86H

Wellbore #1

Plan: Plan 1

Standard Planning Report

13 October, 2016



Devon Energy Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 86H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.60ft
Project:	PBNM	MD Reference:	1 @ 3390.60ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 86H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project	PBNM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Dzurisin				
Site Position:	Northing:	429,922.27 usft	Latitude:	32.180535	
From:	Map	Easting:	725,391.41 usft	Longitude:	-103.738424
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.32 °

Well	Jayhawk 7-6 Fed Com 86H					
Well Position	+N/-S	-47,153.05 ft	Northing:	382,769.32 usft	Latitude:	32.049600
	+E/-W	72,917.17 ft	Easting:	798,308.43 usft	Longitude:	-103.503929
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	3,367.10 ft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.71	60.09	48,695

Design	Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	3.28

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	5.00	67.00	2,499.37	8.52	20.07	1.00	1.00	0.00	67.00	
9,400.00	5.00	67.00	9,373.11	243.49	573.64	0.00	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,371.84	260.53	613.78	0.50	-0.50	0.00	180.00	
12,386.70	0.00	0.00	12,358.54	260.53	613.78	0.00	0.00	0.00	0.00	
13,136.20	89.94	359.98	12,836.01	737.50	613.61	12.00	12.00	0.00	359.98	Jayhawk 7-6 Fed 86H
13,157.78	89.94	359.98	12,836.03	759.08	613.60	0.01	0.01	0.00	-0.01	
23,013.41	89.94	359.98	12,845.98	10,614.70	610.11	0.00	0.00	0.00	0.00	
23,035.19	89.94	359.98	12,846.00	10,636.48	610.10	0.01	-0.01	0.00	172.15	Jayhawk 7-6 Fed 86H

Devon Energy

Planning Report

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Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.60ft
Project:	PBNM	MD Reference:	1 @ 3390.60ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 86H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	1.00	67.00	2,099.99	0.34	0.80	0.39	1.00	1.00	1.00	0.00
2,200.00	2.00	67.00	2,199.96	1.36	3.21	1.55	1.00	1.00	1.00	0.00
2,300.00	3.00	67.00	2,299.86	3.07	7.23	3.48	1.00	1.00	1.00	0.00
2,400.00	4.00	67.00	2,399.68	5.45	12.85	6.18	1.00	1.00	1.00	0.00
2,500.00	5.00	67.00	2,499.37	8.52	20.07	9.65	1.00	1.00	1.00	0.00
2,600.00	5.00	67.00	2,598.99	11.92	28.09	13.51	0.00	0.00	0.00	0.00
2,700.00	5.00	67.00	2,698.60	15.33	36.12	17.37	0.00	0.00	0.00	0.00
2,800.00	5.00	67.00	2,798.22	18.74	44.14	21.23	0.00	0.00	0.00	0.00
2,900.00	5.00	67.00	2,897.84	22.14	52.16	25.09	0.00	0.00	0.00	0.00
3,000.00	5.00	67.00	2,997.46	25.55	60.18	28.95	0.00	0.00	0.00	0.00
3,100.00	5.00	67.00	3,097.08	28.95	68.21	32.81	0.00	0.00	0.00	0.00
3,200.00	5.00	67.00	3,196.70	32.36	76.23	36.67	0.00	0.00	0.00	0.00
3,300.00	5.00	67.00	3,296.32	35.76	84.25	40.53	0.00	0.00	0.00	0.00
3,400.00	5.00	67.00	3,395.94	39.17	92.27	44.39	0.00	0.00	0.00	0.00
3,500.00	5.00	67.00	3,495.56	42.57	100.30	48.25	0.00	0.00	0.00	0.00
3,600.00	5.00	67.00	3,595.18	45.98	108.32	52.11	0.00	0.00	0.00	0.00
3,700.00	5.00	67.00	3,694.80	49.38	116.34	55.97	0.00	0.00	0.00	0.00
3,800.00	5.00	67.00	3,794.42	52.79	124.37	59.82	0.00	0.00	0.00	0.00
3,900.00	5.00	67.00	3,894.04	56.20	132.39	63.68	0.00	0.00	0.00	0.00
4,000.00	5.00	67.00	3,993.66	59.60	140.41	67.54	0.00	0.00	0.00	0.00
4,100.00	5.00	67.00	4,093.28	63.01	148.43	71.40	0.00	0.00	0.00	0.00
4,200.00	5.00	67.00	4,192.90	66.41	156.46	75.26	0.00	0.00	0.00	0.00
4,300.00	5.00	67.00	4,292.52	69.82	164.48	79.12	0.00	0.00	0.00	0.00
4,400.00	5.00	67.00	4,392.14	73.22	172.50	82.98	0.00	0.00	0.00	0.00
4,500.00	5.00	67.00	4,491.76	76.63	180.52	86.84	0.00	0.00	0.00	0.00
4,600.00	5.00	67.00	4,591.37	80.03	188.55	90.70	0.00	0.00	0.00	0.00
4,700.00	5.00	67.00	4,690.99	83.44	196.57	94.56	0.00	0.00	0.00	0.00
4,800.00	5.00	67.00	4,790.61	86.84	204.59	98.42	0.00	0.00	0.00	0.00
4,900.00	5.00	67.00	4,890.23	90.25	212.62	102.28	0.00	0.00	0.00	0.00
5,000.00	5.00	67.00	4,989.85	93.66	220.64	106.14	0.00	0.00	0.00	0.00
5,100.00	5.00	67.00	5,089.47	97.06	228.66	110.00	0.00	0.00	0.00	0.00
5,200.00	5.00	67.00	5,189.09	100.47	236.68	113.85	0.00	0.00	0.00	0.00
5,300.00	5.00	67.00	5,288.71	103.87	244.71	117.71	0.00	0.00	0.00	0.00

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Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	5.00	67.00	5,388.33	107.28	252.73	121.57	0.00	0.00	0.00
5,500.00	5.00	67.00	5,487.95	110.68	260.75	125.43	0.00	0.00	0.00
5,600.00	5.00	67.00	5,587.57	114.09	268.77	129.29	0.00	0.00	0.00
5,700.00	5.00	67.00	5,687.19	117.49	276.80	133.15	0.00	0.00	0.00
5,800.00	5.00	67.00	5,786.81	120.90	284.82	137.01	0.00	0.00	0.00
5,900.00	5.00	67.00	5,886.43	124.30	292.84	140.87	0.00	0.00	0.00
6,000.00	5.00	67.00	5,986.05	127.71	300.87	144.73	0.00	0.00	0.00
6,100.00	5.00	67.00	6,085.67	131.12	308.89	148.59	0.00	0.00	0.00
6,200.00	5.00	67.00	6,185.29	134.52	316.91	152.45	0.00	0.00	0.00
6,300.00	5.00	67.00	6,284.91	137.93	324.93	156.31	0.00	0.00	0.00
6,400.00	5.00	67.00	6,384.53	141.33	332.96	160.17	0.00	0.00	0.00
6,500.00	5.00	67.00	6,484.14	144.74	340.98	164.03	0.00	0.00	0.00
6,600.00	5.00	67.00	6,583.76	148.14	349.00	167.88	0.00	0.00	0.00
6,700.00	5.00	67.00	6,683.38	151.55	357.02	171.74	0.00	0.00	0.00
6,800.00	5.00	67.00	6,783.00	154.95	365.05	175.60	0.00	0.00	0.00
6,900.00	5.00	67.00	6,882.62	158.36	373.07	179.46	0.00	0.00	0.00
7,000.00	5.00	67.00	6,982.24	161.76	381.09	183.32	0.00	0.00	0.00
7,100.00	5.00	67.00	7,081.86	165.17	389.12	187.18	0.00	0.00	0.00
7,200.00	5.00	67.00	7,181.48	168.57	397.14	191.04	0.00	0.00	0.00
7,300.00	5.00	67.00	7,281.10	171.98	405.16	194.90	0.00	0.00	0.00
7,400.00	5.00	67.00	7,380.72	175.39	413.18	198.76	0.00	0.00	0.00
7,500.00	5.00	67.00	7,480.34	178.79	421.21	202.62	0.00	0.00	0.00
7,600.00	5.00	67.00	7,579.96	182.20	429.23	206.48	0.00	0.00	0.00
7,700.00	5.00	67.00	7,679.58	185.60	437.25	210.34	0.00	0.00	0.00
7,800.00	5.00	67.00	7,779.20	189.01	445.27	214.20	0.00	0.00	0.00
7,900.00	5.00	67.00	7,878.82	192.41	453.30	218.06	0.00	0.00	0.00
8,000.00	5.00	67.00	7,978.44	195.82	461.32	221.91	0.00	0.00	0.00
8,100.00	5.00	67.00	8,078.06	199.22	469.34	225.77	0.00	0.00	0.00
8,200.00	5.00	67.00	8,177.68	202.63	477.37	229.63	0.00	0.00	0.00
8,300.00	5.00	67.00	8,277.30	206.03	485.39	233.49	0.00	0.00	0.00
8,400.00	5.00	67.00	8,376.91	209.44	493.41	237.35	0.00	0.00	0.00
8,500.00	5.00	67.00	8,476.53	212.85	501.43	241.21	0.00	0.00	0.00
8,600.00	5.00	67.00	8,576.15	216.25	509.46	245.07	0.00	0.00	0.00
8,700.00	5.00	67.00	8,675.77	219.66	517.48	248.93	0.00	0.00	0.00
8,800.00	5.00	67.00	8,775.39	223.06	525.50	252.79	0.00	0.00	0.00
8,900.00	5.00	67.00	8,875.01	226.47	533.52	256.65	0.00	0.00	0.00
9,000.00	5.00	67.00	8,974.63	229.87	541.55	260.51	0.00	0.00	0.00
9,100.00	5.00	67.00	9,074.25	233.28	549.57	264.37	0.00	0.00	0.00
9,200.00	5.00	67.00	9,173.87	236.68	557.59	268.23	0.00	0.00	0.00
9,300.00	5.00	67.00	9,273.49	240.09	565.62	272.09	0.00	0.00	0.00
9,400.00	5.00	67.00	9,373.11	243.49	573.64	275.94	0.00	0.00	0.00
9,500.00	4.50	67.00	9,472.77	246.73	581.26	279.61	0.50	-0.50	0.00
9,600.00	4.00	67.00	9,572.49	249.63	588.08	282.89	0.50	-0.50	0.00
9,700.00	3.50	67.00	9,672.28	252.18	594.10	285.79	0.50	-0.50	0.00
9,800.00	3.00	67.00	9,772.11	254.40	599.32	288.30	0.50	-0.50	0.00
9,900.00	2.50	67.00	9,872.00	256.27	603.74	290.42	0.50	-0.50	0.00
10,000.00	2.00	67.00	9,971.92	257.81	607.35	292.16	0.50	-0.50	0.00
10,100.00	1.50	67.00	10,071.87	259.00	610.16	293.51	0.50	-0.50	0.00
10,200.00	1.00	67.00	10,171.85	259.85	612.17	294.48	0.50	-0.50	0.00
10,300.00	0.50	67.00	10,271.84	260.36	613.38	295.06	0.50	-0.50	0.00
10,400.00	0.00	0.00	10,371.84	260.53	613.78	295.25	0.50	-0.50	0.00
10,500.00	0.00	0.00	10,471.84	260.53	613.78	295.25	0.00	0.00	0.00
10,600.00	0.00	0.00	10,571.84	260.53	613.78	295.25	0.00	0.00	0.00
10,700.00	0.00	0.00	10,671.84	260.53	613.78	295.25	0.00	0.00	0.00

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Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 86H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.60ft
Project:	PBNM	MD Reference:	1 @ 3390.60ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 86H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,800.00	0.00	0.00	10,771.84	260.53	613.78	295.25	0.00	0.00	0.00	
10,900.00	0.00	0.00	10,871.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,000.00	0.00	0.00	10,971.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,100.00	0.00	0.00	11,071.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,200.00	0.00	0.00	11,171.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,300.00	0.00	0.00	11,271.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,400.00	0.00	0.00	11,371.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,500.00	0.00	0.00	11,471.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,600.00	0.00	0.00	11,571.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,700.00	0.00	0.00	11,671.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,800.00	0.00	0.00	11,771.84	260.53	613.78	295.25	0.00	0.00	0.00	
11,900.00	0.00	0.00	11,871.84	260.53	613.78	295.25	0.00	0.00	0.00	
12,000.00	0.00	0.00	11,971.84	260.53	613.78	295.25	0.00	0.00	0.00	
12,100.00	0.00	0.00	12,071.84	260.53	613.78	295.25	0.00	0.00	0.00	
12,200.00	0.00	0.00	12,171.84	260.53	613.78	295.25	0.00	0.00	0.00	
12,300.00	0.00	0.00	12,271.84	260.53	613.78	295.25	0.00	0.00	0.00	
12,386.70	0.00	0.00	12,358.54	260.53	613.78	295.25	0.00	0.00	0.00	
12,400.00	1.60	359.98	12,371.84	260.72	613.78	295.44	12.00	12.00	0.00	
12,425.00	4.60	359.98	12,396.80	262.07	613.78	296.79	12.00	12.00	0.00	
12,450.00	7.60	359.98	12,421.66	264.72	613.78	299.44	12.00	12.00	0.00	
12,475.00	10.60	359.98	12,446.34	268.67	613.77	303.38	12.00	12.00	0.00	
12,500.00	13.60	359.98	12,470.78	273.91	613.77	308.61	12.00	12.00	0.00	
12,525.00	16.60	359.98	12,494.91	280.42	613.77	315.11	12.00	12.00	0.00	
12,550.00	19.60	359.98	12,518.68	288.19	613.77	322.86	12.00	12.00	0.00	
12,575.00	22.60	359.98	12,542.00	297.18	613.76	331.84	12.00	12.00	0.00	
12,600.00	25.60	359.98	12,564.82	307.39	613.76	342.03	12.00	12.00	0.00	
12,625.00	28.60	359.98	12,587.07	318.78	613.76	353.40	12.00	12.00	0.00	
12,650.00	31.60	359.98	12,608.70	331.31	613.75	365.91	12.00	12.00	0.00	
12,675.00	34.60	359.98	12,629.64	344.96	613.75	379.54	12.00	12.00	0.00	
12,700.00	37.60	359.98	12,649.84	359.69	613.74	394.24	12.00	12.00	0.00	
12,725.00	40.60	359.98	12,669.24	375.45	613.74	409.98	12.00	12.00	0.00	
12,750.00	43.60	359.98	12,687.79	392.21	613.73	426.71	12.00	12.00	0.00	
12,775.00	46.60	359.98	12,705.43	409.91	613.72	444.39	12.00	12.00	0.00	
12,800.00	49.60	359.98	12,722.13	428.52	613.72	462.96	12.00	12.00	0.00	
12,825.00	52.60	359.98	12,737.83	447.97	613.71	482.38	12.00	12.00	0.00	
12,850.00	55.60	359.98	12,752.48	468.22	613.70	502.59	12.00	12.00	0.00	
12,875.00	58.60	359.98	12,766.06	489.21	613.70	523.55	12.00	12.00	0.00	
12,900.00	61.60	359.98	12,778.53	510.87	613.69	545.18	12.00	12.00	0.00	
12,925.00	64.60	359.98	12,789.84	533.17	613.68	567.43	12.00	12.00	0.00	
12,950.00	67.60	359.98	12,799.97	556.02	613.67	590.25	12.00	12.00	0.00	
12,975.00	70.60	359.98	12,808.89	579.37	613.66	613.56	12.00	12.00	0.00	
13,000.00	73.60	359.98	12,816.57	603.16	613.66	637.31	12.00	12.00	0.00	
13,025.00	76.60	359.98	12,823.00	627.31	613.65	661.42	12.00	12.00	0.00	
13,050.00	79.60	359.98	12,828.16	651.77	613.64	685.84	12.00	12.00	0.00	
13,075.00	82.60	359.98	12,832.03	676.47	613.63	710.50	12.00	12.00	0.00	
13,100.00	85.60	359.98	12,834.60	701.33	613.62	735.32	12.00	12.00	0.00	
13,125.00	88.60	359.98	12,835.86	726.30	613.61	760.25	12.00	12.00	0.00	
13,136.20	89.94	359.98	12,836.01	737.50	613.61	771.43	12.00	12.00	0.00	
13,157.78	89.94	359.98	12,836.03	759.08	613.60	792.97	0.01	0.01	0.00	
13,200.00	89.94	359.98	12,836.07	801.30	613.59	835.12	0.00	0.00	0.00	
13,300.00	89.94	359.98	12,836.17	901.30	613.55	934.95	0.00	0.00	0.00	
13,400.00	89.94	359.98	12,836.27	1,001.30	613.51	1,034.79	0.00	0.00	0.00	
13,500.00	89.94	359.98	12,836.37	1,101.30	613.48	1,134.62	0.00	0.00	0.00	
13,600.00	89.94	359.98	12,836.47	1,201.30	613.44	1,234.45	0.00	0.00	0.00	

Devon Energy

Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 86H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.60ft
Project:	PBNM	MD Reference:	1 @ 3390.60ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 86H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,700.00	89.94	359.98	12,836.58	1,301.30	613.41	1,334.29	0.00	0.00	0.00
13,800.00	89.94	359.98	12,836.68	1,401.30	613.37	1,434.12	0.00	0.00	0.00
13,900.00	89.94	359.98	12,836.78	1,501.30	613.34	1,533.96	0.00	0.00	0.00
14,000.00	89.94	359.98	12,836.88	1,601.30	613.30	1,633.79	0.00	0.00	0.00
14,100.00	89.94	359.98	12,836.98	1,701.30	613.27	1,733.62	0.00	0.00	0.00
14,200.00	89.94	359.98	12,837.08	1,801.30	613.23	1,833.46	0.00	0.00	0.00
14,300.00	89.94	359.98	12,837.18	1,901.30	613.20	1,933.29	0.00	0.00	0.00
14,400.00	89.94	359.98	12,837.28	2,001.30	613.16	2,033.13	0.00	0.00	0.00
14,500.00	89.94	359.98	12,837.38	2,101.30	613.12	2,132.96	0.00	0.00	0.00
14,600.00	89.94	359.98	12,837.48	2,201.30	613.09	2,232.79	0.00	0.00	0.00
14,700.00	89.94	359.98	12,837.59	2,301.30	613.05	2,332.63	0.00	0.00	0.00
14,800.00	89.94	359.98	12,837.69	2,401.30	613.02	2,432.46	0.00	0.00	0.00
14,900.00	89.94	359.98	12,837.79	2,501.30	612.98	2,532.29	0.00	0.00	0.00
15,000.00	89.94	359.98	12,837.89	2,601.30	612.95	2,632.13	0.00	0.00	0.00
15,100.00	89.94	359.98	12,837.99	2,701.30	612.91	2,731.96	0.00	0.00	0.00
15,200.00	89.94	359.98	12,838.09	2,801.30	612.88	2,831.80	0.00	0.00	0.00
15,300.00	89.94	359.98	12,838.19	2,901.30	612.84	2,931.63	0.00	0.00	0.00
15,400.00	89.94	359.98	12,838.29	3,001.30	612.81	3,031.46	0.00	0.00	0.00
15,500.00	89.94	359.98	12,838.39	3,101.30	612.77	3,131.30	0.00	0.00	0.00
15,600.00	89.94	359.98	12,838.49	3,201.30	612.74	3,231.13	0.00	0.00	0.00
15,700.00	89.94	359.98	12,838.59	3,301.30	612.70	3,330.96	0.00	0.00	0.00
15,800.00	89.94	359.98	12,838.70	3,401.30	612.66	3,430.80	0.00	0.00	0.00
15,900.00	89.94	359.98	12,838.80	3,501.30	612.63	3,530.63	0.00	0.00	0.00
16,000.00	89.94	359.98	12,838.90	3,601.30	612.59	3,630.47	0.00	0.00	0.00
16,100.00	89.94	359.98	12,839.00	3,701.30	612.56	3,730.30	0.00	0.00	0.00
16,200.00	89.94	359.98	12,839.10	3,801.30	612.52	3,830.13	0.00	0.00	0.00
16,300.00	89.94	359.98	12,839.20	3,901.30	612.49	3,929.97	0.00	0.00	0.00
16,400.00	89.94	359.98	12,839.30	4,001.30	612.45	4,029.80	0.00	0.00	0.00
16,500.00	89.94	359.98	12,839.40	4,101.30	612.42	4,129.64	0.00	0.00	0.00
16,600.00	89.94	359.98	12,839.50	4,201.30	612.38	4,229.47	0.00	0.00	0.00
16,700.00	89.94	359.98	12,839.60	4,301.30	612.35	4,329.30	0.00	0.00	0.00
16,800.00	89.94	359.98	12,839.71	4,401.30	612.31	4,429.14	0.00	0.00	0.00
16,900.00	89.94	359.98	12,839.81	4,501.30	612.27	4,528.97	0.00	0.00	0.00
17,000.00	89.94	359.98	12,839.91	4,601.30	612.24	4,628.80	0.00	0.00	0.00
17,100.00	89.94	359.98	12,840.01	4,701.29	612.20	4,728.64	0.00	0.00	0.00
17,200.00	89.94	359.98	12,840.11	4,801.29	612.17	4,828.47	0.00	0.00	0.00
17,300.00	89.94	359.98	12,840.21	4,901.29	612.13	4,928.31	0.00	0.00	0.00
17,400.00	89.94	359.98	12,840.31	5,001.29	612.10	5,028.14	0.00	0.00	0.00
17,500.00	89.94	359.98	12,840.41	5,101.29	612.06	5,127.97	0.00	0.00	0.00
17,600.00	89.94	359.98	12,840.51	5,201.29	612.03	5,227.81	0.00	0.00	0.00
17,700.00	89.94	359.98	12,840.61	5,301.29	611.99	5,327.64	0.00	0.00	0.00
17,800.00	89.94	359.98	12,840.71	5,401.29	611.96	5,427.47	0.00	0.00	0.00
17,900.00	89.94	359.98	12,840.82	5,501.29	611.92	5,527.31	0.00	0.00	0.00
18,000.00	89.94	359.98	12,840.92	5,601.29	611.88	5,627.14	0.00	0.00	0.00
18,100.00	89.94	359.98	12,841.02	5,701.29	611.85	5,726.98	0.00	0.00	0.00
18,200.00	89.94	359.98	12,841.12	5,801.29	611.81	5,826.81	0.00	0.00	0.00
18,300.00	89.94	359.98	12,841.22	5,901.29	611.78	5,926.64	0.00	0.00	0.00
18,400.00	89.94	359.98	12,841.32	6,001.29	611.74	6,026.48	0.00	0.00	0.00
18,500.00	89.94	359.98	12,841.42	6,101.29	611.71	6,126.31	0.00	0.00	0.00
18,600.00	89.94	359.98	12,841.52	6,201.29	611.67	6,226.15	0.00	0.00	0.00
18,700.00	89.94	359.98	12,841.62	6,301.29	611.64	6,325.98	0.00	0.00	0.00
18,800.00	89.94	359.98	12,841.72	6,401.29	611.60	6,425.81	0.00	0.00	0.00
18,900.00	89.94	359.98	12,841.83	6,501.29	611.57	6,525.65	0.00	0.00	0.00
19,000.00	89.94	359.98	12,841.93	6,601.29	611.53	6,625.48	0.00	0.00	0.00

Devon Energy

Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 86H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.60ft
Project:	PBNM	MD Reference:	1 @ 3390.60ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 86H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,100.00	89.94	359.98	12,842.03	6,701.29	611.50	6,725.31	0.00	0.00	0.00
19,200.00	89.94	359.98	12,842.13	6,801.29	611.46	6,825.15	0.00	0.00	0.00
19,300.00	89.94	359.98	12,842.23	6,901.29	611.42	6,924.98	0.00	0.00	0.00
19,400.00	89.94	359.98	12,842.33	7,001.29	611.39	7,024.82	0.00	0.00	0.00
19,500.00	89.94	359.98	12,842.43	7,101.29	611.35	7,124.65	0.00	0.00	0.00
19,600.00	89.94	359.98	12,842.53	7,201.29	611.32	7,224.48	0.00	0.00	0.00
19,700.00	89.94	359.98	12,842.63	7,301.29	611.28	7,324.32	0.00	0.00	0.00
19,800.00	89.94	359.98	12,842.73	7,401.29	611.25	7,424.15	0.00	0.00	0.00
19,900.00	89.94	359.98	12,842.83	7,501.29	611.21	7,523.98	0.00	0.00	0.00
20,000.00	89.94	359.98	12,842.94	7,601.29	611.18	7,623.82	0.00	0.00	0.00
20,100.00	89.94	359.98	12,843.04	7,701.29	611.14	7,723.65	0.00	0.00	0.00
20,200.00	89.94	359.98	12,843.14	7,801.29	611.11	7,823.49	0.00	0.00	0.00
20,300.00	89.94	359.98	12,843.24	7,901.29	611.07	7,923.32	0.00	0.00	0.00
20,400.00	89.94	359.98	12,843.34	8,001.29	611.03	8,023.15	0.00	0.00	0.00
20,500.00	89.94	359.98	12,843.44	8,101.29	611.00	8,122.99	0.00	0.00	0.00
20,600.00	89.94	359.98	12,843.54	8,201.29	610.96	8,222.82	0.00	0.00	0.00
20,700.00	89.94	359.98	12,843.64	8,301.29	610.93	8,322.66	0.00	0.00	0.00
20,800.00	89.94	359.98	12,843.74	8,401.29	610.89	8,422.49	0.00	0.00	0.00
20,900.00	89.94	359.98	12,843.84	8,501.29	610.86	8,522.32	0.00	0.00	0.00
21,000.00	89.94	359.98	12,843.95	8,601.29	610.82	8,622.16	0.00	0.00	0.00
21,100.00	89.94	359.98	12,844.05	8,701.29	610.79	8,721.99	0.00	0.00	0.00
21,200.00	89.94	359.98	12,844.15	8,801.29	610.75	8,821.82	0.00	0.00	0.00
21,300.00	89.94	359.98	12,844.25	8,901.29	610.72	8,921.66	0.00	0.00	0.00
21,400.00	89.94	359.98	12,844.35	9,001.29	610.68	9,021.49	0.00	0.00	0.00
21,500.00	89.94	359.98	12,844.45	9,101.29	610.65	9,121.33	0.00	0.00	0.00
21,600.00	89.94	359.98	12,844.55	9,201.29	610.61	9,221.16	0.00	0.00	0.00
21,700.00	89.94	359.98	12,844.65	9,301.29	610.57	9,320.99	0.00	0.00	0.00
21,800.00	89.94	359.98	12,844.75	9,401.29	610.54	9,420.83	0.00	0.00	0.00
21,900.00	89.94	359.98	12,844.85	9,501.29	610.50	9,520.66	0.00	0.00	0.00
22,000.00	89.94	359.98	12,844.95	9,601.29	610.47	9,620.50	0.00	0.00	0.00
22,100.00	89.94	359.98	12,845.06	9,701.29	610.43	9,720.33	0.00	0.00	0.00
22,200.00	89.94	359.98	12,845.16	9,801.29	610.40	9,820.16	0.00	0.00	0.00
22,300.00	89.94	359.98	12,845.26	9,901.29	610.36	9,920.00	0.00	0.00	0.00
22,400.00	89.94	359.98	12,845.36	10,001.29	610.33	10,019.83	0.00	0.00	0.00
22,500.00	89.94	359.98	12,845.46	10,101.29	610.29	10,119.66	0.00	0.00	0.00
22,600.00	89.94	359.98	12,845.56	10,201.29	610.26	10,219.50	0.00	0.00	0.00
22,700.00	89.94	359.98	12,845.66	10,301.29	610.22	10,319.33	0.00	0.00	0.00
22,800.00	89.94	359.98	12,845.76	10,401.29	610.18	10,419.17	0.00	0.00	0.00
22,900.00	89.94	359.98	12,845.86	10,501.29	610.15	10,519.00	0.00	0.00	0.00
23,000.00	89.94	359.98	12,845.96	10,601.29	610.11	10,618.83	0.00	0.00	0.00
23,013.41	89.94	359.98	12,845.98	10,614.70	610.11	10,632.22	0.00	0.00	0.00
23,035.19	89.94	359.98	12,846.00	10,636.48	610.10	10,653.96	0.01	-0.01	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Jayhawk 7-6 Fed 86H B	0.00	0.00	12,846.00	10,636.48	610.10	393,405.78	798,918.53	32.078823	-103.501696
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Devon Energy
Planning Report

Database:	EDM r5000 US Production	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 86H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3390.60ft
Project:	PBNM	MD Reference:	1 @ 3390.60ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 86H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
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 Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Combined Covariances
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Risk Settings	
Vertical Depth for Analysis:	ft (Below TVD Reference Datum)
Level of Acceptable Risk (1 in):	
Minimum Separation:	0 ft

Survey Tool Program		Date	8/29/2016		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	22,999.10	Plan 1 (Wellbore #1)	MWD	MWD - Standard	

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						
Dzurisin						
Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1	1,966.33	1,967.33	58.30	52.25	9.628	CC
Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1	2,000.00	2,000.99	58.30	52.14	9.461	ES
Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1	2,300.00	2,299.18	62.66	55.60	8.868	SF
Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1	3,000.00	3,000.40	50.02	40.68	5.355	CC, ES
Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1	3,100.00	3,100.39	50.65	40.99	5.245	SF
Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1	1,966.50	1,967.00	58.29	52.24	9.627	CC
Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1	2,000.00	2,000.50	58.29	52.13	9.460	ES
Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1	2,300.00	2,298.64	62.73	55.67	8.879	SF
Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1	1,966.53	1,966.93	30.04	23.99	4.961	CC
Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1	2,000.00	2,000.40	30.04	23.88	4.875	ES
Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1	22,999.10	22,944.98	903.81	627.21	3.268	SF
Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1	2,000.00	1,999.90	29.95	23.79	4.862	CC, ES
Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1	22,999.10	23,028.45	903.88	628.11	3.278	SF

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 0-MWD													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis		Distance						Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor					
0.00	0.00	1.00	1.00	0.00	0.00	-149.47	58.30					0			
100.00	100.00	101.00	101.00	0.09	0.09	-149.47	58.30	58.18	0.12	473.312		0			
200.00	200.00	201.00	201.00	0.31	0.31	-149.47	58.30	57.86	0.44	132.196		0			
300.00	300.00	301.00	301.00	0.54	0.54	-149.47	58.30	57.55	0.76	76.827		0			
400.00	400.00	401.00	401.00	0.76	0.76	-149.47	58.30	57.23	1.08	54.147		0			
500.00	500.00	501.00	501.00	0.99	0.99	-149.47	58.30	56.91	1.39	41.806		0			
600.00	600.00	601.00	601.00	1.21	1.21	-149.47	58.30	56.59	1.71	34.046		0			
700.00	700.00	701.00	701.00	1.43	1.44	-149.47	58.30	56.27	2.03	28.716		0			
800.00	800.00	801.00	801.00	1.66	1.66	-149.47	58.30	55.96	2.35	24.829		0			
900.00	900.00	901.00	901.00	1.88	1.89	-149.47	58.30	55.64	2.67	21.869		0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance						Risked Separation Factor	Probability of Collision	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
1,000.00	1,000.00	1,001.00	1,001.00	2.11	2.11	-149.47	58.30	55.32	2.98	19.539	0			
1,100.00	1,100.00	1,101.00	1,101.00	2.33	2.34	-149.47	58.30	55.00	3.30	17.658	0			
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.56	-149.47	58.30	54.68	3.62	16.107	0			
1,300.00	1,300.00	1,301.00	1,301.00	2.78	2.79	-149.47	58.30	54.37	3.94	14.807	0			
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.01	-149.47	58.30	54.05	4.26	13.701	0			
1,500.00	1,500.00	1,501.00	1,501.00	3.23	3.23	-149.47	58.30	53.73	4.57	12.749	0			
1,600.00	1,600.00	1,601.00	1,601.00	3.46	3.46	-149.47	58.30	53.41	4.89	11.920	0			
1,700.00	1,700.00	1,701.00	1,701.00	3.68	3.68	-149.47	58.30	53.10	5.21	11.193	0			
1,800.00	1,800.00	1,801.00	1,801.00	3.91	3.91	-149.47	58.30	52.78	5.53	10.549	0			
1,900.00	1,900.00	1,901.00	1,901.00	4.13	4.13	-149.47	58.30	52.46	5.84	9.975	0			
1,966.33	1,966.33	1,967.33	1,967.33	4.28	4.28	-149.47	58.30	52.25	6.06	9.628	0		CC	
2,000.00	2,000.00	2,000.99	2,000.99	4.36	4.36	-149.47	58.30	52.14	6.16	9.461	0		ES	
2,100.00	2,100.00	2,100.47	2,100.47	4.58	4.57	-148.73	58.76	52.29	6.47	9.083	0			
2,200.00	2,200.00	2,200.00	2,199.96	4.81	4.77	-146.60	60.16	53.39	6.77	8.889	0			
2,300.00	2,300.00	2,299.18	2,299.04	5.03	4.97	-143.30	62.66	55.60	7.07	8.868	0		SF	
2,400.00	2,400.00	2,398.29	2,397.97	5.26	5.17	-139.13	66.48	59.12	7.37	9.025	0			
2,500.00	2,500.00	2,497.17	2,496.55	5.48	5.39	-134.46	71.84	64.17	7.67	9.372	0			
2,600.00	2,600.00	2,596.77	2,595.76	5.71	5.61	-130.00	78.31	70.34	7.97	9.825	0			
2,700.00	2,700.00	2,696.39	2,695.00	5.93	5.83	-126.23	85.18	76.90	8.28	10.291	0			
2,800.00	2,800.00	2,796.00	2,794.24	6.15	6.06	-123.04	92.36	83.78	8.58	10.760	0			
2,900.00	2,900.00	2,895.62	2,893.48	6.38	6.29	-120.31	99.79	90.90	8.89	11.222	0			
3,000.00	3,000.00	2,995.24	2,992.72	6.60	6.53	-117.97	107.41	98.21	9.20	11.674	0			
3,100.00	3,099.99	3,094.91	3,092.01	6.82	6.77	-71.27	114.91	105.40	9.51	12.085	0			
3,200.00	3,199.96	3,194.66	3,191.38	7.04	7.01	-70.56	121.89	112.08	9.82	12.419	0			
3,300.00	3,299.86	3,294.45	3,290.79	7.26	7.25	-70.65	128.31	118.18	10.12	12.673	0			
3,400.00	3,399.68	3,394.26	3,390.22	7.48	7.50	-71.44	134.16	123.72	10.44	12.853	0			
3,500.00	3,499.37	3,494.05	3,489.64	7.71	7.74	-72.85	139.52	128.76	10.76	12.970	0			
3,600.00	3,598.99	3,593.83	3,589.03	7.93	7.99	-74.53	144.72	133.64	11.08	13.061	0			
3,700.00	3,698.60	3,693.61	3,688.43	8.16	8.24	-76.09	150.04	138.64	11.41	13.153	0			
3,800.00	3,798.22	3,793.39	3,787.83	8.39	8.50	-77.55	155.47	143.73	11.74	13.245	0			
3,900.00	3,897.84	3,893.16	3,887.23	8.63	8.75	-78.90	160.99	148.91	12.07	13.336	0			
4,000.00	3,997.46	3,992.94	3,986.62	8.87	9.01	-80.17	166.59	154.18	12.41	13.425	0			
4,100.00	4,097.08	4,092.72	4,086.02	9.10	9.26	-81.35	172.27	159.52	12.75	13.513	0			
4,200.00	4,196.70	4,192.50	4,185.42	9.34	9.52	-82.46	178.01	164.92	13.09	13.599	0			
4,300.00	4,296.32	4,292.27	4,284.82	9.59	9.78	-83.49	183.82	170.39	13.43	13.683	0			
4,400.00	4,395.94	4,392.05	4,384.22	9.83	10.03	-84.47	189.69	175.91	13.78	13.765	0			
4,500.00	4,495.56	4,491.83	4,483.61	10.08	10.29	-85.38	195.60	181.48	14.13	13.845	0			
4,600.00	4,595.18	4,591.61	4,583.01	10.32	10.55	-86.24	201.57	187.09	14.48	13.922	0			
4,700.00	4,694.80	4,691.38	4,682.41	10.57	10.82	-87.06	207.57	192.74	14.83	13.997	0			
4,800.00	4,794.42	4,791.16	4,781.81	10.82	11.08	-87.82	213.62	198.44	15.18	14.070	0			
4,900.00	4,894.04	4,890.94	4,881.21	11.07	11.34	-88.54	219.70	204.16	15.54	14.140	0			
5,000.00	4,993.66	4,990.72	4,980.60	11.32	11.60	-89.23	225.82	209.92	15.89	14.208	0			
5,100.00	5,093.28	5,090.49	5,080.00	11.57	11.87	-89.88	231.96	215.71	16.25	14.274	0			
5,200.00	5,192.90	5,190.27	5,179.40	11.82	12.13	-90.49	238.13	221.53	16.61	14.338	0			
5,300.00	5,292.52	5,290.05	5,278.80	12.08	12.39	-91.08	244.33	227.37	16.97	14.400	0			
5,400.00	5,392.14	5,389.83	5,378.19	12.33	12.66	-91.63	250.56	233.23	17.33	14.460	0			
5,500.00	5,491.76	5,489.60	5,477.59	12.59	12.92	-92.16	256.80	239.11	17.69	14.518	0			
5,600.00	5,591.37	5,589.38	5,576.99	12.84	13.19	-92.66	263.07	245.02	18.05	14.574	0			
5,700.00	5,690.99	5,689.16	5,676.39	13.10	13.45	-93.14	269.35	250.94	18.41	14.628	0			
5,800.00	5,790.61	5,788.94	5,775.79	13.36	13.72	-93.60	275.66	256.88	18.78	14.681	0			
5,900.00	5,890.23	5,888.71	5,875.18	13.62	13.99	-94.04	281.98	262.84	19.14	14.732	0			
6,000.00	5,989.85	5,988.49	5,974.58	13.87	14.25	-94.45	288.31	268.81	19.51	14.781	0			
6,100.00	6,089.47	6,088.27	6,073.98	14.13	14.52	-94.85	294.66	274.79	19.87	14.829	0			
6,200.00	6,189.09	6,188.05	6,173.38	14.39	14.79	-95.24	301.03	280.79	20.24	14.876	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
6,300.00	6,288.71	6,287.82	6,272.78	14.65	15.06	-95.60	307.40	286.80	20.60	14.921	0			
6,400.00	6,388.33	6,387.60	6,372.17	14.91	15.32	-95.96	313.79	292.82	20.97	14.964	0			
6,500.00	6,487.95	6,487.38	6,471.57	15.17	15.59	-96.29	320.19	298.85	21.34	15.007	0			
6,600.00	6,587.57	6,587.16	6,570.97	15.43	15.86	-96.62	326.60	304.90	21.70	15.048	0			
6,700.00	6,687.19	6,686.93	6,670.37	15.70	16.13	-96.93	333.02	310.95	22.07	15.088	0			
6,800.00	6,786.81	6,786.71	6,769.76	15.96	16.40	-97.23	339.45	317.01	22.44	15.126	0			
6,900.00	6,886.43	6,886.49	6,869.16	16.22	16.66	-97.52	345.89	323.08	22.81	15.164	0			
7,000.00	6,986.05	6,986.27	6,968.56	16.48	16.93	-97.80	352.34	329.16	23.18	15.201	0			
7,100.00	7,085.70	7,086.05	7,067.97	16.72	17.20	-98.03	358.74	335.21	23.53	15.249	0			
7,200.00	7,185.43	7,185.86	7,167.39	16.92	17.47	-98.12	365.01	341.16	23.85	15.306	0			
7,300.00	7,285.21	7,285.66	7,266.82	17.11	17.74	-98.07	371.16	347.00	24.17	15.359	0			
7,400.00	7,385.05	7,385.47	7,366.25	17.31	18.01	-97.89	377.20	352.72	24.48	15.409	0			
7,500.00	7,484.94	7,485.27	7,465.67	17.50	18.28	-97.59	383.12	358.33	24.79	15.456	0			
7,600.00	7,584.86	7,585.06	7,565.07	17.69	18.55	-97.17	388.95	363.86	25.09	15.502	0			
7,700.00	7,684.81	7,684.82	7,664.45	17.87	18.82	-96.64	394.69	369.31	25.39	15.546	0			
7,800.00	7,784.79	7,784.55	7,763.80	18.05	19.09	-96.00	400.39	374.71	25.68	15.591	0			
7,900.00	7,884.78	7,884.24	7,863.12	18.23	19.36	-95.26	406.05	380.08	25.97	15.637	0			
8,000.00	7,984.78	7,983.88	7,962.38	18.40	19.63	-139.41	411.72	385.47	26.25	15.686	0			
8,100.00	8,084.78	8,083.50	8,061.62	18.59	19.90	-138.51	417.46	390.92	26.54	15.731	0			
8,200.00	8,184.78	8,183.12	8,160.86	18.80	20.17	-137.63	423.29	396.45	26.84	15.771	0			
8,300.00	8,284.78	8,282.74	8,260.10	19.01	20.44	-136.77	429.23	402.08	27.14	15.814	0			
8,400.00	8,384.78	8,382.36	8,359.34	19.22	20.71	-135.93	435.25	407.81	27.44	15.859	0			
8,500.00	8,484.78	8,481.98	8,458.58	19.43	20.98	-135.12	441.37	413.63	27.75	15.907	0			
8,600.00	8,584.78	8,581.60	8,557.82	19.64	21.25	-134.33	447.58	419.53	28.05	15.957	0			
8,700.00	8,684.78	8,681.22	8,657.06	19.85	21.52	-133.57	453.86	425.51	28.35	16.009	0			
8,800.00	8,784.78	8,780.84	8,756.30	20.06	21.79	-132.82	460.23	431.58	28.65	16.063	0			
8,900.00	8,884.78	8,880.46	8,855.55	20.27	22.06	-132.09	466.67	437.72	28.95	16.118	0			
9,000.00	8,984.78	8,980.08	8,954.79	20.48	22.33	-131.39	473.18	443.93	29.26	16.174	0			
9,100.00	9,084.78	9,079.70	9,054.03	20.69	22.60	-130.70	479.77	450.21	29.56	16.232	0			
9,200.00	9,184.78	9,179.32	9,153.27	20.90	22.88	-130.03	486.42	456.56	29.86	16.291	0			
9,300.00	9,284.78	9,278.94	9,252.51	21.11	23.15	-129.38	493.14	462.97	30.16	16.350	0			
9,400.00	9,384.78	9,378.56	9,351.75	21.32	23.42	-128.75	499.91	469.45	30.46	16.410	0			
9,500.00	9,484.78	9,478.18	9,450.99	21.54	23.69	-128.13	506.75	475.98	30.77	16.471	0			
9,600.00	9,584.78	9,577.80	9,550.23	21.75	23.96	-127.53	513.64	482.57	31.07	16.533	0			
9,700.00	9,684.78	9,677.42	9,649.47	21.96	24.23	-126.95	520.59	489.22	31.37	16.594	0			
9,800.00	9,784.78	9,777.03	9,748.71	22.17	24.50	-126.38	527.59	495.92	31.67	16.657	0			
9,900.00	9,884.78	9,876.65	9,847.95	22.39	24.77	-125.83	534.64	502.66	31.98	16.719	0			
10,000.00	9,984.78	9,976.27	9,947.19	22.60	25.05	-125.29	541.74	509.46	32.28	16.782	0			
10,100.00	10,084.78	10,075.89	10,046.43	22.82	25.32	-124.76	548.89	516.30	32.59	16.845	0			
10,200.00	10,184.78	10,175.51	10,145.67	23.03	25.59	-124.25	556.08	523.19	32.89	16.908	0			
10,300.00	10,284.78	10,275.13	10,244.91	23.24	25.86	-123.75	563.31	530.12	33.19	16.970	0			
10,400.00	10,384.78	10,374.75	10,344.15	23.46	26.13	-123.27	570.59	537.09	33.50	17.033	0			
10,500.00	10,484.78	10,474.37	10,443.39	23.67	26.40	-122.80	577.90	544.10	33.80	17.096	0			
10,600.00	10,584.78	10,573.99	10,542.63	23.89	26.67	-122.33	585.26	551.15	34.11	17.158	0			
10,700.00	10,684.78	10,673.61	10,641.87	24.10	26.95	-121.88	592.65	558.23	34.41	17.221	0			
10,800.00	10,784.78	10,773.23	10,741.11	24.32	27.22	-121.44	600.07	565.35	34.72	17.283	0			
10,900.00	10,884.78	10,872.85	10,840.35	24.53	27.49	-121.02	607.53	572.51	35.03	17.345	0			
11,000.00	10,984.78	10,972.47	10,939.59	24.75	27.76	-120.60	615.03	579.69	35.33	17.407	0			
11,100.00	11,084.78	11,072.09	11,038.83	24.96	28.03	-120.19	622.55	586.91	35.64	17.468	0			
11,200.00	11,184.78	11,171.71	11,138.07	25.18	28.30	-119.79	630.11	594.16	35.95	17.529	0			
11,300.00	11,284.78	11,271.33	11,237.31	25.39	28.58	-119.40	637.69	601.44	36.25	17.590	0			
11,400.00	11,384.78	11,370.95	11,336.56	25.61	28.85	-119.02	645.31	608.75	36.56	17.650	0			
11,500.00	11,484.78	11,470.57	11,435.80	25.83	29.12	-118.65	652.95	616.08	36.87	17.710	0			
11,600.00	11,584.78	11,570.19	11,535.04	26.04	29.39	-118.29	660.62	623.44	37.18	17.769	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1														
Survey Program: 0-MWD													Offset Well Error:	0.00 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 (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
11,700.00	11,684.78	11,669.80	11,634.28	26.26	29.66	-117.94	668.31	630.82	37.49	17.828	0			
11,800.00	11,784.78	11,769.42	11,733.52	26.48	29.94	-117.59	676.03	638.23	37.79	17.887	0			
11,900.00	11,884.78	11,869.04	11,832.76	26.69	30.21	-117.25	683.77	645.67	38.10	17.945	0			
12,000.00	11,984.78	11,968.66	11,932.00	26.91	30.48	-116.92	691.54	653.12	38.41	18.003	0			
12,100.00	12,084.78	12,068.28	12,031.24	27.13	30.75	-116.60	699.33	660.60	38.72	18.060	0			
12,200.00	12,184.78	12,167.90	12,130.48	27.34	31.03	-116.28	707.14	668.10	39.03	18.117	0			
12,300.00	12,284.78	12,267.52	12,229.72	27.56	31.30	-115.97	714.97	675.62	39.34	18.173	0			
12,358.80	12,343.58	12,326.10	12,288.07	27.69	31.46	-115.80	719.58	680.06	39.52	18.206	0			
12,375.00	12,359.78	12,342.23	12,304.15	27.72	31.50	-115.61	720.97	681.40	39.58	18.217	0			
12,400.00	12,384.73	12,364.80	12,326.63	27.78	31.56	-115.35	723.59	683.93	39.66	18.247	0			
12,425.00	12,409.57	12,389.99	12,342.75	27.84	31.60	-115.08	726.95	687.23	39.72	18.302	0			
12,450.00	12,434.23	12,400.00	12,361.66	27.91	31.65	-114.86	731.24	691.44	39.80	18.374	0			
12,475.00	12,458.63	12,409.61	12,371.20	27.98	31.67	-114.47	736.37	696.52	39.85	18.479	0			
12,500.00	12,482.73	12,425.00	12,386.44	28.05	31.71	-114.16	742.42	702.49	39.93	18.595	0			
12,525.00	12,506.44	12,436.10	12,397.39	28.12	31.74	-113.70	749.35	709.37	39.99	18.739	0			
12,550.00	12,529.71	12,450.00	12,411.05	28.20	31.77	-113.27	757.20	717.13	40.07	18.897	0			
12,575.00	12,552.47	12,459.73	12,420.57	28.28	31.79	-112.64	765.92	725.79	40.14	19.083	0			
12,600.00	12,574.65	12,475.00	12,435.43	28.36	31.83	-112.17	775.57	735.34	40.23	19.277	0			
12,625.00	12,596.20	12,475.00	12,435.43	28.44	31.83	-110.88	786.08	745.82	40.26	19.525	0			
12,650.00	12,617.06	12,488.94	12,448.90	28.53	31.87	-110.18	797.41	757.04	40.36	19.756	0			
12,675.00	12,637.17	12,500.00	12,459.51	28.63	31.89	-109.25	809.62	769.16	40.46	20.012	0			
12,700.00	12,656.47	12,500.00	12,459.51	28.72	31.89	-107.51	822.63	782.14	40.49	20.315	0			
12,725.00	12,674.92	12,510.31	12,469.34	28.82	31.92	-106.29	836.39	795.79	40.60	20.603	0			
12,750.00	12,692.46	12,515.75	12,474.50	28.93	31.93	-104.61	850.89	810.22	40.68	20.919	0			
12,775.00	12,709.04	12,525.00	12,483.23	29.04	31.95	-103.06	866.10	825.32	40.78	21.236	0			
12,800.00	12,724.62	12,525.00	12,483.23	29.16	31.95	-100.67	881.88	841.04	40.84	21.592	0			
12,825.00	12,739.15	12,525.00	12,483.23	29.28	31.95	-98.11	898.27	857.36	40.91	21.958	0			
12,850.00	12,752.61	12,525.00	12,483.23	29.41	31.95	-95.37	915.17	874.20	40.98	22.333	0			
12,875.00	12,764.94	12,525.00	12,483.23	29.54	31.95	-92.48	932.53	891.48	41.05	22.715	0			
12,900.00	12,776.11	12,532.85	12,490.59	29.68	31.97	-90.14	950.19	909.01	41.18	23.073	0			
12,925.00	12,786.10	12,533.44	12,491.14	29.82	31.97	-87.06	968.23	926.96	41.27	23.460	0			
12,950.00	12,794.88	12,533.48	12,491.18	29.97	31.97	-83.85	986.53	945.17	41.36	23.851	0			
12,975.00	12,802.42	12,533.01	12,490.74	30.13	31.97	-80.55	1,005.02	963.57	41.46	24.244	0			
13,000.00	12,808.70	12,525.00	12,483.23	30.29	31.95	-76.60	1,023.71	982.20	41.51	24.665	0			
13,025.00	12,813.71	12,525.00	12,483.23	30.46	31.95	-73.34	1,042.39	1,000.78	41.61	25.052	0			
13,050.00	12,817.43	12,525.00	12,483.23	30.63	31.95	-70.13	1,061.08	1,019.36	41.72	25.436	0			
13,075.00	12,819.85	12,525.00	12,483.23	30.81	31.95	-67.00	1,079.73	1,037.91	41.83	25.815	0			
13,100.00	12,820.96	12,525.00	12,483.23	30.99	31.95	-63.97	1,098.31	1,056.37	41.94	26.189	0			
13,108.05	12,821.04	12,525.00	12,483.23	31.05	31.95	-63.02	1,104.26	1,062.29	41.97	26.309	0			
13,141.79	12,821.10	12,525.00	12,483.23	31.30	31.95	-63.02	1,129.42	1,087.29	42.12	26.812	0			
13,200.00	12,821.18	12,513.14	12,472.03	31.76	31.92	-62.22	1,173.66	1,131.35	42.31	27.742	0			
13,300.00	12,821.33	12,500.00	12,459.51	32.61	31.89	-61.34	1,252.22	1,209.59	42.63	29.377	0			
13,400.00	12,821.49	12,500.00	12,459.51	33.55	31.89	-61.34	1,333.45	1,290.49	42.97	31.035	0			
13,500.00	12,821.64	12,487.76	12,447.76	34.55	31.86	-60.52	1,416.90	1,373.70	43.21	32.793	0			
13,600.00	12,821.79	12,475.00	12,435.43	35.62	31.83	-59.68	1,502.33	1,458.92	43.42	34.604	0			
13,700.00	12,821.94	12,475.00	12,435.43	36.75	31.83	-59.68	1,589.27	1,545.63	43.65	36.411	0			
13,800.00	12,822.09	12,475.00	12,435.43	37.94	31.83	-59.68	1,677.67	1,633.82	43.85	38.258	0			
13,900.00	12,822.24	12,464.80	12,425.52	39.17	31.81	-59.00	1,767.18	1,723.18	44.00	40.167	0			
14,000.00	12,822.39	12,460.33	12,421.16	40.45	31.80	-58.71	1,857.73	1,813.59	44.14	42.085	0			
14,100.00	12,822.54	12,450.00	12,411.05	41.76	31.77	-58.04	1,949.22	1,904.96	44.25	44.046	0			
14,200.00	12,822.70	12,450.00	12,411.05	43.12	31.77	-58.04	2,041.38	1,996.99	44.39	45.992	0			
14,300.00	12,822.85	12,450.00	12,411.05	44.51	31.77	-58.04	2,134.25	2,089.74	44.51	47.955	0			
14,400.00	12,823.00	12,450.00	12,411.05	45.93	31.77	-58.04	2,227.74	2,183.12	44.61	49.934	0			
14,500.00	12,823.15	12,450.00	12,411.05	47.38	31.77	-58.04	2,321.76	2,277.05	44.71	51.926	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
14,600.00	12,823.30	12,450.00	12,411.05	48.85	31.77	-58.04	2,416.27	2,371.47	44.80	53.929	0			
14,700.00	12,823.45	12,437.55	12,398.82	50.34	31.74	-57.23	2,511.02	2,466.16	44.86	55.978	0			
14,800.00	12,823.60	12,425.00	12,386.44	51.86	31.71	-56.43	2,606.38	2,561.47	44.90	58.043	0			
14,900.00	12,823.75	12,425.00	12,386.44	53.40	31.71	-56.43	2,701.90	2,656.91	44.98	60.068	0			
15,000.00	12,823.91	12,425.00	12,386.44	54.95	31.71	-56.43	2,797.73	2,752.67	45.05	62.100	0			
15,100.00	12,824.06	12,425.00	12,386.44	56.52	31.71	-56.43	2,893.84	2,848.72	45.12	64.138	0			
15,200.00	12,824.21	12,425.00	12,386.44	58.11	31.71	-56.43	2,990.21	2,945.02	45.18	66.180	0			
15,300.00	12,824.36	12,425.00	12,386.44	59.70	31.71	-56.43	3,086.81	3,041.56	45.24	68.226	0			
15,400.00	12,824.51	12,425.00	12,386.44	61.31	31.71	-56.43	3,183.62	3,138.31	45.30	70.275	0			
15,500.00	12,824.66	12,425.00	12,386.44	62.94	31.71	-56.43	3,280.62	3,235.26	45.36	72.326	0			
15,600.00	12,824.81	12,425.00	12,386.44	64.57	31.71	-56.43	3,377.79	3,332.38	45.41	74.379	0			
15,700.00	12,824.96	12,425.00	12,386.44	66.21	31.71	-56.43	3,475.13	3,429.66	45.47	76.434	0			
15,800.00	12,825.11	12,425.00	12,386.44	67.87	31.71	-56.43	3,572.61	3,527.09	45.52	78.489	0			
15,900.00	12,825.27	12,425.00	12,386.44	69.53	31.71	-56.43	3,670.23	3,624.66	45.57	80.545	0			
16,000.00	12,825.42	12,425.00	12,386.44	71.20	31.71	-56.43	3,767.97	3,722.35	45.62	82.601	0			
16,100.00	12,825.57	12,425.00	12,386.44	72.87	31.71	-56.43	3,865.83	3,820.17	45.66	84.657	0			
16,200.00	12,825.72	12,412.99	12,374.55	74.56	31.68	-55.67	3,963.63	3,917.94	45.69	86.753	0			
16,300.00	12,825.87	12,411.93	12,373.50	76.25	31.68	-55.60	4,061.66	4,015.93	45.73	88.810	0			
16,400.00	12,826.02	12,400.00	12,361.66	77.95	31.65	-54.86	4,159.93	4,114.17	45.76	90.911	0			
16,500.00	12,826.17	12,400.00	12,361.66	79.65	31.65	-54.86	4,258.11	4,212.31	45.80	92.962	0			
16,600.00	12,826.32	12,400.00	12,361.66	81.35	31.65	-54.86	4,356.38	4,310.53	45.85	95.012	0			
16,700.00	12,826.48	12,400.00	12,361.66	83.07	31.65	-54.86	4,454.73	4,408.83	45.90	97.059	0			
16,800.00	12,826.63	12,400.00	12,361.66	84.78	31.65	-54.86	4,553.15	4,507.20	45.94	99.105	0			
16,900.00	12,826.78	12,400.00	12,361.66	86.51	31.65	-54.86	4,651.63	4,605.65	45.99	101.148	0			
17,000.00	12,826.93	12,400.00	12,361.66	88.23	31.65	-54.86	4,750.18	4,704.15	46.03	103.188	0			
17,100.00	12,827.08	12,400.00	12,361.66	89.96	31.65	-54.86	4,848.79	4,802.71	46.08	105.226	0			
17,200.00	12,827.23	12,400.00	12,361.66	91.69	31.65	-54.86	4,947.46	4,901.33	46.13	107.261	0			
17,300.00	12,827.38	12,400.00	12,361.66	93.43	31.65	-54.86	5,046.17	5,000.00	46.17	109.293	0			
17,400.00	12,827.53	12,400.00	12,361.66	95.17	31.65	-54.86	5,144.94	5,098.72	46.22	111.322	0			
17,500.00	12,827.69	12,400.00	12,361.66	96.91	31.65	-54.86	5,243.75	5,197.49	46.26	113.347	0			
17,600.00	12,827.84	12,400.00	12,361.66	98.66	31.65	-54.86	5,342.61	5,296.30	46.31	115.369	0			
17,700.00	12,827.99	12,400.00	12,361.66	100.41	31.65	-54.86	5,441.51	5,395.15	46.36	117.387	0			
17,800.00	12,828.14	12,400.00	12,361.66	102.16	31.65	-54.86	5,540.45	5,494.05	46.40	119.401	0			
17,900.00	12,828.29	12,400.00	12,361.66	103.91	31.65	-54.86	5,639.43	5,592.98	46.45	121.411	0			
18,000.00	12,828.44	12,400.00	12,361.66	105.67	31.65	-54.86	5,738.44	5,691.94	46.50	123.417	0			
18,100.00	12,828.59	12,400.00	12,361.66	107.43	31.65	-54.86	5,837.48	5,790.94	46.54	125.419	0			
18,200.00	12,828.74	12,400.00	12,361.66	109.19	31.65	-54.86	5,936.56	5,889.97	46.59	127.417	0			
18,300.00	12,828.89	12,400.00	12,361.66	110.95	31.65	-54.86	6,035.67	5,989.03	46.64	129.411	0			
18,400.00	12,829.05	12,400.00	12,361.66	112.72	31.65	-54.86	6,134.80	6,088.12	46.69	131.399	0			
18,500.00	12,829.20	12,400.00	12,361.66	114.49	31.65	-54.86	6,233.97	6,187.23	46.74	133.384	0			
18,600.00	12,829.35	12,400.00	12,361.66	116.25	31.65	-54.86	6,333.16	6,286.37	46.79	135.363	0			
18,700.00	12,829.50	12,400.00	12,361.66	118.02	31.65	-54.86	6,432.38	6,385.54	46.84	137.338	0			
18,800.00	12,829.65	12,400.00	12,361.66	119.80	31.65	-54.86	6,531.62	6,484.73	46.89	139.307	0			
18,900.00	12,829.80	12,400.00	12,361.66	121.57	31.65	-54.86	6,630.88	6,583.94	46.94	141.272	0			
19,000.00	12,829.95	12,400.00	12,361.66	123.34	31.65	-54.86	6,730.16	6,683.17	46.99	143.232	0			
19,100.00	12,830.10	12,400.00	12,361.66	125.12	31.65	-54.86	6,829.47	6,782.43	47.04	145.186	0			
19,200.00	12,830.26	12,400.00	12,361.66	126.90	31.65	-54.86	6,928.79	6,881.70	47.09	147.135	0			
19,300.00	12,830.41	12,400.00	12,361.66	128.68	31.65	-54.86	7,028.14	6,980.99	47.14	149.079	0			
19,400.00	12,830.56	12,400.00	12,361.66	130.46	31.65	-54.86	7,127.50	7,080.30	47.20	151.018	0			
19,500.00	12,830.71	12,400.00	12,361.66	132.24	31.65	-54.86	7,226.88	7,179.63	47.25	152.950	0			
19,600.00	12,830.86	12,400.00	12,361.66	134.02	31.65	-54.86	7,326.28	7,278.97	47.30	154.878	0			
19,700.00	12,831.01	12,400.00	12,361.66	135.81	31.65	-54.86	7,425.69	7,378.33	47.36	156.800	0			
19,800.00	12,831.16	12,400.00	12,361.66	137.59	31.65	-54.86	7,525.12	7,477.71	47.41	158.716	0			
19,900.00	12,831.31	12,400.00	12,361.66	139.38	31.65	-54.86	7,624.56	7,577.10	47.47	160.626	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
20,000.00	12,831.46	12,400.00	12,361.66	141.16	31.65	-54.86	7,724.02	7,676.50	47.52	162.530	0			
20,100.00	12,831.62	12,400.00	12,361.66	142.95	31.65	-54.86	7,823.49	7,775.91	47.58	164.429	0			
20,200.00	12,831.77	12,400.00	12,361.66	144.74	31.65	-54.86	7,922.98	7,875.34	47.64	166.321	0			
20,300.00	12,831.92	12,400.00	12,361.66	146.53	31.65	-54.86	8,022.48	7,974.78	47.69	168.208	0			
20,400.00	12,832.07	12,400.00	12,361.66	148.32	31.65	-54.86	8,121.99	8,074.24	47.75	170.088	0			
20,500.00	12,832.22	12,400.00	12,361.66	150.11	31.65	-54.86	8,221.51	8,173.70	47.81	171.962	0			
20,600.00	12,832.37	12,400.00	12,361.66	151.90	31.65	-54.86	8,321.04	8,273.17	47.87	173.830	0			
20,700.00	12,832.52	12,400.00	12,361.66	153.70	31.65	-54.86	8,420.59	8,372.66	47.93	175.692	0			
20,800.00	12,832.67	12,400.00	12,361.66	155.49	31.65	-54.86	8,520.14	8,472.16	47.99	177.548	0			
20,900.00	12,832.83	12,400.00	12,361.66	157.29	31.65	-54.86	8,619.71	8,571.66	48.05	179.397	0			
21,000.00	12,832.98	12,400.00	12,361.66	159.08	31.65	-54.86	8,719.29	8,671.18	48.11	181.239	0			
21,100.00	12,833.13	12,387.94	12,349.67	160.88	31.62	-54.12	8,818.71	8,770.56	48.15	183.139	0			
21,200.00	12,833.28	12,387.70	12,349.43	162.67	31.62	-54.10	8,918.30	8,870.08	48.21	184.971	0			
21,300.00	12,833.43	12,387.46	12,349.20	164.47	31.62	-54.09	9,017.90	8,969.62	48.28	186.796	0			
21,400.00	12,833.58	12,387.23	12,348.97	166.27	31.62	-54.07	9,117.50	9,069.16	48.34	188.614	0			
21,500.00	12,833.73	12,387.01	12,348.74	168.07	31.62	-54.06	9,217.12	9,168.71	48.40	190.425	0			
21,600.00	12,833.88	12,375.00	12,336.79	169.86	31.59	-53.33	9,316.89	9,268.44	48.45	192.301	0			
21,700.00	12,834.04	12,375.00	12,336.79	171.66	31.59	-53.33	9,416.52	9,368.00	48.51	194.098	0			
21,800.00	12,834.19	12,375.00	12,336.79	173.46	31.59	-53.33	9,516.15	9,467.57	48.58	195.888	0			
21,900.00	12,834.34	12,375.00	12,336.79	175.26	31.59	-53.33	9,615.79	9,567.14	48.65	197.672	0			
22,000.00	12,834.49	12,375.00	12,336.79	177.07	31.59	-53.33	9,715.44	9,666.73	48.71	199.449	0			
22,100.00	12,834.64	12,375.00	12,336.79	178.87	31.59	-53.33	9,815.09	9,766.31	48.78	201.219	0			
22,200.00	12,834.79	12,375.00	12,336.79	180.67	31.59	-53.33	9,914.75	9,865.91	48.85	202.983	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
0.00	0.00	0.40	0.40	0.00	0.00	179.54	50.02							
100.00	100.00	100.40	100.40	0.09	0.09	179.54	50.02	49.90	0.12	409.270	0			
200.00	200.00	200.40	200.40	0.31	0.31	179.54	50.02	49.58	0.44	113.663	0			
300.00	300.00	300.40	300.40	0.54	0.54	179.54	50.02	49.26	0.76	65.996	0			
400.00	400.00	400.40	400.40	0.76	0.76	179.54	50.02	48.95	1.08	46.496	0			
500.00	500.00	500.40	500.40	0.99	0.99	179.54	50.02	48.63	1.39	35.892	0			
600.00	600.00	600.40	600.40	1.21	1.21	179.54	50.02	48.31	1.71	29.226	0			
700.00	700.00	700.40	700.40	1.43	1.44	179.54	50.02	47.99	2.03	24.648	0			
800.00	800.00	800.40	800.40	1.66	1.66	179.54	50.02	47.67	2.35	21.310	0			
900.00	900.00	900.40	900.40	1.88	1.89	179.54	50.02	47.36	2.67	18.769	0			
1,000.00	1,000.00	1,000.40	1,000.40	2.11	2.11	179.54	50.02	47.04	2.98	16.769	0			
1,100.00	1,100.00	1,100.40	1,100.40	2.33	2.33	179.54	50.02	46.72	3.30	15.154	0			
1,200.00	1,200.00	1,200.40	1,200.40	2.56	2.56	179.54	50.02	46.40	3.62	13.823	0			
1,300.00	1,300.00	1,300.40	1,300.40	2.78	2.78	179.54	50.02	46.09	3.94	12.707	0			
1,400.00	1,400.00	1,400.40	1,400.40	3.01	3.01	179.54	50.02	45.77	4.25	11.757	0			
1,500.00	1,500.00	1,500.40	1,500.40	3.23	3.23	179.54	50.02	45.45	4.57	10.940	0			
1,600.00	1,600.00	1,600.40	1,600.40	3.46	3.46	179.54	50.02	45.13	4.89	10.229	0			
1,700.00	1,700.00	1,700.40	1,700.40	3.68	3.68	179.54	50.02	44.81	5.21	9.605	0			
1,800.00	1,800.00	1,800.40	1,800.40	3.91	3.91	179.54	50.02	44.50	5.53	9.052	0			
1,900.00	1,900.00	1,900.40	1,900.40	4.13	4.13	179.54	50.02	44.18	5.84	8.560	0			
2,000.00	2,000.00	2,000.40	2,000.40	4.36	4.36	179.54	50.02	43.86	6.16	8.118	0			
2,100.00	2,100.00	2,100.40	2,100.40	4.58	4.58	179.54	50.02	43.54	6.48	7.720	0			
2,200.00	2,200.00	2,200.40	2,200.40	4.81	4.81	179.54	50.02	43.22	6.80	7.359	0			
2,300.00	2,300.00	2,300.40	2,300.40	5.03	5.03	179.54	50.02	42.91	7.12	7.030	0			
2,400.00	2,400.00	2,400.40	2,400.40	5.26	5.26	179.54	50.02	42.59	7.43	6.730	0			
2,500.00	2,500.00	2,500.40	2,500.40	5.48	5.48	179.54	50.02	42.27	7.75	6.454	0			
2,600.00	2,600.00	2,600.40	2,600.40	5.71	5.71	179.54	50.02	41.95	8.07	6.199	0			
2,700.00	2,700.00	2,700.40	2,700.40	5.93	5.93	179.54	50.02	41.63	8.39	5.964	0			
2,800.00	2,800.00	2,800.40	2,800.40	6.15	6.16	179.54	50.02	41.32	8.70	5.747	0			
2,900.00	2,900.00	2,900.40	2,900.40	6.38	6.38	179.54	50.02	41.00	9.02	5.544	0			
3,000.00	3,000.00	3,000.40	3,000.40	6.60	6.61	179.54	50.02	40.68	9.34	5.355	0		CC, ES	
3,100.00	3,099.99	3,100.39	3,100.39	6.82	6.83	-136.15	50.65	40.99	9.66	5.245	0		SF	
3,200.00	3,199.96	3,200.36	3,200.36	7.04	7.05	-138.11	52.57	42.60	9.97	5.273	0			
3,300.00	3,299.86	3,300.26	3,300.26	7.26	7.28	-141.08	55.89	45.61	10.28	5.436	0			
3,400.00	3,399.68	3,400.08	3,400.08	7.48	7.50	-144.66	60.76	50.17	10.60	5.735	0			
3,500.00	3,499.37	3,499.77	3,499.77	7.71	7.73	-148.49	67.32	56.41	10.91	6.170	0			
3,600.00	3,598.99	3,599.39	3,599.39	7.93	7.95	-151.97	74.90	63.67	11.23	6.672	0			
3,700.00	3,698.60	3,699.00	3,699.00	8.16	8.18	-154.81	82.70	71.16	11.54	7.166	0			
3,800.00	3,798.22	3,798.62	3,798.62	8.39	8.40	-157.15	90.67	78.81	11.86	7.648	0			
3,900.00	3,897.84	3,898.24	3,898.24	8.63	8.62	-159.12	98.76	86.59	12.17	8.114	0			
4,000.00	3,997.46	3,997.86	3,997.86	8.87	8.85	-160.78	106.95	94.47	12.49	8.565	0			
4,100.00	4,097.08	4,097.48	4,097.48	9.10	9.07	-162.21	115.22	102.42	12.80	9.000	0			
4,200.00	4,196.70	4,197.10	4,197.10	9.34	9.29	-163.44	123.55	110.43	13.12	9.418	0			
4,300.00	4,296.32	4,296.72	4,296.72	9.59	9.52	-164.52	131.93	118.50	13.43	9.820	0			
4,400.00	4,395.94	4,396.34	4,396.34	9.83	9.74	-165.47	140.35	126.60	13.75	10.207	0			
4,500.00	4,495.56	4,495.96	4,495.96	10.08	9.97	-166.31	148.81	134.74	14.07	10.578	0			
4,600.00	4,595.18	4,595.58	4,595.58	10.32	10.19	-167.06	157.29	142.90	14.38	10.934	0			
4,700.00	4,694.80	4,695.20	4,695.20	10.57	10.41	-167.74	165.80	151.09	14.70	11.277	0			
4,800.00	4,794.42	4,794.82	4,794.82	10.82	10.64	-168.35	174.33	159.31	15.02	11.606	0			
4,900.00	4,894.04	4,894.44	4,894.44	11.07	10.86	-168.90	182.87	167.53	15.34	11.923	0			
5,000.00	4,993.66	4,994.06	4,994.06	11.32	11.09	-169.40	191.43	175.78	15.66	12.228	0			
5,100.00	5,093.28	5,093.68	5,093.68	11.57	11.31	-169.86	200.01	184.03	15.97	12.521	0			
5,200.00	5,192.90	5,193.30	5,193.30	11.82	11.53	-170.28	208.59	192.30	16.29	12.804	0			
5,300.00	5,292.52	5,292.92	5,292.92	12.08	11.76	-170.67	217.19	200.58	16.61	13.076	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
5,400.00	5,392.14	5,392.54	5,392.54	12.33	11.98	-171.03	225.79	208.87	16.93	13.338	0			
5,500.00	5,491.76	5,492.16	5,492.16	12.59	12.21	-171.36	234.41	217.16	17.25	13.591	0			
5,600.00	5,591.37	5,591.77	5,591.77	12.84	12.43	-171.67	243.03	225.46	17.57	13.836	0			
5,700.00	5,690.99	5,691.39	5,691.39	13.10	12.65	-171.96	251.66	233.77	17.88	14.071	0			
5,800.00	5,790.61	5,791.01	5,791.01	13.36	12.88	-172.22	260.29	242.09	18.20	14.299	0			
5,900.00	5,890.23	5,890.63	5,890.63	13.62	13.10	-172.48	268.93	250.40	18.52	14.519	0			
6,000.00	5,989.85	5,990.25	5,990.25	13.87	13.33	-172.71	277.57	258.73	18.84	14.731	0			
6,100.00	6,089.47	6,089.87	6,089.87	14.13	13.55	-172.93	286.22	267.06	19.16	14.937	0			
6,200.00	6,189.09	6,189.49	6,189.49	14.39	13.77	-173.14	294.87	275.39	19.48	15.136	0			
6,300.00	6,288.71	6,289.11	6,289.11	14.65	14.00	-173.34	303.53	283.73	19.80	15.329	0			
6,400.00	6,388.33	6,388.73	6,388.73	14.91	14.22	-173.52	312.18	292.06	20.12	15.516	0			
6,500.00	6,487.95	6,488.35	6,488.35	15.17	14.44	-173.70	320.85	300.41	20.44	15.697	0			
6,600.00	6,587.57	6,587.97	6,587.97	15.43	14.67	-173.86	329.51	308.75	20.76	15.872	0			
6,700.00	6,687.19	6,687.59	6,687.59	15.70	14.89	-174.02	338.18	317.10	21.08	16.042	0			
6,800.00	6,786.81	6,787.21	6,787.21	15.96	15.12	-174.17	346.85	325.45	21.40	16.207	0			
6,900.00	6,886.43	6,886.83	6,886.83	16.22	15.34	-174.31	355.52	333.80	21.72	16.368	0			
7,000.00	6,986.05	6,986.45	6,986.45	16.48	15.56	-174.45	364.19	342.15	22.04	16.523	0			
7,100.00	7,085.67	7,086.07	7,086.07	16.74	15.79	-174.58	372.84	350.09	22.34	16.669	0			
7,200.00	7,185.29	7,185.69	7,185.69	16.99	16.01	-174.69	379.82	357.19	22.63	16.786	0			
7,300.00	7,284.91	7,285.31	7,285.31	17.25	16.24	-174.78	386.33	363.42	22.91	16.862	0			
7,400.00	7,384.53	7,384.93	7,384.93	17.51	16.46	-174.86	391.97	368.78	23.20	16.899	0			
7,500.00	7,484.15	7,484.55	7,484.55	17.77	16.69	-174.92	396.75	373.27	23.48	16.897	0			
7,600.00	7,583.77	7,584.17	7,584.17	17.99	16.91	-174.97	400.66	376.90	23.77	16.858	0			
7,700.00	7,683.39	7,683.79	7,683.79	18.21	17.13	-175.01	403.71	379.65	24.05	16.785	0			
7,800.00	7,782.99	7,783.39	7,783.39	18.43	17.36	-175.04	405.88	381.54	24.34	16.677	0			
7,900.00	7,882.61	7,883.01	7,883.01	18.65	17.58	-175.06	407.18	382.56	24.62	16.536	0			
8,000.00	7,982.23	7,982.63	7,982.63	18.87	17.81	139.94	407.62	382.71	24.91	16.364	0			
8,100.00	8,081.85	8,082.25	8,082.25	19.09	18.03	139.94	407.62	382.41	25.21	16.169	0			
8,200.00	8,181.47	8,181.87	8,181.87	19.31	18.26	139.94	407.62	382.09	25.52	15.970	0			
8,300.00	8,281.09	8,281.49	8,281.49	19.53	18.48	139.94	407.62	381.78	25.84	15.776	0			
8,400.00	8,380.71	8,381.11	8,381.11	19.75	18.71	139.94	407.62	381.47	26.15	15.587	0			
8,500.00	8,480.33	8,480.73	8,480.73	19.97	18.93	139.94	407.62	381.15	26.47	15.402	0			
8,600.00	8,579.95	8,580.35	8,580.35	20.19	19.16	139.94	407.62	380.84	26.78	15.221	0			
8,700.00	8,679.57	8,679.97	8,679.97	20.41	19.38	139.94	407.62	380.52	27.09	15.045	0			
8,800.00	8,779.19	8,779.59	8,779.59	20.63	19.61	139.94	407.62	380.21	27.41	14.872	0			
8,900.00	8,878.81	8,879.21	8,879.21	20.85	19.83	139.94	407.62	379.90	27.72	14.703	0			
9,000.00	8,978.43	8,978.83	8,978.83	21.07	20.06	139.94	407.62	379.58	28.04	14.538	0			
9,100.00	9,078.05	9,078.45	9,078.45	21.29	20.28	139.94	407.62	379.27	28.35	14.377	0			
9,200.00	9,177.67	9,178.07	9,178.07	21.51	20.51	139.94	407.62	378.95	28.67	14.219	0			
9,300.00	9,277.29	9,277.69	9,277.69	21.73	20.73	139.94	407.62	378.64	28.98	14.065	0			
9,400.00	9,376.91	9,377.31	9,377.31	21.95	20.96	139.94	407.62	378.32	29.30	13.914	0			
9,500.00	9,476.53	9,476.93	9,476.93	22.17	21.18	139.94	407.62	378.01	29.61	13.766	0			
9,600.00	9,576.15	9,576.55	9,576.55	22.39	21.41	139.94	407.62	377.69	29.93	13.621	0			
9,700.00	9,675.77	9,676.17	9,676.17	22.61	21.63	139.94	407.62	377.38	30.24	13.479	0			
9,800.00	9,775.39	9,775.79	9,775.79	22.83	21.85	139.94	407.62	377.06	30.56	13.340	0			
9,900.00	9,875.01	9,875.41	9,875.41	23.05	22.08	139.94	407.62	376.75	30.87	13.204	0			
10,000.00	9,974.63	9,975.03	9,975.03	23.27	22.30	139.94	407.62	376.43	31.19	13.071	0			
10,100.00	10,074.25	10,074.65	10,074.65	23.49	22.53	139.94	407.62	376.12	31.50	12.940	0			
10,200.00	10,173.87	10,174.27	10,174.27	23.71	22.75	139.94	407.62	375.80	31.82	12.812	0			
10,300.00	10,273.49	10,273.89	10,273.89	23.93	22.98	139.94	407.62	375.49	32.13	12.686	0			
10,400.00	10,373.11	10,373.51	10,373.51	24.15	23.20	139.94	407.62	375.17	32.45	12.563	0			
10,500.00	10,472.73	10,473.13	10,473.13	24.37	23.43	139.94	407.62	374.86	32.76	12.442	0			
10,600.00	10,572.35	10,572.75	10,572.75	24.59	23.65	139.94	407.62	374.54	33.08	12.323	0			
10,700.00	10,671.97	10,672.37	10,672.37	24.81	23.88	139.94	407.62	374.23	33.39	12.207	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance						Risked Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
10,800.00	10,784.78	10,785.18	10,785.18	24.32	24.10	139.94	407.62	373.91	33.71	12.092	0					
10,900.00	10,884.78	10,885.18	10,885.18	24.53	24.33	139.94	407.62	373.59	34.02	11.980	0					
11,000.00	10,984.78	10,985.18	10,985.18	24.75	24.55	139.94	407.62	373.28	34.34	11.870	0					
11,100.00	11,084.78	11,085.18	11,085.18	24.96	24.78	139.94	407.62	372.96	34.66	11.762	0					
11,200.00	11,184.78	11,185.18	11,185.18	25.18	25.00	139.94	407.62	372.65	34.97	11.656	0					
11,300.00	11,284.78	11,285.18	11,285.18	25.39	25.23	139.94	407.62	372.33	35.29	11.551	0					
11,400.00	11,384.78	11,385.18	11,385.18	25.61	25.45	139.94	407.62	372.02	35.60	11.449	0					
11,500.00	11,484.78	11,485.18	11,485.18	25.83	25.68	139.94	407.62	371.70	35.92	11.348	0					
11,600.00	11,584.78	11,585.18	11,585.18	26.04	25.90	139.94	407.62	371.38	36.23	11.249	0					
11,700.00	11,684.78	11,685.18	11,685.18	26.26	26.13	139.94	407.62	371.07	36.55	11.152	0					
11,800.00	11,784.78	11,785.18	11,785.18	26.48	26.35	139.94	407.62	370.75	36.87	11.057	0					
11,900.00	11,884.78	11,885.18	11,885.18	26.69	26.58	139.94	407.62	370.44	37.18	10.963	0					
12,000.00	11,984.78	11,985.18	11,985.18	26.91	26.80	139.94	407.62	370.12	37.50	10.870	0					
12,100.00	12,084.78	12,085.18	12,085.18	27.13	27.02	139.94	407.62	369.80	37.81	10.779	0					
12,200.00	12,184.78	12,185.18	12,185.18	27.34	27.25	139.94	407.62	369.49	38.13	10.690	0					
12,300.00	12,284.78	12,285.18	12,285.18	27.56	27.47	139.94	407.62	369.17	38.45	10.602	0					
12,358.80	12,343.58	12,343.98	12,343.98	27.69	27.61	139.94	407.62	368.99	38.63	10.551	0					
12,375.00	12,359.78	12,350.00	12,350.00	27.72	27.62	139.93	407.98	369.32	38.66	10.554	0					
12,400.00	12,384.73	12,369.11	12,369.10	27.78	27.65	139.94	409.77	371.07	38.71	10.586	0					
12,425.00	12,409.57	12,383.94	12,383.89	27.84	27.67	139.91	413.20	374.46	38.74	10.666	0					
12,450.00	12,434.23	12,400.00	12,399.88	27.91	27.70	139.90	418.22	379.45	38.77	10.786	0					
12,475.00	12,458.63	12,412.35	12,412.12	27.98	27.72	139.75	424.81	386.02	38.78	10.953	0					
12,500.00	12,482.73	12,425.00	12,424.62	28.05	27.74	139.56	432.95	394.16	38.79	11.161	0					
12,525.00	12,506.44	12,438.35	12,437.75	28.12	27.77	139.34	442.61	403.81	38.80	11.408	0					
12,550.00	12,529.71	12,450.00	12,449.15	28.20	27.79	138.96	453.75	414.96	38.79	11.696	0					
12,575.00	12,552.47	12,461.29	12,460.13	28.28	27.80	138.47	466.31	427.52	38.79	12.022	0					
12,600.00	12,574.65	12,475.00	12,473.39	28.36	27.83	138.04	480.25	441.45	38.80	12.377	0					
12,625.00	12,596.20	12,475.00	12,473.39	28.44	27.83	136.47	495.49	456.78	38.71	12.800	0					
12,650.00	12,617.06	12,489.23	12,487.02	28.53	27.85	135.79	511.83	473.09	38.74	13.212	0					
12,675.00	12,637.17	12,500.00	12,497.27	28.63	27.87	134.68	529.35	490.60	38.75	13.661	0					
12,700.00	12,656.47	12,500.00	12,497.27	28.72	27.87	132.28	547.88	509.20	38.67	14.167	0					
12,725.00	12,674.92	12,509.26	12,506.01	28.82	27.88	130.48	567.29	528.61	38.69	14.664	0					
12,750.00	12,692.46	12,514.26	12,510.71	28.93	27.89	127.86	587.54	548.88	38.67	15.194	0					
12,775.00	12,709.04	12,525.00	12,520.74	29.04	27.91	125.60	608.59	569.88	38.71	15.721	0					
12,800.00	12,724.62	12,525.00	12,520.74	29.16	27.91	121.35	630.13	591.45	38.67	16.294	0					
12,825.00	12,739.15	12,525.00	12,520.74	29.28	27.91	116.38	652.23	613.59	38.64	16.879	0					
12,850.00	12,752.61	12,525.00	12,520.74	29.41	27.91	110.63	674.78	636.16	38.62	17.473	0					
12,875.00	12,764.94	12,525.00	12,520.74	29.54	27.91	104.07	697.69	659.08	38.61	18.071	0					
12,900.00	12,776.11	12,525.00	12,520.74	29.68	27.91	96.81	720.85	682.25	38.60	18.673	0					
12,925.00	12,786.10	12,525.00	12,520.74	29.82	27.91	89.01	744.19	705.58	38.61	19.275	0					
12,950.00	12,794.88	12,525.00	12,520.74	29.97	27.91	80.97	767.63	729.01	38.62	19.876	0					
12,975.00	12,802.42	12,525.00	12,520.74	30.13	27.91	73.03	791.09	752.45	38.64	20.474	0					
13,000.00	12,808.70	12,525.00	12,520.74	30.29	27.91	65.51	814.51	775.85	38.66	21.067	0					
13,025.00	12,813.71	12,525.00	12,520.74	30.46	27.91	58.64	837.84	799.15	38.69	21.653	0					
13,050.00	12,817.43	12,525.00	12,520.74	30.63	27.91	52.51	861.02	822.30	38.73	22.232	0					
13,075.00	12,819.85	12,525.00	12,520.74	30.81	27.91	47.16	884.01	845.24	38.77	22.803	0					
13,100.00	12,820.96	12,525.00	12,520.74	30.99	27.91	42.53	906.74	867.94	38.81	23.364	0					
13,108.05	12,821.04	12,516.88	12,513.16	31.05	27.90	40.48	913.91	875.14	38.77	23.572	0					
13,141.79	12,821.10	12,512.78	12,509.33	31.30	27.89	40.13	944.26	905.45	38.81	24.331	0					
13,200.00	12,821.18	12,500.00	12,497.27	31.76	27.87	39.06	997.11	958.28	38.84	25.675	0					
13,300.00	12,821.33	12,500.00	12,497.27	32.61	27.87	39.06	1,088.80	1,049.81	38.99	27.926	0					
13,400.00	12,821.49	12,486.74	12,484.65	33.55	27.85	37.99	1,181.58	1,142.52	39.05	30.255	0					
13,500.00	12,821.64	12,475.00	12,473.39	34.55	27.83	37.08	1,275.29	1,236.18	39.12	32.603	0					
13,600.00	12,821.79	12,475.00	12,473.39	35.62	27.83	37.08	1,369.73	1,330.51	39.21	34.930	0					

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1												Offset Well Error:	0.00 ft
Survey Program: 0-MWD													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning
13.700.00	12.821.94	12.464.91	12.463.64	36.75	27.81	36.32	1,464.76	1,425.50	39.26	37.305	0		
13.800.00	12.822.09	12.450.00	12.449.15	37.94	27.79	35.24	1,560.44	1,521.15	39.29	39.711	0		
13.900.00	12.822.24	12.450.00	12.449.15	39.17	27.79	35.24	1,656.37	1,617.00	39.37	42.077	0		
14.000.00	12.822.39	12.450.00	12.449.15	40.45	27.79	35.24	1,752.75	1,713.32	39.43	44.454	0		
14.100.00	12.822.54	12.450.00	12.449.15	41.76	27.79	35.24	1,849.51	1,810.02	39.49	46.840	0		
14.200.00	12.822.70	12.450.00	12.449.15	43.12	27.79	35.24	1,946.60	1,907.06	39.54	49.233	0		
14.300.00	12.822.85	12.436.52	12.435.95	44.51	27.76	34.31	2,043.74	2,004.18	39.56	51.663	0		
14.400.00	12.823.00	12.425.00	12.424.62	45.93	27.74	33.54	2,141.30	2,101.72	39.58	54.096	0		
14.500.00	12.823.15	12.425.00	12.424.62	47.38	27.74	33.54	2,238.92	2,199.29	39.63	56.496	0		
14.600.00	12.823.30	12.425.00	12.424.62	48.85	27.74	33.54	2,336.74	2,297.07	39.67	58.900	0		
14.700.00	12.823.45	12.425.00	12.424.62	50.34	27.74	33.54	2,434.74	2,395.03	39.71	61.305	0		
14.800.00	12.823.60	12.425.00	12.424.62	51.86	27.74	33.54	2,532.90	2,493.15	39.76	63.712	0		
14.900.00	12.823.75	12.425.00	12.424.62	53.40	27.74	33.54	2,631.20	2,591.40	39.79	66.120	0		
15.000.00	12.823.91	12.425.00	12.424.62	54.95	27.74	33.54	2,729.62	2,689.78	39.83	68.527	0		
15.100.00	12.824.06	12.425.00	12.424.62	56.52	27.74	33.54	2,828.15	2,788.28	39.87	70.934	0		
15.200.00	12.824.21	12,412.44	12,412.21	58.11	27.72	32.73	2,926.58	2,886.69	39.89	73.365	0		
15.300.00	12.824.36	12.400.00	12,399.88	59.70	27.70	31.96	3,025.38	2,985.46	39.91	75.800	0		
15.400.00	12.824.51	12.400.00	12,399.88	61.31	27.70	31.96	3,124.07	3,084.12	39.95	78.199	0		
15.500.00	12.824.66	12.400.00	12,399.88	62.94	27.70	31.96	3,222.84	3,182.85	39.99	80.596	0		
15.600.00	12.824.81	12.400.00	12,399.88	64.57	27.70	31.96	3,321.69	3,281.66	40.02	82.991	0		
15.700.00	12.824.96	12.400.00	12,399.88	66.21	27.70	31.96	3,420.60	3,380.54	40.06	85.382	0		
15.800.00	12.825.11	12.400.00	12,399.88	67.87	27.70	31.96	3,519.58	3,479.48	40.10	87.771	0		
15.900.00	12.825.27	12.400.00	12,399.88	69.53	27.70	31.96	3,618.61	3,578.47	40.14	90.157	0		
16.000.00	12.825.42	12.400.00	12,399.88	71.20	27.70	31.96	3,717.69	3,677.52	40.17	92.538	0		
16.100.00	12.825.57	12.400.00	12,399.88	72.87	27.70	31.96	3,816.82	3,776.61	40.21	94.916	0		
16.200.00	12.825.72	12.400.00	12,399.88	74.56	27.70	31.96	3,916.00	3,875.75	40.25	97.290	0		
16.300.00	12.825.87	12.400.00	12,399.88	76.25	27.70	31.96	4,015.22	3,974.93	40.29	99.660	0		
16.400.00	12.826.02	12.400.00	12,399.88	77.95	27.70	31.96	4,114.47	4,074.14	40.33	102.025	0		
16.500.00	12.826.17	12.400.00	12,399.88	79.65	27.70	31.96	4,213.76	4,173.39	40.37	104.385	0		
16.600.00	12.826.32	12.400.00	12,399.88	81.35	27.70	31.96	4,313.08	4,272.67	40.41	106.741	0		
16.700.00	12.826.48	12.400.00	12,399.88	83.07	27.70	31.96	4,412.43	4,371.99	40.45	109.091	0		
16.800.00	12.826.63	12.400.00	12,399.88	84.78	27.70	31.96	4,511.82	4,471.33	40.49	111.436	0		
16.900.00	12.826.78	12.400.00	12,399.88	86.51	27.70	31.96	4,611.22	4,570.69	40.53	113.776	0		
17.000.00	12.826.93	12.400.00	12,399.88	88.23	27.70	31.96	4,710.66	4,670.09	40.57	116.110	0		
17.100.00	12.827.08	12.388.35	12,388.29	89.96	27.68	31.27	4,809.96	4,769.35	40.60	118.459	0		
17.200.00	12.827.23	12.387.55	12,387.49	91.69	27.68	31.22	4,909.42	4,868.77	40.65	120.782	0		
17.300.00	12.827.38	12.386.78	12,386.72	93.43	27.68	31.17	5,008.89	4,968.20	40.69	123.099	0		
17.400.00	12.827.53	12.375.00	12,374.98	95.17	27.66	30.50	5,108.53	5,067.80	40.73	125.437	0		
17.500.00	12.827.69	12.375.00	12,374.98	96.91	27.66	30.50	5,208.02	5,167.25	40.77	127.739	0		
17.600.00	12.827.84	12.375.00	12,374.98	98.66	27.66	30.50	5,307.54	5,266.72	40.82	130.036	0		
17.700.00	12.827.99	12.375.00	12,374.98	100.41	27.66	30.50	5,407.07	5,366.21	40.86	132.325	0		
17.800.00	12.828.14	12.375.00	12,374.98	102.16	27.66	30.50	5,506.62	5,465.72	40.91	134.608	0		
17.900.00	12.828.29	12.375.00	12,374.98	103.91	27.66	30.50	5,606.19	5,565.24	40.96	136.884	0		
18.000.00	12.828.44	12.375.00	12,374.98	105.67	27.66	30.50	5,705.77	5,664.77	41.00	139.154	0		
18.100.00	12.828.59	12.375.00	12,374.98	107.43	27.66	30.50	5,805.37	5,764.32	41.05	141.416	0		
18.200.00	12.828.74	12.375.00	12,374.98	109.19	27.66	30.50	5,904.98	5,863.88	41.10	143.671	0		
18.300.00	12.828.89	12.375.00	12,374.98	110.95	27.66	30.50	6,004.60	5,963.45	41.15	145.919	0		
18.400.00	12.829.05	12.375.00	12,374.98	112.72	27.66	30.50	6,104.24	6,063.04	41.20	148.159	0		
18.500.00	12.829.20	12.375.00	12,374.98	114.49	27.66	30.50	6,203.88	6,162.63	41.25	150.392	0		
18.600.00	12.829.35	12.375.00	12,374.98	116.25	27.66	30.50	6,303.54	6,262.24	41.30	152.618	0		
18.700.00	12.829.50	12.375.00	12,374.98	118.02	27.66	30.50	6,403.21	6,361.86	41.35	154.836	0		
18.800.00	12.829.65	12.375.00	12,374.98	119.80	27.66	30.50	6,502.89	6,461.48	41.41	157.046	0		
18.900.00	12.829.80	12.375.00	12,374.98	121.57	27.66	30.50	6,602.58	6,561.12	41.46	159.248	0		
19.000.00	12.829.95	12.375.00	12,374.98	123.34	27.66	30.50	6,702.28	6,660.76	41.51	161.443	0		

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
19,100.00	12,830.10	12,375.00	12,374.98	125.12	27.66	30.50	6,801.98	6,760.41	41.57	163.629	0			
19,200.00	12,830.26	12,375.00	12,374.98	126.90	27.66	30.50	6,901.70	6,860.07	41.62	165.807	0			
19,300.00	12,830.41	12,375.00	12,374.98	128.68	27.66	30.50	7,001.42	6,959.74	41.68	167.977	0			
19,400.00	12,830.56	12,375.00	12,374.98	130.46	27.66	30.50	7,101.15	7,059.41	41.74	170.139	0			
19,500.00	12,830.71	12,375.00	12,374.98	132.24	27.66	30.50	7,200.89	7,159.10	41.79	172.293	0			
19,600.00	12,830.86	12,375.00	12,374.98	134.02	27.66	30.50	7,300.64	7,258.78	41.85	174.438	0			
19,700.00	12,831.01	12,375.00	12,374.98	135.81	27.66	30.50	7,400.39	7,358.48	41.91	176.575	0			
19,800.00	12,831.16	12,375.00	12,374.98	137.59	27.66	30.50	7,500.15	7,458.18	41.97	178.703	0			
19,900.00	12,831.31	12,375.00	12,374.98	139.38	27.66	30.50	7,599.91	7,557.88	42.03	180.823	0			
20,000.00	12,831.46	12,375.00	12,374.98	141.16	27.66	30.50	7,699.68	7,657.59	42.09	182.934	0			
20,100.00	12,831.62	12,375.00	12,374.98	142.95	27.66	30.50	7,799.46	7,757.31	42.15	185.036	0			
20,200.00	12,831.77	12,375.00	12,374.98	144.74	27.66	30.50	7,899.24	7,857.03	42.21	187.129	0			
20,300.00	12,831.92	12,375.00	12,374.98	146.53	27.66	30.50	7,999.03	7,956.76	42.28	189.214	0			
20,400.00	12,832.07	12,375.00	12,374.98	148.32	27.66	30.50	8,098.83	8,056.49	42.34	191.290	0			
20,500.00	12,832.22	12,375.00	12,374.98	150.11	27.66	30.50	8,198.63	8,156.22	42.40	193.357	0			
20,600.00	12,832.37	12,375.00	12,374.98	151.90	27.66	30.50	8,298.43	8,255.96	42.47	195.415	0			
20,700.00	12,832.52	12,375.00	12,374.98	153.70	27.66	30.50	8,398.24	8,355.71	42.53	197.463	0			
20,800.00	12,832.67	12,375.00	12,374.98	155.49	27.66	30.50	8,498.05	8,455.45	42.60	199.503	0			
20,900.00	12,832.83	12,375.00	12,374.98	157.29	27.66	30.50	8,597.87	8,555.20	42.66	201.534	0			
21,000.00	12,832.98	12,375.00	12,374.98	159.08	27.66	30.50	8,697.69	8,654.96	42.73	203.555	0			
21,100.00	12,833.13	12,375.00	12,374.98	160.88	27.66	30.50	8,797.51	8,754.72	42.80	205.568	0			
21,200.00	12,833.28	12,375.00	12,374.98	162.67	27.66	30.50	8,897.34	8,854.48	42.86	207.571	0			
21,300.00	12,833.43	12,375.00	12,374.98	164.47	27.66	30.50	8,997.18	8,954.24	42.93	209.565	0			
21,400.00	12,833.58	12,375.00	12,374.98	166.27	27.66	30.50	9,097.01	9,054.01	43.00	211.549	0			
21,500.00	12,833.73	12,375.00	12,374.98	168.07	27.66	30.50	9,196.85	9,153.78	43.07	213.524	0			
21,600.00	12,833.88	12,375.00	12,374.98	169.86	27.66	30.50	9,296.70	9,253.55	43.14	215.490	0			
21,700.00	12,834.04	12,375.00	12,374.98	171.66	27.66	30.50	9,396.54	9,353.33	43.21	217.446	0			
21,800.00	12,834.19	12,375.00	12,374.98	173.46	27.66	30.50	9,496.39	9,453.11	43.28	219.393	0			
21,900.00	12,834.34	12,375.00	12,374.98	175.26	27.66	30.50	9,596.25	9,552.89	43.36	221.331	0			
22,000.00	12,834.49	12,375.00	12,374.98	177.07	27.66	30.50	9,696.10	9,652.67	43.43	223.259	0			
22,100.00	12,834.64	12,375.00	12,374.98	178.87	27.66	30.50	9,795.96	9,752.46	43.50	225.177	0			
22,200.00	12,834.79	12,375.00	12,374.98	180.67	27.66	30.50	9,895.83	9,852.25	43.58	227.086	0			
22,300.00	12,834.94	12,375.00	12,374.98	182.47	27.66	30.50	9,995.69	9,952.04	43.65	228.986	0			

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

Devon Energy
Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
0.00	0.00	0.50	0.50	0.00	0.00	148.59	58.29							
100.00	100.00	100.50	100.50	0.09	0.09	148.59	58.29	58.17	0.12	476.318	0			
200.00	200.00	200.50	200.50	0.31	0.31	148.59	58.29	57.85	0.44	132.409	0			
300.00	300.00	300.50	300.50	0.54	0.54	148.59	58.29	57.53	0.76	76.892	0			
400.00	400.00	400.50	400.50	0.76	0.76	148.59	58.29	57.22	1.08	54.176	0			
500.00	500.00	500.50	500.50	0.99	0.99	148.59	58.29	56.90	1.39	41.821	0			
600.00	600.00	600.50	600.50	1.21	1.21	148.59	58.29	56.58	1.71	34.055	0			
700.00	700.00	700.50	700.50	1.43	1.44	148.59	58.29	56.26	2.03	28.721	0			
800.00	800.00	800.50	800.50	1.66	1.66	148.59	58.29	55.95	2.35	24.832	0			
900.00	900.00	900.50	900.50	1.88	1.89	148.59	58.29	55.63	2.67	21.871	0			
1,000.00	1,000.00	1,000.50	1,000.50	2.11	2.11	148.59	58.29	55.31	2.98	19.540	0			
1,100.00	1,100.00	1,100.50	1,100.50	2.33	2.33	148.59	58.29	54.99	3.30	17.659	0			
1,200.00	1,200.00	1,200.50	1,200.50	2.56	2.56	148.59	58.29	54.67	3.62	16.108	0			
1,300.00	1,300.00	1,300.50	1,300.50	2.78	2.78	148.59	58.29	54.36	3.94	14.807	0			
1,400.00	1,400.00	1,400.50	1,400.50	3.01	3.01	148.59	58.29	54.04	4.25	13.701	0			
1,500.00	1,500.00	1,500.50	1,500.50	3.23	3.23	148.59	58.29	53.72	4.57	12.748	0			
1,600.00	1,600.00	1,600.50	1,600.50	3.46	3.46	148.59	58.29	53.40	4.89	11.920	0			
1,700.00	1,700.00	1,700.50	1,700.50	3.68	3.68	148.59	58.29	53.08	5.21	11.192	0			
1,800.00	1,800.00	1,800.50	1,800.50	3.91	3.91	148.59	58.29	52.77	5.53	10.549	0			
1,900.00	1,900.00	1,900.50	1,900.50	4.13	4.13	148.59	58.29	52.45	5.84	9.975	0			
1,966.50	1,966.50	1,967.00	1,967.00	4.28	4.28	148.59	58.29	52.24	6.06	9.627	0		CC	
2,000.00	2,000.00	2,000.50	2,000.50	4.36	4.36	148.59	58.29	52.13	6.16	9.460	0		ES	
2,100.00	2,100.00	2,100.00	2,099.99	4.58	4.57	147.86	58.75	52.29	6.47	9.083	0			
2,200.00	2,200.00	2,199.36	2,199.32	4.81	4.77	145.77	60.18	53.42	6.77	8.894	0			
2,300.00	2,300.00	2,298.64	2,298.51	5.03	4.97	142.51	62.73	55.67	7.07	8.879	0		SF	
2,400.00	2,400.00	2,397.75	2,397.43	5.26	5.17	138.39	66.61	59.24	7.36	9.044	0			
2,500.00	2,500.00	2,496.61	2,495.99	5.48	5.39	133.79	72.03	64.36	7.66	9.399	0			
2,600.00	2,600.00	2,596.20	2,595.20	5.71	5.61	129.40	78.56	70.59	7.97	9.860	0			
2,700.00	2,700.00	2,695.82	2,694.44	5.93	5.83	125.69	85.48	77.21	8.27	10.332	0			
2,800.00	2,800.00	2,795.44	2,793.68	6.15	6.06	122.55	92.71	84.13	8.58	10.804	0			
2,900.00	2,900.00	2,895.06	2,892.92	6.38	6.29	119.87	100.17	91.28	8.89	11.270	0			
3,000.00	3,000.00	2,994.68	2,992.16	6.60	6.52	117.57	107.82	98.63	9.20	11.723	0			
3,100.00	3,099.99	3,094.24	3,091.34	6.82	6.76	160.68	116.45	106.94	9.50	12.252	0			
3,200.00	3,199.96	3,193.66	3,190.39	7.04	7.00	159.33	126.80	116.99	9.81	12.926	0			
3,300.00	3,299.86	3,292.92	3,289.27	7.26	7.24	158.44	138.82	128.70	10.12	13.723	0			
3,400.00	3,399.68	3,391.97	3,387.94	7.48	7.49	157.93	152.47	142.04	10.42	14.627	0			
3,500.00	3,499.37	3,490.80	3,486.40	7.71	7.73	157.71	167.72	156.99	10.73	15.628	0			
3,600.00	3,598.99	3,589.50	3,584.72	7.93	7.98	157.69	183.77	172.73	11.04	16.645	0			
3,700.00	3,698.60	3,688.21	3,683.05	8.16	8.22	157.67	199.82	188.47	11.35	17.604	0			
3,800.00	3,798.22	3,786.91	3,781.38	8.39	8.47	157.65	215.88	204.21	11.66	18.511	0			
3,900.00	3,897.84	3,885.61	3,879.71	8.63	8.72	157.63	231.93	219.95	11.97	19.369	0			
4,000.00	3,997.46	3,984.32	3,978.03	8.87	8.97	157.62	247.98	235.69	12.29	20.181	0			
4,100.00	4,097.08	4,083.02	4,076.36	9.10	9.23	157.61	264.03	251.43	12.60	20.952	0			
4,200.00	4,196.70	4,181.72	4,174.69	9.34	9.48	157.60	280.08	267.17	12.92	21.683	0			
4,300.00	4,296.32	4,280.43	4,273.02	9.59	9.73	157.59	296.13	282.90	13.23	22.378	0			
4,400.00	4,395.94	4,379.13	4,371.35	9.83	9.99	157.58	312.19	298.64	13.55	23.039	0			
4,500.00	4,495.56	4,477.83	4,469.67	10.08	10.24	157.57	328.24	314.37	13.87	23.669	0			
4,600.00	4,595.18	4,576.54	4,568.00	10.32	10.50	157.56	344.29	330.10	14.19	24.269	0			
4,700.00	4,694.80	4,675.24	4,666.33	10.57	10.76	157.56	360.34	345.84	14.51	24.842	0			
4,800.00	4,794.42	4,773.94	4,764.66	10.82	11.02	157.55	376.39	361.57	14.83	25.389	0			
4,900.00	4,894.04	4,872.65	4,862.98	11.07	11.27	157.55	392.45	377.30	15.15	25.911	0			
5,000.00	4,993.66	4,971.35	4,961.31	11.32	11.53	157.54	408.50	393.03	15.47	26.412	0			
5,100.00	5,093.28	5,070.05	5,059.64	11.57	11.79	157.54	424.55	408.76	15.79	26.891	0			
5,200.00	5,192.90	5,168.76	5,157.97	11.82	12.05	157.53	440.60	424.49	16.11	27.350	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Dzurisin - Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1													Offset Well Error:		0.00 ft
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning		
5,300.00	5,292.52	5,267.46	5,256.29	12.08	12.31	157.53	456.65	440.22	16.43	27.790	0				
5,400.00	5,392.14	5,366.16	5,354.62	12.33	12.57	157.53	472.71	455.95	16.75	28.213	0				
5,500.00	5,491.76	5,464.87	5,452.95	12.59	12.83	157.52	488.76	471.68	17.08	28.619	0				
5,600.00	5,591.37	5,563.57	5,551.28	12.84	13.10	157.52	504.81	487.41	17.40	29.009	0				
5,700.00	5,690.99	5,662.27	5,649.61	13.10	13.36	157.52	520.86	503.14	17.73	29.385	0				
5,800.00	5,790.61	5,760.98	5,747.93	13.36	13.62	157.51	536.91	518.86	18.05	29.746	0				
5,900.00	5,890.23	5,859.68	5,846.26	13.62	13.88	157.51	552.97	534.59	18.37	30.094	0				
6,000.00	5,989.85	5,958.38	5,944.59	13.87	14.14	157.51	569.02	550.32	18.70	30.429	0				
6,100.00	6,089.47	6,057.09	6,042.92	14.13	14.41	157.51	585.07	566.05	19.02	30.753	0				
6,200.00	6,189.09	6,155.79	6,141.24	14.39	14.67	157.50	601.12	581.77	19.35	31.065	0				
6,300.00	6,288.71	6,254.49	6,239.57	14.65	14.93	157.50	617.17	597.50	19.68	31.366	0				
6,400.00	6,388.33	6,353.20	6,337.90	14.91	15.20	157.50	633.23	613.22	20.00	31.657	0				
6,500.00	6,487.95	6,451.90	6,436.23	15.17	15.46	157.50	649.28	628.95	20.33	31.939	0				
6,600.00	6,587.57	6,550.60	6,534.55	15.43	15.73	157.50	665.33	644.67	20.66	32.211	0				
6,700.00	6,687.19	6,649.31	6,632.88	15.70	15.99	157.49	681.38	660.40	20.98	32.474	0				
6,800.00	6,786.81	6,748.01	6,731.21	15.96	16.26	157.49	697.43	676.12	21.31	32.729	0				
6,900.00	6,886.43	6,846.71	6,829.54	16.22	16.52	157.49	713.49	691.85	21.64	32.976	0				
7,000.00	6,986.05	6,945.42	6,927.86	16.48	16.79	157.49	729.54	707.57	21.96	33.215	0				
7,100.00	7,085.70	7,044.18	7,026.26	16.72	17.05	157.51	745.19	722.92	22.27	33.455	0				
7,200.00	7,185.43	7,143.07	7,124.77	16.92	17.32	157.49	760.05	737.48	22.57	33.678	0				
7,300.00	7,285.21	7,242.07	7,223.39	17.11	17.58	157.46	774.11	751.25	22.86	33.861	0				
7,400.00	7,385.05	7,341.18	7,322.13	17.31	17.85	157.40	787.37	764.22	23.16	34.004	0				
7,500.00	7,484.94	7,440.39	7,420.96	17.50	18.12	157.32	799.84	776.39	23.45	34.111	0				
7,600.00	7,584.86	7,539.69	7,519.88	17.69	18.38	157.21	811.51	787.77	23.74	34.181	0				
7,700.00	7,684.81	7,639.08	7,618.89	17.87	18.65	157.09	822.38	798.35	24.03	34.217	0				
7,800.00	7,784.79	7,738.54	7,717.97	18.05	18.92	156.94	832.47	808.14	24.33	34.221	0				
7,900.00	7,884.78	7,838.07	7,817.12	18.23	19.19	156.77	841.76	817.14	24.62	34.192	0				
8,000.00	7,984.78	7,937.66	7,916.33	18.40	19.46	111.58	850.26	825.35	24.91	34.134	0				
8,100.00	8,084.78	8,037.28	8,015.57	18.59	19.73	111.37	858.38	833.16	25.21	34.043	0				
8,200.00	8,184.78	8,136.90	8,114.81	18.80	19.99	111.16	866.50	840.97	25.53	33.938	0				
8,300.00	8,284.78	8,236.52	8,214.05	19.01	20.26	110.95	874.64	848.79	25.85	33.836	0				
8,400.00	8,384.78	8,336.14	8,313.29	19.22	20.53	110.75	882.79	856.62	26.17	33.737	0				
8,500.00	8,484.78	8,435.76	8,412.53	19.43	20.80	110.55	890.95	864.46	26.48	33.640	0				
8,600.00	8,584.78	8,535.38	8,511.77	19.64	21.07	110.36	899.12	872.32	26.80	33.546	0				
8,700.00	8,684.78	8,635.00	8,611.02	19.85	21.34	110.16	907.30	880.18	27.12	33.454	0				
8,800.00	8,784.78	8,734.61	8,710.26	20.06	21.61	109.98	915.49	888.05	27.44	33.365	0				
8,900.00	8,884.78	8,834.23	8,809.50	20.27	21.88	109.79	923.69	895.93	27.76	33.278	0				
9,000.00	8,984.78	8,933.85	8,908.74	20.48	22.15	109.61	931.90	903.82	28.08	33.193	0				
9,100.00	9,084.78	9,033.47	9,007.98	20.69	22.42	109.43	940.11	911.72	28.39	33.110	0				
9,200.00	9,184.78	9,133.09	9,107.22	20.90	22.69	109.26	948.34	919.63	28.71	33.030	0				
9,300.00	9,284.78	9,232.71	9,206.46	21.11	22.96	109.08	956.58	927.55	29.03	32.951	0				
9,400.00	9,384.78	9,332.33	9,305.70	21.32	23.23	108.92	964.82	935.47	29.35	32.875	0				
9,500.00	9,484.78	9,431.95	9,404.94	21.54	23.50	108.75	973.07	943.41	29.67	32.800	0				
9,600.00	9,584.78	9,531.57	9,504.18	21.75	23.77	108.59	981.33	951.35	29.99	32.727	0				
9,700.00	9,684.78	9,631.19	9,603.42	21.96	24.04	108.42	989.60	959.30	30.30	32.655	0				
9,800.00	9,784.78	9,730.81	9,702.66	22.17	24.31	108.27	997.88	967.25	30.62	32.586	0				
9,900.00	9,884.78	9,830.43	9,801.90	22.39	24.58	108.11	1,006.16	975.22	30.94	32.518	0				
10,000.00	9,984.78	9,930.05	9,901.14	22.60	24.85	107.96	1,014.45	983.19	31.26	32.451	0				
10,100.00	10,084.78	10,029.67	10,000.38	22.82	25.12	107.81	1,022.75	991.17	31.58	32.386	0				
10,200.00	10,184.78	10,129.29	10,099.62	23.03	25.39	107.66	1,031.05	999.15	31.90	32.322	0				
10,300.00	10,284.78	10,228.91	10,198.86	23.24	25.66	107.51	1,039.36	1,007.15	32.22	32.260	0				
10,400.00	10,384.78	10,328.53	10,298.10	23.46	25.93	107.37	1,047.68	1,015.14	32.54	32.199	0				
10,500.00	10,484.78	10,428.15	10,397.34	23.67	26.20	107.23	1,056.01	1,023.15	32.86	32.140	0				
10,600.00	10,584.78	10,527.77	10,496.58	23.89	26.47	107.09	1,064.34	1,031.16	33.18	32.082	0				

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

Devon Energy Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
10,700.00	10,684.78	10,627.38	10,595.82	24.10	26.74	106.95	1,072.67	1,039.18	33.50	32.025	0			
10,800.00	10,784.78	10,727.00	10,695.06	24.32	27.01	106.82	1,081.02	1,047.20	33.81	31.969	0			
10,900.00	10,884.78	10,834.30	10,801.98	24.53	27.27	106.68	1,089.09	1,054.96	34.14	31.905	0			
11,000.00	10,984.78	10,944.05	10,911.42	24.75	27.49	106.56	1,096.29	1,061.84	34.44	31.828	0			
11,100.00	11,084.78	11,053.95	11,021.08	24.96	27.71	106.45	1,102.57	1,067.82	34.75	31.728	0			
11,200.00	11,184.78	11,163.97	11,130.93	25.18	27.92	106.36	1,107.93	1,072.88	35.06	31.605	0			
11,300.00	11,284.78	11,274.11	11,240.95	25.39	28.13	106.29	1,112.38	1,077.02	35.36	31.461	0			
11,400.00	11,384.78	11,384.33	11,351.09	25.61	28.33	106.23	1,115.90	1,080.24	35.66	31.295	0			
11,500.00	11,484.78	11,494.62	11,461.34	25.83	28.53	106.19	1,118.50	1,082.55	35.96	31.108	0			
11,600.00	11,584.78	11,604.95	11,571.66	26.04	28.71	106.16	1,120.18	1,083.93	36.25	30.900	0			
11,700.00	11,684.78	11,715.32	11,682.02	26.26	28.89	106.15	1,120.94	1,084.39	36.55	30.672	0			
11,800.00	11,784.78	11,818.58	11,785.28	26.48	29.07	106.14	1,120.98	1,084.14	36.84	30.427	0			
11,900.00	11,884.78	11,918.58	11,885.28	26.69	29.26	106.14	1,120.98	1,083.84	37.14	30.183	0			
12,000.00	11,984.78	12,018.58	11,985.28	26.91	29.44	106.14	1,120.98	1,083.54	37.44	29.942	0			
12,100.00	12,084.78	12,118.58	12,085.28	27.13	29.63	106.14	1,120.98	1,083.24	37.74	29.705	0			
12,200.00	12,184.78	12,218.58	12,185.28	27.34	29.82	106.14	1,120.98	1,082.94	38.04	29.472	0			
12,300.00	12,284.78	12,318.58	12,285.28	27.56	30.00	106.14	1,120.98	1,082.65	38.34	29.242	0			
12,358.80	12,343.58	12,377.38	12,344.08	27.69	30.11	106.14	1,120.98	1,082.47	38.51	29.108	0			
12,375.00	12,359.78	12,392.90	12,359.60	27.72	30.14	106.16	1,121.06	1,082.50	38.56	29.073	0			
12,400.00	12,384.73	12,408.36	12,375.06	27.78	30.17	106.15	1,121.59	1,082.97	38.62	29.039	0			
12,425.00	12,409.57	12,425.00	12,391.68	27.84	30.20	106.16	1,122.72	1,084.03	38.69	29.019	0			
12,450.00	12,434.23	12,437.73	12,404.36	27.91	30.22	106.11	1,124.44	1,085.69	38.75	29.018	0			
12,475.00	12,458.63	12,450.00	12,416.57	27.98	30.24	106.03	1,126.77	1,087.96	38.81	29.032	0			
12,500.00	12,482.73	12,465.23	12,431.65	28.05	30.27	105.98	1,129.73	1,090.85	38.88	29.059	0			
12,525.00	12,506.44	12,475.00	12,441.30	28.12	30.28	105.78	1,133.33	1,094.39	38.93	29.109	0			
12,550.00	12,529.71	12,490.05	12,456.08	28.20	30.31	105.68	1,137.57	1,098.57	39.00	29.168	0			
12,575.00	12,552.47	12,500.00	12,465.81	28.28	30.33	105.39	1,142.49	1,103.43	39.06	29.250	0			
12,600.00	12,574.65	12,511.64	12,477.13	28.36	30.35	105.10	1,148.08	1,108.96	39.12	29.346	0			
12,625.00	12,596.20	12,525.00	12,490.02	28.44	30.37	104.82	1,154.37	1,115.19	39.19	29.456	0			
12,650.00	12,617.06	12,525.00	12,490.02	28.53	30.37	103.98	1,161.35	1,122.12	39.23	29.604	0			
12,675.00	12,637.17	12,537.48	12,501.98	28.63	30.40	103.54	1,169.00	1,129.70	39.30	29.748	0			
12,700.00	12,656.47	12,550.00	12,513.88	28.72	30.42	103.04	1,177.36	1,138.00	39.37	29.908	0			
12,725.00	12,674.92	12,550.00	12,513.88	28.82	30.42	101.91	1,186.35	1,146.94	39.41	30.104	0			
12,750.00	12,692.46	12,550.00	12,513.88	28.93	30.42	100.68	1,196.03	1,156.58	39.45	30.317	0			
12,775.00	12,709.04	12,559.90	12,523.22	29.04	30.44	99.81	1,206.29	1,166.77	39.52	30.524	0			
12,800.00	12,724.62	12,563.53	12,526.63	29.16	30.44	98.56	1,217.18	1,177.60	39.58	30.756	0			
12,825.00	12,739.15	12,566.44	12,529.34	29.28	30.45	97.17	1,228.63	1,189.00	39.63	31.002	0			
12,850.00	12,752.61	12,575.00	12,537.32	29.41	30.46	95.99	1,240.65	1,200.94	39.70	31.248	0			
12,875.00	12,764.94	12,575.00	12,537.32	29.54	30.46	94.27	1,253.10	1,213.34	39.75	31.521	0			
12,900.00	12,776.11	12,575.00	12,537.32	29.68	30.46	92.47	1,266.01	1,226.20	39.81	31.802	0			
12,925.00	12,786.10	12,575.00	12,537.32	29.82	30.46	90.58	1,279.32	1,239.45	39.86	32.091	0			
12,950.00	12,794.88	12,575.00	12,537.32	29.97	30.46	88.62	1,292.99	1,253.07	39.92	32.387	0			
12,975.00	12,802.42	12,575.00	12,537.32	30.13	30.46	86.60	1,306.97	1,266.98	39.98	32.688	0			
13,000.00	12,808.70	12,575.00	12,537.32	30.29	30.46	84.53	1,321.21	1,281.16	40.05	32.992	0			
13,025.00	12,813.71	12,575.00	12,537.32	30.46	30.46	82.42	1,335.67	1,295.56	40.11	33.300	0			
13,050.00	12,817.43	12,566.05	12,528.98	30.63	30.45	79.83	1,350.21	1,310.06	40.15	33.628	0			
13,075.00	12,819.85	12,563.67	12,526.76	30.81	30.44	77.57	1,364.91	1,324.70	40.21	33.943	0			
13,100.00	12,820.96	12,560.93	12,524.18	30.99	30.44	75.31	1,379.67	1,339.39	40.27	34.257	0			
13,108.05	12,821.04	12,559.97	12,523.28	31.05	30.44	74.58	1,384.43	1,344.13	40.29	34.358	0			
13,141.79	12,821.10	12,550.00	12,513.88	31.30	30.42	74.11	1,404.64	1,364.28	40.36	34.801	0			
13,200.00	12,821.18	12,550.00	12,513.88	31.76	30.42	74.11	1,440.55	1,400.02	40.53	35.545	0			
13,300.00	12,821.33	12,539.51	12,503.92	32.61	30.40	73.62	1,505.38	1,464.60	40.78	36.919	0			
13,400.00	12,821.49	12,525.00	12,490.02	33.55	30.37	72.95	1,573.75	1,532.74	41.00	38.382	0			
13,500.00	12,821.64	12,525.00	12,490.02	34.55	30.37	72.95	1,645.15	1,603.90	41.25	39.880	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance						Risky Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor						
13,600.00	12,821.79	12,525.00	12,490.02	35.62	30.37	72.95	1,719.41	1,677.92	41.48	41.447	0					
13,700.00	12,821.94	12,509.48	12,475.03	36.75	30.35	72.22	1,795.90	1,754.23	41.67	43.102	0					
13,800.00	12,822.09	12,500.00	12,465.81	37.94	30.33	71.78	1,874.62	1,832.78	41.85	44.798	0					
13,900.00	12,822.24	12,500.00	12,465.81	39.17	30.33	71.78	1,955.20	1,913.17	42.03	46.516	0					
14,000.00	12,822.39	12,500.00	12,465.81	40.45	30.33	71.78	2,037.51	1,995.30	42.20	48.278	0					
14,100.00	12,822.54	12,489.56	12,455.61	41.76	30.31	71.29	2,121.21	2,078.86	42.34	50.096	0					
14,200.00	12,822.70	12,485.60	12,451.72	43.12	30.30	71.10	2,206.27	2,163.78	42.48	51.934	0					
14,300.00	12,822.85	12,475.00	12,441.30	44.51	30.28	70.61	2,292.55	2,249.95	42.60	53.816	0					
14,400.00	12,823.00	12,475.00	12,441.30	45.93	30.28	70.61	2,379.80	2,337.07	42.73	55.697	0					
14,500.00	12,823.15	12,475.00	12,441.30	47.38	30.28	70.61	2,468.01	2,425.16	42.85	57.602	0					
14,600.00	12,823.30	12,475.00	12,441.30	48.85	30.28	70.61	2,557.09	2,514.13	42.96	59.528	0					
14,700.00	12,823.45	12,475.00	12,441.30	50.34	30.28	70.61	2,646.95	2,603.89	43.06	61.473	0					
14,800.00	12,823.60	12,475.00	12,441.30	51.86	30.28	70.61	2,737.51	2,694.36	43.16	63.434	0					
14,900.00	12,823.75	12,475.00	12,441.30	53.40	30.28	70.61	2,828.71	2,785.47	43.25	65.409	0					
15,000.00	12,823.91	12,462.68	12,429.13	54.95	30.26	70.03	2,920.31	2,877.00	43.32	67.418	0					
15,100.00	12,824.06	12,450.00	12,416.57	56.52	30.24	69.44	3,012.68	2,969.29	43.38	69.444	0					
15,200.00	12,824.21	12,450.00	12,416.57	58.11	30.24	69.44	3,105.34	3,061.88	43.46	71.450	0					
15,300.00	12,824.36	12,450.00	12,416.57	59.70	30.24	69.44	3,198.44	3,154.91	43.54	73.465	0					
15,400.00	12,824.51	12,450.00	12,416.57	61.31	30.24	69.44	3,291.95	3,248.35	43.61	75.487	0					
15,500.00	12,824.66	12,450.00	12,416.57	62.94	30.24	69.44	3,385.84	3,342.16	43.68	77.517	0					
15,600.00	12,824.81	12,450.00	12,416.57	64.57	30.24	69.44	3,480.06	3,436.31	43.75	79.552	0					
15,700.00	12,824.96	12,450.00	12,416.57	66.21	30.24	69.44	3,574.59	3,530.78	43.81	81.593	0					
15,800.00	12,825.11	12,450.00	12,416.57	67.87	30.24	69.44	3,669.42	3,625.54	43.87	83.637	0					
15,900.00	12,825.27	12,450.00	12,416.57	69.53	30.24	69.44	3,764.51	3,720.58	43.93	85.686	0					
16,000.00	12,825.42	12,450.00	12,416.57	71.20	30.24	69.44	3,859.85	3,815.86	43.99	87.737	0					
16,100.00	12,825.57	12,450.00	12,416.57	72.87	30.24	69.44	3,955.42	3,911.37	44.05	89.791	0					
16,200.00	12,825.72	12,450.00	12,416.57	74.56	30.24	69.44	4,051.21	4,007.10	44.11	91.846	0					
16,300.00	12,825.87	12,450.00	12,416.57	76.25	30.24	69.44	4,147.19	4,103.03	44.16	93.903	0					
16,400.00	12,826.02	12,450.00	12,416.57	77.95	30.24	69.44	4,243.36	4,199.14	44.22	95.961	0					
16,500.00	12,826.17	12,450.00	12,416.57	79.65	30.24	69.44	4,339.70	4,295.43	44.27	98.020	0					
16,600.00	12,826.32	12,450.00	12,416.57	81.35	30.24	69.44	4,436.21	4,391.88	44.33	100.078	0					
16,700.00	12,826.48	12,438.70	12,405.33	83.07	30.22	68.92	4,532.72	4,488.35	44.37	102.155	0					
16,800.00	12,826.63	12,437.79	12,404.43	84.78	30.22	68.88	4,629.49	4,585.07	44.42	104.214	0					
16,900.00	12,826.78	12,436.92	12,403.57	86.51	30.22	68.84	4,726.40	4,681.93	44.47	106.271	0					
17,000.00	12,826.93	12,425.00	12,391.68	88.23	30.20	68.29	4,823.57	4,779.05	44.52	108.353	0					
17,100.00	12,827.08	12,425.00	12,391.68	89.96	30.20	68.29	4,920.70	4,876.13	44.57	110.406	0					
17,200.00	12,827.23	12,425.00	12,391.68	91.69	30.20	68.29	5,017.94	4,973.32	44.62	112.457	0					
17,300.00	12,827.38	12,425.00	12,391.68	93.43	30.20	68.29	5,115.29	5,070.62	44.67	114.505	0					
17,400.00	12,827.53	12,425.00	12,391.68	95.17	30.20	68.29	5,212.74	5,168.02	44.72	116.552	0					
17,500.00	12,827.69	12,425.00	12,391.68	96.91	30.20	68.29	5,310.28	5,265.51	44.78	118.596	0					
17,600.00	12,827.84	12,425.00	12,391.68	98.66	30.20	68.29	5,407.92	5,363.09	44.83	120.637	0					
17,700.00	12,827.99	12,425.00	12,391.68	100.41	30.20	68.29	5,505.64	5,460.76	44.88	122.676	0					
17,800.00	12,828.14	12,425.00	12,391.68	102.16	30.20	68.29	5,603.44	5,558.50	44.93	124.711	0					
17,900.00	12,828.29	12,425.00	12,391.68	103.91	30.20	68.29	5,701.31	5,656.33	44.98	126.743	0					
18,000.00	12,828.44	12,425.00	12,391.68	105.67	30.20	68.29	5,799.26	5,754.22	45.04	128.771	0					
18,100.00	12,828.59	12,425.00	12,391.68	107.43	30.20	68.29	5,897.28	5,852.19	45.09	130.796	0					
18,200.00	12,828.74	12,425.00	12,391.68	109.19	30.20	68.29	5,995.36	5,950.22	45.14	132.817	0					
18,300.00	12,828.89	12,425.00	12,391.68	110.95	30.20	68.29	6,093.50	6,048.31	45.19	134.834	0					
18,400.00	12,829.05	12,425.00	12,391.68	112.72	30.20	68.29	6,191.71	6,146.46	45.25	136.846	0					
18,500.00	12,829.20	12,425.00	12,391.68	114.49	30.20	68.29	6,289.97	6,244.67	45.30	138.855	0					
18,600.00	12,829.35	12,425.00	12,391.68	116.25	30.20	68.29	6,388.28	6,342.93	45.35	140.859	0					
18,700.00	12,829.50	12,425.00	12,391.68	118.02	30.20	68.29	6,486.65	6,441.24	45.41	142.858	0					
18,800.00	12,829.65	12,425.00	12,391.68	119.80	30.20	68.29	6,585.06	6,539.60	45.46	144.853	0					
18,900.00	12,829.80	12,425.00	12,391.68	121.57	30.20	68.29	6,683.53	6,638.01	45.51	146.843	0					

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
19,000.00	12,829.95	12,425.00	12,391.68	123.34	30.20	68.29	6,782.03	6,736.46	45.57	148.827	0			
19,100.00	12,830.10	12,425.00	12,391.68	125.12	30.20	68.29	6,880.58	6,834.96	45.63	150.807	0			
19,200.00	12,830.26	12,425.00	12,391.68	126.90	30.20	68.29	6,979.17	6,933.49	45.68	152.782	0			
19,300.00	12,830.41	12,425.00	12,391.68	128.68	30.20	68.29	7,077.81	7,032.07	45.74	154.751	0			
19,400.00	12,830.56	12,425.00	12,391.68	130.46	30.20	68.29	7,176.47	7,130.68	45.79	156.715	0			
19,500.00	12,830.71	12,425.00	12,391.68	132.24	30.20	68.29	7,275.18	7,229.33	45.85	158.674	0			
19,600.00	12,830.86	12,425.00	12,391.68	134.02	30.20	68.29	7,373.92	7,328.01	45.91	160.627	0			
19,700.00	12,831.01	12,425.00	12,391.68	135.81	30.20	68.29	7,472.69	7,426.73	45.96	162.574	0			
19,800.00	12,831.16	12,425.00	12,391.68	137.59	30.20	68.29	7,571.50	7,525.48	46.02	164.516	0			
19,900.00	12,831.31	12,425.00	12,391.68	139.38	30.20	68.29	7,670.34	7,624.26	46.08	166.451	0			
20,000.00	12,831.46	12,425.00	12,391.68	141.16	30.20	68.29	7,769.20	7,723.06	46.14	168.381	0			
20,100.00	12,831.62	12,425.00	12,391.68	142.95	30.20	68.29	7,868.10	7,821.90	46.20	170.305	0			
20,200.00	12,831.77	12,425.00	12,391.68	144.74	30.20	68.29	7,967.02	7,920.76	46.26	172.223	0			
20,300.00	12,831.92	12,425.00	12,391.68	146.53	30.20	68.29	8,065.97	8,019.65	46.32	174.134	0			
20,400.00	12,832.07	12,425.00	12,391.68	148.32	30.20	68.29	8,164.95	8,118.57	46.38	176.039	0			
20,500.00	12,832.22	12,425.00	12,391.68	150.11	30.20	68.29	8,263.95	8,217.50	46.44	177.938	0			
20,600.00	12,832.37	12,425.00	12,391.68	151.90	30.20	68.29	8,362.97	8,316.47	46.50	179.831	0			
20,700.00	12,832.52	12,425.00	12,391.68	153.70	30.20	68.29	8,462.02	8,415.45	46.57	181.717	0			
20,800.00	12,832.67	12,425.00	12,391.68	155.49	30.20	68.29	8,561.09	8,514.46	46.63	183.597	0			
20,900.00	12,832.83	12,425.00	12,391.68	157.29	30.20	68.29	8,660.18	8,613.48	46.69	185.470	0			
21,000.00	12,832.98	12,425.00	12,391.68	159.08	30.20	68.29	8,759.29	8,712.53	46.76	187.337	0			
21,100.00	12,833.13	12,425.00	12,391.68	160.88	30.20	68.29	8,858.42	8,811.60	46.82	189.196	0			
21,200.00	12,833.28	12,425.00	12,391.68	162.67	30.20	68.29	8,957.57	8,910.68	46.89	191.050	0			
21,300.00	12,833.43	12,425.00	12,391.68	164.47	30.20	68.29	9,056.74	9,009.78	46.95	192.896	0			
21,400.00	12,833.58	12,425.00	12,391.68	166.27	30.20	68.29	9,155.92	9,108.91	47.02	194.735	0			
21,500.00	12,833.73	12,425.00	12,391.68	168.07	30.20	68.29	9,255.13	9,208.04	47.08	196.568	0			
21,600.00	12,833.88	12,425.00	12,391.68	169.86	30.20	68.29	9,354.35	9,307.20	47.15	198.394	0			
21,700.00	12,834.04	12,425.00	12,391.68	171.66	30.20	68.29	9,453.59	9,406.37	47.22	200.213	0			
21,800.00	12,834.19	12,425.00	12,391.68	173.46	30.20	68.29	9,552.84	9,505.55	47.29	202.024	0			
21,900.00	12,834.34	12,425.00	12,391.68	175.26	30.20	68.29	9,652.11	9,604.75	47.35	203.829	0			
22,000.00	12,834.49	12,425.00	12,391.68	177.07	30.20	68.29	9,751.39	9,703.97	47.42	205.627	0			
22,100.00	12,834.64	12,425.00	12,391.68	178.87	30.20	68.29	9,850.69	9,803.20	47.49	207.417	0			
22,200.00	12,834.79	12,425.00	12,391.68	180.67	30.20	68.29	9,950.00	9,902.44	47.56	209.201	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.00	0.00	0.40	0.40	0.00	0.00	-88.49	30.04					0		
100.00	100.00	100.40	100.40	0.09	0.09	-88.49	30.04	29.92	0.12	245.786		0		
200.00	200.00	200.40	200.40	0.31	0.31	-88.49	30.04	29.60	0.44	68.260		0		
300.00	300.00	300.40	300.40	0.54	0.54	-88.49	30.04	29.28	0.76	39.634		0		
400.00	400.00	400.40	400.40	0.76	0.76	-88.49	30.04	28.96	1.08	27.923		0		
500.00	500.00	500.40	500.40	0.99	0.99	-88.49	30.04	28.65	1.39	21.555		0		
600.00	600.00	600.40	600.40	1.21	1.21	-88.49	30.04	28.33	1.71	17.552		0		
700.00	700.00	700.40	700.40	1.43	1.44	-88.49	30.04	28.01	2.03	14.802		0		
800.00	800.00	800.40	800.40	1.66	1.66	-88.49	30.04	27.69	2.35	12.798		0		
900.00	900.00	900.40	900.40	1.88	1.89	-88.49	30.04	27.38	2.67	11.272		0		
1,000.00	1,000.00	1,000.40	1,000.40	2.11	2.11	-88.49	30.04	27.06	2.98	10.070		0		
1,100.00	1,100.00	1,100.40	1,100.40	2.33	2.33	-88.49	30.04	26.74	3.30	9.101		0		
1,200.00	1,200.00	1,200.40	1,200.40	2.56	2.56	-88.49	30.04	26.42	3.62	8.301		0		
1,300.00	1,300.00	1,300.40	1,300.40	2.78	2.78	-88.49	30.04	26.10	3.94	7.631		0		
1,400.00	1,400.00	1,400.40	1,400.40	3.01	3.01	-88.49	30.04	25.79	4.25	7.061		0		
1,500.00	1,500.00	1,500.40	1,500.40	3.23	3.23	-88.49	30.04	25.47	4.57	6.570		0		
1,600.00	1,600.00	1,600.40	1,600.40	3.46	3.46	-88.49	30.04	25.15	4.89	6.143		0		
1,700.00	1,700.00	1,700.40	1,700.40	3.68	3.68	-88.49	30.04	24.83	5.21	5.768		0		
1,800.00	1,800.00	1,800.40	1,800.40	3.91	3.91	-88.49	30.04	24.51	5.53	5.436		0		
1,900.00	1,900.00	1,900.40	1,900.40	4.13	4.13	-88.49	30.04	24.20	5.84	5.141		0		
1,966.53	1,966.53	1,966.93	1,966.93	4.28	4.28	-88.49	30.04	23.99	6.06	4.961		0		CC
2,000.00	2,000.00	2,000.40	2,000.40	4.36	4.36	-88.49	30.04	23.88	6.16	4.875		0		ES
2,100.00	2,100.00	2,100.00	2,099.99	4.58	4.57	-87.98	30.87	24.40	6.47	4.770		0		
2,200.00	2,200.00	2,199.33	2,199.29	4.81	4.78	-86.60	33.36	26.59	6.77	4.926		0		
2,300.00	2,300.00	2,298.64	2,298.51	5.03	4.99	-84.72	37.55	30.47	7.07	5.307		0		
2,400.00	2,400.00	2,397.78	2,397.46	5.26	5.20	-82.70	43.45	36.08	7.38	5.892		0		
2,500.00	2,500.00	2,496.68	2,496.05	5.48	5.42	-80.79	51.09	43.41	7.67	6.658		0		
2,600.00	2,600.00	2,596.27	2,595.27	5.71	5.65	-79.22	59.67	51.69	7.98	7.476		0		
2,700.00	2,700.00	2,695.89	2,694.51	5.93	5.88	-78.05	68.29	60.00	8.29	8.236		0		
2,800.00	2,800.00	2,795.51	2,793.75	6.15	6.11	-77.14	76.93	68.33	8.60	8.944		0		
2,900.00	2,900.00	2,895.13	2,892.99	6.38	6.35	-76.42	85.59	76.67	8.91	9.602		0		
3,000.00	3,000.00	2,994.74	2,992.23	6.60	6.59	-75.82	94.25	85.03	9.23	10.217		0		
3,100.00	3,099.99	3,094.43	3,091.53	6.82	6.83	-30.54	102.18	92.64	9.53	10.716		0		
3,200.00	3,199.96	3,194.22	3,190.94	7.04	7.07	-30.76	108.60	98.76	9.84	11.034		0		
3,300.00	3,299.86	3,294.09	3,290.43	7.26	7.32	-31.42	113.54	103.39	10.15	11.185		0		
3,400.00	3,399.68	3,394.00	3,389.97	7.48	7.57	-32.48	117.02	106.56	10.46	11.186		0		
3,500.00	3,499.37	3,493.93	3,489.52	7.71	7.82	-33.95	119.09	108.32	10.77	11.054		0		
3,600.00	3,598.99	3,593.86	3,589.06	7.93	8.07	-35.62	120.52	109.44	11.09	10.870		0		
3,700.00	3,698.60	3,693.79	3,688.61	8.16	8.32	-37.24	122.06	110.65	11.40	10.703		0		
3,800.00	3,798.22	3,793.72	3,788.16	8.39	8.57	-38.83	123.69	111.97	11.72	10.551		0		
3,900.00	3,897.84	3,893.65	3,887.71	8.63	8.83	-40.37	125.41	113.37	12.05	10.412		0		
4,000.00	3,997.46	3,993.58	3,987.26	8.87	9.09	-41.87	127.22	114.85	12.37	10.285		0		
4,100.00	4,097.08	4,093.51	4,086.81	9.10	9.34	-43.33	129.12	116.42	12.70	10.170		0		
4,200.00	4,196.70	4,193.43	4,186.36	9.34	9.60	-44.75	131.09	118.07	13.03	10.064		0		
4,300.00	4,296.32	4,293.36	4,285.90	9.59	9.86	-46.12	133.15	119.79	13.36	9.968		0		
4,400.00	4,395.94	4,393.29	4,385.45	9.83	10.12	-47.45	135.28	121.59	13.69	9.880		0		
4,500.00	4,495.56	4,493.22	4,485.00	10.08	10.38	-48.73	137.48	123.45	14.03	9.800		0		
4,600.00	4,595.18	4,593.15	4,584.55	10.32	10.64	-49.98	139.74	125.37	14.37	9.726		0		
4,700.00	4,694.80	4,693.08	4,684.10	10.57	10.90	-51.19	142.07	127.36	14.71	9.659		0		
4,800.00	4,794.42	4,793.01	4,783.65	10.82	11.17	-52.35	144.46	129.41	15.05	9.597		0		
4,900.00	4,894.04	4,892.94	4,883.20	11.07	11.43	-53.48	146.91	131.51	15.40	9.541		0		
5,000.00	4,993.66	4,992.86	4,982.74	11.32	11.69	-54.57	149.42	133.67	15.75	9.489		0		
5,100.00	5,093.28	5,092.79	5,082.29	11.57	11.95	-55.63	151.97	135.88	16.10	9.442		0		
5,200.00	5,192.90	5,192.72	5,181.84	11.82	12.22	-56.65	154.58	138.13	16.45	9.398		0		

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1	Offset Site Error: 0.00 ft	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft		
Reference		Offset		Semi Major Axis		Distance							Risked Separation Factor	Probability of Collision	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor					
5,300.00	5,292.52	5,292.65	5,281.39	12.08	12.48	-57.63	157.23	140.43	16.80	9.358	0				
5,400.00	5,392.14	5,392.58	5,380.94	12.33	12.75	-58.58	159.93	142.77	17.16	9.322	0				
5,500.00	5,491.76	5,492.51	5,480.49	12.59	13.01	-59.50	162.67	145.16	17.51	9.288	0				
5,600.00	5,591.37	5,592.44	5,580.04	12.84	13.28	-60.39	165.45	147.58	17.87	9.258	0				
5,700.00	5,690.99	5,692.37	5,679.58	13.10	13.54	-61.25	168.27	150.04	18.23	9.230	0				
5,800.00	5,790.61	5,792.30	5,779.13	13.36	13.81	-62.09	171.13	152.54	18.59	9.204	0				
5,900.00	5,890.23	5,892.22	5,878.68	13.62	14.08	-62.89	174.02	155.07	18.96	9.181	0				
6,000.00	5,989.85	5,992.15	5,978.23	13.87	14.34	-63.67	176.95	157.63	19.32	9.159	0				
6,100.00	6,089.47	6,092.08	6,077.78	14.13	14.61	-64.42	179.91	160.22	19.68	9.140	0				
6,200.00	6,189.09	6,192.01	6,177.33	14.39	14.88	-65.15	182.89	162.84	20.05	9.122	0				
6,300.00	6,288.71	6,291.94	6,276.88	14.65	15.15	-65.85	185.91	165.49	20.42	9.106	0				
6,400.00	6,388.33	6,391.87	6,376.42	14.91	15.41	-66.53	188.95	168.17	20.78	9.091	0				
6,500.00	6,487.95	6,491.80	6,475.97	15.17	15.68	-67.19	192.02	170.87	21.15	9.078	0				
6,600.00	6,587.57	6,591.73	6,575.52	15.43	15.95	-67.83	195.11	173.59	21.52	9.065	0				
6,700.00	6,687.19	6,691.65	6,675.07	15.70	16.22	-68.45	198.23	176.33	21.89	9.054	0				
6,800.00	6,786.81	6,791.58	6,774.62	15.96	16.48	-69.05	201.37	179.10	22.26	9.045	0				
6,900.00	6,886.43	6,891.51	6,874.17	16.22	16.75	-69.63	204.53	181.89	22.64	9.036	0				
7,000.00	6,986.05	6,991.44	6,973.72	16.48	17.02	-70.20	207.71	184.70	23.01	9.028	0				
7,100.00	7,085.70	7,091.37	7,073.27	16.72	17.29	-70.65	211.05	187.69	23.36	9.035	0				
7,200.00	7,185.43	7,191.30	7,172.82	16.92	17.56	-70.87	214.69	191.01	23.68	9.066	0				
7,300.00	7,285.21	7,291.23	7,272.36	17.11	17.83	-70.86	218.62	194.62	24.00	9.110	0				
7,400.00	7,385.05	7,391.13	7,371.89	17.31	18.10	-70.65	222.84	198.53	24.31	9.168	0				
7,500.00	7,484.94	7,491.02	7,471.39	17.50	18.37	-70.24	227.35	202.74	24.60	9.240	0				
7,600.00	7,584.86	7,590.87	7,570.86	17.69	18.64	-69.64	232.18	207.28	24.90	9.326	0				
7,700.00	7,684.81	7,690.68	7,670.30	17.87	18.90	-68.88	237.34	212.16	25.18	9.426	0				
7,800.00	7,784.79	7,790.45	7,769.68	18.05	19.17	-67.96	242.88	217.42	25.45	9.542	0				
7,900.00	7,884.78	7,890.16	7,869.02	18.23	19.44	-66.90	248.82	223.10	25.72	9.674	0				
8,000.00	7,984.78	7,989.82	7,968.29	18.40	19.71	-110.71	255.20	229.22	25.98	9.824	0				
8,100.00	8,084.78	8,089.44	8,067.53	18.59	19.98	-109.47	261.88	235.63	26.25	9.978	0				
8,200.00	8,184.78	8,189.06	8,166.77	18.80	20.25	-108.29	268.67	242.14	26.53	10.128	0				
8,300.00	8,284.78	8,288.67	8,266.01	19.01	20.52	-107.17	275.58	248.76	26.81	10.278	0				
8,400.00	8,384.78	8,388.29	8,365.25	19.22	20.79	-106.10	282.58	255.48	27.10	10.429	0				
8,500.00	8,484.78	8,487.91	8,464.49	19.43	21.06	-105.09	289.68	262.29	27.38	10.579	0				
8,600.00	8,584.78	8,587.53	8,563.73	19.64	21.33	-104.12	296.86	269.19	27.67	10.728	0				
8,700.00	8,684.78	8,687.15	8,662.97	19.85	21.60	-103.20	304.12	276.16	27.96	10.877	0				
8,800.00	8,784.78	8,786.77	8,762.21	20.06	21.87	-102.32	311.46	283.21	28.25	11.025	0				
8,900.00	8,884.78	8,886.39	8,861.46	20.27	22.14	-101.49	318.87	290.32	28.54	11.171	0				
9,000.00	8,984.78	8,986.01	8,960.70	20.48	22.41	-100.69	326.34	297.50	28.84	11.317	0				
9,100.00	9,084.78	9,085.63	9,059.94	20.69	22.68	-99.93	333.87	304.74	29.13	11.461	0				
9,200.00	9,184.78	9,185.25	9,159.18	20.90	22.95	-99.20	341.46	312.03	29.43	11.604	0				
9,300.00	9,284.78	9,284.87	9,258.42	21.11	23.22	-98.50	349.10	319.37	29.72	11.745	0				
9,400.00	9,384.78	9,384.49	9,357.66	21.32	23.49	-97.83	356.79	326.77	30.02	11.885	0				
9,500.00	9,484.78	9,484.11	9,456.90	21.54	23.76	-97.19	364.52	334.20	30.32	12.023	0				
9,600.00	9,584.78	9,583.73	9,556.14	21.75	24.03	-96.58	372.30	341.68	30.62	12.159	0				
9,700.00	9,684.78	9,683.35	9,655.38	21.96	24.30	-95.99	380.12	349.20	30.92	12.294	0				
9,800.00	9,784.78	9,782.97	9,754.62	22.17	24.57	-95.43	387.98	356.76	31.22	12.427	0				
9,900.00	9,884.78	9,882.59	9,853.86	22.39	24.84	-94.89	395.88	364.35	31.52	12.558	0				
10,000.00	9,984.78	9,982.21	9,953.10	22.60	25.11	-94.37	403.80	371.98	31.83	12.687	0				
10,100.00	10,084.78	10,081.83	10,052.34	22.82	25.38	-93.87	411.76	379.63	32.13	12.815	0				
10,200.00	10,184.78	10,181.44	10,151.58	23.03	25.65	-93.39	419.75	387.32	32.44	12.941	0				
10,300.00	10,284.78	10,281.06	10,250.82	23.24	25.92	-92.92	427.77	395.03	32.74	13.065	0				
10,400.00	10,384.78	10,380.68	10,350.06	23.46	26.19	-92.48	435.82	402.77	33.05	13.188	0				
10,500.00	10,484.78	10,480.30	10,449.30	23.67	26.46	-92.05	443.89	410.53	33.35	13.308	0				
10,600.00	10,584.78	10,579.92	10,548.54	23.89	26.73	-91.63	451.98	418.32	33.66	13.427	0				

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
10,700.00	10,684.78	10,679.54	10,647.78	24.10	27.00	-91.23	460.10	426.13	33.97	13.545	0			
10,800.00	10,784.78	10,779.16	10,747.02	24.32	27.27	-90.85	468.24	433.96	34.28	13.660	0			
10,900.00	10,884.78	10,878.78	10,846.26	24.53	27.54	-90.48	476.40	441.81	34.59	13.774	0			
11,000.00	10,984.78	10,978.40	10,945.50	24.75	27.81	-90.12	484.57	449.68	34.90	13.886	0			
11,100.00	11,084.78	11,078.02	11,044.74	24.96	28.08	-89.77	492.77	457.56	35.21	13.997	0			
11,200.00	11,184.78	11,177.64	11,143.98	25.18	28.35	-89.43	500.98	465.47	35.52	14.106	0			
11,300.00	11,284.78	11,277.26	11,243.22	25.39	28.62	-89.10	509.22	473.39	35.83	14.213	0			
11,400.00	11,384.78	11,376.88	11,342.47	25.61	28.89	-88.79	517.46	481.32	36.14	14.319	0			
11,500.00	11,484.78	11,476.50	11,441.71	25.83	29.17	-88.48	525.72	489.27	36.45	14.423	0			
11,600.00	11,584.78	11,576.12	11,540.95	26.04	29.44	-88.19	534.00	497.24	36.76	14.526	0			
11,700.00	11,684.78	11,675.74	11,640.19	26.26	29.71	-87.90	542.29	505.22	37.07	14.627	0			
11,800.00	11,784.78	11,775.36	11,739.43	26.48	29.98	-87.62	550.59	513.21	37.39	14.727	0			
11,900.00	11,884.78	11,874.98	11,838.67	26.69	30.25	-87.35	558.91	521.21	37.70	14.825	0			
12,000.00	11,984.78	11,974.60	11,937.91	26.91	30.52	-87.09	567.24	529.22	38.01	14.922	0			
12,100.00	12,084.78	12,074.21	12,037.15	27.13	30.79	-86.83	575.58	537.25	38.33	15.018	0			
12,200.00	12,184.78	12,173.83	12,136.39	27.34	31.06	-86.58	583.93	545.29	38.64	15.112	0			
12,300.00	12,284.78	12,273.45	12,235.63	27.56	31.33	-86.34	592.29	553.33	38.95	15.205	0			
12,358.80	12,343.58	12,332.03	12,293.98	27.69	31.49	-86.21	597.21	558.07	39.14	15.259	0			
12,375.00	12,359.78	12,348.17	12,310.06	27.72	31.54	-86.02	598.55	559.35	39.19	15.272	0			
12,400.00	12,384.73	12,373.08	12,334.87	27.78	31.60	-85.87	600.54	561.26	39.28	15.290	0			
12,425.00	12,409.57	12,396.09	12,357.78	27.84	31.67	-85.80	602.46	563.10	39.36	15.306	0			
12,450.00	12,434.23	12,418.50	12,380.03	27.91	31.73	-85.75	604.40	564.95	39.45	15.322	0			
12,475.00	12,458.63	12,440.98	12,402.22	27.98	31.79	-85.70	606.35	566.81	39.54	15.335	0			
12,500.00	12,482.73	12,463.54	12,424.33	28.05	31.86	-85.66	608.30	568.66	39.64	15.347	0			
12,525.00	12,506.44	12,486.19	12,446.30	28.12	31.93	-85.64	610.25	570.51	39.74	15.357	0			
12,550.00	12,529.71	12,508.93	12,468.08	28.20	32.00	-85.62	612.20	572.35	39.84	15.365	0			
12,575.00	12,552.47	12,531.76	12,489.63	28.28	32.08	-85.62	614.14	574.18	39.96	15.370	0			
12,600.00	12,574.65	12,554.70	12,510.91	28.36	32.15	-85.62	616.07	575.99	40.08	15.372	0			
12,625.00	12,596.20	12,577.75	12,531.86	28.44	32.23	-85.64	617.98	577.78	40.20	15.371	0			
12,650.00	12,617.06	12,600.92	12,552.43	28.53	32.32	-85.67	619.88	579.54	40.34	15.367	0			
12,675.00	12,637.17	12,624.21	12,572.58	28.63	32.40	-85.71	621.75	581.27	40.48	15.360	0			
12,700.00	12,656.47	12,647.64	12,592.25	28.72	32.49	-85.75	623.59	582.97	40.63	15.349	0			
12,725.00	12,674.92	12,671.20	12,611.39	28.82	32.58	-85.81	625.40	584.62	40.78	15.335	0			
12,750.00	12,692.46	12,694.90	12,629.94	28.93	32.68	-85.88	627.18	586.23	40.95	15.316	0			
12,775.00	12,709.04	12,718.76	12,647.86	29.04	32.78	-85.96	628.92	587.80	41.12	15.294	0			
12,800.00	12,724.62	12,742.77	12,665.08	29.16	32.88	-86.06	630.61	589.31	41.30	15.268	0			
12,825.00	12,739.15	12,766.94	12,681.55	29.28	32.98	-86.16	632.26	590.76	41.49	15.238	0			
12,850.00	12,752.61	12,791.28	12,697.22	29.41	33.09	-86.27	633.85	592.16	41.69	15.203	0			
12,875.00	12,764.94	12,815.79	12,712.02	29.54	33.21	-86.39	635.39	593.49	41.90	15.165	0			
12,900.00	12,776.11	12,840.49	12,725.91	29.68	33.33	-86.52	636.87	594.76	42.11	15.123	0			
12,925.00	12,786.10	12,865.36	12,738.81	29.82	33.45	-86.66	638.29	595.96	42.34	15.077	0			
12,950.00	12,794.88	12,890.43	12,750.68	29.97	33.58	-86.81	639.64	597.08	42.57	15.027	0			
12,975.00	12,802.42	12,915.68	12,761.46	30.13	33.71	-86.97	640.92	598.12	42.80	14.974	0			
13,000.00	12,808.70	12,941.13	12,771.09	30.29	33.86	-87.13	642.13	599.08	43.05	14.917	0			
13,025.00	12,813.71	12,966.78	12,779.52	30.46	34.00	-87.31	643.25	599.96	43.29	14.858	0			
13,050.00	12,817.43	12,992.63	12,786.69	30.63	34.16	-87.49	644.30	600.75	43.55	14.795	0			
13,075.00	12,819.85	13,018.68	12,792.54	30.81	34.32	-87.68	645.25	601.45	43.81	14.729	0			
13,100.00	12,820.96	13,044.93	12,797.05	30.99	34.48	-87.88	646.12	602.05	44.07	14.662	0			
13,108.05	12,821.04	13,053.43	12,798.20	31.05	34.54	-87.94	646.38	602.23	44.15	14.639	0			
13,141.79	12,821.10	13,089.35	12,801.41	31.30	34.77	-88.22	647.40	602.89	44.52	14.543	0			
13,200.00	12,821.18	13,149.19	12,802.14	31.76	35.19	-88.28	648.94	603.77	45.17	14.367	0			
13,300.00	12,821.33	13,249.16	12,802.34	32.61	35.95	-88.30	651.54	605.14	46.40	14.042	0			
13,400.00	12,821.49	13,349.12	12,802.54	33.55	36.79	-88.31	654.14	606.41	47.73	13.705	0			
13,500.00	12,821.64	13,449.09	12,802.75	34.55	37.71	-88.32	656.74	607.58	49.16	13.360	0			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Dzurisin - Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft	
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning		
13,600.00	12,821.79	13,549.05	12,802.95	35.62	38.69	-88.33	659.34	608.66	50.68	13.010	0				
13,700.00	12,821.94	13,649.02	12,803.15	36.75	39.74	-88.34	661.94	609.66	52.29	12.660	0				
13,800.00	12,822.09	13,748.99	12,803.35	37.94	40.85	-88.35	664.54	610.58	53.97	12.314	0				
13,900.00	12,822.24	13,848.95	12,803.56	39.17	42.01	-88.36	667.14	611.43	55.72	11.973	0				
14,000.00	12,822.39	13,948.92	12,803.76	40.45	43.21	-88.37	669.74	612.21	57.53	11.641	0				
14,100.00	12,822.54	14,048.88	12,803.96	41.76	44.46	-88.38	672.34	612.94	59.40	11.318	0				
14,200.00	12,822.70	14,148.85	12,804.16	43.12	45.75	-88.39	674.94	613.62	61.33	11.006	0				
14,300.00	12,822.85	14,248.82	12,804.37	44.51	47.08	-88.40	677.55	614.25	63.30	10.704	0				
14,400.00	12,823.00	14,348.78	12,804.57	45.93	48.44	-88.42	680.15	614.84	65.31	10.414	0				
14,500.00	12,823.15	14,448.75	12,804.77	47.38	49.83	-88.43	682.75	615.38	67.36	10.136	0				
14,600.00	12,823.30	14,548.72	12,804.97	48.85	51.25	-88.44	685.35	615.90	69.45	9.868	0				
14,700.00	12,823.45	14,648.68	12,805.17	50.34	52.69	-88.45	687.95	616.38	71.57	9.612	0				
14,800.00	12,823.60	14,748.65	12,805.38	51.86	54.16	-88.46	690.55	616.83	73.72	9.367	0				
14,900.00	12,823.75	14,848.61	12,805.58	53.40	55.65	-88.47	693.15	617.25	75.90	9.133	0				
15,000.00	12,823.91	14,948.58	12,805.78	54.95	57.16	-88.48	695.75	617.65	78.10	8.909	0				
15,100.00	12,824.06	15,048.55	12,805.98	56.52	58.69	-88.49	698.35	618.02	80.32	8.694	0				
15,200.00	12,824.21	15,148.51	12,806.19	58.11	60.24	-88.50	700.95	618.38	82.57	8.489	0				
15,300.00	12,824.36	15,248.48	12,806.39	59.70	61.80	-88.51	703.55	618.71	84.83	8.293	0				
15,400.00	12,824.51	15,348.44	12,806.59	61.31	63.37	-88.52	706.15	619.03	87.12	8.106	0				
15,500.00	12,824.66	15,448.41	12,806.79	62.94	64.96	-88.52	708.75	619.33	89.42	7.926	0				
15,600.00	12,824.81	15,548.38	12,807.00	64.57	66.57	-88.53	711.35	619.62	91.73	7.755	0				
15,700.00	12,824.96	15,648.34	12,807.20	66.21	68.18	-88.54	713.95	619.89	94.06	7.590	0				
15,800.00	12,825.11	15,748.31	12,807.40	67.87	69.80	-88.55	716.55	620.15	96.40	7.433	0				
15,900.00	12,825.27	15,848.27	12,807.60	69.53	71.44	-88.56	719.15	620.39	98.76	7.282	0				
16,000.00	12,825.42	15,948.24	12,807.80	71.20	73.08	-88.57	721.75	620.63	101.12	7.137	0				
16,100.00	12,825.57	16,048.21	12,808.01	72.87	74.74	-88.58	724.35	620.85	103.50	6.999	0				
16,200.00	12,825.72	16,148.17	12,808.21	74.56	76.40	-88.59	726.95	621.07	105.89	6.865	0				
16,300.00	12,825.87	16,248.14	12,808.41	76.25	78.07	-88.60	729.56	621.27	108.28	6.738	0				
16,400.00	12,826.02	16,348.11	12,808.61	77.95	79.74	-88.61	732.16	621.47	110.68	6.615	0				
16,500.00	12,826.17	16,448.07	12,808.82	79.65	81.43	-88.62	734.76	621.66	113.10	6.497	0				
16,600.00	12,826.32	16,548.04	12,809.02	81.35	83.12	-88.63	737.36	621.84	115.52	6.383	0				
16,700.00	12,826.48	16,648.00	12,809.22	83.07	84.81	-88.63	739.96	622.02	117.94	6.274	0				
16,800.00	12,826.63	16,747.97	12,809.42	84.78	86.51	-88.64	742.56	622.18	120.37	6.169	0				
16,900.00	12,826.78	16,847.94	12,809.63	86.51	88.22	-88.65	745.16	622.35	122.81	6.067	0				
17,000.00	12,826.93	16,947.90	12,809.83	88.23	89.93	-88.66	747.76	622.50	125.26	5.970	0				
17,100.00	12,827.08	17,047.87	12,810.03	89.96	91.65	-88.67	750.36	622.65	127.71	5.876	0				
17,200.00	12,827.23	17,147.83	12,810.23	91.69	93.37	-88.68	752.96	622.80	130.17	5.785	0				
17,300.00	12,827.38	17,247.80	12,810.43	93.43	95.09	-88.69	755.56	622.94	132.63	5.697	0				
17,400.00	12,827.53	17,347.77	12,810.64	95.17	96.82	-88.69	758.16	623.07	135.09	5.612	0				
17,500.00	12,827.69	17,447.73	12,810.84	96.91	98.55	-88.70	760.76	623.20	137.56	5.530	0				
17,600.00	12,827.84	17,547.70	12,811.04	98.66	100.29	-88.71	763.37	623.33	140.04	5.451	0				
17,700.00	12,827.99	17,647.66	12,811.24	100.41	102.03	-88.72	765.97	623.45	142.51	5.375	0				
17,800.00	12,828.14	17,747.63	12,811.45	102.16	103.77	-88.73	768.57	623.57	145.00	5.301	0				
17,900.00	12,828.29	17,847.60	12,811.65	103.91	105.52	-88.74	771.17	623.69	147.48	5.229	0				
18,000.00	12,828.44	17,947.56	12,811.85	105.67	107.27	-88.74	773.77	623.80	149.97	5.159	0				
18,100.00	12,828.59	18,047.53	12,812.05	107.43	109.02	-88.75	776.37	623.91	152.46	5.092	0				
18,200.00	12,828.74	18,147.50	12,812.26	109.19	110.77	-88.76	778.97	624.01	154.96	5.027	0				
18,300.00	12,828.89	18,247.46	12,812.46	110.95	112.53	-88.77	781.57	624.12	157.46	4.964	0				
18,400.00	12,829.05	18,347.43	12,812.66	112.72	114.29	-88.78	784.17	624.22	159.96	4.902	0				
18,500.00	12,829.20	18,447.39	12,812.86	114.49	116.05	-88.78	786.77	624.31	162.46	4.843	0				
18,600.00	12,829.35	18,547.36	12,813.06	116.25	117.81	-88.79	789.38	624.41	164.97	4.785	0				
18,700.00	12,829.50	18,647.33	12,813.27	118.02	119.58	-88.80	791.98	624.50	167.47	4.729	0				
18,800.00	12,829.65	18,747.29	12,813.47	119.80	121.34	-88.81	794.58	624.59	169.99	4.674	0				
18,900.00	12,829.80	18,847.26	12,813.67	121.57	123.11	-88.81	797.18	624.68	172.50	4.621	0				

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Dzurisin - Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft	
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning		
19,000.00	12,829.95	18,947.22	12,813.87	123.34	124.89	-88.82	799.78	624.77	175.01	4.570	0				
19,100.00	12,830.10	19,047.19	12,814.08	125.12	126.66	-88.83	802.38	624.85	177.53	4.520	0				
19,200.00	12,830.26	19,147.16	12,814.28	126.90	128.43	-88.84	804.98	624.93	180.05	4.471	0				
19,300.00	12,830.41	19,247.12	12,814.48	128.68	130.21	-88.84	807.58	625.01	182.57	4.423	0				
19,400.00	12,830.56	19,347.09	12,814.68	130.46	131.99	-88.85	810.18	625.09	185.09	4.377	0				
19,500.00	12,830.71	19,447.05	12,814.89	132.24	133.77	-88.86	812.79	625.17	187.62	4.332	0				
19,600.00	12,830.86	19,547.02	12,815.09	134.02	135.55	-88.87	815.39	625.24	190.14	4.288	0				
19,700.00	12,831.01	19,646.99	12,815.29	135.81	137.33	-88.87	817.99	625.32	192.67	4.245	0				
19,800.00	12,831.16	19,746.95	12,815.49	137.59	139.11	-88.88	820.59	625.39	195.20	4.204	0				
19,900.00	12,831.31	19,846.92	12,815.70	139.38	140.90	-88.89	823.19	625.46	197.73	4.163	0				
20,000.00	12,831.46	19,946.89	12,815.90	141.16	142.69	-88.89	825.79	625.53	200.27	4.123	0				
20,100.00	12,831.62	20,046.85	12,816.10	142.95	144.47	-88.90	828.39	625.59	202.80	4.085	0				
20,200.00	12,831.77	20,146.82	12,816.30	144.74	146.26	-88.91	830.99	625.66	205.33	4.047	0				
20,300.00	12,831.92	20,246.78	12,816.50	146.53	148.05	-88.91	833.60	625.73	207.87	4.010	0				
20,400.00	12,832.07	20,346.75	12,816.71	148.32	149.84	-88.92	836.20	625.79	210.41	3.974	0				
20,500.00	12,832.22	20,446.72	12,816.91	150.11	151.63	-88.93	838.80	625.85	212.95	3.939	0				
20,600.00	12,832.37	20,546.68	12,817.11	151.90	153.43	-88.94	841.40	625.91	215.49	3.905	0				
20,700.00	12,832.52	20,646.65	12,817.31	153.70	155.22	-88.94	844.00	625.97	218.03	3.871	0				
20,800.00	12,832.67	20,746.61	12,817.52	155.49	157.01	-88.95	846.60	626.03	220.57	3.838	0				
20,900.00	12,832.83	20,846.58	12,817.72	157.29	158.81	-88.96	849.20	626.09	223.11	3.806	0				
21,000.00	12,832.98	20,946.55	12,817.92	159.08	160.61	-88.96	851.81	626.15	225.66	3.775	0				
21,100.00	12,833.13	21,046.51	12,818.12	160.88	162.40	-88.97	854.41	626.21	228.20	3.744	0				
21,200.00	12,833.28	21,146.48	12,818.33	162.67	164.20	-88.98	857.01	626.26	230.75	3.714	0				
21,300.00	12,833.43	21,246.44	12,818.53	164.47	166.00	-88.98	859.61	626.32	233.29	3.685	0				
21,400.00	12,833.58	21,346.41	12,818.73	166.27	167.80	-88.99	862.21	626.37	235.84	3.656	0				
21,500.00	12,833.73	21,446.38	12,818.93	168.07	169.60	-88.99	864.81	626.42	238.39	3.628	0				
21,600.00	12,833.88	21,546.34	12,819.13	169.86	171.40	-89.00	867.41	626.48	240.94	3.600	0				
21,700.00	12,834.04	21,646.31	12,819.34	171.66	173.20	-89.01	870.02	626.53	243.49	3.573	0				
21,800.00	12,834.19	21,746.28	12,819.54	173.46	175.00	-89.01	872.62	626.58	246.04	3.547	0				
21,900.00	12,834.34	21,846.24	12,819.74	175.26	176.81	-89.02	875.22	626.63	248.59	3.521	0				
22,000.00	12,834.49	21,946.21	12,819.94	177.07	178.61	-89.03	877.82	626.68	251.14	3.495	0				
22,100.00	12,834.64	22,046.17	12,820.15	178.87	180.41	-89.03	880.42	626.73	253.69	3.470	0				
22,200.00	12,834.79	22,146.14	12,820.35	180.67	182.22	-89.04	883.02	626.77	256.25	3.446	0				
22,300.00	12,834.94	22,246.11	12,820.55	182.47	184.02	-89.04	885.62	626.82	258.80	3.422	0				
22,400.00	12,835.09	22,346.07	12,820.75	184.27	185.83	-89.05	888.23	626.87	261.36	3.399	0				
22,500.00	12,835.24	22,446.04	12,820.96	186.08	187.63	-89.06	890.83	626.92	263.91	3.375	0				
22,600.00	12,835.40	22,546.00	12,821.16	187.88	189.44	-89.06	893.43	626.96	266.47	3.353	0				
22,700.00	12,835.55	22,645.97	12,821.36	189.68	191.25	-89.07	896.03	627.01	269.02	3.331	0				
22,800.00	12,835.70	22,745.94	12,821.56	191.49	193.06	-89.08	898.63	627.05	271.58	3.309	0				
22,900.00	12,835.85	22,845.90	12,821.76	193.29	194.86	-89.08	901.23	627.09	274.14	3.287	0				
22,965.36	12,835.95	22,911.24	12,821.90	194.47	196.05	-89.08	902.93	627.12	275.81	3.274	0				
22,999.10	12,836.00	22,944.98	12,821.97	195.02	196.61	-89.09	903.81	627.21	276.60	3.268	0	SF			

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance						Risked Separation Factor	Probability of Collision	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.00	0.00	0.00	0.00	0.00	0.00	89.48	29.95					0		
100.00	100.00	99.90	99.90	0.09	0.09	89.48	29.95	29.83	0.12	246.465		0		
200.00	200.00	199.90	199.90	0.31	0.31	89.48	29.95	29.51	0.44	68.181		0		
300.00	300.00	299.90	299.90	0.54	0.54	89.48	29.95	29.19	0.76	39.557		0		
400.00	400.00	399.90	399.90	0.76	0.76	89.48	29.95	28.88	1.08	27.861		0		
500.00	500.00	499.90	499.90	0.99	0.98	89.48	29.95	28.56	1.39	21.503		0		
600.00	600.00	599.90	599.90	1.21	1.21	89.48	29.95	28.24	1.71	17.508		0		
700.00	700.00	699.90	699.90	1.43	1.43	89.48	29.95	27.92	2.03	14.764		0		
800.00	800.00	799.90	799.90	1.66	1.66	89.48	29.95	27.60	2.35	12.764		0		
900.00	900.00	899.90	899.90	1.88	1.88	89.48	29.95	27.29	2.66	11.241		0		
1,000.00	1,000.00	999.90	999.90	2.11	2.11	89.48	29.95	26.97	2.98	10.043		0		
1,100.00	1,100.00	1,099.90	1,099.90	2.33	2.33	89.48	29.95	26.65	3.30	9.076		0		
1,200.00	1,200.00	1,199.90	1,199.90	2.56	2.56	89.48	29.95	26.33	3.62	8.278		0		
1,300.00	1,300.00	1,299.90	1,299.90	2.78	2.78	89.48	29.95	26.02	3.94	7.610		0		
1,400.00	1,400.00	1,399.90	1,399.90	3.01	3.01	89.48	29.95	25.70	4.25	7.041		0		
1,500.00	1,500.00	1,499.90	1,499.90	3.23	3.23	89.48	29.95	25.38	4.57	6.552		0		
1,600.00	1,600.00	1,599.90	1,599.90	3.46	3.46	89.48	29.95	25.06	4.89	6.126		0		
1,700.00	1,700.00	1,699.90	1,699.90	3.68	3.68	89.48	29.95	24.74	5.21	5.752		0		
1,800.00	1,800.00	1,799.90	1,799.90	3.91	3.91	89.48	29.95	24.43	5.53	5.421		0		
1,900.00	1,900.00	1,899.90	1,899.90	4.13	4.13	89.48	29.95	24.11	5.84	5.126		0		
2,000.00	2,000.00	1,999.90	1,999.90	4.36	4.36	89.48	29.95	23.79	6.16	4.862		0	CC, ES	
2,100.00	2,100.00	2,099.41	2,099.40	4.58	4.57	88.87	30.75	24.28	6.47	4.752		0		
2,200.00	2,200.00	2,198.86	2,198.82	4.81	4.78	87.20	33.18	26.41	6.77	4.898		0		
2,300.00	2,300.00	2,298.19	2,298.05	5.03	4.99	84.91	37.28	30.21	7.08	5.269		0		
2,400.00	2,400.00	2,397.34	2,397.02	5.26	5.21	82.45	43.10	35.72	7.38	5.842		0		
2,500.00	2,500.00	2,496.25	2,495.63	5.48	5.42	80.12	50.65	42.97	7.68	6.598		0		
2,600.00	2,600.00	2,595.84	2,594.84	5.71	5.65	78.20	59.17	51.19	7.99	7.410		0		
2,700.00	2,700.00	2,695.46	2,694.08	5.93	5.88	76.77	67.74	59.45	8.30	8.166		0		
2,800.00	2,800.00	2,795.08	2,793.32	6.15	6.11	75.66	76.35	67.74	8.61	8.871		0		
2,900.00	2,900.00	2,894.70	2,892.56	6.38	6.35	74.78	84.97	76.06	8.92	9.528		0		
3,000.00	3,000.00	2,894.32	2,891.80	6.60	6.59	74.05	93.62	84.39	9.23	10.142		0		
3,100.00	3,099.99	3,093.90	3,091.01	6.82	6.83	118.80	102.69	93.15	9.54	10.763		0		
3,200.00	3,199.96	3,193.40	3,190.13	7.04	7.07	119.36	112.61	102.76	9.85	11.433		0		
3,300.00	3,299.86	3,292.78	3,289.13	7.26	7.31	120.51	123.41	113.25	10.16	12.148		0		
3,400.00	3,399.68	3,392.02	3,387.99	7.48	7.56	122.08	135.18	124.71	10.47	12.912		0		
3,500.00	3,499.37	3,491.07	3,486.67	7.71	7.81	123.95	148.00	137.22	10.78	13.727		0		
3,600.00	3,598.99	3,590.03	3,585.24	7.93	8.06	125.86	161.48	150.38	11.10	14.552		0		
3,700.00	3,698.60	3,688.98	3,683.82	8.16	8.31	127.47	175.10	163.69	11.41	15.343		0		
3,800.00	3,798.22	3,787.94	3,782.40	8.39	8.56	128.85	188.84	177.11	11.73	16.099		0		
3,900.00	3,897.84	3,886.89	3,880.98	8.63	8.81	130.05	202.68	190.63	12.05	16.820		0		
4,000.00	3,997.46	3,985.85	3,979.56	8.87	9.06	131.09	216.59	204.22	12.37	17.508		0		
4,100.00	4,097.08	4,084.81	4,078.14	9.10	9.32	132.00	230.56	217.87	12.69	18.164		0		
4,200.00	4,196.70	4,183.76	4,176.72	9.34	9.57	132.81	244.59	231.57	13.02	18.791		0		
4,300.00	4,296.32	4,282.72	4,275.30	9.59	9.83	133.53	258.65	245.31	13.34	19.388		0		
4,400.00	4,395.94	4,381.67	4,373.88	9.83	10.08	134.18	272.76	259.09	13.67	19.959		0		
4,500.00	4,495.56	4,480.63	4,472.46	10.08	10.34	134.77	286.89	272.90	13.99	20.503		0		
4,600.00	4,595.18	4,579.59	4,571.04	10.32	10.60	135.30	301.05	286.73	14.32	21.024		0		
4,700.00	4,694.80	4,678.54	4,669.62	10.57	10.86	135.78	315.23	300.59	14.65	21.522		0		
4,800.00	4,794.42	4,777.50	4,768.20	10.82	11.12	136.22	329.44	314.46	14.98	21.998		0		
4,900.00	4,894.04	4,876.45	4,866.78	11.07	11.37	136.62	343.66	328.35	15.30	22.454		0		
5,000.00	4,993.66	4,975.41	4,965.35	11.32	11.63	136.99	357.89	342.26	15.63	22.891		0		
5,100.00	5,093.28	5,074.36	5,063.93	11.57	11.89	137.34	372.14	356.18	15.96	23.310		0		
5,200.00	5,192.90	5,173.32	5,162.51	11.82	12.16	137.66	386.40	370.11	16.30	23.712		0		
5,300.00	5,292.52	5,272.28	5,261.09	12.08	12.42	137.95	400.68	384.05	16.63	24.098		0		

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Dzurisin - Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft	
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (")	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning		
5,400.00	5,392.14	5,371.23	5,359.67	12.33	12.68	138.23	414.96	398.00	16.96	24.468	0				
5,500.00	5,491.76	5,470.19	5,458.25	12.59	12.94	138.48	429.25	411.96	17.29	24.824	0				
5,600.00	5,591.37	5,569.14	5,556.83	12.84	13.20	138.72	443.55	425.93	17.62	25.167	0				
5,700.00	5,690.99	5,668.10	5,655.41	13.10	13.46	138.95	457.86	439.90	17.96	25.497	0				
5,800.00	5,790.61	5,767.06	5,753.99	13.36	13.73	139.16	472.17	453.88	18.29	25.814	0				
5,900.00	5,890.23	5,866.01	5,852.57	13.62	13.99	139.36	486.49	467.86	18.62	26.120	0				
6,000.00	5,989.85	5,964.97	5,951.15	13.87	14.25	139.55	500.81	481.85	18.96	26.415	0				
6,100.00	6,089.47	6,063.92	6,049.73	14.13	14.52	139.72	515.14	495.85	19.29	26.700	0				
6,200.00	6,189.09	6,162.88	6,148.31	14.39	14.78	139.89	529.47	509.85	19.63	26.975	0				
6,300.00	6,288.71	6,261.83	6,246.89	14.65	15.04	140.05	543.81	523.85	19.96	27.240	0				
6,400.00	6,388.33	6,360.79	6,345.46	14.91	15.31	140.20	558.15	537.85	20.30	27.496	0				
6,500.00	6,487.95	6,459.75	6,444.04	15.17	15.57	140.34	572.50	551.86	20.63	27.744	0				
6,600.00	6,587.57	6,558.70	6,542.62	15.43	15.84	140.48	586.85	565.88	20.97	27.984	0				
6,700.00	6,687.19	6,657.66	6,641.20	15.70	16.10	140.61	601.20	579.89	21.31	28.216	0				
6,800.00	6,786.81	6,756.61	6,739.78	15.96	16.37	140.73	615.55	593.91	21.64	28.440	0				
6,900.00	6,886.43	6,855.57	6,838.36	16.22	16.63	140.85	629.91	607.93	21.98	28.658	0				
7,000.00	6,986.05	6,954.53	6,936.94	16.48	16.90	140.97	644.27	621.95	22.32	28.869	0				
7,100.00	7,085.70	7,053.53	7,035.57	16.72	17.16	141.09	658.30	635.66	22.64	29.081	0				
7,200.00	7,185.43	7,152.64	7,134.30	16.92	17.43	141.17	671.65	648.71	22.94	29.280	0				
7,300.00	7,285.21	7,251.83	7,233.11	17.11	17.69	141.19	684.33	661.09	23.24	29.466	0				
7,400.00	7,385.05	7,351.10	7,332.01	17.31	17.96	141.17	696.34	672.80	23.54	29.581	0				
7,500.00	7,484.94	7,450.45	7,430.98	17.50	18.23	141.11	707.67	683.83	23.84	29.685	0				
7,600.00	7,584.86	7,549.86	7,530.01	17.69	18.49	141.00	718.33	694.19	24.14	29.760	0				
7,700.00	7,684.81	7,649.34	7,629.11	17.87	18.76	140.85	728.32	703.89	24.43	29.807	0				
7,800.00	7,784.79	7,748.86	7,728.25	18.05	19.03	140.66	737.65	712.92	24.73	29.828	0				
7,900.00	7,884.78	7,848.43	7,827.44	18.23	19.30	140.43	746.32	721.29	25.02	29.823	0				
8,000.00	7,984.78	7,948.03	7,926.67	18.40	19.57	95.16	754.33	729.01	25.32	29.795	0				
8,100.00	8,084.78	8,047.65	8,025.91	18.59	19.83	94.85	762.03	736.41	25.62	29.741	0				
8,200.00	8,184.78	8,147.27	8,125.15	18.80	20.10	94.55	769.76	743.82	25.94	29.675	0				
8,300.00	8,284.78	8,246.89	8,224.39	19.01	20.37	94.25	777.50	751.24	26.26	29.611	0				
8,400.00	8,384.78	8,346.51	8,323.63	19.22	20.64	93.96	785.26	758.69	26.57	29.549	0				
8,500.00	8,484.78	8,446.13	8,422.87	19.43	20.91	93.67	793.05	766.16	26.89	29.490	0				
8,600.00	8,584.78	8,545.75	8,522.11	19.64	21.18	93.39	800.85	773.64	27.21	29.432	0				
8,700.00	8,684.78	8,645.37	8,621.35	19.85	21.44	93.12	808.67	781.15	27.53	29.377	0				
8,800.00	8,784.78	8,744.99	8,720.59	20.06	21.71	92.85	816.51	788.67	27.85	29.323	0				
8,900.00	8,884.78	8,844.61	8,819.83	20.27	21.98	92.59	824.37	796.21	28.16	29.271	0				
9,000.00	8,984.78	8,944.23	8,919.07	20.48	22.25	92.33	832.25	803.77	28.48	29.221	0				
9,100.00	9,084.78	9,043.85	9,018.31	20.69	22.52	92.07	840.14	811.34	28.80	29.173	0				
9,200.00	9,184.78	9,143.47	9,117.55	20.90	22.79	91.82	848.05	818.93	29.12	29.126	0				
9,300.00	9,284.78	9,243.09	9,216.79	21.11	23.06	91.58	855.97	826.54	29.43	29.081	0				
9,400.00	9,384.78	9,342.70	9,316.03	21.32	23.33	91.34	863.91	834.16	29.75	29.037	0				
9,500.00	9,484.78	9,445.49	9,418.43	21.54	23.59	91.10	871.79	841.71	30.07	28.990	0				
9,600.00	9,584.78	9,552.66	9,525.27	21.75	23.83	90.87	878.96	848.58	30.38	28.929	0				
9,700.00	9,684.78	9,659.98	9,632.34	21.96	24.05	90.68	885.30	854.62	30.68	28.852	0				
9,800.00	9,784.78	9,767.44	9,739.60	22.17	24.26	90.51	890.79	859.80	30.98	28.752	0				
9,900.00	9,884.78	9,875.01	9,847.03	22.39	24.46	90.37	895.42	864.14	31.28	28.628	0				
10,000.00	9,984.78	9,982.66	9,954.60	22.60	24.66	90.26	899.20	867.62	31.57	28.481	0				
10,100.00	10,084.78	10,090.40	10,062.27	22.82	24.86	90.18	902.11	870.25	31.86	28.311	0				
10,200.00	10,184.78	10,198.18	10,170.03	23.03	25.04	90.12	904.16	872.01	32.15	28.120	0				
10,300.00	10,284.78	10,306.01	10,277.85	23.24	25.22	90.08	905.35	872.91	32.44	27.907	0				
10,400.00	10,384.78	10,412.84	10,384.68	23.46	25.40	90.07	905.68	872.95	32.73	27.672	0				
10,500.00	10,484.78	10,512.84	10,484.68	23.67	25.58	90.07	905.68	872.66	33.02	27.427	0				
10,600.00	10,584.78	10,612.84	10,584.68	23.89	25.78	90.07	905.68	872.36	33.32	27.180	0				
10,700.00	10,684.78	10,712.84	10,684.68	24.10	25.97	90.07	905.68	872.06	33.62	26.937	0				

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Dzurisin - Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1		Offset Site Error:	0.00 ft
Survey Program: 0-MWD															Offset Well Error:	0.00 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 (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning			
10,800.00	10,784.78	10,812.84	10,784.68	24.32	26.16	90.07	905.68	871.76	33.92	26.698	0					
10,900.00	10,884.78	10,912.84	10,884.68	24.53	26.36	90.07	905.68	871.45	34.22	26.463	0					
11,000.00	10,984.78	11,012.84	10,984.68	24.75	26.55	90.07	905.68	871.15	34.52	26.233	0					
11,100.00	11,084.78	11,112.84	11,084.68	24.96	26.74	90.07	905.68	870.85	34.83	26.005	0					
11,200.00	11,184.78	11,212.84	11,184.68	25.18	26.94	90.07	905.68	870.55	35.13	25.782	0					
11,300.00	11,284.78	11,312.84	11,284.68	25.39	27.14	90.07	905.68	870.25	35.43	25.562	0					
11,400.00	11,384.78	11,412.84	11,384.68	25.61	27.33	90.07	905.68	869.95	35.73	25.346	0					
11,500.00	11,484.78	11,512.84	11,484.68	25.83	27.53	90.07	905.68	869.64	36.04	25.133	0					
11,600.00	11,584.78	11,612.84	11,584.68	26.04	27.72	90.07	905.68	869.34	36.34	24.923	0					
11,700.00	11,684.78	11,712.84	11,684.68	26.26	27.92	90.07	905.68	869.04	36.64	24.717	0					
11,800.00	11,784.78	11,812.84	11,784.68	26.48	28.12	90.07	905.68	868.73	36.95	24.514	0					
11,900.00	11,884.78	11,912.84	11,884.68	26.69	28.32	90.07	905.68	868.43	37.25	24.314	0					
12,000.00	11,984.78	12,012.84	11,984.68	26.91	28.52	90.07	905.68	868.13	37.55	24.118	0					
12,100.00	12,084.78	12,112.84	12,084.68	27.13	28.72	90.07	905.68	867.82	37.86	23.924	0					
12,200.00	12,184.78	12,212.84	12,184.68	27.34	28.92	90.07	905.68	867.52	38.16	23.733	0					
12,300.00	12,284.78	12,312.84	12,284.68	27.56	29.12	90.07	905.68	867.21	38.47	23.545	0					
12,358.80	12,343.58	12,371.64	12,343.48	27.69	29.23	90.07	905.68	867.03	38.64	23.436	0					
12,375.00	12,359.78	12,387.84	12,359.68	27.72	29.27	90.10	905.68	866.98	38.69	23.406	0					
12,400.00	12,384.73	12,412.94	12,384.77	27.78	29.32	90.15	905.68	866.90	38.78	23.357	0					
12,425.00	12,409.57	12,438.08	12,409.82	27.84	29.37	90.20	905.68	866.82	38.86	23.305	0					
12,450.00	12,434.23	12,463.26	12,434.78	27.91	29.43	90.25	905.68	866.73	38.95	23.252	0					
12,475.00	12,458.63	12,488.49	12,459.56	27.98	29.49	90.30	905.69	866.64	39.05	23.196	0					
12,500.00	12,482.73	12,513.75	12,484.10	28.05	29.56	90.34	905.69	866.55	39.14	23.137	0					
12,525.00	12,506.44	12,538.06	12,508.33	28.12	29.62	90.39	905.69	866.45	39.25	23.076	0					
12,550.00	12,529.71	12,564.40	12,532.17	28.20	29.69	90.44	905.70	866.34	39.36	23.012	0					
12,575.00	12,552.47	12,589.78	12,555.56	28.28	29.77	90.48	905.70	866.23	39.47	22.946	0					
12,600.00	12,574.65	12,615.21	12,578.42	28.36	29.84	90.52	905.71	866.12	39.59	22.878	0					
12,625.00	12,596.20	12,640.66	12,600.70	28.44	29.92	90.56	905.71	866.00	39.71	22.806	0					
12,650.00	12,617.06	12,666.16	12,622.31	28.53	30.00	90.60	905.71	865.87	39.84	22.732	0					
12,675.00	12,637.17	12,691.68	12,643.20	28.63	30.08	90.64	905.72	865.74	39.98	22.655	0					
12,700.00	12,656.47	12,717.24	12,663.31	28.72	30.17	90.68	905.72	865.60	40.12	22.574	0					
12,725.00	12,674.92	12,742.83	12,682.56	28.82	30.26	90.71	905.72	865.45	40.27	22.491	0					
12,750.00	12,692.46	12,768.45	12,700.90	28.93	30.35	90.75	905.73	865.30	40.43	22.404	0					
12,775.00	12,709.04	12,794.10	12,718.28	29.04	30.45	90.78	905.73	865.14	40.59	22.313	0					
12,800.00	12,724.62	12,819.78	12,734.63	29.16	30.56	90.81	905.73	864.97	40.76	22.219	0					
12,825.00	12,739.15	12,845.48	12,749.91	29.28	30.66	90.83	905.74	864.79	40.94	22.122	0					
12,850.00	12,752.61	12,871.20	12,764.07	29.41	30.78	90.86	905.74	864.61	41.13	22.021	0					
12,875.00	12,764.94	12,896.94	12,777.06	29.54	30.90	90.88	905.74	864.41	41.33	21.916	0					
12,900.00	12,776.11	12,922.70	12,788.84	29.68	31.02	90.90	905.74	864.21	41.53	21.809	0					
12,925.00	12,786.10	12,948.47	12,799.38	29.82	31.15	90.91	905.74	864.00	41.74	21.698	0					
12,950.00	12,794.88	12,974.26	12,808.64	29.97	31.29	90.93	905.74	863.77	41.96	21.584	0					
12,975.00	12,802.42	13,000.06	12,816.59	30.13	31.44	90.94	905.74	863.54	42.19	21.467	0					
13,000.00	12,808.70	13,025.86	12,823.20	30.29	31.59	90.95	905.73	863.31	42.43	21.347	0					
13,025.00	12,813.71	13,051.68	12,828.46	30.46	31.75	90.95	905.73	863.06	42.67	21.226	0					
13,050.00	12,817.43	13,077.49	12,832.34	30.63	31.91	90.96	905.73	862.81	42.92	21.102	0					
13,075.00	12,819.85	13,103.31	12,834.84	30.81	32.08	90.96	905.72	862.55	43.18	20.977	0					
13,100.00	12,820.96	13,129.13	12,835.95	30.99	32.25	90.95	905.72	862.28	43.44	20.850	0					
13,108.05	12,821.04	13,137.40	12,836.01	31.05	32.31	90.95	905.72	862.19	43.52	20.810	0					
13,141.79	12,821.10	13,171.14	12,836.04	31.30	32.55	90.95	905.71	861.82	43.89	20.638	0					
13,200.00	12,821.18	13,229.35	12,836.10	31.76	32.99	90.95	905.70	861.15	44.55	20.331	0					
13,300.00	12,821.33	13,329.35	12,836.20	32.61	33.81	90.95	905.68	859.91	45.77	19.788	0					
13,400.00	12,821.49	13,429.35	12,836.30	33.55	34.71	90.94	905.66	858.56	47.10	19.229	0					
13,500.00	12,821.64	13,529.35	12,836.40	34.55	35.68	90.94	905.64	857.11	48.53	18.661	0					
13,600.00	12,821.79	13,629.35	12,836.50	35.62	36.72	90.94	905.62	855.57	50.05	18.093	0					

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Dzurisin - Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft	
Survey Program: 0-MWD															
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning		
13,700.00	12,821.94	13,729.35	12,836.61	36.75	37.81	90.93	905.61	853.94	51.66	17.529	0				
13,800.00	12,822.09	13,829.35	12,836.71	37.94	38.96	90.93	905.59	852.24	53.35	16.976	0				
13,900.00	12,822.24	13,929.35	12,836.81	39.17	40.17	90.93	905.57	850.47	55.10	16.435	0				
14,000.00	12,822.39	14,029.35	12,836.91	40.45	41.42	90.92	905.55	848.63	56.92	15.910	0				
14,100.00	12,822.54	14,129.35	12,837.01	41.76	42.71	90.92	905.53	846.74	58.79	15.403	0				
14,200.00	12,822.70	14,229.35	12,837.11	43.12	44.03	90.92	905.51	844.80	60.72	14.914	0				
14,300.00	12,822.85	14,329.35	12,837.21	44.51	45.40	90.92	905.49	842.81	62.69	14.444	0				
14,400.00	12,823.00	14,429.35	12,837.31	45.93	46.79	90.91	905.48	840.77	64.70	13.994	0				
14,500.00	12,823.15	14,529.35	12,837.41	47.38	48.21	90.91	905.46	838.70	66.76	13.563	0				
14,600.00	12,823.30	14,629.35	12,837.51	48.85	49.66	90.91	905.44	836.59	68.85	13.151	0				
14,700.00	12,823.45	14,729.35	12,837.61	50.34	51.14	90.90	905.42	834.45	70.97	12.758	0				
14,800.00	12,823.60	14,829.35	12,837.72	51.86	52.63	90.90	905.40	832.28	73.12	12.382	0				
14,900.00	12,823.75	14,929.35	12,837.82	53.40	54.15	90.90	905.38	830.08	75.30	12.024	0				
15,000.00	12,823.91	15,029.35	12,837.92	54.95	55.68	90.89	905.36	827.86	77.50	11.682	0				
15,100.00	12,824.06	15,129.35	12,838.02	56.52	57.23	90.89	905.34	825.62	79.73	11.355	0				
15,200.00	12,824.21	15,229.35	12,838.12	58.11	58.80	90.89	905.33	823.35	81.98	11.044	0				
15,300.00	12,824.36	15,329.35	12,838.22	59.70	60.38	90.88	905.31	821.07	84.24	10.746	0				
15,400.00	12,824.51	15,429.35	12,838.32	61.31	61.98	90.88	905.29	818.76	86.53	10.463	0				
15,500.00	12,824.66	15,529.35	12,838.42	62.94	63.58	90.88	905.27	816.44	88.83	10.192	0				
15,600.00	12,824.81	15,629.35	12,838.52	64.57	65.20	90.87	905.25	814.11	91.14	9.932	0				
15,700.00	12,824.96	15,729.35	12,838.62	66.21	66.83	90.87	905.23	811.76	93.47	9.685	0				
15,800.00	12,825.11	15,829.35	12,838.73	67.87	68.47	90.87	905.21	809.40	95.81	9.448	0				
15,900.00	12,825.27	15,929.35	12,838.83	69.53	70.12	90.86	905.20	807.03	98.16	9.221	0				
16,000.00	12,825.42	16,029.35	12,838.93	71.20	71.77	90.86	905.18	804.65	100.53	9.004	0				
16,100.00	12,825.57	16,129.35	12,839.03	72.87	73.44	90.86	905.16	802.25	102.90	8.796	0				
16,200.00	12,825.72	16,229.35	12,839.13	74.56	75.11	90.86	905.14	799.85	105.29	8.597	0				
16,300.00	12,825.87	16,329.35	12,839.23	76.25	76.79	90.85	905.12	797.44	107.68	8.405	0				
16,400.00	12,826.02	16,429.35	12,839.33	77.95	78.48	90.85	905.10	795.02	110.09	8.222	0				
16,500.00	12,826.17	16,529.35	12,839.43	79.65	80.17	90.85	905.08	792.59	112.50	8.046	0				
16,600.00	12,826.32	16,629.35	12,839.53	81.35	81.87	90.84	905.07	790.15	114.91	7.876	0				
16,700.00	12,826.48	16,729.35	12,839.63	83.07	83.57	90.84	905.05	787.71	117.34	7.713	0				
16,800.00	12,826.63	16,829.35	12,839.73	84.78	85.28	90.84	905.03	785.26	119.77	7.556	0				
16,900.00	12,826.78	16,929.35	12,839.84	86.51	86.99	90.83	905.01	782.80	122.21	7.406	0				
17,000.00	12,826.93	17,029.35	12,839.94	88.23	88.71	90.83	904.99	780.34	124.65	7.260	0				
17,100.00	12,827.08	17,129.35	12,840.04	89.96	90.43	90.83	904.97	777.88	127.10	7.120	0				
17,200.00	12,827.23	17,229.35	12,840.14	91.69	92.15	90.82	904.95	775.40	129.55	6.985	0				
17,300.00	12,827.38	17,329.35	12,840.24	93.43	93.88	90.82	904.94	772.93	132.01	6.855	0				
17,400.00	12,827.53	17,429.35	12,840.34	95.17	95.61	90.82	904.92	770.44	134.47	6.729	0				
17,500.00	12,827.69	17,529.35	12,840.44	96.91	97.35	90.81	904.90	767.96	136.94	6.608	0				
17,600.00	12,827.84	17,629.35	12,840.54	98.66	99.09	90.81	904.88	765.47	139.41	6.491	0				
17,700.00	12,827.99	17,729.35	12,840.64	100.41	100.83	90.81	904.86	762.97	141.89	6.377	0				
17,800.00	12,828.14	17,829.35	12,840.74	102.16	102.58	90.80	904.84	760.48	144.37	6.268	0				
17,900.00	12,828.29	17,929.35	12,840.85	103.91	104.33	90.80	904.82	757.98	146.85	6.162	0				
18,000.00	12,828.44	18,029.35	12,840.95	105.67	106.08	90.80	904.81	755.47	149.33	6.059	0				
18,100.00	12,828.59	18,129.35	12,841.05	107.43	107.83	90.80	904.79	752.96	151.82	5.960	0				
18,200.00	12,828.74	18,229.35	12,841.15	109.19	109.58	90.79	904.77	750.45	154.31	5.863	0				
18,300.00	12,828.89	18,329.35	12,841.25	110.95	111.34	90.79	904.75	747.94	156.81	5.770	0				
18,400.00	12,829.05	18,429.35	12,841.35	112.72	113.10	90.79	904.73	745.42	159.31	5.679	0				
18,500.00	12,829.20	18,529.35	12,841.45	114.49	114.86	90.78	904.71	742.91	161.81	5.591	0				
18,600.00	12,829.35	18,629.35	12,841.55	116.25	116.63	90.78	904.69	740.38	164.31	5.506	0				
18,700.00	12,829.50	18,729.35	12,841.65	118.02	118.39	90.78	904.68	737.86	166.81	5.423	0				
18,800.00	12,829.65	18,829.35	12,841.75	119.80	120.16	90.77	904.66	735.33	169.32	5.343	0				
18,900.00	12,829.80	18,929.35	12,841.85	121.57	121.93	90.77	904.64	732.81	171.83	5.265	0				
19,000.00	12,829.95	19,029.35	12,841.96	123.34	123.70	90.77	904.62	730.28	174.34	5.189	0				

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

Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Dzurisin - Jayhawk 7-6 Fed Com 86H - Wellbore #1 - Plan 1													Offset Well Error:	0.00 ft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning	
19,100.00	12,830.10	19,129.35	12,842.06	125.12	125.47	90.76	904.60	727.74	176.86	5.115	0			
19,200.00	12,830.26	19,229.35	12,842.16	126.90	127.24	90.76	904.58	725.21	179.37	5.043	0			
19,300.00	12,830.41	19,329.35	12,842.26	128.68	129.02	90.76	904.56	722.67	181.89	4.973	0			
19,400.00	12,830.56	19,429.35	12,842.36	130.46	130.79	90.75	904.55	720.14	184.41	4.905	0			
19,500.00	12,830.71	19,529.35	12,842.46	132.24	132.57	90.75	904.53	717.60	186.93	4.839	0			
19,600.00	12,830.86	19,629.35	12,842.56	134.02	134.35	90.75	904.51	715.06	189.45	4.774	0			
19,700.00	12,831.01	19,729.35	12,842.66	135.81	136.13	90.74	904.49	712.51	191.98	4.711	0			
19,800.00	12,831.16	19,829.35	12,842.76	137.59	137.91	90.74	904.47	709.97	194.50	4.650	0			
19,900.00	12,831.31	19,929.35	12,842.86	139.38	139.70	90.74	904.45	707.42	197.03	4.590	0			
20,000.00	12,831.46	20,029.35	12,842.97	141.16	141.48	90.73	904.43	704.88	199.56	4.532	0			
20,100.00	12,831.62	20,129.35	12,843.07	142.95	143.26	90.73	904.42	702.33	202.09	4.475	0			
20,200.00	12,831.77	20,229.35	12,843.17	144.74	145.05	90.73	904.40	699.78	204.62	4.420	0			
20,300.00	12,831.92	20,329.35	12,843.27	146.53	146.84	90.73	904.38	697.23	207.15	4.366	0			
20,400.00	12,832.07	20,429.35	12,843.37	148.32	148.62	90.72	904.36	694.68	209.68	4.313	0			
20,500.00	12,832.22	20,529.35	12,843.47	150.11	150.41	90.72	904.34	692.13	212.22	4.261	0			
20,600.00	12,832.37	20,629.35	12,843.57	151.90	152.20	90.72	904.32	689.57	214.75	4.211	0			
20,700.00	12,832.52	20,729.35	12,843.67	153.70	153.99	90.71	904.30	687.02	217.29	4.162	0			
20,800.00	12,832.67	20,829.35	12,843.77	155.49	155.78	90.71	904.29	684.46	219.83	4.114	0			
20,900.00	12,832.83	20,929.35	12,843.87	157.29	157.57	90.71	904.27	681.90	222.36	4.067	0			
21,000.00	12,832.98	21,029.35	12,843.97	159.08	159.37	90.70	904.25	679.35	224.90	4.021	0			
21,100.00	12,833.13	21,129.35	12,844.08	160.88	161.16	90.70	904.23	676.79	227.44	3.976	0			
21,200.00	12,833.28	21,229.35	12,844.18	162.67	162.95	90.70	904.21	674.23	229.99	3.932	0			
21,300.00	12,833.43	21,329.35	12,844.28	164.47	164.75	90.69	904.19	671.67	232.53	3.889	0			
21,400.00	12,833.58	21,429.35	12,844.38	166.27	166.54	90.69	904.18	669.10	235.07	3.846	0			
21,500.00	12,833.73	21,529.35	12,844.48	168.07	168.34	90.69	904.16	666.54	237.62	3.805	0			
21,600.00	12,833.88	21,629.35	12,844.58	169.86	170.13	90.68	904.14	663.98	240.16	3.765	0			
21,700.00	12,834.04	21,729.35	12,844.68	171.66	171.93	90.68	904.12	661.41	242.71	3.725	0			
21,800.00	12,834.19	21,829.35	12,844.78	173.46	173.73	90.68	904.10	658.85	245.25	3.686	0			
21,900.00	12,834.34	21,929.35	12,844.88	175.26	175.53	90.67	904.08	656.28	247.80	3.648	0			
22,000.00	12,834.49	22,029.35	12,844.98	177.07	177.33	90.67	904.06	653.72	250.35	3.611	0			
22,100.00	12,834.64	22,129.35	12,845.09	178.87	179.13	90.67	904.05	651.15	252.89	3.575	0			
22,200.00	12,834.79	22,229.35	12,845.19	180.67	180.92	90.67	904.03	648.58	255.44	3.539	0			
22,300.00	12,834.94	22,329.35	12,845.29	182.47	182.73	90.66	904.01	646.02	257.99	3.504	0			
22,400.00	12,835.09	22,429.35	12,845.39	184.27	184.53	90.66	903.99	643.45	260.54	3.470	0			
22,500.00	12,835.24	22,529.35	12,845.49	186.08	186.33	90.66	903.97	640.88	263.09	3.436	0			
22,600.00	12,835.40	22,629.35	12,845.59	187.88	188.13	90.65	903.95	638.31	265.65	3.403	0			
22,700.00	12,835.55	22,729.35	12,845.69	189.68	189.93	90.65	903.94	635.74	268.20	3.370	0			
22,800.00	12,835.70	22,829.35	12,845.79	191.49	191.73	90.65	903.92	633.17	270.75	3.339	0			
22,900.00	12,835.85	22,929.35	12,845.89	193.29	193.54	90.64	903.90	630.60	273.30	3.307	0			
22,965.36	12,835.95	22,994.71	12,845.96	194.47	194.71	90.64	903.89	628.92	274.97	3.287	0			
22,999.10	12,836.00	23,028.45	12,845.99	195.02	195.30	90.64	903.88	628.11	275.77	3.278	0	SF		

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

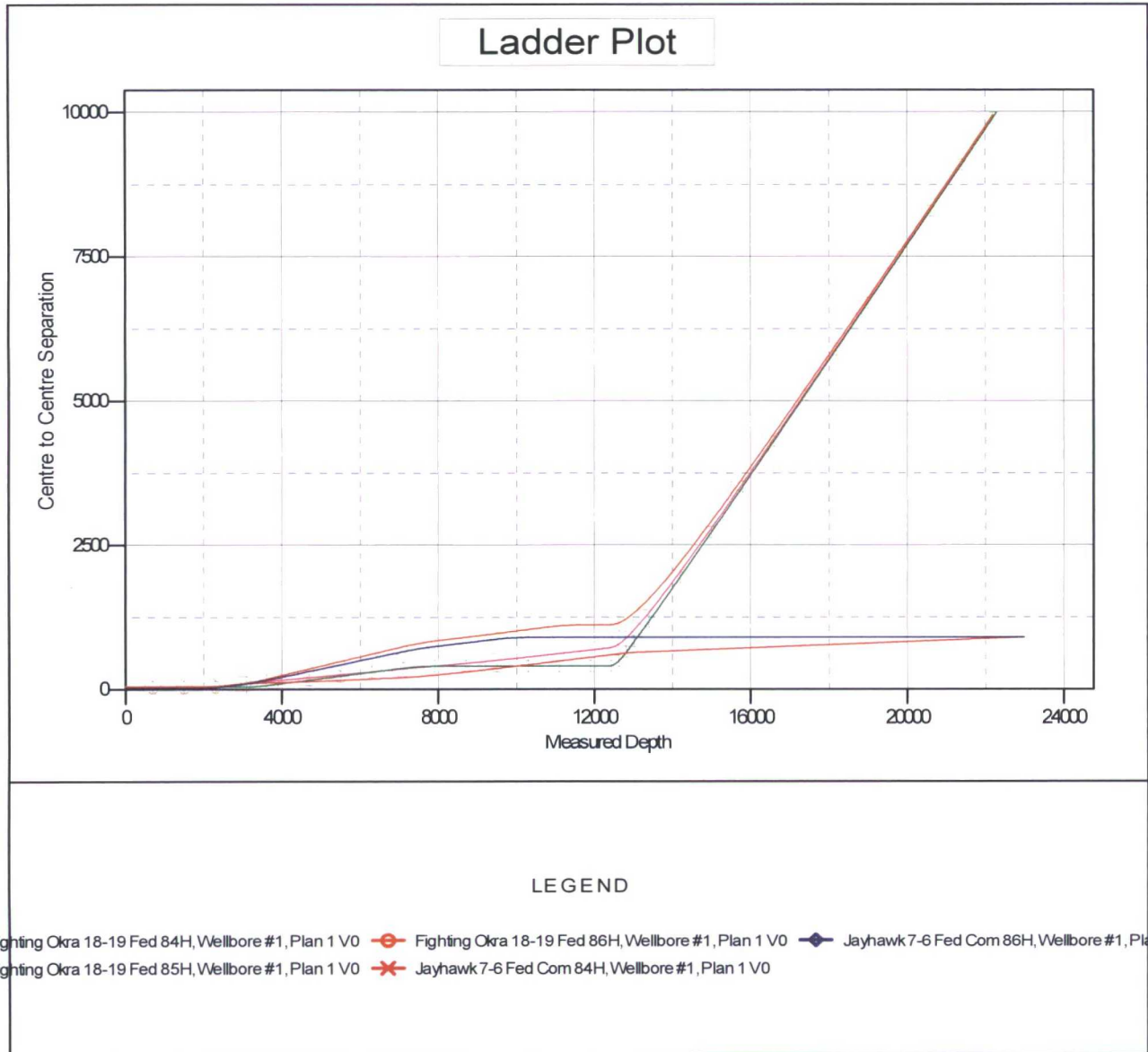
Devon Energy

Anticollision Risk Report

Company:	WESTERN DIVISION	Local Co-ordinate Reference:	Well Jayhawk 7-6 Fed Com 85H
Project:	PBNM	TVD Reference:	1 @ 3390.70ft
Reference Site:	Dzurisin	MD Reference:	1 @ 3390.70ft
Site Error:	0.00	North Reference:	Grid
Reference Well:	Jayhawk 7-6 Fed Com 85H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000 US Production
Reference Design:	Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 1 @ 3390.70ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334 °

Coordinates are relative to: Jayhawk 7-6 Fed Com 85H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.44°



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

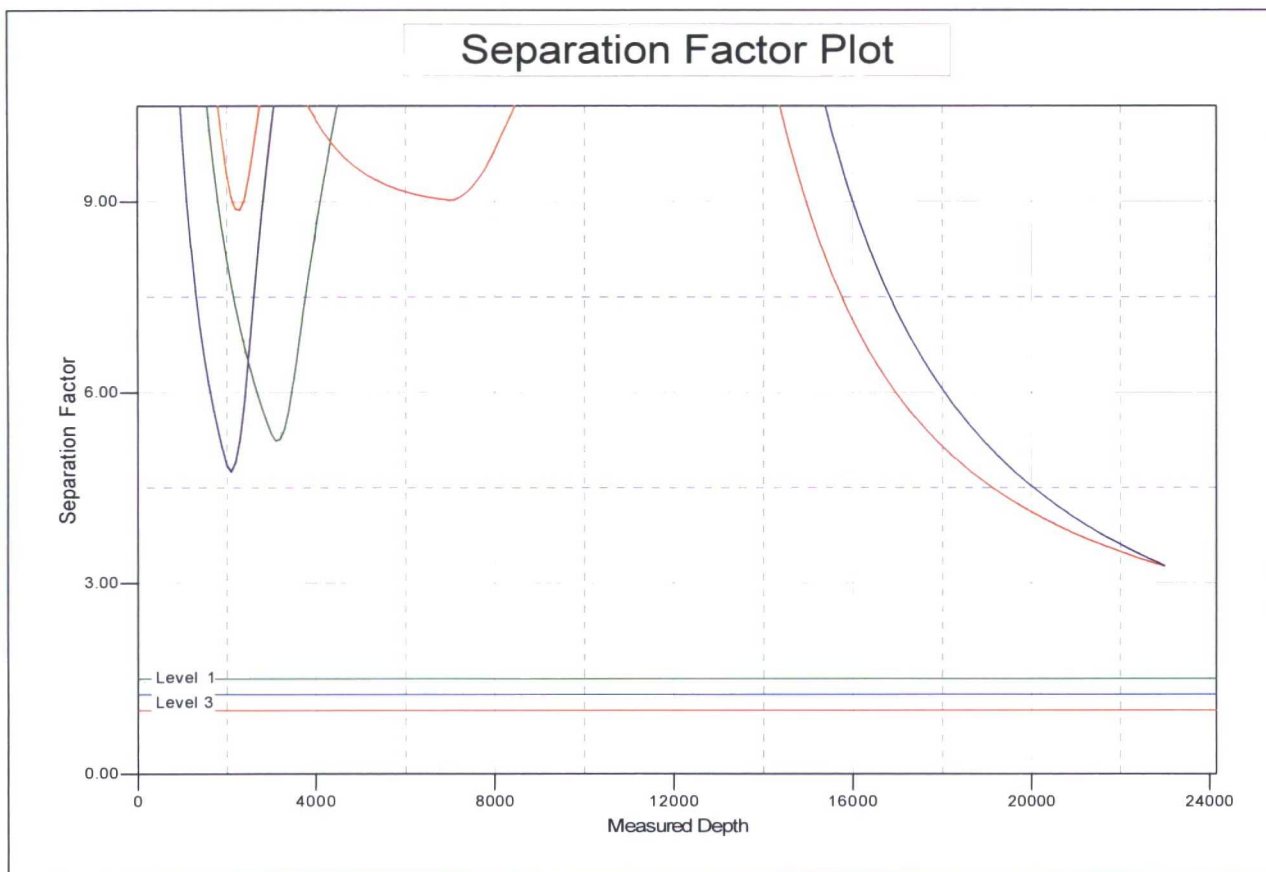
Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION	Local Co-ordinate Reference: Well Jayhawk 7-6 Fed Com 85H
Project: PBNM	TVD Reference: 1 @ 3390.70ft
Reference Site: Dzurisin	MD Reference: 1 @ 3390.70ft
Site Error: 0.00	North Reference: Grid
Reference Well: Jayhawk 7-6 Fed Com 85H	Survey Calculation Method: Minimum Curvature
Well Error: 0.00	Output errors are at 2.00 sigma
Reference Wellbore Wellbore #1	Database: EDM r5000 US Production
Reference Design: Plan 1	Offset TVD Reference: Offset Datum

Reference Depths are relative to 1 @ 3390.70ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334 °

Coordinates are relative to: Jayhawk 7-6 Fed Com 85H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.44°



LEGEND

◆ Fighting Okra 18-19 Fed 84H, Wellbore #1, Plan 1 V0
 ◆ Fighting Okra 18-19 Fed 86H, Wellbore #1, Plan 1 V0
 ◆ Jayhawk 7-6 Fed Com 86H, Wellbore #1, Plan 1 V0
◆ Fighting Okra 18-19 Fed 85H, Wellbore #1, Plan 1 V0
 ◆ Jayhawk 7-6 Fed Com 84H, Wellbore #1, Plan 1 V0