

WESTERN DIVISION

PBNM

Dzurisin

Jayhawk 7-6 Fed Com 84H

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 84H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3391.10ft
Project:	PBNM	MD Reference:	1 @ 3391.10ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 84H	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 84H					
Well Position	+N/-S	-47,152.53 ft	Northing:	382,769.84 usft	Latitude:	32.049602
	+E/-W	72,857.19 ft	Easting:	798,248.45 usft	Longitude:	-103.504123
Position Uncertainty	0.00 ft		Wellhead Elevation:	0.00 ft	Ground Level:	3,367.60 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	353.89

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	290.00	2,499.37	7.46	-20.49	1.00	1.00	0.00	290.00	
12,379.60	5.00	290.00	12,341.37	301.96	-829.62	0.00	0.00	0.00	0.00	
13,113.35	89.88	358.50	12,802.07	777.04	-879.51	12.00	11.57	9.34	68.58	Jayhawk 7-6 Fed 84H
13,153.76	89.88	358.50	12,802.15	817.44	-880.57	0.01	0.01	0.00	-0.05	
22,918.51	89.88	358.50	12,821.91	10,578.82	-1,136.43	0.00	0.00	0.00	0.00	
22,961.58	89.88	358.50	12,822.00	10,621.87	-1,137.56	0.01	-0.01	0.00	159.78	Jayhawk 7-6 Fed 84H

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Company:	WESTERN DIVISION	TVD Reference:	1 @ 3391.10ft
Project:	PBNM	MD Reference:	1 @ 3391.10ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 84H	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
100.00	0.00	0.00	100.00	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
300.00	0.00	0.00	300.00	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
500.00	0.00	0.00	500.00	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
700.00	0.00	0.00	700.00	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
900.00	0.00	0.00	900.00	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
1,100.00	0.00	0.00	1,100.00	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
1,300.00	0.00	0.00	1,300.00	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
1,500.00	0.00	0.00	1,500.00	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
1,700.00	0.00	0.00	1,700.00	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
1,900.00	0.00	0.00	1,900.00	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
2,100.00	1.00	290.00	2,099.99	0.30	-0.82	0.38	1.00	1.00	0.00
2,200.00	2.00	290.00	2,199.96	1.19	-3.28	1.54	1.00	1.00	0.00
2,300.00	3.00	290.00	2,299.86	2.69	-7.38	3.46	1.00	1.00	0.00
2,400.00	4.00	290.00	2,399.68	4.77	-13.12	6.14	1.00	1.00	0.00
2,500.00	5.00	290.00	2,499.37	7.46	-20.49	9.60	1.00	1.00	0.00
2,600.00	5.00	290.00	2,598.99	10.44	-28.68	13.43	0.00	0.00	0.00
2,700.00	5.00	290.00	2,698.60	13.42	-36.87	17.27	0.00	0.00	0.00
2,800.00	5.00	290.00	2,798.22	16.40	-45.06	21.10	0.00	0.00	0.00
2,900.00	5.00	290.00	2,897.84	19.38	-53.25	24.94	0.00	0.00	0.00
3,000.00	5.00	290.00	2,997.46	22.36	-61.44	28.78	0.00	0.00	0.00
3,100.00	5.00	290.00	3,097.08	25.34	-69.63	32.61	0.00	0.00	0.00
3,200.00	5.00	290.00	3,196.70	28.32	-77.82	36.45	0.00	0.00	0.00
3,300.00	5.00	290.00	3,296.32	31.30	-86.01	40.28	0.00	0.00	0.00
3,400.00	5.00	290.00	3,395.94	34.29	-94.20	44.12	0.00	0.00	0.00
3,500.00	5.00	290.00	3,495.56	37.27	-102.39	47.96	0.00	0.00	0.00
3,600.00	5.00	290.00	3,595.18	40.25	-110.58	51.79	0.00	0.00	0.00
3,700.00	5.00	290.00	3,694.80	43.23	-118.77	55.63	0.00	0.00	0.00
3,800.00	5.00	290.00	3,794.42	46.21	-126.96	59.47	0.00	0.00	0.00
3,900.00	5.00	290.00	3,894.04	49.19	-135.15	63.30	0.00	0.00	0.00
4,000.00	5.00	290.00	3,993.66	52.17	-143.34	67.14	0.00	0.00	0.00
4,100.00	5.00	290.00	4,093.28	55.15	-151.53	70.97	0.00	0.00	0.00
4,200.00	5.00	290.00	4,192.90	58.13	-159.72	74.81	0.00	0.00	0.00
4,300.00	5.00	290.00	4,292.52	61.11	-167.91	78.65	0.00	0.00	0.00
4,400.00	5.00	290.00	4,392.14	64.09	-176.10	82.48	0.00	0.00	0.00
4,500.00	5.00	290.00	4,491.76	67.08	-184.29	86.32	0.00	0.00	0.00
4,600.00	5.00	290.00	4,591.37	70.06	-192.48	90.15	0.00	0.00	0.00
4,700.00	5.00	290.00	4,690.99	73.04	-200.67	93.99	0.00	0.00	0.00
4,800.00	5.00	290.00	4,790.61	76.02	-208.86	97.83	0.00	0.00	0.00
4,900.00	5.00	290.00	4,890.23	79.00	-217.05	101.66	0.00	0.00	0.00
5,000.00	5.00	290.00	4,989.85	81.98	-225.24	105.50	0.00	0.00	0.00
5,100.00	5.00	290.00	5,089.47	84.96	-233.43	109.33	0.00	0.00	0.00
5,200.00	5.00	290.00	5,189.09	87.94	-241.62	113.17	0.00	0.00	0.00
5,300.00	5.00	290.00	5,288.71	90.92	-249.81	117.01	0.00	0.00	0.00

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Project:	PBNM	MD Reference:	1 @ 3391.10ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 84H	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)
5,400.00	5.00	290.00	5,388.33	93.90	-258.00	120.84	0.00	0.00	0.00
5,500.00	5.00	290.00	5,487.95	96.88	-266.19	124.68	0.00	0.00	0.00
5,600.00	5.00	290.00	5,587.57	99.86	-274.38	128.51	0.00	0.00	0.00
5,700.00	5.00	290.00	5,687.19	102.85	-282.57	132.35	0.00	0.00	0.00
5,800.00	5.00	290.00	5,786.81	105.83	-290.76	136.19	0.00	0.00	0.00
5,900.00	5.00	290.00	5,886.43	108.81	-298.95	140.02	0.00	0.00	0.00
6,000.00	5.00	290.00	5,986.05	111.79	-307.14	143.86	0.00	0.00	0.00
6,100.00	5.00	290.00	6,085.67	114.77	-315.33	147.70	0.00	0.00	0.00
6,200.00	5.00	290.00	6,185.29	117.75	-323.52	151.53	0.00	0.00	0.00
6,300.00	5.00	290.00	6,284.91	120.73	-331.71	155.37	0.00	0.00	0.00
6,400.00	5.00	290.00	6,384.53	123.71	-339.90	159.20	0.00	0.00	0.00
6,500.00	5.00	290.00	6,484.14	126.69	-348.09	163.04	0.00	0.00	0.00
6,600.00	5.00	290.00	6,583.76	129.67	-356.28	166.88	0.00	0.00	0.00
6,700.00	5.00	290.00	6,683.38	132.65	-364.47	170.71	0.00	0.00	0.00
6,800.00	5.00	290.00	6,783.00	135.64	-372.66	174.55	0.00	0.00	0.00
6,900.00	5.00	290.00	6,882.62	138.62	-380.85	178.38	0.00	0.00	0.00
7,000.00	5.00	290.00	6,982.24	141.60	-389.04	182.22	0.00	0.00	0.00
7,100.00	5.00	290.00	7,081.86	144.58	-397.23	186.06	0.00	0.00	0.00
7,200.00	5.00	290.00	7,181.48	147.56	-405.42	189.89	0.00	0.00	0.00
7,300.00	5.00	290.00	7,281.10	150.54	-413.61	193.73	0.00	0.00	0.00
7,400.00	5.00	290.00	7,380.72	153.52	-421.80	197.56	0.00	0.00	0.00
7,500.00	5.00	290.00	7,480.34	156.50	-429.99	201.40	0.00	0.00	0.00
7,600.00	5.00	290.00	7,579.96	159.48	-438.18	205.24	0.00	0.00	0.00
7,700.00	5.00	290.00	7,679.58	162.46	-446.37	209.07	0.00	0.00	0.00
7,800.00	5.00	290.00	7,779.20	165.44	-454.56	212.91	0.00	0.00	0.00
7,900.00	5.00	290.00	7,878.82	168.43	-462.75	216.74	0.00	0.00	0.00
8,000.00	5.00	290.00	7,978.44	171.41	-470.94	220.58	0.00	0.00	0.00
8,100.00	5.00	290.00	8,078.06	174.39	-479.13	224.42	0.00	0.00	0.00
8,200.00	5.00	290.00	8,177.68	177.37	-487.32	228.25	0.00	0.00	0.00
8,300.00	5.00	290.00	8,277.30	180.35	-495.51	232.09	0.00	0.00	0.00
8,400.00	5.00	290.00	8,376.91	183.33	-503.70	235.92	0.00	0.00	0.00
8,500.00	5.00	290.00	8,476.53	186.31	-511.89	239.76	0.00	0.00	0.00
8,600.00	5.00	290.00	8,576.15	189.29	-520.08	243.60	0.00	0.00	0.00
8,700.00	5.00	290.00	8,675.77	192.27	-528.27	247.43	0.00	0.00	0.00
8,800.00	5.00	290.00	8,775.39	195.25	-536.46	251.27	0.00	0.00	0.00
8,900.00	5.00	290.00	8,875.01	198.23	-544.65	255.11	0.00	0.00	0.00
9,000.00	5.00	290.00	8,974.63	201.22	-552.84	258.94	0.00	0.00	0.00
9,100.00	5.00	290.00	9,074.25	204.20	-561.03	262.78	0.00	0.00	0.00
9,200.00	5.00	290.00	9,173.87	207.18	-569.22	266.61	0.00	0.00	0.00
9,300.00	5.00	290.00	9,273.49	210.16	-577.41	270.45	0.00	0.00	0.00
9,400.00	5.00	290.00	9,373.11	213.14	-585.60	274.29	0.00	0.00	0.00
9,500.00	5.00	290.00	9,472.73	216.12	-593.79	278.12	0.00	0.00	0.00
9,600.00	5.00	290.00	9,572.35	219.10	-601.98	281.96	0.00	0.00	0.00
9,700.00	5.00	290.00	9,671.97	222.08	-610.17	285.79	0.00	0.00	0.00
9,800.00	5.00	290.00	9,771.59	225.06	-618.36	289.63	0.00	0.00	0.00
9,900.00	5.00	290.00	9,871.21	228.04	-626.55	293.47	0.00	0.00	0.00
10,000.00	5.00	290.00	9,970.83	231.02	-634.73	297.30	0.00	0.00	0.00
10,100.00	5.00	290.00	10,070.45	234.01	-642.92	301.14	0.00	0.00	0.00
10,200.00	5.00	290.00	10,170.07	236.99	-651.11	304.97	0.00	0.00	0.00
10,300.00	5.00	290.00	10,269.68	239.97	-659.30	308.81	0.00	0.00	0.00
10,400.00	5.00	290.00	10,369.30	242.95	-667.49	312.65	0.00	0.00	0.00
10,500.00	5.00	290.00	10,468.92	245.93	-675.68	316.48	0.00	0.00	0.00
10,600.00	5.00	290.00	10,568.54	248.91	-683.87	320.32	0.00	0.00	0.00
10,700.00	5.00	290.00	10,668.16	251.89	-692.06	324.15	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)
10,800.00	5.00	290.00	10,767.78	254.87	-700.25	327.99	0.00	0.00	0.00
10,900.00	5.00	290.00	10,867.40	257.85	-708.44	331.83	0.00	0.00	0.00
11,000.00	5.00	290.00	10,967.02	260.83	-716.63	335.66	0.00	0.00	0.00
11,100.00	5.00	290.00	11,066.64	263.81	-724.82	339.50	0.00	0.00	0.00
11,200.00	5.00	290.00	11,166.26	266.80	-733.01	343.34	0.00	0.00	0.00
11,300.00	5.00	290.00	11,265.88	269.78	-741.20	347.17	0.00	0.00	0.00
11,400.00	5.00	290.00	11,365.50	272.76	-749.39	351.01	0.00	0.00	0.00
11,500.00	5.00	290.00	11,465.12	275.74	-757.58	354.84	0.00	0.00	0.00
11,600.00	5.00	290.00	11,564.74	278.72	-765.77	358.68	0.00	0.00	0.00
11,700.00	5.00	290.00	11,664.36	281.70	-773.96	362.52	0.00	0.00	0.00
11,800.00	5.00	290.00	11,763.98	284.68	-782.15	366.35	0.00	0.00	0.00
11,900.00	5.00	290.00	11,863.60	287.66	-790.34	370.19	0.00	0.00	0.00
12,000.00	5.00	290.00	11,963.22	290.64	-798.53	374.02	0.00	0.00	0.00
12,100.00	5.00	290.00	12,062.83	293.62	-806.72	377.86	0.00	0.00	0.00
12,200.00	5.00	290.00	12,162.45	296.60	-814.91	381.70	0.00	0.00	0.00
12,300.00	5.00	290.00	12,262.07	299.59	-823.10	385.53	0.00	0.00	0.00
12,379.60	5.00	290.00	12,341.37	301.96	-829.62	388.59	0.00	0.00	0.00
12,400.00	6.32	311.18	12,361.67	303.00	-831.30	389.80	12.00	6.46	103.83
12,425.00	8.63	326.08	12,386.46	305.46	-833.39	392.47	12.00	9.25	59.59
12,450.00	11.27	334.40	12,411.08	309.23	-835.49	396.44	12.00	10.56	33.29
12,475.00	14.06	339.53	12,435.47	314.27	-837.61	401.68	12.00	11.14	20.53
12,500.00	16.91	342.98	12,459.57	320.60	-839.73	408.20	12.00	11.43	13.78
12,525.00	19.81	345.45	12,483.29	328.18	-841.86	415.96	12.00	11.59	9.87
12,550.00	22.73	347.31	12,506.58	336.99	-843.99	424.95	12.00	11.69	7.43
12,575.00	25.67	348.76	12,529.38	347.02	-846.11	435.15	12.00	11.76	5.81
12,600.00	28.63	349.93	12,551.63	358.23	-848.21	446.52	12.00	11.81	4.69
12,625.00	31.59	350.90	12,573.25	370.59	-850.29	459.03	12.00	11.84	3.88
12,650.00	34.55	351.72	12,594.20	384.08	-852.35	472.66	12.00	11.87	3.28
12,675.00	37.53	352.42	12,614.41	398.65	-854.38	487.36	12.00	11.89	2.82
12,700.00	40.50	353.04	12,633.84	414.25	-856.36	503.09	12.00	11.90	2.46
12,725.00	43.48	353.58	12,652.42	430.86	-858.31	519.81	12.00	11.91	2.18
12,750.00	46.46	354.07	12,670.10	448.43	-860.21	537.48	12.00	11.92	1.95
12,775.00	49.44	354.51	12,686.84	466.90	-862.05	556.04	12.00	11.93	1.77
12,800.00	52.42	354.92	12,702.60	486.22	-863.84	575.45	12.00	11.93	1.62
12,825.00	55.41	355.29	12,717.32	506.35	-865.56	595.64	12.00	11.94	1.49
12,850.00	58.39	355.64	12,730.97	527.23	-867.22	616.58	12.00	11.94	1.39
12,875.00	61.38	355.96	12,743.51	548.79	-868.80	638.19	12.00	11.95	1.30
12,900.00	64.37	356.27	12,754.91	570.99	-870.30	660.42	12.00	11.95	1.23
12,925.00	67.36	356.56	12,765.13	593.75	-871.73	683.21	12.00	11.95	1.17
12,950.00	70.35	356.84	12,774.15	617.03	-873.07	706.49	12.00	11.95	1.12
12,975.00	73.33	357.11	12,781.94	640.75	-874.32	730.21	12.00	11.96	1.08
13,000.00	76.32	357.37	12,788.48	664.85	-875.48	754.29	12.00	11.96	1.05
13,025.00	79.31	357.63	12,793.76	689.26	-876.55	778.68	12.00	11.96	1.02
13,050.00	82.30	357.88	12,797.75	713.92	-877.52	803.30	12.00	11.96	1.00
13,075.00	85.29	358.12	12,800.45	738.75	-878.38	828.09	12.00	11.96	0.99
13,100.00	88.28	358.37	12,801.85	763.70	-879.15	852.97	12.00	11.96	0.98
13,113.35	89.88	358.50	12,802.07	777.04	-879.51	866.28	12.00	11.96	0.97
13,153.76	89.88	358.50	12,802.15	817.44	-880.57	906.56	0.01	0.01	0.00
13,200.00	89.88	358.50	12,802.24	863.66	-881.78	952.65	0.00	0.00	0.00
13,300.00	89.88	358.50	12,802.45	963.63	-884.40	1,052.32	0.00	0.00	0.00
13,400.00	89.88	358.50	12,802.65	1,063.59	-887.02	1,152.00	0.00	0.00	0.00
13,500.00	89.88	358.50	12,802.85	1,163.56	-889.64	1,251.68	0.00	0.00	0.00
13,600.00	89.88	358.50	12,803.05	1,263.52	-892.26	1,351.35	0.00	0.00	0.00
13,700.00	89.88	358.50	12,803.25	1,363.49	-894.88	1,451.03	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 84H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3391.10ft
Project:	PBNM	MD Reference:	1 @ 3391.10ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 84H	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)
13,800.00	89.88	358.50	12,803.46	1,463.45	-897.50	1,550.70	0.00	0.00	0.00
13,900.00	89.88	358.50	12,803.66	1,563.42	-900.12	1,650.38	0.00	0.00	0.00
14,000.00	89.88	358.50	12,803.86	1,663.38	-902.74	1,750.06	0.00	0.00	0.00
14,100.00	89.88	358.50	12,804.06	1,763.35	-905.36	1,849.73	0.00	0.00	0.00
14,200.00	89.88	358.50	12,804.27	1,863.31	-907.98	1,949.41	0.00	0.00	0.00
14,300.00	89.88	358.50	12,804.47	1,963.28	-910.60	2,049.08	0.00	0.00	0.00
14,400.00	89.88	358.50	12,804.67	2,063.25	-913.22	2,148.76	0.00	0.00	0.00
14,500.00	89.88	358.50	12,804.87	2,163.21	-915.85	2,248.44	0.00	0.00	0.00
14,600.00	89.88	358.50	12,805.08	2,263.18	-918.47	2,348.11	0.00	0.00	0.00
14,700.00	89.88	358.50	12,805.28	2,363.14	-921.09	2,447.79	0.00	0.00	0.00
14,800.00	89.88	358.50	12,805.48	2,463.11	-923.71	2,547.47	0.00	0.00	0.00
14,900.00	89.88	358.50	12,805.68	2,563.07	-926.33	2,647.14	0.00	0.00	0.00
15,000.00	89.88	358.50	12,805.89	2,663.04	-928.95	2,746.82	0.00	0.00	0.00
15,100.00	89.88	358.50	12,806.09	2,763.00	-931.57	2,846.49	0.00	0.00	0.00
15,200.00	89.88	358.50	12,806.29	2,862.97	-934.19	2,946.17	0.00	0.00	0.00
15,300.00	89.88	358.50	12,806.49	2,962.93	-936.81	3,045.85	0.00	0.00	0.00
15,400.00	89.88	358.50	12,806.70	3,062.90	-939.43	3,145.52	0.00	0.00	0.00
15,500.00	89.88	358.50	12,806.90	3,162.87	-942.05	3,245.20	0.00	0.00	0.00
15,600.00	89.88	358.50	12,807.10	3,262.83	-944.67	3,344.87	0.00	0.00	0.00
15,700.00	89.88	358.50	12,807.30	3,362.80	-947.29	3,444.55	0.00	0.00	0.00
15,800.00	89.88	358.50	12,807.50	3,462.76	-949.91	3,544.23	0.00	0.00	0.00
15,900.00	89.88	358.50	12,807.71	3,562.73	-952.53	3,643.90	0.00	0.00	0.00
16,000.00	89.88	358.50	12,807.91	3,662.69	-955.15	3,743.58	0.00	0.00	0.00
16,100.00	89.88	358.50	12,808.11	3,762.66	-957.77	3,843.25	0.00	0.00	0.00
16,200.00	89.88	358.50	12,808.31	3,862.62	-960.39	3,942.93	0.00	0.00	0.00
16,300.00	89.88	358.50	12,808.52	3,962.59	-963.01	4,042.61	0.00	0.00	0.00
16,400.00	89.88	358.50	12,808.72	4,062.55	-965.63	4,142.28	0.00	0.00	0.00
16,500.00	89.88	358.50	12,808.92	4,162.52	-968.25	4,241.96	0.00	0.00	0.00
16,600.00	89.88	358.50	12,809.12	4,262.49	-970.87	4,341.63	0.00	0.00	0.00
16,700.00	89.88	358.50	12,809.33	4,362.45	-973.49	4,441.31	0.00	0.00	0.00
16,800.00	89.88	358.50	12,809.53	4,462.42	-976.11	4,540.99	0.00	0.00	0.00
16,900.00	89.88	358.50	12,809.73	4,562.38	-978.73	4,640.66	0.00	0.00	0.00
17,000.00	89.88	358.50	12,809.93	4,662.35	-981.35	4,740.34	0.00	0.00	0.00
17,100.00	89.88	358.50	12,810.14	4,762.31	-983.97	4,840.02	0.00	0.00	0.00
17,200.00	89.88	358.50	12,810.34	4,862.28	-986.59	4,939.69	0.00	0.00	0.00
17,300.00	89.88	358.50	12,810.54	4,962.24	-989.21	5,039.37	0.00	0.00	0.00
17,400.00	89.88	358.50	12,810.74	5,062.21	-991.83	5,139.04	0.00	0.00	0.00
17,500.00	89.88	358.50	12,810.95	5,162.17	-994.45	5,238.72	0.00	0.00	0.00
17,600.00	89.88	358.50	12,811.15	5,262.14	-997.07	5,338.40	0.00	0.00	0.00
17,700.00	89.88	358.50	12,811.35	5,362.11	-999.69	5,438.07	0.00	0.00	0.00
17,800.00	89.88	358.50	12,811.55	5,462.07	-1,002.31	5,537.75	0.00	0.00	0.00
17,900.00	89.88	358.50	12,811.75	5,562.04	-1,004.93	5,637.42	0.00	0.00	0.00
18,000.00	89.88	358.50	12,811.96	5,662.00	-1,007.56	5,737.10	0.00	0.00	0.00
18,100.00	89.88	358.50	12,812.16	5,761.97	-1,010.18	5,836.78	0.00	0.00	0.00
18,200.00	89.88	358.50	12,812.36	5,861.93	-1,012.80	5,936.45	0.00	0.00	0.00
18,300.00	89.88	358.50	12,812.56	5,961.90	-1,015.42	6,036.13	0.00	0.00	0.00
18,400.00	89.88	358.50	12,812.77	6,061.86	-1,018.04	6,135.80	0.00	0.00	0.00
18,500.00	89.88	358.50	12,812.97	6,161.83	-1,020.66	6,235.48	0.00	0.00	0.00
18,600.00	89.88	358.50	12,813.17	6,261.79	-1,023.28	6,335.16	0.00	0.00	0.00
18,700.00	89.88	358.50	12,813.37	6,361.76	-1,025.90	6,434.83	0.00	0.00	0.00
18,800.00	89.88	358.50	12,813.58	6,461.73	-1,028.52	6,534.51	0.00	0.00	0.00
18,900.00	89.88	358.50	12,813.78	6,561.69	-1,031.14	6,634.18	0.00	0.00	0.00
19,000.00	89.88	358.50	12,813.98	6,661.66	-1,033.76	6,733.86	0.00	0.00	0.00
19,100.00	89.88	358.50	12,814.18	6,761.62	-1,036.38	6,833.54	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 84H
Company:	WESTERN DIVISION	TVD Reference:	1 @ 3391.10ft
Project:	PBNM	MD Reference:	1 @ 3391.10ft
Site:	Dzurisin	North Reference:	Grid
Well:	Jayhawk 7-6 Fed Com 84H	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)
19,200.00	89.88	358.50	12,814.39	6,861.59	-1,039.00	6,933.21	0.00	0.00	0.00
19,300.00	89.88	358.50	12,814.59	6,961.55	-1,041.62	7,032.89	0.00	0.00	0.00
19,400.00	89.88	358.50	12,814.79	7,061.52	-1,044.24	7,132.57	0.00	0.00	0.00
19,500.00	89.88	358.50	12,814.99	7,161.48	-1,046.86	7,232.24	0.00	0.00	0.00
19,600.00	89.88	358.50	12,815.20	7,261.45	-1,049.48	7,331.92	0.00	0.00	0.00
19,700.00	89.88	358.50	12,815.40	7,361.41	-1,052.10	7,431.59	0.00	0.00	0.00
19,800.00	89.88	358.50	12,815.60	7,461.38	-1,054.72	7,531.27	0.00	0.00	0.00
19,900.00	89.88	358.50	12,815.80	7,561.35	-1,057.34	7,630.95	0.00	0.00	0.00
20,000.00	89.88	358.50	12,816.00	7,661.31	-1,059.96	7,730.62	0.00	0.00	0.00
20,100.00	89.88	358.50	12,816.21	7,761.28	-1,062.58	7,830.30	0.00	0.00	0.00
20,200.00	89.88	358.50	12,816.41	7,861.24	-1,065.20	7,929.97	0.00	0.00	0.00
20,300.00	89.88	358.50	12,816.61	7,961.21	-1,067.82	8,029.65	0.00	0.00	0.00
20,400.00	89.88	358.50	12,816.81	8,061.17	-1,070.44	8,129.33	0.00	0.00	0.00
20,500.00	89.88	358.50	12,817.02	8,161.14	-1,073.06	8,229.00	0.00	0.00	0.00
20,600.00	89.88	358.50	12,817.22	8,261.10	-1,075.68	8,328.68	0.00	0.00	0.00
20,700.00	89.88	358.50	12,817.42	8,361.07	-1,078.30	8,428.35	0.00	0.00	0.00
20,800.00	89.88	358.50	12,817.62	8,461.04	-1,080.92	8,528.03	0.00	0.00	0.00
20,900.00	89.88	358.50	12,817.83	8,561.00	-1,083.54	8,627.71	0.00	0.00	0.00
21,000.00	89.88	358.50	12,818.03	8,660.97	-1,086.16	8,727.38	0.00	0.00	0.00
21,100.00	89.88	358.50	12,818.23	8,760.93	-1,088.78	8,827.06	0.00	0.00	0.00
21,200.00	89.88	358.50	12,818.43	8,860.90	-1,091.40	8,926.74	0.00	0.00	0.00
21,300.00	89.88	358.50	12,818.64	8,960.86	-1,094.02	9,026.41	0.00	0.00	0.00
21,400.00	89.88	358.50	12,818.84	9,060.83	-1,096.64	9,126.09	0.00	0.00	0.00
21,500.00	89.88	358.50	12,819.04	9,160.79	-1,099.27	9,225.76	0.00	0.00	0.00
21,600.00	89.88	358.50	12,819.24	9,260.76	-1,101.89	9,325.44	0.00	0.00	0.00
21,700.00	89.88	358.50	12,819.45	9,360.72	-1,104.51	9,425.12	0.00	0.00	0.00
21,800.00	89.88	358.50	12,819.65	9,460.69	-1,107.13	9,524.79	0.00	0.00	0.00
21,900.00	89.88	358.50	12,819.85	9,560.66	-1,109.75	9,624.47	0.00	0.00	0.00
22,000.00	89.88	358.50	12,820.05	9,660.62	-1,112.37	9,724.14	0.00	0.00	0.00
22,100.00	89.88	358.50	12,820.26	9,760.59	-1,114.99	9,823.82	0.00	0.00	0.00
22,200.00	89.88	358.50	12,820.46	9,860.55	-1,117.61	9,923.50	0.00	0.00	0.00
22,300.00	89.88	358.50	12,820.66	9,960.52	-1,120.23	10,023.17	0.00	0.00	0.00
22,400.00	89.88	358.50	12,820.86	10,060.48	-1,122.85	10,122.85	0.00	0.00	0.00
22,500.00	89.88	358.50	12,821.06	10,160.45	-1,125.47	10,222.52	0.00	0.00	0.00
22,600.00	89.88	358.50	12,821.27	10,260.41	-1,128.09	10,322.20	0.00	0.00	0.00
22,700.00	89.88	358.50	12,821.47	10,360.38	-1,130.71	10,421.88	0.00	0.00	0.00
22,800.00	89.88	358.50	12,821.67	10,460.34	-1,133.33	10,521.55	0.00	0.00	0.00
22,900.00	89.88	358.50	12,821.87	10,560.31	-1,135.95	10,621.23	0.00	0.00	0.00
22,918.51	89.88	358.50	12,821.91	10,578.82	-1,136.43	10,639.68	0.00	0.00	0.00
22,961.58	89.88	358.50	12,822.00	10,621.87	-1,137.56	10,682.61	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 84H B	0.00	0.01	12,822.00	10,621.87	-1,137.56	393,391.69	797,110.89	32.078822	-103.507532
- hit/miss target									
- Shape									
- Point									

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
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 10,000.00ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Combined Covariances
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	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
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													Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1		Offset Site Error: 0.00 ft	
Survey Program: 0-MWD		Offset		Semi Major Axis		Distance							Offset Well Error: 0.00 ft			
Reference		Offset		Reference		Offset		Distance		Minimum Separation		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	Risk Separation Factor	Probability of Collision	Warning			
0.00	0.00	1.00	1.00	0.00	0.00	-149.47	58.30									
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 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 84H - Wellbore #1 - Plan 1		Offset Site Error: 0.00 ft	
Reference		Offset		Semi Major Axis		Distance						Offset Well Error: 0.00 ft			
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		
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	4,495.18	4,491.61	4,483.01	10.32	10.55	-86.24	201.57	187.09	14.48	13.922	0				
4,700.00	4,494.80	4,491.38	4,482.41	10.57	10.82	-87.06	207.57	192.74	14.83	13.997	0				
4,800.00	4,494.42	4,491.16	4,481.81	10.82	11.08	-87.82	213.62	198.44	15.18	14.070	0				
4,900.00	4,494.04	4,490.94	4,481.21	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 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 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				Minimum Separation (ft)	Separation Factor	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)						
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 Dzurisin - Fighting Okra 18-19 Fed 84H - Wellbore #1 - Plan 1														Offset Site Error:	0.00 ft
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
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														
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 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		Highside Toolface (°)	Distance		Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Between Centres (ft)	Between Ellipses (ft)							
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 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
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 85H - Wellbore #1 - Plan 1															
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 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									
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		
5,400.00	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	7,085.70	7,086.10	7,086.10	16.72	15.79	-174.58	372.44	350.09	22.34	16.669	0				
7,200.00	7,185.43	7,185.83	7,185.83	16.92	16.01	-174.69	379.82	357.19	22.63	16.786	0				
7,300.00	7,285.21	7,285.61	7,285.61	17.11	16.24	-174.78	386.33	363.42	22.91	16.862	0				
7,400.00	7,385.05	7,385.45	7,385.45	17.31	16.46	-174.86	391.97	368.78	23.20	16.899	0				
7,500.00	7,484.94	7,485.34	7,485.34	17.50	16.69	-174.92	396.75	373.27	23.48	16.897	0				
7,600.00	7,584.86	7,585.26	7,585.26	17.69	16.91	-174.97	400.66	376.90	23.77	16.858	0				
7,700.00	7,684.81	7,685.21	7,685.21	17.87	17.13	-175.01	403.71	379.65	24.05	16.785	0				
7,800.00	7,784.79	7,785.19	7,785.19	18.05	17.36	-175.04	405.88	381.54	24.34	16.677	0				
7,900.00	7,884.78	7,885.18	7,885.18	18.23	17.58	-175.06	407.18	382.56	24.62	16.536	0				
8,000.00	7,984.78	7,985.18	7,985.18	18.40	17.81	139.94	407.62	382.71	24.91	16.364	0				
8,100.00	8,084.78	8,085.18	8,085.18	18.59	18.03	139.94	407.62	382.41	25.21	16.169	0				
8,200.00	8,184.78	8,185.18	8,185.18	18.80	18.26	139.94	407.62	382.09	25.52	15.970	0				
8,300.00	8,284.78	8,285.18	8,285.18	19.01	18.48	139.94	407.62	381.78	25.84	15.776	0				
8,400.00	8,384.78	8,385.18	8,385.18	19.22	18.71	139.94	407.62	381.47	26.15	15.587	0				
8,500.00	8,484.78	8,485.18	8,485.18	19.43	18.93	139.94	407.62	381.15	26.47	15.402	0				
8,600.00	8,584.78	8,585.18	8,585.18	19.64	19.16	139.94	407.62	380.84	26.78	15.221	0				
8,700.00	8,684.78	8,685.18	8,685.18	19.85	19.38	139.94	407.62	380.52	27.09	15.045	0				
8,800.00	8,784.78	8,785.18	8,785.18	20.06	19.61	139.94	407.62	380.21	27.41	14.872	0				
8,900.00	8,884.78	8,885.18	8,885.18	20.27	19.83	139.94	407.62	379.90	27.72	14.703	0				
9,000.00	8,984.78	8,985.18	8,985.18	20.48	20.06	139.94	407.62	379.58	28.04	14.538	0				
9,100.00	9,084.78	9,085.18	9,085.18	20.69	20.28	139.94	407.62	379.27	28.35	14.377	0				
9,200.00	9,184.78	9,185.18	9,185.18	20.90	20.51	139.94	407.62	378.95	28.67	14.219	0				
9,300.00	9,284.78	9,285.18	9,285.18	21.11	20.73	139.94	407.62	378.64	28.98	14.065	0				
9,400.00	9,384.78	9,385.18	9,385.18	21.32	20.96	139.94	407.62	378.32	29.30	13.914	0				
9,500.00	9,484.78	9,485.18	9,485.18	21.54	21.18	139.94	407.62	378.01	29.61	13.766	0				
9,600.00	9,584.78	9,585.18	9,585.18	21.75	21.41	139.94	407.62	377.69	29.93	13.621	0				
9,700.00	9,684.78	9,685.18	9,685.18	21.96	21.63	139.94	407.62	377.38	30.24	13.479	0				
9,800.00	9,784.78	9,785.18	9,785.18	22.17	21.85	139.94	407.62	377.06	30.56	13.340	0				
9,900.00	9,884.78	9,885.18	9,885.18	22.39	22.08	139.94	407.62	376.75	30.87	13.204	0				
10,000.00	9,984.78	9,985.18	9,985.18	22.60	22.30	139.94	407.62	376.43	31.19	13.071	0				
10,100.00	10,084.78	10,085.18	10,085.18	22.82	22.53	139.94	407.62	376.12	31.50	12.940	0				
10,200.00	10,184.78	10,185.18	10,185.18	23.03	22.75	139.94	407.62	375.80	31.82	12.812	0				
10,300.00	10,284.78	10,285.18	10,285.18	23.24	22.98	139.94	407.62	375.49	32.13	12.686	0				
10,400.00	10,384.78	10,385.18	10,385.18	23.46	23.20	139.94	407.62	375.17	32.45	12.563	0				
10,500.00	10,484.78	10,485.18	10,485.18	23.67	23.43	139.94	407.62	374.86	32.76	12.442	0				
10,600.00	10,584.78	10,585.18	10,585.18	23.89	23.65	139.94	407.62	374.54	33.08	12.323	0				
10,700.00	10,684.78	10,685.18	10,685.18	24.10	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														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		
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 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				Minimum Separation (ft)	Separation Factor	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)							
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 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								
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				Minimum Separation (ft)	Separation Factor	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)						
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	4,495.18	4,476.54	4,468.00	10.32	10.50	157.56	344.29	330.10	14.19	24.269	0			
4,700.00	4,494.80	4,475.24	4,466.33	10.57	10.76	157.56	360.34	345.84	14.51	24.842	0			
4,800.00	4,494.42	4,473.94	4,464.66	10.82	11.02	157.55	376.39	361.57	14.83	25.389	0			
4,900.00	4,494.04	4,472.65	4,462.98	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
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1															
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
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Dzurisin - Fighting Okra 18-19 Fed 86H - Wellbore #1 - Plan 1															
Reference		Offset		Semi Major Axis		Distance				Minimum Separation (ft)	Separation Factor	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)							
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				Minimum Separation (ft)	Separation Factor	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)						
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	
Survey Program: 0-MWD													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Riskd Separation Factor	Probability of Collision		
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 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 - 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						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	Risked Separation Factor		Probability of Collision
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	4,495.18	4,493.15	4,484.55	10.32	10.64	-49.98	139.74	125.37	14.37	9.726	0		
4,700.00	4,494.80	4,493.08	4,484.10	10.57	10.90	-51.19	142.07	127.36	14.71	9.659	0		
4,800.00	4,494.42	4,493.01	4,483.65	10.82	11.17	-52.35	144.46	129.41	15.05	9.597	0		
4,900.00	4,494.04	4,492.94	4,483.20	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 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
Survey Program: 0-MWD														Offset Well Error:	0.00 ft
Dzurisin - Jayhawk 7-6 Fed Com 84H - Wellbore #1 - Plan 1															
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	5,292.65	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 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				Minimum Separation (ft)	Separation Factor	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)						
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 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 - 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								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	Riskd Separation Factor	Probability of Collision	
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 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 - 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				Minimum Separation (ft)	Separation Factor	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)						
0.00	0.00	0.00	0.00	0.00	0.00	89.48	29.95							
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 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 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	Risk 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	29.446	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	879.96	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 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 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	Riskd 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	12,539.06	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 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 - 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				Minimum		Separation	Risked	Probability	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)	Separation (ft)	Factor	Separation Factor	of Collision		
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 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 - 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		
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

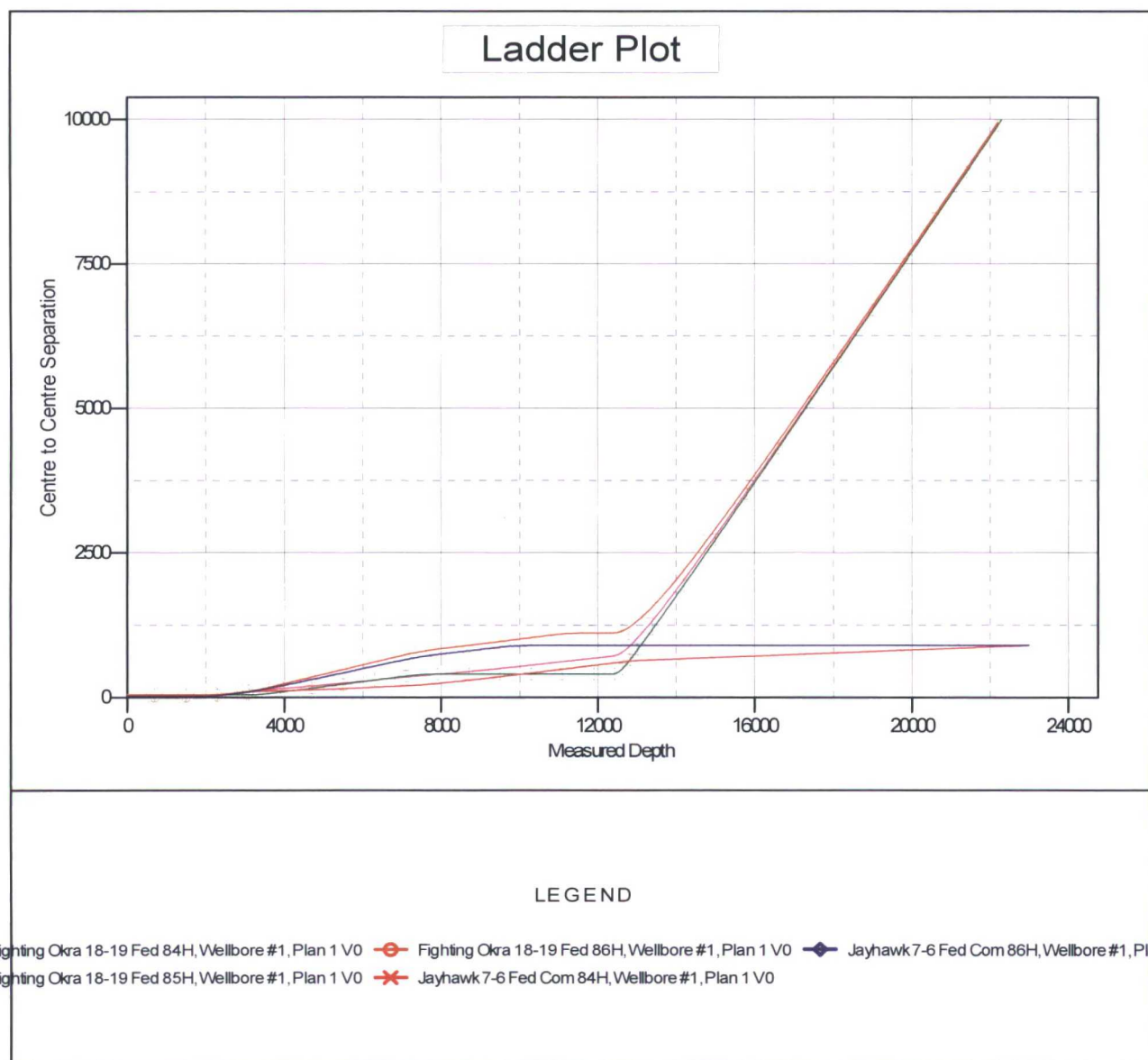
Devon Energy

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°



Devon Energy

Anticollision Risk Report

Company: WESTERN DIVISION
 Project: PBNM
 Reference Site: Dzurisin
 Site Error: 0.00
 Reference Well: Jayhawk 7-6 Fed Com 85H
 Well Error: 0.00
 Reference Wellbore: Wellbore #1
 Reference Design: Plan 1

Local Co-ordinate Reference: Well Jayhawk 7-6 Fed Com 85H
 TVD Reference: 1 @ 3390.70ft
 MD Reference: 1 @ 3390.70ft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM r5000 US Production
 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°

