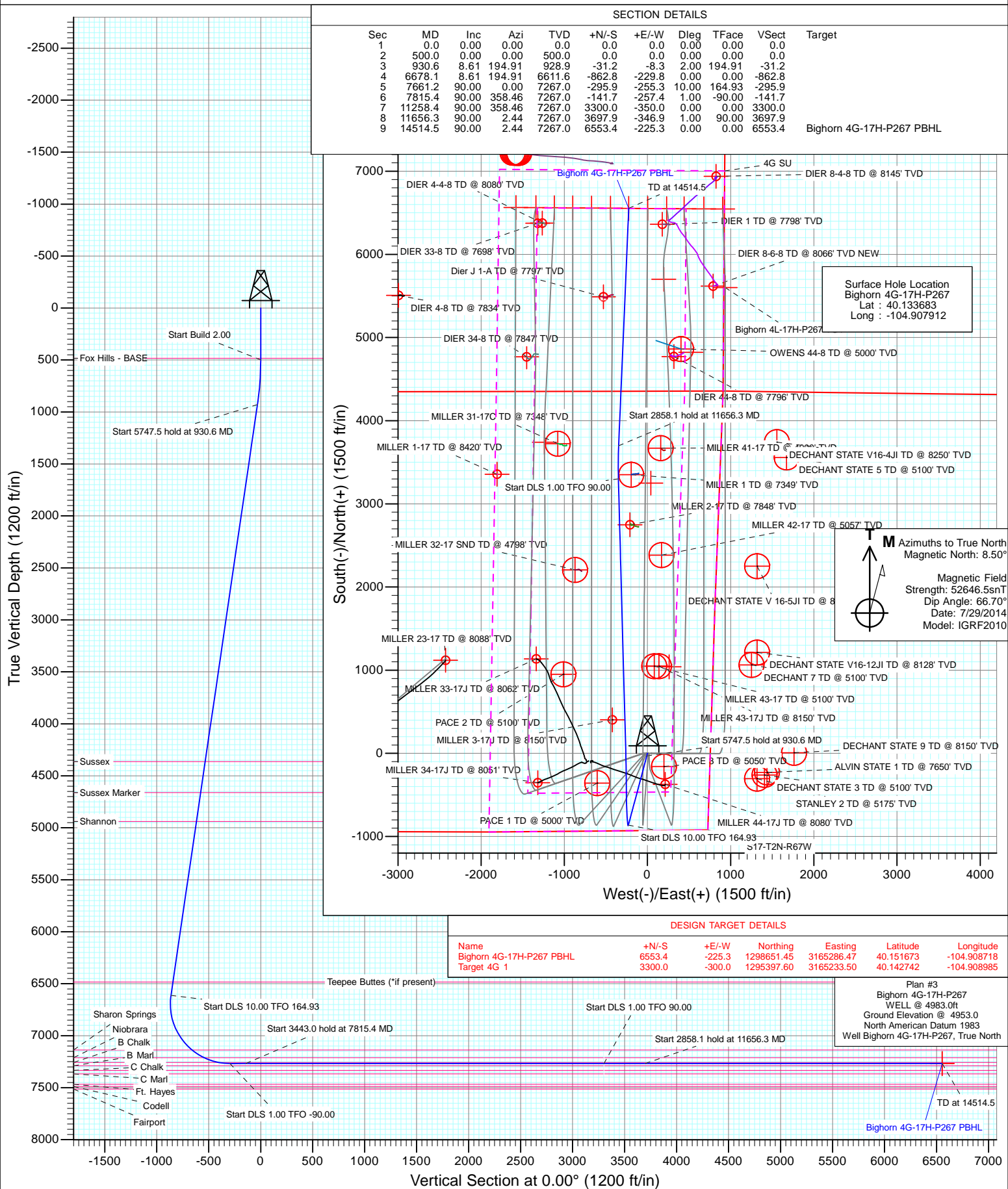




Project: DJ Wattenberg
Site: S17-T2N-R67W (Big Horn)
Well: Bighorn 4G-17H-P267
Wellbore: DD
Design: Plan #3



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4983.0ft
Project:	DJ Wattenberg	MD Reference:	WELL @ 4983.0ft
Site:	S17-T2N-R67W (Big Horn)	North Reference:	True
Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S17-T2N-R67W (Big Horn)			
Site Position:		Northing:	1,292,301.45 ft	Latitude:	40.134300
From:	Lat/Long	Easting:	3,162,073.61 ft	Longitude:	-104.920360
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.37 °

Well	Bighorn 4G-17H-P267					
Well Position	+N/-S	0.0 ft	Northing:	1,292,099.68 ft	Latitude:	40.133683
	+E/-W	0.0 ft	Easting:	3,165,555.52 ft	Longitude:	-104.907912
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,953.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/29/2014	8.50	66.70	52,646

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
930.6	8.61	194.91	928.9	-31.2	-8.3	2.00	2.00	0.00	194.91	
6,678.1	8.61	194.91	6,611.6	-862.8	-229.8	0.00	0.00	0.00	0.00	
7,661.2	90.00	0.00	7,267.0	-295.9	-255.3	10.00	8.28	16.79	164.93	
7,815.4	90.00	358.46	7,267.0	-141.7	-257.4	1.00	0.00	-1.00	-90.00	
11,258.4	90.00	358.46	7,267.0	3,300.0	-350.0	0.00	0.00	0.00	0.00	
11,656.3	90.00	2.44	7,267.0	3,697.9	-346.9	1.00	0.00	1.00	90.00	
14,514.5	90.00	2.44	7,267.0	6,553.4	-225.3	0.00	0.00	0.00	0.00	Bighorn 4G-17H-P267

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4983.0ft
Project:	DJ Wattenberg	MD Reference:	WELL @ 4983.0ft
Site:	S17-T2N-R67W (Big Horn)	North Reference:	True
Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	
483.0	0.00	0.00	483.0	0.0	0.0	0.0	0.00	0.00	Fox Hills - BASE
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	Start Build 2.00
600.0	2.00	194.91	600.0	-1.7	-0.4	-1.7	2.00	2.00	
700.0	4.00	194.91	699.8	-6.7	-1.8	-6.7	2.00	2.00	
800.0	6.00	194.91	799.5	-15.2	-4.0	-15.2	2.00	2.00	
900.0	8.00	194.91	898.7	-26.9	-7.2	-26.9	2.00	2.00	
930.6	8.61	194.91	928.9	-31.2	-8.3	-31.2	2.00	2.00	Start 5747.5 hold at 930.6 MD
1,000.0	8.61	194.91	997.6	-41.3	-11.0	-41.3	0.00	0.00	
1,100.0	8.61	194.91	1,096.5	-55.7	-14.8	-55.7	0.00	0.00	
1,200.0	8.61	194.91	1,195.3	-70.2	-18.7	-70.2	0.00	0.00	
1,300.0	8.61	194.91	1,294.2	-84.7	-22.5	-84.7	0.00	0.00	
1,400.0	8.61	194.91	1,393.1	-99.1	-26.4	-99.1	0.00	0.00	
1,500.0	8.61	194.91	1,492.0	-113.6	-30.3	-113.6	0.00	0.00	
1,600.0	8.61	194.91	1,590.8	-128.1	-34.1	-128.1	0.00	0.00	
1,700.0	8.61	194.91	1,689.7	-142.5	-38.0	-142.5	0.00	0.00	
1,800.0	8.61	194.91	1,788.6	-157.0	-41.8	-157.0	0.00	0.00	
1,900.0	8.61	194.91	1,887.5	-171.5	-45.7	-171.5	0.00	0.00	
2,000.0	8.61	194.91	1,986.3	-185.9	-49.5	-185.9	0.00	0.00	
2,100.0	8.61	194.91	2,085.2	-200.4	-53.4	-200.4	0.00	0.00	
2,200.0	8.61	194.91	2,184.1	-214.9	-57.2	-214.9	0.00	0.00	
2,300.0	8.61	194.91	2,282.9	-229.3	-61.1	-229.3	0.00	0.00	
2,400.0	8.61	194.91	2,381.8	-243.8	-64.9	-243.8	0.00	0.00	
2,500.0	8.61	194.91	2,480.7	-258.3	-68.8	-258.3	0.00	0.00	
2,600.0	8.61	194.91	2,579.6	-272.8	-72.6	-272.8	0.00	0.00	
2,700.0	8.61	194.91	2,678.4	-287.2	-76.5	-287.2	0.00	0.00	
2,800.0	8.61	194.91	2,777.3	-301.7	-80.3	-301.7	0.00	0.00	
2,900.0	8.61	194.91	2,876.2	-316.2	-84.2	-316.2	0.00	0.00	
3,000.0	8.61	194.91	2,975.1	-330.6	-88.0	-330.6	0.00	0.00	
3,100.0	8.61	194.91	3,073.9	-345.1	-91.9	-345.1	0.00	0.00	
3,200.0	8.61	194.91	3,172.8	-359.6	-95.8	-359.6	0.00	0.00	
3,300.0	8.61	194.91	3,271.7	-374.0	-99.6	-374.0	0.00	0.00	
3,400.0	8.61	194.91	3,370.5	-388.5	-103.5	-388.5	0.00	0.00	
3,500.0	8.61	194.91	3,469.4	-403.0	-107.3	-403.0	0.00	0.00	
3,600.0	8.61	194.91	3,568.3	-417.4	-111.2	-417.4	0.00	0.00	
3,700.0	8.61	194.91	3,667.2	-431.9	-115.0	-431.9	0.00	0.00	
3,800.0	8.61	194.91	3,766.0	-446.4	-118.9	-446.4	0.00	0.00	
3,900.0	8.61	194.91	3,864.9	-460.8	-122.7	-460.8	0.00	0.00	
4,000.0	8.61	194.91	3,963.8	-475.3	-126.6	-475.3	0.00	0.00	
4,100.0	8.61	194.91	4,062.7	-489.8	-130.4	-489.8	0.00	0.00	
4,200.0	8.61	194.91	4,161.5	-504.3	-134.3	-504.3	0.00	0.00	
4,300.0	8.61	194.91	4,260.4	-518.7	-138.1	-518.7	0.00	0.00	
4,400.0	8.61	194.91	4,359.3	-533.2	-142.0	-533.2	0.00	0.00	
4,403.8	8.61	194.91	4,363.0	-533.7	-142.1	-533.7	0.00	0.00	Sussex
4,500.0	8.61	194.91	4,458.1	-547.7	-145.8	-547.7	0.00	0.00	
4,600.0	8.61	194.91	4,557.0	-562.1	-149.7	-562.1	0.00	0.00	
4,700.0	8.61	194.91	4,655.9	-576.6	-153.5	-576.6	0.00	0.00	
4,705.2	8.61	194.91	4,661.0	-577.3	-153.7	-577.3	0.00	0.00	Sussex Marker

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4983.0ft
Project:	DJ Wattenberg	MD Reference:	WELL @ 4983.0ft
Site:	S17-T2N-R67W (Big Horn)	North Reference:	True
Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	8.61	194.91	4,754.8	-591.1	-157.4	-591.1	0.00	0.00	
4,900.0	8.61	194.91	4,853.6	-605.5	-161.3	-605.5	0.00	0.00	
4,986.3	8.61	194.91	4,939.0	-618.0	-164.6	-618.0	0.00	0.00	Shannon
5,000.0	8.61	194.91	4,952.5	-620.0	-165.1	-620.0	0.00	0.00	
5,100.0	8.61	194.91	5,051.4	-634.5	-169.0	-634.5	0.00	0.00	
5,200.0	8.61	194.91	5,150.3	-648.9	-172.8	-648.9	0.00	0.00	
5,300.0	8.61	194.91	5,249.1	-663.4	-176.7	-663.4	0.00	0.00	
5,400.0	8.61	194.91	5,348.0	-677.9	-180.5	-677.9	0.00	0.00	
5,500.0	8.61	194.91	5,446.9	-692.4	-184.4	-692.4	0.00	0.00	
5,600.0	8.61	194.91	5,545.7	-706.8	-188.2	-706.8	0.00	0.00	
5,700.0	8.61	194.91	5,644.6	-721.3	-192.1	-721.3	0.00	0.00	
5,800.0	8.61	194.91	5,743.5	-735.8	-195.9	-735.8	0.00	0.00	
5,900.0	8.61	194.91	5,842.4	-750.2	-199.8	-750.2	0.00	0.00	
6,000.0	8.61	194.91	5,941.2	-764.7	-203.6	-764.7	0.00	0.00	
6,100.0	8.61	194.91	6,040.1	-779.2	-207.5	-779.2	0.00	0.00	
6,200.0	8.61	194.91	6,139.0	-793.6	-211.3	-793.6	0.00	0.00	
6,300.0	8.61	194.91	6,237.9	-808.1	-215.2	-808.1	0.00	0.00	
6,400.0	8.61	194.91	6,336.7	-822.6	-219.0	-822.6	0.00	0.00	
6,500.0	8.61	194.91	6,435.6	-837.0	-222.9	-837.0	0.00	0.00	
6,547.9	8.61	194.91	6,483.0	-844.0	-224.7	-844.0	0.00	0.00	Teepee Buttes (*if present)
6,600.0	8.61	194.91	6,534.5	-851.5	-226.8	-851.5	0.00	0.00	
6,678.1	8.61	194.91	6,611.6	-862.8	-229.8	-862.8	0.00	0.00	Start DLS 10.00 TFO 164.93
6,700.0	6.52	199.95	6,633.4	-865.6	-230.6	-865.6	10.00	-9.54	
6,800.0	4.47	330.11	6,733.2	-867.5	-234.5	-867.5	10.00	-2.05	
6,900.0	14.05	351.04	6,831.8	-852.1	-238.3	-852.1	10.00	9.58	
7,000.0	23.97	354.97	6,926.2	-819.8	-242.0	-819.8	10.00	9.92	
7,100.0	33.94	356.68	7,013.6	-771.6	-245.4	-771.6	10.00	9.97	
7,200.0	43.92	357.68	7,091.3	-708.9	-248.5	-708.9	10.00	9.98	
7,265.9	50.50	358.16	7,136.0	-660.6	-250.2	-660.6	10.00	9.99	Sharon Springs
7,300.0	53.91	358.37	7,156.9	-633.7	-251.0	-633.7	10.00	9.99	
7,400.0	63.90	358.91	7,208.5	-548.2	-253.0	-548.2	10.00	9.99	
7,405.7	64.47	358.93	7,211.0	-543.0	-253.1	-543.0	10.00	9.99	Niobrara
7,500.0	73.89	359.36	7,244.5	-455.0	-254.4	-455.0	10.00	9.99	
7,554.0	79.28	359.58	7,257.0	-402.5	-254.9	-402.5	10.00	9.99	B Chalk
7,600.0	83.88	359.76	7,263.7	-357.0	-255.2	-357.0	10.00	9.99	
7,661.2	90.00	0.00	7,267.0	-295.9	-255.3	-295.9	10.00	9.99	Start DLS 1.00 TFO -90.00
7,700.0	90.00	359.61	7,267.0	-257.1	-255.4	-257.1	1.00	0.00	
7,800.0	90.00	358.61	7,267.0	-157.1	-257.0	-157.1	1.00	0.00	
7,815.4	90.00	358.46	7,267.0	-141.7	-257.4	-141.7	1.00	0.00	Start 3443.0 hold at 7815.4 MD
7,900.0	90.00	358.46	7,267.0	-57.2	-259.6	-57.2	0.00	0.00	
8,000.0	90.00	358.46	7,267.0	42.8	-262.3	42.8	0.00	0.00	
8,100.0	90.00	358.46	7,267.0	142.8	-265.0	142.8	0.00	0.00	
8,200.0	90.00	358.46	7,267.0	242.7	-267.7	242.7	0.00	0.00	
8,300.0	90.00	358.46	7,267.0	342.7	-270.4	342.7	0.00	0.00	
8,400.0	90.00	358.46	7,267.0	442.7	-273.1	442.7	0.00	0.00	
8,500.0	90.00	358.46	7,267.0	542.6	-275.8	542.6	0.00	0.00	
8,600.0	90.00	358.46	7,267.0	642.6	-278.5	642.6	0.00	0.00	
8,700.0	90.00	358.46	7,267.0	742.5	-281.2	742.5	0.00	0.00	
8,800.0	90.00	358.46	7,267.0	842.5	-283.9	842.5	0.00	0.00	
8,900.0	90.00	358.46	7,267.0	942.5	-286.6	942.5	0.00	0.00	
9,000.0	90.00	358.46	7,267.0	1,042.4	-289.2	1,042.4	0.00	0.00	
9,100.0	90.00	358.46	7,267.0	1,142.4	-291.9	1,142.4	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4983.0ft
Project:	DJ Wattenberg	MD Reference:	WELL @ 4983.0ft
Site:	S17-T2N-R67W (Big Horn)	North Reference:	True
Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,200.0	90.00	358.46	7,267.0	1,242.4	-294.6	1,242.4	0.00	0.00	
9,300.0	90.00	358.46	7,267.0	1,342.3	-297.3	1,342.3	0.00	0.00	
9,400.0	90.00	358.46	7,267.0	1,442.3	-300.0	1,442.3	0.00	0.00	
9,500.0	90.00	358.46	7,267.0	1,542.3	-302.7	1,542.3	0.00	0.00	
9,600.0	90.00	358.46	7,267.0	1,642.2	-305.4	1,642.2	0.00	0.00	
9,700.0	90.00	358.46	7,267.0	1,742.2	-308.1	1,742.2	0.00	0.00	
9,800.0	90.00	358.46	7,267.0	1,842.1	-310.8	1,842.1	0.00	0.00	
9,900.0	90.00	358.46	7,267.0	1,942.1	-313.5	1,942.1	0.00	0.00	
10,000.0	90.00	358.46	7,267.0	2,042.1	-316.1	2,042.1	0.00	0.00	
10,100.0	90.00	358.46	7,267.0	2,142.0	-318.8	2,142.0	0.00	0.00	
10,200.0	90.00	358.46	7,267.0	2,242.0	-321.5	2,242.0	0.00	0.00	
10,300.0	90.00	358.46	7,267.0	2,342.0	-324.2	2,342.0	0.00	0.00	
10,400.0	90.00	358.46	7,267.0	2,441.9	-326.9	2,441.9	0.00	0.00	
10,500.0	90.00	358.46	7,267.0	2,541.9	-329.6	2,541.9	0.00	0.00	
10,600.0	90.00	358.46	7,267.0	2,641.9	-332.3	2,641.9	0.00	0.00	
10,700.0	90.00	358.46	7,267.0	2,741.8	-335.0	2,741.8	0.00	0.00	
10,800.0	90.00	358.46	7,267.0	2,841.8	-337.7	2,841.8	0.00	0.00	
10,900.0	90.00	358.46	7,267.0	2,941.8	-340.4	2,941.8	0.00	0.00	
11,000.0	90.00	358.46	7,267.0	3,041.7	-343.0	3,041.7	0.00	0.00	
11,100.0	90.00	358.46	7,267.0	3,141.7	-345.7	3,141.7	0.00	0.00	
11,200.0	90.00	358.46	7,267.0	3,241.6	-348.4	3,241.6	0.00	0.00	
11,258.4	90.00	358.46	7,267.0	3,300.0	-350.0	3,300.0	0.00	0.00	Start DLS 1.00 TFO 90.00
11,300.0	90.00	358.87	7,267.0	3,341.6	-351.0	3,341.6	1.00	0.00	
11,400.0	90.00	359.87	7,267.0	3,441.6	-352.1	3,441.6	1.00	0.00	
11,500.0	90.00	0.87	7,267.0	3,541.6	-351.4	3,541.6	1.00	0.00	
11,600.0	90.00	1.87	7,267.0	3,641.6	-349.0	3,641.6	1.00	0.00	
11,656.3	90.00	2.44	7,267.0	3,697.9	-346.9	3,697.9	1.00	0.00	Start 2858.1 hold at 11656.3 MD
11,700.0	90.00	2.44	7,267.0	3,741.5	-345.0	3,741.5	0.00	0.00	
11,800.0	90.00	2.44	7,267.0	3,841.4	-340.8	3,841.4	0.00	0.00	
11,900.0	90.00	2.44	7,267.0	3,941.3	-336.5	3,941.3	0.00	0.00	
12,000.0	90.00	2.44	7,267.0	4,041.2	-332.3	4,041.2	0.00	0.00	
12,100.0	90.00	2.44	7,267.0	4,141.1	-328.0	4,141.1	0.00	0.00	
12,200.0	90.00	2.44	7,267.0	4,241.0	-323.8	4,241.0	0.00	0.00	
12,300.0	90.00	2.44	7,267.0	4,340.9	-319.5	4,340.9	0.00	0.00	
12,400.0	90.00	2.44	7,267.0	4,440.9	-315.3	4,440.9	0.00	0.00	
12,500.0	90.00	2.44	7,267.0	4,540.8	-311.0	4,540.8	0.00	0.00	
12,600.0	90.00	2.44	7,267.0	4,640.7	-306.7	4,640.7	0.00	0.00	
12,700.0	90.00	2.44	7,267.0	4,740.6	-302.5	4,740.6	0.00	0.00	
12,800.0	90.00	2.44	7,267.0	4,840.5	-298.2	4,840.5	0.00	0.00	
12,900.0	90.00	2.44	7,267.0	4,940.4	-294.0	4,940.4	0.00	0.00	
13,000.0	90.00	2.44	7,267.0	5,040.3	-289.7	5,040.3	0.00	0.00	
13,100.0	90.00	2.44	7,267.0	5,140.2	-285.5	5,140.2	0.00	0.00	
13,200.0	90.00	2.44	7,267.0	5,240.1	-281.2	5,240.1	0.00	0.00	
13,300.0	90.00	2.44	7,267.0	5,340.0	-277.0	5,340.0	0.00	0.00	
13,400.0	90.00	2.44	7,267.0	5,440.0	-272.7	5,440.0	0.00	0.00	
13,500.0	90.00	2.44	7,267.0	5,539.9	-268.5	5,539.9	0.00	0.00	
13,600.0	90.00	2.44	7,267.0	5,639.8	-264.2	5,639.8	0.00	0.00	
13,700.0	90.00	2.44	7,267.0	5,739.7	-260.0	5,739.7	0.00	0.00	
13,800.0	90.00	2.44	7,267.0	5,839.6	-255.7	5,839.6	0.00	0.00	
13,900.0	90.00	2.44	7,267.0	5,939.5	-251.4	5,939.5	0.00	0.00	
14,000.0	90.00	2.44	7,267.0	6,039.4	-247.2	6,039.4	0.00	0.00	
14,100.0	90.00	2.44	7,267.0	6,139.3	-242.9	6,139.3	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 4983.0ft
Project:	DJ Wattenberg	MD Reference:	WELL @ 4983.0ft
Site:	S17-T2N-R67W (Big Horn)	North Reference:	True
Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #3		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,200.0	90.00	2.44	7,267.0	6,239.2	-238.7	6,239.2	0.00	0.00	
14,300.0	90.00	2.44	7,267.0	6,339.1	-234.4	6,339.1	0.00	0.00	
14,400.0	90.00	2.44	7,267.0	6,439.0	-230.2	6,439.0	0.00	0.00	
14,500.0	90.00	2.44	7,267.0	6,539.0	-225.9	6,539.0	0.00	0.00	
14,514.5	90.00	2.44	7,267.0	6,553.4	-225.3	6,553.4	0.00	0.00	TD at 14514.5

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Target 4G 1 - plan misses target center by 50.0ft at 11257.0ft MD (7267.0 TVD, 3298.7 N, -350.0 E) - Point	0.00	0.00	7,267.0	3,300.0	-300.0	1,295,397.60	3,165,233.50	40.142742	-104.908985
Bighorn 4G-17H-P267 P - plan hits target center - Point	0.00	0.38	7,267.0	6,553.4	-225.3	1,298,651.45	3,165,286.47	40.151673	-104.908718

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
483.0	483.0	Fox Hills - BASE			
4,403.8	4,363.0	Sussex			
4,705.2	4,661.0	Sussex Marker			
4,986.3	4,939.0	Shannon			
6,547.9	6,483.0	Teepee Buttes (*if present)			
7,265.9	7,136.0	Sharon Springs			
7,405.7	7,211.0	Niobrara			
7,554.0	7,257.0	B Chalk			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.0	500.0	0.0	0.0	Start Build 2.00
930.6	928.9	-31.2	-8.3	Start 5747.5 hold at 930.6 MD
6,678.1	6,611.6	-862.8	-229.8	Start DLS 10.00 TFO 164.93
7,661.2	7,267.0	-295.9	-255.3	Start DLS 1.00 TFO -90.00
7,815.4	7,267.0	-141.7	-257.4	Start 3443.0 hold at 7815.4 MD
11,258.4	7,267.0	3,300.0	-350.0	Start DLS 1.00 TFO 90.00
11,656.3	7,267.0	3,697.9	-346.9	Start 2858.1 hold at 11656.3 MD
14,514.5	7,267.0	6,553.4	-225.3	TD at 14514.5

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S17-T2N-R67W (Big Horn)

Bighorn 4G-17H-P267

DD

Plan #3

Anticollision Report

25 November, 2014

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference	Plan #3		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,639.3ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	11/25/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,514.5	Plan #3 (DD)	Geolink MWD	Geolink MWD	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S17-T2N-R67W (Big Horn)						
ALVIN-STATE 1 (EXISTING) - MERIT ENERGY - NO SU	500.0	496.0	1,453.6	1,451.9	862.042	CC
ALVIN-STATE 1 (EXISTING) - MERIT ENERGY - NO SU	600.0	596.0	1,453.7	1,451.7	713.651	ES
ALVIN-STATE 1 (EXISTING) - MERIT ENERGY - NO SU	4,800.0	4,750.8	1,633.7	1,612.7	77.871	SF
Bighorn 4A-17H-P267 - DD - Plan #2	200.0	200.0	59.8	59.2	100.835	CC, ES
Bighorn 4A-17H-P267 - DD - Plan #2	14,514.5	14,260.0	1,357.2	1,123.6	5.811	SF
Bighorn 4B-17H-P267 - DD - Plan #4	233.4	233.4	50.1	49.3	70.506	CC, ES
Bighorn 4B-17H-P267 - DD - Plan #4	14,514.5	14,412.1	1,139.6	910.4	4.974	SF
Bighorn 4C-17H-P267 - DD - Plan #3	300.0	300.0	40.0	39.0	42.425	CC, ES
Bighorn 4C-17H-P267 - DD - Plan #3	14,514.5	14,055.8	894.0	660.1	3.822	SF
Bighorn 4D-17H-P267 - DD - Plan #1	333.7	333.7	29.9	28.9	28.222	CC, ES
Bighorn 4D-17H-P267 - DD - Plan #1	14,514.5	14,781.1	712.4	490.5	3.210	SF
Bighorn 4E-17H-P267 - DD - Plan #1	400.0	400.0	19.9	18.6	15.373	CC, ES
Bighorn 4E-17H-P267 - DD - Plan #1	14,514.5	14,532.7	447.0	212.8	1.908	SF
Bighorn 4F-17H-P267 - DD - Plan #3	435.8	435.8	10.1	8.6	7.106	CC
Bighorn 4F-17H-P267 - DD - Plan #3	500.0	499.9	10.3	8.6	6.250	ES
Bighorn 4F-17H-P267 - DD - Plan #3	14,514.5	14,754.1	318.4	153.6	1.932	SF
Bighorn 4H-17H-P267 - DD - Plan #3	505.7	505.7	10.0	8.4	6.045	CC, ES
Bighorn 4H-17H-P267 - DD - Plan #3	14,514.5	14,666.9	324.4	156.1	1.927	SF
Bighorn 4I-17H-P267 - DD - Plan #5	400.0	400.0	20.1	18.8	15.587	CC
Bighorn 4I-17H-P267 - DD - Plan #5	500.0	500.0	20.2	18.5	12.288	ES
Bighorn 4I-17H-P267 - DD - Plan #5	14,514.5	14,512.3	455.1	220.3	1.938	SF
Bighorn 4J-17H-P267 - DD - Plan #3	333.3	333.3	30.2	29.1	28.520	CC, ES
Bighorn 4J-17H-P267 - DD - Plan #3	14,514.5	13,818.5	704.0	481.7	3.168	SF
Bighorn 4K-17H-P267 - DD - Plan #2	300.0	300.0	40.0	39.0	42.425	CC, ES
Bighorn 4K-17H-P267 - DD - Plan #2	14,514.5	13,598.5	902.1	667.3	3.843	SF
Bighorn 4L-17H-P267 - DD - Plan #3	200.0	200.0	50.1	49.5	84.344	CC, ES
Bighorn 4L-17H-P267 - DD - Plan #3	14,514.5	13,855.2	1,152.4	922.1	5.002	SF
DECHANT 7 (EXISTING) - FOUNDATION - NO SURVEY						Out of range
DECHANT STATE V 16-12JI (EXISTING) - KMG - NO SU	9,126.3	7,251.0	1,610.7	1,571.8	41.407	CC, ES
DECHANT STATE V 16-12JI (EXISTING) - KMG - NO SU	9,400.0	7,251.0	1,633.8	1,590.7	37.913	SF
DECHANT STATE V 16-4JI (EXISTING) - KMG - NO SU						Out of range
DECHANT STATE V 16-5JI (EXISTING) - KMG - NO SU	10,164.1	7,256.0	1,638.5	1,583.0	29.524	CC
DECHANT STATE V 16-5JI (EXISTING) - KMG - NO SU	10,200.0	7,256.0	1,638.9	1,582.8	29.217	ES, SF
DECHANT-STATE 3 (EXISTING) - FOUNDATION - NO S	500.0	496.0	1,430.8	1,429.1	848.522	CC
DECHANT-STATE 3 (EXISTING) - FOUNDATION - NO S	600.0	596.0	1,430.9	1,428.9	702.434	ES
DECHANT-STATE 3 (EXISTING) - FOUNDATION - NO S	5,200.0	5,100.0	1,627.7	1,605.0	71.743	SF
DECHANT-STATE 5 (EXISTING) - FOUNDATION - NO S						Out of range
DECHANT-STATE 9 (EXISTING) - KMG - NO SURVEYS						Out of range
DIER 1 (EXISTING) - ENCANA WELL - GYRO	14,340.0	7,240.5	430.6	303.8	3.396	CC, ES, SF
DIER 33-8 (EXISTING) - ENCANA WELL - GYRO	14,278.6	7,215.6	1,082.6	956.8	8.608	CC
DIER 33-8 (EXISTING) - ENCANA WELL - GYRO	14,300.0	7,216.1	1,082.8	956.6	8.584	ES
DIER 33-8 (EXISTING) - ENCANA WELL - GYRO	14,400.0	7,218.1	1,089.3	961.5	8.518	SF
DIER 34-8 (EXISTING) - ENCANA WELL - GYRO	12,667.8	7,200.2	1,144.8	1,047.0	11.711	CC
DIER 34-8 (EXISTING) - ENCANA WELL - GYRO	12,700.0	7,200.7	1,145.2	1,046.9	11.649	ES
DIER 34-8 (EXISTING) - ENCANA WELL - GYRO	12,900.0	7,203.9	1,168.1	1,066.3	11.476	SF
DIER 44-8 (EXISTING) - ENCANA WELL - GYRO	12,764.4	7,212.8	596.7	497.3	6.003	CC, ES
DIER 44-8 (EXISTING) - ENCANA WELL - GYRO	12,800.0	7,211.3	597.7	497.7	5.977	SF
DIER 4-4-8 (EXISTING) - ENCANA WELL - NO SURVEY	14,293.0	7,202.0	1,031.1	905.1	8.184	CC
DIER 4-4-8 (EXISTING) - ENCANA WELL - NO SURVEY	14,300.0	7,202.0	1,031.1	905.0	8.176	ES
DIER 4-4-8 (EXISTING) - ENCANA WELL - NO SURVEY	14,400.0	7,202.0	1,036.6	908.8	8.108	SF
DIER 4-8 (EXISTING) - ENCANA - GYRO						Out of range
DIER 8-4-8 (EXISTING) - ENCANA WELL - SURVEYS	14,514.5	7,309.0	1,093.6	960.5	8.216	CC, ES, SF
DIER 8-6-8 (EXISTING) - ENCANA WELL - SURVEYS	13,629.6	7,396.0	1,079.0	958.7	8.968	CC, ES

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S17-T2N-R67W (Big Horn)						
DIER 8-6-8 (EXISTING) - ENCANA WELL - SURVEYS	13,800.0	7,395.4	1,092.4	969.1	8.861	SF
DIER J 1-A (EXISTING) - ENCANA WELL - GYRO	13,443.4	7,230.5	270.3	159.0	2.429	CC, ES, SF
MILLER 1 (EXISTING) - SUNDANCE WELL - GYRO	11,306.2	7,228.3	157.6	82.9	2.110	CC, ES, SF
MILLER 1-17 (EXISTING) - ENCANA WELL - NO SURV	11,335.0	7,225.0	1,457.1	1,381.9	19.379	CC, ES
MILLER 1-17 (EXISTING) - ENCANA WELL - NO SURV	11,700.0	7,225.0	1,513.2	1,432.1	18.665	SF
MILLER 13-17J (EXISTING) - DD - Plan #1						Out of range
MILLER 13-17J (EXISTING) - DD - SURVEYS						Out of range
MILLER 2-17 (EXISTING) - ENCANA WELL - GYRO	10,709.0	7,238.9	128.7	64.1	1.991	CC, ES, SF
MILLER 23-17J (EXISTING) - DD - Plan #1						Out of range
MILLER 23-17J (EXISTING) - DD - SURVEYS						Out of range
MILLER 2-4-17 (EXISTING) - DD - Plan #1						Out of range
MILLER 2-4-17 (EXISTING) - DD - SURVEYS						Out of range
MILLER 31-17C (EXISTING) - SUNDANCE WELL - GYR	11,653.3	7,191.2	727.1	646.9	9.063	CC, ES
MILLER 31-17C (EXISTING) - SUNDANCE WELL - GYR	11,800.0	7,191.0	742.5	659.8	8.977	SF
MILLER 3-17J (EXISTING) - ENCANA - NO SURVEYS	8,364.6	7,237.0	150.4	121.3	5.176	CC, ES, SF
MILLER 32-17 (EXISTING) SUNDANCE - SUNDANCE W						Out of range
MILLER 33-17J (EXISTING) - ENCANA - SURVEYS	2,081.8	2,029.5	678.6	669.9	78.205	CC
MILLER 33-17J (EXISTING) - ENCANA - SURVEYS	2,200.0	2,145.0	678.9	669.6	73.391	ES
MILLER 33-17J (EXISTING) - ENCANA - SURVEYS	9,400.0	7,495.9	1,047.3	991.7	18.840	SF
MILLER 34-17J (EXISTING) - ENCANA - SURVEYS	2,775.6	2,727.2	693.0	680.9	57.413	CC
MILLER 34-17J (EXISTING) - ENCANA - SURVEYS	2,900.0	2,848.9	693.4	680.7	54.726	ES
MILLER 34-17J (EXISTING) - ENCANA - SURVEYS	6,800.0	6,577.3	1,055.8	1,024.4	33.612	SF
MILLER 41-17 (EXISTING) - SUNDANCE WELL - GYRO						Out of range
MILLER 42-17 (EXISTING) - SUNDANCE WELL - NO SU						Out of range
MILLER 43-17 (EXISTING) - SUNDANCE - NO SURVEY	500.0	477.0	1,050.4	1,048.8	635.477	CC, ES
MILLER 43-17 (EXISTING) - SUNDANCE - NO SURVEY	4,600.0	4,534.0	1,625.9	1,610.0	102.012	SF
MILLER 43-17J (EXISTING) - SUNDANCE - NO SURVE	8,993.8	7,245.0	426.5	389.6	11.548	CC
MILLER 43-17J (EXISTING) - SUNDANCE - NO SURVE	9,000.0	7,245.0	426.6	389.5	11.521	ES
MILLER 43-17J (EXISTING) - SUNDANCE - NO SURVE	9,100.0	7,245.0	439.5	401.0	11.419	SF
MILLER 44-17J (EXISTING) - ENCANA - SURVEYS	7,500.0	7,338.2	421.8	393.0	14.651	SF
MILLER 44-17J (EXISTING) - ENCANA - SURVEYS	7,560.6	7,350.8	418.3	389.9	14.715	CC, ES
MILLER CJ1A-17 (EXISTING) - DD - SURVEYS						Out of range
OWENS 44-8 (EXISTING) - KPK WELL - SURVEYS						Out of range
PACE 1 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	4,065.2	4,005.2	492.3	474.0	26.858	CC
PACE 1 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	4,200.0	4,138.5	492.7	473.7	25.962	ES
PACE 1 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	5,100.0	5,000.0	516.9	494.0	22.557	SF
PACE 2 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	500.0	464.0	1,387.5	1,385.9	851.073	CC, ES
PACE 2 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	3,600.0	3,532.3	1,637.0	1,622.4	111.905	SF
PACE 3 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	1,399.6	1,372.7	232.2	226.7	42.530	CC
PACE 3 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	1,400.0	1,373.1	232.2	226.7	42.516	ES
PACE 3 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	2,700.0	2,658.4	303.0	292.2	27.981	SF
SATER 21-8 (EXISTING) - KERRMCGEE WELL - SURV						Out of range
SATER 24-8 (EXISTING) - KERRMCGEE WELL - SURV	14,514.5	7,351.4	582.3	452.2	4.476	CC, ES, SF
SATER 2-8 (EXISTING) - KERRMCGEE WELL - SURVE						Out of range
SATER 28-8 (EXISTING) - KERRMCGEE WELL - SURV						Out of range
SATER 7-8 (EXISTING) - KERRMCGEE WELL - SURVE	14,514.5	7,277.2	1,403.7	1,272.2	10.679	CC, ES, SF
SATER 8-8 (EXISTING) - KERRMCGEE WELL - SURVE	14,514.5	7,613.8	1,235.2	1,101.7	9.250	CC, ES, SF
STANLEY 2 (EXISTING) - GERRITY OIL - NO SURVEYS	500.0	528.0	1,351.4	1,349.7	775.782	CC
STANLEY 2 (EXISTING) - GERRITY OIL - NO SURVEYS	800.0	827.5	1,352.0	1,349.2	476.594	ES
STANLEY 2 (EXISTING) - GERRITY OIL - NO SURVEYS	5,400.0	5,175.0	1,556.1	1,532.6	66.376	SF

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - ALVIN-STATE 1 (EXISTING) - MERIT ENERGY - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 7650-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	99.04	-228.4	1,435.5	1,453.6					
100.0	100.0	96.0	96.0	0.1	0.2	99.04	-228.4	1,435.5	1,453.6	1,453.3	0.29	5,013.600		
200.0	200.0	196.0	196.0	0.3	0.3	99.04	-228.4	1,435.5	1,453.6	1,452.9	0.64	2,274.785		
300.0	300.0	296.0	296.0	0.5	0.5	99.04	-228.4	1,435.5	1,453.6	1,452.6	0.99	1,471.136		
400.0	400.0	396.0	396.0	0.6	0.7	99.04	-228.4	1,435.5	1,453.6	1,452.2	1.34	1,087.085		
500.0	500.0	496.0	496.0	0.8	0.9	99.04	-228.4	1,435.5	1,453.6	1,451.9	1.69	862.042 CC		
600.0	600.0	596.0	596.0	1.0	1.0	-95.94	-228.4	1,435.5	1,453.7	1,451.7	2.04	713.651 ES		
700.0	699.8	695.8	695.8	1.2	1.2	-96.13	-228.4	1,435.5	1,454.3	1,451.9	2.40	606.457		
800.0	799.5	795.5	795.5	1.4	1.4	-96.45	-228.4	1,435.5	1,455.2	1,452.5	2.78	523.388		
900.0	898.7	894.7	894.7	1.6	1.6	-96.90	-228.4	1,435.5	1,456.7	1,453.5	3.20	455.838		
1,000.0	997.6	993.6	993.6	1.9	1.7	-97.46	-228.4	1,435.5	1,458.5	1,454.9	3.63	401.363		
1,100.0	1,096.5	1,092.5	1,092.5	2.2	1.9	-98.03	-228.4	1,435.5	1,460.6	1,456.5	4.08	357.617		
1,200.0	1,195.3	1,191.3	1,191.3	2.5	2.1	-98.61	-228.4	1,435.5	1,462.8	1,458.2	4.54	322.055		
1,300.0	1,294.2	1,290.2	1,290.2	2.8	2.3	-99.18	-228.4	1,435.5	1,465.1	1,460.1	5.00	292.746		
1,400.0	1,393.1	1,389.1	1,389.1	3.1	2.4	-99.75	-228.4	1,435.5	1,467.6	1,462.1	5.47	268.266		
1,500.0	1,492.0	1,488.0	1,488.0	3.4	2.6	-100.32	-228.4	1,435.5	1,470.2	1,464.3	5.94	247.566		
1,600.0	1,590.8	1,586.8	1,586.8	3.7	2.8	-100.89	-228.4	1,435.5	1,473.0	1,466.6	6.41	229.866		
1,700.0	1,689.7	1,685.7	1,685.7	4.0	2.9	-101.45	-228.4	1,435.5	1,476.0	1,469.1	6.88	214.579		
1,800.0	1,788.6	1,784.6	1,784.6	4.3	3.1	-102.01	-228.4	1,435.5	1,479.0	1,471.7	7.35	201.259		
1,900.0	1,887.5	1,883.5	1,883.5	4.6	3.3	-102.57	-228.4	1,435.5	1,482.3	1,474.4	7.82	189.560		
2,000.0	1,986.3	1,982.3	1,982.3	4.9	3.5	-103.13	-228.4	1,435.5	1,485.6	1,477.3	8.29	179.212		
2,100.0	2,085.2	2,081.2	2,081.2	5.2	3.6	-103.69	-228.4	1,435.5	1,489.1	1,480.4	8.76	169.999		
2,200.0	2,184.1	2,180.1	2,180.1	5.5	3.8	-104.24	-228.4	1,435.5	1,492.8	1,483.6	9.23	161.750		
2,300.0	2,282.9	2,278.9	2,278.9	5.8	4.0	-104.79	-228.4	1,435.5	1,496.6	1,486.9	9.70	154.326		
2,400.0	2,381.8	2,377.8	2,377.8	6.1	4.2	-105.34	-228.4	1,435.5	1,500.5	1,490.3	10.17	147.613		
2,500.0	2,480.7	2,476.7	2,476.7	6.4	4.3	-105.88	-228.4	1,435.5	1,504.6	1,494.0	10.63	141.516		
2,600.0	2,579.6	2,575.6	2,575.6	6.8	4.5	-106.42	-228.4	1,435.5	1,508.8	1,497.7	11.10	135.957		
2,700.0	2,678.4	2,674.4	2,674.4	7.1	4.7	-106.96	-228.4	1,435.5	1,513.1	1,501.6	11.56	130.870		
2,800.0	2,777.3	2,773.3	2,773.3	7.4	4.8	-107.49	-228.4	1,435.5	1,517.6	1,505.6	12.03	126.201		
2,900.0	2,876.2	2,872.2	2,872.2	7.7	5.0	-108.03	-228.4	1,435.5	1,522.2	1,509.7	12.49	121.900		
3,000.0	2,975.1	2,971.1	2,971.1	8.0	5.2	-108.56	-228.4	1,435.5	1,527.0	1,514.0	12.95	117.929		
3,100.0	3,073.9	3,069.9	3,069.9	8.3	5.4	-109.08	-228.4	1,435.5	1,531.9	1,518.5	13.41	114.252		
3,200.0	3,172.8	3,168.8	3,168.8	8.6	5.5	-109.60	-228.4	1,435.5	1,536.9	1,523.0	13.87	110.840		
3,300.0	3,271.7	3,267.7	3,267.7	8.9	5.7	-110.12	-228.4	1,435.5	1,542.0	1,527.7	14.32	107.666		
3,400.0	3,370.5	3,366.5	3,366.5	9.3	5.9	-110.64	-228.4	1,435.5	1,547.3	1,532.5	14.78	104.707		
3,500.0	3,469.4	3,465.4	3,465.4	9.6	6.0	-111.15	-228.4	1,435.5	1,552.7	1,537.4	15.23	101.943		
3,600.0	3,568.3	3,564.3	3,564.3	9.9	6.2	-111.66	-228.4	1,435.5	1,558.2	1,542.5	15.68	99.357		
3,700.0	3,667.2	3,663.2	3,663.2	10.2	6.4	-112.16	-228.4	1,435.5	1,563.8	1,547.7	16.13	96.932		
3,800.0	3,766.0	3,762.0	3,762.0	10.5	6.6	-112.66	-228.4	1,435.5	1,569.6	1,553.0	16.58	94.656		
3,900.0	3,864.9	3,860.9	3,860.9	10.8	6.7	-113.16	-228.4	1,435.5	1,575.5	1,558.4	17.03	92.516		
4,000.0	3,963.8	3,959.8	3,959.8	11.1	6.9	-113.66	-228.4	1,435.5	1,581.5	1,564.0	17.47	90.501		
4,100.0	4,062.7	4,058.7	4,058.7	11.4	7.1	-114.15	-228.4	1,435.5	1,587.6	1,569.7	17.92	88.601		
4,200.0	4,161.5	4,157.5	4,157.5	11.8	7.3	-114.63	-228.4	1,435.5	1,593.8	1,575.5	18.36	86.806		
4,300.0	4,260.4	4,256.4	4,256.4	12.1	7.4	-115.12	-228.4	1,435.5	1,600.2	1,581.4	18.80	85.110		
4,400.0	4,359.3	4,355.3	4,355.3	12.4	7.6	-115.59	-228.4	1,435.5	1,606.7	1,587.4	19.24	83.505		
4,500.0	4,458.1	4,454.1	4,454.1	12.7	7.8	-116.07	-228.4	1,435.5	1,613.3	1,593.6	19.68	81.984		
4,600.0	4,557.0	4,553.0	4,553.0	13.0	7.9	-116.54	-228.4	1,435.5	1,620.0	1,599.8	20.11	80.542		
4,700.0	4,655.9	4,651.9	4,651.9	13.3	8.1	-117.01	-228.4	1,435.5	1,626.8	1,606.2	20.55	79.172		
4,800.0	4,754.8	4,750.8	4,750.8	13.6	8.3	-117.47	-228.4	1,435.5	1,633.7	1,612.7	20.98	77.871 SF		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4A-17H-P267 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-89.65	0.4	-59.8	59.8					
100.0	100.0	100.0	100.0	0.1	0.1	-89.65	0.4	-59.8	59.8	59.6	0.24	244.884		
200.0	200.0	200.0	200.0	0.3	0.3	-89.65	0.4	-59.8	59.8	59.2	0.59	100.835 CC, ES		
300.0	300.0	298.0	298.0	0.5	0.5	-90.17	-0.2	-61.4	61.5	60.5	0.94	65.439		
400.0	400.0	395.8	395.7	0.6	0.7	-91.58	-1.8	-66.2	66.3	65.0	1.28	51.638		
500.0	500.0	493.2	492.7	0.8	0.9	-93.51	-4.5	-74.0	74.5	72.9	1.63	45.738		
600.0	600.0	590.0	588.8	1.0	1.1	70.36	-8.3	-84.9	85.4	83.4	1.98	43.038		
700.0	699.8	686.1	683.8	1.2	1.4	70.75	-13.1	-98.7	98.4	96.1	2.35	41.903		
800.0	799.5	781.5	777.5	1.4	1.8	72.14	-18.9	-115.4	113.6	110.8	2.74	41.388		
900.0	898.7	876.1	869.8	1.6	2.2	74.07	-25.6	-134.9	130.9	127.7	3.19	41.070		
1,000.0	997.6	973.7	964.7	1.9	2.6	76.50	-33.2	-156.7	149.6	145.9	3.69	40.564		
1,100.0	1,096.5	1,071.8	1,060.0	2.2	3.0	78.53	-40.8	-178.6	168.5	164.2	4.22	39.939		
1,200.0	1,195.3	1,169.8	1,155.2	2.5	3.5	80.16	-48.4	-200.5	187.5	182.7	4.77	39.321		
1,300.0	1,294.2	1,267.9	1,250.5	2.8	3.9	81.48	-56.0	-222.5	206.6	201.3	5.33	38.746		
1,400.0	1,393.1	1,365.9	1,345.7	3.1	4.4	82.58	-63.6	-244.4	225.9	220.0	5.91	38.227		
1,500.0	1,492.0	1,464.0	1,441.0	3.4	4.8	83.51	-71.2	-266.3	245.2	238.7	6.49	37.764		
1,600.0	1,590.8	1,562.0	1,536.3	3.7	5.2	84.30	-78.8	-288.2	264.6	257.5	7.08	37.351		
1,700.0	1,689.7	1,660.1	1,631.5	4.0	5.7	84.99	-86.4	-310.2	284.0	276.3	7.68	36.984		
1,800.0	1,788.6	1,758.1	1,726.8	4.3	6.1	85.58	-94.0	-332.1	303.4	295.1	8.28	36.657		
1,900.0	1,887.5	1,856.2	1,822.1	4.6	6.6	86.11	-101.6	-354.0	322.9	314.0	8.88	36.365		
2,000.0	1,986.3	1,954.2	1,917.3	4.9	7.0	86.57	-109.2	-375.9	342.4	332.9	9.48	36.102		
2,100.0	2,085.2	2,052.2	2,012.6	5.2	7.5	86.99	-116.8	-397.9	361.9	351.8	10.09	35.866		
2,200.0	2,184.1	2,150.3	2,107.8	5.5	7.9	87.36	-124.4	-419.8	381.4	370.7	10.70	35.652		
2,300.0	2,282.9	2,248.3	2,203.1	5.8	8.4	87.70	-132.0	-441.7	400.9	389.6	11.31	35.458		
2,400.0	2,381.8	2,346.4	2,298.4	6.1	8.8	88.00	-139.6	-463.6	420.5	408.6	11.92	35.281		
2,500.0	2,480.7	2,444.4	2,393.6	6.4	9.3	88.28	-147.2	-485.6	440.0	427.5	12.53	35.119		
2,600.0	2,579.6	2,542.5	2,488.9	6.8	9.7	88.54	-154.8	-507.5	459.6	446.5	13.14	34.970		
2,700.0	2,678.4	2,640.5	2,584.1	7.1	10.2	88.77	-162.4	-529.4	479.2	465.4	13.76	34.834		
2,800.0	2,777.3	2,738.6	2,679.4	7.4	10.6	88.98	-170.0	-551.3	498.8	484.4	14.37	34.708		
2,900.0	2,876.2	2,836.6	2,774.7	7.7	11.0	89.18	-177.6	-573.3	518.4	503.4	14.99	34.591		
3,000.0	2,975.1	2,934.7	2,869.9	8.0	11.5	89.37	-185.2	-595.2	538.0	522.4	15.60	34.482		
3,100.0	3,073.9	3,032.7	2,965.2	8.3	11.9	89.54	-192.8	-617.1	557.6	541.3	16.22	34.382		
3,200.0	3,172.8	3,130.8	3,060.5	8.6	12.4	89.70	-200.4	-639.0	577.2	560.3	16.83	34.287		
3,300.0	3,271.7	3,228.8	3,155.7	8.9	12.8	89.85	-208.0	-661.0	596.8	579.3	17.45	34.200		
3,400.0	3,370.5	3,326.9	3,251.0	9.3	13.3	89.99	-215.6	-682.9	616.4	598.3	18.07	34.117		
3,500.0	3,469.4	3,424.9	3,346.2	9.6	13.7	90.12	-223.2	-704.8	636.0	617.3	18.68	34.040		
3,600.0	3,568.3	3,523.0	3,441.5	9.9	14.2	90.24	-230.8	-726.7	655.6	636.3	19.30	33.967		
3,700.0	3,667.2	3,621.0	3,536.8	10.2	14.6	90.36	-238.4	-748.7	675.3	655.3	19.92	33.899		
3,800.0	3,766.0	3,719.0	3,632.0	10.5	15.1	90.47	-246.0	-770.6	694.9	674.3	20.54	33.834		
3,900.0	3,864.9	3,817.1	3,727.3	10.8	15.5	90.57	-253.6	-792.5	714.5	693.4	21.16	33.773		
4,000.0	3,963.8	3,915.1	3,822.5	11.1	16.0	90.67	-261.2	-814.4	734.1	712.4	21.77	33.716		
4,100.0	4,062.7	4,013.2	3,917.8	11.4	16.4	90.76	-268.8	-836.4	753.8	731.4	22.39	33.661		
4,200.0	4,161.5	4,111.2	4,013.1	11.8	16.9	90.85	-276.4	-858.3	773.4	750.4	23.01	33.609		
4,300.0	4,260.4	4,209.3	4,108.3	12.1	17.3	90.93	-284.0	-880.2	793.0	769.4	23.63	33.560		
4,400.0	4,359.3	4,307.3	4,203.6	12.4	17.8	91.01	-291.6	-902.1	812.7	788.4	24.25	33.513		
4,500.0	4,458.1	4,405.4	4,298.8	12.7	18.2	91.09	-299.2	-924.1	832.3	807.5	24.87	33.468		
4,600.0	4,557.0	4,503.4	4,394.1	13.0	18.7	91.16	-306.8	-946.0	852.0	826.5	25.49	33.426		
4,700.0	4,655.9	4,601.5	4,489.4	13.3	19.1	91.23	-314.4	-967.9	871.6	845.5	26.11	33.385		
4,800.0	4,754.8	4,699.5	4,584.6	13.6	19.6	91.30	-322.0	-989.9	891.2	864.5	26.73	33.346		
4,900.0	4,853.6	4,797.6	4,679.9	14.0	20.0	91.36	-329.6	-1,011.8	910.9	883.5	27.35	33.309		
5,000.0	4,952.5	4,895.6	4,775.2	14.3	20.5	91.42	-337.2	-1,033.7	930.5	902.6	27.97	33.273		
5,100.0	5,051.4	4,993.7	4,870.4	14.6	20.9	91.48	-344.8	-1,055.6	950.2	921.6	28.59	33.239		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4A-17H-P267 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,200.0	5,150.3	5,091.7	4,965.7	14.9	21.4	91.54	-352.4	-1,077.6	969.8	940.6	29.21	33.206		
5,300.0	5,249.1	5,189.7	5,060.9	15.2	21.8	91.59	-360.0	-1,099.5	989.5	959.6	29.83	33.175		
5,400.0	5,348.0	5,287.8	5,156.2	15.5	22.3	91.64	-367.6	-1,121.4	1,009.1	978.7	30.45	33.145		
5,500.0	5,446.9	5,385.8	5,251.5	15.8	22.7	91.69	-375.2	-1,143.3	1,028.8	997.7	31.07	33.116		
5,600.0	5,545.7	5,483.9	5,346.7	16.2	23.2	91.74	-382.8	-1,165.3	1,048.4	1,016.7	31.69	33.088		
5,700.0	5,644.6	5,581.9	5,442.0	16.5	23.6	91.78	-390.4	-1,187.2	1,068.1	1,035.8	32.31	33.061		
5,800.0	5,743.5	5,680.0	5,537.2	16.8	24.1	91.83	-398.0	-1,209.1	1,087.7	1,054.8	32.93	33.035		
5,900.0	5,842.4	5,778.0	5,632.5	17.1	24.5	91.87	-405.6	-1,231.0	1,107.4	1,073.8	33.55	33.010		
6,000.0	5,941.2	5,876.1	5,727.8	17.4	25.0	91.91	-413.2	-1,253.0	1,127.0	1,092.9	34.17	32.986		
6,100.0	6,040.1	5,974.1	5,823.0	17.7	25.4	91.95	-420.8	-1,274.9	1,146.7	1,111.9	34.79	32.963		
6,200.0	6,139.0	6,072.2	5,918.3	18.0	25.8	91.99	-428.4	-1,296.8	1,166.3	1,130.9	35.41	32.940		
6,300.0	6,237.9	6,170.2	6,013.5	18.4	26.3	92.03	-436.0	-1,318.7	1,186.0	1,150.0	36.03	32.918		
6,400.0	6,336.7	6,268.3	6,108.8	18.7	26.7	92.06	-443.6	-1,340.7	1,205.6	1,169.0	36.65	32.897		
6,500.0	6,435.6	6,366.3	6,204.1	19.0	27.2	92.10	-451.2	-1,362.6	1,225.3	1,188.0	37.27	32.877		
6,600.0	6,534.5	6,464.4	6,299.3	19.3	27.6	92.13	-458.8	-1,384.5	1,245.0	1,207.1	37.89	32.857		
6,700.0	6,633.4	6,562.4	6,394.6	19.6	28.1	87.56	-466.4	-1,406.4	1,264.5	1,225.8	38.64	32.725		
6,800.0	6,733.2	6,660.4	6,489.8	19.7	28.5	-41.38	-474.0	-1,428.3	1,280.4	1,241.1	39.33	32.558		
6,900.0	6,831.8	6,755.9	6,582.5	19.5	29.0	-62.27	-481.4	-1,449.7	1,291.1	1,251.9	39.20	32.933		
7,000.0	6,926.2	6,844.0	6,668.2	19.2	29.4	-67.07	-488.2	-1,469.4	1,297.3	1,258.9	38.38	33.800		
7,100.0	7,013.6	6,900.0	6,722.7	18.6	29.6	-69.50	-489.5	-1,481.9	1,301.2	1,264.1	37.10	35.078		
7,200.0	7,091.3	6,950.0	6,771.3	18.0	29.8	-71.27	-486.0	-1,493.1	1,304.3	1,268.8	35.50	36.737		
7,300.0	7,156.9	7,013.4	6,832.2	17.2	30.0	-73.25	-475.4	-1,507.1	1,307.0	1,273.3	33.68	38.807		
7,400.0	7,208.5	7,072.7	6,887.8	16.5	30.1	-75.05	-459.2	-1,519.8	1,309.8	1,277.9	31.89	41.071		
7,500.0	7,244.5	7,134.6	6,943.8	15.7	30.2	-76.87	-436.2	-1,532.6	1,313.2	1,282.9	30.27	43.386		
7,600.0	7,263.7	7,200.3	7,000.2	15.1	30.3	-78.72	-405.1	-1,545.4	1,317.8	1,288.8	28.93	45.543		
7,700.0	7,267.0	7,273.6	7,058.6	14.7	30.4	-80.92	-362.9	-1,558.7	1,324.1	1,296.1	27.98	47.317		
7,800.0	7,267.0	7,374.6	7,129.4	14.5	30.5	-84.05	-293.0	-1,574.8	1,331.9	1,304.6	27.28	48.824		
7,900.0	7,267.0	7,519.1	7,207.7	14.5	30.6	-87.46	-173.3	-1,592.3	1,339.0	1,312.1	26.95	49.687		
8,000.0	7,267.0	7,709.7	7,262.1	14.7	30.8	-89.79	8.1	-1,604.2	1,342.3	1,315.0	27.33	49.112		
8,100.0	7,267.0	7,849.2	7,267.0	15.1	31.0	-90.00	147.4	-1,604.8	1,339.8	1,311.4	28.45	47.087		
8,200.0	7,267.0	7,949.2	7,267.0	15.7	31.2	-90.00	247.4	-1,604.5	1,336.8	1,307.0	29.80	44.865		
8,300.0	7,267.0	8,049.1	7,267.0	16.5	31.6	-90.00	347.4	-1,604.1	1,333.7	1,302.3	31.47	42.379		
8,400.0	7,267.0	8,149.1	7,267.0	17.4	32.1	-90.00	447.3	-1,603.8	1,330.7	1,297.3	33.43	39.803		
8,500.0	7,267.0	8,249.0	7,267.0	18.4	32.6	-90.00	547.3	-1,603.4	1,327.7	1,292.0	35.63	37.261		
8,600.0	7,267.0	8,349.0	7,267.0	19.5	33.2	-90.00	647.2	-1,603.1	1,324.6	1,286.6	38.03	34.834		
8,700.0	7,267.0	8,449.0	7,267.0	20.8	33.9	-90.00	747.2	-1,602.7	1,321.6	1,281.0	40.58	32.564		
8,800.0	7,267.0	8,548.9	7,267.0	22.1	34.7	-90.00	847.1	-1,602.4	1,318.5	1,275.3	43.27	30.469		
8,900.0	7,267.0	8,648.9	7,267.0	23.4	35.5	-90.00	947.1	-1,602.0	1,315.5	1,269.4	46.08	28.551		
9,000.0	7,267.0	8,748.8	7,267.0	24.8	36.5	-90.00	1,047.0	-1,601.7	1,312.5	1,263.5	48.97	26.802		
9,100.0	7,267.0	8,848.8	7,267.0	26.3	37.4	-90.00	1,147.0	-1,601.3	1,309.4	1,257.5	51.94	25.212		
9,200.0	7,267.0	8,948.7	7,267.0	27.7	38.5	-90.00	1,246.9	-1,601.0	1,306.4	1,251.4	54.97	23.766		
9,300.0	7,267.0	9,048.7	7,267.0	29.2	39.5	-90.00	1,346.9	-1,600.6	1,303.3	1,245.3	58.05	22.451		
9,400.0	7,267.0	9,148.6	7,267.0	30.8	40.7	-90.00	1,446.8	-1,600.3	1,300.3	1,239.1	61.18	21.253		
9,500.0	7,267.0	9,248.6	7,267.0	32.3	41.8	-90.00	1,546.8	-1,599.9	1,297.3	1,232.9	64.35	20.159		
9,600.0	7,267.0	9,348.5	7,267.0	33.9	43.0	-90.00	1,646.7	-1,599.6	1,294.2	1,226.7	67.56	19.158		
9,700.0	7,267.0	9,448.5	7,267.0	35.5	44.3	-90.00	1,746.7	-1,599.3	1,291.2	1,220.4	70.79	18.240		
9,800.0	7,267.0	9,548.4	7,267.0	37.1	45.6	-90.00	1,846.6	-1,598.9	1,288.1	1,214.1	74.04	17.397		
9,900.0	7,267.0	9,648.4	7,267.0	38.7	46.9	-90.00	1,946.6	-1,598.6	1,285.1	1,207.8	77.32	16.620		
10,000.0	7,267.0	9,748.4	7,267.0	40.4	48.2	-90.00	2,046.6	-1,598.2	1,282.1	1,201.4	80.62	15.902		
10,100.0	7,267.0	9,848.3	7,267.0	42.0	49.6	-90.00	2,146.5	-1,597.9	1,279.0	1,195.1	83.94	15.238		
10,200.0	7,267.0	9,948.3	7,267.0	43.7	51.0	-90.00	2,246.5	-1,597.5	1,276.0	1,188.7	87.27	14.622		
10,300.0	7,267.0	10,048.2	7,267.0	45.3	52.4	-90.00	2,346.4	-1,597.2	1,272.9	1,182.3	90.61	14.049		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4A-17H-P267 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,400.0	7,267.0	10,148.2	7,267.0	47.0	53.9	-90.00	2,446.4	-1,596.8	1,269.9	1,175.9	93.97	13.515		
10,500.0	7,267.0	10,248.1	7,267.0	48.7	55.3	-90.00	2,546.3	-1,596.5	1,266.9	1,169.5	97.33	13.016		
10,600.0	7,267.0	10,348.1	7,267.0	50.4	56.8	-90.00	2,646.3	-1,596.1	1,263.8	1,163.1	100.71	12.549		
10,700.0	7,267.0	10,448.0	7,267.0	52.0	58.3	-90.00	2,746.2	-1,595.8	1,260.8	1,156.7	104.09	12.112		
10,800.0	7,267.0	10,548.0	7,267.0	53.7	59.8	-90.00	2,846.2	-1,595.4	1,257.7	1,150.3	107.48	11.702		
10,900.0	7,267.0	10,647.9	7,267.0	55.4	61.3	-90.00	2,946.1	-1,595.1	1,254.7	1,143.8	110.88	11.316		
11,000.0	7,267.0	10,747.9	7,267.0	57.1	62.8	-90.00	3,046.1	-1,594.7	1,251.7	1,137.4	114.29	10.952		
11,100.0	7,267.0	10,847.8	7,267.0	58.8	64.4	-90.00	3,146.0	-1,594.4	1,248.6	1,130.9	117.70	10.608		
11,200.0	7,267.0	10,947.8	7,267.0	60.5	65.9	-90.00	3,246.0	-1,594.0	1,245.6	1,124.5	121.12	10.284		
11,300.0	7,267.0	11,047.8	7,267.0	62.2	67.5	-90.00	3,346.0	-1,593.7	1,242.7	1,118.4	124.33	9.995		
11,400.0	7,267.0	11,147.7	7,267.0	63.9	69.0	-90.00	3,445.9	-1,593.3	1,241.3	1,114.0	127.23	9.756		
11,432.6	7,267.0	11,180.3	7,267.0	64.5	69.6	-90.00	3,478.5	-1,593.2	1,241.2	1,113.0	128.16	9.684		
11,500.0	7,267.0	11,247.7	7,267.0	65.6	70.6	-90.00	3,545.9	-1,593.0	1,241.6	1,111.5	130.09	9.544		
11,600.0	7,267.0	11,347.7	7,267.0	67.3	72.2	-90.00	3,645.9	-1,592.6	1,243.6	1,110.7	132.92	9.356		
11,700.0	7,267.0	11,447.7	7,267.0	69.0	73.8	-90.00	3,745.8	-1,592.3	1,247.2	1,111.2	136.00	9.171		
11,800.0	7,267.0	11,547.6	7,267.0	70.7	75.4	-90.00	3,845.8	-1,591.9	1,251.1	1,111.7	139.44	8.973		
11,900.0	7,267.0	11,647.5	7,267.0	72.4	77.0	-90.00	3,945.7	-1,591.6	1,255.1	1,112.2	142.88	8.784		
12,000.0	7,267.0	11,747.4	7,267.0	74.2	78.6	-90.00	4,045.6	-1,591.2	1,259.0	1,112.6	146.33	8.604		
12,100.0	7,267.0	11,847.4	7,267.0	75.9	80.2	-90.00	4,145.5	-1,590.9	1,262.9	1,113.1	149.77	8.432		
12,200.0	7,267.0	11,947.3	7,267.0	77.6	81.9	-90.00	4,245.5	-1,590.5	1,266.8	1,113.5	153.23	8.267		
12,300.0	7,267.0	12,047.2	7,267.0	79.3	83.5	-90.00	4,345.4	-1,590.2	1,270.7	1,114.0	156.68	8.110		
12,400.0	7,267.0	12,147.1	7,267.0	81.0	85.1	-90.00	4,445.3	-1,589.8	1,274.6	1,114.4	160.13	7.960		
12,500.0	7,267.0	12,247.0	7,267.0	82.7	86.8	-90.00	4,545.2	-1,589.5	1,278.5	1,114.9	163.59	7.815		
12,600.0	7,267.0	12,347.0	7,267.0	84.5	88.4	-90.00	4,645.2	-1,589.1	1,282.4	1,115.3	167.05	7.677		
12,700.0	7,267.0	12,446.9	7,267.0	86.2	90.1	-90.00	4,745.1	-1,588.8	1,286.3	1,115.8	170.51	7.544		
12,800.0	7,267.0	12,546.8	7,267.0	87.9	91.7	-90.00	4,845.0	-1,588.4	1,290.2	1,116.2	173.97	7.416		
12,900.0	7,267.0	12,646.7	7,267.0	89.6	93.4	-90.00	4,944.9	-1,588.1	1,294.1	1,116.7	177.44	7.293		
13,000.0	7,267.0	12,746.7	7,267.0	91.4	95.0	-90.00	5,044.8	-1,587.7	1,298.0	1,117.1	180.91	7.175		
13,100.0	7,267.0	12,846.6	7,267.0	93.1	96.7	-90.00	5,144.8	-1,587.4	1,301.9	1,117.5	184.37	7.061		
13,200.0	7,267.0	12,946.5	7,267.0	94.8	98.4	-90.00	5,244.7	-1,587.0	1,305.8	1,118.0	187.84	6.952		
13,300.0	7,267.0	13,046.4	7,267.0	96.5	100.0	-90.00	5,344.6	-1,586.7	1,309.7	1,118.4	191.31	6.846		
13,400.0	7,267.0	13,146.4	7,267.0	98.3	101.7	-90.00	5,444.5	-1,586.3	1,313.6	1,118.8	194.79	6.744		
13,500.0	7,267.0	13,246.3	7,267.0	100.0	103.4	-90.00	5,544.5	-1,586.0	1,317.5	1,119.3	198.26	6.646		
13,600.0	7,267.0	13,346.2	7,267.0	101.7	105.1	-90.00	5,644.4	-1,585.6	1,321.4	1,119.7	201.73	6.550		
13,700.0	7,267.0	13,446.1	7,267.0	103.5	106.7	-90.00	5,744.3	-1,585.3	1,325.3	1,120.1	205.21	6.458		
13,800.0	7,267.0	13,546.1	7,267.0	105.2	108.4	-90.00	5,844.2	-1,584.9	1,329.2	1,120.6	208.69	6.370		
13,900.0	7,267.0	13,646.0	7,267.0	106.9	110.1	-90.00	5,944.2	-1,584.6	1,333.2	1,121.0	212.16	6.284		
14,000.0	7,267.0	13,745.9	7,267.0	108.7	111.8	-90.00	6,044.1	-1,584.2	1,337.1	1,121.4	215.64	6.200		
14,100.0	7,267.0	13,845.8	7,267.0	110.4	113.5	-90.00	6,144.0	-1,583.9	1,341.0	1,121.8	219.12	6.120		
14,200.0	7,267.0	13,945.7	7,267.0	112.1	115.2	-90.00	6,243.9	-1,583.5	1,344.9	1,122.3	222.60	6.042		
14,300.0	7,267.0	14,045.7	7,267.0	113.9	116.9	-90.00	6,343.8	-1,583.2	1,348.8	1,122.7	226.08	5.966		
14,400.0	7,267.0	14,145.6	7,267.0	115.6	118.6	-90.00	6,443.8	-1,582.8	1,352.7	1,123.1	229.57	5.892		
14,500.0	7,267.0	14,245.5	7,267.0	117.4	120.3	-90.00	6,543.7	-1,582.5	1,356.6	1,123.5	233.05	5.821		
14,514.5	7,267.0	14,260.0	7,267.0	117.6	120.5	-90.00	6,558.2	-1,582.4	1,357.2	1,123.6	233.55	5.811 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4B-17H-P267 - DD - Plan #4													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	-89.58	0.4	-50.0	50.1					
100.0	100.0	100.0	100.0	0.1	0.1	-89.58	0.4	-50.0	50.1	49.8	0.24	204.835		
200.0	200.0	200.0	200.0	0.3	0.3	-89.58	0.4	-50.0	50.1	49.5	0.59	84.344		
233.4	233.4	233.4	233.4	0.4	0.4	-89.58	0.4	-50.0	50.1	49.3	0.71	70.506 CC, ES		
300.0	300.0	299.2	299.2	0.5	0.5	-89.74	0.2	-50.4	50.5	49.5	0.94	53.616		
400.0	400.0	397.4	397.4	0.6	0.6	-90.94	-0.9	-53.6	53.7	52.4	1.29	41.725		
500.0	500.0	495.3	495.0	0.8	0.9	-92.93	-3.1	-60.0	60.3	58.6	1.63	36.907		
600.0	600.0	592.8	592.0	1.0	1.1	71.02	-6.3	-69.4	69.6	67.6	1.99	35.032		
700.0	699.8	689.7	687.9	1.2	1.4	71.78	-10.6	-81.9	81.0	78.7	2.35	34.482		
800.0	799.5	785.8	782.7	1.4	1.7	73.64	-16.0	-97.3	94.7	92.0	2.75	34.497		
900.0	898.7	882.2	877.2	1.6	2.0	76.12	-22.3	-115.6	110.6	107.4	3.19	34.643		
1,000.0	997.6	980.7	973.4	1.9	2.4	79.19	-29.0	-135.0	126.9	123.2	3.70	34.350		
1,100.0	1,096.5	1,079.1	1,069.7	2.2	2.8	81.69	-35.8	-154.4	143.5	139.3	4.23	33.951		
1,200.0	1,195.3	1,177.6	1,166.0	2.5	3.2	83.68	-42.5	-173.9	160.3	155.5	4.78	33.545		
1,300.0	1,294.2	1,276.0	1,262.2	2.8	3.6	85.29	-49.2	-193.3	177.3	171.9	5.35	33.163		
1,400.0	1,393.1	1,374.5	1,358.5	3.1	4.0	86.62	-55.9	-212.7	194.4	188.4	5.92	32.816		
1,500.0	1,492.0	1,472.9	1,454.8	3.4	4.4	87.73	-62.6	-232.1	211.5	205.0	6.51	32.506		
1,600.0	1,590.8	1,571.3	1,551.1	3.7	4.8	88.68	-69.4	-251.6	228.7	221.6	7.10	32.229		
1,700.0	1,689.7	1,669.8	1,647.3	4.0	5.2	89.49	-76.1	-271.0	246.0	238.3	7.69	31.984		
1,800.0	1,788.6	1,768.2	1,743.6	4.3	5.6	90.20	-82.8	-290.4	263.3	255.0	8.29	31.765		
1,900.0	1,887.5	1,866.7	1,839.9	4.6	6.0	90.82	-89.5	-309.8	280.7	271.8	8.89	31.570		
2,000.0	1,986.3	1,965.1	1,936.1	4.9	6.4	91.37	-96.2	-329.3	298.0	288.5	9.49	31.396		
2,100.0	2,085.2	2,063.5	2,032.4	5.2	6.8	91.86	-103.0	-348.7	315.4	305.3	10.10	31.239		
2,200.0	2,184.1	2,162.0	2,128.7	5.5	7.2	92.29	-109.7	-368.1	332.8	322.1	10.70	31.097		
2,300.0	2,282.9	2,260.4	2,225.0	5.8	7.6	92.69	-116.4	-387.5	350.3	339.0	11.31	30.968		
2,400.0	2,381.8	2,358.9	2,321.2	6.1	8.0	93.04	-123.1	-407.0	367.7	355.8	11.92	30.851		
2,500.0	2,480.7	2,457.3	2,417.5	6.4	8.4	93.36	-129.9	-426.4	385.2	372.7	12.53	30.745		
2,600.0	2,579.6	2,555.7	2,513.8	6.8	8.8	93.66	-136.6	-445.8	402.7	389.5	13.14	30.647		
2,700.0	2,678.4	2,654.2	2,610.0	7.1	9.2	93.93	-143.3	-465.2	420.1	406.4	13.75	30.557		
2,800.0	2,777.3	2,752.6	2,706.3	7.4	9.6	94.18	-150.0	-484.7	437.6	423.3	14.36	30.474		
2,900.0	2,876.2	2,851.1	2,802.6	7.7	10.0	94.41	-156.7	-504.1	455.1	440.2	14.97	30.397		
3,000.0	2,975.1	2,949.5	2,898.9	8.0	10.4	94.62	-163.5	-523.5	472.6	457.1	15.59	30.326		
3,100.0	3,073.9	3,048.0	2,995.1	8.3	10.8	94.82	-170.2	-542.9	490.2	474.0	16.20	30.260		
3,200.0	3,172.8	3,146.4	3,091.4	8.6	11.2	95.01	-176.9	-562.4	507.7	490.9	16.81	30.199		
3,300.0	3,271.7	3,244.8	3,187.7	8.9	11.6	95.18	-183.6	-581.8	525.2	507.8	17.42	30.142		
3,400.0	3,370.5	3,343.3	3,283.9	9.3	12.0	95.34	-190.3	-601.2	542.7	524.7	18.04	30.088		
3,500.0	3,469.4	3,441.7	3,380.2	9.6	12.4	95.49	-197.1	-620.7	560.2	541.6	18.65	30.038		
3,600.0	3,568.3	3,540.2	3,476.5	9.9	12.8	95.63	-203.8	-640.1	577.8	558.5	19.27	29.990		
3,700.0	3,667.2	3,638.6	3,572.7	10.2	13.2	95.76	-210.5	-659.5	595.3	575.4	19.88	29.946		
3,800.0	3,766.0	3,737.0	3,669.0	10.5	13.6	95.89	-217.2	-678.9	612.9	592.4	20.49	29.904		
3,900.0	3,864.9	3,835.5	3,765.3	10.8	14.0	96.01	-224.0	-698.4	630.4	609.3	21.11	29.864		
4,000.0	3,963.8	3,933.9	3,861.6	11.1	14.4	96.12	-230.7	-717.8	647.9	626.2	21.72	29.827		
4,100.0	4,062.7	4,032.4	3,957.8	11.4	14.8	96.23	-237.4	-737.2	665.5	643.1	22.34	29.791		
4,200.0	4,161.5	4,130.8	4,054.1	11.8	15.2	96.33	-244.1	-756.6	683.0	660.1	22.95	29.758		
4,300.0	4,260.4	4,229.2	4,150.4	12.1	15.6	96.42	-250.8	-776.1	700.6	677.0	23.57	29.726		
4,400.0	4,359.3	4,327.7	4,246.6	12.4	16.1	96.51	-257.6	-795.5	718.1	694.0	24.18	29.695		
4,500.0	4,458.1	4,426.1	4,342.9	12.7	16.5	96.60	-264.3	-814.9	735.7	710.9	24.80	29.666		
4,600.0	4,557.0	4,524.6	4,439.2	13.0	16.9	96.68	-271.0	-834.3	753.2	727.8	25.41	29.639		
4,700.0	4,655.9	4,623.0	4,535.5	13.3	17.3	96.76	-277.7	-853.8	770.8	744.8	26.03	29.613		
4,800.0	4,754.8	4,721.5	4,631.7	13.6	17.7	96.84	-284.5	-873.2	788.4	761.7	26.64	29.588		
4,900.0	4,853.6	4,819.9	4,728.0	14.0	18.1	96.91	-291.2	-892.6	805.9	778.7	27.26	29.564		
5,000.0	4,952.5	4,918.3	4,824.3	14.3	18.5	96.98	-297.9	-912.0	823.5	795.6	27.88	29.541		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4B-17H-P267 - DD - Plan #4													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,051.4	5,016.8	4,920.5	14.6	18.9	97.05	-304.6	-931.5	841.0	812.5	28.49	29.519		
5,200.0	5,150.3	5,115.2	5,016.8	14.9	19.3	97.11	-311.3	-950.9	858.6	829.5	29.11	29.497		
5,300.0	5,249.1	5,213.7	5,113.1	15.2	19.7	97.17	-318.1	-970.3	876.2	846.4	29.72	29.477		
5,400.0	5,348.0	5,312.1	5,209.4	15.5	20.1	97.23	-324.8	-989.7	893.7	863.4	30.34	29.458		
5,500.0	5,446.9	5,410.5	5,305.6	15.8	20.5	97.29	-331.5	-1,009.2	911.3	880.3	30.96	29.439		
5,600.0	5,545.7	5,509.0	5,401.9	16.2	20.9	97.34	-338.2	-1,028.6	928.9	897.3	31.57	29.421		
5,700.0	5,644.6	5,607.4	5,498.2	16.5	21.3	97.39	-344.9	-1,048.0	946.4	914.2	32.19	29.404		
5,800.0	5,743.5	5,705.9	5,594.4	16.8	21.7	97.44	-351.7	-1,067.5	964.0	931.2	32.80	29.387		
5,900.0	5,842.4	5,804.3	5,690.7	17.1	22.1	97.49	-358.4	-1,086.9	981.6	948.1	33.42	29.371		
6,000.0	5,941.2	5,902.8	5,787.0	17.4	22.5	97.54	-365.1	-1,106.3	999.1	965.1	34.04	29.356		
6,100.0	6,040.1	6,001.2	5,883.3	17.7	22.9	97.58	-371.8	-1,125.7	1,016.7	982.1	34.65	29.341		
6,200.0	6,139.0	6,099.6	5,979.5	18.0	23.3	97.63	-378.6	-1,145.2	1,034.3	999.0	35.27	29.326		
6,300.0	6,237.9	6,198.1	6,075.8	18.4	23.7	97.67	-385.3	-1,164.6	1,051.8	1,016.0	35.88	29.312		
6,400.0	6,336.7	6,296.5	6,172.1	18.7	24.1	97.71	-392.0	-1,184.0	1,069.4	1,032.9	36.50	29.299		
6,500.0	6,435.6	6,395.0	6,268.3	19.0	24.5	97.75	-398.7	-1,203.4	1,087.0	1,049.9	37.12	29.286		
6,600.0	6,534.5	6,493.4	6,364.6	19.3	24.9	97.79	-405.4	-1,222.9	1,104.6	1,066.8	37.73	29.273		
6,700.0	6,633.4	6,591.9	6,460.9	19.6	25.3	93.16	-412.2	-1,242.3	1,122.0	1,083.5	38.44	29.186		
6,800.0	6,733.2	6,690.3	6,557.2	19.7	25.7	-36.19	-418.9	-1,261.7	1,134.7	1,095.7	38.96	29.120		
6,900.0	6,831.8	6,786.5	6,651.2	19.5	26.1	-57.65	-425.5	-1,280.7	1,140.7	1,102.0	38.70	29.476		
7,000.0	6,926.2	6,877.3	6,740.1	19.2	26.5	-63.24	-431.7	-1,298.6	1,140.9	1,103.2	37.75	30.224		
7,100.0	7,013.6	6,960.2	6,821.1	18.6	26.8	-67.43	-437.3	-1,315.0	1,137.0	1,100.7	36.32	31.308		
7,200.0	7,091.3	7,032.5	6,891.8	18.0	27.1	-71.31	-442.2	-1,329.2	1,130.9	1,096.3	34.66	32.626		
7,300.0	7,156.9	7,079.5	6,937.9	17.2	27.3	-74.16	-443.8	-1,338.5	1,125.5	1,092.4	33.03	34.075		
7,400.0	7,208.5	7,124.5	6,982.0	16.5	27.5	-76.64	-441.7	-1,347.3	1,122.5	1,091.0	31.51	35.625		
7,434.6	7,222.8	7,139.9	6,997.0	16.2	27.5	-77.41	-440.2	-1,350.3	1,122.3	1,091.3	31.04	36.156		
7,500.0	7,244.5	7,168.3	7,024.6	15.7	27.6	-78.71	-436.3	-1,355.7	1,123.2	1,093.0	30.21	37.185		
7,600.0	7,263.7	7,210.0	7,064.7	15.1	27.7	-80.23	-428.1	-1,363.6	1,128.4	1,099.2	29.17	38.678		
7,700.0	7,267.0	7,249.8	7,102.3	14.7	27.8	-81.61	-417.5	-1,370.9	1,138.9	1,110.5	28.45	40.034		
7,800.0	7,267.0	7,310.3	7,157.9	14.5	27.9	-84.49	-396.4	-1,381.6	1,154.9	1,127.0	27.94	41.333		
7,900.0	7,267.0	7,426.7	7,257.5	14.5	28.0	-89.53	-339.5	-1,400.4	1,175.2	1,147.6	27.58	42.605		
8,000.0	7,267.0	7,687.5	7,427.4	14.7	28.1	-97.79	-146.9	-1,430.4	1,194.1	1,167.2	26.94	44.323		
8,100.0	7,267.0	8,013.8	7,498.0	15.1	28.6	-101.15	167.3	-1,437.9	1,195.7	1,167.5	28.15	42.480		
8,200.0	7,267.0	8,113.7	7,498.0	15.7	28.8	-101.20	267.2	-1,435.8	1,191.0	1,161.5	29.49	40.380		
8,300.0	7,267.0	8,213.6	7,498.0	16.5	29.2	-101.24	367.1	-1,433.7	1,186.3	1,155.1	31.16	38.067		
8,400.0	7,267.0	8,313.4	7,498.0	17.4	29.7	-101.29	466.9	-1,431.6	1,181.6	1,148.5	33.11	35.692		
8,500.0	7,267.0	8,413.3	7,498.0	18.4	30.3	-101.33	566.8	-1,429.5	1,176.9	1,141.6	35.27	33.364		
8,600.0	7,267.0	8,513.2	7,498.0	19.5	31.0	-101.38	666.7	-1,427.4	1,172.2	1,134.6	37.63	31.149		
8,700.0	7,267.0	8,613.1	7,498.0	20.8	31.8	-101.42	766.5	-1,425.4	1,167.5	1,127.4	40.15	29.082		
8,800.0	7,267.0	8,713.0	7,498.0	22.1	32.6	-101.47	866.4	-1,423.3	1,162.8	1,120.0	42.79	27.178		
8,900.0	7,267.0	8,812.9	7,498.0	23.4	33.5	-101.52	966.2	-1,421.2	1,158.1	1,112.6	45.53	25.437		
9,000.0	7,267.0	8,912.8	7,498.0	24.8	34.5	-101.57	1,066.1	-1,419.1	1,153.5	1,105.1	48.36	23.851		
9,100.0	7,267.0	9,012.6	7,498.0	26.3	35.5	-101.61	1,166.0	-1,417.0	1,148.8	1,097.5	51.26	22.409		
9,200.0	7,267.0	9,112.5	7,498.0	27.7	36.6	-101.66	1,265.8	-1,414.9	1,144.1	1,089.9	54.23	21.098		
9,300.0	7,267.0	9,212.4	7,498.0	29.2	37.7	-101.71	1,365.7	-1,412.8	1,139.4	1,082.2	57.24	19.905		
9,400.0	7,267.0	9,312.3	7,498.0	30.8	38.9	-101.76	1,465.6	-1,410.7	1,134.7	1,074.4	60.30	18.818		
9,500.0	7,267.0	9,412.2	7,498.0	32.3	40.1	-101.81	1,565.4	-1,408.6	1,130.0	1,066.6	63.39	17.826		
9,600.0	7,267.0	9,512.1	7,498.0	33.9	41.4	-101.86	1,665.3	-1,406.5	1,125.3	1,058.8	66.52	16.918		
9,700.0	7,267.0	9,612.0	7,498.0	35.5	42.7	-101.91	1,765.2	-1,404.4	1,120.7	1,051.0	69.67	16.086		
9,800.0	7,267.0	9,711.8	7,498.0	37.1	44.0	-101.96	1,865.0	-1,402.3	1,116.0	1,043.1	72.84	15.320		
9,900.0	7,267.0	9,811.7	7,498.0	38.7	45.4	-102.01	1,964.9	-1,400.3	1,111.3	1,035.3	76.04	14.615		
10,000.0	7,267.0	9,911.6	7,498.0	40.4	46.8	-102.06	2,064.7	-1,398.2	1,106.6	1,027.4	79.25	13.964		
10,100.0	7,267.0	10,011.5	7,498.0	42.0	48.2	-102.11	2,164.6	-1,396.1	1,102.0	1,019.5	82.48	13.361		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4B-17H-P267 - DD - Plan #4													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
10,200.0	7,267.0	10,111.4	7,498.0	43.7	49.6	-102.17	2,264.5	-1,394.0	1,097.3	1,011.6	85.72	12.801		
10,300.0	7,267.0	10,211.3	7,498.0	45.3	51.1	-102.22	2,364.3	-1,391.9	1,092.6	1,003.6	88.97	12.281		
10,400.0	7,267.0	10,311.2	7,498.0	47.0	52.6	-102.27	2,464.2	-1,389.8	1,087.9	995.7	92.23	11.796		
10,500.0	7,267.0	10,411.0	7,498.0	48.7	54.0	-102.33	2,564.1	-1,387.7	1,083.3	987.8	95.50	11.343		
10,600.0	7,267.0	10,510.9	7,498.0	50.4	55.5	-102.38	2,663.9	-1,385.6	1,078.6	979.8	98.78	10.919		
10,700.0	7,267.0	10,610.8	7,498.0	52.0	57.1	-102.44	2,763.8	-1,383.5	1,073.9	971.8	102.06	10.522		
10,800.0	7,267.0	10,710.7	7,498.0	53.7	58.6	-102.49	2,863.7	-1,381.4	1,069.2	963.9	105.35	10.149		
10,900.0	7,267.0	10,810.6	7,498.0	55.4	60.1	-102.55	2,963.5	-1,379.3	1,064.6	955.9	108.65	9.798		
11,000.0	7,267.0	10,910.5	7,498.0	57.1	61.7	-102.60	3,063.4	-1,377.2	1,059.9	947.9	111.95	9.468		
11,100.0	7,267.0	11,010.4	7,498.0	58.8	63.3	-102.66	3,163.2	-1,375.1	1,055.2	940.0	115.25	9.156		
11,200.0	7,267.0	11,110.2	7,498.0	60.5	64.8	-102.72	3,263.1	-1,373.1	1,050.6	932.0	118.56	8.861		
11,300.0	7,267.0	11,210.1	7,498.0	62.2	66.4	-102.77	3,363.0	-1,371.0	1,046.0	924.4	121.69	8.596		
11,400.0	7,267.0	11,310.1	7,498.0	63.9	68.0	-102.80	3,462.9	-1,368.9	1,042.9	918.4	124.56	8.373		
11,500.0	7,267.0	11,410.1	7,498.0	65.6	69.6	-102.81	3,562.9	-1,366.8	1,041.5	914.1	127.40	8.175		
11,532.6	7,267.0	11,442.6	7,498.0	66.2	70.1	-102.82	3,595.4	-1,366.1	1,041.4	913.1	128.32	8.116		
11,600.0	7,267.0	11,510.1	7,498.0	67.3	71.2	-102.81	3,662.8	-1,364.7	1,041.8	911.6	130.22	8.001		
11,700.0	7,267.0	11,610.1	7,498.0	69.0	72.8	-102.79	3,762.8	-1,362.6	1,043.7	910.4	133.27	7.831		
11,800.0	7,267.0	11,710.0	7,498.0	70.7	74.5	-102.76	3,862.8	-1,360.5	1,045.8	909.1	136.64	7.654		
11,900.0	7,267.0	11,810.0	7,498.0	72.4	76.1	-102.74	3,962.7	-1,358.4	1,047.9	907.9	140.01	7.484		
12,000.0	7,267.0	11,910.0	7,498.0	74.2	77.7	-102.71	4,062.7	-1,356.3	1,050.0	906.6	143.39	7.323		
12,100.0	7,267.0	12,010.0	7,498.0	75.9	79.4	-102.69	4,162.6	-1,354.2	1,052.1	905.3	146.77	7.168		
12,200.0	7,267.0	12,109.9	7,498.0	77.6	81.0	-102.66	4,262.6	-1,352.1	1,054.2	904.0	150.15	7.021		
12,300.0	7,267.0	12,209.9	7,498.0	79.3	82.7	-102.63	4,362.5	-1,350.0	1,056.3	902.8	153.54	6.880		
12,400.0	7,267.0	12,309.9	7,498.0	81.0	84.3	-102.61	4,462.5	-1,347.9	1,058.4	901.5	156.93	6.745		
12,500.0	7,267.0	12,409.9	7,498.0	82.7	86.0	-102.58	4,562.4	-1,345.8	1,060.5	900.2	160.32	6.615		
12,600.0	7,267.0	12,500.0	7,498.0	84.5	87.5	-102.56	4,652.6	-1,344.2	1,062.9	899.4	163.55	6.499		
12,700.0	7,267.0	12,584.9	7,498.0	86.2	88.9	-102.52	4,737.5	-1,343.8	1,066.6	899.9	166.70	6.399		
12,800.0	7,267.0	12,669.7	7,498.0	87.9	90.3	-102.47	4,822.2	-1,344.7	1,071.8	901.9	169.86	6.310		
12,900.0	7,267.0	12,769.5	7,498.0	89.6	92.0	-102.40	4,922.0	-1,346.4	1,077.7	904.4	173.28	6.219		
13,000.0	7,267.0	12,869.3	7,498.0	91.4	93.7	-102.33	5,021.8	-1,348.2	1,083.5	906.8	176.71	6.132		
13,100.0	7,267.0	12,969.1	7,498.0	93.1	95.4	-102.26	5,121.6	-1,349.9	1,089.4	909.2	180.14	6.047		
13,200.0	7,267.0	13,069.0	7,498.0	94.8	97.1	-102.20	5,221.4	-1,351.7	1,095.2	911.7	183.57	5.966		
13,300.0	7,267.0	13,168.8	7,498.0	96.5	98.8	-102.13	5,321.3	-1,353.4	1,101.1	914.1	187.00	5.888		
13,400.0	7,267.0	13,268.6	7,498.0	98.3	100.4	-102.07	5,421.1	-1,355.1	1,107.0	916.5	190.44	5.813		
13,500.0	7,267.0	13,368.4	7,498.0	100.0	102.1	-102.00	5,520.9	-1,356.9	1,112.8	918.9	193.88	5.740		
13,600.0	7,267.0	13,468.2	7,498.0	101.7	103.8	-101.94	5,620.7	-1,358.6	1,118.7	921.4	197.32	5.669		
13,700.0	7,267.0	13,568.1	7,498.0	103.5	105.5	-101.87	5,720.5	-1,360.4	1,124.6	923.8	200.76	5.601		
13,800.0	7,267.0	13,667.9	7,498.0	105.2	107.2	-101.81	5,820.3	-1,362.1	1,130.4	926.2	204.21	5.536		
13,900.0	7,267.0	13,767.7	7,498.0	106.9	108.9	-101.75	5,920.1	-1,363.8	1,136.3	928.6	207.66	5.472		
14,000.0	7,267.0	13,867.5	7,498.0	108.7	110.6	-101.69	6,019.9	-1,365.6	1,142.2	931.1	211.10	5.411		
14,100.0	7,267.0	13,967.3	7,498.0	110.4	112.4	-101.63	6,119.7	-1,367.3	1,148.0	933.5	214.55	5.351		
14,200.0	7,267.0	14,067.2	7,498.0	112.1	114.1	-101.57	6,219.5	-1,369.1	1,153.9	935.9	218.00	5.293		
14,300.0	7,267.0	14,167.1	7,498.0	113.9	115.8	-101.50	6,319.3	-1,370.8	1,159.8	938.3	221.45	5.235		
14,400.0	7,267.0	14,267.0	7,498.0	115.6	117.5	-101.43	6,419.1	-1,372.5	1,165.7	940.7	224.90	5.177		
14,475.4	7,267.0	14,412.1	7,498.0	116.9	119.8	-101.70	6,561.8	-1,341.2	1,138.9	910.4	228.46	4.985		
14,500.0	7,267.0	14,412.1	7,498.0	117.4	119.8	-101.70	6,561.8	-1,341.2	1,139.2	910.3	228.88	4.977		
14,514.5	7,267.0	14,412.1	7,498.0	117.6	119.8	-101.70	6,561.8	-1,341.2	1,139.6	910.4	229.13	4.974 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4C-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-89.49	0.4	-40.0	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	-89.49	0.4	-40.0	40.0	39.7	0.24	163.641		
200.0	200.0	200.0	200.0	0.3	0.3	-89.49	0.4	-40.0	40.0	39.4	0.59	67.382		
300.0	300.0	300.0	300.0	0.5	0.5	-89.49	0.4	-40.0	40.0	39.0	0.94	42.425 CC, ES		
400.0	400.0	398.7	398.6	0.6	0.6	-90.26	-0.2	-41.6	41.6	40.3	1.29	32.278		
500.0	500.0	497.1	496.9	0.8	0.8	-92.26	-1.8	-46.4	46.5	44.9	1.64	28.452		
600.0	600.0	595.1	594.6	1.0	1.0	71.88	-4.5	-54.4	54.3	52.3	1.99	27.296		
700.0	699.8	692.7	691.5	1.2	1.3	73.22	-8.3	-65.4	64.2	61.8	2.35	27.292		
800.0	799.5	789.6	787.2	1.4	1.6	75.79	-13.1	-79.5	76.5	73.7	2.75	27.819		
900.0	898.7	887.7	883.8	1.6	1.9	79.13	-18.7	-96.1	90.5	87.3	3.20	28.293		
1,000.0	997.6	986.5	980.9	1.9	2.3	83.11	-24.5	-113.0	104.7	101.0	3.70	28.257		
1,100.0	1,096.5	1,085.2	1,078.0	2.2	2.6	86.28	-30.2	-129.8	119.2	115.0	4.24	28.129		
1,200.0	1,195.3	1,184.0	1,175.2	2.5	2.9	88.76	-36.0	-146.7	134.0	129.2	4.79	27.978		
1,300.0	1,294.2	1,282.7	1,272.3	2.8	3.3	90.74	-41.7	-163.5	149.0	143.6	5.35	27.829		
1,400.0	1,393.1	1,381.5	1,369.4	3.1	3.6	92.35	-47.4	-180.4	164.1	158.2	5.93	27.691		
1,500.0	1,492.0	1,480.2	1,466.6	3.4	4.0	93.70	-53.2	-197.2	179.4	172.9	6.51	27.567		
1,600.0	1,590.8	1,579.0	1,563.7	3.7	4.3	94.83	-58.9	-214.1	194.7	187.6	7.09	27.457		
1,700.0	1,689.7	1,677.7	1,660.8	4.0	4.7	95.80	-64.7	-231.0	210.1	202.4	7.68	27.359		
1,800.0	1,788.6	1,776.5	1,757.9	4.3	5.1	96.64	-70.4	-247.8	225.6	217.3	8.27	27.272		
1,900.0	1,887.5	1,875.2	1,855.1	4.6	5.4	97.37	-76.1	-264.7	241.0	232.2	8.86	27.195		
2,000.0	1,986.3	1,974.0	1,952.2	4.9	5.8	98.01	-81.9	-281.5	256.6	247.1	9.46	27.127		
2,100.0	2,085.2	2,072.7	2,049.3	5.2	6.1	98.57	-87.6	-298.4	272.1	262.1	10.05	27.066		
2,200.0	2,184.1	2,171.5	2,146.5	5.5	6.5	99.08	-93.3	-315.2	287.7	277.0	10.65	27.011		
2,300.0	2,282.9	2,270.2	2,243.6	5.8	6.8	99.53	-99.1	-332.1	303.3	292.0	11.25	26.962		
2,400.0	2,381.8	2,369.0	2,340.7	6.1	7.2	99.94	-104.8	-349.0	318.9	307.0	11.85	26.917		
2,500.0	2,480.7	2,467.7	2,437.9	6.4	7.6	100.32	-110.6	-365.8	334.5	322.0	12.45	26.877		
2,600.0	2,579.6	2,566.5	2,535.0	6.8	7.9	100.65	-116.3	-382.7	350.1	337.1	13.04	26.840		
2,700.0	2,678.4	2,665.2	2,632.1	7.1	8.3	100.96	-122.0	-399.5	365.8	352.1	13.64	26.807		
2,800.0	2,777.3	2,764.0	2,729.3	7.4	8.6	101.25	-127.8	-416.4	381.4	367.2	14.24	26.776		
2,900.0	2,876.2	2,862.7	2,826.4	7.7	9.0	101.51	-133.5	-433.2	397.1	382.2	14.85	26.747		
3,000.0	2,975.1	2,961.5	2,923.5	8.0	9.3	101.75	-139.3	-450.1	412.7	397.3	15.45	26.721		
3,100.0	3,073.9	3,060.2	3,020.7	8.3	9.7	101.98	-145.0	-466.9	428.4	412.4	16.05	26.697		
3,200.0	3,172.8	3,159.0	3,117.8	8.6	10.1	102.18	-150.7	-483.8	444.1	427.5	16.65	26.674		
3,300.0	3,271.7	3,257.7	3,214.9	8.9	10.4	102.38	-156.5	-500.7	459.8	442.5	17.25	26.654		
3,400.0	3,370.5	3,356.5	3,312.1	9.3	10.8	102.56	-162.2	-517.5	475.5	457.6	17.85	26.634		
3,500.0	3,469.4	3,455.2	3,409.2	9.6	11.1	102.73	-167.9	-534.4	491.2	472.7	18.45	26.616		
3,600.0	3,568.3	3,554.0	3,506.3	9.9	11.5	102.89	-173.7	-551.2	506.9	487.8	19.06	26.599		
3,700.0	3,667.2	3,652.7	3,603.4	10.2	11.9	103.04	-179.4	-568.1	522.6	502.9	19.66	26.583		
3,800.0	3,766.0	3,751.5	3,700.6	10.5	12.2	103.18	-185.2	-584.9	538.3	518.0	20.26	26.568		
3,900.0	3,864.9	3,850.2	3,797.7	10.8	12.6	103.31	-190.9	-601.8	554.0	533.1	20.86	26.554		
4,000.0	3,963.8	3,949.0	3,894.8	11.1	12.9	103.44	-196.6	-618.7	569.7	548.2	21.47	26.541		
4,100.0	4,062.7	4,047.7	3,992.0	11.4	13.3	103.56	-202.4	-635.5	585.4	563.4	22.07	26.528		
4,200.0	4,161.5	4,146.5	4,089.1	11.8	13.6	103.67	-208.1	-652.4	601.1	578.5	22.67	26.516		
4,300.0	4,260.4	4,245.2	4,186.2	12.1	14.0	103.78	-213.8	-669.2	616.9	593.6	23.27	26.505		
4,400.0	4,359.3	4,344.0	4,283.4	12.4	14.4	103.88	-219.6	-686.1	632.6	608.7	23.88	26.494		
4,500.0	4,458.1	4,442.7	4,380.5	12.7	14.7	103.97	-225.3	-702.9	648.3	623.8	24.48	26.484		
4,600.0	4,557.0	4,541.5	4,477.6	13.0	15.1	104.07	-231.1	-719.8	664.0	638.9	25.08	26.475		
4,700.0	4,655.9	4,640.2	4,574.8	13.3	15.4	104.15	-236.8	-736.7	679.8	654.1	25.68	26.465		
4,800.0	4,754.8	4,739.0	4,671.9	13.6	15.8	104.24	-242.5	-753.5	695.5	669.2	26.29	26.457		
4,900.0	4,853.6	4,837.7	4,769.0	14.0	16.2	104.32	-248.3	-770.4	711.2	684.3	26.89	26.448		
5,000.0	4,952.5	4,936.5	4,866.2	14.3	16.5	104.39	-254.0	-787.2	726.9	699.4	27.49	26.440		
5,100.0	5,051.4	5,035.2	4,963.3	14.6	16.9	104.47	-259.8	-804.1	742.7	714.6	28.10	26.433		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4C-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)				Between Ellipses (ft)	
5,200.0	5,150.3	5,134.0	5,060.4	14.9	17.2	104.54	-265.5	-820.9	758.4	729.7	28.70	26.426		
5,300.0	5,249.1	5,232.7	5,157.6	15.2	17.6	104.61	-271.2	-837.8	774.1	744.8	29.30	26.419		
5,400.0	5,348.0	5,331.5	5,254.7	15.5	18.0	104.67	-277.0	-854.7	789.9	760.0	29.91	26.412		
5,500.0	5,446.9	5,430.2	5,351.8	15.8	18.3	104.73	-282.7	-871.5	805.6	775.1	30.51	26.406		
5,600.0	5,545.7	5,529.0	5,448.9	16.2	18.7	104.79	-288.4	-888.4	821.3	790.2	31.11	26.399		
5,700.0	5,644.6	5,627.7	5,546.1	16.5	19.0	104.85	-294.2	-905.2	837.1	805.4	31.72	26.393		
5,800.0	5,743.5	5,726.5	5,643.2	16.8	19.4	104.91	-299.9	-922.1	852.8	820.5	32.32	26.388		
5,900.0	5,842.4	5,825.2	5,740.3	17.1	19.7	104.96	-305.7	-938.9	868.6	835.6	32.92	26.382		
6,000.0	5,941.2	5,924.0	5,837.5	17.4	20.1	105.01	-311.4	-955.8	884.3	850.8	33.53	26.377		
6,100.0	6,040.1	6,022.7	5,934.6	17.7	20.5	105.06	-317.1	-972.7	900.0	865.9	34.13	26.372		
6,200.0	6,139.0	6,121.5	6,031.7	18.0	20.8	105.11	-322.9	-989.5	915.8	881.1	34.73	26.367		
6,300.0	6,237.9	6,220.2	6,128.9	18.4	21.2	105.16	-328.6	-1,006.4	931.5	896.2	35.34	26.362		
6,400.0	6,336.7	6,319.0	6,226.0	18.7	21.5	105.20	-334.4	-1,023.2	947.3	911.3	35.94	26.358		
6,500.0	6,435.6	6,417.7	6,323.1	19.0	21.9	105.24	-340.1	-1,040.1	963.0	926.5	36.54	26.353		
6,600.0	6,534.5	6,516.5	6,420.3	19.3	22.3	105.29	-345.8	-1,056.9	978.8	941.6	37.15	26.349		
6,700.0	6,633.4	6,615.3	6,517.4	19.6	22.6	100.60	-351.6	-1,073.8	994.3	956.5	37.81	26.295		
6,800.0	6,733.2	6,714.2	6,614.7	19.7	23.0	-29.14	-357.3	-1,090.7	1,003.7	965.5	38.22	26.259		
6,900.0	6,831.8	6,792.4	6,691.6	19.5	23.3	-50.81	-361.5	-1,104.0	1,004.9	967.0	37.87	26.533		
7,000.0	6,926.2	6,850.0	6,748.4	19.2	23.4	-55.90	-359.8	-1,113.9	1,001.7	964.9	36.86	27.181		
7,100.0	7,013.6	6,900.0	6,797.2	18.6	23.6	-59.12	-353.6	-1,122.5	995.4	960.0	35.36	28.147		
7,200.0	7,091.3	6,950.0	6,845.4	18.0	23.7	-62.07	-343.2	-1,131.0	986.4	952.9	33.58	29.376		
7,300.0	7,156.9	7,000.0	6,892.4	17.2	23.8	-65.09	-328.5	-1,139.3	975.8	944.0	31.72	30.766		
7,400.0	7,208.5	7,050.0	6,938.0	16.5	23.8	-68.23	-309.7	-1,147.4	964.3	934.3	29.98	32.162		
7,500.0	7,244.5	7,100.0	6,981.8	15.7	23.9	-71.44	-287.0	-1,155.2	953.2	924.7	28.55	33.386		
7,600.0	7,263.7	7,156.0	7,028.4	15.1	24.0	-74.89	-257.0	-1,163.6	943.7	916.2	27.51	34.301		
7,700.0	7,267.0	7,211.0	7,071.0	14.7	24.0	-77.92	-223.2	-1,171.3	937.2	910.3	26.90	34.835		
7,800.0	7,267.0	7,278.4	7,118.7	14.5	24.1	-80.87	-176.4	-1,180.0	935.0	908.4	26.60	35.151		
7,807.7	7,267.0	7,284.4	7,122.6	14.5	24.1	-81.12	-172.0	-1,180.7	935.0	908.4	26.60	35.152		
7,900.0	7,267.0	7,364.4	7,171.0	14.5	24.2	-84.11	-109.0	-1,189.7	936.4	909.8	26.61	35.187		
8,000.0	7,267.0	7,471.6	7,221.4	14.7	24.4	-87.22	-15.0	-1,199.3	939.8	912.9	26.97	34.852		
8,100.0	7,267.0	7,598.8	7,257.6	15.1	24.7	-89.43	106.4	-1,206.6	942.4	914.5	27.85	33.841		
8,200.0	7,267.0	7,727.4	7,267.0	15.7	25.1	-90.00	234.5	-1,209.4	941.7	912.4	29.32	32.120		
8,300.0	7,267.0	7,827.4	7,267.0	16.5	25.6	-90.00	334.5	-1,210.3	939.9	908.9	30.97	30.344		
8,400.0	7,267.0	7,927.4	7,267.0	17.4	26.2	-90.00	434.5	-1,211.1	938.1	905.1	32.92	28.495		
8,500.0	7,267.0	8,027.4	7,267.0	18.4	26.8	-90.00	534.5	-1,212.0	936.2	901.1	35.11	26.666		
8,600.0	7,267.0	8,127.4	7,267.0	19.5	27.6	-90.00	634.4	-1,212.9	934.4	896.9	37.50	24.918		
8,700.0	7,267.0	8,227.4	7,267.0	20.8	28.5	-90.00	734.4	-1,213.7	932.6	892.6	40.06	23.283		
8,800.0	7,267.0	8,327.3	7,267.0	22.1	29.4	-90.00	834.4	-1,214.6	930.8	888.0	42.75	21.775		
8,900.0	7,267.0	8,427.3	7,267.0	23.4	30.4	-90.00	934.4	-1,215.5	929.0	883.4	45.55	20.396		
9,000.0	7,267.0	8,527.3	7,267.0	24.8	31.5	-90.00	1,034.3	-1,216.4	927.2	878.7	48.44	19.140		
9,100.0	7,267.0	8,627.3	7,267.0	26.3	32.6	-90.00	1,134.3	-1,217.2	925.3	873.9	51.41	17.998		
9,200.0	7,267.0	8,727.3	7,267.0	27.7	33.8	-90.00	1,234.3	-1,218.1	923.5	869.1	54.45	16.962		
9,300.0	7,267.0	8,827.3	7,267.0	29.2	35.0	-90.00	1,334.3	-1,219.0	921.7	864.2	57.54	16.020		
9,400.0	7,267.0	8,927.2	7,267.0	30.8	36.3	-90.00	1,434.3	-1,219.9	919.9	859.2	60.67	15.162		
9,500.0	7,267.0	9,027.2	7,267.0	32.3	37.6	-90.00	1,534.2	-1,220.7	918.1	854.2	63.84	14.380		
9,600.0	7,267.0	9,127.2	7,267.0	33.9	39.0	-90.00	1,634.2	-1,221.6	916.3	849.2	67.05	13.665		
9,700.0	7,267.0	9,227.2	7,267.0	35.5	40.4	-90.00	1,734.2	-1,222.5	914.4	844.1	70.29	13.010		
9,800.0	7,267.0	9,327.2	7,267.0	37.1	41.8	-90.00	1,834.2	-1,223.3	912.6	839.1	73.55	12.409		
9,900.0	7,267.0	9,427.2	7,267.0	38.7	43.2	-90.00	1,934.2	-1,224.2	910.8	834.0	76.83	11.855		
10,000.0	7,267.0	9,527.2	7,267.0	40.4	44.7	-90.00	2,034.1	-1,225.1	909.0	828.8	80.13	11.344		
10,100.0	7,267.0	9,627.1	7,267.0	42.0	46.2	-90.00	2,134.1	-1,226.0	907.2	823.7	83.45	10.871		
10,200.0	7,267.0	9,727.1	7,267.0	43.7	47.7	-90.00	2,234.1	-1,226.8	905.3	818.6	86.78	10.433		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4C-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
10,300.0	7,267.0	9,827.1	7,267.0	45.3	49.2	-90.00	2,334.1	-1,227.7	903.5	813.4	90.13	10.025		
10,400.0	7,267.0	9,927.1	7,267.0	47.0	50.7	-90.00	2,434.1	-1,228.6	901.7	808.2	93.49	9.645		
10,500.0	7,267.0	10,027.1	7,267.0	48.7	52.3	-90.00	2,534.0	-1,229.5	899.9	803.0	96.85	9.291		
10,600.0	7,267.0	10,127.1	7,267.0	50.4	53.8	-90.00	2,634.0	-1,230.3	898.1	797.8	100.23	8.960		
10,700.0	7,267.0	10,227.0	7,267.0	52.0	55.4	-90.00	2,734.0	-1,231.2	896.3	792.6	103.62	8.649		
10,800.0	7,267.0	10,327.0	7,267.0	53.7	57.0	-90.00	2,834.0	-1,232.1	894.4	787.4	107.02	8.358		
10,900.0	7,267.0	10,427.0	7,267.0	55.4	58.6	-90.00	2,934.0	-1,232.9	892.6	782.2	110.42	8.084		
11,000.0	7,267.0	10,527.0	7,267.0	57.1	60.2	-90.00	3,033.9	-1,233.8	890.8	777.0	113.83	7.826		
11,100.0	7,267.0	10,627.0	7,267.0	58.8	61.8	-90.00	3,133.9	-1,234.7	889.0	771.7	117.24	7.583		
11,200.0	7,267.0	10,727.0	7,267.0	60.5	63.4	-90.00	3,233.9	-1,235.6	887.2	766.5	120.66	7.353		
11,300.0	7,267.0	10,826.9	7,267.0	62.2	65.0	-90.00	3,333.9	-1,236.4	885.5	761.6	123.91	7.146		
11,362.5	7,267.0	10,889.5	7,267.0	63.3	66.0	-90.00	3,396.4	-1,237.0	885.2	759.4	125.79	7.037		
11,400.0	7,267.0	10,926.9	7,267.0	63.9	66.7	-90.00	3,433.9	-1,237.3	885.3	758.4	126.91	6.976		
11,500.0	7,267.0	11,026.9	7,267.0	65.6	68.3	-90.00	3,533.9	-1,238.2	886.8	756.9	129.87	6.828		
11,600.0	7,267.0	11,126.9	7,267.0	67.3	69.9	-90.00	3,633.8	-1,239.0	890.1	757.3	132.80	6.702		
11,700.0	7,267.0	11,226.8	7,267.0	69.0	71.6	-90.00	3,733.7	-1,239.9	894.9	759.0	135.94	6.583		
11,800.0	7,267.0	11,344.0	7,267.0	70.7	73.5	-90.00	3,850.9	-1,239.9	899.1	759.5	139.67	6.438		
11,900.0	7,267.0	11,462.6	7,267.0	72.4	75.5	-90.00	3,969.5	-1,237.4	901.3	757.9	143.44	6.284		
12,000.0	7,267.0	11,575.7	7,267.0	74.2	77.3	-90.00	4,082.5	-1,232.8	901.5	754.4	147.12	6.128		
12,100.0	7,267.0	11,675.7	7,267.0	75.9	79.0	-90.00	4,182.4	-1,228.2	901.2	750.6	150.57	5.985		
12,200.0	7,267.0	11,775.7	7,267.0	77.6	80.6	-90.00	4,282.3	-1,223.7	900.8	746.8	154.03	5.849		
12,300.0	7,267.0	11,875.7	7,267.0	79.3	82.3	-90.00	4,382.2	-1,219.1	900.5	743.0	157.48	5.718		
12,400.0	7,267.0	11,975.7	7,267.0	81.0	83.9	-90.00	4,482.1	-1,214.5	900.2	739.2	160.94	5.593		
12,500.0	7,267.0	12,075.7	7,267.0	82.7	85.6	-90.00	4,582.0	-1,209.9	899.9	735.5	164.41	5.473		
12,600.0	7,267.0	12,175.7	7,267.0	84.5	87.2	-90.00	4,681.9	-1,205.3	899.5	731.7	167.87	5.359		
12,700.0	7,267.0	12,275.7	7,267.0	86.2	88.9	-90.00	4,781.8	-1,200.8	899.2	727.9	171.34	5.248		
12,800.0	7,267.0	12,375.7	7,267.0	87.9	90.6	-90.00	4,881.7	-1,196.2	898.9	724.1	174.81	5.142		
12,900.0	7,267.0	12,475.7	7,267.0	89.6	92.2	-90.00	4,981.6	-1,191.6	898.6	720.3	178.28	5.040		
13,000.0	7,267.0	12,575.7	7,267.0	91.4	93.9	-90.00	5,081.4	-1,187.0	898.2	716.5	181.75	4.942		
13,100.0	7,267.0	12,675.7	7,267.0	93.1	95.6	-90.00	5,181.3	-1,182.4	897.9	712.7	185.22	4.848		
13,200.0	7,267.0	12,775.7	7,267.0	94.8	97.3	-90.00	5,281.2	-1,177.9	897.6	708.9	188.70	4.757		
13,300.0	7,267.0	12,875.7	7,267.0	96.5	99.0	-90.00	5,381.1	-1,173.3	897.3	705.1	192.17	4.669		
13,400.0	7,267.0	12,975.7	7,267.0	98.3	100.7	-90.00	5,481.0	-1,168.7	896.9	701.3	195.65	4.584		
13,500.0	7,267.0	13,075.7	7,267.0	100.0	102.3	-90.00	5,580.9	-1,164.1	896.6	697.5	199.13	4.503		
13,600.0	7,267.0	13,175.7	7,267.0	101.7	104.0	-90.00	5,680.8	-1,159.5	896.3	693.7	202.61	4.424		
13,700.0	7,267.0	13,275.7	7,267.0	103.5	105.7	-90.00	5,780.7	-1,155.0	896.0	689.9	206.09	4.347		
13,800.0	7,267.0	13,375.7	7,267.0	105.2	107.4	-90.00	5,880.6	-1,150.4	895.6	686.1	209.57	4.274		
13,900.0	7,267.0	13,475.7	7,267.0	106.9	109.1	-90.00	5,980.5	-1,145.8	895.3	682.3	213.05	4.202		
14,000.0	7,267.0	13,575.7	7,267.0	108.7	110.8	-90.00	6,080.4	-1,141.2	895.0	678.4	216.53	4.133		
14,100.0	7,267.0	13,675.7	7,267.0	110.4	112.5	-90.00	6,180.3	-1,136.6	894.7	674.6	220.02	4.066		
14,200.0	7,267.0	13,775.7	7,267.0	112.1	114.2	-90.00	6,280.2	-1,132.1	894.3	670.8	223.50	4.001		
14,300.0	7,267.0	13,875.7	7,267.0	113.9	115.9	-90.00	6,380.1	-1,127.5	894.0	667.0	226.99	3.939		
14,400.0	7,267.0	13,975.7	7,267.0	115.6	117.6	-90.00	6,480.0	-1,122.9	893.7	663.2	230.48	3.878		
14,472.5	7,267.0	14,048.2	7,267.0	116.9	118.9	-90.00	6,552.4	-1,119.6	893.4	660.4	233.00	3.834		
14,500.0	7,267.0	14,055.8	7,267.0	117.4	119.0	-90.00	6,560.0	-1,119.2	893.6	660.0	233.62	3.825		
14,514.5	7,267.0	14,055.8	7,267.0	117.6	119.0	-90.00	6,560.0	-1,119.2	894.0	660.1	233.87	3.822 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4D-17H-P267 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance					Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-89.33	0.3	-29.9	29.9					
100.0	100.0	100.0	100.0	0.1	0.1	-89.33	0.3	-29.9	29.9	29.7	0.24	122.448		
200.0	200.0	200.0	200.0	0.3	0.3	-89.33	0.3	-29.9	29.9	29.3	0.59	50.420		
300.0	300.0	300.0	300.0	0.5	0.5	-89.33	0.3	-29.9	29.9	29.0	0.94	31.746		
333.7	333.7	333.7	333.7	0.5	0.5	-89.33	0.3	-29.9	29.9	28.9	1.06	28.222 CC, ES		
400.0	400.0	399.6	399.6	0.6	0.6	-89.94	0.0	-30.2	30.2	28.9	1.29	23.401		
500.0	500.0	498.8	498.8	0.8	0.8	-94.40	-2.5	-32.5	32.6	31.0	1.64	19.907		
600.0	600.0	597.8	597.5	1.0	1.0	65.91	-7.5	-37.2	37.3	35.3	2.00	18.628		
700.0	699.8	696.5	695.6	1.2	1.3	63.64	-15.1	-44.1	43.3	40.9	2.38	18.220		
800.0	799.5	794.9	793.1	1.4	1.5	63.16	-25.1	-53.2	50.6	47.8	2.78	18.162		
900.0	898.7	893.2	890.0	1.6	1.8	63.85	-37.5	-64.6	59.0	55.8	3.24	18.206		
1,000.0	997.6	992.9	987.9	1.9	2.2	65.82	-51.0	-77.0	67.4	63.6	3.75	17.959		
1,100.0	1,096.5	1,092.5	1,085.9	2.2	2.5	67.51	-64.4	-89.3	75.8	71.5	4.29	17.658		
1,200.0	1,195.3	1,192.1	1,183.8	2.5	2.9	68.87	-77.9	-101.7	84.2	79.3	4.85	17.368		
1,300.0	1,294.2	1,291.7	1,281.7	2.8	3.2	69.97	-91.4	-114.1	92.6	87.2	5.42	17.102		
1,400.0	1,393.1	1,391.4	1,379.7	3.1	3.6	70.89	-104.9	-126.5	101.1	95.1	6.00	16.863		
1,500.0	1,492.0	1,491.0	1,477.6	3.4	3.9	71.67	-118.4	-138.8	109.6	103.0	6.58	16.651		
1,600.0	1,590.8	1,590.6	1,575.5	3.7	4.3	72.34	-131.9	-151.2	118.1	111.0	7.18	16.463		
1,700.0	1,689.7	1,690.3	1,673.5	4.0	4.6	72.91	-145.4	-163.6	126.7	118.9	7.77	16.296		
1,800.0	1,788.6	1,789.9	1,771.4	4.3	5.0	73.42	-158.8	-175.9	135.2	126.9	8.38	16.147		
1,900.0	1,887.5	1,889.5	1,869.3	4.6	5.4	73.86	-172.3	-188.3	143.8	134.8	8.98	16.014		
2,000.0	1,986.3	1,989.1	1,967.3	4.9	5.7	74.26	-185.8	-200.7	152.4	142.8	9.59	15.895		
2,100.0	2,085.2	2,088.8	2,065.2	5.2	6.1	74.61	-199.3	-213.0	160.9	150.7	10.19	15.787		
2,200.0	2,184.1	2,188.4	2,163.1	5.5	6.4	74.92	-212.8	-225.4	169.5	158.7	10.80	15.690		
2,300.0	2,282.9	2,288.0	2,261.0	5.8	6.8	75.21	-226.3	-237.8	178.1	166.7	11.41	15.602		
2,400.0	2,381.8	2,387.6	2,359.0	6.1	7.2	75.47	-239.8	-250.2	186.7	174.6	12.03	15.521		
2,500.0	2,480.7	2,487.3	2,456.9	6.4	7.5	75.71	-253.2	-262.5	195.3	182.6	12.64	15.447		
2,600.0	2,579.6	2,586.9	2,554.8	6.8	7.9	75.92	-266.7	-274.9	203.9	190.6	13.25	15.380		
2,700.0	2,678.4	2,686.5	2,652.8	7.1	8.3	76.12	-280.2	-287.3	212.4	198.6	13.87	15.317		
2,800.0	2,777.3	2,786.2	2,750.7	7.4	8.6	76.31	-293.7	-299.6	221.0	206.6	14.49	15.260		
2,900.0	2,876.2	2,885.8	2,848.6	7.7	9.0	76.48	-307.2	-312.0	229.6	214.5	15.10	15.207		
3,000.0	2,975.1	2,985.4	2,946.6	8.0	9.4	76.63	-320.7	-324.4	238.2	222.5	15.72	15.157		
3,100.0	3,073.9	3,085.0	3,044.5	8.3	9.7	76.78	-334.2	-336.7	246.8	230.5	16.34	15.111		
3,200.0	3,172.8	3,184.7	3,142.4	8.6	10.1	76.92	-347.6	-349.1	255.5	238.5	16.95	15.068		
3,300.0	3,271.7	3,284.3	3,240.4	8.9	10.4	77.04	-361.1	-361.5	264.1	246.5	17.57	15.028		
3,400.0	3,370.5	3,383.9	3,338.3	9.3	10.8	77.16	-374.6	-373.9	272.7	254.5	18.19	14.990		
3,500.0	3,469.4	3,483.5	3,436.2	9.6	11.2	77.28	-388.1	-386.2	281.3	262.5	18.81	14.955		
3,600.0	3,568.3	3,583.2	3,534.2	9.9	11.5	77.38	-401.6	-398.6	289.9	270.5	19.43	14.922		
3,700.0	3,667.2	3,682.8	3,632.1	10.2	11.9	77.48	-415.1	-411.0	298.5	278.4	20.05	14.890		
3,800.0	3,766.0	3,782.4	3,730.0	10.5	12.3	77.58	-428.6	-423.3	307.1	286.4	20.67	14.861		
3,900.0	3,864.9	3,882.1	3,828.0	10.8	12.6	77.67	-442.0	-435.7	315.7	294.4	21.28	14.833		
4,000.0	3,963.8	3,981.7	3,925.9	11.1	13.0	77.75	-455.5	-448.1	324.3	302.4	21.90	14.806		
4,100.0	4,062.7	4,081.3	4,023.8	11.4	13.4	77.83	-469.0	-460.4	332.9	310.4	22.52	14.781		
4,200.0	4,161.5	4,180.9	4,121.8	11.8	13.7	77.91	-482.5	-472.8	341.5	318.4	23.14	14.757		
4,300.0	4,260.4	4,280.6	4,219.7	12.1	14.1	77.98	-496.0	-485.2	350.2	326.4	23.76	14.735		
4,400.0	4,359.3	4,380.2	4,317.6	12.4	14.5	78.05	-509.5	-497.5	358.8	334.4	24.38	14.713		
4,500.0	4,458.1	4,479.8	4,415.6	12.7	14.8	78.11	-523.0	-509.9	367.4	342.4	25.01	14.693		
4,600.0	4,557.0	4,579.5	4,513.5	13.0	15.2	78.17	-536.4	-522.3	376.0	350.4	25.63	14.673		
4,700.0	4,655.9	4,679.1	4,611.4	13.3	15.6	78.23	-549.9	-534.7	384.6	358.4	26.25	14.654		
4,800.0	4,754.8	4,778.7	4,709.4	13.6	15.9	78.29	-563.4	-547.0	393.2	366.4	26.87	14.637		
4,900.0	4,853.6	4,878.3	4,807.3	14.0	16.3	78.35	-576.9	-559.4	401.9	374.4	27.49	14.620		
5,000.0	4,952.5	4,978.0	4,905.2	14.3	16.7	78.40	-590.4	-571.8	410.5	382.4	28.11	14.603		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4D-17H-P267 - DD - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,051.4	5,077.6	5,003.2	14.6	17.0	78.45	-603.9	-584.1	419.1	390.4	28.73	14.587		
5,200.0	5,150.3	5,177.2	5,101.1	14.9	17.4	78.50	-617.3	-596.5	427.7	398.4	29.35	14.572		
5,300.0	5,249.1	5,276.8	5,199.0	15.2	17.8	78.54	-630.8	-608.9	436.3	406.4	29.97	14.558		
5,400.0	5,348.0	5,376.5	5,296.9	15.5	18.1	78.59	-644.3	-621.2	444.9	414.4	30.59	14.544		
5,500.0	5,446.9	5,476.1	5,394.9	15.8	18.5	78.63	-657.8	-633.6	453.6	422.3	31.21	14.531		
5,600.0	5,545.7	5,575.7	5,492.8	16.2	18.8	78.67	-671.3	-646.0	462.2	430.3	31.84	14.518		
5,700.0	5,644.6	5,675.4	5,590.7	16.5	19.2	78.71	-684.8	-658.4	470.8	438.3	32.46	14.505		
5,800.0	5,743.5	5,775.0	5,688.7	16.8	19.6	78.75	-698.3	-670.7	479.4	446.3	33.08	14.494		
5,900.0	5,842.4	5,874.6	5,786.6	17.1	19.9	78.79	-711.7	-683.1	488.0	454.3	33.70	14.482		
6,000.0	5,941.2	5,974.2	5,884.5	17.4	20.3	78.82	-725.2	-695.5	496.7	462.3	34.32	14.471		
6,100.0	6,040.1	6,073.9	5,982.5	17.7	20.7	78.86	-738.7	-707.8	505.3	470.3	34.94	14.460		
6,200.0	6,139.0	6,173.5	6,080.4	18.0	21.0	78.89	-752.2	-720.2	513.9	478.3	35.56	14.450		
6,300.0	6,237.9	6,273.1	6,178.3	18.4	21.4	78.92	-765.7	-732.6	522.5	486.3	36.19	14.440		
6,400.0	6,336.7	6,372.7	6,276.3	18.7	21.8	78.95	-779.2	-744.9	531.1	494.3	36.81	14.430		
6,500.0	6,435.6	6,472.4	6,374.2	19.0	22.1	78.98	-792.7	-757.3	539.8	502.3	37.43	14.421		
6,600.0	6,534.5	6,572.0	6,472.1	19.3	22.5	79.01	-806.1	-769.7	548.4	510.3	38.05	14.412		
6,700.0	6,633.4	6,671.6	6,570.1	19.6	22.9	79.04	-819.6	-782.1	557.0	518.3	38.69	14.394		
6,800.0	6,733.2	6,770.5	6,667.2	19.7	23.2	79.07	-833.0	-794.3	564.8	525.8	38.97	14.491		
6,900.0	6,831.8	6,865.8	6,760.9	19.5	23.6	79.09	-845.9	-806.2	572.3	533.6	38.63	14.814		
7,000.0	6,926.2	6,964.7	6,848.3	19.2	23.9	79.12	-857.9	-817.2	581.7	543.9	37.83	15.377		
7,100.0	7,013.6	7,049.3	6,941.9	18.6	24.1	79.14	-863.7	-829.0	595.2	558.5	36.63	16.246		
7,200.0	7,091.3	7,155.6	7,046.5	18.0	24.2	79.16	-851.6	-842.2	612.3	577.2	35.16	17.414		
7,300.0	7,156.9	7,277.9	7,161.7	17.2	24.0	79.18	-813.9	-856.8	632.0	598.6	33.46	18.888		
7,400.0	7,208.5	7,422.0	7,283.5	16.5	23.5	79.20	-739.2	-872.2	652.3	620.7	31.57	20.659		
7,500.0	7,244.5	7,593.9	7,399.2	15.7	22.7	79.22	-613.7	-886.8	670.1	640.4	29.63	22.618		
7,600.0	7,263.7	7,794.0	7,480.4	15.1	21.7	79.24	-432.2	-897.0	681.6	653.7	27.97	24.371		
7,700.0	7,267.0	7,970.6	7,498.0	14.7	21.1	79.26	-257.1	-899.3	684.0	657.0	27.00	25.330		
7,800.0	7,267.0	8,070.6	7,498.0	14.5	20.9	79.28	-157.1	-899.3	682.6	656.0	26.58	25.682		
7,900.0	7,267.0	8,170.5	7,498.0	14.5	20.9	79.30	-57.2	-899.3	680.0	653.4	26.64	25.527		
8,000.0	7,267.0	8,270.5	7,498.0	14.7	21.0	79.32	-109.94	42.8	677.5	650.4	27.09	25.005		
8,100.0	7,267.0	8,370.5	7,498.0	15.1	21.3	79.34	-110.02	142.8	675.0	647.0	27.96	24.141		
8,200.0	7,267.0	8,470.4	7,498.0	15.7	21.7	79.36	-110.10	242.7	672.5	643.3	29.16	23.058		
8,300.0	7,267.0	8,570.4	7,498.0	16.5	22.3	79.38	-110.18	342.7	669.9	639.3	30.67	21.840		
8,400.0	7,267.0	8,670.4	7,498.0	17.4	22.9	79.40	-110.26	442.7	667.4	635.0	32.45	20.569		
8,500.0	7,267.0	8,770.3	7,498.0	18.4	23.7	79.42	-110.34	542.6	664.9	630.4	34.44	19.305		
8,600.0	7,267.0	8,870.3	7,498.0	19.5	24.6	79.44	-110.42	642.6	662.4	625.7	36.62	18.088		
8,700.0	7,267.0	8,970.3	7,498.0	20.8	25.6	79.46	-110.50	742.5	659.8	620.9	38.95	16.941		
8,800.0	7,267.0	9,070.2	7,498.0	22.1	26.6	79.48	-110.58	842.5	657.3	615.9	41.41	15.875		
8,900.0	7,267.0	9,170.2	7,498.0	23.4	27.7	79.50	-110.66	942.5	654.8	610.8	43.97	14.894		
9,000.0	7,267.0	9,270.2	7,498.0	24.8	28.9	79.52	-110.75	1,042.4	652.3	605.7	46.61	13.994		
9,100.0	7,267.0	9,370.1	7,498.0	26.3	30.2	79.54	-110.83	1,142.4	649.8	600.4	49.33	13.172		
9,200.0	7,267.0	9,470.1	7,498.0	27.7	31.5	79.56	-110.92	1,242.4	647.3	595.2	52.11	12.422		
9,300.0	7,267.0	9,570.0	7,498.0	29.2	32.8	79.58	-111.00	1,342.3	644.7	589.8	54.93	11.737		
9,400.0	7,267.0	9,670.0	7,498.0	30.8	34.2	79.60	-111.09	1,442.3	642.2	584.4	57.80	11.111		
9,500.0	7,267.0	9,770.0	7,498.0	32.3	35.6	79.62	-111.17	1,542.3	639.7	579.0	60.70	10.538		
9,600.0	7,267.0	9,869.9	7,498.0	33.9	37.0	79.64	-111.26	1,642.2	637.2	573.6	63.64	10.013		
9,700.0	7,267.0	9,969.9	7,498.0	35.5	38.5	79.66	-111.35	1,742.2	634.7	568.1	66.59	9.531		
9,800.0	7,267.0	10,069.9	7,498.0	37.1	40.0	79.68	-111.44	1,842.1	632.2	562.6	69.57	9.087		
9,900.0	7,267.0	10,169.8	7,498.0	38.7	41.5	79.70	-111.53	1,942.1	629.7	557.1	72.57	8.677		
10,000.0	7,267.0	10,269.8	7,498.0	40.4	43.0	79.72	-111.62	2,042.1	627.2	551.6	75.58	8.298		
10,100.0	7,267.0	10,369.8	7,498.0	42.0	44.5	79.74	-111.71	2,142.0	624.7	546.1	78.60	7.947		
10,200.0	7,267.0	10,469.7	7,498.0	43.7	46.1	79.76	-111.80	2,242.0	622.2	540.6	81.64	7.621		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4D-17H-P267 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
10,300.0	7,267.0	10,569.7	7,498.0	45.3	47.7	-111.89	2,342.0	-899.3	619.7	535.0	84.68	7.318		
10,400.0	7,267.0	10,669.6	7,498.0	47.0	49.2	-111.99	2,441.9	-899.3	617.2	529.5	87.74	7.035		
10,500.0	7,267.0	10,769.6	7,498.0	48.7	50.8	-112.08	2,541.9	-899.3	614.7	523.9	90.79	6.770		
10,600.0	7,267.0	10,869.6	7,498.0	50.4	52.4	-112.17	2,641.9	-899.3	612.2	518.4	93.86	6.523		
10,700.0	7,267.0	10,969.5	7,498.0	52.0	54.1	-112.27	2,741.8	-899.3	609.7	512.8	96.92	6.291		
10,800.0	7,267.0	11,069.5	7,498.0	53.7	55.7	-112.37	2,841.8	-899.3	607.2	507.2	99.99	6.073		
10,900.0	7,267.0	11,169.5	7,498.0	55.4	57.3	-112.46	2,941.8	-899.3	604.8	501.7	103.06	5.868		
11,000.0	7,267.0	11,269.4	7,498.0	57.1	59.0	-112.56	3,041.7	-899.3	602.3	496.1	106.14	5.675		
11,100.0	7,267.0	11,369.4	7,498.0	58.8	60.6	-112.66	3,141.7	-899.3	599.8	490.6	109.21	5.492		
11,200.0	7,267.0	11,469.4	7,498.0	60.5	62.2	-112.76	3,241.6	-899.3	597.3	485.0	112.28	5.320		
11,300.0	7,267.0	11,569.3	7,498.0	62.2	63.9	-112.85	3,341.6	-899.3	595.0	479.7	115.24	5.163		
11,400.0	7,267.0	11,669.3	7,498.0	63.9	65.6	-112.89	3,441.6	-899.3	594.0	475.9	118.05	5.031		
11,412.5	7,267.0	11,681.9	7,498.0	64.1	65.8	-112.89	3,454.2	-899.3	593.9	475.5	118.40	5.016		
11,500.0	7,267.0	11,769.3	7,498.0	65.6	67.2	-112.87	3,541.6	-899.3	594.6	473.7	120.87	4.919		
11,600.0	7,267.0	11,869.3	7,498.0	67.3	68.9	-112.78	3,641.6	-899.3	596.8	473.0	123.72	4.824		
11,700.0	7,267.0	11,969.2	7,498.0	69.0	70.6	-112.64	3,741.5	-899.3	600.4	473.7	126.77	4.736		
11,800.0	7,267.0	12,069.1	7,498.0	70.7	72.2	-112.49	3,841.4	-899.3	604.4	474.3	130.08	4.646		
11,900.0	7,267.0	12,169.0	7,498.0	72.4	73.9	-112.34	3,941.3	-899.3	608.3	474.9	133.39	4.560		
12,000.0	7,267.0	12,268.9	7,498.0	74.2	75.6	-112.18	4,041.2	-899.3	612.2	475.5	136.71	4.478		
12,100.0	7,267.0	12,368.8	7,498.0	75.9	77.3	-112.04	4,141.1	-899.3	616.2	476.1	140.04	4.400		
12,200.0	7,267.0	12,468.7	7,498.0	77.6	79.0	-111.89	4,241.0	-899.3	620.1	476.7	143.38	4.325		
12,300.0	7,267.0	12,568.7	7,498.0	79.3	80.7	-111.74	4,340.9	-899.3	624.1	477.4	146.72	4.253		
12,400.0	7,267.0	12,668.6	7,498.0	81.0	82.4	-111.60	4,440.9	-899.3	628.0	478.0	150.07	4.185		
12,500.0	7,267.0	12,768.5	7,498.0	82.7	84.1	-111.46	4,540.8	-899.3	632.0	478.6	153.42	4.119		
12,600.0	7,267.0	12,868.4	7,498.0	84.5	85.8	-111.32	4,640.7	-899.3	635.9	479.2	156.78	4.056		
12,700.0	7,267.0	12,968.3	7,498.0	86.2	87.5	-111.18	4,740.6	-899.3	639.9	479.8	160.15	3.996		
12,800.0	7,267.0	13,068.2	7,498.0	87.9	89.2	-111.04	4,840.5	-899.3	643.9	480.4	163.52	3.938		
12,900.0	7,267.0	13,168.1	7,498.0	89.6	90.9	-110.91	4,940.4	-899.3	647.9	481.0	166.89	3.882		
13,000.0	7,267.0	13,268.0	7,498.0	91.4	92.6	-110.77	5,040.3	-899.3	651.8	481.6	170.27	3.828		
13,100.0	7,267.0	13,367.9	7,498.0	93.1	94.3	-110.64	5,140.2	-899.3	655.8	482.1	173.66	3.776		
13,200.0	7,267.0	13,467.8	7,498.0	94.8	96.0	-110.51	5,240.1	-899.3	659.8	482.7	177.05	3.727		
13,300.0	7,267.0	13,567.8	7,498.0	96.5	97.7	-110.38	5,340.0	-899.3	663.8	483.3	180.44	3.679		
13,400.0	7,267.0	13,667.7	7,498.0	98.3	99.4	-110.26	5,440.0	-899.3	667.8	483.9	183.84	3.632		
13,500.0	7,267.0	13,767.6	7,498.0	100.0	101.1	-110.13	5,539.9	-899.3	671.8	484.5	187.24	3.588		
13,600.0	7,267.0	13,867.5	7,498.0	101.7	102.8	-110.01	5,639.8	-899.3	675.8	485.1	190.65	3.545		
13,700.0	7,267.0	13,967.4	7,498.0	103.5	104.6	-109.88	5,739.7	-899.3	679.8	485.7	194.06	3.503		
13,800.0	7,267.0	14,067.3	7,498.0	105.2	106.3	-109.76	5,839.6	-899.3	683.8	486.3	197.47	3.463		
13,900.0	7,267.0	14,167.2	7,498.0	106.9	108.0	-109.64	5,939.5	-899.3	687.8	486.9	200.88	3.424		
14,000.0	7,267.0	14,267.1	7,498.0	108.7	109.7	-109.52	6,039.4	-899.3	691.8	487.5	204.30	3.386		
14,100.0	7,267.0	14,367.0	7,498.0	110.4	111.4	-109.41	6,139.3	-899.3	695.8	488.1	207.73	3.350		
14,200.0	7,267.0	14,466.9	7,498.0	112.1	113.2	-109.29	6,239.2	-899.3	699.8	488.6	211.15	3.314		
14,300.0	7,267.0	14,566.8	7,498.0	113.9	114.9	-109.18	6,339.1	-899.3	703.8	489.2	214.58	3.280		
14,400.0	7,267.0	14,666.8	7,498.0	115.6	116.6	-109.06	6,439.0	-899.3	707.8	489.8	218.01	3.247		
14,500.0	7,267.0	14,766.7	7,498.0	117.4	118.3	-108.95	6,539.0	-899.3	711.9	490.4	221.45	3.215		
14,514.5	7,267.0	14,781.1	7,498.0	117.6	118.6	-108.94	6,553.4	-899.3	712.4	490.5	221.94	3.210 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4E-17H-P267 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-89.02	0.3	-19.9	19.9					
100.0	100.0	100.0	100.0	0.1	0.1	-89.02	0.3	-19.9	19.9	19.6	0.24	81.257		
200.0	200.0	200.0	200.0	0.3	0.3	-89.02	0.3	-19.9	19.9	19.3	0.59	33.459		
300.0	300.0	300.0	300.0	0.5	0.5	-89.02	0.3	-19.9	19.9	18.9	0.94	21.067		
400.0	400.0	400.0	400.0	0.6	0.6	-89.02	0.3	-19.9	19.9	18.6	1.29	15.373 CC, ES		
500.0	500.0	499.6	499.6	0.8	0.8	-92.99	-1.1	-20.8	20.9	19.2	1.64	12.715		
600.0	600.0	599.0	598.9	1.0	1.0	66.04	-5.4	-23.8	23.6	21.6	2.00	11.820		
700.0	699.8	698.3	697.8	1.2	1.2	62.82	-12.5	-28.6	27.5	25.1	2.37	11.588		
800.0	799.5	797.4	796.1	1.4	1.5	61.72	-22.4	-35.4	32.3	29.6	2.78	11.629		
900.0	898.7	896.4	893.9	1.6	1.8	61.99	-35.1	-44.1	38.1	34.8	3.24	11.755		
1,000.0	997.6	996.2	992.2	1.9	2.1	63.81	-49.2	-53.8	43.8	40.1	3.75	11.697		
1,100.0	1,096.5	1,096.0	1,090.6	2.2	2.4	65.40	-63.4	-63.5	49.6	45.3	4.28	11.571		
1,200.0	1,195.3	1,195.9	1,188.9	2.5	2.7	66.66	-77.6	-73.1	55.3	50.5	4.84	11.436		
1,300.0	1,294.2	1,295.7	1,287.2	2.8	3.1	67.68	-91.8	-82.8	61.1	55.7	5.41	11.306		
1,400.0	1,393.1	1,395.5	1,385.6	3.1	3.4	68.52	-105.9	-92.5	66.9	60.9	5.98	11.184		
1,500.0	1,492.0	1,495.3	1,483.9	3.4	3.7	69.23	-120.1	-102.2	72.7	66.1	6.57	11.074		
1,600.0	1,590.8	1,595.2	1,582.3	3.7	4.1	69.83	-134.3	-111.9	78.5	71.4	7.16	10.975		
1,700.0	1,689.7	1,695.0	1,680.6	4.0	4.4	70.35	-148.5	-121.6	84.4	76.6	7.75	10.885		
1,800.0	1,788.6	1,794.8	1,778.9	4.3	4.7	70.81	-162.6	-131.3	90.2	81.8	8.35	10.805		
1,900.0	1,887.5	1,894.6	1,877.3	4.6	5.1	71.21	-176.8	-141.0	96.0	87.1	8.95	10.732		
2,000.0	1,986.3	1,994.5	1,975.6	4.9	5.4	71.56	-191.0	-150.7	101.9	92.3	9.55	10.667		
2,100.0	2,085.2	2,094.3	2,074.0	5.2	5.8	71.87	-205.2	-160.4	107.7	97.6	10.15	10.608		
2,200.0	2,184.1	2,194.1	2,172.3	5.5	6.1	72.16	-219.3	-170.1	113.6	102.8	10.76	10.554		
2,300.0	2,282.9	2,294.0	2,270.6	5.8	6.5	72.41	-233.5	-179.8	119.4	108.0	11.37	10.505		
2,400.0	2,381.8	2,393.8	2,369.0	6.1	6.8	72.64	-247.7	-189.5	125.3	113.3	11.98	10.460		
2,500.0	2,480.7	2,493.6	2,467.3	6.4	7.2	72.85	-261.9	-199.2	131.1	118.5	12.58	10.418		
2,600.0	2,579.6	2,593.4	2,565.7	6.8	7.5	73.04	-276.0	-208.9	137.0	123.8	13.19	10.381		
2,700.0	2,678.4	2,693.3	2,664.0	7.1	7.8	73.22	-290.2	-218.5	142.8	129.0	13.81	10.345		
2,800.0	2,777.3	2,793.1	2,762.3	7.4	8.2	73.38	-304.4	-228.2	148.7	134.3	14.42	10.313		
2,900.0	2,876.2	2,892.9	2,860.7	7.7	8.5	73.53	-318.6	-237.9	154.5	139.5	15.03	10.283		
3,000.0	2,975.1	2,992.7	2,959.0	8.0	8.9	73.67	-332.7	-247.6	160.4	144.8	15.64	10.255		
3,100.0	3,073.9	3,092.6	3,057.4	8.3	9.2	73.80	-346.9	-257.3	166.3	150.0	16.25	10.229		
3,200.0	3,172.8	3,192.4	3,155.7	8.6	9.6	73.92	-361.1	-267.0	172.1	155.3	16.87	10.204		
3,300.0	3,271.7	3,292.2	3,254.0	8.9	9.9	74.03	-375.3	-276.7	178.0	160.5	17.48	10.181		
3,400.0	3,370.5	3,392.1	3,352.4	9.3	10.3	74.14	-389.4	-286.4	183.8	165.8	18.10	10.160		
3,500.0	3,469.4	3,491.9	3,450.7	9.6	10.6	74.24	-403.6	-296.1	189.7	171.0	18.71	10.140		
3,600.0	3,568.3	3,591.7	3,549.1	9.9	11.0	74.33	-417.8	-305.8	195.6	176.3	19.32	10.121		
3,700.0	3,667.2	3,691.5	3,647.4	10.2	11.3	74.42	-432.0	-315.5	201.4	181.5	19.94	10.103		
3,800.0	3,766.0	3,791.4	3,745.7	10.5	11.7	74.50	-446.1	-325.2	207.3	186.8	20.55	10.086		
3,900.0	3,864.9	3,891.2	3,844.1	10.8	12.0	74.58	-460.3	-334.9	213.2	192.0	21.17	10.070		
4,000.0	3,963.8	3,991.0	3,942.4	11.1	12.4	74.65	-474.5	-344.6	219.0	197.3	21.78	10.055		
4,100.0	4,062.7	4,090.8	4,040.8	11.4	12.7	74.72	-488.7	-354.3	224.9	202.5	22.40	10.040		
4,200.0	4,161.5	4,190.7	4,139.1	11.8	13.0	74.79	-502.8	-364.0	230.8	207.8	23.02	10.027		
4,300.0	4,260.4	4,290.5	4,237.4	12.1	13.4	74.85	-517.0	-373.6	236.6	213.0	23.63	10.014		
4,400.0	4,359.3	4,390.3	4,335.8	12.4	13.7	74.91	-531.2	-383.3	242.5	218.3	24.25	10.001		
4,500.0	4,458.1	4,490.2	4,434.1	12.7	14.1	74.97	-545.4	-393.0	248.4	223.5	24.86	9.990		
4,600.0	4,557.0	4,590.0	4,532.4	13.0	14.4	75.03	-559.5	-402.7	254.2	228.8	25.48	9.978		
4,700.0	4,655.9	4,689.8	4,630.8	13.3	14.8	75.08	-573.7	-412.4	260.1	234.0	26.09	9.968		
4,800.0	4,754.8	4,789.6	4,729.1	13.6	15.1	75.13	-587.9	-422.1	266.0	239.3	26.71	9.957		
4,900.0	4,853.6	4,889.5	4,827.5	14.0	15.5	75.18	-602.1	-431.8	271.8	244.5	27.33	9.947		
5,000.0	4,952.5	4,989.3	4,925.8	14.3	15.8	75.22	-616.2	-441.5	277.7	249.8	27.94	9.938		
5,100.0	5,051.4	5,089.1	5,024.1	14.6	16.2	75.27	-630.4	-451.2	283.6	255.0	28.56	9.929		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4E-17H-P267 - DD - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,200.0	5,150.3	5,189.0	5,122.5	14.9	16.5	75.31	-644.6	-460.9	289.4	260.3	29.18	9.920		
5,300.0	5,249.1	5,288.8	5,220.8	15.2	16.9	75.35	-658.8	-470.6	295.3	265.5	29.79	9.912		
5,400.0	5,348.0	5,388.6	5,319.2	15.5	17.2	75.39	-672.9	-480.3	301.2	270.8	30.41	9.904		
5,500.0	5,446.9	5,488.4	5,417.5	15.8	17.6	75.42	-687.1	-490.0	307.1	276.0	31.03	9.896		
5,600.0	5,545.7	5,588.3	5,515.8	16.2	17.9	75.46	-701.3	-499.7	312.9	281.3	31.64	9.889		
5,700.0	5,644.6	5,688.1	5,614.2	16.5	18.3	75.49	-715.5	-509.4	318.8	286.5	32.26	9.882		
5,800.0	5,743.5	5,787.9	5,712.5	16.8	18.6	75.53	-729.6	-519.0	324.7	291.8	32.88	9.875		
5,900.0	5,842.4	5,887.7	5,810.9	17.1	18.9	75.56	-743.8	-528.7	330.5	297.0	33.50	9.868		
6,000.0	5,941.2	5,987.6	5,909.2	17.4	19.3	75.59	-758.0	-538.4	336.4	302.3	34.11	9.862		
6,100.0	6,040.1	6,087.4	6,007.5	17.7	19.6	75.62	-772.2	-548.1	342.3	307.5	34.73	9.855		
6,200.0	6,139.0	6,187.2	6,105.9	18.0	20.0	75.65	-786.3	-557.8	348.1	312.8	35.35	9.849		
6,300.0	6,237.9	6,287.1	6,204.2	18.4	20.3	75.68	-800.5	-567.5	354.0	318.0	35.96	9.843		
6,400.0	6,336.7	6,386.9	6,302.6	18.7	20.7	75.71	-814.7	-577.2	359.9	323.3	36.58	9.838		
6,500.0	6,435.6	6,486.7	6,400.9	19.0	21.0	75.73	-828.9	-586.9	365.7	328.5	37.20	9.832		
6,600.0	6,534.5	6,586.5	6,499.2	19.3	21.4	75.76	-843.0	-596.6	371.6	333.8	37.82	9.827		
6,700.0	6,633.4	6,686.4	6,597.6	19.6	21.7	70.85	-857.2	-606.3	377.5	339.0	38.43	9.822		
6,800.0	6,733.2	6,785.3	6,695.6	19.7	22.0	-59.52	-865.6	-616.0	383.3	344.7	38.60	9.931		
6,900.0	6,831.8	6,885.2	6,794.5	19.5	22.0	-80.71	-857.2	-625.7	389.2	350.9	38.28	10.167		
7,000.0	6,926.2	6,986.3	6,891.6	19.2	21.8	-84.88	-831.2	-635.3	394.9	357.4	37.52	10.525		
7,100.0	7,013.6	7,088.7	6,983.8	18.6	21.4	-86.79	-787.8	-644.4	400.4	364.0	36.40	11.000		
7,200.0	7,091.3	7,192.4	7,067.7	18.0	20.9	-87.95	-727.8	-652.6	405.3	370.3	34.98	11.586		
7,300.0	7,156.9	7,297.2	7,140.4	17.2	20.3	-88.74	-652.7	-659.8	409.6	376.2	33.39	12.265		
7,400.0	7,208.5	7,403.1	7,198.6	16.5	19.7	-89.30	-564.7	-665.5	413.0	381.2	31.76	13.002		
7,500.0	7,244.5	7,509.9	7,240.1	15.7	19.1	-89.68	-466.6	-669.6	415.4	385.1	30.24	13.736		
7,600.0	7,263.7	7,617.2	7,262.8	15.1	18.5	-89.92	-361.9	-671.9	416.7	387.8	28.97	14.383		
7,700.0	7,267.0	7,722.1	7,267.0	14.7	18.2	-90.00	-257.1	-672.3	416.8	388.8	28.05	14.858		
7,800.0	7,267.0	7,822.1	7,267.0	14.5	18.0	-90.00	-157.1	-672.3	415.3	387.8	27.54	15.077		
7,900.0	7,267.0	7,922.1	7,267.0	14.5	17.9	-90.00	-57.2	-672.3	412.6	385.1	27.56	14.972		
8,000.0	7,267.0	8,022.0	7,267.0	14.7	18.1	-90.00	42.8	-672.3	409.9	381.9	28.01	14.634		
8,100.0	7,267.0	8,122.0	7,267.0	15.1	18.4	-90.00	142.8	-672.3	407.2	378.4	28.89	14.095		
8,200.0	7,267.0	8,222.0	7,267.0	15.7	18.9	-90.00	242.7	-672.3	404.6	374.4	30.16	13.414		
8,300.0	7,267.0	8,321.9	7,267.0	16.5	19.5	-90.00	342.7	-672.3	401.9	370.1	31.76	12.652		
8,400.0	7,267.0	8,421.9	7,267.0	17.4	20.3	-90.00	442.7	-672.3	399.2	365.5	33.66	11.860		
8,500.0	7,267.0	8,521.8	7,267.0	18.4	21.2	-90.00	542.6	-672.3	396.5	360.7	35.80	11.076		
8,600.0	7,267.0	8,621.8	7,267.0	19.5	22.1	-90.00	642.6	-672.3	393.8	355.7	38.14	10.325		
8,700.0	7,267.0	8,721.8	7,267.0	20.8	23.2	-90.00	742.5	-672.3	391.1	350.5	40.65	9.622		
8,800.0	7,267.0	8,821.7	7,267.0	22.1	24.4	-90.00	842.5	-672.3	388.4	345.1	43.30	8.971		
8,900.0	7,267.0	8,921.7	7,267.0	23.4	25.6	-90.00	942.5	-672.3	385.7	339.7	46.06	8.374		
9,000.0	7,267.0	9,021.7	7,267.0	24.8	26.9	-90.00	1,042.4	-672.3	383.0	334.1	48.92	7.830		
9,100.0	7,267.0	9,121.6	7,267.0	26.3	28.2	-90.00	1,142.4	-672.3	380.3	328.5	51.86	7.334		
9,200.0	7,267.0	9,221.6	7,267.0	27.7	29.6	-90.00	1,242.4	-672.3	377.7	322.8	54.87	6.883		
9,300.0	7,267.0	9,321.6	7,267.0	29.2	31.0	-90.00	1,342.3	-672.3	375.0	317.0	57.93	6.473		
9,400.0	7,267.0	9,421.5	7,267.0	30.8	32.4	-90.00	1,442.3	-672.3	372.3	311.2	61.04	6.099		
9,500.0	7,267.0	9,521.5	7,267.0	32.3	33.9	-90.00	1,542.3	-672.3	369.6	305.4	64.19	5.758		
9,600.0	7,267.0	9,621.4	7,267.0	33.9	35.4	-90.00	1,642.2	-672.3	366.9	299.5	67.38	5.445		
9,700.0	7,267.0	9,721.4	7,267.0	35.5	36.9	-90.00	1,742.2	-672.3	364.2	293.6	70.59	5.159		
9,800.0	7,267.0	9,821.4	7,267.0	37.1	38.5	-90.00	1,842.1	-672.3	361.5	287.7	73.84	4.896		
9,900.0	7,267.0	9,921.3	7,267.0	38.7	40.0	-90.00	1,942.1	-672.3	358.8	281.7	77.10	4.654		
10,000.0	7,267.0	10,021.3	7,267.0	40.4	41.6	-90.00	2,042.1	-672.3	356.1	275.7	80.39	4.430		
10,100.0	7,267.0	10,121.3	7,267.0	42.0	43.2	-90.00	2,142.0	-672.3	353.4	269.7	83.70	4.223		
10,200.0	7,267.0	10,221.2	7,267.0	43.7	44.8	-90.00	2,242.0	-672.3	350.7	263.7	87.02	4.031		
10,300.0	7,267.0	10,321.2	7,267.0	45.3	46.4	-90.00	2,342.0	-672.3	348.1	257.7	90.35	3.852		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4E-17H-P267 - DD - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
10,400.0	7,267.0	10,421.2	7,267.0	47.0	48.0	-90.00	2,441.9	-672.3	345.4	251.7	93.70	3.686		
10,500.0	7,267.0	10,521.1	7,267.0	48.7	49.7	-90.00	2,541.9	-672.3	342.7	245.6	97.06	3.531		
10,600.0	7,267.0	10,621.1	7,267.0	50.4	51.3	-90.00	2,641.9	-672.3	340.0	239.6	100.43	3.385		
10,700.0	7,267.0	10,721.0	7,267.0	52.0	53.0	-90.00	2,741.8	-672.3	337.3	233.5	103.80	3.249		
10,800.0	7,267.0	10,821.0	7,267.0	53.7	54.6	-90.00	2,841.8	-672.3	334.6	227.4	107.19	3.122		
10,900.0	7,267.0	10,921.0	7,267.0	55.4	56.3	-90.00	2,941.8	-672.3	331.9	221.3	110.58	3.001		
11,000.0	7,267.0	11,020.9	7,267.0	57.1	57.9	-90.00	3,041.7	-672.3	329.2	215.2	113.98	2.888		
11,100.0	7,267.0	11,120.9	7,267.0	58.8	59.6	-90.00	3,141.7	-672.3	326.5	209.1	117.39	2.782		
11,200.0	7,267.0	11,220.9	7,267.0	60.5	61.3	-90.00	3,241.6	-672.3	323.8	203.0	120.80	2.681		
11,300.0	7,267.0	11,320.8	7,267.0	62.2	63.0	-90.00	3,341.6	-672.3	321.3	197.2	124.12	2.589		
11,400.0	7,267.0	11,420.8	7,267.0	63.9	64.6	-90.00	3,441.6	-672.3	320.2	192.9	127.27	2.516		
11,412.5	7,267.0	11,433.4	7,267.0	64.1	64.9	-90.00	3,454.1	-672.3	320.2	192.5	127.66	2.508		
11,500.0	7,267.0	11,520.8	7,267.0	65.6	66.3	-90.00	3,541.6	-672.3	320.9	190.5	130.39	2.461		
11,600.0	7,267.0	11,620.8	7,267.0	67.3	68.0	-90.00	3,641.6	-672.3	323.3	189.8	133.48	2.422		
11,700.0	7,267.0	11,720.7	7,267.0	69.0	69.7	-90.00	3,741.5	-672.3	327.2	190.5	136.70	2.394		
11,800.0	7,267.0	11,820.6	7,267.0	70.7	71.4	-90.00	3,841.4	-672.3	331.5	191.4	140.14	2.366		
11,900.0	7,267.0	11,920.5	7,267.0	72.4	73.1	-90.00	3,941.3	-672.3	335.8	192.2	143.57	2.339		
12,000.0	7,267.0	12,020.4	7,267.0	74.2	74.8	-90.00	4,041.2	-672.3	340.0	193.0	147.02	2.313		
12,100.0	7,267.0	12,120.4	7,267.0	75.9	76.5	-90.00	4,141.1	-672.3	344.3	193.8	150.46	2.288		
12,200.0	7,267.0	12,220.3	7,267.0	77.6	78.2	-90.00	4,241.0	-672.3	348.5	194.6	153.91	2.264		
12,300.0	7,267.0	12,320.2	7,267.0	79.3	79.9	-90.00	4,340.9	-672.3	352.8	195.4	157.36	2.242		
12,400.0	7,267.0	12,420.1	7,267.0	81.0	81.6	-90.00	4,440.9	-672.3	357.0	196.2	160.81	2.220		
12,500.0	7,267.0	12,520.0	7,267.0	82.7	83.3	-90.00	4,540.8	-672.3	361.3	197.0	164.27	2.199		
12,600.0	7,267.0	12,619.9	7,267.0	84.5	85.0	-90.00	4,640.7	-672.3	365.5	197.8	167.73	2.179		
12,700.0	7,267.0	12,719.8	7,267.0	86.2	86.8	-90.00	4,740.6	-672.3	369.8	198.6	171.19	2.160		
12,800.0	7,267.0	12,819.7	7,267.0	87.9	88.5	-90.00	4,840.5	-672.3	374.0	199.4	174.65	2.142		
12,900.0	7,267.0	12,919.6	7,267.0	89.6	90.2	-90.00	4,940.4	-672.3	378.3	200.2	178.11	2.124		
13,000.0	7,267.0	13,019.5	7,267.0	91.4	91.9	-90.00	5,040.3	-672.3	382.5	201.0	181.58	2.107		
13,100.0	7,267.0	13,119.4	7,267.0	93.1	93.6	-90.00	5,140.2	-672.3	386.8	201.8	185.04	2.090		
13,200.0	7,267.0	13,219.4	7,267.0	94.8	95.4	-90.00	5,240.1	-672.3	391.1	202.5	188.51	2.074		
13,300.0	7,267.0	13,319.3	7,267.0	96.5	97.1	-90.00	5,340.0	-672.3	395.3	203.3	191.98	2.059		
13,400.0	7,267.0	13,419.2	7,267.0	98.3	98.8	-90.00	5,440.0	-672.3	399.6	204.1	195.45	2.044		
13,500.0	7,267.0	13,519.1	7,267.0	100.0	100.5	-90.00	5,539.9	-672.3	403.8	204.9	198.92	2.030		
13,600.0	7,267.0	13,619.0	7,267.0	101.7	102.2	-90.00	5,639.8	-672.3	408.1	205.7	202.39	2.016		
13,700.0	7,267.0	13,718.9	7,267.0	103.5	104.0	-90.00	5,739.7	-672.3	412.3	206.5	205.87	2.003		
13,800.0	7,267.0	13,818.8	7,267.0	105.2	105.7	-90.00	5,839.6	-672.3	416.6	207.2	209.34	1.990		
13,900.0	7,267.0	13,918.7	7,267.0	106.9	107.4	-90.00	5,939.5	-672.3	420.8	208.0	212.82	1.977		
14,000.0	7,267.0	14,018.6	7,267.0	108.7	109.2	-90.00	6,039.4	-672.3	425.1	208.8	216.30	1.965		
14,100.0	7,267.0	14,118.5	7,267.0	110.4	110.9	-90.00	6,139.3	-672.3	429.3	209.6	219.78	1.954		
14,200.0	7,267.0	14,218.5	7,267.0	112.1	112.6	-90.00	6,239.2	-672.3	433.6	210.3	223.25	1.942		
14,300.0	7,267.0	14,318.4	7,267.0	113.9	114.3	-90.00	6,339.1	-672.3	437.8	211.1	226.73	1.931		
14,400.0	7,267.0	14,418.3	7,267.0	115.6	116.1	-90.00	6,439.0	-672.3	442.1	211.9	230.21	1.920		
14,500.0	7,267.0	14,518.2	7,267.0	117.4	117.8	-90.00	6,539.0	-672.3	446.4	212.7	233.70	1.910		
14,514.5	7,267.0	14,532.7	7,267.0	117.6	118.1	-90.00	6,553.4	-672.3	447.0	212.8	234.20	1.908 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4F-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-10.1	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	-89.95	0.0	-10.1	10.1	9.8	0.24	41.195		
200.0	200.0	200.0	200.0	0.3	0.3	-89.95	0.0	-10.1	10.1	9.5	0.59	16.963		
300.0	300.0	300.0	300.0	0.5	0.5	-89.95	0.0	-10.1	10.1	9.1	0.94	10.680		
400.0	400.0	400.0	400.0	0.6	0.6	-89.95	0.0	-10.1	10.1	8.8	1.29	7.794		
435.8	435.8	435.8	435.8	0.7	0.7	-89.95	0.0	-10.1	10.1	8.6	1.42	7.106	CC	
500.0	500.0	499.9	499.9	0.8	0.8	-92.17	-0.4	-10.2	10.3	8.6	1.64	6.250	ES	
600.0	600.0	599.7	599.6	1.0	1.0	65.60	-3.6	-11.7	11.4	9.4	1.99	5.710		
700.0	699.8	699.4	699.1	1.2	1.2	61.14	-9.9	-14.5	13.1	10.8	2.37	5.557		
800.0	799.5	799.1	798.2	1.4	1.4	59.03	-19.3	-18.8	15.4	12.6	2.77	5.569		
900.0	898.7	898.7	896.9	1.6	1.7	58.60	-31.9	-24.5	18.1	14.9	3.22	5.638		
1,000.0	997.6	998.7	995.7	1.9	2.0	61.51	-45.9	-30.8	20.5	16.8	3.72	5.500		
1,100.0	1,096.5	1,098.7	1,094.5	2.2	2.3	64.19	-59.8	-37.2	22.8	18.5	4.26	5.347		
1,200.0	1,195.3	1,198.6	1,193.2	2.5	2.6	66.38	-73.8	-43.5	25.1	20.3	4.82	5.212		
1,300.0	1,294.2	1,298.6	1,292.0	2.8	2.9	68.19	-87.8	-49.8	27.5	22.1	5.40	5.097		
1,400.0	1,393.1	1,398.6	1,390.8	3.1	3.2	69.71	-101.7	-56.1	29.9	23.9	5.98	4.998		
1,500.0	1,492.0	1,498.5	1,489.6	3.4	3.5	71.00	-115.7	-62.4	32.3	25.7	6.58	4.913		
1,600.0	1,590.8	1,598.5	1,588.4	3.7	3.8	72.12	-129.6	-68.7	34.8	27.6	7.18	4.841		
1,700.0	1,689.7	1,698.5	1,687.2	4.0	4.1	73.09	-143.6	-75.1	37.2	29.4	7.79	4.778		
1,800.0	1,788.6	1,798.4	1,786.0	4.3	4.4	73.94	-157.5	-81.4	39.7	31.3	8.40	4.723		
1,900.0	1,887.5	1,898.4	1,884.8	4.6	4.7	74.69	-171.5	-87.7	42.1	33.1	9.01	4.675		
2,000.0	1,986.3	1,998.4	1,983.5	4.9	5.0	75.35	-185.5	-94.0	44.6	35.0	9.62	4.632		
2,100.0	2,085.2	2,098.3	2,082.3	5.2	5.4	75.95	-199.4	-100.3	47.1	36.8	10.24	4.595		
2,200.0	2,184.1	2,198.3	2,181.1	5.5	5.7	76.49	-213.4	-106.6	49.5	38.7	10.86	4.561		
2,300.0	2,282.9	2,298.3	2,279.9	5.8	6.0	76.97	-227.3	-113.0	52.0	40.5	11.48	4.531		
2,400.0	2,381.8	2,398.2	2,378.7	6.1	6.3	77.41	-241.3	-119.3	54.5	42.4	12.10	4.504		
2,500.0	2,480.7	2,498.2	2,477.5	6.4	6.6	77.82	-255.2	-125.6	57.0	44.3	12.72	4.480		
2,600.0	2,579.6	2,598.2	2,576.3	6.8	6.9	78.19	-269.2	-131.9	59.5	46.1	13.34	4.457		
2,700.0	2,678.4	2,698.1	2,675.1	7.1	7.3	78.53	-283.2	-138.2	62.0	48.0	13.97	4.437		
2,800.0	2,777.3	2,798.1	2,773.8	7.4	7.6	78.84	-297.1	-144.5	64.5	49.9	14.59	4.419		
2,900.0	2,876.2	2,898.1	2,872.6	7.7	7.9	79.13	-311.1	-150.9	67.0	51.7	15.21	4.401		
3,000.0	2,975.1	2,998.1	2,971.4	8.0	8.2	79.40	-325.0	-157.2	69.5	53.6	15.84	4.386		
3,100.0	3,073.9	3,098.0	3,070.2	8.3	8.5	79.65	-339.0	-163.5	72.0	55.5	16.46	4.371		
3,200.0	3,172.8	3,198.0	3,169.0	8.6	8.8	79.88	-352.9	-169.8	74.5	57.4	17.09	4.358		
3,300.0	3,271.7	3,298.0	3,267.8	8.9	9.2	80.10	-366.9	-176.1	77.0	59.2	17.71	4.345		
3,400.0	3,370.5	3,397.9	3,366.6	9.3	9.5	80.31	-380.8	-182.5	79.5	61.1	18.34	4.333		
3,500.0	3,469.4	3,497.9	3,465.4	9.6	9.8	80.50	-394.8	-188.8	82.0	63.0	18.96	4.322		
3,600.0	3,568.3	3,597.9	3,564.1	9.9	10.1	80.68	-408.8	-195.1	84.5	64.9	19.59	4.312		
3,700.0	3,667.2	3,697.8	3,662.9	10.2	10.4	80.85	-422.7	-201.4	87.0	66.8	20.22	4.303		
3,800.0	3,766.0	3,797.8	3,761.7	10.5	10.8	81.01	-436.7	-207.7	89.5	68.6	20.84	4.294		
3,900.0	3,864.9	3,897.8	3,860.5	10.8	11.1	81.16	-450.6	-214.0	92.0	70.5	21.47	4.285		
4,000.0	3,963.8	3,997.7	3,959.3	11.1	11.4	81.31	-464.6	-220.4	94.5	72.4	22.09	4.277		
4,100.0	4,062.7	4,097.7	4,058.1	11.4	11.7	81.44	-478.5	-226.7	97.0	74.3	22.72	4.269		
4,200.0	4,161.5	4,197.7	4,156.9	11.8	12.0	81.57	-492.5	-233.0	99.5	76.2	23.35	4.262		
4,300.0	4,260.4	4,297.6	4,255.7	12.1	12.3	81.70	-506.5	-239.3	102.0	78.0	23.97	4.256		
4,400.0	4,359.3	4,397.6	4,354.4	12.4	12.7	81.81	-520.4	-245.6	104.5	79.9	24.60	4.249		
4,500.0	4,458.1	4,497.6	4,453.2	12.7	13.0	81.92	-534.4	-251.9	107.0	81.8	25.23	4.243		
4,600.0	4,557.0	4,597.5	4,552.0	13.0	13.3	82.03	-548.3	-258.3	109.6	83.7	25.85	4.237		
4,700.0	4,655.9	4,697.5	4,650.8	13.3	13.6	82.13	-562.3	-264.6	112.1	85.6	26.48	4.232		
4,800.0	4,754.8	4,797.5	4,749.6	13.6	13.9	82.23	-576.2	-270.9	114.6	87.5	27.11	4.226		
4,900.0	4,853.6	4,897.4	4,848.4	14.0	14.3	82.32	-590.2	-277.2	117.1	89.3	27.74	4.221		
5,000.0	4,952.5	4,997.4	4,947.2	14.3	14.6	82.41	-604.2	-283.5	119.6	91.2	28.36	4.217		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4F-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,100.0	5,051.4	5,097.4	5,046.0	14.6	14.9	82.50	-618.1	-289.8	122.1	93.1	28.99	4.212		
5,200.0	5,150.3	5,197.4	5,144.7	14.9	15.2	82.58	-632.1	-296.2	124.6	95.0	29.62	4.208		
5,300.0	5,249.1	5,297.3	5,243.5	15.2	15.5	82.66	-646.0	-302.5	127.1	96.9	30.24	4.203		
5,400.0	5,348.0	5,397.3	5,342.3	15.5	15.9	82.74	-660.0	-308.8	129.6	98.8	30.87	4.199		
5,500.0	5,446.9	5,497.3	5,441.1	15.8	16.2	82.81	-673.9	-315.1	132.2	100.7	31.50	4.196		
5,600.0	5,545.7	5,597.2	5,539.9	16.2	16.5	82.88	-687.9	-321.4	134.7	102.5	32.13	4.192		
5,700.0	5,644.6	5,697.2	5,638.7	16.5	16.8	82.95	-701.9	-327.7	137.2	104.4	32.75	4.188		
5,800.0	5,743.5	5,797.2	5,737.5	16.8	17.1	83.01	-715.8	-334.1	139.7	106.3	33.38	4.185		
5,900.0	5,842.4	5,897.1	5,836.3	17.1	17.5	83.08	-729.8	-340.4	142.2	108.2	34.01	4.182		
6,000.0	5,941.2	5,997.1	5,935.0	17.4	17.8	83.14	-743.7	-346.7	144.7	110.1	34.64	4.178		
6,100.0	6,040.1	6,097.1	6,033.8	17.7	18.1	83.20	-757.7	-353.0	147.2	112.0	35.26	4.175		
6,200.0	6,139.0	6,197.0	6,132.6	18.0	18.4	83.25	-771.6	-359.3	149.8	113.9	35.89	4.172		
6,300.0	6,237.9	6,297.0	6,231.4	18.4	18.7	83.31	-785.6	-365.6	152.3	115.7	36.52	4.169		
6,400.0	6,336.7	6,397.0	6,330.2	18.7	19.0	83.36	-799.5	-372.0	154.8	117.6	37.15	4.167		
6,500.0	6,435.6	6,496.9	6,429.0	19.0	19.4	83.41	-813.5	-378.3	157.3	119.5	37.77	4.164		
6,600.0	6,534.5	6,596.9	6,527.8	19.3	19.7	83.46	-827.5	-384.6	159.8	121.4	38.40	4.161		
6,700.0	6,633.4	6,696.9	6,626.6	19.6	20.0	78.42	-841.4	-390.9	162.3	123.2	39.01	4.159		
6,800.0	6,733.2	6,796.0	6,724.5	19.7	20.3	-55.68	-855.3	-397.2	163.4	124.4	38.95	4.194		
6,900.0	6,831.8	6,891.5	6,818.9	19.5	20.6	-85.77	-868.6	-403.2	166.2	128.5	37.69	4.409		
7,000.0	6,926.2	6,987.7	6,914.4	19.2	20.8	-101.43	-877.9	-409.3	177.5	142.4	35.07	5.062		
7,100.0	7,013.6	7,093.2	7,019.2	18.6	20.8	-113.58	-870.4	-415.9	197.2	165.3	31.90	6.181		
7,200.0	7,091.3	7,209.3	7,130.8	18.0	20.6	-123.02	-840.1	-422.9	221.8	193.0	28.81	7.701		
7,300.0	7,156.9	7,338.4	7,244.9	17.2	20.0	-130.20	-780.7	-430.0	247.8	221.7	26.10	9.495		
7,400.0	7,208.5	7,482.2	7,352.9	16.5	19.1	-135.43	-686.4	-436.5	271.4	247.4	23.94	11.336		
7,500.0	7,244.5	7,640.7	7,440.6	15.7	17.9	-138.87	-555.1	-441.6	289.1	266.6	22.49	12.850		
7,600.0	7,263.7	7,810.3	7,491.1	15.1	16.9	-140.53	-393.9	-444.3	298.0	276.1	21.91	13.600		
7,700.0	7,267.0	7,948.1	7,498.0	14.7	16.3	-140.73	-256.5	-444.3	298.4	276.4	21.93	13.603		
7,800.0	7,267.0	8,048.1	7,498.0	14.5	16.1	-141.02	-156.5	-444.0	297.2	275.3	21.89	13.575		
7,900.0	7,267.0	8,148.0	7,498.0	14.5	16.1	-141.48	-56.5	-443.6	295.3	273.2	22.09	13.366		
8,000.0	7,267.0	8,248.0	7,498.0	14.7	16.3	-141.94	43.4	-443.3	293.4	270.9	22.51	13.037		
8,100.0	7,267.0	8,347.9	7,498.0	15.1	16.6	-142.41	143.4	-442.9	291.6	268.5	23.12	12.612		
8,200.0	7,267.0	8,447.9	7,498.0	15.7	17.2	-142.88	243.3	-442.6	289.7	265.8	23.90	12.125		
8,300.0	7,267.0	8,547.8	7,498.0	16.5	17.9	-143.36	343.3	-442.3	287.9	263.1	24.81	11.604		
8,400.0	7,267.0	8,647.8	7,498.0	17.4	18.7	-143.85	443.2	-441.9	286.1	260.3	25.84	11.073		
8,500.0	7,267.0	8,747.7	7,498.0	18.4	19.7	-144.34	543.2	-441.6	284.3	257.4	26.96	10.548		
8,600.0	7,267.0	8,847.7	7,498.0	19.5	20.7	-144.84	643.1	-441.3	282.6	254.5	28.14	10.042		
8,700.0	7,267.0	8,947.6	7,498.0	20.8	21.9	-145.35	743.1	-440.9	280.9	251.5	29.37	9.562		
8,800.0	7,267.0	9,047.6	7,498.0	22.1	23.1	-145.86	843.0	-440.6	279.1	248.5	30.64	9.112		
8,900.0	7,267.0	9,147.6	7,498.0	23.4	24.4	-146.37	943.0	-440.3	277.5	245.5	31.92	8.693		
9,000.0	7,267.0	9,247.5	7,498.0	24.8	25.7	-146.90	1,042.9	-439.9	275.8	242.6	33.21	8.305		
9,100.0	7,267.0	9,347.5	7,498.0	26.3	27.1	-147.43	1,142.9	-439.6	274.2	239.7	34.49	7.948		
9,200.0	7,267.0	9,447.4	7,498.0	27.7	28.5	-147.96	1,242.9	-439.2	272.5	236.8	35.77	7.619		
9,300.0	7,267.0	9,547.4	7,498.0	29.2	30.0	-148.51	1,342.8	-438.9	270.9	233.9	37.03	7.317		
9,400.0	7,267.0	9,647.3	7,498.0	30.8	31.5	-149.05	1,442.8	-438.6	269.4	231.1	38.26	7.041		
9,500.0	7,267.0	9,747.3	7,498.0	32.3	33.0	-149.61	1,542.7	-438.2	267.8	228.4	39.46	6.787		
9,600.0	7,267.0	9,847.2	7,498.0	33.9	34.5	-150.17	1,642.7	-437.9	266.3	225.7	40.63	6.555		
9,700.0	7,267.0	9,947.2	7,498.0	35.5	36.1	-150.74	1,742.6	-437.6	264.8	223.1	41.75	6.342		
9,800.0	7,267.0	10,047.1	7,498.0	37.1	37.7	-151.31	1,842.6	-437.2	263.3	220.5	42.84	6.148		
9,900.0	7,267.0	10,147.1	7,498.0	38.7	39.3	-151.89	1,942.5	-436.9	261.9	218.0	43.87	5.970		
10,000.0	7,267.0	10,247.0	7,498.0	40.4	40.9	-152.48	2,042.5	-436.5	260.5	215.6	44.86	5.807		
10,100.0	7,267.0	10,347.0	7,498.0	42.0	42.5	-153.07	2,142.4	-436.2	259.1	213.3	45.80	5.658		
10,200.0	7,267.0	10,447.0	7,498.0	43.7	44.1	-153.67	2,242.4	-435.9	257.8	211.1	46.68	5.522		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4F-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,300.0	7,267.0	10,546.9	7,498.0	45.3	45.8	-154.28	2,342.3	-435.5	256.4	208.9	47.50	5.398		
10,400.0	7,267.0	10,646.9	7,498.0	47.0	47.4	-154.89	2,442.3	-435.2	255.1	206.9	48.27	5.285		
10,500.0	7,267.0	10,746.8	7,498.0	48.7	49.1	-155.51	2,542.3	-434.9	253.9	204.9	48.98	5.183		
10,600.0	7,267.0	10,846.8	7,498.0	50.4	50.7	-156.14	2,642.2	-434.5	252.6	203.0	49.62	5.091		
10,700.0	7,267.0	10,946.7	7,498.0	52.0	52.4	-156.77	2,742.2	-434.2	251.4	201.2	50.20	5.008		
10,800.0	7,267.0	11,046.7	7,498.0	53.7	54.1	-157.40	2,842.1	-433.9	250.2	199.5	50.72	4.933		
10,900.0	7,267.0	11,146.6	7,498.0	55.4	55.7	-158.05	2,942.1	-433.5	249.1	197.9	51.18	4.867		
11,000.0	7,267.0	11,246.6	7,498.0	57.1	57.4	-158.69	3,042.0	-433.2	248.0	196.4	51.57	4.809		
11,100.0	7,267.0	11,346.5	7,498.0	58.8	59.1	-159.35	3,142.0	-432.8	246.9	195.0	51.89	4.758		
11,200.0	7,267.0	11,446.5	7,498.0	60.5	60.8	-160.01	3,241.9	-432.5	245.8	193.7	52.15	4.714		
11,300.0	7,267.0	11,546.5	7,498.0	62.2	62.5	-160.64	3,341.9	-432.2	244.9	192.5	52.36	4.676		
11,400.0	7,267.0	11,646.4	7,498.0	63.9	64.2	-160.95	3,441.9	-431.8	244.4	191.4	52.97	4.614		
11,431.8	7,267.0	11,678.3	7,498.0	64.5	64.7	-160.97	3,473.7	-431.7	244.4	191.1	53.27	4.587		
11,500.0	7,267.0	11,746.4	7,498.0	65.6	65.9	-160.88	3,541.9	-431.5	244.5	190.4	54.13	4.517		
11,600.0	7,267.0	11,846.4	7,498.0	67.3	67.6	-160.43	3,641.8	-431.2	245.2	189.3	55.91	4.385		
11,700.0	7,267.0	11,946.4	7,498.0	69.0	69.3	-159.64	3,741.8	-430.8	246.4	188.1	58.35	4.223		
11,800.0	7,267.0	12,046.3	7,498.0	70.7	71.0	-158.79	3,841.7	-430.5	247.8	186.8	61.06	4.059		
11,900.0	7,267.0	12,146.2	7,498.0	72.4	72.7	-157.95	3,941.6	-430.1	249.3	185.4	63.85	3.904		
12,000.0	7,267.0	12,246.1	7,498.0	74.2	74.4	-157.12	4,041.5	-429.8	250.7	184.0	66.72	3.758		
12,100.0	7,267.0	12,346.0	7,498.0	75.9	76.1	-156.30	4,141.5	-429.5	252.3	182.6	69.68	3.621		
12,200.0	7,267.0	12,446.0	7,498.0	77.6	77.8	-155.50	4,241.4	-429.1	253.9	181.2	72.70	3.492		
12,300.0	7,267.0	12,545.9	7,498.0	79.3	79.6	-154.70	4,341.3	-428.8	255.6	179.7	75.80	3.371		
12,400.0	7,267.0	12,645.8	7,498.0	81.0	81.3	-153.91	4,441.2	-428.5	257.3	178.3	78.97	3.258		
12,500.0	7,267.0	12,745.7	7,498.0	82.7	83.0	-153.13	4,541.2	-428.1	259.0	176.8	82.20	3.151		
12,600.0	7,267.0	12,845.7	7,498.0	84.5	84.7	-152.36	4,641.1	-427.8	260.8	175.3	85.49	3.051		
12,700.0	7,267.0	12,945.6	7,498.0	86.2	86.4	-151.61	4,741.0	-427.5	262.6	173.8	88.83	2.957		
12,800.0	7,267.0	13,045.5	7,498.0	87.9	88.2	-150.86	4,840.9	-427.1	264.5	172.3	92.23	2.868		
12,900.0	7,267.0	13,145.4	7,498.0	89.6	89.9	-150.13	4,940.9	-426.8	266.5	170.8	95.67	2.785		
13,000.0	7,267.0	13,245.4	7,498.0	91.4	91.6	-149.40	5,040.8	-426.4	268.4	169.3	99.16	2.707		
13,100.0	7,267.0	13,345.3	7,498.0	93.1	93.3	-148.69	5,140.7	-426.1	270.4	167.7	102.70	2.633		
13,200.0	7,267.0	13,445.2	7,498.0	94.8	95.1	-147.98	5,240.6	-425.8	272.5	166.2	106.27	2.564		
13,300.0	7,267.0	13,545.1	7,498.0	96.5	96.8	-147.29	5,340.5	-425.4	274.6	164.7	109.88	2.499		
13,400.0	7,267.0	13,645.0	7,498.0	98.3	98.5	-146.61	5,440.5	-425.1	276.7	163.2	113.53	2.438		
13,500.0	7,267.0	13,742.6	7,498.0	100.0	100.2	-145.84	5,538.0	-425.4	279.3	161.9	117.44	2.378		
13,600.0	7,267.0	13,841.3	7,498.0	101.7	101.9	-144.84	5,636.7	-427.2	282.7	160.7	122.02	2.317		
13,700.0	7,267.0	13,941.1	7,498.0	103.5	103.6	-143.84	5,736.5	-429.0	286.3	159.6	126.70	2.260		
13,800.0	7,267.0	14,040.9	7,498.0	105.2	105.4	-142.86	5,836.3	-430.9	290.0	158.6	131.39	2.207		
13,900.0	7,267.0	14,140.7	7,498.0	106.9	107.1	-141.91	5,936.1	-432.8	293.7	157.6	136.08	2.158		
14,000.0	7,267.0	14,240.6	7,498.0	108.7	108.8	-140.98	6,035.9	-434.7	297.5	156.8	140.77	2.114		
14,100.0	7,267.0	14,340.4	7,498.0	110.4	110.6	-140.08	6,135.7	-436.6	301.4	156.0	145.45	2.072		
14,200.0	7,267.0	14,440.2	7,498.0	112.1	112.3	-139.20	6,235.5	-438.4	305.4	155.3	150.13	2.034		
14,300.0	7,267.0	14,540.0	7,498.0	113.9	114.0	-138.34	6,335.3	-440.3	309.5	154.7	154.79	1.999		
14,400.0	7,267.0	14,639.8	7,498.0	115.6	115.8	-137.50	6,435.1	-442.2	313.6	154.1	159.44	1.967		
14,500.0	7,267.0	14,739.6	7,498.0	117.4	117.5	-136.69	6,534.8	-444.1	317.8	153.7	164.08	1.937		
14,514.5	7,267.0	14,754.1	7,498.0	117.6	117.8	-136.57	6,549.3	-444.3	318.4	153.6	164.75	1.932 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4H-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	10.1	10.1					
100.0	100.0	100.0	100.0	0.1	0.1	90.05	0.0	10.1	10.1	9.8	0.24	41.195		
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	10.1	10.1	9.5	0.59	16.963		
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	10.1	10.1	9.1	0.94	10.680		
400.0	400.0	400.0	400.0	0.6	0.6	90.05	0.0	10.1	10.1	8.8	1.29	7.794		
500.0	500.0	500.0	500.0	0.8	0.8	92.53	-0.4	10.0	10.0	8.4	1.64	6.121		
505.7	505.7	505.7	505.7	0.8	0.8	-101.81	-0.5	10.0	10.0	8.4	1.66	6.045 CC, ES		
600.0	600.0	600.0	599.9	1.0	1.0	-92.56	-3.9	9.8	10.5	8.5	2.00	5.239		
700.0	699.8	699.9	699.6	1.2	1.2	-84.35	-10.9	9.2	11.8	9.4	2.38	4.958		
800.0	799.5	799.7	798.8	1.4	1.4	-78.70	-21.3	8.5	13.9	11.1	2.80	4.968		
900.0	898.7	899.5	897.7	1.6	1.7	-76.41	-34.8	7.4	16.6	13.3	3.28	5.064		
1,000.0	997.6	999.5	996.7	1.9	1.9	-81.02	-48.8	6.4	19.0	15.2	3.82	4.971		
1,100.0	1,096.5	1,099.5	1,095.7	2.2	2.2	-85.03	-62.9	5.3	21.4	17.0	4.38	4.891		
1,200.0	1,195.3	1,199.4	1,194.6	2.5	2.5	-88.21	-77.0	4.3	24.0	19.0	4.96	4.832		
1,300.0	1,294.2	1,299.4	1,293.6	2.8	2.8	-90.78	-91.0	3.2	26.5	21.0	5.54	4.788		
1,400.0	1,393.1	1,399.3	1,392.5	3.1	3.1	-92.88	-105.1	2.2	29.2	23.0	6.13	4.757		
1,500.0	1,492.0	1,499.3	1,491.5	3.4	3.4	-94.64	-119.2	1.1	31.8	25.1	6.73	4.734		
1,600.0	1,590.8	1,599.3	1,590.5	3.7	3.7	-96.12	-133.2	0.0	34.5	27.2	7.32	4.717		
1,700.0	1,689.7	1,699.2	1,689.4	4.0	4.0	-97.39	-147.3	-1.0	37.2	29.3	7.92	4.705		
1,800.0	1,788.6	1,799.2	1,788.4	4.3	4.3	-98.49	-161.4	-2.1	40.0	31.5	8.51	4.695		
1,900.0	1,887.5	1,899.1	1,887.3	4.6	4.6	-99.44	-175.4	-3.1	42.7	33.6	9.11	4.689		
2,000.0	1,986.3	1,999.1	1,986.3	4.9	4.9	-100.28	-189.5	-4.2	45.5	35.8	9.71	4.684		
2,100.0	2,085.2	2,099.1	2,085.3	5.2	5.1	-101.03	-203.6	-5.3	48.2	37.9	10.30	4.680		
2,200.0	2,184.1	2,199.0	2,184.2	5.5	5.4	-101.69	-217.7	-6.3	51.0	40.1	10.90	4.678		
2,300.0	2,282.9	2,299.0	2,283.2	5.8	5.7	-102.29	-231.7	-7.4	53.8	42.3	11.50	4.676		
2,400.0	2,381.8	2,398.9	2,382.1	6.1	6.0	-102.82	-245.8	-8.4	56.5	44.4	12.09	4.675		
2,500.0	2,480.7	2,498.9	2,481.1	6.4	6.3	-103.31	-259.9	-9.5	59.3	46.6	12.69	4.675		
2,600.0	2,579.6	2,598.9	2,580.1	6.8	6.6	-103.75	-273.9	-10.5	62.1	48.8	13.29	4.674		
2,700.0	2,678.4	2,698.8	2,679.0	7.1	6.9	-104.16	-288.0	-11.6	64.9	51.0	13.88	4.675		
2,800.0	2,777.3	2,798.8	2,778.0	7.4	7.2	-104.53	-302.1	-12.7	67.7	53.2	14.48	4.675		
2,900.0	2,876.2	2,898.7	2,876.9	7.7	7.5	-104.87	-316.1	-13.7	70.5	55.4	15.07	4.675		
3,000.0	2,975.1	2,998.7	2,975.9	8.0	7.8	-105.19	-330.2	-14.8	73.3	57.6	15.67	4.676		
3,100.0	3,073.9	3,098.7	3,074.9	8.3	8.1	-105.48	-344.3	-15.8	76.1	59.8	16.27	4.677		
3,200.0	3,172.8	3,198.6	3,173.8	8.6	8.4	-105.75	-358.3	-16.9	78.9	62.0	16.86	4.678		
3,300.0	3,271.7	3,298.6	3,272.8	8.9	8.7	-106.01	-372.4	-18.0	81.7	64.2	17.46	4.679		
3,400.0	3,370.5	3,398.5	3,371.7	9.3	9.0	-106.24	-386.5	-19.0	84.5	66.4	18.05	4.680		
3,500.0	3,469.4	3,498.5	3,470.7	9.6	9.3	-106.46	-400.5	-20.1	87.3	68.6	18.65	4.681		
3,600.0	3,568.3	3,598.5	3,569.7	9.9	9.6	-106.67	-414.6	-21.1	90.1	70.8	19.24	4.682		
3,700.0	3,667.2	3,698.4	3,668.6	10.2	9.9	-106.87	-428.7	-22.2	92.9	73.1	19.84	4.683		
3,800.0	3,766.0	3,798.4	3,767.6	10.5	10.2	-107.05	-442.7	-23.2	95.7	75.3	20.43	4.684		
3,900.0	3,864.9	3,898.3	3,866.5	10.8	10.5	-107.22	-456.8	-24.3	98.5	77.5	21.03	4.685		
4,000.0	3,963.8	3,998.3	3,965.5	11.1	10.8	-107.39	-470.9	-25.4	101.3	79.7	21.62	4.686		
4,100.0	4,062.7	4,098.3	4,064.5	11.4	11.1	-107.54	-484.9	-26.4	104.1	81.9	22.22	4.687		
4,200.0	4,161.5	4,198.2	4,163.4	11.8	11.5	-107.69	-499.0	-27.5	106.9	84.1	22.81	4.688		
4,300.0	4,260.4	4,298.2	4,262.4	12.1	11.8	-107.83	-513.1	-28.5	109.8	86.3	23.41	4.689		
4,400.0	4,359.3	4,398.1	4,361.3	12.4	12.1	-107.96	-527.1	-29.6	112.6	88.6	24.00	4.690		
4,500.0	4,458.1	4,498.1	4,460.3	12.7	12.4	-108.08	-541.2	-30.7	115.4	90.8	24.60	4.691		
4,600.0	4,557.0	4,598.1	4,559.3	13.0	12.7	-108.20	-555.3	-31.7	118.2	93.0	25.19	4.691		
4,700.0	4,655.9	4,698.0	4,658.2	13.3	13.0	-108.32	-569.3	-32.8	121.0	95.2	25.79	4.692		
4,800.0	4,754.8	4,798.0	4,757.2	13.6	13.3	-108.43	-583.4	-33.8	123.8	97.4	26.38	4.693		
4,900.0	4,853.6	4,897.9	4,856.1	14.0	13.6	-108.53	-597.5	-34.9	126.6	99.7	26.98	4.694		
5,000.0	4,952.5	4,997.9	4,955.1	14.3	13.9	-108.63	-611.5	-36.0	129.5	101.9	27.57	4.695		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4H-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,100.0	5,051.4	5,097.9	5,054.1	14.6	14.2	-108.73	-625.6	-37.0	132.3	104.1	28.17	4.696		
5,200.0	5,150.3	5,197.8	5,153.0	14.9	14.5	-108.82	-639.7	-38.1	135.1	106.3	28.76	4.697		
5,300.0	5,249.1	5,297.8	5,252.0	15.2	14.8	-108.90	-653.7	-39.1	137.9	108.5	29.36	4.697		
5,400.0	5,348.0	5,397.7	5,350.9	15.5	15.1	-108.99	-667.8	-40.2	140.7	110.8	29.95	4.698		
5,500.0	5,446.9	5,497.7	5,449.9	15.8	15.4	-109.07	-681.9	-41.2	143.5	113.0	30.55	4.699		
5,600.0	5,545.7	5,597.7	5,548.8	16.2	15.7	-109.15	-695.9	-42.3	146.4	115.2	31.14	4.700		
5,700.0	5,644.6	5,697.6	5,647.8	16.5	16.0	-109.22	-710.0	-43.4	149.2	117.4	31.74	4.700		
5,800.0	5,743.5	5,797.6	5,746.8	16.8	16.3	-109.29	-724.1	-44.4	152.0	119.7	32.33	4.701		
5,900.0	5,842.4	5,897.5	5,845.7	17.1	16.6	-109.36	-738.1	-45.5	154.8	121.9	32.93	4.702		
6,000.0	5,941.2	5,997.5	5,944.7	17.4	16.9	-109.43	-752.2	-46.5	157.6	124.1	33.52	4.703		
6,100.0	6,040.1	6,097.5	6,043.6	17.7	17.2	-109.49	-766.3	-47.6	160.5	126.3	34.12	4.703		
6,200.0	6,139.0	6,197.4	6,142.6	18.0	17.5	-109.56	-780.3	-48.7	163.3	128.6	34.71	4.704		
6,300.0	6,237.9	6,297.4	6,241.6	18.4	17.8	-109.62	-794.4	-49.7	166.1	130.8	35.30	4.704		
6,400.0	6,336.7	6,397.3	6,340.5	18.7	18.1	-109.68	-808.5	-50.8	168.9	133.0	35.90	4.705		
6,500.0	6,435.6	6,497.3	6,439.5	19.0	18.4	-109.73	-822.5	-51.8	171.7	135.2	36.49	4.706		
6,600.0	6,534.5	6,597.3	6,538.4	19.3	18.7	-109.79	-836.6	-52.9	174.5	137.5	37.09	4.706		
6,700.0	6,633.4	6,697.2	6,637.4	19.6	19.0	-114.75	-850.7	-53.9	177.3	139.7	37.68	4.706		
6,800.0	6,733.2	6,795.9	6,735.3	19.7	19.2	-118.26	-862.5	-55.0	179.6	141.3	38.29	4.691		
6,900.0	6,831.8	6,894.8	6,834.1	19.5	19.3	-101.91	-862.1	-55.9	182.7	144.3	38.46	4.751		
7,000.0	6,926.2	6,995.4	6,933.7	19.2	19.2	-103.37	-847.7	-56.7	187.5	149.5	38.03	4.932		
7,100.0	7,013.6	7,098.4	7,032.4	18.6	18.8	-107.57	-818.7	-57.4	194.8	157.9	36.89	5.279		
7,200.0	7,091.3	7,204.3	7,128.5	18.0	18.3	-112.71	-774.5	-57.9	204.9	169.9	35.04	5.848		
7,300.0	7,156.9	7,313.8	7,219.9	17.2	17.7	-118.09	-714.4	-58.3	218.2	185.6	32.61	6.693		
7,400.0	7,208.5	7,427.7	7,304.1	16.5	16.9	-123.35	-637.8	-58.4	234.6	204.8	29.84	7.863		
7,500.0	7,244.5	7,547.1	7,378.2	15.7	16.1	-128.25	-544.4	-58.3	253.6	226.5	27.09	9.362		
7,600.0	7,263.7	7,673.0	7,438.3	15.1	15.2	-132.72	-434.0	-57.9	274.5	249.7	24.77	11.079		
7,700.0	7,267.0	7,806.9	7,480.1	14.7	14.5	-137.11	-307.0	-57.2	295.3	272.1	23.20	12.726		
7,800.0	7,267.0	7,951.1	7,497.8	14.5	14.1	-139.00	-164.1	-56.1	306.1	283.3	22.76	13.450		
7,900.0	7,267.0	8,056.3	7,498.0	14.5	14.1	-138.50	-58.9	-55.2	308.5	285.4	23.09	13.360		
8,000.0	7,267.0	8,156.2	7,498.0	14.7	14.3	-138.01	41.0	-54.3	310.9	287.2	23.64	13.153		
8,100.0	7,267.0	8,256.1	7,498.0	15.1	14.7	-137.53	140.9	-53.4	313.3	288.9	24.40	12.838		
8,200.0	7,267.0	8,356.1	7,498.0	15.7	15.3	-137.05	240.9	-52.6	315.7	290.3	25.38	12.438		
8,300.0	7,267.0	8,456.0	7,498.0	16.5	16.1	-136.58	340.8	-51.7	318.1	291.6	26.56	11.977		
8,400.0	7,267.0	8,555.9	7,498.0	17.4	17.0	-136.12	440.7	-50.8	320.6	292.7	27.93	11.479		
8,500.0	7,267.0	8,655.9	7,498.0	18.4	18.0	-135.66	540.6	-49.9	323.1	293.6	29.46	10.965		
8,600.0	7,267.0	8,755.8	7,498.0	19.5	19.2	-135.21	640.6	-49.1	325.6	294.4	31.15	10.450		
8,700.0	7,267.0	8,855.8	7,498.0	20.8	20.4	-134.77	740.5	-48.2	328.1	295.1	32.98	9.948		
8,800.0	7,267.0	8,955.7	7,498.0	22.1	21.7	-134.34	840.4	-47.3	330.6	295.7	34.93	9.466		
8,900.0	7,267.0	9,055.6	7,498.0	23.4	23.1	-133.91	940.4	-46.5	333.2	296.2	36.99	9.008		
9,000.0	7,267.0	9,155.6	7,498.0	24.8	24.5	-133.49	1,040.3	-45.6	335.8	296.6	39.15	8.577		
9,100.0	7,267.0	9,255.5	7,498.0	26.3	25.9	-133.07	1,140.2	-44.7	338.4	297.0	41.39	8.174		
9,200.0	7,267.0	9,355.4	7,498.0	27.7	27.4	-132.67	1,240.2	-43.8	341.0	297.2	43.72	7.799		
9,300.0	7,267.0	9,455.4	7,498.0	29.2	28.9	-132.26	1,340.1	-43.0	343.6	297.5	46.12	7.450		
9,400.0	7,267.0	9,555.3	7,498.0	30.8	30.5	-131.87	1,440.0	-42.1	346.2	297.7	48.59	7.127		
9,500.0	7,267.0	9,655.3	7,498.0	32.3	32.0	-131.48	1,540.0	-41.2	348.9	297.8	51.11	6.827		
9,600.0	7,267.0	9,755.2	7,498.0	33.9	33.6	-131.09	1,639.9	-40.3	351.6	297.9	53.69	6.548		
9,700.0	7,267.0	9,855.1	7,498.0	35.5	35.2	-130.71	1,739.8	-39.5	354.3	298.0	56.32	6.290		
9,800.0	7,267.0	9,955.1	7,498.0	37.1	36.8	-130.34	1,839.8	-38.6	357.0	298.0	59.00	6.051		
9,900.0	7,267.0	10,055.0	7,498.0	38.7	38.5	-129.97	1,939.7	-37.7	359.7	298.0	61.72	5.828		
10,000.0	7,267.0	10,154.9	7,498.0	40.4	40.1	-129.61	2,039.6	-36.9	362.4	298.0	64.48	5.621		
10,100.0	7,267.0	10,254.9	7,498.0	42.0	41.7	-129.26	2,139.6	-36.0	365.2	297.9	67.28	5.428		
10,200.0	7,267.0	10,354.8	7,498.0	43.7	43.4	-128.90	2,239.5	-35.1	368.0	297.9	70.11	5.248		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4H-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,300.0	7,267.0	10,454.7	7,498.0	45.3	45.1	128.56	2,339.4	-34.2	370.7	297.8	72.98	5.080		
10,400.0	7,267.0	10,554.7	7,498.0	47.0	46.7	128.22	2,439.4	-33.4	373.5	297.7	75.87	4.923		
10,500.0	7,267.0	10,654.6	7,498.0	48.7	48.4	127.88	2,539.3	-32.5	376.3	297.5	78.80	4.776		
10,600.0	7,267.0	10,754.6	7,498.0	50.4	50.1	127.55	2,639.2	-31.6	379.2	297.4	81.75	4.638		
10,700.0	7,267.0	10,854.5	7,498.0	52.0	51.8	127.23	2,739.2	-30.8	382.0	297.3	84.73	4.508		
10,800.0	7,267.0	10,954.4	7,498.0	53.7	53.5	126.91	2,839.1	-29.9	384.8	297.1	87.73	4.386		
10,900.0	7,267.0	11,054.4	7,498.0	55.4	55.1	126.59	2,939.0	-29.0	387.7	296.9	90.76	4.272		
11,000.0	7,267.0	11,154.3	7,498.0	57.1	56.8	126.28	3,039.0	-28.1	390.6	296.7	93.81	4.163		
11,100.0	7,267.0	11,254.2	7,498.0	58.8	58.5	125.97	3,138.9	-27.3	393.4	296.6	96.88	4.061		
11,200.0	7,267.0	11,354.2	7,498.0	60.5	60.2	125.67	3,238.8	-26.4	396.3	296.4	99.97	3.964		
11,300.0	7,267.0	11,454.1	7,498.0	62.2	62.0	125.38	3,338.8	-25.5	399.1	296.0	103.06	3.873		
11,400.0	7,267.0	11,554.1	7,498.0	63.9	63.7	125.21	3,438.7	-24.7	400.7	294.7	105.98	3.781		
11,500.0	7,267.0	11,654.1	7,498.0	65.6	65.4	125.19	3,538.7	-23.8	400.9	292.2	108.72	3.687		
11,600.0	7,267.0	11,754.1	7,498.0	67.3	67.1	125.32	3,638.7	-22.9	399.6	288.4	111.24	3.593		
11,700.0	7,267.0	11,854.0	7,498.0	69.0	68.8	125.59	3,738.7	-22.0	397.1	283.5	113.62	3.495		
11,800.0	7,267.0	11,954.0	7,498.0	70.7	70.5	125.87	3,838.6	-21.2	394.4	278.3	116.04	3.399		
11,900.0	7,267.0	12,053.9	7,498.0	72.4	72.2	126.16	3,938.5	-20.3	391.6	273.2	118.43	3.307		
12,000.0	7,267.0	12,153.9	7,498.0	74.2	74.0	126.46	4,038.5	-19.4	388.9	268.1	120.79	3.220		
12,100.0	7,267.0	12,253.8	7,498.0	75.9	75.7	126.75	4,138.4	-18.5	386.2	263.1	123.13	3.136		
12,200.0	7,267.0	12,353.7	7,498.0	77.6	77.4	127.06	4,238.4	-17.7	383.5	258.0	125.45	3.057		
12,300.0	7,267.0	12,453.7	7,498.0	79.3	79.1	127.36	4,338.3	-16.8	380.8	253.1	127.73	2.981		
12,400.0	7,267.0	12,553.6	7,498.0	81.0	80.9	127.67	4,438.2	-15.9	378.1	248.1	129.98	2.909		
12,500.0	7,267.0	12,653.6	7,498.0	82.7	82.6	127.99	4,538.2	-15.1	375.4	243.2	132.20	2.840		
12,600.0	7,267.0	12,753.5	7,498.0	84.5	84.3	128.31	4,638.1	-14.2	372.8	238.4	134.39	2.774		
12,700.0	7,267.0	12,853.5	7,498.0	86.2	86.0	128.63	4,738.1	-13.3	370.1	233.6	136.55	2.711		
12,800.0	7,267.0	12,953.4	7,498.0	87.9	87.8	128.96	4,838.0	-12.4	367.5	228.8	138.67	2.650		
12,900.0	7,267.0	13,053.3	7,498.0	89.6	89.5	129.30	4,937.9	-11.6	364.9	224.1	140.75	2.592		
13,000.0	7,267.0	13,153.3	7,498.0	91.4	91.2	129.64	5,037.9	-10.7	362.3	219.5	142.80	2.537		
13,100.0	7,267.0	13,253.2	7,498.0	93.1	93.0	129.98	5,137.8	-9.8	359.7	214.8	144.81	2.484		
13,200.0	7,267.0	13,353.2	7,498.0	94.8	94.7	130.33	5,237.8	-9.0	357.1	210.3	146.78	2.433		
13,300.0	7,267.0	13,453.1	7,498.0	96.5	96.4	130.68	5,337.7	-8.1	354.5	205.8	148.71	2.384		
13,400.0	7,267.0	13,553.1	7,498.0	98.3	98.2	131.04	5,437.6	-7.2	351.9	201.3	150.60	2.337		
13,500.0	7,267.0	13,653.0	7,498.0	100.0	99.9	131.40	5,537.6	-6.3	349.4	197.0	152.44	2.292		
13,600.0	7,267.0	13,752.9	7,498.0	101.7	101.6	131.77	5,637.5	-5.5	346.9	192.6	154.24	2.249		
13,700.0	7,267.0	13,852.9	7,498.0	103.5	103.4	132.15	5,737.5	-4.6	344.3	188.4	155.99	2.207		
13,800.0	7,267.0	13,952.8	7,498.0	105.2	105.1	132.53	5,837.4	-3.7	341.8	184.1	157.70	2.168		
13,900.0	7,267.0	14,052.8	7,498.0	106.9	106.9	132.91	5,937.3	-2.8	339.4	180.0	159.35	2.130		
14,000.0	7,267.0	14,152.7	7,498.0	108.7	108.6	133.31	6,037.3	-2.0	336.9	175.9	160.96	2.093		
14,100.0	7,267.0	14,252.7	7,498.0	110.4	110.3	133.70	6,137.2	-1.1	334.4	171.9	162.51	2.058		
14,200.0	7,267.0	14,352.6	7,498.0	112.1	112.1	134.11	6,237.1	-0.2	332.0	168.0	164.01	2.024		
14,300.0	7,267.0	14,452.5	7,498.0	113.9	113.8	134.52	6,337.1	0.6	329.6	164.1	165.46	1.992		
14,400.0	7,267.0	14,552.5	7,498.0	115.6	115.5	134.93	6,437.0	1.5	327.2	160.3	166.84	1.961		
14,500.0	7,267.0	14,652.4	7,498.0	117.4	117.3	135.35	6,537.0	2.4	324.8	156.6	168.17	1.931		
14,514.5	7,267.0	14,666.9	7,498.0	117.6	117.5	135.41	6,551.4	2.5	324.4	156.1	168.36	1.927 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4I-17H-P267 - DD - Plan #5														Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	90.05	0.0	20.1	20.1						
100.0	100.0	100.0	100.0	0.1	0.1	90.05	0.0	20.1	20.1	19.9	0.24	82.389			
200.0	200.0	200.0	200.0	0.3	0.3	90.05	0.0	20.1	20.1	19.5	0.59	33.925			
300.0	300.0	300.0	300.0	0.5	0.5	90.05	0.0	20.1	20.1	19.2	0.94	21.360			
400.0	400.0	400.0	400.0	0.6	0.6	90.05	0.0	20.1	20.1	18.8	1.29	15.587 CC			
400.0	400.0	400.0	400.0	0.6	0.6	90.05	0.0	20.1	20.1	18.8	1.29	15.587			
500.0	500.0	500.0	500.0	0.8	0.8	92.53	-0.9	20.1	20.2	18.5	1.64	12.288 ES			
600.0	600.0	599.9	599.9	1.0	1.0	-99.86	-3.5	20.2	20.7	18.7	2.00	10.384			
700.0	699.8	699.9	699.8	1.2	1.2	-101.97	-7.9	20.3	22.1	19.7	2.37	9.337			
800.0	799.5	799.8	799.5	1.4	1.4	-107.66	-14.0	20.4	24.4	21.7	2.77	8.840			
900.0	898.7	899.7	899.1	1.6	1.6	-115.33	-21.8	20.5	28.2	25.0	3.20	8.813			
1,000.0	997.6	999.7	998.6	1.9	1.8	-122.18	-31.4	20.7	33.2	29.5	3.64	9.114			
1,100.0	1,096.5	1,099.7	1,098.0	2.2	2.1	-124.94	-42.7	20.9	38.1	33.9	4.11	9.252			
1,200.0	1,195.3	1,199.9	1,197.3	2.5	2.3	-124.88	-55.8	21.1	42.4	37.8	4.62	9.165			
1,300.0	1,294.2	1,300.0	1,296.3	2.8	2.6	-122.77	-70.5	21.4	46.2	41.0	5.18	8.905			
1,400.0	1,393.1	1,399.9	1,395.0	3.1	2.9	-120.21	-86.0	21.6	49.8	44.1	5.77	8.634			
1,500.0	1,492.0	1,499.8	1,493.7	3.4	3.2	-118.01	-101.4	21.9	53.6	47.2	6.37	8.409			
1,600.0	1,590.8	1,599.7	1,592.4	3.7	3.5	-116.09	-116.9	22.2	57.4	50.4	6.98	8.222			
1,700.0	1,689.7	1,699.6	1,691.1	4.0	3.8	-114.42	-132.4	22.4	61.3	53.7	7.60	8.066			
1,800.0	1,788.6	1,799.4	1,789.7	4.3	4.1	-112.94	-147.8	22.7	65.2	57.0	8.21	7.936			
1,900.0	1,887.5	1,898.1	1,887.3	4.6	4.4	-111.70	-162.9	24.0	70.2	61.3	8.83	7.946			
2,000.0	1,986.3	1,996.7	1,984.6	4.9	4.7	-110.72	-177.6	26.9	76.9	67.5	9.44	8.142			
2,100.0	2,085.2	2,094.9	2,081.7	5.2	5.0	-110.01	-192.0	31.5	85.3	75.3	10.05	8.489			
2,200.0	2,184.1	2,194.5	2,180.1	5.5	5.3	-109.46	-206.5	37.0	94.6	84.0	10.66	8.875			
2,300.0	2,282.9	2,294.0	2,278.4	5.8	5.6	-109.02	-220.9	42.4	104.0	92.7	11.27	9.221			
2,400.0	2,381.8	2,393.6	2,376.8	6.1	5.9	-108.65	-235.3	47.9	113.3	101.4	11.88	9.531			
2,500.0	2,480.7	2,493.2	2,475.1	6.4	6.2	-108.33	-249.8	53.4	122.6	110.1	12.49	9.811			
2,600.0	2,579.6	2,592.7	2,573.5	6.8	6.6	-108.06	-264.2	58.9	131.9	118.8	13.10	10.066			
2,700.0	2,678.4	2,692.3	2,671.9	7.1	6.9	-107.82	-278.6	64.3	141.2	127.5	13.72	10.298			
2,800.0	2,777.3	2,791.8	2,770.2	7.4	7.2	-107.62	-293.1	69.8	150.6	136.2	14.33	10.511			
2,900.0	2,876.2	2,891.4	2,868.6	7.7	7.5	-107.43	-307.5	75.3	159.9	145.0	14.94	10.706			
3,000.0	2,975.1	2,991.0	2,966.9	8.0	7.8	-107.27	-322.0	80.8	169.2	153.7	15.55	10.885			
3,100.0	3,073.9	3,090.5	3,065.3	8.3	8.1	-107.13	-336.4	86.2	178.6	162.4	16.16	11.052			
3,200.0	3,172.8	3,190.1	3,163.6	8.6	8.4	-107.00	-350.8	91.7	187.9	171.1	16.77	11.206			
3,300.0	3,271.7	3,289.7	3,262.0	8.9	8.8	-106.88	-365.3	97.2	197.2	179.8	17.38	11.349			
3,400.0	3,370.5	3,389.2	3,360.4	9.3	9.1	-106.77	-379.7	102.7	206.6	188.6	17.99	11.483			
3,500.0	3,469.4	3,488.8	3,458.7	9.6	9.4	-106.67	-394.1	108.1	215.9	197.3	18.60	11.607			
3,600.0	3,568.3	3,588.3	3,557.1	9.9	9.7	-106.58	-408.6	113.6	225.2	206.0	19.21	11.724			
3,700.0	3,667.2	3,687.9	3,655.4	10.2	10.0	-106.50	-423.0	119.1	234.6	214.7	19.82	11.834			
3,800.0	3,766.0	3,787.5	3,753.8	10.5	10.3	-106.42	-437.4	124.6	243.9	223.5	20.43	11.937			
3,900.0	3,864.9	3,887.0	3,852.2	10.8	10.7	-106.35	-451.9	130.0	253.2	232.2	21.04	12.034			
4,000.0	3,963.8	3,986.6	3,950.5	11.1	11.0	-106.28	-466.3	135.5	262.6	240.9	21.66	12.125			
4,100.0	4,062.7	4,086.2	4,048.9	11.4	11.3	-106.22	-480.7	141.0	271.9	249.7	22.27	12.211			
4,200.0	4,161.5	4,185.7	4,147.2	11.8	11.6	-106.17	-495.2	146.5	281.3	258.4	22.88	12.293			
4,300.0	4,260.4	4,285.3	4,245.6	12.1	11.9	-106.11	-509.6	151.9	290.6	267.1	23.49	12.371			
4,400.0	4,359.3	4,384.8	4,343.9	12.4	12.2	-106.06	-524.1	157.4	299.9	275.8	24.10	12.444			
4,500.0	4,458.1	4,484.4	4,442.3	12.7	12.6	-106.01	-538.5	162.9	309.3	284.6	24.71	12.514			
4,600.0	4,557.0	4,584.0	4,540.7	13.0	12.9	-105.97	-552.9	168.4	318.6	293.3	25.33	12.581			
4,700.0	4,655.9	4,683.5	4,639.0	13.3	13.2	-105.93	-567.4	173.8	328.0	302.0	25.94	12.644			
4,800.0	4,754.8	4,783.1	4,737.4	13.6	13.5	-105.89	-581.8	179.3	337.3	310.7	26.55	12.705			
4,900.0	4,853.6	4,882.7	4,835.7	14.0	13.8	-105.85	-596.2	184.8	346.6	319.5	27.16	12.762			
5,000.0	4,952.5	4,982.2	4,934.1	14.3	14.2	-105.81	-610.7	190.3	356.0	328.2	27.77	12.817			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4I-17H-P267 - DD - Plan #5													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,051.4	5,081.8	5,032.5	14.6	14.5	-105.78	-625.1	195.7	365.3	336.9	28.38	12.870		
5,200.0	5,150.3	5,181.3	5,130.8	14.9	14.8	-105.75	-639.5	201.2	374.7	345.7	29.00	12.921		
5,300.0	5,249.1	5,280.9	5,229.2	15.2	15.1	-105.72	-654.0	206.7	384.0	354.4	29.61	12.969		
5,400.0	5,348.0	5,380.5	5,327.5	15.5	15.4	-105.69	-668.4	212.2	393.3	363.1	30.22	13.016		
5,500.0	5,446.9	5,480.0	5,425.9	15.8	15.7	-105.66	-682.8	217.6	402.7	371.8	30.83	13.060		
5,600.0	5,545.7	5,579.6	5,524.2	16.2	16.1	-105.63	-697.3	223.1	412.0	380.6	31.44	13.103		
5,700.0	5,644.6	5,679.2	5,622.6	16.5	16.4	-105.61	-711.7	228.6	421.4	389.3	32.06	13.144		
5,800.0	5,743.5	5,778.7	5,721.0	16.8	16.7	-105.59	-726.1	234.1	430.7	398.0	32.67	13.184		
5,900.0	5,842.4	5,878.3	5,819.3	17.1	17.0	-105.56	-740.6	239.5	440.0	406.8	33.28	13.222		
6,000.0	5,941.2	5,977.9	5,917.7	17.4	17.3	-105.54	-755.0	245.0	449.4	415.5	33.89	13.259		
6,100.0	6,040.1	6,077.4	6,016.0	17.7	17.7	-105.52	-769.5	250.5	458.7	424.2	34.50	13.294		
6,200.0	6,139.0	6,177.0	6,114.4	18.0	18.0	-105.50	-783.9	256.0	468.1	432.9	35.12	13.329		
6,300.0	6,237.9	6,276.5	6,212.8	18.4	18.3	-105.48	-798.3	261.4	477.4	441.7	35.73	13.362		
6,400.0	6,336.7	6,376.1	6,311.1	18.7	18.6	-105.46	-812.8	266.9	486.7	450.4	36.34	13.394		
6,500.0	6,435.6	6,475.7	6,409.5	19.0	18.9	-105.44	-827.2	272.4	496.1	459.1	36.95	13.425		
6,600.0	6,534.5	6,575.2	6,507.8	19.3	19.3	-105.42	-841.6	277.9	505.4	467.9	37.57	13.454		
6,700.0	6,633.4	6,674.8	6,606.2	19.6	19.6	-110.56	-856.1	283.3	514.8	476.6	38.17	13.487		
6,800.0	6,733.2	6,773.1	6,704.0	19.7	19.7	119.09	-862.9	288.8	524.1	485.7	38.39	13.653		
6,900.0	6,831.8	6,872.2	6,802.3	19.5	19.7	98.00	-852.8	294.3	533.4	495.3	38.14	13.985		
7,000.0	6,926.2	6,972.2	6,898.3	19.2	19.4	93.95	-825.6	299.6	542.4	504.9	37.46	14.478		
7,100.0	7,013.6	7,073.3	6,988.9	18.6	18.9	92.18	-781.5	304.7	550.7	514.3	36.39	15.133		
7,200.0	7,091.3	7,175.4	7,071.3	18.0	18.3	91.18	-721.5	309.2	558.2	523.2	35.02	15.941		
7,300.0	7,156.9	7,278.6	7,142.4	17.2	17.6	90.56	-647.0	313.2	564.6	531.1	33.44	16.881		
7,400.0	7,208.5	7,382.7	7,199.4	16.5	16.8	90.19	-560.2	316.4	569.6	537.8	31.80	17.911		
7,500.0	7,244.5	7,487.5	7,240.1	15.7	16.0	90.00	-463.7	318.6	573.1	542.9	30.25	18.947		
7,600.0	7,263.7	7,593.0	7,262.6	15.1	15.4	89.96	-360.8	319.9	575.1	546.1	28.94	19.871		
7,700.0	7,267.0	7,696.9	7,267.0	14.7	15.0	90.00	-257.1	320.1	575.6	547.5	28.02	20.543		
7,800.0	7,267.0	7,796.9	7,267.0	14.5	14.7	90.00	-157.1	320.1	577.1	549.6	27.54	20.954		
7,900.0	7,267.0	7,896.9	7,267.0	14.5	14.7	90.00	-57.2	320.1	579.8	552.3	27.50	21.081		
8,000.0	7,267.0	7,996.8	7,267.0	14.7	14.9	90.00	42.8	320.1	582.5	554.6	27.91	20.872		
8,100.0	7,267.0	8,096.8	7,267.0	15.1	15.3	90.00	142.8	320.1	585.2	556.4	28.74	20.363		
8,200.0	7,267.0	8,196.8	7,267.0	15.7	15.9	90.00	242.7	320.1	587.9	557.9	29.96	19.624		
8,300.0	7,267.0	8,296.7	7,267.0	16.5	16.6	90.00	342.7	320.1	590.5	559.0	31.52	18.735		
8,400.0	7,267.0	8,396.7	7,267.0	17.4	17.5	90.00	442.7	320.1	593.2	559.8	33.38	17.771		
8,500.0	7,267.0	8,496.7	7,267.0	18.4	18.5	90.00	542.6	320.1	595.9	560.4	35.49	16.790		
8,600.0	7,267.0	8,596.6	7,267.0	19.5	19.6	90.00	642.6	320.1	598.6	560.8	37.81	15.831		
8,700.0	7,267.0	8,696.6	7,267.0	20.8	20.8	90.00	742.5	320.1	601.3	561.0	40.30	14.919		
8,800.0	7,267.0	8,796.6	7,267.0	22.1	22.1	90.00	842.5	320.1	604.0	561.1	42.94	14.067		
8,900.0	7,267.0	8,896.5	7,267.0	23.4	23.5	90.00	942.5	320.1	606.7	561.0	45.69	13.279		
9,000.0	7,267.0	8,996.5	7,267.0	24.8	24.8	90.00	1,042.5	320.1	609.4	560.8	48.54	12.555		
9,100.0	7,267.0	9,097.2	7,267.0	26.3	26.3	90.00	1,143.1	320.1	612.0	560.5	51.48	11.889		
9,200.0	7,267.0	9,197.8	7,267.0	27.7	27.8	90.00	1,243.8	319.9	614.5	560.0	54.49	11.278		
9,300.0	7,267.0	9,298.5	7,267.0	29.2	29.3	90.00	1,344.5	319.6	616.9	559.4	57.56	10.719		
9,400.0	7,267.0	9,399.2	7,267.0	30.8	30.8	90.00	1,445.2	319.2	619.2	558.5	60.67	10.206		
9,500.0	7,267.0	9,499.9	7,267.0	32.3	32.4	90.00	1,545.9	318.7	621.4	557.5	63.83	9.734		
9,600.0	7,267.0	9,600.6	7,267.0	33.9	34.0	90.00	1,646.6	318.0	623.4	556.4	67.03	9.301		
9,700.0	7,267.0	9,701.3	7,267.0	35.5	35.6	90.00	1,747.3	317.3	625.3	555.1	70.25	8.901		
9,800.0	7,267.0	9,802.0	7,267.0	37.1	37.2	90.00	1,848.0	316.4	627.2	553.7	73.51	8.532		
9,900.0	7,267.0	9,902.7	7,267.0	38.7	38.8	90.00	1,948.7	315.4	628.9	552.1	76.78	8.190		
10,000.0	7,267.0	10,003.5	7,267.0	40.4	40.4	90.00	2,049.4	314.3	630.5	550.4	80.08	7.873		
10,100.0	7,267.0	10,104.2	7,267.0	42.0	42.1	90.00	2,150.1	313.0	631.9	548.5	83.40	7.577		
10,200.0	7,267.0	10,204.9	7,267.0	43.7	43.7	90.00	2,250.8	311.7	633.3	546.6	86.73	7.302		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4I-17H-P267 - DD - Plan #5													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,300.0	7,267.0	10,305.6	7,267.0	45.3	45.4	90.00	2,351.5	310.2	634.5	544.4	90.08	7.044		
10,400.0	7,267.0	10,406.4	7,267.0	47.0	47.1	90.00	2,452.3	308.7	635.7	542.2	93.44	6.803		
10,500.0	7,267.0	10,507.1	7,267.0	48.7	48.8	90.00	2,553.0	307.0	636.7	539.8	96.81	6.576		
10,600.0	7,267.0	10,607.8	7,267.0	50.4	50.4	90.00	2,653.7	305.2	637.6	537.4	100.19	6.363		
10,700.0	7,267.0	10,708.6	7,267.0	52.0	52.1	90.00	2,754.4	303.2	638.3	534.7	103.58	6.163		
10,800.0	7,267.0	10,809.3	7,267.0	53.7	53.8	90.00	2,855.1	301.2	639.0	532.0	106.98	5.973		
10,900.0	7,267.0	10,910.0	7,267.0	55.4	55.5	90.00	2,955.8	299.0	639.5	529.1	110.39	5.793		
11,000.0	7,267.0	11,010.8	7,267.0	57.1	57.2	90.00	3,056.6	296.7	640.0	526.2	113.80	5.623		
11,100.0	7,267.0	11,111.5	7,267.0	58.8	58.9	90.00	3,157.3	294.3	640.3	523.1	117.22	5.462		
11,200.0	7,267.0	11,212.3	7,267.0	60.5	60.6	90.00	3,258.0	291.8	640.5	519.8	120.65	5.308		
11,300.0	7,267.0	11,313.0	7,267.0	62.2	62.4	90.00	3,358.7	289.2	640.4	516.3	124.09	5.161		
11,400.0	7,267.0	11,413.7	7,267.0	63.9	64.1	90.00	3,459.4	286.5	638.8	511.2	127.52	5.009		
11,500.0	7,267.0	11,514.4	7,267.0	65.6	65.8	90.00	3,560.0	283.6	635.3	504.4	130.92	4.852		
11,600.0	7,267.0	11,615.0	7,267.0	67.3	67.5	90.00	3,660.6	280.6	629.9	495.6	134.29	4.691		
11,700.0	7,267.0	11,715.5	7,267.0	69.0	69.2	90.00	3,761.0	277.5	622.9	485.2	137.67	4.524		
11,800.0	7,267.0	11,815.9	7,267.0	70.7	70.9	90.00	3,861.4	274.3	615.4	474.3	141.11	4.361		
11,900.0	7,267.0	11,916.3	7,267.0	72.4	72.7	90.00	3,961.7	271.0	607.9	463.3	144.56	4.205		
12,000.0	7,267.0	12,016.7	7,267.0	74.2	74.4	90.00	4,062.1	267.6	600.2	452.2	148.01	4.055		
12,100.0	7,267.0	12,117.1	7,267.0	75.9	76.1	90.00	4,162.4	264.0	592.4	441.0	151.46	3.912		
12,200.0	7,267.0	12,217.5	7,267.0	77.6	77.8	90.00	4,262.7	260.4	584.5	429.6	154.91	3.773		
12,300.0	7,267.0	12,317.8	7,267.0	79.3	79.6	90.00	4,363.0	256.6	576.5	418.2	158.37	3.640		
12,400.0	7,267.0	12,418.2	7,267.0	81.0	81.3	90.00	4,463.2	252.7	568.4	406.6	161.83	3.512		
12,500.0	7,267.0	12,518.5	7,267.0	82.7	83.0	90.00	4,563.5	248.7	560.2	394.9	165.29	3.389		
12,600.0	7,267.0	12,618.8	7,267.0	84.5	84.8	90.00	4,663.7	244.6	551.8	383.1	168.75	3.270		
12,700.0	7,267.0	12,719.0	7,267.0	86.2	86.5	90.00	4,763.9	240.3	543.3	371.1	172.21	3.155		
12,800.0	7,267.0	12,819.3	7,267.0	87.9	88.2	90.00	4,864.0	236.0	534.7	359.1	175.68	3.044		
12,900.0	7,267.0	12,919.5	7,267.0	89.6	89.9	90.00	4,964.1	231.5	526.0	346.9	179.14	2.936		
13,000.0	7,267.0	13,019.7	7,267.0	91.4	91.7	90.00	5,064.3	226.9	517.2	334.6	182.61	2.832		
13,100.0	7,267.0	13,119.9	7,267.0	93.1	93.4	90.00	5,164.3	222.3	508.3	322.2	186.08	2.732		
13,200.0	7,267.0	13,220.1	7,267.0	94.8	95.1	90.00	5,264.4	217.4	499.3	309.7	189.54	2.634		
13,300.0	7,267.0	13,320.2	7,267.0	96.5	96.9	90.00	5,364.4	212.5	490.1	297.1	193.01	2.539		
13,400.0	7,267.0	13,420.4	7,267.0	98.3	98.6	90.00	5,464.4	207.5	480.8	284.3	196.48	2.447		
13,500.0	7,267.0	13,520.5	7,267.0	100.0	100.3	90.00	5,564.4	202.3	471.4	271.5	199.96	2.358		
13,600.0	7,267.0	13,620.6	7,267.0	101.7	102.1	90.00	5,664.3	197.1	461.9	258.5	203.43	2.271		
13,700.0	7,267.0	13,700.0	7,267.0	103.5	103.5	90.00	5,743.7	193.3	453.3	246.7	206.54	2.195		
13,800.0	7,267.0	13,788.9	7,267.0	105.2	105.0	90.00	5,832.6	192.6	448.4	238.5	209.83	2.137		
13,863.7	7,267.0	13,840.6	7,267.0	106.3	105.9	90.00	5,884.2	194.1	447.5	235.7	211.84	2.112		
13,900.0	7,267.0	13,870.0	7,267.0	106.9	106.4	90.00	5,913.6	195.6	447.8	234.8	212.98	2.102		
14,000.0	7,267.0	13,950.8	7,267.0	108.7	107.8	90.00	5,994.2	202.0	451.4	235.3	216.13	2.089		
14,100.0	7,267.0	14,031.4	7,267.0	110.4	109.2	90.00	6,074.1	211.7	459.3	240.0	219.27	2.095		
14,200.0	7,267.0	14,111.2	7,267.0	112.1	110.6	90.00	6,152.9	224.7	471.4	249.0	222.39	2.120		
14,300.0	7,267.0	14,258.4	7,267.0	113.9	113.1	90.00	6,298.1	248.6	484.8	258.1	226.69	2.139		
14,400.0	7,267.0	14,509.1	7,267.0	115.6	117.5	90.00	6,547.0	230.5	473.2	240.4	232.74	2.033		
14,500.0	7,267.0	14,512.3	7,267.0	117.4	117.5	90.00	6,550.2	229.8	455.8	221.3	234.54	1.943		
14,514.5	7,267.0	14,512.3	7,267.0	117.6	117.5	90.00	6,550.2	229.8	455.1	220.3	234.79	1.938 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4J-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	90.02	0.0	30.2	30.2					
100.0	100.0	100.0	100.0	0.1	0.1	90.02	0.0	30.2	30.2	30.0	0.24	123.584		
200.0	200.0	200.0	200.0	0.3	0.3	90.02	0.0	30.2	30.2	29.6	0.59	50.888		
300.0	300.0	300.0	300.0	0.5	0.5	90.02	0.0	30.2	30.2	29.3	0.94	32.040		
333.3	333.3	333.3	333.3	0.5	0.5	90.02	0.0	30.2	30.2	29.1	1.06	28.520 CC, ES		
400.0	400.0	399.5	399.5	0.6	0.6	90.03	0.0	30.6	30.6	29.3	1.29	23.732		
500.0	500.0	498.3	498.2	0.8	0.8	90.07	0.0	34.0	34.1	32.4	1.64	20.805		
600.0	600.0	597.9	597.7	1.0	1.0	-107.07	-0.1	39.7	40.3	38.3	1.99	20.272		
700.0	699.8	697.5	697.1	1.2	1.2	-112.61	-0.1	45.5	47.8	45.5	2.35	20.391		
800.0	799.5	796.8	796.3	1.4	1.4	-119.65	-0.2	51.3	57.4	54.7	2.72	21.094		
900.0	898.7	895.7	895.0	1.6	1.6	-126.91	-0.2	57.0	69.6	66.5	3.11	22.382		
1,000.0	997.6	994.2	993.3	1.9	1.8	-133.36	-0.3	62.7	84.4	80.9	3.50	24.099		
1,100.0	1,096.5	1,092.7	1,091.7	2.2	2.0	-137.97	-0.3	68.4	100.1	96.2	3.89	25.698		
1,200.0	1,195.3	1,191.2	1,190.0	2.5	2.2	-141.32	-0.4	74.1	116.2	112.0	4.29	27.125		
1,300.0	1,294.2	1,289.7	1,288.3	2.8	2.4	-143.85	-0.4	79.8	132.7	128.0	4.67	28.385		
1,400.0	1,393.1	1,388.2	1,386.6	3.1	2.6	-145.82	-0.4	85.5	149.3	144.3	5.06	29.498		
1,500.0	1,492.0	1,486.7	1,485.0	3.4	2.8	-147.39	-0.5	91.2	166.1	160.6	5.45	30.483		
1,600.0	1,590.8	1,585.2	1,583.3	3.7	3.0	-148.68	-0.5	96.9	183.0	177.1	5.83	31.357		
1,700.0	1,689.7	1,683.7	1,681.6	4.0	3.2	-149.74	-0.6	102.6	199.9	193.7	6.22	32.138		
1,800.0	1,788.6	1,782.2	1,780.0	4.3	3.4	-150.64	-0.6	108.3	216.9	210.3	6.61	32.838		
1,900.0	1,887.5	1,880.7	1,878.3	4.6	3.6	-151.41	-0.7	114.0	234.0	227.0	6.99	33.469		
2,000.0	1,986.3	1,979.1	1,976.6	4.9	3.8	-152.08	-0.7	119.7	251.1	243.7	7.38	34.039		
2,100.0	2,085.2	2,077.6	2,074.9	5.2	4.0	-152.66	-0.8	125.4	268.2	260.4	7.76	34.558		
2,200.0	2,184.1	2,176.1	2,173.3	5.5	4.2	-153.17	-0.8	131.1	285.3	277.2	8.14	35.031		
2,300.0	2,282.9	2,274.6	2,271.6	5.8	4.4	-153.62	-0.8	136.8	302.5	293.9	8.53	35.464		
2,400.0	2,381.8	2,373.1	2,369.9	6.1	4.6	-154.03	-0.9	142.5	319.6	310.7	8.91	35.863		
2,500.0	2,480.7	2,471.6	2,468.2	6.4	4.8	-154.39	-0.9	148.2	336.8	327.5	9.30	36.230		
2,600.0	2,579.6	2,570.1	2,566.6	6.8	4.9	-154.72	-1.0	153.9	354.0	344.3	9.68	36.570		
2,700.0	2,678.4	2,668.6	2,664.9	7.1	5.1	-155.02	-1.0	159.6	371.2	361.2	10.06	36.884		
2,800.0	2,777.3	2,767.1	2,763.2	7.4	5.3	-155.29	-1.1	165.3	388.4	378.0	10.45	37.177		
2,900.0	2,876.2	2,865.6	2,861.5	7.7	5.5	-155.53	-1.1	171.0	405.7	394.8	10.83	37.450		
3,000.0	2,975.1	2,964.1	2,959.9	8.0	5.7	-155.76	-1.2	176.7	422.9	411.7	11.22	37.705		
3,100.0	3,073.9	3,062.5	3,058.2	8.3	5.9	-155.97	-1.2	182.4	440.1	428.5	11.60	37.944		
3,200.0	3,172.8	3,161.0	3,156.5	8.6	6.1	-156.17	-1.3	188.1	457.4	445.4	11.98	38.168		
3,300.0	3,271.7	3,259.5	3,254.8	8.9	6.3	-156.35	-1.3	193.8	474.6	462.3	12.37	38.379		
3,400.0	3,370.5	3,358.0	3,353.2	9.3	6.5	-156.51	-1.3	199.5	491.9	479.1	12.75	38.577		
3,500.0	3,469.4	3,456.5	3,451.5	9.6	6.7	-156.67	-1.4	205.2	509.1	496.0	13.13	38.764		
3,600.0	3,568.3	3,555.0	3,549.8	9.9	6.9	-156.82	-1.4	210.9	526.4	512.9	13.52	38.941		
3,700.0	3,667.2	3,653.5	3,648.1	10.2	7.1	-156.95	-1.5	216.6	543.7	529.8	13.90	39.108		
3,800.0	3,766.0	3,752.0	3,746.5	10.5	7.3	-157.08	-1.5	222.3	560.9	546.7	14.29	39.267		
3,900.0	3,864.9	3,850.5	3,844.8	10.8	7.5	-157.20	-1.6	228.0	578.2	563.5	14.67	39.417		
4,000.0	3,963.8	3,949.0	3,943.1	11.1	7.7	-157.31	-1.6	233.7	595.5	580.4	15.05	39.560		
4,100.0	4,062.7	4,047.5	4,041.4	11.4	7.9	-157.42	-1.7	239.4	612.8	597.3	15.44	39.696		
4,200.0	4,161.5	4,145.9	4,139.8	11.8	8.1	-157.52	-1.7	245.1	630.0	614.2	15.82	39.826		
4,300.0	4,260.4	4,244.4	4,238.1	12.1	8.3	-157.62	-1.7	250.8	647.3	631.1	16.20	39.949		
4,400.0	4,359.3	4,342.9	4,336.4	12.4	8.5	-157.71	-1.8	256.5	664.6	648.0	16.59	40.067		
4,500.0	4,458.1	4,441.4	4,434.7	12.7	8.7	-157.80	-1.8	262.2	681.9	664.9	16.97	40.180		
4,600.0	4,557.0	4,539.9	4,533.1	13.0	8.9	-157.88	-1.9	267.9	699.1	681.8	17.35	40.288		
4,700.0	4,655.9	4,638.4	4,631.4	13.3	9.1	-157.96	-1.9	273.6	716.4	698.7	17.74	40.391		
4,800.0	4,754.8	4,736.9	4,729.7	13.6	9.3	-158.03	-2.0	279.3	733.7	715.6	18.12	40.490		
4,900.0	4,853.6	4,835.4	4,828.0	14.0	9.5	-158.10	-2.0	285.0	751.0	732.5	18.50	40.585		
5,000.0	4,952.5	4,933.9	4,926.4	14.3	9.7	-158.17	-2.1	290.7	768.3	749.4	18.89	40.676		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4J-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,051.4	5,032.4	5,024.7	14.6	9.9	-158.23	-2.1	296.3	785.6	766.3	19.27	40.764		
5,200.0	5,150.3	5,130.8	5,123.0	14.9	10.1	-158.30	-2.1	302.0	802.9	783.2	19.65	40.848		
5,300.0	5,249.1	5,229.3	5,221.3	15.2	10.3	-158.36	-2.2	307.7	820.1	800.1	20.04	40.929		
5,400.0	5,348.0	5,327.8	5,319.7	15.5	10.5	-158.41	-2.2	313.4	837.4	817.0	20.42	41.008		
5,500.0	5,446.9	5,426.3	5,418.0	15.8	10.7	-158.47	-2.3	319.1	854.7	833.9	20.80	41.083		
5,600.0	5,545.7	5,524.8	5,516.3	16.2	10.9	-158.52	-2.3	324.8	872.0	850.8	21.19	41.155		
5,700.0	5,644.6	5,623.3	5,614.6	16.5	11.1	-158.57	-2.4	330.5	889.3	867.7	21.57	41.226		
5,800.0	5,743.5	5,721.8	5,713.0	16.8	11.3	-158.62	-2.4	336.2	906.6	884.6	21.96	41.293		
5,900.0	5,842.4	5,820.3	5,811.3	17.1	11.5	-158.67	-2.5	341.9	923.9	901.6	22.34	41.358		
6,000.0	5,941.2	5,918.8	5,909.6	17.4	11.7	-158.71	-2.5	347.6	941.2	918.5	22.72	41.422		
6,100.0	6,040.1	6,017.3	6,008.0	17.7	11.9	-158.75	-2.6	353.3	958.5	935.4	23.11	41.483		
6,200.0	6,139.0	6,115.8	6,106.3	18.0	12.1	-158.80	-2.6	359.0	975.8	952.3	23.49	41.542		
6,300.0	6,237.9	6,214.2	6,204.6	18.4	12.3	-158.84	-2.6	364.7	993.1	969.2	23.87	41.599		
6,400.0	6,336.7	6,312.7	6,302.9	18.7	12.5	-158.87	-2.7	370.4	1,010.4	986.1	24.26	41.655		
6,500.0	6,435.6	6,411.2	6,401.3	19.0	12.7	-158.91	-2.7	376.1	1,027.7	1,003.0	24.64	41.708		
6,600.0	6,534.5	6,509.7	6,499.6	19.3	12.9	-158.95	-2.8	381.8	1,045.0	1,019.9	25.02	41.761		
6,700.0	6,633.4	6,608.3	6,598.0	19.6	13.1	-164.17	-2.8	387.5	1,061.9	1,036.5	25.43	41.758		
6,800.0	6,733.2	6,707.6	6,697.2	19.7	13.3	65.80	-2.9	393.3	1,069.1	1,043.4	25.76	41.501		
6,900.0	6,831.8	6,805.9	6,795.2	19.5	13.5	46.36	-2.9	399.0	1,062.4	1,036.5	25.85	41.103		
7,000.0	6,926.2	6,899.9	6,889.1	19.2	13.7	45.35	-3.0	404.4	1,042.3	1,016.6	25.77	40.443		
7,100.0	7,013.6	6,950.0	6,939.1	18.6	13.8	47.10	-2.8	407.3	1,011.2	985.7	25.51	39.646		
7,200.0	7,091.3	7,000.0	6,988.9	18.0	13.9	50.69	0.5	410.2	973.4	948.1	25.33	38.428		
7,300.0	7,156.9	7,027.7	7,016.3	17.2	13.9	54.91	4.2	411.8	930.6	905.3	25.23	36.876		
7,400.0	7,208.5	7,050.0	7,038.2	16.5	14.0	59.91	8.2	413.1	884.4	859.1	25.33	34.915		
7,500.0	7,244.5	7,100.0	7,086.7	15.7	14.1	67.39	20.1	415.9	836.6	810.7	25.86	32.354		
7,600.0	7,263.7	7,115.6	7,101.5	15.1	14.1	73.33	24.7	416.7	789.6	763.5	26.06	30.297		
7,700.0	7,267.0	7,137.5	7,122.3	14.7	14.2	77.90	31.8	417.9	746.9	720.8	26.07	28.648		
7,800.0	7,267.0	7,162.4	7,145.4	14.5	14.2	79.88	40.9	419.3	715.1	689.1	25.99	27.518		
7,900.0	7,267.0	7,193.9	7,174.1	14.5	14.3	82.26	53.7	420.9	695.8	669.6	26.15	26.607		
8,000.0	7,267.0	7,234.7	7,210.1	14.7	14.4	85.26	72.7	423.0	688.4	661.8	26.56	25.920		
8,015.1	7,267.0	7,241.9	7,216.3	14.8	14.4	85.78	76.3	423.4	688.2	661.6	26.65	25.824		
8,100.0	7,267.0	7,289.0	7,255.9	15.1	14.6	89.07	101.9	425.7	692.0	664.8	27.19	25.449		
8,200.0	7,267.0	7,363.3	7,313.5	15.7	14.9	93.83	148.5	429.0	704.6	676.6	28.04	25.126		
8,300.0	7,267.0	7,466.5	7,382.6	16.5	15.4	99.38	224.9	433.0	722.5	693.4	29.14	24.800		
8,400.0	7,267.0	7,607.6	7,452.8	17.4	16.4	104.72	346.8	437.1	740.3	709.7	30.66	24.149		
8,500.0	7,267.0	7,784.9	7,495.6	18.4	18.0	107.75	518.1	439.6	751.4	718.4	33.05	22.733		
8,600.0	7,267.0	7,900.0	7,498.0	19.5	19.3	107.83	633.1	440.1	754.8	719.4	35.45	21.291		
8,700.0	7,267.0	7,995.7	7,498.0	20.8	20.4	107.74	728.8	441.7	759.0	721.2	37.82	20.068		
8,800.0	7,267.0	8,095.6	7,498.0	22.1	21.7	107.63	828.7	443.6	763.4	723.0	40.38	18.905		
8,900.0	7,267.0	8,195.4	7,498.0	23.4	23.1	107.53	928.5	445.5	767.8	724.7	43.05	17.834		
9,000.0	7,267.0	8,295.3	7,498.0	24.8	24.5	107.42	1,028.4	447.4	772.1	726.3	45.81	16.854		
9,100.0	7,267.0	8,395.2	7,498.0	26.3	25.9	107.32	1,128.3	449.3	776.5	727.9	48.65	15.960		
9,200.0	7,267.0	8,495.1	7,498.0	27.7	27.4	107.22	1,228.2	451.2	780.9	729.4	51.56	15.145		
9,300.0	7,267.0	8,595.0	7,498.0	29.2	28.9	107.12	1,328.0	453.1	785.3	730.8	54.52	14.403		
9,400.0	7,267.0	8,694.9	7,498.0	30.8	30.4	107.03	1,427.9	455.0	789.7	732.2	57.54	13.725		
9,500.0	7,267.0	8,794.8	7,498.0	32.3	32.0	106.93	1,527.8	456.9	794.1	733.5	60.59	13.106		
9,600.0	7,267.0	8,894.7	7,498.0	33.9	33.6	106.83	1,627.7	458.8	798.5	734.8	63.68	12.540		
9,700.0	7,267.0	8,994.6	7,498.0	35.5	35.2	106.74	1,727.5	460.7	802.9	736.1	66.79	12.020		
9,800.0	7,267.0	9,094.5	7,498.0	37.1	36.8	106.64	1,827.4	462.6	807.3	737.3	69.94	11.542		
9,900.0	7,267.0	9,194.4	7,498.0	38.7	38.4	106.55	1,927.3	464.5	811.7	738.6	73.11	11.102		
10,000.0	7,267.0	9,294.3	7,498.0	40.4	40.0	106.46	2,027.2	466.4	816.1	739.8	76.30	10.695		
10,100.0	7,267.0	9,394.2	7,498.0	42.0	41.7	106.37	2,127.0	468.3	820.5	741.0	79.51	10.319		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4J-17H-P267 - DD - Plan #3												Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis		
10,200.0	7,267.0	9,494.1	7,498.0	43.7	43.3	106.28	2,226.9	470.2	824.9	742.2	82.74	9.970	
10,300.0	7,267.0	9,594.0	7,498.0	45.3	45.0	106.19	2,326.8	472.1	829.3	743.3	85.99	9.645	
10,400.0	7,267.0	9,693.9	7,498.0	47.0	46.6	106.10	2,426.7	474.0	833.7	744.5	89.24	9.342	
10,500.0	7,267.0	9,793.8	7,498.0	48.7	48.3	106.01	2,526.5	475.9	838.2	745.6	92.51	9.060	
10,600.0	7,267.0	9,893.7	7,498.0	50.4	50.0	105.93	2,626.4	477.9	842.6	746.8	95.79	8.796	
10,700.0	7,267.0	9,993.5	7,498.0	52.0	51.7	105.84	2,726.3	479.8	847.0	747.9	99.09	8.548	
10,800.0	7,267.0	10,093.4	7,498.0	53.7	53.4	105.76	2,826.2	481.7	851.4	749.0	102.39	8.315	
10,900.0	7,267.0	10,193.3	7,498.0	55.4	55.0	105.67	2,926.1	483.6	855.8	750.1	105.70	8.097	
11,000.0	7,267.0	10,293.2	7,498.0	57.1	56.7	105.59	3,025.9	485.5	860.3	751.2	109.02	7.891	
11,100.0	7,267.0	10,393.1	7,498.0	58.8	58.4	105.51	3,125.8	487.4	864.7	752.3	112.35	7.696	
11,200.0	7,267.0	10,493.0	7,498.0	60.5	60.1	105.43	3,225.7	489.3	869.1	753.4	115.68	7.513	
11,300.0	7,267.0	10,592.9	7,498.0	62.2	61.8	105.35	3,325.6	491.2	873.4	754.3	119.06	7.336	
11,400.0	7,267.0	10,692.9	7,498.0	63.9	63.6	105.29	3,425.5	493.1	876.3	753.8	122.46	7.156	
11,500.0	7,267.0	10,792.9	7,498.0	65.6	65.3	105.26	3,525.5	495.0	877.5	751.7	125.81	6.975	
11,600.0	7,267.0	10,892.9	7,498.0	67.3	67.0	105.27	3,625.5	496.9	877.0	747.9	129.12	6.792	
11,700.0	7,267.0	10,992.8	7,498.0	69.0	68.7	105.31	3,725.4	498.8	875.0	742.6	132.39	6.609	
11,800.0	7,267.0	11,092.8	7,498.0	70.7	70.4	105.35	3,825.4	500.7	872.8	737.1	135.69	6.432	
11,900.0	7,267.0	11,192.8	7,498.0	72.4	72.1	105.39	3,925.3	502.6	870.5	731.5	138.99	6.263	
12,000.0	7,267.0	11,292.8	7,498.0	74.2	73.8	105.43	4,025.3	504.5	868.2	725.9	142.29	6.102	
12,100.0	7,267.0	11,392.7	7,498.0	75.9	75.6	105.48	4,125.2	506.4	866.0	720.4	145.59	5.948	
12,200.0	7,267.0	11,492.7	7,498.0	77.6	77.3	105.52	4,225.2	508.3	863.7	714.8	148.90	5.801	
12,300.0	7,267.0	11,592.7	7,498.0	79.3	79.0	105.56	4,325.1	510.2	861.4	709.2	152.20	5.660	
12,400.0	7,267.0	11,692.6	7,498.0	81.0	80.7	105.60	4,425.1	512.1	859.2	703.7	155.51	5.525	
12,500.0	7,267.0	11,792.6	7,498.0	82.7	82.5	105.64	4,525.0	514.0	856.9	698.1	158.81	5.396	
12,600.0	7,267.0	11,892.6	7,498.0	84.5	84.2	105.69	4,625.0	515.9	854.6	692.5	162.12	5.272	
12,700.0	7,267.0	11,992.6	7,498.0	86.2	85.9	105.73	4,725.0	517.8	852.4	687.0	165.42	5.153	
12,800.0	7,267.0	12,093.0	7,498.0	87.9	87.7	105.77	4,825.3	519.7	850.1	681.4	168.73	5.038	
12,900.0	7,267.0	12,209.5	7,498.0	89.6	89.7	105.84	4,941.9	520.7	846.8	674.5	172.29	4.915	
13,000.0	7,267.0	12,325.9	7,498.0	91.4	91.7	105.96	5,058.2	519.3	841.6	665.8	175.80	4.787	
13,100.0	7,267.0	12,441.9	7,498.0	93.1	93.7	106.13	5,174.2	515.6	834.4	655.1	179.26	4.655	
13,200.0	7,267.0	12,551.9	7,498.0	94.8	95.6	106.33	5,284.1	510.0	825.4	642.8	182.59	4.521	
13,300.0	7,267.0	12,651.5	7,498.0	96.5	97.3	106.52	5,383.5	504.5	816.0	630.3	185.74	4.393	
13,400.0	7,267.0	12,751.0	7,498.0	98.3	99.0	106.72	5,482.8	498.9	806.6	617.7	188.87	4.271	
13,500.0	7,267.0	12,850.5	7,498.0	100.0	100.7	106.92	5,582.2	493.4	797.2	605.2	192.00	4.152	
13,600.0	7,267.0	12,950.0	7,498.0	101.7	102.4	107.13	5,681.6	487.9	787.9	592.8	195.11	4.038	
13,700.0	7,267.0	13,049.5	7,498.0	103.5	104.2	107.34	5,780.9	482.4	778.5	580.3	198.20	3.928	
13,800.0	7,267.0	13,149.1	7,498.0	105.2	105.9	107.56	5,880.3	476.8	769.2	567.9	201.29	3.821	
13,900.0	7,267.0	13,248.6	7,498.0	106.9	107.6	107.78	5,979.7	471.3	759.8	555.5	204.35	3.718	
14,000.0	7,267.0	13,348.1	7,498.0	108.7	109.3	108.01	6,079.0	465.8	750.5	543.1	207.40	3.619	
14,100.0	7,267.0	13,447.6	7,498.0	110.4	111.0	108.24	6,178.4	460.3	741.2	530.8	210.44	3.522	
14,200.0	7,267.0	13,547.1	7,498.0	112.1	112.8	108.48	6,277.8	454.8	731.9	518.5	213.45	3.429	
14,300.0	7,267.0	13,646.7	7,498.0	113.9	114.5	108.73	6,377.1	449.2	722.6	506.2	216.44	3.339	
14,400.0	7,267.0	13,746.2	7,498.0	115.6	116.2	108.98	6,476.5	443.7	713.4	493.9	219.42	3.251	
14,500.0	7,267.0	13,818.5	7,498.0	117.4	117.5	109.17	6,548.7	439.7	704.6	482.6	222.02	3.174	
14,514.5	7,267.0	13,818.5	7,498.0	117.6	117.5	109.17	6,548.7	439.7	704.0	481.7	222.26	3.168 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4K-17H-P267 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	90.51	-0.4	40.0	40.0					
100.0	100.0	100.0	100.0	0.1	0.1	90.51	-0.4	40.0	40.0	39.7	0.24	163.641		
200.0	200.0	200.0	200.0	0.3	0.3	90.51	-0.4	40.0	40.0	39.4	0.59	67.382		
300.0	300.0	300.0	300.0	0.5	0.5	90.51	-0.4	40.0	40.0	39.0	0.94	42.425 CC, ES		
400.0	400.0	398.6	398.6	0.6	0.6	90.49	-0.4	41.7	40.4	41.7	1.29	32.349		
500.0	500.0	496.9	496.8	0.8	0.8	90.45	-0.4	46.7	46.9	45.2	1.64	28.635		
600.0	600.0	595.3	594.8	1.0	1.0	-106.08	-0.4	55.0	55.7	53.8	1.98	28.113		
700.0	699.8	694.6	693.7	1.2	1.3	-110.02	-0.4	64.3	66.6	64.3	2.34	28.461		
800.0	799.5	793.6	792.2	1.4	1.5	-115.08	-0.4	73.4	79.2	76.5	2.72	29.136		
900.0	898.7	892.1	890.3	1.6	1.7	-120.52	-0.4	82.6	94.0	90.8	3.12	30.127		
1,000.0	997.6	990.2	988.0	1.9	1.9	-125.68	-0.4	91.7	110.9	107.4	3.53	31.386		
1,100.0	1,096.5	1,088.3	1,085.7	2.2	2.2	-129.59	-0.4	100.8	128.6	124.7	3.95	32.538		
1,200.0	1,195.3	1,186.4	1,183.4	2.5	2.4	-132.55	-0.4	109.9	146.8	142.4	4.37	33.561		
1,300.0	1,294.2	1,284.5	1,281.0	2.8	2.6	-134.85	-0.5	119.0	165.2	160.4	4.79	34.464		
1,400.0	1,393.1	1,382.6	1,378.7	3.1	2.9	-136.69	-0.5	128.1	183.9	178.7	5.21	35.262		
1,500.0	1,492.0	1,480.7	1,476.4	3.4	3.1	-138.19	-0.5	137.2	202.7	197.0	5.63	35.969		
1,600.0	1,590.8	1,578.8	1,574.0	3.7	3.3	-139.43	-0.5	146.3	221.6	215.5	6.05	36.597		
1,700.0	1,689.7	1,676.9	1,671.7	4.0	3.6	-140.48	-0.5	155.4	240.6	234.1	6.47	37.159		
1,800.0	1,788.6	1,775.0	1,769.4	4.3	3.8	-141.38	-0.5	164.5	259.7	252.8	6.89	37.663		
1,900.0	1,887.5	1,873.1	1,867.0	4.6	4.0	-142.15	-0.5	173.6	278.8	271.5	7.31	38.118		
2,000.0	1,986.3	1,971.2	1,964.7	4.9	4.3	-142.83	-0.5	182.7	297.9	290.2	7.73	38.529		
2,100.0	2,085.2	2,069.2	2,062.4	5.2	4.5	-143.42	-0.5	191.8	317.1	309.0	8.15	38.903		
2,200.0	2,184.1	2,167.3	2,160.0	5.5	4.7	-143.94	-0.6	200.9	336.4	327.8	8.57	39.245		
2,300.0	2,282.9	2,265.4	2,257.7	5.8	5.0	-144.41	-0.6	210.0	355.6	346.6	8.99	39.558		
2,400.0	2,381.8	2,363.5	2,355.4	6.1	5.2	-144.83	-0.6	219.1	374.9	365.5	9.41	39.846		
2,500.0	2,480.7	2,461.6	2,453.0	6.4	5.4	-145.21	-0.6	228.2	394.2	384.3	9.83	40.111		
2,600.0	2,579.6	2,559.7	2,550.7	6.8	5.7	-145.56	-0.6	237.3	413.5	403.2	10.25	40.357		
2,700.0	2,678.4	2,657.8	2,648.4	7.1	5.9	-145.87	-0.6	246.4	432.8	422.1	10.66	40.584		
2,800.0	2,777.3	2,755.9	2,746.0	7.4	6.1	-146.16	-0.6	255.5	452.1	441.0	11.08	40.796		
2,900.0	2,876.2	2,854.0	2,843.7	7.7	6.4	-146.42	-0.6	264.6	471.4	459.9	11.50	40.993		
3,000.0	2,975.1	2,952.1	2,941.4	8.0	6.6	-146.66	-0.6	273.7	490.8	478.9	11.92	41.178		
3,100.0	3,073.9	3,050.1	3,039.1	8.3	6.8	-146.88	-0.7	282.8	510.2	497.8	12.34	41.350		
3,200.0	3,172.8	3,148.2	3,136.7	8.6	7.1	-147.09	-0.7	291.9	529.5	516.8	12.76	41.512		
3,300.0	3,271.7	3,246.3	3,234.4	8.9	7.3	-147.28	-0.7	301.0	548.9	535.7	13.17	41.665		
3,400.0	3,370.5	3,344.4	3,332.1	9.3	7.5	-147.46	-0.7	310.1	568.3	554.7	13.59	41.808		
3,500.0	3,469.4	3,442.5	3,429.7	9.6	7.8	-147.63	-0.7	319.2	587.6	573.6	14.01	41.943		
3,600.0	3,568.3	3,540.6	3,527.4	9.9	8.0	-147.79	-0.7	328.3	607.0	592.6	14.43	42.071		
3,700.0	3,667.2	3,638.7	3,625.1	10.2	8.2	-147.94	-0.7	337.4	626.4	611.6	14.85	42.192		
3,800.0	3,766.0	3,736.8	3,722.7	10.5	8.5	-148.07	-0.7	346.5	645.8	630.5	15.26	42.307		
3,900.0	3,864.9	3,834.9	3,820.4	10.8	8.7	-148.20	-0.7	355.6	665.2	649.5	15.68	42.415		
4,000.0	3,963.8	3,933.0	3,918.1	11.1	8.9	-148.33	-0.8	364.7	684.6	668.5	16.10	42.519		
4,100.0	4,062.7	4,031.1	4,015.7	11.4	9.2	-148.44	-0.8	373.8	704.0	687.5	16.52	42.617		
4,200.0	4,161.5	4,129.1	4,113.4	11.8	9.4	-148.55	-0.8	382.9	723.4	706.4	16.94	42.711		
4,300.0	4,260.4	4,227.2	4,211.1	12.1	9.6	-148.66	-0.8	392.0	742.8	725.4	17.35	42.800		
4,400.0	4,359.3	4,325.3	4,308.7	12.4	9.9	-148.76	-0.8	401.1	762.2	744.4	17.77	42.886		
4,500.0	4,458.1	4,423.4	4,406.4	12.7	10.1	-148.85	-0.8	410.2	781.6	763.4	18.19	42.967		
4,600.0	4,557.0	4,521.5	4,504.1	13.0	10.3	-148.94	-0.8	419.3	801.0	782.4	18.61	43.045		
4,700.0	4,655.9	4,619.6	4,601.7	13.3	10.6	-149.03	-0.8	428.4	820.4	801.4	19.03	43.120		
4,800.0	4,754.8	4,717.7	4,699.4	13.6	10.8	-149.11	-0.8	437.5	839.8	820.4	19.44	43.192		
4,900.0	4,853.6	4,815.8	4,797.1	14.0	11.0	-149.19	-0.9	446.6	859.3	839.4	19.86	43.260		
5,000.0	4,952.5	4,913.9	4,894.7	14.3	11.3	-149.26	-0.9	455.7	878.7	858.4	20.28	43.326		
5,100.0	5,051.4	5,012.0	4,992.4	14.6	11.5	-149.33	-0.9	464.8	898.1	877.4	20.70	43.390		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4K-17H-P267 - DD - Plan #2													Offset Site Error: 0.0 ft	
Survey Program: 0-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,200.0	5,150.3	5,110.0	5,090.1	14.9	11.7	-149.40	-0.9	473.9	917.5	896.4	21.12	43.450		
5,300.0	5,249.1	5,208.1	5,187.7	15.2	12.0	-149.46	-0.9	483.0	936.9	915.4	21.53	43.509		
5,400.0	5,348.0	5,306.2	5,285.4	15.5	12.2	-149.53	-0.9	492.1	956.4	934.4	21.95	43.566		
5,500.0	5,446.9	5,404.3	5,383.1	15.8	12.4	-149.59	-0.9	501.2	975.8	953.4	22.37	43.620		
5,600.0	5,545.7	5,502.4	5,480.7	16.2	12.7	-149.64	-0.9	510.3	995.2	972.4	22.79	43.672		
5,700.0	5,644.6	5,600.5	5,578.4	16.5	12.9	-149.70	-0.9	519.4	1,014.6	991.4	23.21	43.723		
5,800.0	5,743.5	5,698.6	5,676.1	16.8	13.1	-149.75	-1.0	528.5	1,034.1	1,010.4	23.62	43.772		
5,900.0	5,842.4	5,796.7	5,773.7	17.1	13.4	-149.80	-1.0	537.6	1,053.5	1,029.4	24.04	43.819		
6,000.0	5,941.2	5,894.8	5,871.4	17.4	13.6	-149.85	-1.0	546.7	1,072.9	1,048.5	24.46	43.865		
6,100.0	6,040.1	5,992.9	5,969.1	17.7	13.8	-149.90	-1.0	555.8	1,092.3	1,067.5	24.88	43.909		
6,200.0	6,139.0	6,090.9	6,066.7	18.0	14.1	-149.95	-1.0	564.9	1,111.8	1,086.5	25.30	43.952		
6,300.0	6,237.9	6,189.0	6,164.4	18.4	14.3	-149.99	-1.0	574.0	1,131.2	1,105.5	25.71	43.993		
6,400.0	6,336.7	6,287.1	6,262.1	18.7	14.5	-150.04	-1.0	583.1	1,150.6	1,124.5	26.13	44.033		
6,500.0	6,435.6	6,385.2	6,359.7	19.0	14.8	-150.08	-1.0	592.2	1,170.1	1,143.5	26.55	44.072		
6,600.0	6,534.5	6,483.3	6,457.4	19.3	15.0	-150.12	-1.1	601.3	1,189.5	1,162.5	26.97	44.110		
6,700.0	6,633.4	6,581.5	6,555.1	19.6	15.2	-155.42	-1.1	610.4	1,208.6	1,181.2	27.41	44.093		
6,800.0	6,733.2	6,680.4	6,653.7	19.7	15.5	74.24	-1.1	619.6	1,219.2	1,191.5	27.77	43.911		
6,900.0	6,831.8	6,750.0	6,722.9	19.5	15.6	54.18	-0.5	626.1	1,218.3	1,190.6	27.74	43.915		
7,000.0	6,926.2	6,784.3	6,757.0	19.2	15.7	51.52	2.2	629.2	1,209.7	1,182.3	27.33	44.262		
7,100.0	7,013.6	6,822.7	6,794.8	18.6	15.8	51.81	7.5	632.8	1,194.2	1,167.4	26.73	44.674		
7,200.0	7,091.3	6,850.0	6,821.5	18.0	15.9	53.26	12.8	635.2	1,172.4	1,146.4	26.05	45.004		
7,300.0	7,156.9	6,900.0	6,869.5	17.2	16.0	56.33	25.9	639.7	1,145.0	1,119.4	25.58	44.765		
7,400.0	7,208.5	6,932.8	6,900.3	16.5	16.1	59.85	36.7	642.6	1,113.2	1,087.9	25.30	44.003		
7,500.0	7,244.5	6,966.7	6,931.5	15.7	16.2	64.19	49.8	645.5	1,078.2	1,052.9	25.32	42.588		
7,600.0	7,263.7	7,000.0	6,961.3	15.1	16.3	69.12	64.4	648.3	1,041.7	1,016.2	25.55	40.766		
7,700.0	7,267.0	7,027.5	6,985.2	14.7	16.4	72.76	77.7	650.5	1,006.1	980.4	25.65	39.220		
7,800.0	7,267.0	7,060.5	7,013.1	14.5	16.5	74.51	95.2	653.1	978.0	952.3	25.63	38.155		
7,900.0	7,267.0	7,100.0	7,045.0	14.5	16.6	76.44	118.3	656.1	958.4	932.6	25.88	37.033		
8,000.0	7,267.0	7,150.0	7,083.1	14.7	16.8	78.75	150.5	659.6	946.3	919.9	26.42	35.822		
8,100.0	7,267.0	7,208.8	7,124.0	15.1	17.1	81.25	192.5	663.4	940.7	913.5	27.23	34.550		
8,153.3	7,267.0	7,246.0	7,147.6	15.4	17.3	82.70	221.1	665.6	940.0	912.2	27.81	33.801		
8,200.0	7,267.0	7,282.0	7,168.7	15.7	17.5	84.00	250.3	667.6	940.5	912.1	28.36	33.158		
8,300.0	7,267.0	7,370.6	7,212.3	16.5	18.0	86.68	327.1	671.7	943.8	913.9	29.86	31.606		
8,400.0	7,267.0	7,474.2	7,247.8	17.4	18.8	88.84	424.3	675.0	948.4	916.7	31.76	29.858		
8,500.0	7,267.0	7,588.9	7,266.0	18.4	19.9	89.94	537.3	676.7	952.5	918.4	34.07	27.954		
8,600.0	7,267.0	7,694.2	7,267.0	19.5	21.0	90.00	642.6	676.8	955.2	918.7	36.52	26.158		
8,700.0	7,267.0	7,794.1	7,267.0	20.8	22.1	90.00	742.5	676.8	957.9	918.9	39.07	24.517		
8,800.0	7,267.0	7,894.1	7,267.0	22.1	23.3	90.00	842.5	676.8	960.6	918.9	41.76	23.001		
8,900.0	7,267.0	7,994.0	7,267.0	23.4	24.6	90.00	942.5	676.8	963.3	918.7	44.57	21.614		
9,000.0	7,267.0	8,094.0	7,267.0	24.8	25.9	90.00	1,042.4	676.8	966.0	918.5	47.47	20.351		
9,100.0	7,267.0	8,194.0	7,267.0	26.3	27.3	90.00	1,142.4	676.8	968.7	918.2	50.44	19.203		
9,200.0	7,267.0	8,293.9	7,267.0	27.7	28.7	90.00	1,242.4	676.8	971.4	917.9	53.48	18.162		
9,300.0	7,267.0	8,393.9	7,267.0	29.2	30.1	90.00	1,342.3	676.8	974.1	917.5	56.58	17.216		
9,400.0	7,267.0	8,493.9	7,267.0	30.8	31.6	90.00	1,442.3	676.8	976.8	917.0	59.72	16.356		
9,500.0	7,267.0	8,593.8	7,267.0	32.3	33.1	90.00	1,542.3	676.8	979.4	916.5	62.90	15.572		
9,600.0	7,267.0	8,693.8	7,267.0	33.9	34.6	90.00	1,642.2	676.8	982.1	916.0	66.11	14.856		
9,700.0	7,267.0	8,793.8	7,267.0	35.5	36.2	90.00	1,742.2	676.8	984.8	915.5	69.35	14.201		
9,800.0	7,267.0	8,893.7	7,267.0	37.1	37.8	90.00	1,842.2	676.8	987.5	914.9	72.62	13.599		
9,900.0	7,267.0	8,993.7	7,267.0	38.7	39.3	90.00	1,942.1	676.8	990.2	914.3	75.90	13.046		
10,000.0	7,267.0	9,093.7	7,267.0	40.4	40.9	90.00	2,042.1	676.8	992.9	913.7	79.21	12.535		
10,100.0	7,267.0	9,193.6	7,267.0	42.0	42.6	90.00	2,142.0	676.8	995.6	913.1	82.53	12.063		
10,200.0	7,267.0	9,293.6	7,267.0	43.7	44.2	90.00	2,242.0	676.8	998.3	912.4	85.87	11.626		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4K-17H-P267 - DD - Plan #2													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
10,300.0	7,267.0	9,393.5	7,267.0	45.3	45.8	90.00	2,342.0	676.8	1,001.0	911.7	89.22	11.219		
10,400.0	7,267.0	9,493.5	7,267.0	47.0	47.4	90.00	2,441.9	676.8	1,003.7	911.1	92.58	10.841		
10,500.0	7,267.0	9,593.5	7,267.0	48.7	49.1	90.00	2,541.9	676.8	1,006.3	910.4	95.95	10.488		
10,600.0	7,267.0	9,693.4	7,267.0	50.4	50.7	90.00	2,641.9	676.8	1,009.0	909.7	99.33	10.158		
10,700.0	7,267.0	9,793.4	7,267.0	52.0	52.4	90.00	2,741.8	676.8	1,011.7	909.0	102.72	9.849		
10,800.0	7,267.0	9,893.4	7,267.0	53.7	54.1	90.00	2,841.8	676.8	1,014.4	908.3	106.12	9.559		
10,900.0	7,267.0	9,993.3	7,267.0	55.4	55.7	90.00	2,941.8	676.8	1,017.1	907.6	109.53	9.286		
11,000.0	7,267.0	10,093.3	7,267.0	57.1	57.4	90.00	3,041.7	676.8	1,019.8	906.9	112.94	9.030		
11,100.0	7,267.0	10,193.3	7,267.0	58.8	59.1	90.00	3,141.7	676.8	1,022.5	906.1	116.35	8.788		
11,200.0	7,267.0	10,293.2	7,267.0	60.5	60.8	90.00	3,241.6	676.8	1,025.2	905.4	119.78	8.559		
11,300.0	7,267.0	10,393.2	7,267.0	62.2	62.5	90.00	3,341.6	676.8	1,027.7	904.5	123.26	8.338		
11,400.0	7,267.0	10,493.2	7,267.0	63.9	64.2	90.00	3,441.6	676.7	1,028.8	902.0	126.79	8.114		
11,500.0	7,267.0	10,593.2	7,267.0	65.6	65.9	90.00	3,541.6	676.7	1,028.2	897.9	130.30	7.891		
11,600.0	7,267.0	10,693.1	7,267.0	67.3	67.6	90.00	3,641.6	676.7	1,025.8	892.0	133.78	7.668		
11,700.0	7,267.0	10,793.1	7,267.0	69.0	69.3	90.00	3,741.5	676.7	1,021.8	884.6	137.22	7.446		
11,800.0	7,267.0	10,893.0	7,267.0	70.7	71.0	90.00	3,841.4	676.7	1,017.5	876.9	140.67	7.234		
11,900.0	7,267.0	10,992.9	7,267.0	72.4	72.7	90.00	3,941.3	676.7	1,013.3	869.2	144.11	7.031		
12,000.0	7,267.0	11,092.8	7,267.0	74.2	74.4	90.00	4,041.2	676.7	1,009.0	861.5	147.56	6.838		
12,100.0	7,267.0	11,192.7	7,267.0	75.9	76.1	90.00	4,141.1	676.7	1,004.8	853.7	151.02	6.653		
12,200.0	7,267.0	11,292.6	7,267.0	77.6	77.8	90.00	4,241.0	676.7	1,000.5	846.0	154.47	6.477		
12,300.0	7,267.0	11,392.5	7,267.0	79.3	79.5	90.00	4,340.9	676.7	996.3	838.3	157.93	6.308		
12,400.0	7,267.0	11,492.4	7,267.0	81.0	81.2	90.00	4,440.9	676.7	992.0	830.6	161.39	6.147		
12,500.0	7,267.0	11,592.3	7,267.0	82.7	83.0	90.00	4,540.8	676.7	987.7	822.9	164.85	5.992		
12,600.0	7,267.0	11,692.2	7,267.0	84.5	84.7	90.00	4,640.7	676.7	983.5	815.2	168.31	5.843		
12,700.0	7,267.0	11,792.2	7,267.0	86.2	86.4	90.00	4,740.6	676.7	979.2	807.5	171.78	5.701		
12,800.0	7,267.0	11,892.1	7,267.0	87.9	88.1	90.00	4,840.5	676.7	975.0	799.7	175.25	5.563		
12,900.0	7,267.0	11,992.0	7,267.0	89.6	89.8	90.00	4,940.4	676.7	970.7	792.0	178.72	5.432		
13,000.0	7,267.0	12,091.9	7,267.0	91.4	91.6	90.00	5,040.3	676.7	966.5	784.3	182.19	5.305		
13,100.0	7,267.0	12,191.8	7,267.0	93.1	93.3	90.00	5,140.2	676.7	962.2	776.6	185.66	5.183		
13,200.0	7,267.0	12,291.7	7,267.0	94.8	95.0	90.00	5,240.1	676.7	958.0	768.8	189.13	5.065		
13,300.0	7,267.0	12,391.6	7,267.0	96.5	96.7	90.00	5,340.0	676.7	953.7	761.1	192.60	4.952		
13,400.0	7,267.0	12,491.5	7,267.0	98.3	98.5	90.00	5,440.0	676.7	949.5	753.4	196.08	4.842		
13,500.0	7,267.0	12,591.4	7,267.0	100.0	100.2	90.00	5,539.9	676.7	945.2	745.7	199.55	4.737		
13,600.0	7,267.0	12,691.3	7,267.0	101.7	101.9	90.00	5,639.8	676.7	941.0	737.9	203.03	4.635		
13,700.0	7,267.0	12,791.3	7,267.0	103.5	103.6	90.00	5,739.7	676.7	936.7	730.2	206.51	4.536		
13,800.0	7,267.0	12,891.2	7,267.0	105.2	105.4	90.00	5,839.6	676.7	932.4	722.5	209.99	4.440		
13,900.0	7,267.0	12,991.1	7,267.0	106.9	107.1	90.00	5,939.5	676.7	928.2	714.7	213.47	4.348		
14,000.0	7,267.0	13,091.0	7,267.0	108.7	108.8	90.00	6,039.4	676.7	923.9	707.0	216.95	4.259		
14,100.0	7,267.0	13,190.9	7,267.0	110.4	110.6	90.00	6,139.3	676.7	919.7	699.2	220.43	4.172		
14,200.0	7,267.0	13,290.8	7,267.0	112.1	112.3	90.00	6,239.2	676.7	915.4	691.5	223.91	4.088		
14,300.0	7,267.0	13,390.7	7,267.0	113.9	114.0	90.00	6,339.1	676.7	911.2	683.8	227.40	4.007		
14,400.0	7,267.0	13,490.6	7,267.0	115.6	115.8	90.00	6,439.0	676.7	906.9	676.0	230.88	3.928		
14,500.0	7,267.0	13,590.5	7,267.0	117.4	117.5	90.00	6,539.0	676.7	902.7	668.3	234.37	3.852		
14,514.5	7,267.0	13,598.5	7,267.0	117.6	117.6	90.00	6,546.9	676.7	902.1	667.3	234.76	3.843 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4L-17H-P267 - DD - Plan #3														Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	90.42	-0.4	50.0	50.1						
100.0	100.0	100.0	100.0	0.1	0.1	90.42	-0.4	50.0	50.1	49.8	0.24	204.835			
200.0	200.0	200.0	200.0	0.3	0.3	90.42	-0.4	50.0	50.1	49.5	0.59	84.344	CC, ES		
300.0	300.0	298.2	298.2	0.5	0.5	90.41	-0.4	51.7	51.8	50.8	0.94	55.089			
400.0	400.0	396.3	396.1	0.6	0.7	90.39	-0.4	56.8	56.9	55.6	1.29	44.226			
500.0	500.0	493.8	493.3	0.8	0.9	90.37	-0.4	65.1	65.4	63.8	1.63	40.032			
600.0	600.0	591.6	590.4	1.0	1.1	-105.58	-0.5	76.5	77.6	75.6	1.98	39.252			
700.0	699.8	690.5	688.6	1.2	1.4	-108.34	-0.5	88.7	91.4	89.1	2.33	39.160			
800.0	799.5	789.1	786.4	1.4	1.7	-112.05	-0.5	100.9	106.7	104.0	2.71	39.335			
900.0	898.7	887.2	883.8	1.6	1.9	-116.19	-0.6	112.9	123.9	120.7	3.12	39.704			
1,000.0	997.6	984.9	980.7	1.9	2.2	-120.38	-0.6	125.0	142.9	139.3	3.55	40.273			
1,100.0	1,096.5	1,082.6	1,077.7	2.2	2.5	-123.70	-0.7	137.0	162.6	158.6	3.99	40.794			
1,200.0	1,195.3	1,180.2	1,174.6	2.5	2.7	-126.30	-0.7	149.0	182.7	178.3	4.43	41.266			
1,300.0	1,294.2	1,277.9	1,271.5	2.8	3.0	-128.39	-0.8	161.0	203.1	198.3	4.87	41.693			
1,400.0	1,393.1	1,375.5	1,368.4	3.1	3.3	-130.10	-0.8	173.1	223.7	218.4	5.32	42.079			
1,500.0	1,492.0	1,473.2	1,465.3	3.4	3.5	-131.51	-0.9	185.1	244.5	238.8	5.76	42.428			
1,600.0	1,590.8	1,570.8	1,562.2	3.7	3.8	-132.71	-0.9	197.1	265.4	259.2	6.21	42.744			
1,700.0	1,689.7	1,668.5	1,659.1	4.0	4.1	-133.73	-0.9	209.1	286.4	279.8	6.66	43.032			
1,800.0	1,788.6	1,766.1	1,756.0	4.3	4.3	-134.61	-1.0	221.2	307.5	300.4	7.10	43.293			
1,900.0	1,887.5	1,863.8	1,852.9	4.6	4.6	-135.38	-1.0	233.2	328.6	321.1	7.55	43.532			
2,000.0	1,986.3	1,961.4	1,949.8	4.9	4.9	-136.06	-1.1	245.2	349.8	341.8	8.00	43.751			
2,100.0	2,085.2	2,059.1	2,046.7	5.2	5.2	-136.65	-1.1	257.3	371.1	362.6	8.44	43.952			
2,200.0	2,184.1	2,156.7	2,143.6	5.5	5.4	-137.19	-1.2	269.3	392.3	383.4	8.89	44.137			
2,300.0	2,282.9	2,254.4	2,240.6	5.8	5.7	-137.67	-1.2	281.3	413.6	404.3	9.33	44.308			
2,400.0	2,381.8	2,352.1	2,337.5	6.1	6.0	-138.10	-1.2	293.3	434.9	425.1	9.78	44.466			
2,500.0	2,480.7	2,449.7	2,434.4	6.4	6.2	-138.49	-1.3	305.4	456.3	446.0	10.23	44.613			
2,600.0	2,579.6	2,547.4	2,531.3	6.8	6.5	-138.85	-1.3	317.4	477.6	466.9	10.67	44.750			
2,700.0	2,678.4	2,645.0	2,628.2	7.1	6.8	-139.17	-1.4	329.4	499.0	487.9	11.12	44.877			
2,800.0	2,777.3	2,742.7	2,725.1	7.4	7.0	-139.47	-1.4	341.4	520.4	508.8	11.56	44.996			
2,900.0	2,876.2	2,840.3	2,822.0	7.7	7.3	-139.75	-1.5	353.5	541.8	529.8	12.01	45.108			
3,000.0	2,975.1	2,938.0	2,918.9	8.0	7.6	-140.00	-1.5	365.5	563.2	550.7	12.46	45.212			
3,100.0	3,073.9	3,035.6	3,015.8	8.3	7.9	-140.24	-1.6	377.5	584.6	571.7	12.90	45.311			
3,200.0	3,172.8	3,133.3	3,112.7	8.6	8.1	-140.46	-1.6	389.5	606.0	592.7	13.35	45.403			
3,300.0	3,271.7	3,230.9	3,209.6	8.9	8.4	-140.66	-1.6	401.6	627.5	613.7	13.79	45.491			
3,400.0	3,370.5	3,328.6	3,306.6	9.3	8.7	-140.86	-1.7	413.6	648.9	634.7	14.24	45.573			
3,500.0	3,469.4	3,426.2	3,403.5	9.6	8.9	-141.03	-1.7	425.6	670.3	655.7	14.68	45.651			
3,600.0	3,568.3	3,523.9	3,500.4	9.9	9.2	-141.20	-1.8	437.6	691.8	676.7	15.13	45.725			
3,700.0	3,667.2	3,621.5	3,597.3	10.2	9.5	-141.36	-1.8	449.7	713.3	697.7	15.58	45.795			
3,800.0	3,766.0	3,719.2	3,694.2	10.5	9.8	-141.51	-1.9	461.7	734.7	718.7	16.02	45.862			
3,900.0	3,864.9	3,816.8	3,791.1	10.8	10.0	-141.65	-1.9	473.7	756.2	739.7	16.47	45.925			
4,000.0	3,963.8	3,914.5	3,888.0	11.1	10.3	-141.78	-1.9	485.8	777.7	760.8	16.91	45.986			
4,100.0	4,062.7	4,012.1	3,984.9	11.4	10.6	-141.91	-2.0	497.8	799.1	781.8	17.36	46.043			
4,200.0	4,161.5	4,109.8	4,081.8	11.8	10.8	-142.02	-2.0	509.8	820.6	802.8	17.80	46.098			
4,300.0	4,260.4	4,207.4	4,178.7	12.1	11.1	-142.14	-2.1	521.8	842.1	823.9	18.25	46.150			
4,400.0	4,359.3	4,305.1	4,275.6	12.4	11.4	-142.24	-2.1	533.9	863.6	844.9	18.69	46.201			
4,500.0	4,458.1	4,402.7	4,372.5	12.7	11.7	-142.35	-2.2	545.9	885.1	865.9	19.14	46.249			
4,600.0	4,557.0	4,500.4	4,469.5	13.0	11.9	-142.44	-2.2	557.9	906.6	887.0	19.58	46.295			
4,700.0	4,655.9	4,598.0	4,566.4	13.3	12.2	-142.54	-2.3	569.9	928.1	908.0	20.03	46.339			
4,800.0	4,754.8	4,695.7	4,663.3	13.6	12.5	-142.62	-2.3	582.0	949.6	929.1	20.47	46.381			
4,900.0	4,853.6	4,793.4	4,760.2	14.0	12.7	-142.71	-2.3	594.0	971.1	950.1	20.92	46.422			
5,000.0	4,952.5	4,891.0	4,857.1	14.3	13.0	-142.79	-2.4	606.0	992.6	971.2	21.36	46.461			
5,100.0	5,051.4	4,988.7	4,954.0	14.6	13.3	-142.87	-2.4	618.0	1,014.1	992.3	21.81	46.499			

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4L-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: O-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,200.0	5,150.3	5,086.3	5,050.9	14.9	13.6	-142.94	-2.5	630.1	1,035.6	1,013.3	22.25	46.535		
5,300.0	5,249.1	5,184.0	5,147.8	15.2	13.8	-143.01	-2.5	642.1	1,057.1	1,034.4	22.70	46.570		
5,400.0	5,348.0	5,281.6	5,244.7	15.5	14.1	-143.08	-2.6	654.1	1,078.6	1,055.4	23.14	46.603		
5,500.0	5,446.9	5,379.3	5,341.6	15.8	14.4	-143.15	-2.6	666.1	1,100.1	1,076.5	23.59	46.636		
5,600.0	5,545.7	5,476.9	5,438.5	16.2	14.6	-143.21	-2.6	678.2	1,121.6	1,097.6	24.03	46.667		
5,700.0	5,644.6	5,574.6	5,535.4	16.5	14.9	-143.27	-2.7	690.2	1,143.1	1,118.6	24.48	46.697		
5,800.0	5,743.5	5,672.2	5,632.4	16.8	15.2	-143.33	-2.7	702.2	1,164.6	1,139.7	24.92	46.726		
5,900.0	5,842.4	5,769.9	5,729.3	17.1	15.5	-143.38	-2.8	714.3	1,186.1	1,160.8	25.37	46.755		
6,000.0	5,941.2	5,867.5	5,826.2	17.4	15.7	-143.44	-2.8	726.3	1,207.7	1,181.8	25.81	46.782		
6,100.0	6,040.1	5,965.2	5,923.1	17.7	16.0	-143.49	-2.9	738.3	1,229.2	1,202.9	26.26	46.809		
6,200.0	6,139.0	6,062.8	6,020.0	18.0	16.3	-143.54	-2.9	750.3	1,250.7	1,224.0	26.70	46.834		
6,300.0	6,237.9	6,160.5	6,116.9	18.4	16.5	-143.59	-3.0	762.4	1,272.2	1,245.1	27.15	46.859		
6,400.0	6,336.7	6,258.1	6,213.8	18.7	16.8	-143.64	-3.0	774.4	1,293.7	1,266.1	27.59	46.883		
6,500.0	6,435.6	6,355.8	6,310.7	19.0	17.1	-143.68	-3.0	786.4	1,315.2	1,287.2	28.04	46.906		
6,600.0	6,534.5	6,453.4	6,407.6	19.3	17.4	-143.73	-3.1	798.4	1,336.8	1,308.3	28.48	46.929		
6,700.0	6,633.4	6,551.1	6,504.6	19.6	17.6	-143.77	-3.1	810.5	1,358.0	1,329.1	28.97	46.881		
6,800.0	6,733.2	6,649.7	6,602.4	19.7	17.9	80.22	-3.2	822.6	1,371.7	1,342.4	29.35	46.732		
6,900.0	6,831.8	6,747.1	6,699.0	19.5	18.2	60.17	-3.2	834.6	1,374.6	1,345.2	29.38	46.787		
7,000.0	6,926.2	6,840.3	6,791.5	19.2	18.4	58.40	-3.3	846.1	1,367.1	1,338.0	29.09	46.986		
7,100.0	7,013.6	6,926.6	6,877.2	18.6	18.7	60.05	-3.3	856.7	1,350.4	1,321.8	28.62	47.178		
7,200.0	7,091.3	6,989.9	6,940.0	18.0	18.9	63.03	-3.2	864.5	1,326.5	1,298.4	28.06	47.270		
7,300.0	7,156.9	7,021.3	6,971.1	17.2	18.9	66.11	-1.8	868.4	1,298.8	1,271.3	27.45	47.307		
7,400.0	7,208.5	7,050.0	6,999.5	16.5	19.0	69.70	1.0	871.9	1,269.1	1,242.2	26.98	47.033		
7,500.0	7,244.5	7,076.2	7,025.1	15.7	19.1	73.56	4.9	875.1	1,239.1	1,212.4	26.66	46.476		
7,600.0	7,263.7	7,100.0	7,048.4	15.1	19.2	77.45	9.4	878.0	1,210.2	1,183.8	26.44	45.774		
7,700.0	7,267.0	7,113.4	7,061.4	14.7	19.2	79.75	12.3	879.6	1,184.5	1,158.3	26.18	45.244		
7,800.0	7,267.0	7,130.9	7,078.2	14.5	19.2	80.62	16.6	881.7	1,167.2	1,141.2	26.00	44.890		
7,900.0	7,267.0	7,153.5	7,099.7	14.5	19.3	81.69	23.0	884.3	1,158.9	1,132.8	26.07	44.448		
7,954.0	7,267.0	7,168.6	7,114.0	14.6	19.4	82.40	27.7	886.1	1,157.8	1,131.5	26.24	44.126		
8,000.0	7,267.0	7,183.7	7,128.0	14.7	19.4	83.11	32.8	887.8	1,158.6	1,132.2	26.39	43.909		
8,100.0	7,267.0	7,225.9	7,166.7	15.1	19.5	85.04	49.0	892.6	1,165.8	1,138.8	26.94	43.280		
8,200.0	7,267.0	7,288.3	7,221.5	15.7	19.7	87.76	78.1	899.4	1,179.6	1,151.9	27.72	42.547		
8,300.0	7,267.0	7,386.5	7,300.4	16.5	20.1	91.63	135.5	909.2	1,198.2	1,169.4	28.79	41.619		
8,400.0	7,267.0	7,548.6	7,405.9	17.4	20.8	96.66	257.1	922.3	1,217.7	1,187.3	30.36	40.107		
8,500.0	7,267.0	7,800.2	7,492.6	18.4	22.5	100.59	490.9	933.1	1,230.8	1,197.5	33.33	36.926		
8,600.0	7,267.0	7,952.2	7,498.0	19.5	23.9	100.79	642.6	933.7	1,234.0	1,197.8	36.22	34.074		
8,700.0	7,267.0	8,052.1	7,498.0	20.8	24.9	100.77	742.5	933.7	1,236.7	1,198.0	38.71	31.951		
8,800.0	7,267.0	8,152.1	7,498.0	22.1	25.9	100.75	842.5	933.7	1,239.3	1,198.0	41.33	29.983		
8,900.0	7,267.0	8,252.1	7,498.0	23.4	27.1	100.72	942.5	933.7	1,242.0	1,197.9	44.08	28.178		
9,000.0	7,267.0	8,352.0	7,498.0	24.8	28.3	100.70	1,042.4	933.7	1,244.6	1,197.7	46.91	26.532		
9,100.0	7,267.0	8,452.0	7,498.0	26.3	29.5	100.68	1,142.4	933.7	1,247.3	1,197.4	49.82	25.033		
9,200.0	7,267.0	8,551.9	7,498.0	27.7	30.9	100.65	1,242.4	933.7	1,249.9	1,197.1	52.80	23.671		
9,300.0	7,267.0	8,651.9	7,498.0	29.2	32.2	100.63	1,342.3	933.7	1,252.5	1,196.7	55.84	22.433		
9,400.0	7,267.0	8,751.9	7,498.0	30.8	33.6	100.61	1,442.3	933.7	1,255.2	1,196.3	58.92	21.305		
9,500.0	7,267.0	8,851.8	7,498.0	32.3	35.0	100.59	1,542.3	933.7	1,257.8	1,195.8	62.03	20.276		
9,600.0	7,267.0	8,951.8	7,498.0	33.9	36.5	100.56	1,642.2	933.7	1,260.5	1,195.3	65.19	19.336		
9,700.0	7,267.0	9,051.8	7,498.0	35.5	37.9	100.54	1,742.2	933.7	1,263.1	1,194.8	68.37	18.475		
9,800.0	7,267.0	9,151.7	7,498.0	37.1	39.4	100.52	1,842.2	933.7	1,265.8	1,194.2	71.58	17.684		
9,900.0	7,267.0	9,251.7	7,498.0	38.7	41.0	100.50	1,942.1	933.7	1,268.4	1,193.6	74.81	16.955		
10,000.0	7,267.0	9,351.7	7,498.0	40.4	42.5	100.47	2,042.1	933.7	1,271.1	1,193.0	78.06	16.283		
10,100.0	7,267.0	9,451.6	7,498.0	42.0	44.1	100.45	2,142.0	933.7	1,273.7	1,192.4	81.33	15.662		
10,200.0	7,267.0	9,551.6	7,498.0	43.7	45.6	100.43	2,242.0	933.7	1,276.3	1,191.7	84.61	15.085		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4L-17H-P267 - DD - Plan #3													Offset Site Error:	0.0 ft
Survey Program: 0-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,300.0	7,267.0	9,651.5	7,498.0	45.3	47.2	100.41	2,342.0	933.7	1,279.0	1,191.1	87.91	14.550		
10,400.0	7,267.0	9,751.5	7,498.0	47.0	48.8	100.39	2,441.9	933.7	1,281.6	1,190.4	91.21	14.051		
10,500.0	7,267.0	9,851.5	7,498.0	48.7	50.4	100.37	2,541.9	933.7	1,284.3	1,189.8	94.53	13.586		
10,600.0	7,267.0	9,951.4	7,498.0	50.4	52.0	100.34	2,641.9	933.7	1,286.9	1,189.1	97.86	13.150		
10,700.0	7,267.0	10,051.4	7,498.0	52.0	53.6	100.32	2,741.8	933.7	1,289.6	1,188.4	101.20	12.743		
10,800.0	7,267.0	10,151.4	7,498.0	53.7	55.3	100.30	2,841.8	933.7	1,292.2	1,187.7	104.55	12.360		
10,900.0	7,267.0	10,251.3	7,498.0	55.4	56.9	100.28	2,941.8	933.7	1,294.9	1,187.0	107.90	12.001		
11,000.0	7,267.0	10,351.3	7,498.0	57.1	58.6	100.26	3,041.7	933.7	1,297.5	1,186.3	111.26	11.662		
11,100.0	7,267.0	10,451.3	7,498.0	58.8	60.2	100.24	3,141.7	933.7	1,300.2	1,185.5	114.63	11.342		
11,200.0	7,267.0	10,551.2	7,498.0	60.5	61.9	100.22	3,241.6	933.7	1,302.8	1,184.8	118.00	11.041		
11,300.0	7,267.0	10,651.2	7,498.0	62.2	63.5	100.20	3,341.6	933.7	1,305.3	1,183.9	121.46	10.747		
11,400.0	7,267.0	10,751.2	7,498.0	63.9	65.2	100.18	3,441.6	933.7	1,306.4	1,181.4	125.02	10.449		
11,500.0	7,267.0	10,851.2	7,498.0	65.6	66.9	100.19	3,541.6	933.7	1,305.7	1,177.2	128.55	10.158		
11,600.0	7,267.0	10,951.2	7,498.0	67.3	68.5	100.21	3,641.6	933.7	1,303.4	1,171.3	132.03	9.872		
11,700.0	7,267.0	11,051.1	7,498.0	69.0	70.2	100.25	3,741.5	933.7	1,299.5	1,164.0	135.45	9.594		
11,800.0	7,267.0	11,151.0	7,498.0	70.7	71.9	100.28	3,841.4	933.7	1,295.3	1,156.5	138.83	9.330		
11,900.0	7,267.0	11,250.9	7,498.0	72.4	73.6	100.32	3,941.3	933.7	1,291.1	1,148.9	142.20	9.079		
12,000.0	7,267.0	11,350.8	7,498.0	74.2	75.3	100.35	4,041.2	933.7	1,286.9	1,141.3	145.58	8.840		
12,100.0	7,267.0	11,450.7	7,498.0	75.9	77.0	100.38	4,141.1	933.7	1,282.7	1,133.8	148.96	8.611		
12,200.0	7,267.0	11,550.6	7,498.0	77.6	78.7	100.42	4,241.0	933.7	1,278.5	1,126.2	152.34	8.392		
12,300.0	7,267.0	11,650.5	7,498.0	79.3	80.4	100.45	4,340.9	933.7	1,274.4	1,118.6	155.73	8.183		
12,400.0	7,267.0	11,750.4	7,498.0	81.0	82.1	100.49	4,440.9	933.7	1,270.2	1,111.1	159.11	7.983		
12,500.0	7,267.0	11,850.3	7,498.0	82.7	83.8	100.52	4,540.8	933.7	1,266.0	1,103.5	162.50	7.791		
12,600.0	7,267.0	11,950.3	7,498.0	84.5	85.5	100.56	4,640.7	933.7	1,261.8	1,095.9	165.89	7.607		
12,700.0	7,267.0	12,050.2	7,498.0	86.2	87.2	100.59	4,740.6	933.7	1,257.6	1,088.4	169.27	7.430		
12,800.0	7,267.0	12,150.1	7,498.0	87.9	88.9	100.63	4,840.5	933.7	1,253.4	1,080.8	172.66	7.260		
12,900.0	7,267.0	12,250.0	7,498.0	89.6	90.6	100.67	4,940.4	933.7	1,249.3	1,073.2	176.05	7.096		
13,000.0	7,267.0	12,349.9	7,498.0	91.4	92.3	100.70	5,040.3	933.7	1,245.1	1,065.6	179.44	6.939		
13,100.0	7,267.0	12,449.8	7,498.0	93.1	94.0	100.74	5,140.2	933.7	1,240.9	1,058.1	182.83	6.787		
13,200.0	7,267.0	12,549.7	7,498.0	94.8	95.7	100.77	5,240.1	933.7	1,236.7	1,050.5	186.22	6.641		
13,300.0	7,267.0	12,649.6	7,498.0	96.5	97.4	100.81	5,340.0	933.7	1,232.5	1,042.9	189.61	6.500		
13,400.0	7,267.0	12,749.5	7,498.0	98.3	99.1	100.85	5,440.0	933.7	1,228.4	1,035.4	193.00	6.365		
13,500.0	7,267.0	12,849.4	7,498.0	100.0	100.9	100.89	5,539.9	933.7	1,224.2	1,027.8	196.39	6.233		
13,600.0	7,267.0	12,960.0	7,498.0	101.7	102.8	100.93	5,650.4	933.5	1,219.8	1,019.9	199.96	6.101		
13,700.0	7,267.0	13,086.1	7,498.0	103.5	104.9	101.00	5,776.5	931.0	1,213.7	1,009.9	203.77	5.956		
13,800.0	7,267.0	13,191.4	7,498.0	105.2	106.7	101.07	5,881.7	927.3	1,206.1	998.9	207.22	5.820		
13,900.0	7,267.0	13,291.0	7,498.0	106.9	108.4	101.15	5,981.3	923.8	1,198.4	987.9	210.58	5.691		
14,000.0	7,267.0	13,390.7	7,498.0	108.7	110.1	101.22	6,080.9	920.2	1,190.8	976.8	213.94	5.566		
14,100.0	7,267.0	13,490.4	7,498.0	110.4	111.9	101.29	6,180.6	916.7	1,183.1	965.8	217.29	5.445		
14,200.0	7,267.0	13,590.1	7,498.0	112.1	113.6	101.37	6,280.2	913.1	1,175.5	954.8	220.65	5.327		
14,300.0	7,267.0	13,689.8	7,498.0	113.9	115.3	101.44	6,379.8	909.6	1,167.8	943.8	224.00	5.214		
14,400.0	7,267.0	13,789.5	7,498.0	115.6	117.0	101.52	6,479.5	906.1	1,160.2	932.8	227.35	5.103		
14,500.0	7,267.0	13,855.2	7,498.0	117.4	118.1	101.57	6,545.1	903.7	1,153.0	922.9	230.14	5.010		
14,514.5	7,267.0	13,855.2	7,498.0	117.6	118.1	101.57	6,545.1	903.7	1,152.4	922.1	230.38	5.002 SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DECHANT STATE V 16-12JI (EXISTING) - KMG - NO SURVEYS													Offset Site Error:	0.0 ft	
Survey Program: 8128-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
8,900.0	7,267.0	7,251.0	7,251.0	23.4	12.7	90.00	1,212.0	1,317.4	1,626.5	1,590.9	35.60	45.682			
9,000.0	7,267.0	7,251.0	7,251.0	24.8	12.7	90.00	1,212.0	1,317.4	1,615.6	1,578.6	37.03	43.625			
9,100.0	7,267.0	7,251.0	7,251.0	26.3	12.7	90.00	1,212.0	1,317.4	1,610.9	1,572.4	38.50	41.838			
9,126.3	7,267.0	7,251.0	7,251.0	26.6	12.7	90.00	1,212.0	1,317.4	1,610.7	1,571.8	38.90	41.407	CC, ES		
9,200.0	7,267.0	7,251.0	7,251.0	27.7	12.7	90.00	1,212.0	1,317.4	1,612.3	1,572.3	40.01	40.303			
9,300.0	7,267.0	7,251.0	7,251.0	29.2	12.7	90.00	1,212.0	1,317.4	1,620.0	1,578.5	41.54	39.001			
9,400.0	7,267.0	7,251.0	7,251.0	30.8	12.7	90.00	1,212.0	1,317.4	1,633.8	1,590.7	43.09	37.913	SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DECHANT STATE V 16-5JI (EXISTING) - KMG - NO SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 8200-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,164.1	7,267.0	7,256.0	7,256.0	43.1	12.7	90.00	2,250.2	1,317.4	1,638.5	1,583.0	55.50	29.524 CC	
10,200.0	7,267.0	7,256.0	7,256.0	43.7	12.7	90.00	2,250.2	1,317.4	1,638.9	1,582.8	56.10	29.217 ES, SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DECHANT-STATE 3 (EXISTING) - FOUNDATION - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 5100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	100.46	-259.7	1,407.0	1,430.8					
100.0	100.0	96.0	96.0	0.1	0.2	100.46	-259.7	1,407.0	1,430.8	1,430.5	0.29	4,934.967		
200.0	200.0	196.0	196.0	0.3	0.3	100.46	-259.7	1,407.0	1,430.8	1,430.1	0.64	2,239.106		
300.0	300.0	296.0	296.0	0.5	0.5	100.46	-259.7	1,407.0	1,430.8	1,429.8	0.99	1,448.063		
400.0	400.0	396.0	396.0	0.6	0.7	100.46	-259.7	1,407.0	1,430.8	1,429.4	1.34	1,070.035		
500.0	500.0	496.0	496.0	0.8	0.9	100.46	-259.7	1,407.0	1,430.8	1,429.1	1.69	848.522 CC		
600.0	600.0	596.0	596.0	1.0	1.0	-94.52	-259.7	1,407.0	1,430.9	1,428.9	2.04	702.434 ES		
700.0	699.8	695.8	695.8	1.2	1.2	-94.72	-259.7	1,407.0	1,431.3	1,428.9	2.40	596.858		
800.0	799.5	795.5	795.5	1.4	1.4	-95.05	-259.7	1,407.0	1,432.1	1,429.3	2.78	514.999		
900.0	898.7	894.7	894.7	1.6	1.6	-95.51	-259.7	1,407.0	1,433.2	1,430.0	3.20	448.397		
1,000.0	997.6	993.6	993.6	1.9	1.7	-96.09	-259.7	1,407.0	1,434.7	1,431.1	3.64	394.671		
1,100.0	1,096.5	1,092.5	1,092.5	2.2	1.9	-96.67	-259.7	1,407.0	1,436.4	1,432.3	4.09	351.531		
1,200.0	1,195.3	1,191.3	1,191.3	2.5	2.1	-97.26	-259.7	1,407.0	1,438.2	1,433.7	4.54	316.464		
1,300.0	1,294.2	1,290.2	1,290.2	2.8	2.3	-97.84	-259.7	1,407.0	1,440.2	1,435.2	5.01	287.568		
1,400.0	1,393.1	1,389.1	1,389.1	3.1	2.4	-98.43	-259.7	1,407.0	1,442.3	1,436.9	5.48	263.435		
1,500.0	1,492.0	1,488.0	1,488.0	3.4	2.6	-99.01	-259.7	1,407.0	1,444.6	1,438.7	5.94	243.030		
1,600.0	1,590.8	1,586.8	1,586.8	3.7	2.8	-99.59	-259.7	1,407.0	1,447.1	1,440.7	6.41	225.585		
1,700.0	1,689.7	1,685.7	1,685.7	4.0	2.9	-100.16	-259.7	1,407.0	1,449.7	1,442.8	6.89	210.520		
1,800.0	1,788.6	1,784.6	1,784.6	4.3	3.1	-100.74	-259.7	1,407.0	1,452.4	1,445.1	7.36	197.395		
1,900.0	1,887.5	1,883.5	1,883.5	4.6	3.3	-101.31	-259.7	1,407.0	1,455.3	1,447.5	7.83	185.868		
2,000.0	1,986.3	1,982.3	1,982.3	4.9	3.5	-101.88	-259.7	1,407.0	1,458.4	1,450.1	8.30	175.674		
2,100.0	2,085.2	2,081.2	2,081.2	5.2	3.6	-102.45	-259.7	1,407.0	1,461.6	1,452.8	8.77	166.600		
2,200.0	2,184.1	2,180.1	2,180.1	5.5	3.8	-103.02	-259.7	1,407.0	1,464.9	1,455.7	9.24	158.476		
2,300.0	2,282.9	2,278.9	2,278.9	5.8	4.0	-103.58	-259.7	1,407.0	1,468.4	1,458.7	9.71	151.165		
2,400.0	2,381.8	2,377.8	2,377.8	6.1	4.2	-104.14	-259.7	1,407.0	1,472.0	1,461.8	10.18	144.555		
2,500.0	2,480.7	2,476.7	2,476.7	6.4	4.3	-104.70	-259.7	1,407.0	1,475.8	1,465.1	10.65	138.553		
2,600.0	2,579.6	2,575.6	2,575.6	6.8	4.5	-105.25	-259.7	1,407.0	1,479.7	1,468.6	11.12	133.082		
2,700.0	2,678.4	2,674.4	2,674.4	7.1	4.7	-105.80	-259.7	1,407.0	1,483.7	1,472.1	11.58	128.076		
2,800.0	2,777.3	2,773.3	2,773.3	7.4	4.8	-106.35	-259.7	1,407.0	1,487.9	1,475.9	12.05	123.482		
2,900.0	2,876.2	2,872.2	2,872.2	7.7	5.0	-106.90	-259.7	1,407.0	1,492.2	1,479.7	12.51	119.251		
3,000.0	2,975.1	2,971.1	2,971.1	8.0	5.2	-107.44	-259.7	1,407.0	1,496.7	1,483.7	12.98	115.345		
3,100.0	3,073.9	3,069.9	3,069.9	8.3	5.4	-107.98	-259.7	1,407.0	1,501.3	1,487.9	13.44	111.730		
3,200.0	3,172.8	3,168.8	3,168.8	8.6	5.5	-108.52	-259.7	1,407.0	1,506.1	1,492.2	13.90	108.375		
3,300.0	3,271.7	3,267.7	3,267.7	8.9	5.7	-109.05	-259.7	1,407.0	1,510.9	1,496.6	14.35	105.254		
3,400.0	3,370.5	3,366.5	3,366.5	9.3	5.9	-109.58	-259.7	1,407.0	1,515.9	1,501.1	14.81	102.346		
3,500.0	3,469.4	3,465.4	3,465.4	9.6	6.0	-110.11	-259.7	1,407.0	1,521.1	1,505.8	15.27	99.631		
3,600.0	3,568.3	3,564.3	3,564.3	9.9	6.2	-110.63	-259.7	1,407.0	1,526.3	1,510.6	15.72	97.090		
3,700.0	3,667.2	3,663.2	3,663.2	10.2	6.4	-111.15	-259.7	1,407.0	1,531.7	1,515.5	16.17	94.710		
3,800.0	3,766.0	3,762.0	3,762.0	10.5	6.6	-111.66	-259.7	1,407.0	1,537.2	1,520.6	16.62	92.475		
3,900.0	3,864.9	3,860.9	3,860.9	10.8	6.7	-112.18	-259.7	1,407.0	1,542.9	1,525.8	17.07	90.374		
4,000.0	3,963.8	3,959.8	3,959.8	11.1	6.9	-112.68	-259.7	1,407.0	1,548.6	1,531.1	17.52	88.397		
4,100.0	4,062.7	4,058.7	4,058.7	11.4	7.1	-113.19	-259.7	1,407.0	1,554.5	1,536.6	17.96	86.532		
4,200.0	4,161.5	4,157.5	4,157.5	11.8	7.3	-113.69	-259.7	1,407.0	1,560.6	1,542.1	18.41	84.773		
4,300.0	4,260.4	4,256.4	4,256.4	12.1	7.4	-114.19	-259.7	1,407.0	1,566.7	1,547.8	18.85	83.110		
4,400.0	4,359.3	4,355.3	4,355.3	12.4	7.6	-114.68	-259.7	1,407.0	1,572.9	1,553.6	19.29	81.536		
4,500.0	4,458.1	4,454.1	4,454.1	12.7	7.8	-115.17	-259.7	1,407.0	1,579.3	1,559.6	19.73	80.046		
4,600.0	4,557.0	4,553.0	4,553.0	13.0	7.9	-115.65	-259.7	1,407.0	1,585.8	1,565.6	20.17	78.633		
4,700.0	4,655.9	4,651.9	4,651.9	13.3	8.1	-116.13	-259.7	1,407.0	1,592.4	1,571.8	20.60	77.292		
4,800.0	4,754.8	4,750.8	4,750.8	13.6	8.3	-116.61	-259.7	1,407.0	1,599.1	1,578.1	21.04	76.018		
4,900.0	4,853.6	4,849.6	4,849.6	14.0	8.5	-117.08	-259.7	1,407.0	1,605.9	1,584.5	21.47	74.807		
5,000.0	4,952.5	4,948.5	4,948.5	14.3	8.6	-117.55	-259.7	1,407.0	1,612.9	1,591.0	21.90	73.655		
5,100.0	5,051.4	5,047.4	5,047.4	14.6	8.8	-118.02	-259.7	1,407.0	1,619.9	1,597.6	22.33	72.557		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DECHANT-STATE 3 (EXISTING) - FOUNDATION - NO SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 5100-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	+E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)			
5,200.0	5,150.3	5,100.0	5,100.0	14.9	8.9	-118.27	-259.7	1,407.0	1,627.7	1,605.0	22.69	71.743 SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER 1 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
12,800.0	7,267.0	7,229.5	7,228.7	87.9	12.7	90.49	6,360.7	197.6	1,599.0	1,498.9	100.08	15.977		
12,900.0	7,267.0	7,230.2	7,229.4	89.6	12.7	90.58	6,360.7	197.6	1,502.9	1,401.1	101.81	14.762		
13,000.0	7,267.0	7,230.9	7,230.1	91.4	12.7	90.68	6,360.7	197.6	1,407.4	1,303.9	103.55	13.592		
13,100.0	7,267.0	7,231.6	7,230.8	93.1	12.7	90.78	6,360.7	197.6	1,312.6	1,207.3	105.28	12.467		
13,200.0	7,267.0	7,232.4	7,231.6	94.8	12.7	90.87	6,360.7	197.5	1,218.6	1,111.5	107.02	11.387		
13,300.0	7,267.0	7,233.1	7,232.3	96.5	12.7	90.97	6,360.7	197.5	1,125.6	1,016.8	108.75	10.350		
13,400.0	7,267.0	7,233.8	7,233.0	98.3	12.7	91.06	6,360.7	197.5	1,033.9	923.4	110.49	9.357		
13,500.0	7,267.0	7,234.5	7,233.7	100.0	12.7	91.16	6,360.7	197.5	943.9	831.7	112.23	8.411		
13,600.0	7,267.0	7,235.2	7,234.4	101.7	12.7	91.25	6,360.7	197.4	856.1	742.2	113.96	7.512		
13,700.0	7,267.0	7,236.0	7,235.1	103.5	12.7	91.35	6,360.7	197.4	771.4	655.7	115.70	6.667		
13,800.0	7,267.0	7,236.7	7,235.9	105.2	12.7	91.45	6,360.7	197.4	690.6	573.2	117.44	5.881		
13,900.0	7,267.0	7,237.4	7,236.6	106.9	12.7	91.54	6,360.7	197.4	615.6	496.5	119.17	5.166		
14,000.0	7,267.0	7,238.1	7,237.3	108.7	12.7	91.64	6,360.7	197.3	548.6	427.7	120.91	4.538		
14,100.0	7,267.0	7,238.8	7,238.0	110.4	12.7	91.73	6,360.7	197.3	493.0	370.3	122.65	4.020		
14,200.0	7,267.0	7,239.5	7,238.7	112.1	12.7	91.83	6,360.8	197.3	452.8	328.4	124.38	3.640		
14,300.0	7,267.0	7,240.3	7,239.4	113.9	12.7	91.92	6,360.8	197.3	432.5	306.4	126.12	3.429		
14,340.0	7,267.0	7,240.5	7,239.7	114.6	12.7	91.96	6,360.8	197.3	430.6	303.8	126.81	3.396	CC, ES, SF	
14,400.0	7,267.0	7,241.0	7,240.1	115.6	12.7	92.02	6,360.8	197.2	434.8	306.9	127.86	3.401		
14,500.0	7,267.0	7,241.7	7,240.9	117.4	12.7	92.11	6,360.8	197.2	459.4	329.8	129.59	3.545		
14,514.5	7,267.0	7,241.8	7,241.0	117.6	12.7	92.12	6,360.8	197.2	464.6	334.8	129.84	3.579		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER 33-8 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
13,100.0	7,267.0	7,193.9	7,192.2	93.1	12.7	-88.43	6,363.4	-1,316.7	1,600.2	1,495.0	105.20	15.211		
13,200.0	7,267.0	7,200.0	7,198.4	94.8	12.7	-88.75	6,363.5	-1,316.8	1,528.0	1,421.1	106.96	14.287		
13,300.0	7,267.0	7,200.0	7,198.4	96.5	12.7	-88.75	6,363.5	-1,316.8	1,459.2	1,350.5	108.69	13.425		
13,400.0	7,267.0	7,200.0	7,198.4	98.3	12.7	-88.75	6,363.5	-1,316.8	1,394.1	1,283.7	110.43	12.624		
13,500.0	7,267.0	7,200.5	7,198.9	100.0	12.7	-88.78	6,363.5	-1,316.8	1,333.4	1,221.2	112.17	11.887		
13,600.0	7,267.0	7,202.4	7,200.8	101.7	12.7	-88.88	6,363.5	-1,316.8	1,277.6	1,163.7	113.91	11.215		
13,700.0	7,267.0	7,204.3	7,202.7	103.5	12.7	-88.98	6,363.6	-1,316.8	1,227.4	1,111.8	115.66	10.612		
13,800.0	7,267.0	7,206.2	7,204.6	105.2	12.7	-89.08	6,363.6	-1,316.8	1,183.6	1,066.2	117.41	10.081		
13,900.0	7,267.0	7,208.2	7,206.5	106.9	12.7	-89.18	6,363.7	-1,316.8	1,146.8	1,027.7	119.15	9.625		
14,000.0	7,267.0	7,210.1	7,208.5	108.7	12.7	-89.28	6,363.7	-1,316.8	1,117.8	996.9	120.90	9.246		
14,100.0	7,267.0	7,212.1	7,210.4	110.4	12.7	-89.39	6,363.7	-1,316.9	1,097.2	974.5	122.65	8.946		
14,200.0	7,267.0	7,214.1	7,212.4	112.1	12.7	-89.49	6,363.8	-1,316.9	1,085.4	961.0	124.39	8.726		
14,278.6	7,267.0	7,215.6	7,214.0	113.5	12.7	-89.58	6,363.8	-1,316.9	1,082.6	956.8	125.77	8.608 CC		
14,300.0	7,267.0	7,216.1	7,214.4	113.9	12.7	-89.60	6,363.8	-1,316.9	1,082.8	956.6	126.14	8.584 ES		
14,400.0	7,267.0	7,218.1	7,216.4	115.6	12.7	-89.70	6,363.8	-1,316.9	1,089.3	961.5	127.89	8.518 SF		
14,500.0	7,267.0	7,220.1	7,218.4	117.4	12.7	-89.81	6,363.9	-1,316.9	1,105.0	975.3	129.64	8.524		
14,514.5	7,267.0	7,220.4	7,218.7	117.6	12.7	-89.83	6,363.9	-1,316.9	1,108.0	978.1	129.89	8.530		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER 34-8 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
11,500.0	7,267.0	7,183.1	7,180.7	65.6	12.8	-88.03	4,756.9	-1,447.1	1,636.7	1,559.0	77.76	21.048		
11,600.0	7,267.0	7,184.6	7,182.3	67.3	12.8	-88.14	4,756.9	-1,447.1	1,565.6	1,486.3	79.36	19.729		
11,700.0	7,267.0	7,186.1	7,183.7	69.0	12.8	-88.24	4,756.9	-1,447.2	1,499.0	1,418.0	81.00	18.506		
11,800.0	7,267.0	7,187.6	7,185.2	70.7	12.8	-88.31	4,756.9	-1,447.2	1,436.5	1,353.8	82.73	17.364		
11,900.0	7,267.0	7,189.0	7,186.7	72.4	12.8	-88.38	4,757.0	-1,447.2	1,378.4	1,293.9	84.45	16.321		
12,000.0	7,267.0	7,190.5	7,188.2	74.2	12.8	-88.46	4,757.0	-1,447.2	1,325.3	1,239.1	86.18	15.378		
12,100.0	7,267.0	7,192.0	7,189.6	75.9	12.8	-88.53	4,757.0	-1,447.3	1,277.8	1,189.9	87.91	14.536		
12,200.0	7,267.0	7,193.4	7,191.1	77.6	12.8	-88.60	4,757.0	-1,447.3	1,236.7	1,147.0	89.64	13.796		
12,300.0	7,267.0	7,194.9	7,192.6	79.3	12.8	-88.68	4,757.0	-1,447.3	1,202.4	1,111.0	91.37	13.159		
12,400.0	7,267.0	7,196.3	7,194.0	81.0	12.8	-88.75	4,757.1	-1,447.3	1,175.7	1,082.6	93.11	12.627		
12,500.0	7,267.0	7,200.0	7,197.7	82.7	12.8	-88.93	4,757.1	-1,447.4	1,157.0	1,062.2	94.85	12.199		
12,600.0	7,267.0	7,200.0	7,197.7	84.5	12.8	-88.93	4,757.1	-1,447.4	1,146.8	1,050.2	96.58	11.874		
12,667.8	7,267.0	7,200.2	7,197.9	85.6	12.8	-88.94	4,757.1	-1,447.4	1,144.8	1,047.0	97.75	11.711 CC		
12,700.0	7,267.0	7,200.7	7,198.4	86.2	12.8	-88.97	4,757.1	-1,447.4	1,145.2	1,046.9	98.31	11.649 ES		
12,800.0	7,267.0	7,202.3	7,200.0	87.9	12.8	-89.05	4,757.2	-1,447.4	1,152.4	1,052.3	100.05	11.518		
12,900.0	7,267.0	7,203.9	7,201.6	89.6	12.8	-89.13	4,757.2	-1,447.5	1,168.1	1,066.3	101.79	11.476 SF		
13,000.0	7,267.0	7,205.5	7,203.2	91.4	12.8	-89.21	4,757.2	-1,447.5	1,192.0	1,088.5	103.53	11.514		
13,100.0	7,267.0	7,207.1	7,204.8	93.1	12.8	-89.29	4,757.2	-1,447.5	1,223.6	1,118.4	105.27	11.624		
13,200.0	7,267.0	7,208.7	7,206.4	94.8	12.8	-89.37	4,757.3	-1,447.6	1,262.4	1,155.4	107.01	11.797		
13,300.0	7,267.0	7,210.4	7,208.0	96.5	12.8	-89.45	4,757.3	-1,447.6	1,307.7	1,198.9	108.75	12.025		
13,400.0	7,267.0	7,212.0	7,209.7	98.3	12.8	-89.53	4,757.3	-1,447.6	1,358.8	1,248.4	110.49	12.298		
13,500.0	7,267.0	7,213.7	7,211.4	100.0	12.8	-89.62	4,757.4	-1,447.6	1,415.2	1,303.0	112.23	12.610		
13,600.0	7,267.0	7,215.4	7,213.0	101.7	12.8	-89.70	4,757.4	-1,447.7	1,476.2	1,362.3	113.97	12.952		
13,700.0	7,267.0	7,217.1	7,214.7	103.5	12.8	-89.79	4,757.4	-1,447.7	1,541.3	1,425.6	115.72	13.320		
13,800.0	7,267.0	7,218.8	7,216.4	105.2	12.8	-89.87	4,757.4	-1,447.7	1,610.0	1,492.5	117.46	13.707		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER 44-8 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
11,300.0	7,267.0	7,263.0	7,259.8	62.2	12.9	92.43	4,777.5	297.8	1,575.9	1,501.3	74.66	21.109		
11,400.0	7,267.0	7,260.0	7,256.8	63.9	12.9	92.26	4,777.6	297.7	1,485.9	1,409.6	76.28	19.479		
11,500.0	7,267.0	7,257.0	7,253.7	65.6	12.9	92.07	4,777.7	297.6	1,396.3	1,318.4	77.89	17.927		
11,600.0	7,267.0	7,254.0	7,250.7	67.3	12.9	91.85	4,777.9	297.5	1,307.5	1,228.0	79.48	16.450		
11,700.0	7,267.0	7,250.9	7,247.6	69.0	12.9	91.59	4,778.0	297.4	1,219.5	1,138.4	81.13	15.033		
11,800.0	7,267.0	7,247.7	7,244.5	70.7	12.9	91.29	4,778.1	297.2	1,133.4	1,050.6	82.85	13.681		
11,900.0	7,267.0	7,244.5	7,241.3	72.4	12.9	90.99	4,778.2	297.1	1,049.8	965.2	84.57	12.413		
12,000.0	7,267.0	7,241.2	7,238.0	74.2	12.9	90.67	4,778.4	297.0	969.2	882.9	86.29	11.232		
12,100.0	7,267.0	7,237.8	7,234.6	75.9	12.9	90.35	4,778.5	296.9	892.6	804.6	88.01	10.142		
12,200.0	7,267.0	7,234.3	7,231.1	77.6	12.9	90.01	4,778.6	296.7	821.0	731.3	89.73	9.149		
12,300.0	7,267.0	7,230.8	7,227.6	79.3	12.9	89.67	4,778.8	296.6	755.9	664.4	91.45	8.265		
12,400.0	7,267.0	7,227.1	7,223.9	81.0	12.9	89.32	4,779.0	296.5	699.0	605.8	93.17	7.502		
12,500.0	7,267.0	7,223.3	7,220.1	82.7	12.9	88.95	4,779.1	296.4	652.5	557.7	94.88	6.877		
12,600.0	7,267.0	7,219.4	7,216.2	84.5	12.9	88.58	4,779.3	296.2	618.9	522.3	96.59	6.407		
12,700.0	7,267.0	7,215.4	7,212.2	86.2	12.8	88.20	4,779.5	296.1	600.1	501.8	98.30	6.105		
12,764.4	7,267.0	7,212.8	7,209.6	87.3	12.8	87.95	4,779.6	296.0	596.7	497.3	99.39	6.003 CC, ES		
12,800.0	7,267.0	7,211.3	7,208.1	87.9	12.8	87.80	4,779.6	295.9	597.7	497.7	100.00	5.977 SF		
12,900.0	7,267.0	7,207.1	7,203.9	89.6	12.8	87.40	4,779.8	295.8	611.9	510.2	101.69	6.017		
13,000.0	7,267.0	7,202.7	7,199.6	91.4	12.8	86.98	4,780.0	295.7	641.4	538.0	103.38	6.204		
13,100.0	7,267.0	7,198.3	7,195.1	93.1	12.8	86.55	4,780.2	295.5	684.4	579.3	105.07	6.514		
13,200.0	7,267.0	7,193.8	7,190.7	94.8	12.8	86.13	4,780.4	295.4	738.5	631.8	106.74	6.918		
13,300.0	7,267.0	7,189.5	7,186.3	96.5	12.8	85.71	4,780.6	295.2	801.4	693.0	108.42	7.392		
13,400.0	7,267.0	7,185.3	7,182.1	98.3	12.8	85.31	4,780.8	295.1	871.3	761.2	110.08	7.915		
13,500.0	7,267.0	7,181.1	7,178.0	100.0	12.8	84.91	4,781.0	294.9	946.6	834.9	111.75	8.471		
13,600.0	7,267.0	7,177.0	7,173.9	101.7	12.8	84.52	4,781.2	294.8	1,026.1	912.7	113.40	9.048		
13,700.0	7,267.0	7,173.1	7,169.9	103.5	12.8	84.14	4,781.4	294.7	1,108.9	993.8	115.06	9.638		
13,800.0	7,267.0	7,169.2	7,166.0	105.2	12.8	83.77	4,781.6	294.5	1,194.3	1,077.6	116.70	10.234		
13,900.0	7,267.0	7,165.3	7,162.2	106.9	12.8	83.40	4,781.7	294.4	1,281.8	1,163.5	118.35	10.831		
14,000.0	7,267.0	7,161.6	7,158.5	108.7	12.8	83.04	4,781.9	294.3	1,371.1	1,251.1	119.99	11.427		
14,100.0	7,267.0	7,157.9	7,154.8	110.4	12.8	82.69	4,782.0	294.1	1,461.7	1,340.0	121.62	12.018		
14,200.0	7,267.0	7,154.3	7,151.2	112.1	12.7	82.35	4,782.2	294.0	1,553.4	1,430.2	123.25	12.603		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER 4-4-8 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8080-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
13,100.0	7,267.0	7,202.0	7,202.0	93.1	12.6	-90.00	6,376.0	-1,264.9	1,576.9	1,471.6	105.24	14.984		
13,200.0	7,267.0	7,202.0	7,202.0	94.8	12.6	-90.00	6,376.0	-1,264.9	1,502.6	1,395.7	106.97	14.047		
13,300.0	7,267.0	7,202.0	7,202.0	96.5	12.6	-90.00	6,376.0	-1,264.9	1,431.5	1,322.8	108.71	13.168		
13,400.0	7,267.0	7,202.0	7,202.0	98.3	12.6	-90.00	6,376.0	-1,264.9	1,364.1	1,253.6	110.45	12.350		
13,500.0	7,267.0	7,202.0	7,202.0	100.0	12.6	-90.00	6,376.0	-1,264.9	1,300.8	1,188.6	112.19	11.595		
13,600.0	7,267.0	7,202.0	7,202.0	101.7	12.6	-90.00	6,376.0	-1,264.9	1,242.4	1,128.4	113.93	10.905		
13,700.0	7,267.0	7,202.0	7,202.0	103.5	12.6	-90.00	6,376.0	-1,264.9	1,189.5	1,073.8	115.67	10.284		
13,800.0	7,267.0	7,202.0	7,202.0	105.2	12.6	-90.00	6,376.0	-1,264.9	1,142.9	1,025.5	117.41	9.735		
13,900.0	7,267.0	7,202.0	7,202.0	106.9	12.6	-90.00	6,376.0	-1,264.9	1,103.5	984.3	119.15	9.262		
14,000.0	7,267.0	7,202.0	7,202.0	108.7	12.6	-90.00	6,376.0	-1,264.9	1,071.9	951.0	120.89	8.867		
14,100.0	7,267.0	7,202.0	7,202.0	110.4	12.6	-90.00	6,376.0	-1,264.9	1,049.0	926.4	122.63	8.554		
14,200.0	7,267.0	7,202.0	7,202.0	112.1	12.6	-90.00	6,376.0	-1,264.9	1,035.3	910.9	124.37	8.324		
14,293.0	7,267.0	7,202.0	7,202.0	113.8	12.6	-90.00	6,376.0	-1,264.9	1,031.1	905.1	125.99	8.184 CC		
14,300.0	7,267.0	7,202.0	7,202.0	113.9	12.6	-90.00	6,376.0	-1,264.9	1,031.1	905.0	126.11	8.176 ES		
14,400.0	7,267.0	7,202.0	7,202.0	115.6	12.6	-90.00	6,376.0	-1,264.9	1,036.6	908.8	127.86	8.108 SF		
14,500.0	7,267.0	7,202.0	7,202.0	117.4	12.6	-90.00	6,376.0	-1,264.9	1,051.7	922.1	129.60	8.115		
14,514.5	7,267.0	7,202.0	7,202.0	117.6	12.6	-90.00	6,376.0	-1,264.9	1,054.6	924.8	129.85	8.122		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER 8-4-8 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 78-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
13,700.0	7,267.0	7,296.9	7,207.1	103.5	18.4	88.54	6,914.6	806.7	1,587.1	1,468.2	118.88	13.350		
13,800.0	7,267.0	7,298.3	7,208.5	105.2	18.4	88.62	6,914.6	806.7	1,511.6	1,391.0	120.62	12.532		
13,900.0	7,267.0	7,299.8	7,210.0	106.9	18.4	88.70	6,914.7	806.7	1,439.1	1,316.7	122.37	11.761		
14,000.0	7,267.0	7,301.2	7,211.4	108.7	18.4	88.78	6,914.7	806.7	1,370.1	1,246.0	124.11	11.039		
14,100.0	7,267.0	7,302.7	7,212.9	110.4	18.4	88.87	6,914.7	806.7	1,305.1	1,179.3	125.86	10.370		
14,200.0	7,267.0	7,304.2	7,214.4	112.1	18.4	88.95	6,914.7	806.7	1,244.8	1,117.2	127.61	9.755		
14,300.0	7,267.0	7,305.7	7,215.9	113.9	18.4	89.03	6,914.8	806.7	1,189.8	1,060.4	129.35	9.198		
14,400.0	7,267.0	7,307.2	7,217.4	115.6	18.4	89.12	6,914.8	806.7	1,140.9	1,009.8	131.10	8.703		
14,500.0	7,267.0	7,308.8	7,219.0	117.4	18.4	89.21	6,914.8	806.7	1,099.0	966.2	132.85	8.273		
14,514.5	7,267.0	7,309.0	7,219.2	117.6	18.4	89.22	6,914.8	806.7	1,093.6	960.5	133.10	8.216	CC, ES, SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER 8-6-8 (EXISTING) - ENCANA WELL - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 52-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
12,400.0	7,267.0	7,400.1	7,291.1	81.0	21.3	93.09	5,623.5	813.5	1,635.9	1,536.9	98.99	16.526		
12,500.0	7,267.0	7,399.8	7,290.8	82.7	21.3	93.07	5,623.5	813.5	1,562.1	1,461.4	100.72	15.510		
12,600.0	7,267.0	7,399.4	7,290.5	84.5	21.3	93.05	5,623.5	813.5	1,491.4	1,389.0	102.45	14.558		
12,700.0	7,267.0	7,399.1	7,290.1	86.2	21.3	93.04	5,623.5	813.6	1,424.2	1,320.0	104.18	13.671		
12,800.0	7,267.0	7,398.8	7,289.8	87.9	21.3	93.02	5,623.5	813.6	1,361.1	1,255.2	105.91	12.851		
12,900.0	7,267.0	7,398.5	7,289.5	89.6	21.3	93.00	5,623.5	813.6	1,302.5	1,194.9	107.65	12.100		
13,000.0	7,267.0	7,398.1	7,289.1	91.4	21.3	92.98	5,623.5	813.6	1,249.3	1,139.9	109.38	11.421		
13,100.0	7,267.0	7,397.8	7,288.8	93.1	21.3	92.97	5,623.5	813.6	1,202.0	1,090.9	111.11	10.817		
13,200.0	7,267.0	7,397.5	7,288.5	94.8	21.3	92.95	5,623.5	813.6	1,161.4	1,048.5	112.85	10.291		
13,300.0	7,267.0	7,397.1	7,288.2	96.5	21.3	92.93	5,623.5	813.7	1,128.2	1,013.6	114.59	9.846		
13,400.0	7,267.0	7,396.8	7,287.8	98.3	21.3	92.91	5,623.5	813.7	1,103.2	986.8	116.32	9.484		
13,500.0	7,267.0	7,396.5	7,287.5	100.0	21.3	92.89	5,623.5	813.7	1,086.7	968.7	118.06	9.205		
13,600.0	7,267.0	7,396.1	7,287.1	101.7	21.3	92.88	5,623.5	813.7	1,079.4	959.6	119.80	9.010		
13,629.6	7,267.0	7,396.0	7,287.0	102.3	21.3	92.87	5,623.5	813.7	1,079.0	958.7	120.31	8.968 CC, ES		
13,700.0	7,267.0	7,395.8	7,286.8	103.5	21.3	92.86	5,623.5	813.7	1,081.3	959.7	121.54	8.897		
13,800.0	7,267.0	7,395.4	7,286.5	105.2	21.3	92.84	5,623.5	813.7	1,092.4	969.1	123.28	8.861 SF		
13,900.0	7,267.0	7,395.1	7,286.1	106.9	21.3	92.82	5,623.5	813.8	1,112.3	987.3	125.02	8.898		
14,000.0	7,267.0	7,394.8	7,285.8	108.7	21.3	92.80	5,623.5	813.8	1,140.8	1,014.0	126.76	9.000		
14,100.0	7,267.0	7,394.4	7,285.4	110.4	21.3	92.79	5,623.5	813.8	1,177.1	1,048.6	128.50	9.160		
14,200.0	7,267.0	7,394.1	7,285.1	112.1	21.3	92.77	5,623.5	813.8	1,220.5	1,090.2	130.24	9.371		
14,300.0	7,267.0	7,393.7	7,284.7	113.9	21.3	92.75	5,623.5	813.8	1,270.3	1,138.3	131.98	9.625		
14,400.0	7,267.0	7,393.4	7,284.4	115.6	21.3	92.73	5,623.5	813.8	1,325.8	1,192.0	133.72	9.914		
14,500.0	7,267.0	7,393.0	7,284.1	117.4	21.3	92.71	5,623.5	813.9	1,386.3	1,250.8	135.47	10.233		
14,514.5	7,267.0	7,393.0	7,284.0	117.6	21.3	92.71	5,623.5	813.9	1,395.4	1,259.7	135.72	10.282		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - DIER J 1-A (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
11,900.0	7,267.0	7,248.3	7,246.5	72.4	12.9	-93.27	5,494.6	-541.0	1,566.8	1,482.4	84.42	18.559	CC, ES, SF	
12,000.0	7,267.0	7,246.9	7,245.0	74.2	12.8	-92.96	5,494.6	-541.0	1,468.4	1,382.2	86.17	17.041		
12,100.0	7,267.0	7,245.4	7,243.6	75.9	12.8	-92.66	5,494.6	-541.0	1,370.2	1,282.3	87.91	15.587		
12,200.0	7,267.0	7,244.1	7,242.2	77.6	12.8	-92.37	5,494.7	-541.0	1,272.3	1,182.7	89.65	14.192		
12,300.0	7,267.0	7,242.8	7,240.9	79.3	12.8	-92.09	5,494.7	-541.0	1,174.8	1,083.4	91.39	12.855		
12,400.0	7,267.0	7,241.5	7,239.6	81.0	12.8	-91.83	5,494.7	-541.0	1,077.8	984.6	93.13	11.573		
12,500.0	7,267.0	7,240.3	7,238.4	82.7	12.8	-91.57	5,494.7	-541.0	981.3	886.4	94.87	10.343		
12,600.0	7,267.0	7,239.1	7,237.2	84.5	12.8	-91.32	5,494.7	-540.9	885.6	789.0	96.61	9.167		
12,700.0	7,267.0	7,237.9	7,236.1	86.2	12.8	-91.07	5,494.7	-540.9	790.9	692.6	98.35	8.042		
12,800.0	7,267.0	7,236.8	7,235.0	87.9	12.8	-90.84	5,494.7	-540.9	697.8	597.7	100.09	6.972		
12,900.0	7,267.0	7,235.8	7,233.9	89.6	12.8	-90.61	5,494.7	-540.9	606.9	505.0	101.82	5.960		
13,000.0	7,267.0	7,234.7	7,232.9	91.4	12.8	-90.39	5,494.7	-540.9	519.2	415.7	103.56	5.014		
13,100.0	7,267.0	7,233.7	7,231.9	93.1	12.8	-90.18	5,494.8	-540.9	437.0	331.7	105.30	4.150		
13,200.0	7,267.0	7,232.7	7,230.9	94.8	12.8	-89.97	5,494.8	-540.9	363.7	256.6	107.03	3.398		
13,300.0	7,267.0	7,231.8	7,229.9	96.5	12.8	-89.78	5,494.8	-540.9	305.9	197.2	108.77	2.813		
13,400.0	7,267.0	7,230.9	7,229.0	98.3	12.8	-89.58	5,494.8	-540.9	273.7	163.2	110.50	2.477		
13,443.4	7,267.0	7,230.5	7,228.6	99.0	12.8	-89.50	5,494.8	-540.9	270.3	159.0	111.26	2.429		
13,500.0	7,267.0	7,230.0	7,228.1	100.0	12.8	-89.39	5,494.8	-540.9	276.1	163.9	112.24	2.460		
13,600.0	7,267.0	7,229.1	7,227.3	101.7	12.8	-89.21	5,494.8	-540.9	312.4	198.4	113.97	2.741		
13,700.0	7,267.0	7,228.3	7,226.4	103.5	12.8	-89.03	5,494.8	-540.8	372.7	257.0	115.71	3.221		
13,800.0	7,267.0	7,227.5	7,225.6	105.2	12.8	-88.86	5,494.8	-540.8	447.5	330.0	117.44	3.810		
13,900.0	7,267.0	7,226.7	7,224.8	106.9	12.8	-88.69	5,494.8	-540.8	530.6	411.4	119.17	4.452		
14,000.0	7,267.0	7,225.9	7,224.1	108.7	12.8	-88.53	5,494.8	-540.8	618.7	497.8	120.90	5.118		
14,100.0	7,267.0	7,225.2	7,223.3	110.4	12.8	-88.37	5,494.8	-540.8	710.0	587.4	122.64	5.790		
14,200.0	7,267.0	7,224.5	7,222.6	112.1	12.8	-88.22	5,494.8	-540.8	803.4	679.1	124.37	6.460		
14,300.0	7,267.0	7,223.8	7,221.9	113.9	12.8	-88.07	5,494.8	-540.8	898.2	772.1	126.10	7.123		
14,400.0	7,267.0	7,223.1	7,221.2	115.6	12.8	-87.92	5,494.8	-540.8	994.0	866.2	127.83	7.776		
14,500.0	7,267.0	7,222.4	7,220.5	117.4	12.8	-87.78	5,494.8	-540.8	1,090.6	961.0	129.56	8.418		
14,514.5	7,267.0	7,222.3	7,220.4	117.6	12.8	-87.76	5,494.8	-540.8	1,104.6	974.8	129.81	8.510		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 1 (EXISTING) - SUNDANCE WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
9,700.0	7,267.0	7,241.7	7,240.7	35.5	12.7	96.05	3,350.6	-193.8	1,612.5	1,564.9	47.67	33.831		
9,800.0	7,267.0	7,241.0	7,240.0	37.1	12.7	95.79	3,350.6	-193.8	1,513.1	1,463.8	49.29	30.695		
9,900.0	7,267.0	7,240.2	7,239.3	38.7	12.7	95.53	3,350.6	-193.8	1,413.7	1,362.7	50.94	27.754		
10,000.0	7,267.0	7,239.5	7,238.5	40.4	12.7	95.26	3,350.6	-193.8	1,314.3	1,261.7	52.59	24.993		
10,100.0	7,267.0	7,238.7	7,237.8	42.0	12.7	94.99	3,350.6	-193.7	1,215.1	1,160.9	54.25	22.398		
10,200.0	7,267.0	7,238.0	7,237.0	43.7	12.7	94.71	3,350.6	-193.7	1,116.0	1,060.1	55.92	19.957		
10,300.0	7,267.0	7,237.2	7,236.2	45.3	12.7	94.42	3,350.6	-193.7	1,017.1	959.5	57.60	17.658		
10,400.0	7,267.0	7,236.4	7,235.4	47.0	12.7	94.13	3,350.6	-193.7	918.5	859.2	59.29	15.492		
10,500.0	7,267.0	7,235.6	7,234.6	48.7	12.7	93.84	3,350.7	-193.7	820.2	759.2	60.98	13.450		
10,600.0	7,267.0	7,234.7	7,233.7	50.4	12.7	93.53	3,350.7	-193.7	722.3	659.6	62.68	11.524		
10,700.0	7,267.0	7,233.9	7,232.9	52.0	12.7	93.23	3,350.7	-193.6	625.1	560.7	64.38	9.710		
10,800.0	7,267.0	7,233.0	7,232.0	53.7	12.7	92.91	3,350.7	-193.6	528.9	462.9	66.08	8.004		
10,900.0	7,267.0	7,232.1	7,231.1	55.4	12.7	92.59	3,350.7	-193.6	434.5	366.7	67.79	6.410		
11,000.0	7,267.0	7,231.2	7,230.2	57.1	12.7	92.26	3,350.7	-193.6	343.3	273.8	69.50	4.939		
11,100.0	7,267.0	7,230.3	7,229.3	58.8	12.7	91.93	3,350.7	-193.6	258.6	187.4	71.22	3.631		
11,200.0	7,267.0	7,229.4	7,228.4	60.5	12.7	91.59	3,350.7	-193.6	189.5	116.5	72.93	2.598		
11,300.0	7,267.0	7,228.4	7,227.4	62.2	12.7	91.24	3,350.7	-193.5	157.7	83.1	74.62	2.114		
11,306.2	7,267.0	7,228.3	7,227.3	62.3	12.7	91.22	3,350.7	-193.5	157.6	82.9	74.72	2.110 CC, ES, SF		
11,400.0	7,267.0	7,227.4	7,226.4	63.9	12.7	90.87	3,350.7	-193.5	182.8	106.5	76.24	2.397		
11,500.0	7,267.0	7,226.3	7,225.3	65.6	12.7	90.47	3,350.7	-193.5	247.7	169.9	77.85	3.182		
11,600.0	7,267.0	7,225.2	7,224.2	67.3	12.7	90.06	3,350.8	-193.5	329.8	250.4	79.44	4.152		
11,700.0	7,267.0	7,224.0	7,223.0	69.0	12.7	89.65	3,350.8	-193.4	419.1	338.0	81.07	5.170		
11,800.0	7,267.0	7,222.7	7,221.8	70.7	12.7	89.23	3,350.8	-193.4	512.3	429.5	82.78	6.188		
11,900.0	7,267.0	7,221.5	7,220.5	72.4	12.7	88.80	3,350.8	-193.4	607.6	523.1	84.49	7.192		
12,000.0	7,267.0	7,220.2	7,219.2	74.2	12.7	88.36	3,350.8	-193.4	704.3	618.1	86.20	8.170		
12,100.0	7,267.0	7,218.9	7,217.9	75.9	12.7	87.91	3,350.8	-193.3	801.7	713.8	87.90	9.121		
12,200.0	7,267.0	7,217.5	7,216.5	77.6	12.7	87.45	3,350.8	-193.3	899.7	810.1	89.59	10.043		
12,300.0	7,267.0	7,216.1	7,215.1	79.3	12.7	86.98	3,350.9	-193.3	998.1	906.9	91.28	10.935		
12,400.0	7,267.0	7,214.7	7,213.7	81.0	12.7	86.50	3,350.9	-193.2	1,096.8	1,003.9	92.96	11.799		
12,500.0	7,267.0	7,213.2	7,212.2	82.7	12.7	86.00	3,350.9	-193.2	1,195.7	1,101.1	94.64	12.635		
12,600.0	7,267.0	7,211.7	7,210.7	84.5	12.7	85.50	3,350.9	-193.2	1,294.8	1,198.5	96.30	13.445		
12,700.0	7,267.0	7,210.2	7,209.2	86.2	12.7	84.98	3,350.9	-193.1	1,394.0	1,296.1	97.96	14.231		
12,800.0	7,267.0	7,208.6	7,207.6	87.9	12.7	84.44	3,351.0	-193.1	1,493.3	1,393.7	99.60	14.993		
12,900.0	7,267.0	7,207.0	7,206.0	89.6	12.7	83.90	3,351.0	-193.1	1,592.7	1,491.5	101.23	15.733		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 1-17 (EXISTING) - ENCANA WELL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8420-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
10,700.0	7,267.0	7,225.0	7,225.0	52.0	12.6	-90.00	3,356.9	-1,808.5	1,596.8	1,532.3	64.44	24.779		
10,800.0	7,267.0	7,225.0	7,225.0	53.7	12.6	-90.00	3,356.9	-1,808.5	1,558.4	1,492.3	66.13	23.565		
10,900.0	7,267.0	7,225.0	7,225.0	55.4	12.6	-90.00	3,356.9	-1,808.5	1,525.7	1,457.9	67.83	22.493		
11,000.0	7,267.0	7,225.0	7,225.0	57.1	12.6	-90.00	3,356.9	-1,808.5	1,499.0	1,429.5	69.53	21.558		
11,100.0	7,267.0	7,225.0	7,225.0	58.8	12.6	-90.00	3,356.9	-1,808.5	1,478.5	1,407.3	71.24	20.755		
11,200.0	7,267.0	7,225.0	7,225.0	60.5	12.6	-90.00	3,356.9	-1,808.5	1,464.6	1,391.7	72.94	20.079		
11,300.0	7,267.0	7,225.0	7,225.0	62.2	12.6	-90.00	3,356.9	-1,808.5	1,457.6	1,383.0	74.62	19.534		
11,335.0	7,267.0	7,225.0	7,225.0	62.8	12.6	-90.00	3,356.9	-1,808.5	1,457.1	1,381.9	75.19	19.379 CC, ES		
11,400.0	7,267.0	7,225.0	7,225.0	63.9	12.6	-90.00	3,356.9	-1,808.5	1,458.9	1,382.7	76.24	19.136		
11,500.0	7,267.0	7,225.0	7,225.0	65.6	12.6	-90.00	3,356.9	-1,808.5	1,468.8	1,390.9	77.84	18.868		
11,600.0	7,267.0	7,225.0	7,225.0	67.3	12.6	-90.00	3,356.9	-1,808.5	1,487.0	1,407.6	79.43	18.720		
11,700.0	7,267.0	7,225.0	7,225.0	69.0	12.6	-90.00	3,356.9	-1,808.5	1,513.2	1,432.1	81.07	18.665 SF		
11,800.0	7,267.0	7,225.0	7,225.0	70.7	12.6	-90.00	3,356.9	-1,808.5	1,545.6	1,462.8	82.79	18.669		
11,900.0	7,267.0	7,225.0	7,225.0	72.4	12.6	-90.00	3,356.9	-1,808.5	1,583.8	1,499.2	84.51	18.739		
12,000.0	7,267.0	7,225.0	7,225.0	74.2	12.6	-90.00	3,356.9	-1,808.5	1,627.1	1,540.9	86.24	18.868		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 2-17 (EXISTING) - ENCANA WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
9,100.0	7,267.0	7,264.5	7,262.9	26.3	12.8	100.93	2,753.9	-206.4	1,613.9	1,575.9	38.07	42.394		
9,200.0	7,267.0	7,262.9	7,261.3	27.7	12.8	100.24	2,753.9	-206.4	1,514.3	1,474.7	39.60	38.236		
9,300.0	7,267.0	7,261.3	7,259.7	29.2	12.8	99.54	2,753.9	-206.4	1,414.7	1,373.5	41.17	34.364		
9,400.0	7,267.0	7,259.6	7,258.0	30.8	12.8	98.84	2,754.0	-206.4	1,315.1	1,272.4	42.76	30.757		
9,500.0	7,267.0	7,258.0	7,256.4	32.3	12.8	98.14	2,754.0	-206.5	1,215.7	1,171.3	44.37	27.397		
9,600.0	7,267.0	7,256.4	7,254.8	33.9	12.8	97.44	2,754.0	-206.5	1,116.3	1,070.3	46.00	24.265		
9,700.0	7,267.0	7,254.8	7,253.2	35.5	12.8	96.74	2,754.0	-206.5	1,017.0	969.4	47.65	21.344		
9,800.0	7,267.0	7,253.2	7,251.6	37.1	12.8	96.04	2,754.1	-206.5	918.0	868.6	49.31	18.616		
9,900.0	7,267.0	7,251.6	7,250.0	38.7	12.8	95.34	2,754.1	-206.5	819.1	768.1	50.98	16.067		
10,000.0	7,267.0	7,250.1	7,248.4	40.4	12.8	94.64	2,754.1	-206.5	720.5	667.8	52.66	13.683		
10,100.0	7,267.0	7,248.5	7,246.9	42.0	12.8	93.94	2,754.1	-206.5	622.4	568.0	54.34	11.453		
10,200.0	7,267.0	7,246.9	7,245.3	43.7	12.8	93.24	2,754.2	-206.5	525.0	468.9	56.03	9.369		
10,300.0	7,267.0	7,245.3	7,243.7	45.3	12.8	92.54	2,754.2	-206.5	428.7	371.0	57.72	7.428		
10,400.0	7,267.0	7,243.7	7,242.1	47.0	12.8	91.84	2,754.2	-206.6	334.7	275.3	59.41	5.634		
10,500.0	7,267.0	7,242.2	7,240.6	48.7	12.8	91.14	2,754.2	-206.6	245.4	184.3	61.10	4.017		
10,600.0	7,267.0	7,240.6	7,239.0	50.4	12.8	90.45	2,754.3	-206.6	168.6	105.8	62.79	2.686		
10,700.0	7,267.0	7,239.0	7,237.4	52.0	12.8	89.75	2,754.3	-206.6	129.0	64.5	64.47	2.001		
10,709.0	7,267.0	7,238.9	7,237.3	52.2	12.8	89.69	2,754.3	-206.6	128.7	64.1	64.63	1.991 CC, ES, SF		
10,800.0	7,267.0	7,237.5	7,235.9	53.7	12.7	89.06	2,754.3	-206.6	157.6	91.4	66.16	2.382		
10,900.0	7,267.0	7,235.9	7,234.3	55.4	12.7	88.37	2,754.3	-206.6	230.3	162.5	67.83	3.395		
11,000.0	7,267.0	7,234.4	7,232.8	57.1	12.7	87.68	2,754.4	-206.6	318.2	248.6	69.50	4.577		
11,100.0	7,267.0	7,232.8	7,231.2	58.8	12.7	86.99	2,754.4	-206.6	411.6	340.4	71.17	5.783		
11,200.0	7,267.0	7,231.3	7,229.7	60.5	12.7	86.31	2,754.4	-206.6	507.5	434.7	72.82	6.969		
11,300.0	7,267.0	7,229.8	7,228.2	62.2	12.7	85.76	2,754.4	-206.6	604.7	530.3	74.45	8.123		
11,400.0	7,267.0	7,228.2	7,226.6	63.9	12.7	85.49	2,754.4	-206.6	702.5	626.4	76.03	9.239		
11,500.0	7,267.0	7,226.7	7,225.1	65.6	12.7	85.30	2,754.5	-206.6	800.4	722.8	77.61	10.314		
11,600.0	7,267.0	7,225.2	7,223.6	67.3	12.7	85.20	2,754.5	-206.7	898.5	819.4	79.18	11.349		
11,700.0	7,267.0	7,223.7	7,222.1	69.0	12.7	84.97	2,754.5	-206.7	996.8	916.0	80.78	12.339		
11,800.0	7,267.0	7,222.2	7,220.6	70.7	12.7	84.50	2,754.5	-206.7	1,095.2	1,012.8	82.43	13.287		
11,900.0	7,267.0	7,220.7	7,219.1	72.4	12.7	84.03	2,754.6	-206.7	1,194.0	1,109.9	84.08	14.200		
12,000.0	7,267.0	7,219.3	7,217.7	74.2	12.7	83.56	2,754.6	-206.7	1,292.9	1,207.2	85.72	15.083		
12,100.0	7,267.0	7,217.8	7,216.2	75.9	12.7	83.09	2,754.6	-206.7	1,392.0	1,304.6	87.36	15.934		
12,200.0	7,267.0	7,216.3	7,214.7	77.6	12.7	82.63	2,754.6	-206.7	1,491.2	1,402.2	88.99	16.758		
12,300.0	7,267.0	7,214.8	7,213.2	79.3	12.7	82.17	2,754.7	-206.7	1,590.5	1,499.9	90.61	17.554		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 31-17C (EXISTING) - SUNDANCE WELL - GYRO													Offset Site Error:	0.0 ft
Survey Program: 100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)				Between Ellipses (ft)	
10,300.0	7,267.0	7,190.4	7,189.1	45.3	12.7	-88.24	3,722.4	-1,073.4	1,570.8	1,513.2	57.64	27.253		
10,400.0	7,267.0	7,190.5	7,189.2	47.0	12.7	-88.24	3,722.4	-1,073.4	1,482.4	1,423.0	59.31	24.992		
10,500.0	7,267.0	7,190.5	7,189.3	48.7	12.7	-88.25	3,722.4	-1,073.4	1,395.5	1,334.5	60.99	22.880		
10,600.0	7,267.0	7,190.6	7,189.4	50.4	12.7	-88.26	3,722.4	-1,073.4	1,310.5	1,247.8	62.68	20.908		
10,700.0	7,267.0	7,190.7	7,189.4	52.0	12.7	-88.26	3,722.4	-1,073.4	1,227.7	1,163.4	64.37	19.074		
10,800.0	7,267.0	7,190.8	7,189.5	53.7	12.7	-88.27	3,722.4	-1,073.4	1,147.7	1,081.7	66.06	17.374		
10,900.0	7,267.0	7,190.9	7,189.6	55.4	12.7	-88.28	3,722.4	-1,073.4	1,071.1	1,003.3	67.76	15.808		
11,000.0	7,267.0	7,191.0	7,189.7	57.1	12.7	-88.29	3,722.4	-1,073.4	998.6	929.2	69.46	14.377		
11,100.0	7,267.0	7,191.1	7,189.8	58.8	12.7	-88.29	3,722.4	-1,073.4	931.2	860.1	71.16	13.086		
11,200.0	7,267.0	7,191.1	7,189.9	60.5	12.7	-88.30	3,722.4	-1,073.4	870.2	797.3	72.87	11.941		
11,300.0	7,267.0	7,191.2	7,190.0	62.2	12.7	-88.31	3,722.4	-1,073.4	816.9	742.4	74.55	10.959		
11,400.0	7,267.0	7,191.3	7,190.0	63.9	12.7	-88.33	3,722.4	-1,073.4	774.4	698.2	76.16	10.167		
11,500.0	7,267.0	7,191.3	7,190.0	65.6	12.7	-88.34	3,722.4	-1,073.4	744.6	666.8	77.77	9.575		
11,600.0	7,267.0	7,191.2	7,189.9	67.3	12.7	-88.34	3,722.4	-1,073.4	729.2	649.8	79.35	9.189		
11,653.3	7,267.0	7,191.2	7,189.9	68.2	12.7	-88.34	3,722.4	-1,073.4	727.1	646.9	80.23	9.063 CC, ES		
11,700.0	7,267.0	7,191.1	7,189.8	69.0	12.7	-88.33	3,722.4	-1,073.4	728.9	647.9	80.99	9.000		
11,800.0	7,267.0	7,191.0	7,189.7	70.7	12.7	-88.32	3,722.4	-1,073.4	742.5	659.8	82.71	8.977 SF		
11,900.0	7,267.0	7,190.9	7,189.6	72.4	12.7	-88.32	3,722.4	-1,073.4	769.0	684.5	84.43	9.108		
12,000.0	7,267.0	7,190.8	7,189.5	74.2	12.7	-88.31	3,722.4	-1,073.4	807.0	720.9	86.15	9.367		
12,100.0	7,267.0	7,190.7	7,189.4	75.9	12.7	-88.30	3,722.4	-1,073.4	855.2	767.3	87.88	9.731		
12,200.0	7,267.0	7,190.6	7,189.3	77.6	12.7	-88.29	3,722.4	-1,073.4	911.8	822.2	89.60	10.176		
12,300.0	7,267.0	7,190.4	7,189.2	79.3	12.7	-88.28	3,722.4	-1,073.4	975.4	884.0	91.33	10.680		
12,400.0	7,267.0	7,190.3	7,189.1	81.0	12.7	-88.27	3,722.4	-1,073.4	1,044.7	951.6	93.06	11.226		
12,500.0	7,267.0	7,190.2	7,188.9	82.7	12.7	-88.26	3,722.4	-1,073.4	1,118.6	1,023.8	94.79	11.802		
12,600.0	7,267.0	7,190.1	7,188.8	84.5	12.7	-88.25	3,722.4	-1,073.4	1,196.4	1,099.9	96.52	12.396		
12,700.0	7,267.0	7,190.0	7,188.7	86.2	12.7	-88.24	3,722.4	-1,073.4	1,277.2	1,179.0	98.25	13.000		
12,800.0	7,267.0	7,189.8	7,188.6	87.9	12.7	-88.23	3,722.4	-1,073.3	1,360.6	1,260.7	99.98	13.609		
12,900.0	7,267.0	7,189.7	7,188.5	89.6	12.7	-88.22	3,722.4	-1,073.3	1,446.1	1,344.4	101.71	14.218		
13,000.0	7,267.0	7,189.6	7,188.3	91.4	12.7	-88.21	3,722.4	-1,073.3	1,533.4	1,430.0	103.44	14.824		
13,100.0	7,267.0	7,189.5	7,188.2	93.1	12.7	-88.20	3,722.4	-1,073.3	1,622.1	1,517.0	105.18	15.423		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 3-17J (EXISTING) - ENCANA - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8150-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-46.33	403.3	-422.5	584.8					
100.0	100.0	70.0	70.0	0.1	0.1	-46.33	403.3	-422.5	584.0	583.8	0.24	2,388.313		
200.0	200.0	170.0	170.0	0.3	0.3	-46.33	403.3	-422.5	584.0	583.5	0.59	983.897		
300.0	300.0	270.0	270.0	0.5	0.5	-46.33	403.3	-422.5	584.0	583.1	0.94	619.568		
400.0	400.0	370.0	370.0	0.6	0.6	-46.33	403.3	-422.5	584.0	582.8	1.29	452.143		
500.0	500.0	470.0	470.0	0.8	0.8	-46.33	403.3	-422.5	584.0	582.4	1.64	355.954		
600.0	600.0	570.0	570.0	1.0	1.0	118.89	403.3	-422.5	584.9	582.9	1.99	293.756		
700.0	699.8	669.8	669.8	1.2	1.2	119.29	403.3	-422.5	587.4	585.1	2.35	250.118		
800.0	799.5	769.5	769.5	1.4	1.3	119.95	403.3	-422.5	591.8	589.0	2.72	217.419		
900.0	898.7	868.7	868.7	1.6	1.5	120.85	403.3	-422.5	598.0	594.8	3.12	191.779		
1,000.0	997.6	967.6	967.6	1.9	1.7	122.01	403.3	-422.5	605.7	602.2	3.53	171.579		
1,100.0	1,096.5	1,066.5	1,066.5	2.2	1.9	123.18	403.3	-422.5	613.9	609.9	3.95	155.424		
1,200.0	1,195.3	1,165.3	1,165.3	2.5	2.0	124.33	403.3	-422.5	622.3	617.9	4.37	142.340		
1,300.0	1,294.2	1,264.2	1,264.2	2.8	2.2	125.44	403.3	-422.5	630.9	626.1	4.79	131.596		
1,400.0	1,393.1	1,363.1	1,363.1	3.1	2.4	126.53	403.3	-422.5	639.8	634.5	5.22	122.656		
1,500.0	1,492.0	1,462.0	1,462.0	3.4	2.6	127.58	403.3	-422.5	648.8	643.2	5.64	115.127		
1,600.0	1,590.8	1,560.8	1,560.8	3.7	2.7	128.61	403.3	-422.5	658.1	652.1	6.05	108.719		
1,700.0	1,689.7	1,659.7	1,659.7	4.0	2.9	129.60	403.3	-422.5	667.7	661.2	6.47	103.211		
1,800.0	1,788.6	1,758.6	1,758.6	4.3	3.1	130.57	403.3	-422.5	677.4	670.5	6.88	98.436		
1,900.0	1,887.5	1,857.5	1,857.5	4.6	3.2	131.52	403.3	-422.5	687.3	680.0	7.29	94.265		
2,000.0	1,986.3	1,956.3	1,956.3	4.9	3.4	132.43	403.3	-422.5	697.3	689.6	7.70	90.596		
2,100.0	2,085.2	2,055.2	2,055.2	5.2	3.6	133.32	403.3	-422.5	707.6	699.5	8.10	87.348		
2,200.0	2,184.1	2,154.1	2,154.1	5.5	3.8	134.19	403.3	-422.5	718.0	709.5	8.50	84.458		
2,300.0	2,282.9	2,252.9	2,252.9	5.8	3.9	135.03	403.3	-422.5	728.6	719.7	8.90	81.873		
2,400.0	2,381.8	2,351.8	2,351.8	6.1	4.1	135.84	403.3	-422.5	739.3	730.0	9.29	79.550		
2,500.0	2,480.7	2,450.7	2,450.7	6.4	4.3	136.63	403.3	-422.5	750.2	740.5	9.69	77.453		
2,600.0	2,579.6	2,549.6	2,549.6	6.8	4.4	137.40	403.3	-422.5	761.2	751.1	10.07	75.553		
2,700.0	2,678.4	2,648.4	2,648.4	7.1	4.6	138.15	403.3	-422.5	772.3	761.9	10.46	73.826		
2,800.0	2,777.3	2,747.3	2,747.3	7.4	4.8	138.88	403.3	-422.5	783.6	772.8	10.85	72.251		
2,900.0	2,876.2	2,846.2	2,846.2	7.7	5.0	139.58	403.3	-422.5	795.0	783.8	11.23	70.809		
3,000.0	2,975.1	2,945.1	2,945.1	8.0	5.1	140.27	403.3	-422.5	806.5	794.9	11.61	69.486		
3,100.0	3,073.9	3,043.9	3,043.9	8.3	5.3	140.94	403.3	-422.5	818.1	806.1	11.98	68.269		
3,200.0	3,172.8	3,142.8	3,142.8	8.6	5.5	141.59	403.3	-422.5	829.9	817.5	12.36	67.146		
3,300.0	3,271.7	3,241.7	3,241.7	8.9	5.7	142.22	403.3	-422.5	841.7	829.0	12.73	66.108		
3,400.0	3,370.5	3,340.5	3,340.5	9.3	5.8	142.83	403.3	-422.5	853.6	840.5	13.10	65.146		
3,500.0	3,469.4	3,439.4	3,439.4	9.6	6.0	143.43	403.3	-422.5	865.7	852.2	13.47	64.252		
3,600.0	3,568.3	3,538.3	3,538.3	9.9	6.2	144.01	403.3	-422.5	877.8	863.9	13.84	63.421		
3,700.0	3,667.2	3,637.2	3,637.2	10.2	6.3	144.57	403.3	-422.5	890.0	875.8	14.21	62.646		
3,800.0	3,766.0	3,736.0	3,736.0	10.5	6.5	145.12	403.3	-422.5	902.3	887.7	14.57	61.923		
3,900.0	3,864.9	3,834.9	3,834.9	10.8	6.7	145.66	403.3	-422.5	914.6	899.7	14.93	61.246		
4,000.0	3,963.8	3,933.8	3,933.8	11.1	6.9	146.18	403.3	-422.5	927.1	911.8	15.30	60.612		
4,100.0	4,062.7	4,032.7	4,032.7	11.4	7.0	146.68	403.3	-422.5	939.6	923.9	15.66	60.017		
4,200.0	4,161.5	4,131.5	4,131.5	11.8	7.2	147.18	403.3	-422.5	952.2	936.2	16.01	59.457		
4,300.0	4,260.4	4,230.4	4,230.4	12.1	7.4	147.66	403.3	-422.5	964.8	948.5	16.37	58.931		
4,400.0	4,359.3	4,329.3	4,329.3	12.4	7.6	148.12	403.3	-422.5	977.6	960.8	16.73	58.435		
4,500.0	4,458.1	4,428.1	4,428.1	12.7	7.7	148.58	403.3	-422.5	990.4	973.3	17.08	57.967		
4,600.0	4,557.0	4,527.0	4,527.0	13.0	7.9	149.02	403.3	-422.5	1,003.2	985.8	17.44	57.525		
4,700.0	4,655.9	4,625.9	4,625.9	13.3	8.1	149.46	403.3	-422.5	1,016.1	998.3	17.79	57.107		
4,800.0	4,754.8	4,724.8	4,724.8	13.6	8.2	149.88	403.3	-422.5	1,029.1	1,010.9	18.15	56.711		
4,900.0	4,853.6	4,823.6	4,823.6	14.0	8.4	150.29	403.3	-422.5	1,042.1	1,023.6	18.50	56.336		
5,000.0	4,952.5	4,922.5	4,922.5	14.3	8.6	150.69	403.3	-422.5	1,055.1	1,036.3	18.85	55.979		
5,100.0	5,051.4	5,021.4	5,021.4	14.6	8.8	151.09	403.3	-422.5	1,068.3	1,049.1	19.20	55.641		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 3-17J (EXISTING) - ENCANA - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 8150-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)				Between Ellipses (ft)	
5,200.0	5,150.3	5,120.3	5,120.3	14.9	8.9	151.47	403.3	-422.5	1,081.4	1,061.9	19.55	55.319		
5,300.0	5,249.1	5,219.1	5,219.1	15.2	9.1	151.84	403.3	-422.5	1,094.6	1,074.7	19.90	55.013		
5,400.0	5,348.0	5,318.0	5,318.0	15.5	9.3	152.21	403.3	-422.5	1,107.9	1,087.6	20.25	54.721		
5,500.0	5,446.9	5,416.9	5,416.9	15.8	9.5	152.56	403.3	-422.5	1,121.2	1,100.6	20.59	54.442		
5,600.0	5,545.7	5,515.7	5,515.7	16.2	9.6	152.91	403.3	-422.5	1,134.5	1,113.6	20.94	54.177		
5,700.0	5,644.6	5,614.6	5,614.6	16.5	9.8	153.25	403.3	-422.5	1,147.9	1,126.6	21.29	53.923		
5,800.0	5,743.5	5,713.5	5,713.5	16.8	10.0	153.58	403.3	-422.5	1,161.3	1,139.7	21.63	53.680		
5,900.0	5,842.4	5,812.4	5,812.4	17.1	10.1	153.91	403.3	-422.5	1,174.8	1,152.8	21.98	53.448		
6,000.0	5,941.2	5,911.2	5,911.2	17.4	10.3	154.22	403.3	-422.5	1,188.3	1,166.0	22.33	53.226		
6,100.0	6,040.1	6,010.1	6,010.1	17.7	10.5	154.53	403.3	-422.5	1,201.8	1,179.1	22.67	53.012		
6,200.0	6,139.0	6,109.0	6,109.0	18.0	10.7	154.84	403.3	-422.5	1,215.4	1,192.4	23.02	52.808		
6,300.0	6,237.9	6,207.9	6,207.9	18.4	10.8	155.13	403.3	-422.5	1,229.0	1,205.6	23.36	52.612		
6,400.0	6,336.7	6,306.7	6,306.7	18.7	11.0	155.42	403.3	-422.5	1,242.6	1,218.9	23.70	52.424		
6,500.0	6,435.6	6,405.6	6,405.6	19.0	11.2	155.70	403.3	-422.5	1,256.3	1,232.2	24.05	52.243		
6,600.0	6,534.5	6,504.5	6,504.5	19.3	11.4	155.98	403.3	-422.5	1,269.9	1,245.6	24.39	52.068		
6,700.0	6,633.4	6,603.4	6,603.4	19.6	11.5	151.30	403.3	-422.5	1,283.3	1,258.5	24.76	51.829		
6,800.0	6,733.2	6,703.2	6,703.2	19.7	11.7	21.53	403.3	-422.5	1,284.6	1,259.7	24.94	51.514		
6,900.0	6,831.8	6,801.8	6,801.8	19.5	11.9	0.63	403.3	-422.5	1,268.8	1,244.2	24.65	51.480		
7,000.0	6,926.2	6,896.2	6,896.2	19.2	12.0	-3.68	403.3	-422.5	1,236.3	1,212.4	23.91	51.696		
7,100.0	7,013.6	6,983.6	6,983.6	18.6	12.2	-6.32	403.3	-422.5	1,188.1	1,165.3	22.82	52.068		
7,200.0	7,091.3	7,061.3	7,061.3	18.0	12.3	-9.09	403.3	-422.5	1,125.7	1,104.2	21.50	52.347		
7,300.0	7,156.9	7,126.9	7,126.9	17.2	12.4	-13.03	403.3	-422.5	1,051.0	1,030.8	20.25	51.911		
7,400.0	7,208.5	7,178.5	7,178.5	16.5	12.5	-19.81	403.3	-422.5	966.4	946.8	19.61	49.282		
7,500.0	7,244.5	7,214.5	7,214.5	15.7	12.6	-33.57	403.3	-422.5	874.6	853.7	20.90	41.850		
7,600.0	7,263.7	7,233.7	7,233.7	15.1	12.6	-63.70	403.3	-422.5	778.5	753.0	25.43	30.614		
7,700.0	7,267.0	7,237.0	7,237.0	14.7	12.6	-90.00	403.3	-422.5	681.2	654.6	26.63	25.578		
7,800.0	7,267.0	7,237.0	7,237.0	14.5	12.6	-90.00	403.3	-422.5	584.3	557.9	26.38	22.149		
7,900.0	7,267.0	7,237.0	7,237.0	14.5	12.6	-90.00	403.3	-422.5	488.4	462.0	26.38	18.516		
8,000.0	7,267.0	7,237.0	7,237.0	14.7	12.6	-90.00	403.3	-422.5	394.4	367.8	26.59	14.831		
8,100.0	7,267.0	7,237.0	7,237.0	15.1	12.6	-90.00	403.3	-422.5	304.4	277.4	27.03	11.263		
8,200.0	7,267.0	7,237.0	7,237.0	15.7	12.6	-90.00	403.3	-422.5	223.0	195.3	27.65	8.064		
8,300.0	7,267.0	7,237.0	7,237.0	16.5	12.6	-90.00	403.3	-422.5	163.7	135.2	28.45	5.754		
8,364.6	7,267.0	7,237.0	7,237.0	17.1	12.6	-90.00	403.3	-422.5	150.4	121.3	29.06	5.176	CC, ES, SF	
8,400.0	7,267.0	7,237.0	7,237.0	17.4	12.6	-90.00	403.3	-422.5	154.5	125.1	29.39	5.256		
8,500.0	7,267.0	7,237.0	7,237.0	18.4	12.6	-90.00	403.3	-422.5	202.3	171.9	30.45	6.644		
8,600.0	7,267.0	7,237.0	7,237.0	19.5	12.6	-90.00	403.3	-422.5	279.3	247.7	31.62	8.832		
8,700.0	7,267.0	7,237.0	7,237.0	20.8	12.6	-90.00	403.3	-422.5	367.5	334.7	32.88	11.179		
8,800.0	7,267.0	7,237.0	7,237.0	22.1	12.6	-90.00	403.3	-422.5	460.6	426.4	34.20	13.468		
8,900.0	7,267.0	7,237.0	7,237.0	23.4	12.6	-90.00	403.3	-422.5	556.1	520.5	35.58	15.629		
9,000.0	7,267.0	7,237.0	7,237.0	24.8	12.6	-90.00	403.3	-422.5	652.9	615.9	37.01	17.642		
9,100.0	7,267.0	7,237.0	7,237.0	26.3	12.6	-90.00	403.3	-422.5	750.6	712.1	38.48	19.506		
9,200.0	7,267.0	7,237.0	7,237.0	27.7	12.6	-90.00	403.3	-422.5	848.8	808.8	39.98	21.229		
9,300.0	7,267.0	7,237.0	7,237.0	29.2	12.6	-90.00	403.3	-422.5	947.4	905.9	41.51	22.821		
9,400.0	7,267.0	7,237.0	7,237.0	30.8	12.6	-90.00	403.3	-422.5	1,046.2	1,003.1	43.07	24.292		
9,500.0	7,267.0	7,237.0	7,237.0	32.3	12.6	-90.00	403.3	-422.5	1,145.3	1,100.6	44.64	25.653		
9,600.0	7,267.0	7,237.0	7,237.0	33.9	12.6	-90.00	403.3	-422.5	1,244.5	1,198.2	46.24	26.914		
9,700.0	7,267.0	7,237.0	7,237.0	35.5	12.6	-90.00	403.3	-422.5	1,343.8	1,295.9	47.85	28.085		
9,800.0	7,267.0	7,237.0	7,237.0	37.1	12.6	-90.00	403.3	-422.5	1,443.2	1,393.7	49.47	29.174		
9,900.0	7,267.0	7,237.0	7,237.0	38.7	12.6	-90.00	403.3	-422.5	1,542.7	1,491.6	51.10	30.188		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 33-17J (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 608-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-97.39	-92.1	-710.2	716.6					
100.0	100.0	74.0	74.0	0.1	0.1	-97.39	-92.1	-710.2	716.2	715.9	0.25	2,847.486		
200.0	200.0	174.0	174.0	0.3	0.3	-97.39	-92.1	-710.2	716.2	715.6	0.60	1,192.521		
300.0	300.0	274.0	274.0	0.5	0.5	-97.39	-92.1	-710.2	716.2	715.2	0.95	754.186		
400.0	400.0	374.0	374.0	0.6	0.7	-97.39	-92.1	-710.2	716.2	714.9	1.30	551.479		
500.0	500.0	474.0	474.0	0.8	0.8	-97.39	-92.1	-710.2	716.2	714.5	1.65	434.654		
600.0	600.0	574.0	574.0	1.0	1.0	67.84	-92.1	-710.2	715.5	713.5	2.00	358.082		
700.0	699.8	671.4	671.4	1.2	1.2	68.25	-92.2	-710.3	713.6	711.3	2.35	303.304		
800.0	799.5	769.8	769.8	1.4	1.3	68.92	-92.5	-710.7	710.9	708.2	2.73	260.490		
900.0	898.7	868.8	868.8	1.6	1.5	69.86	-93.1	-711.2	707.1	704.0	3.14	225.405		
1,000.0	997.6	967.5	967.5	1.9	1.7	70.95	-93.8	-711.7	702.7	699.1	3.57	196.873		
1,100.0	1,096.5	1,065.9	1,065.9	2.2	1.9	72.03	-94.7	-712.3	698.5	694.5	4.02	173.976		
1,200.0	1,195.3	1,164.3	1,164.3	2.5	2.0	73.12	-95.5	-712.9	694.7	690.2	4.47	155.396		
1,300.0	1,294.2	1,262.6	1,262.6	2.8	2.2	74.22	-96.4	-713.6	691.2	686.3	4.93	140.112		
1,400.0	1,393.1	1,360.7	1,360.7	3.1	2.4	75.33	-97.2	-714.5	688.1	682.7	5.40	127.399		
1,500.0	1,492.0	1,458.5	1,458.5	3.4	2.6	76.46	-97.8	-715.5	685.4	679.6	5.87	116.711		
1,600.0	1,590.8	1,556.3	1,556.2	3.7	2.7	77.63	-98.1	-716.6	683.2	676.9	6.35	107.623		
1,700.0	1,689.7	1,654.1	1,654.1	4.0	2.9	78.83	-98.2	-717.9	681.5	674.7	6.83	99.822		
1,800.0	1,788.6	1,752.5	1,752.4	4.3	3.1	80.03	-98.2	-719.4	680.2	672.9	7.31	93.055		
1,900.0	1,887.5	1,850.9	1,850.9	4.6	3.2	81.22	-98.5	-720.9	679.3	671.5	7.79	87.154		
2,000.0	1,986.3	1,949.4	1,949.3	4.9	3.4	82.41	-98.8	-722.5	678.7	670.4	8.28	81.976		
2,081.8	2,067.2	2,029.5	2,029.4	5.1	3.6	83.35	-99.4	-724.0	678.6	669.9	8.68	78.205 CC		
2,100.0	2,085.2	2,047.4	2,047.3	5.2	3.6	83.55	-99.6	-724.3	678.6	669.8	8.77	77.414		
2,200.0	2,184.1	2,145.0	2,144.9	5.5	3.8	84.73	-100.0	-726.2	678.9	669.6	9.25	73.391 ES		
2,300.0	2,282.9	2,242.2	2,242.0	5.8	3.9	86.06	-98.3	-727.9	679.8	670.0	9.73	69.836		
2,400.0	2,381.8	2,340.3	2,340.1	6.1	4.1	87.42	-96.4	-729.8	681.2	671.0	10.22	66.653		
2,500.0	2,480.7	2,438.6	2,438.4	6.4	4.3	88.73	-95.0	-731.9	683.1	672.4	10.71	63.807		
2,600.0	2,579.6	2,537.2	2,537.0	6.8	4.5	89.98	-94.3	-734.1	685.4	674.2	11.19	61.247		
2,700.0	2,678.4	2,641.5	2,641.2	7.1	4.6	91.43	-92.0	-735.7	687.6	675.9	11.68	58.867		
2,800.0	2,777.3	2,742.1	2,741.7	7.4	4.8	93.00	-87.9	-735.9	689.6	677.5	12.16	56.704		
2,900.0	2,876.2	2,842.2	2,841.8	7.7	5.0	94.51	-84.4	-736.1	692.0	679.3	12.64	54.741		
3,000.0	2,975.1	2,942.6	2,942.1	8.0	5.2	95.97	-81.4	-736.2	694.5	681.3	13.12	52.950		
3,100.0	3,073.9	3,039.7	3,039.2	8.3	5.3	97.33	-79.0	-736.4	697.3	683.7	13.58	51.338		
3,200.0	3,172.8	3,135.5	3,135.0	8.6	5.5	98.64	-76.9	-737.0	700.9	686.8	14.04	49.907		
3,300.0	3,271.7	3,231.4	3,230.8	8.9	5.7	99.91	-74.9	-738.1	705.2	690.7	14.50	48.630		
3,400.0	3,370.5	3,327.5	3,326.9	9.3	5.8	101.13	-73.0	-739.6	710.3	695.4	14.96	47.491		
3,500.0	3,469.4	3,424.3	3,423.6	9.6	6.0	102.33	-71.2	-741.5	716.0	700.6	15.41	46.467		
3,600.0	3,568.3	3,521.1	3,520.4	9.9	6.2	103.50	-69.4	-743.8	722.4	706.5	15.86	45.548		
3,700.0	3,667.2	3,617.9	3,617.2	10.2	6.4	104.63	-67.7	-746.3	729.2	712.9	16.31	44.723		
3,800.0	3,766.0	3,719.1	3,718.4	10.5	6.5	105.79	-66.0	-749.0	736.4	719.6	16.75	43.951		
3,900.0	3,864.9	3,820.9	3,820.1	10.8	6.7	106.94	-64.3	-751.3	743.4	726.2	17.20	43.222		
4,000.0	3,963.8	3,922.7	3,921.8	11.1	6.9	108.09	-62.8	-753.1	750.3	732.7	17.64	42.534		
4,100.0	4,062.7	4,021.8	4,021.0	11.4	7.1	109.21	-61.1	-754.2	757.0	739.0	18.07	41.891		
4,200.0	4,161.5	4,085.0	4,083.9	11.8	7.2	110.12	-56.9	-754.7	766.6	748.1	18.44	41.563		
4,300.0	4,260.4	4,164.8	4,163.3	12.1	7.4	111.42	-48.1	-756.1	780.0	761.1	18.82	41.435		
4,400.0	4,359.3	4,234.2	4,232.0	12.4	7.5	112.58	-38.6	-758.3	796.7	777.5	19.19	41.524		
4,500.0	4,458.1	4,311.8	4,308.5	12.7	7.7	113.92	-25.7	-761.6	816.6	797.1	19.55	41.771		
4,600.0	4,557.0	4,388.9	4,384.2	13.0	7.9	115.20	-12.0	-765.9	839.0	819.1	19.91	42.143		
4,700.0	4,655.9	4,453.5	4,447.2	13.3	8.0	116.27	1.4	-770.8	865.1	844.9	20.25	42.715		
4,800.0	4,754.8	4,523.3	4,514.9	13.6	8.2	117.44	17.6	-776.6	894.2	873.6	20.60	43.417		
4,900.0	4,853.6	4,578.5	4,567.7	14.0	8.4	118.39	32.5	-781.8	927.2	906.2	20.92	44.317		
5,000.0	4,952.5	4,635.8	4,621.9	14.3	8.6	119.37	49.9	-788.2	964.3	943.0	21.24	45.389		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 33-17J (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 608-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
5,100.0	5,051.4	4,702.6	4,684.5	14.6	8.8	120.51	71.9	-796.2	1,004.3	982.8	21.57	46.564		
5,200.0	5,150.3	4,764.9	4,742.2	14.9	9.1	121.54	93.8	-804.2	1,047.0	1,025.1	21.89	47.835		
5,300.0	5,249.1	4,835.6	4,807.3	15.2	9.4	122.67	119.9	-813.7	1,091.9	1,069.7	22.21	49.163		
5,400.0	5,348.0	4,894.3	4,860.6	15.5	9.7	123.64	143.2	-821.0	1,138.9	1,116.4	22.52	50.580		
5,500.0	5,446.9	4,954.1	4,914.5	15.8	10.0	124.60	168.1	-828.9	1,188.4	1,165.5	22.82	52.069		
5,600.0	5,545.7	5,003.0	4,957.9	16.2	10.3	125.34	189.3	-835.9	1,240.2	1,217.1	23.12	53.639		
5,700.0	5,644.6	5,035.0	4,985.9	16.5	10.5	125.81	204.0	-840.9	1,295.2	1,271.8	23.41	55.322		
5,800.0	5,743.5	5,097.0	5,039.4	16.8	10.9	126.63	233.1	-852.4	1,352.6	1,328.9	23.72	57.032		
5,900.0	5,842.4	5,191.0	5,120.9	17.1	11.5	127.63	275.5	-872.6	1,410.1	1,386.1	24.05	58.639		
6,000.0	5,941.2	5,263.3	5,183.5	17.4	12.0	128.30	307.8	-888.8	1,468.0	1,443.6	24.37	60.241		
6,100.0	6,040.1	5,354.8	5,263.0	17.7	12.7	129.11	348.5	-908.4	1,525.5	1,500.8	24.70	61.756		
6,200.0	6,139.0	5,397.5	5,299.9	18.0	13.0	129.51	368.3	-917.0	1,584.0	1,559.0	25.00	63.370		
7,800.0	7,267.0	7,291.1	6,999.0	14.5	26.5	-76.26	1,090.7	-1,277.1	1,629.8	1,592.1	37.70	43.234		
7,900.0	7,267.0	7,307.0	7,014.7	14.5	26.5	-77.09	1,092.5	-1,278.6	1,552.8	1,514.9	37.86	41.017		
8,000.0	7,267.0	7,325.0	7,032.5	14.7	26.6	-78.10	1,094.5	-1,280.2	1,478.4	1,440.2	38.22	38.676		
8,100.0	7,267.0	7,345.7	7,053.1	15.1	26.6	-79.26	1,096.8	-1,281.9	1,407.0	1,368.2	38.81	36.254		
8,200.0	7,267.0	7,359.3	7,066.5	15.7	26.7	-80.02	1,098.3	-1,283.0	1,339.1	1,299.6	39.52	33.882		
8,300.0	7,267.0	7,372.2	7,079.3	16.5	26.7	-80.75	1,099.7	-1,284.0	1,275.4	1,235.0	40.40	31.572		
8,400.0	7,267.0	7,389.3	7,096.3	17.4	26.8	-81.72	1,101.6	-1,285.3	1,216.4	1,175.0	41.44	29.353		
8,500.0	7,267.0	7,409.3	7,116.1	18.4	26.8	-82.85	1,103.6	-1,286.7	1,162.9	1,120.3	42.62	27.286		
8,600.0	7,267.0	7,421.5	7,128.3	19.5	26.9	-83.54	1,104.7	-1,287.6	1,115.6	1,071.8	43.85	25.444		
8,700.0	7,267.0	7,432.3	7,139.0	20.8	26.9	-84.16	1,105.7	-1,288.3	1,075.5	1,030.3	45.15	23.821		
8,800.0	7,267.0	7,442.1	7,148.7	22.1	26.9	-84.72	1,106.5	-1,289.0	1,043.3	996.8	46.51	22.431		
8,900.0	7,267.0	7,452.2	7,158.7	23.4	26.9	-85.29	1,107.3	-1,289.7	1,019.9	972.0	47.94	21.276		
9,000.0	7,267.0	7,461.6	7,168.1	24.8	26.9	-85.83	1,108.0	-1,290.4	1,005.9	956.5	49.41	20.360		
9,093.1	7,267.0	7,469.8	7,176.3	26.2	27.0	-86.30	1,108.7	-1,290.9	1,001.6	950.8	50.81	19.715		
9,100.0	7,267.0	7,470.4	7,176.9	26.3	27.0	-86.33	1,108.7	-1,291.0	1,001.6	950.7	50.91	19.675		
9,200.0	7,267.0	7,479.3	7,185.7	27.7	27.0	-86.83	1,109.3	-1,291.5	1,007.3	954.8	52.44	19.206		
9,300.0	7,267.0	7,487.8	7,194.2	29.2	27.0	-87.32	1,110.0	-1,292.1	1,022.6	968.6	54.01	18.936		
9,400.0	7,267.0	7,495.9	7,202.3	30.8	27.0	-87.78	1,110.5	-1,292.6	1,047.3	991.7	55.59	18.840 SF		
9,500.0	7,267.0	7,503.7	7,210.0	32.3	27.0	-88.23	1,111.1	-1,293.1	1,080.6	1,023.4	57.19	18.896		
9,600.0	7,267.0	7,512.3	7,218.5	33.9	27.1	-88.71	1,111.6	-1,293.6	1,121.9	1,063.0	58.80	19.078		
9,700.0	7,267.0	7,520.4	7,226.6	35.5	27.1	-89.18	1,112.2	-1,294.0	1,170.2	1,109.7	60.43	19.364		
9,800.0	7,267.0	7,528.0	7,234.2	37.1	27.1	-89.61	1,112.6	-1,294.4	1,224.7	1,162.6	62.07	19.732		
9,900.0	7,267.0	7,535.0	7,241.2	38.7	27.1	-90.01	1,113.1	-1,294.8	1,284.7	1,221.0	63.71	20.164		
10,000.0	7,267.0	7,540.8	7,247.0	40.4	27.1	-90.34	1,113.4	-1,295.1	1,349.4	1,284.0	65.36	20.645		
10,100.0	7,267.0	7,546.3	7,252.4	42.0	27.1	-90.65	1,113.7	-1,295.4	1,418.2	1,351.1	67.02	21.160		
10,200.0	7,267.0	7,551.5	7,257.7	43.7	27.1	-90.95	1,114.0	-1,295.6	1,490.5	1,421.8	68.68	21.701		
10,300.0	7,267.0	7,556.6	7,262.7	45.3	27.1	-91.24	1,114.3	-1,295.9	1,565.8	1,495.4	70.35	22.257		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 34-17J (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 627-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-98.63	-111.1	-732.3	741.1					
100.0	100.0	74.0	74.0	0.1	0.1	-98.63	-111.1	-732.3	740.7	740.4	0.25	2,944.950		
200.0	200.0	174.0	174.0	0.3	0.3	-98.63	-111.1	-732.3	740.7	740.1	0.60	1,233.338		
300.0	300.0	274.0	274.0	0.5	0.5	-98.63	-111.1	-732.3	740.7	739.7	0.95	780.001		
400.0	400.0	374.0	374.0	0.6	0.7	-98.63	-111.1	-732.3	740.7	739.4	1.30	570.355		
500.0	500.0	474.0	474.0	0.8	0.8	-98.63	-111.1	-732.3	740.7	739.0	1.65	449.532		
600.0	600.0	574.0	574.0	1.0	1.0	66.60	-111.1	-732.3	740.0	738.0	2.00	370.340		
700.0	699.8	672.5	672.5	1.2	1.2	67.00	-111.2	-732.3	737.9	735.6	2.35	313.398		
800.0	799.5	769.1	769.1	1.4	1.3	67.62	-111.7	-732.6	735.0	732.2	2.73	269.511		
900.0	898.7	865.1	865.1	1.6	1.5	68.50	-112.3	-733.3	731.2	728.1	3.13	233.714		
1,000.0	997.6	960.8	960.8	1.9	1.7	69.52	-113.0	-734.5	727.1	723.6	3.55	204.592		
1,100.0	1,096.5	1,057.8	1,057.8	2.2	1.8	70.56	-113.6	-736.1	723.7	719.7	4.00	181.113		
1,200.0	1,195.3	1,159.6	1,159.5	2.5	2.0	71.66	-114.3	-737.6	720.3	715.9	4.46	161.668		
1,300.0	1,294.2	1,261.3	1,261.2	2.8	2.2	72.77	-115.0	-738.8	716.9	712.0	4.92	145.617		
1,400.0	1,393.1	1,362.3	1,362.2	3.1	2.4	73.88	-115.6	-739.5	713.3	707.9	5.40	132.217		
1,500.0	1,492.0	1,459.7	1,459.6	3.4	2.6	74.97	-116.2	-740.3	710.1	704.2	5.87	121.061		
1,600.0	1,590.8	1,557.0	1,556.9	3.7	2.7	76.08	-116.6	-741.3	707.3	701.0	6.34	111.572		
1,700.0	1,689.7	1,654.4	1,654.3	4.0	2.9	77.20	-116.9	-742.5	705.0	698.2	6.82	103.429		
1,800.0	1,788.6	1,753.9	1,753.8	4.3	3.1	78.36	-117.2	-743.8	703.1	695.8	7.30	96.319		
1,900.0	1,887.5	1,853.5	1,853.4	4.6	3.2	79.55	-117.2	-745.0	701.5	693.7	7.79	90.091		
2,000.0	1,986.3	1,953.0	1,952.9	4.9	3.4	80.75	-117.0	-746.1	700.0	691.7	8.27	84.605		
2,100.0	2,085.2	2,053.2	2,053.0	5.2	3.6	81.98	-116.7	-747.0	698.7	689.9	8.76	79.730		
2,200.0	2,184.1	2,154.0	2,153.8	5.5	3.8	83.21	-116.6	-747.8	697.5	688.3	9.26	75.363		
2,300.0	2,282.9	2,254.8	2,254.7	5.8	3.9	84.43	-116.8	-748.3	696.3	686.6	9.75	71.437		
2,400.0	2,381.8	2,355.1	2,355.0	6.1	4.1	85.62	-117.2	-748.5	695.2	685.0	10.24	67.900		
2,500.0	2,480.7	2,454.5	2,454.4	6.4	4.3	86.79	-117.9	-748.7	694.3	683.6	10.73	64.715		
2,600.0	2,579.6	2,554.0	2,553.9	6.8	4.5	87.94	-118.8	-748.9	693.6	682.4	11.22	61.832		
2,700.0	2,678.4	2,653.1	2,653.0	7.1	4.6	89.07	-119.9	-749.1	693.1	681.4	11.70	59.217		
2,775.6	2,753.2	2,727.2	2,727.1	7.3	4.8	89.93	-120.6	-749.3	693.0	680.9	12.07	57.413 CC		
2,800.0	2,777.3	2,751.1	2,751.0	7.4	4.8	90.21	-120.8	-749.3	693.0	680.8	12.19	56.860		
2,900.0	2,876.2	2,848.9	2,848.8	7.7	5.0	91.38	-121.3	-749.6	693.4	680.7	12.67	54.726 ES		
3,000.0	2,975.1	2,946.6	2,946.5	8.0	5.2	92.58	-121.3	-749.9	694.2	681.0	13.15	52.792		
3,100.0	3,073.9	3,042.5	3,042.3	8.3	5.3	93.76	-121.1	-750.4	695.6	682.0	13.62	51.061		
3,200.0	3,172.8	3,138.3	3,138.2	8.6	5.5	94.94	-120.8	-751.3	697.8	683.7	14.09	49.508		
3,300.0	3,271.7	3,234.2	3,234.0	8.9	5.7	96.11	-120.3	-752.6	700.7	686.1	14.56	48.115		
3,400.0	3,370.5	3,330.7	3,330.5	9.3	5.8	97.26	-119.8	-754.4	704.3	689.3	15.03	46.859		
3,500.0	3,469.4	3,427.4	3,427.2	9.6	6.0	98.39	-119.5	-756.5	708.5	693.0	15.50	45.723		
3,600.0	3,568.3	3,524.2	3,524.0	9.9	6.2	99.47	-119.4	-759.0	713.3	697.4	15.96	44.697		
3,700.0	3,667.2	3,622.5	3,622.2	10.2	6.3	100.55	-119.3	-761.8	718.6	702.2	16.42	43.764		
3,800.0	3,766.0	3,721.7	3,721.4	10.5	6.5	101.66	-118.7	-764.4	724.2	707.3	16.88	42.905		
3,900.0	3,864.9	3,820.7	3,820.4	10.8	6.7	102.80	-117.5	-766.6	729.9	712.6	17.33	42.117		
4,000.0	3,963.8	3,920.4	3,920.1	11.1	6.9	103.98	-115.8	-768.5	736.0	718.2	17.78	41.391		
4,100.0	4,062.7	4,021.4	4,021.0	11.4	7.1	105.13	-114.5	-770.4	742.1	723.8	18.23	40.706		
4,200.0	4,161.5	4,122.5	4,122.1	11.8	7.2	106.22	-113.9	-772.4	748.1	729.5	18.68	40.058		
4,300.0	4,260.4	4,223.3	4,222.9	12.1	7.4	107.25	-113.8	-774.3	754.1	735.0	19.12	39.444		
4,400.0	4,359.3	4,323.1	4,322.6	12.4	7.6	108.27	-113.8	-776.0	760.2	740.7	19.56	38.875		
4,500.0	4,458.1	4,422.7	4,422.3	12.7	7.8	109.28	-113.5	-777.4	766.5	746.5	19.99	38.345		
4,600.0	4,557.0	4,522.2	4,521.7	13.0	7.9	110.30	-113.1	-778.6	772.8	752.4	20.42	37.855		
4,700.0	4,655.9	4,621.0	4,620.5	13.3	8.1	111.31	-112.6	-779.7	779.4	758.6	20.84	37.405		
4,800.0	4,754.8	4,719.7	4,719.3	13.6	8.3	112.31	-112.0	-780.7	786.2	765.0	21.25	36.992		
4,900.0	4,853.6	4,818.4	4,818.0	14.0	8.5	113.29	-111.4	-781.8	793.3	771.6	21.67	36.614		
5,000.0	4,952.5	4,916.4	4,915.9	14.3	8.6	114.25	-110.6	-782.8	800.7	778.6	22.08	36.271		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 34-17J (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 627-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
5,100.0	5,051.4	5,014.2	5,013.7	14.6	8.8	115.20	-109.8	-783.9	808.4	785.9	22.48	35.963		
5,200.0	5,150.3	5,112.1	5,111.6	14.9	9.0	116.13	-108.9	-785.0	816.5	793.6	22.88	35.687		
5,300.0	5,249.1	5,208.4	5,207.9	15.2	9.1	117.03	-107.9	-786.3	824.9	801.6	23.27	35.444		
5,400.0	5,348.0	5,304.5	5,303.9	15.5	9.3	117.89	-106.8	-787.9	833.9	810.2	23.67	35.235		
5,500.0	5,446.9	5,395.0	5,394.5	15.8	9.5	118.64	-105.9	-790.2	843.6	819.5	24.05	35.070		
5,600.0	5,545.7	5,498.7	5,497.9	16.2	9.7	119.16	-107.9	-796.8	854.2	829.7	24.49	34.881		
5,700.0	5,644.6	5,582.8	5,581.6	16.5	9.8	119.38	-111.8	-804.0	864.4	839.5	24.91	34.696		
5,800.0	5,743.5	5,668.2	5,666.3	16.8	10.0	119.48	-115.4	-814.0	877.2	851.8	25.36	34.593		
5,900.0	5,842.4	5,773.6	5,770.2	17.1	10.2	119.30	-122.9	-829.8	890.2	864.3	25.88	34.401		
6,000.0	5,941.2	5,861.2	5,856.2	17.4	10.4	118.99	-131.0	-844.5	903.2	876.8	26.38	34.234		
6,100.0	6,040.1	5,956.7	5,949.2	17.7	10.7	118.47	-141.4	-863.4	917.2	890.2	26.95	34.037		
6,200.0	6,139.0	6,043.5	6,033.1	18.0	10.9	117.85	-152.3	-882.7	931.9	904.4	27.51	33.868		
6,300.0	6,237.9	6,118.4	6,104.7	18.4	11.2	117.17	-162.5	-902.3	948.9	920.8	28.08	33.795		
6,400.0	6,336.7	6,191.0	6,173.3	18.7	11.4	116.39	-172.8	-923.9	968.5	939.8	28.66	33.791		
6,500.0	6,435.6	6,277.8	6,254.1	19.0	11.7	115.34	-186.0	-952.4	990.1	960.8	29.34	33.751		
6,600.0	6,534.5	6,351.3	6,322.0	19.3	12.1	114.40	-197.4	-978.3	1,013.6	983.6	29.97	33.816		
6,700.0	6,633.4	6,437.6	6,401.1	19.6	12.5	108.72	-210.7	-1,010.1	1,038.8	1,008.1	30.67	33.874		
6,800.0	6,733.2	6,577.3	6,528.1	19.7	13.2	-22.56	-236.8	-1,062.0	1,055.8	1,024.4	31.41	33.612 SF		
6,900.0	6,831.8	6,645.8	6,590.4	19.5	13.5	-44.55	-251.0	-1,087.0	1,062.1	1,030.7	31.43	33.795		
7,000.0	6,926.2	6,740.3	6,677.2	19.2	14.0	-51.24	-267.7	-1,120.3	1,061.2	1,029.9	31.26	33.948		
7,100.0	7,013.6	6,798.7	6,730.9	18.6	14.4	-55.47	-277.5	-1,140.9	1,054.4	1,023.8	30.62	34.440		
7,200.0	7,091.3	6,858.7	6,786.6	18.0	14.7	-59.65	-286.1	-1,161.5	1,044.1	1,014.3	29.82	35.009		
7,300.0	7,156.9	6,982.1	6,902.9	17.2	15.3	-67.12	-300.3	-1,200.2	1,031.6	1,002.2	29.35	35.150		
7,400.0	7,208.5	7,022.5	6,941.6	16.5	15.5	-70.82	-304.8	-1,211.1	1,017.4	988.9	28.48	35.725		
7,500.0	7,244.5	7,055.5	6,973.2	15.7	15.6	-73.83	-308.1	-1,219.8	1,006.8	979.1	27.70	36.346		
7,600.0	7,263.7	7,077.0	6,993.9	15.1	15.7	-75.66	-310.1	-1,225.2	1,001.4	974.3	27.04	37.032		
7,634.7	7,266.8	7,076.4	6,993.3	15.0	15.7	-75.65	-310.1	-1,225.1	1,000.9	974.1	26.85	37.285		
7,700.0	7,267.0	7,060.8	6,978.3	14.7	15.6	-74.79	-308.6	-1,221.2	1,002.2	975.8	26.41	37.948		
7,800.0	7,267.0	7,042.4	6,960.6	14.5	15.6	-73.76	-306.8	-1,216.4	1,010.7	984.6	26.04	38.811		
7,900.0	7,267.0	7,028.2	6,947.0	14.5	15.5	-72.96	-305.4	-1,212.6	1,027.7	1,001.7	25.96	39.585		
8,000.0	7,267.0	7,017.1	6,936.4	14.7	15.4	-72.33	-304.2	-1,209.6	1,053.8	1,027.7	26.11	40.356		
8,100.0	7,267.0	7,005.5	6,925.3	15.1	15.4	-71.67	-302.9	-1,206.5	1,088.4	1,062.0	26.45	41.143		
8,200.0	7,267.0	6,994.2	6,914.5	15.7	15.3	-71.03	-301.6	-1,203.5	1,130.7	1,103.8	26.97	41.922		
8,300.0	7,267.0	6,982.9	6,903.6	16.5	15.3	-70.39	-300.4	-1,200.4	1,179.9	1,152.3	27.64	42.690		
8,400.0	7,267.0	6,905.3	6,830.1	17.4	14.9	-66.02	-291.5	-1,177.3	1,235.1	1,207.2	27.88	44.297		
8,500.0	7,267.0	6,886.7	6,812.7	18.4	14.8	-64.97	-289.4	-1,171.1	1,295.1	1,266.4	28.67	45.172		
8,600.0	7,267.0	6,866.9	6,794.3	19.5	14.7	-63.87	-287.1	-1,164.3	1,359.6	1,330.1	29.51	46.070		
8,700.0	7,267.0	6,841.8	6,770.9	20.8	14.6	-62.47	-283.9	-1,155.7	1,428.1	1,397.7	30.34	47.067		
8,800.0	7,267.0	6,778.8	6,712.6	22.1	14.3	-59.01	-274.4	-1,133.9	1,499.7	1,469.0	30.71	48.830		
8,900.0	7,267.0	6,751.4	6,687.4	23.4	14.1	-57.53	-269.6	-1,124.2	1,574.0	1,542.5	31.50	49.969		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 43-17 (EXISTING) - SUNDANCE - NO SURVEYS												Offset Site Error: 0.0 ft	
Survey Program: 5100-Geolink MWD												Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	4.43	1,047.3	81.1	1,050.7				
100.0	100.0	77.0	77.0	0.1	0.1	4.43	1,047.3	81.1	1,050.4	1,050.2	0.26	4,091.160	
200.0	200.0	177.0	177.0	0.3	0.3	4.43	1,047.3	81.1	1,050.4	1,049.8	0.61	1,733.921	
300.0	300.0	277.0	277.0	0.5	0.5	4.43	1,047.3	81.1	1,050.4	1,049.5	0.95	1,100.079	
400.0	400.0	377.0	377.0	0.6	0.7	4.43	1,047.3	81.1	1,050.4	1,049.1	1.30	805.592	
500.0	500.0	477.0	477.0	0.8	0.8	4.43	1,047.3	81.1	1,050.4	1,048.8	1.65	635.477 CC, ES	
600.0	600.0	577.0	577.0	1.0	1.0	169.53	1,047.3	81.1	1,052.2	1,050.2	2.00	525.729	
700.0	699.8	676.8	676.8	1.2	1.2	169.56	1,047.3	81.1	1,057.3	1,055.0	2.35	450.296	
800.0	799.5	776.5	776.5	1.4	1.4	169.61	1,047.3	81.1	1,065.9	1,063.2	2.69	395.825	
900.0	898.7	875.7	875.7	1.6	1.5	169.69	1,047.3	81.1	1,077.9	1,074.8	3.04	355.095	
1,000.0	997.6	974.6	974.6	1.9	1.7	169.81	1,047.3	81.1	1,092.5	1,089.1	3.38	322.961	
1,100.0	1,096.5	1,073.5	1,073.5	2.2	1.9	169.95	1,047.3	81.1	1,107.2	1,103.5	3.73	296.615	
1,200.0	1,195.3	1,172.3	1,172.3	2.5	2.0	170.08	1,047.3	81.1	1,122.0	1,117.9	4.08	274.781	
1,300.0	1,294.2	1,271.2	1,271.2	2.8	2.2	170.21	1,047.3	81.1	1,136.7	1,132.3	4.43	256.397	
1,400.0	1,393.1	1,370.1	1,370.1	3.1	2.4	170.34	1,047.3	81.1	1,151.5	1,146.7	4.78	240.708	
1,500.0	1,492.0	1,469.0	1,469.0	3.4	2.6	170.46	1,047.3	81.1	1,166.2	1,161.1	5.13	227.164	
1,600.0	1,590.8	1,567.8	1,567.8	3.7	2.7	170.58	1,047.3	81.1	1,181.0	1,175.5	5.48	215.354	
1,700.0	1,689.7	1,666.7	1,666.7	4.0	2.9	170.70	1,047.3	81.1	1,195.8	1,190.0	5.83	204.966	
1,800.0	1,788.6	1,765.6	1,765.6	4.3	3.1	170.81	1,047.3	81.1	1,210.6	1,204.4	6.18	195.759	
1,900.0	1,887.5	1,864.5	1,864.5	4.6	3.3	170.92	1,047.3	81.1	1,225.4	1,218.8	6.53	187.542	
2,000.0	1,986.3	1,963.3	1,963.3	4.9	3.4	171.03	1,047.3	81.1	1,240.2	1,233.3	6.88	180.164	
2,100.0	2,085.2	2,062.2	2,062.2	5.2	3.6	171.14	1,047.3	81.1	1,254.9	1,247.7	7.23	173.503	
2,200.0	2,184.1	2,161.1	2,161.1	5.5	3.8	171.24	1,047.3	81.1	1,269.7	1,262.2	7.58	167.460	
2,300.0	2,282.9	2,259.9	2,259.9	5.8	3.9	171.35	1,047.3	81.1	1,284.6	1,276.6	7.93	161.952	
2,400.0	2,381.8	2,358.8	2,358.8	6.1	4.1	171.45	1,047.3	81.1	1,299.4	1,291.1	8.28	156.911	
2,500.0	2,480.7	2,457.7	2,457.7	6.4	4.3	171.54	1,047.3	81.1	1,314.2	1,305.5	8.63	152.281	
2,600.0	2,579.6	2,556.6	2,556.6	6.8	4.5	171.64	1,047.3	81.1	1,329.0	1,320.0	8.98	148.013	
2,700.0	2,678.4	2,655.4	2,655.4	7.1	4.6	171.73	1,047.3	81.1	1,343.8	1,334.5	9.33	144.067	
2,800.0	2,777.3	2,754.3	2,754.3	7.4	4.8	171.82	1,047.3	81.1	1,358.6	1,349.0	9.68	140.407	
2,900.0	2,876.2	2,853.2	2,853.2	7.7	5.0	171.91	1,047.3	81.1	1,373.5	1,363.4	10.02	137.004	
3,000.0	2,975.1	2,952.1	2,952.1	8.0	5.2	172.00	1,047.3	81.1	1,388.3	1,377.9	10.37	133.830	
3,100.0	3,073.9	3,050.9	3,050.9	8.3	5.3	172.08	1,047.3	81.1	1,403.1	1,392.4	10.72	130.865	
3,200.0	3,172.8	3,149.8	3,149.8	8.6	5.5	172.17	1,047.3	81.1	1,418.0	1,406.9	11.07	128.088	
3,300.0	3,271.7	3,248.7	3,248.7	8.9	5.7	172.25	1,047.3	81.1	1,432.8	1,421.4	11.42	125.481	
3,400.0	3,370.5	3,347.5	3,347.5	9.3	5.8	172.33	1,047.3	81.1	1,447.6	1,435.9	11.77	123.030	
3,500.0	3,469.4	3,446.4	3,446.4	9.6	6.0	172.41	1,047.3	81.1	1,462.5	1,450.4	12.11	120.720	
3,600.0	3,568.3	3,545.3	3,545.3	9.9	6.2	172.48	1,047.3	81.1	1,477.3	1,464.9	12.46	118.541	
3,700.0	3,667.2	3,644.2	3,644.2	10.2	6.4	172.56	1,047.3	81.1	1,492.2	1,479.4	12.81	116.481	
3,800.0	3,766.0	3,743.0	3,743.0	10.5	6.5	172.63	1,047.3	81.1	1,507.0	1,493.9	13.16	114.530	
3,900.0	3,864.9	3,841.9	3,841.9	10.8	6.7	172.70	1,047.3	81.1	1,521.9	1,508.4	13.51	112.681	
4,000.0	3,963.8	3,940.8	3,940.8	11.1	6.9	172.77	1,047.3	81.1	1,536.7	1,522.9	13.85	110.926	
4,100.0	4,062.7	4,039.7	4,039.7	11.4	7.1	172.84	1,047.3	81.1	1,551.6	1,537.4	14.20	109.257	
4,200.0	4,161.5	4,138.5	4,138.5	11.8	7.2	172.91	1,047.3	81.1	1,566.4	1,551.9	14.55	107.668	
4,300.0	4,260.4	4,237.4	4,237.4	12.1	7.4	172.98	1,047.3	81.1	1,581.3	1,566.4	14.90	106.154	
4,400.0	4,359.3	4,336.3	4,336.3	12.4	7.6	173.04	1,047.3	81.1	1,596.2	1,580.9	15.24	104.710	
4,500.0	4,458.1	4,435.1	4,435.1	12.7	7.7	173.11	1,047.3	81.1	1,611.0	1,595.4	15.59	103.330	
4,600.0	4,557.0	4,534.0	4,534.0	13.0	7.9	173.17	1,047.3	81.1	1,625.9	1,610.0	15.94	102.012 SF	

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 43-17J (EXISTING) - SUNDANCE - NO SURVEYS														Offset Site Error:	0.0 ft
Survey Program: 8150-Geolink MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	7.47	1,047.7	137.3	1,056.9						
100.0	100.0	78.0	78.0	0.1	0.1	7.47	1,047.7	137.3	1,056.6	1,056.4	0.26	4,087.452			
200.0	200.0	178.0	178.0	0.3	0.3	7.47	1,047.7	137.3	1,056.6	1,056.0	0.61	1,739.115			
300.0	300.0	278.0	278.0	0.5	0.5	7.47	1,047.7	137.3	1,056.6	1,055.7	0.96	1,104.534			
400.0	400.0	378.0	378.0	0.6	0.7	7.47	1,047.7	137.3	1,056.6	1,055.3	1.31	809.250			
500.0	500.0	478.0	478.0	0.8	0.8	7.47	1,047.7	137.3	1,056.6	1,055.0	1.65	638.543			
600.0	600.0	578.0	578.0	1.0	1.0	172.56	1,047.7	137.3	1,058.4	1,056.4	2.00	528.375			
700.0	699.8	677.8	677.8	1.2	1.2	172.58	1,047.7	137.3	1,063.6	1,061.2	2.35	452.673			
800.0	799.5	777.5	777.5	1.4	1.4	172.62	1,047.7	137.3	1,072.2	1,069.5	2.69	398.048			
900.0	898.7	876.7	876.7	1.6	1.5	172.67	1,047.7	137.3	1,084.3	1,081.3	3.04	357.258			
1,000.0	997.6	975.6	975.6	1.9	1.7	172.76	1,047.7	137.3	1,099.0	1,095.6	3.38	325.081			
1,100.0	1,096.5	1,074.5	1,074.5	2.2	1.9	172.86	1,047.7	137.3	1,113.8	1,110.1	3.73	298.688			
1,200.0	1,195.3	1,173.3	1,173.3	2.5	2.0	172.95	1,047.7	137.3	1,128.7	1,124.6	4.08	276.805			
1,300.0	1,294.2	1,272.2	1,272.2	2.8	2.2	173.04	1,047.7	137.3	1,143.6	1,139.1	4.43	258.369			
1,400.0	1,393.1	1,371.1	1,371.1	3.1	2.4	173.13	1,047.7	137.3	1,158.4	1,153.7	4.77	242.626			
1,500.0	1,492.0	1,470.0	1,470.0	3.4	2.6	173.22	1,047.7	137.3	1,173.3	1,168.2	5.12	229.028			
1,600.0	1,590.8	1,568.8	1,568.8	3.7	2.7	173.31	1,047.7	137.3	1,188.2	1,182.7	5.47	217.165			
1,700.0	1,689.7	1,667.7	1,667.7	4.0	2.9	173.39	1,047.7	137.3	1,203.0	1,197.2	5.82	206.724			
1,800.0	1,788.6	1,766.6	1,766.6	4.3	3.1	173.47	1,047.7	137.3	1,217.9	1,211.8	6.17	197.465			
1,900.0	1,887.5	1,865.5	1,865.5	4.6	3.3	173.55	1,047.7	137.3	1,232.8	1,226.3	6.52	189.199			
2,000.0	1,986.3	1,964.3	1,964.3	4.9	3.4	173.63	1,047.7	137.3	1,247.7	1,240.8	6.86	181.772			
2,100.0	2,085.2	2,063.2	2,063.2	5.2	3.6	173.70	1,047.7	137.3	1,262.6	1,255.4	7.21	175.065			
2,200.0	2,184.1	2,162.1	2,162.1	5.5	3.8	173.78	1,047.7	137.3	1,277.5	1,269.9	7.56	168.977			
2,300.0	2,282.9	2,260.9	2,260.9	5.8	3.9	173.85	1,047.7	137.3	1,292.3	1,284.4	7.91	163.427			
2,400.0	2,381.8	2,359.8	2,359.8	6.1	4.1	173.92	1,047.7	137.3	1,307.2	1,299.0	8.26	158.345			
2,500.0	2,480.7	2,458.7	2,458.7	6.4	4.3	173.99	1,047.7	137.3	1,322.1	1,313.5	8.60	153.676			
2,600.0	2,579.6	2,557.6	2,557.6	6.8	4.5	174.05	1,047.7	137.3	1,337.0	1,328.1	8.95	149.371			
2,700.0	2,678.4	2,656.4	2,656.4	7.1	4.6	174.12	1,047.7	137.3	1,351.9	1,342.6	9.30	145.389			
2,800.0	2,777.3	2,755.3	2,755.3	7.4	4.8	174.18	1,047.7	137.3	1,366.8	1,357.2	9.65	141.695			
2,900.0	2,876.2	2,854.2	2,854.2	7.7	5.0	174.25	1,047.7	137.3	1,381.7	1,371.7	9.99	138.259			
3,000.0	2,975.1	2,953.1	2,953.1	8.0	5.2	174.31	1,047.7	137.3	1,396.6	1,386.3	10.34	135.055			
3,100.0	3,073.9	3,051.9	3,051.9	8.3	5.3	174.37	1,047.7	137.3	1,411.5	1,400.8	10.69	132.060			
3,200.0	3,172.8	3,150.8	3,150.8	8.6	5.5	174.43	1,047.7	137.3	1,426.4	1,415.4	11.04	129.254			
3,300.0	3,271.7	3,249.7	3,249.7	8.9	5.7	174.49	1,047.7	137.3	1,441.3	1,429.9	11.38	126.620			
3,400.0	3,370.5	3,348.5	3,348.5	9.3	5.8	174.54	1,047.7	137.3	1,456.2	1,444.5	11.73	124.142			
3,500.0	3,469.4	3,447.4	3,447.4	9.6	6.0	174.60	1,047.7	137.3	1,471.1	1,459.1	12.08	121.808			
3,600.0	3,568.3	3,546.3	3,546.3	9.9	6.2	174.65	1,047.7	137.3	1,486.0	1,473.6	12.42	119.604			
3,700.0	3,667.2	3,645.2	3,645.2	10.2	6.4	174.71	1,047.7	137.3	1,500.9	1,488.2	12.77	117.521			
3,800.0	3,766.0	3,744.0	3,744.0	10.5	6.5	174.76	1,047.7	137.3	1,515.9	1,502.7	13.12	115.548			
3,900.0	3,864.9	3,842.9	3,842.9	10.8	6.7	174.81	1,047.7	137.3	1,530.8	1,517.3	13.47	113.678			
4,000.0	3,963.8	3,941.8	3,941.8	11.1	6.9	174.86	1,047.7	137.3	1,545.7	1,531.9	13.81	111.902			
4,100.0	4,062.7	4,040.7	4,040.7	11.4	7.1	174.91	1,047.7	137.3	1,560.6	1,546.4	14.16	110.213			
4,200.0	4,161.5	4,139.5	4,139.5	11.8	7.2	174.96	1,047.7	137.3	1,575.5	1,561.0	14.51	108.605			
4,300.0	4,260.4	4,238.4	4,238.4	12.1	7.4	175.00	1,047.7	137.3	1,590.4	1,575.6	14.85	107.073			
4,400.0	4,359.3	4,337.3	4,337.3	12.4	7.6	175.05	1,047.7	137.3	1,605.3	1,590.1	15.20	105.611			
4,500.0	4,458.1	4,436.1	4,436.1	12.7	7.7	175.10	1,047.7	137.3	1,620.3	1,604.7	15.55	104.215			
4,600.0	4,557.0	4,535.0	4,535.0	13.0	7.9	175.14	1,047.7	137.3	1,635.2	1,619.3	15.89	102.879			
7,500.0	7,244.5	7,222.5	7,222.5	15.7	12.6	44.50	1,047.7	137.3	1,552.9	1,530.9	21.98	70.641			
7,600.0	7,263.7	7,241.7	7,241.7	15.1	12.6	69.42	1,047.7	137.3	1,458.5	1,432.7	25.78	56.565			
7,700.0	7,267.0	7,245.0	7,245.0	14.7	12.6	90.00	1,047.7	137.3	1,362.6	1,336.0	26.65	51.139			
7,800.0	7,267.0	7,245.0	7,245.0	14.5	12.6	90.00	1,047.7	137.3	1,267.7	1,241.3	26.40	48.026			
7,900.0	7,267.0	7,245.0	7,245.0	14.5	12.6	90.00	1,047.7	137.3	1,174.0	1,147.6	26.39	44.486			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 43-17J (EXISTING) - SUNDANCE - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 8150-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
8,000.0	7,267.0	7,245.0	7,245.0	14.7	12.6	90.00	1,047.7	137.3	1,081.4	1,054.8	26.61	40.642		
8,100.0	7,267.0	7,245.0	7,245.0	15.1	12.6	90.00	1,047.7	137.3	990.3	963.3	27.04	36.624		
8,200.0	7,267.0	7,245.0	7,245.0	15.7	12.6	90.00	1,047.7	137.3	901.1	873.4	27.66	32.572		
8,300.0	7,267.0	7,245.0	7,245.0	16.5	12.6	90.00	1,047.7	137.3	814.4	785.9	28.46	28.615		
8,400.0	7,267.0	7,245.0	7,245.0	17.4	12.6	90.00	1,047.7	137.3	731.1	701.7	29.40	24.864		
8,500.0	7,267.0	7,245.0	7,245.0	18.4	12.6	90.00	1,047.7	137.3	652.5	622.0	30.47	21.415		
8,600.0	7,267.0	7,245.0	7,245.0	19.5	12.6	90.00	1,047.7	137.3	580.5	548.8	31.64	18.349		
8,700.0	7,267.0	7,245.0	7,245.0	20.8	12.6	90.00	1,047.7	137.3	517.9	485.0	32.89	15.746		
8,800.0	7,267.0	7,245.0	7,245.0	22.1	12.6	90.00	1,047.7	137.3	468.5	434.2	34.21	13.693		
8,900.0	7,267.0	7,245.0	7,245.0	23.4	12.6	90.00	1,047.7	137.3	436.7	401.1	35.59	12.269		
8,993.8	7,267.0	7,245.0	7,245.0	24.7	12.6	90.00	1,047.7	137.3	426.5	389.6	36.93	11.548 CC		
9,000.0	7,267.0	7,245.0	7,245.0	24.8	12.6	90.00	1,047.7	137.3	426.6	389.5	37.02	11.521 ES		
9,100.0	7,267.0	7,245.0	7,245.0	26.3	12.6	90.00	1,047.7	137.3	439.5	401.0	38.49	11.419 SF		
9,200.0	7,267.0	7,245.0	7,245.0	27.7	12.6	90.00	1,047.7	137.3	473.8	433.8	40.00	11.845		
9,300.0	7,267.0	7,245.0	7,245.0	29.2	12.6	90.00	1,047.7	137.3	525.1	483.5	41.53	12.644		
9,400.0	7,267.0	7,245.0	7,245.0	30.8	12.6	90.00	1,047.7	137.3	589.0	545.9	43.08	13.672		
9,500.0	7,267.0	7,245.0	7,245.0	32.3	12.6	90.00	1,047.7	137.3	662.0	617.3	44.66	14.823		
9,600.0	7,267.0	7,245.0	7,245.0	33.9	12.6	90.00	1,047.7	137.3	741.2	695.0	46.25	16.026		
9,700.0	7,267.0	7,245.0	7,245.0	35.5	12.6	90.00	1,047.7	137.3	825.0	777.2	47.86	17.238		
9,800.0	7,267.0	7,245.0	7,245.0	37.1	12.6	90.00	1,047.7	137.3	912.1	862.6	49.48	18.432		
9,900.0	7,267.0	7,245.0	7,245.0	38.7	12.6	90.00	1,047.7	137.3	1,001.6	950.5	51.12	19.594		
10,000.0	7,267.0	7,245.0	7,245.0	40.4	12.6	90.00	1,047.7	137.3	1,092.9	1,040.1	52.76	20.714		
10,100.0	7,267.0	7,245.0	7,245.0	42.0	12.6	90.00	1,047.7	137.3	1,185.6	1,131.2	54.41	21.788		
10,200.0	7,267.0	7,245.0	7,245.0	43.7	12.6	90.00	1,047.7	137.3	1,279.4	1,223.3	56.08	22.816		
10,300.0	7,267.0	7,245.0	7,245.0	45.3	12.6	90.00	1,047.7	137.3	1,374.1	1,316.4	57.74	23.796		
10,400.0	7,267.0	7,245.0	7,245.0	47.0	12.6	90.00	1,047.7	137.3	1,469.5	1,410.1	59.42	24.731		
10,500.0	7,267.0	7,245.0	7,245.0	48.7	12.6	90.00	1,047.7	137.3	1,565.5	1,504.4	61.10	25.622		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 44-17J (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 642-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-99.29	-111.5	-681.1	690.7					
100.0	100.0	74.0	74.0	0.1	0.1	-99.29	-111.5	-681.1	690.2	689.9	0.25	2,744.201		
200.0	200.0	174.0	174.0	0.3	0.3	-99.29	-111.5	-681.1	690.2	689.6	0.60	1,149.266		
300.0	300.0	274.0	274.0	0.5	0.5	-99.29	-111.5	-681.1	690.2	689.2	0.95	726.830		
400.0	400.0	374.0	374.0	0.6	0.7	-99.29	-111.5	-681.1	690.2	688.9	1.30	531.476		
500.0	500.0	474.0	474.0	0.8	0.8	-99.29	-111.5	-681.1	690.2	688.5	1.65	418.889		
600.0	600.0	574.0	574.0	1.0	1.0	65.94	-111.5	-681.1	689.5	687.5	2.00	345.066		
700.0	699.8	675.2	675.2	1.2	1.2	66.42	-111.1	-681.1	687.3	684.9	2.36	291.309		
800.0	799.5	774.2	774.2	1.4	1.4	67.30	-109.3	-681.2	683.7	681.0	2.74	249.811		
900.0	898.7	872.7	872.7	1.6	1.5	68.48	-107.4	-681.4	679.0	675.9	3.14	215.960		
1,000.0	997.6	970.8	970.8	1.9	1.7	69.83	-105.4	-681.7	673.8	670.2	3.58	188.426		
1,100.0	1,096.5	1,066.6	1,066.5	2.2	1.9	71.16	-103.4	-682.2	669.1	665.1	4.02	166.465		
1,200.0	1,195.3	1,162.3	1,162.2	2.5	2.0	72.51	-101.3	-683.2	665.2	660.8	4.47	148.712		
1,300.0	1,294.2	1,258.0	1,257.8	2.8	2.2	73.89	-99.0	-684.5	662.2	657.3	4.93	134.188		
1,400.0	1,393.1	1,361.9	1,361.7	3.1	2.4	75.37	-96.9	-685.9	659.6	654.1	5.41	121.851		
1,500.0	1,492.0	1,469.4	1,469.3	3.4	2.6	76.80	-96.1	-686.1	656.1	650.2	5.90	111.198		
1,600.0	1,590.8	1,577.3	1,577.1	3.7	2.8	78.13	-96.8	-684.8	651.6	645.2	6.39	101.953		
1,700.0	1,689.7	1,666.0	1,665.8	4.0	2.9	79.26	-97.2	-683.6	647.2	640.4	6.85	94.418		
1,800.0	1,788.6	1,772.1	1,771.9	4.3	3.1	80.90	-94.3	-682.9	644.3	636.9	7.36	87.574		
1,900.0	1,887.5	1,885.6	1,885.2	4.6	3.3	82.74	-90.8	-679.5	639.4	631.5	7.88	81.190		
2,000.0	1,986.3	1,979.4	1,979.0	4.9	3.5	84.13	-89.8	-676.2	634.3	626.0	8.35	75.951		
2,100.0	2,085.2	2,075.5	2,075.0	5.2	3.6	85.43	-90.3	-673.7	630.2	621.3	8.83	71.349		
2,200.0	2,184.1	2,171.8	2,171.3	5.5	3.8	86.74	-90.7	-671.5	626.8	617.5	9.31	67.298		
2,300.0	2,282.9	2,268.5	2,267.9	5.8	4.0	88.08	-90.9	-669.6	624.2	614.4	9.80	63.715		
2,400.0	2,381.8	2,365.1	2,364.6	6.1	4.1	89.44	-91.0	-668.0	622.2	612.0	10.28	60.543		
2,500.0	2,480.7	2,462.0	2,461.5	6.4	4.3	90.82	-90.8	-666.8	621.0	610.3	10.76	57.725		
2,600.0	2,579.6	2,560.0	2,559.4	6.8	4.5	92.25	-90.3	-665.6	620.4	609.2	11.24	55.191		
2,666.8	2,645.6	2,625.4	2,624.8	7.0	4.6	93.22	-89.7	-664.8	620.3	608.7	11.56	53.649		
2,700.0	2,678.4	2,657.8	2,657.3	7.1	4.7	93.72	-89.4	-664.4	620.3	608.6	11.72	52.924		
2,800.0	2,777.3	2,755.9	2,755.4	7.4	4.8	95.23	-87.9	-663.2	620.8	608.6	12.20	50.896		
2,900.0	2,876.2	2,870.3	2,869.7	7.7	5.0	96.81	-88.7	-660.7	620.1	607.4	12.69	48.854		
3,000.0	2,975.1	2,964.8	2,964.1	8.0	5.2	98.04	-90.5	-658.6	619.2	606.1	13.15	47.072		
3,032.7	3,007.4	2,995.7	2,995.0	8.1	5.3	98.44	-90.9	-658.0	619.2	605.9	13.31	46.536		
3,100.0	3,073.9	3,059.2	3,058.5	8.3	5.4	99.28	-91.8	-657.0	619.4	605.8	13.61	45.501		
3,200.0	3,172.8	3,153.9	3,153.2	8.6	5.5	100.53	-92.7	-656.0	620.6	606.6	14.07	44.118		
3,300.0	3,271.7	3,249.6	3,248.9	8.9	5.7	101.79	-93.4	-655.6	622.8	608.3	14.52	42.891		
3,400.0	3,370.5	3,345.3	3,344.6	9.3	5.9	103.03	-93.9	-655.6	625.8	610.8	14.97	41.805		
3,500.0	3,469.4	3,442.0	3,441.3	9.6	6.0	104.25	-94.4	-656.1	629.6	614.2	15.41	40.843		
3,600.0	3,568.3	3,536.2	3,535.5	9.9	6.2	105.44	-94.6	-657.0	634.2	618.4	15.85	40.006		
3,700.0	3,667.2	3,631.3	3,630.6	10.2	6.4	106.62	-94.3	-658.4	639.8	623.5	16.29	39.277		
3,800.0	3,766.0	3,726.3	3,725.6	10.5	6.5	107.80	-93.7	-660.2	646.2	629.5	16.72	38.650		
3,900.0	3,864.9	3,848.0	3,847.3	10.8	6.7	109.27	-93.6	-661.5	652.1	634.9	17.18	37.956		
4,000.0	3,963.8	3,946.4	3,945.6	11.1	6.9	110.43	-94.8	-660.8	656.0	638.4	17.61	37.260		
4,100.0	4,062.7	4,044.7	4,043.9	11.4	7.1	111.57	-96.0	-660.3	660.2	642.2	18.03	36.627		
4,200.0	4,161.5	4,143.1	4,142.3	11.8	7.2	112.68	-97.3	-660.0	664.9	646.4	18.44	36.049		
4,300.0	4,260.4	4,239.8	4,239.0	12.1	7.4	113.74	-98.6	-659.9	669.9	651.1	18.85	35.533		
4,400.0	4,359.3	4,336.0	4,335.2	12.4	7.6	114.79	-99.5	-660.1	675.7	656.4	19.26	35.080		
4,500.0	4,458.1	4,432.2	4,431.4	12.7	7.7	115.82	-100.2	-660.6	682.0	662.4	19.66	34.687		
4,600.0	4,557.0	4,529.8	4,529.0	13.0	7.9	116.85	-100.7	-661.3	689.0	668.9	20.06	34.344		
4,700.0	4,655.9	4,628.5	4,627.7	13.3	8.1	117.88	-101.1	-662.0	696.2	675.8	20.46	34.033		
4,800.0	4,754.8	4,727.1	4,726.3	13.6	8.3	118.88	-101.4	-662.8	703.7	682.9	20.85	33.754		
4,900.0	4,853.6	4,825.3	4,824.5	14.0	8.4	119.86	-101.7	-663.6	711.5	690.3	21.24	33.505		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - MILLER 44-17J (EXISTING) - ENCANA - SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 642-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,000.0	4,952.5	4,931.6	4,930.8	14.3	8.6	120.92	-101.7	-664.3	719.6	698.0	21.63	33.275		
5,100.0	5,051.4	5,103.2	5,101.8	14.6	8.9	123.34	-102.6	-651.5	722.2	700.1	22.02	32.794		
5,200.0	5,150.3	5,248.9	5,245.6	14.9	9.2	125.82	-108.8	-628.6	717.1	694.7	22.36	32.075		
5,300.0	5,249.1	5,417.2	5,408.5	15.2	9.6	129.00	-125.8	-590.8	703.5	680.8	22.67	31.037		
5,400.0	5,348.0	5,532.1	5,517.9	15.5	9.9	131.56	-140.6	-558.6	685.5	662.6	22.93	29.897		
5,500.0	5,446.9	5,641.4	5,620.4	15.8	10.3	134.52	-153.6	-523.2	667.0	643.8	23.16	28.796		
5,600.0	5,545.7	5,768.1	5,735.6	16.2	10.8	138.84	-169.7	-473.1	645.2	621.9	23.36	27.620		
5,700.0	5,644.6	5,876.8	5,832.3	16.5	11.4	143.09	-185.7	-425.8	622.2	598.6	23.58	26.387		
5,800.0	5,743.5	5,971.5	5,915.2	16.8	11.9	147.24	-199.7	-382.4	601.0	577.2	23.83	25.223		
5,900.0	5,842.4	6,050.5	5,983.7	17.1	12.4	150.92	-212.4	-345.4	581.8	557.7	24.10	24.139		
6,000.0	5,941.2	6,128.9	6,053.1	17.4	12.9	154.60	-223.0	-310.5	569.1	544.7	24.41	23.312		
6,100.0	6,040.1	6,223.0	6,135.8	17.7	13.5	159.23	-236.9	-267.6	559.0	534.2	24.82	22.525		
6,200.0	6,139.0	6,314.6	6,216.9	18.0	14.1	163.70	-250.7	-227.3	553.0	527.7	25.28	21.872		
6,300.0	6,237.9	6,425.1	6,313.4	18.4	15.0	169.31	-270.1	-177.2	548.9	522.9	25.96	21.144		
6,374.1	6,311.1	6,486.5	6,366.3	18.6	15.4	172.57	-282.1	-148.4	547.3	520.8	26.46	20.686		
6,400.0	6,336.7	6,506.4	6,383.4	18.7	15.6	173.65	-285.9	-138.8	547.5	520.8	26.63	20.556		
6,500.0	6,435.6	6,579.5	6,446.9	19.0	16.2	177.43	-298.8	-105.1	552.3	525.0	27.32	20.218		
6,600.0	6,534.5	6,652.1	6,510.4	19.3	16.7	-178.92	-309.1	-71.4	564.2	536.1	28.07	20.097		
6,700.0	6,633.4	6,739.2	6,587.1	19.6	17.4	-179.91	-320.6	-31.9	580.4	551.4	29.05	19.981		
6,800.0	6,733.2	6,847.1	6,683.8	19.7	18.2	54.83	-335.5	13.6	587.5	557.4	30.13	19.498		
6,900.0	6,831.8	6,935.0	6,764.1	19.5	18.8	38.69	-347.8	47.2	581.1	550.5	30.52	19.038		
7,000.0	6,926.2	7,025.8	6,849.3	19.2	19.3	40.76	-358.0	76.8	563.4	532.9	30.51	18.464		
7,100.0	7,013.6	7,094.4	6,914.2	18.6	19.7	45.39	-364.9	97.8	537.2	507.1	30.14	17.824		
7,200.0	7,091.3	7,174.4	6,990.4	18.0	20.1	53.47	-371.7	121.3	506.0	476.1	29.91	16.915		
7,300.0	7,156.9	7,250.1	7,063.8	17.2	20.5	63.36	-376.5	138.9	471.9	442.1	29.73	15.869		
7,400.0	7,208.5	7,303.2	7,115.9	16.5	20.6	72.10	-379.0	149.0	441.2	411.9	29.35	15.031		
7,500.0	7,244.5	7,338.2	7,150.4	15.7	20.8	78.32	-380.4	155.1	421.8	393.0	28.79	14.651 SF		
7,560.6	7,258.2	7,350.8	7,162.8	15.4	20.8	80.30	-380.8	157.3	418.3	389.9	28.43	14.715 CC, ES		
7,600.0	7,263.7	7,355.4	7,167.2	15.1	20.8	80.74	-381.0	158.0	419.8	391.7	28.15	14.913		
7,700.0	7,267.0	7,354.9	7,166.8	14.7	20.8	79.80	-381.0	157.9	437.9	410.2	27.62	15.855		
7,800.0	7,267.0	7,350.4	7,162.4	14.5	20.8	79.11	-380.8	157.2	477.2	449.8	27.43	17.396		
7,900.0	7,267.0	7,345.6	7,157.7	14.5	20.8	78.44	-380.6	156.4	533.5	506.1	27.41	19.466		
8,000.0	7,267.0	7,340.7	7,152.9	14.7	20.8	77.76	-380.4	155.6	601.3	573.7	27.58	21.798		
8,100.0	7,267.0	7,335.7	7,147.9	15.1	20.8	77.07	-380.3	154.7	677.1	649.1	27.96	24.213		
8,200.0	7,267.0	7,330.6	7,142.8	15.7	20.7	76.36	-380.1	153.8	758.4	729.9	28.52	26.591		
8,300.0	7,267.0	7,325.3	7,137.6	16.5	20.7	75.64	-379.9	152.9	843.8	814.5	29.24	28.859		
8,400.0	7,267.0	7,319.9	7,132.3	17.4	20.7	74.90	-379.6	152.0	932.0	901.9	30.09	30.979		
8,500.0	7,267.0	7,314.1	7,126.7	18.4	20.7	74.12	-379.4	150.9	1,022.4	991.4	31.04	32.942		
8,600.0	7,267.0	7,308.1	7,120.7	19.5	20.7	73.29	-379.2	149.9	1,114.4	1,082.4	32.07	34.752		
8,700.0	7,267.0	7,301.8	7,114.5	20.8	20.6	72.44	-378.9	148.7	1,207.7	1,174.5	33.16	36.418		
8,800.0	7,267.0	7,295.3	7,108.2	22.1	20.6	71.56	-378.6	147.6	1,301.9	1,267.6	34.30	37.956		
8,900.0	7,267.0	7,288.6	7,101.5	23.4	20.6	70.65	-378.4	146.3	1,396.9	1,361.5	35.47	39.382		
9,000.0	7,267.0	7,277.6	7,090.7	24.8	20.6	69.18	-377.9	144.3	1,492.6	1,456.0	36.57	40.817		
9,100.0	7,267.0	7,259.7	7,073.2	26.3	20.5	66.81	-377.0	140.8	1,588.7	1,551.2	37.48	42.393		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - PACE 1 (EXISTING) - TEXAS TEA OIL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 5000-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance			Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)				Between Ellipses (ft)	
0.0	0.0	0.0	0.0	0.0	0.0	-120.63	-358.1	-604.8	703.2					
100.0	100.0	77.0	77.0	0.1	0.1	-120.63	-358.1	-604.8	702.8	702.6	0.26	2,737.358		
200.0	200.0	177.0	177.0	0.3	0.3	-120.63	-358.1	-604.8	702.8	702.2	0.61	1,160.151		
300.0	300.0	277.0	277.0	0.5	0.5	-120.63	-358.1	-604.8	702.8	701.9	0.95	736.053		
400.0	400.0	377.0	377.0	0.6	0.7	-120.63	-358.1	-604.8	702.8	701.5	1.30	539.014		
500.0	500.0	477.0	477.0	0.8	0.8	-120.63	-358.1	-604.8	702.8	701.2	1.65	425.192		
600.0	600.0	577.0	577.0	1.0	1.0	44.58	-358.1	-604.8	701.6	699.6	2.00	350.352		
700.0	699.8	676.8	676.8	1.2	1.2	44.93	-358.1	-604.8	697.9	695.5	2.36	296.183		
800.0	799.5	776.5	776.5	1.4	1.4	45.53	-358.1	-604.8	691.7	689.0	2.72	254.292		
900.0	898.7	875.7	875.7	1.6	1.5	46.38	-358.1	-604.8	683.2	680.1	3.10	220.249		
1,000.0	997.6	974.6	974.6	1.9	1.7	47.33	-358.1	-604.8	673.0	669.5	3.50	192.170		
1,100.0	1,096.5	1,073.5	1,073.5	2.2	1.9	48.28	-358.1	-604.8	662.9	659.0	3.91	169.336		
1,200.0	1,195.3	1,172.3	1,172.3	2.5	2.0	49.25	-358.1	-604.8	653.0	648.6	4.34	150.578		
1,300.0	1,294.2	1,271.2	1,271.2	2.8	2.2	50.25	-358.1	-604.8	643.2	638.5	4.77	134.958		
1,400.0	1,393.1	1,370.1	1,370.1	3.1	2.4	51.29	-358.1	-604.8	633.7	628.5	5.20	121.790		
1,500.0	1,492.0	1,469.0	1,469.0	3.4	2.6	52.35	-358.1	-604.8	624.4	618.7	5.65	110.568		
1,600.0	1,590.8	1,567.8	1,567.8	3.7	2.7	53.45	-358.1	-604.8	615.3	609.2	6.10	100.913		
1,700.0	1,689.7	1,666.7	1,666.7	4.0	2.9	54.58	-358.1	-604.8	606.4	599.9	6.55	92.535		
1,800.0	1,788.6	1,765.6	1,765.6	4.3	3.1	55.74	-358.1	-604.8	597.8	590.8	7.02	85.210		
1,900.0	1,887.5	1,864.5	1,864.5	4.6	3.3	56.93	-358.1	-604.8	589.4	582.0	7.48	78.765		
2,000.0	1,986.3	1,963.3	1,963.3	4.9	3.4	58.16	-358.1	-604.8	581.3	573.4	7.96	73.061		
2,100.0	2,085.2	2,062.2	2,062.2	5.2	3.6	59.42	-358.1	-604.8	573.5	565.1	8.44	67.988		
2,200.0	2,184.1	2,161.1	2,161.1	5.5	3.8	60.71	-358.1	-604.8	566.0	557.1	8.92	63.455		
2,300.0	2,282.9	2,259.9	2,259.9	5.8	3.9	62.04	-358.1	-604.8	558.7	549.3	9.41	59.390		
2,400.0	2,381.8	2,358.8	2,358.8	6.1	4.1	63.40	-358.1	-604.8	551.8	541.9	9.90	55.733		
2,500.0	2,480.7	2,457.7	2,457.7	6.4	4.3	64.79	-358.1	-604.8	545.2	534.8	10.40	52.432		
2,600.0	2,579.6	2,556.6	2,556.6	6.8	4.5	66.22	-358.1	-604.8	539.0	528.1	10.90	49.445		
2,700.0	2,678.4	2,655.4	2,655.4	7.1	4.6	67.68	-358.1	-604.8	533.0	521.6	11.40	46.738		
2,800.0	2,777.3	2,754.3	2,754.3	7.4	4.8	69.17	-358.1	-604.8	527.5	515.6	11.91	44.279		
2,900.0	2,876.2	2,853.2	2,853.2	7.7	5.0	70.69	-358.1	-604.8	522.3	509.9	12.42	42.042		
3,000.0	2,975.1	2,952.1	2,952.1	8.0	5.2	72.24	-358.1	-604.8	517.5	504.5	12.94	40.006		
3,100.0	3,073.9	3,050.9	3,050.9	8.3	5.3	73.81	-358.1	-604.8	513.1	499.6	13.45	38.150		
3,200.0	3,172.8	3,149.8	3,149.8	8.6	5.5	75.42	-358.1	-604.8	509.0	495.1	13.96	36.458		
3,300.0	3,271.7	3,248.7	3,248.7	8.9	5.7	77.04	-358.1	-604.8	505.4	491.0	14.48	34.914		
3,400.0	3,370.5	3,347.5	3,347.5	9.3	5.8	78.69	-358.1	-604.8	502.3	487.3	14.99	33.507		
3,500.0	3,469.4	3,446.4	3,446.4	9.6	6.0	80.35	-358.1	-604.8	499.5	484.0	15.50	32.223		
3,600.0	3,568.3	3,545.3	3,545.3	9.9	6.2	82.04	-358.1	-604.8	497.2	481.2	16.01	31.053		
3,700.0	3,667.2	3,644.2	3,644.2	10.2	6.4	83.73	-358.1	-604.8	495.3	478.8	16.52	29.987		
3,800.0	3,766.0	3,743.0	3,743.0	10.5	6.5	85.44	-358.1	-604.8	493.9	476.9	17.02	29.018		
3,900.0	3,864.9	3,841.9	3,841.9	10.8	6.7	87.16	-358.1	-604.8	492.9	475.4	17.52	28.137		
4,000.0	3,963.8	3,940.8	3,940.8	11.1	6.9	88.88	-358.1	-604.8	492.4	474.4	18.01	27.338		
4,065.2	4,028.2	4,005.2	4,005.2	11.3	7.0	90.00	-358.1	-604.8	492.3	474.0	18.33	26.858 CC		
4,100.0	4,062.7	4,039.7	4,039.7	11.4	7.1	90.60	-358.1	-604.8	492.3	473.8	18.50	26.615		
4,200.0	4,161.5	4,138.5	4,138.5	11.8	7.2	92.32	-358.1	-604.8	492.7	473.7	18.98	25.962 ES		
4,300.0	4,260.4	4,237.4	4,237.4	12.1	7.4	94.04	-358.1	-604.8	493.5	474.1	19.45	25.373		
4,400.0	4,359.3	4,336.3	4,336.3	12.4	7.6	95.75	-358.1	-604.8	494.8	474.9	19.92	24.845		
4,500.0	4,458.1	4,435.1	4,435.1	12.7	7.7	97.45	-358.1	-604.8	496.6	476.2	20.37	24.372		
4,600.0	4,557.0	4,534.0	4,534.0	13.0	7.9	99.14	-358.1	-604.8	498.8	477.9	20.82	23.951		
4,700.0	4,655.9	4,632.9	4,632.9	13.3	8.1	100.81	-358.1	-604.8	501.4	480.1	21.27	23.577		
4,800.0	4,754.8	4,731.8	4,731.8	13.6	8.3	102.46	-358.1	-604.8	504.4	482.7	21.70	23.248		
4,900.0	4,853.6	4,830.6	4,830.6	14.0	8.4	104.09	-358.1	-604.8	507.9	485.8	22.12	22.960		
5,000.0	4,952.5	4,929.5	4,929.5	14.3	8.6	105.70	-358.1	-604.8	511.8	489.3	22.54	22.710		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - PACE 1 (EXISTING) - TEXAS TEA OIL - NO SURVEYS												Offset Site Error:		0.0 ft	
Survey Program: 5000-Geolink MWD												Offset Well Error:		0.0 ft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)					
5,100.0	5,051.4	5,000.0	5,000.0	14.6	8.7	106.83	-358.1	-604.8	516.9	494.0	22.91	22.557 SF			
5,200.0	5,150.3	5,000.0	5,000.0	14.9	8.7	106.83	-358.1	-604.8	536.1	512.9	23.22	23.090			
5,300.0	5,249.1	5,000.0	5,000.0	15.2	8.7	106.83	-358.1	-604.8	572.4	548.9	23.52	24.334			
5,400.0	5,348.0	5,000.0	5,000.0	15.5	8.7	106.83	-358.1	-604.8	622.8	599.0	23.83	26.139			
5,500.0	5,446.9	5,000.0	5,000.0	15.8	8.7	106.83	-358.1	-604.8	684.2	660.1	24.13	28.353			
5,600.0	5,545.7	5,000.0	5,000.0	16.2	8.7	106.83	-358.1	-604.8	753.9	729.5	24.44	30.852			
5,700.0	5,644.6	5,000.0	5,000.0	16.5	8.7	106.83	-358.1	-604.8	829.9	805.1	24.74	33.541			
5,800.0	5,743.5	5,000.0	5,000.0	16.8	8.7	106.83	-358.1	-604.8	910.4	885.4	25.05	36.351			
5,900.0	5,842.4	5,000.0	5,000.0	17.1	8.7	106.83	-358.1	-604.8	994.6	969.2	25.35	39.232			
6,000.0	5,941.2	5,000.0	5,000.0	17.4	8.7	106.83	-358.1	-604.8	1,081.4	1,055.7	25.66	42.150			
6,100.0	6,040.1	5,000.0	5,000.0	17.7	8.7	106.83	-358.1	-604.8	1,170.3	1,144.4	25.96	45.081			
6,200.0	6,139.0	5,000.0	5,000.0	18.0	8.7	106.83	-358.1	-604.8	1,260.9	1,234.7	26.27	48.007			
6,300.0	6,237.9	5,000.0	5,000.0	18.4	8.7	106.83	-358.1	-604.8	1,352.8	1,326.3	26.57	50.916			
6,400.0	6,336.7	5,000.0	5,000.0	18.7	8.7	106.83	-358.1	-604.8	1,445.8	1,419.0	26.87	53.799			
6,500.0	6,435.6	5,000.0	5,000.0	19.0	8.7	106.83	-358.1	-604.8	1,539.7	1,512.5	27.18	56.649			
6,600.0	6,534.5	5,000.0	5,000.0	19.3	8.7	106.83	-358.1	-604.8	1,634.3	1,606.8	27.48	59.463			

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - PACE 2 (EXISTING) - TEXAS TEA OIL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 5100-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-46.81	949.7	-1,011.6	1,388.0					
100.0	100.0	64.0	64.0	0.1	0.1	-46.81	949.7	-1,011.6	1,387.5	1,387.3	0.23	5,927.760		
200.0	200.0	164.0	164.0	0.3	0.3	-46.81	949.7	-1,011.6	1,387.5	1,386.9	0.58	2,379.422		
300.0	300.0	264.0	264.0	0.5	0.5	-46.81	949.7	-1,011.6	1,387.5	1,386.6	0.93	1,488.444		
400.0	400.0	364.0	364.0	0.6	0.6	-46.81	949.7	-1,011.6	1,387.5	1,386.2	1.28	1,082.937		
500.0	500.0	464.0	464.0	0.8	0.8	-46.81	949.7	-1,011.6	1,387.5	1,385.9	1.63	851.073	CC, ES	
600.0	600.0	564.0	564.0	1.0	1.0	118.33	949.7	-1,011.6	1,388.3	1,386.4	1.98	700.968		
700.0	699.8	663.8	663.8	1.2	1.2	118.48	949.7	-1,011.6	1,390.8	1,388.5	2.34	594.790		
800.0	799.5	763.5	763.5	1.4	1.3	118.72	949.7	-1,011.6	1,395.0	1,392.3	2.71	514.332		
900.0	898.7	862.7	862.7	1.6	1.5	119.05	949.7	-1,011.6	1,400.9	1,397.8	3.11	450.311		
1,000.0	997.6	961.6	961.6	1.9	1.7	119.53	949.7	-1,011.6	1,408.3	1,404.7	3.53	399.118		
1,100.0	1,096.5	1,060.5	1,060.5	2.2	1.9	120.05	949.7	-1,011.6	1,415.8	1,411.8	3.95	357.968		
1,200.0	1,195.3	1,159.3	1,159.3	2.5	2.0	120.57	949.7	-1,011.6	1,423.4	1,419.0	4.39	324.472		
1,300.0	1,294.2	1,258.2	1,258.2	2.8	2.2	121.08	949.7	-1,011.6	1,431.1	1,426.3	4.82	296.814		
1,400.0	1,393.1	1,357.1	1,357.1	3.1	2.4	121.59	949.7	-1,011.6	1,439.0	1,433.7	5.26	273.668		
1,500.0	1,492.0	1,456.0	1,456.0	3.4	2.5	122.09	949.7	-1,011.6	1,446.9	1,441.2	5.70	254.057		
1,600.0	1,590.8	1,554.8	1,554.8	3.7	2.7	122.59	949.7	-1,011.6	1,455.0	1,448.9	6.13	237.256		
1,700.0	1,689.7	1,653.7	1,653.7	4.0	2.9	123.08	949.7	-1,011.6	1,463.2	1,456.6	6.57	222.719		
1,800.0	1,788.6	1,752.6	1,752.6	4.3	3.1	123.56	949.7	-1,011.6	1,471.5	1,464.5	7.01	210.032		
1,900.0	1,887.5	1,851.5	1,851.5	4.6	3.2	124.04	949.7	-1,011.6	1,479.9	1,472.4	7.44	198.870		
2,000.0	1,986.3	1,950.3	1,950.3	4.9	3.4	124.52	949.7	-1,011.6	1,488.4	1,480.5	7.88	188.981		
2,100.0	2,085.2	2,049.2	2,049.2	5.2	3.6	124.98	949.7	-1,011.6	1,497.0	1,488.7	8.31	180.164		
2,200.0	2,184.1	2,148.1	2,148.1	5.5	3.7	125.45	949.7	-1,011.6	1,505.7	1,496.9	8.74	172.258		
2,300.0	2,282.9	2,246.9	2,246.9	5.8	3.9	125.91	949.7	-1,011.6	1,514.5	1,505.3	9.17	165.132		
2,400.0	2,381.8	2,345.8	2,345.8	6.1	4.1	126.36	949.7	-1,011.6	1,523.4	1,513.8	9.60	158.679		
2,500.0	2,480.7	2,444.7	2,444.7	6.4	4.3	126.81	949.7	-1,011.6	1,532.3	1,522.3	10.03	152.810		
2,600.0	2,579.6	2,543.6	2,543.6	6.8	4.4	127.25	949.7	-1,011.6	1,541.4	1,531.0	10.45	147.451		
2,700.0	2,678.4	2,642.4	2,642.4	7.1	4.6	127.69	949.7	-1,011.6	1,550.6	1,539.7	10.88	142.541		
2,800.0	2,777.3	2,741.3	2,741.3	7.4	4.8	128.12	949.7	-1,011.6	1,559.9	1,548.6	11.30	138.026		
2,900.0	2,876.2	2,840.2	2,840.2	7.7	5.0	128.54	949.7	-1,011.6	1,569.2	1,557.5	11.72	133.862		
3,000.0	2,975.1	2,939.1	2,939.1	8.0	5.1	128.97	949.7	-1,011.6	1,578.7	1,566.5	12.14	130.012		
3,100.0	3,073.9	3,037.9	3,037.9	8.3	5.3	129.38	949.7	-1,011.6	1,588.2	1,575.6	12.56	126.441		
3,200.0	3,172.8	3,136.8	3,136.8	8.6	5.5	129.80	949.7	-1,011.6	1,597.8	1,584.8	12.98	123.121		
3,300.0	3,271.7	3,235.7	3,235.7	8.9	5.6	130.20	949.7	-1,011.6	1,607.5	1,594.1	13.39	120.028		
3,400.0	3,370.5	3,334.5	3,334.5	9.3	5.8	130.61	949.7	-1,011.6	1,617.2	1,603.4	13.81	117.140		
3,500.0	3,469.4	3,433.4	3,433.4	9.6	6.0	131.00	949.7	-1,011.6	1,627.1	1,612.9	14.22	114.438		
3,600.0	3,568.3	3,532.3	3,532.3	9.9	6.2	131.40	949.7	-1,011.6	1,637.0	1,622.4	14.63	111.905	SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - PACE 3 (EXISTING) - TEXAS TEA OIL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 5050-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
0.0	0.0	0.0	0.0	0.0	0.0	128.74	-158.8	198.0	254.6					
100.0	100.0	80.0	80.0	0.1	0.1	128.74	-158.8	198.0	253.8	253.5	0.26	968.695		
200.0	200.0	180.0	180.0	0.3	0.3	128.74	-158.8	198.0	253.8	253.2	0.61	415.336		
300.0	300.0	280.0	280.0	0.5	0.5	128.74	-158.8	198.0	253.8	252.8	0.96	264.336		
400.0	400.0	380.0	380.0	0.6	0.7	128.74	-158.8	198.0	253.8	252.5	1.31	193.857		
500.0	500.0	480.0	480.0	0.8	0.8	128.74	-158.8	198.0	253.8	252.1	1.66	153.050		
600.0	600.0	580.0	580.0	1.0	1.0	-66.55	-158.8	198.0	253.1	251.1	2.01	125.998		
700.0	699.8	679.8	679.8	1.2	1.2	-67.68	-158.8	198.0	251.1	248.7	2.37	106.032		
800.0	799.5	779.5	779.5	1.4	1.4	-69.60	-158.8	198.0	247.9	245.1	2.75	90.254		
900.0	898.7	878.7	878.7	1.6	1.5	-72.34	-158.8	198.0	243.9	240.7	3.16	77.232		
1,000.0	997.6	977.6	977.6	1.9	1.7	-75.70	-158.8	198.0	239.8	236.2	3.60	66.664		
1,100.0	1,096.5	1,076.5	1,076.5	2.2	1.9	-79.18	-158.8	198.0	236.5	232.4	4.05	58.365		
1,200.0	1,195.3	1,175.3	1,175.3	2.5	2.1	-82.75	-158.8	198.0	234.1	229.6	4.52	51.825		
1,300.0	1,294.2	1,274.2	1,274.2	2.8	2.2	-86.37	-158.8	198.0	232.6	227.7	4.99	46.642		
1,399.6	1,392.7	1,372.7	1,372.7	3.1	2.4	-90.00	-158.8	198.0	232.2	226.7	5.46	42.530 CC		
1,400.0	1,393.1	1,373.1	1,373.1	3.1	2.4	-90.01	-158.8	198.0	232.2	226.7	5.46	42.516 ES		
1,500.0	1,492.0	1,472.0	1,472.0	3.4	2.6	-93.66	-158.8	198.0	232.6	226.7	5.93	39.224		
1,600.0	1,590.8	1,570.8	1,570.8	3.7	2.7	-97.28	-158.8	198.0	234.1	227.7	6.40	36.596		
1,700.0	1,689.7	1,669.7	1,669.7	4.0	2.9	-100.84	-158.8	198.0	236.5	229.6	6.85	34.501		
1,800.0	1,788.6	1,768.6	1,768.6	4.3	3.1	-104.32	-158.8	198.0	239.8	232.5	7.30	32.837		
1,900.0	1,887.5	1,867.5	1,867.5	4.6	3.3	-107.70	-158.8	198.0	244.0	236.2	7.74	31.524		
2,000.0	1,986.3	1,966.3	1,966.3	4.9	3.4	-110.95	-158.8	198.0	249.0	240.8	8.16	30.498		
2,100.0	2,085.2	2,065.2	2,065.2	5.2	3.6	-114.07	-158.8	198.0	254.7	246.2	8.58	29.706		
2,200.0	2,184.1	2,164.1	2,164.1	5.5	3.8	-117.04	-158.8	198.0	261.3	252.3	8.98	29.107		
2,300.0	2,282.9	2,262.9	2,262.9	5.8	3.9	-119.86	-158.8	198.0	268.5	259.1	9.37	28.665		
2,400.0	2,381.8	2,361.8	2,361.8	6.1	4.1	-122.53	-158.8	198.0	276.3	266.5	9.74	28.353		
2,500.0	2,480.7	2,460.7	2,460.7	6.4	4.3	-125.06	-158.8	198.0	284.7	274.6	10.11	28.148		
2,600.0	2,579.6	2,559.6	2,559.6	6.8	4.5	-127.43	-158.8	198.0	293.6	283.1	10.48	28.029		
2,700.0	2,678.4	2,658.4	2,658.4	7.1	4.6	-129.67	-158.8	198.0	303.0	292.2	10.83	27.981 SF		
2,800.0	2,777.3	2,757.3	2,757.3	7.4	4.8	-131.76	-158.8	198.0	312.8	301.7	11.18	27.991		
2,900.0	2,876.2	2,856.2	2,856.2	7.7	5.0	-133.73	-158.8	198.0	323.1	311.5	11.52	28.048		
3,000.0	2,975.1	2,955.1	2,955.1	8.0	5.2	-135.58	-158.8	198.0	333.6	321.8	11.86	28.142		
3,100.0	3,073.9	3,053.9	3,053.9	8.3	5.3	-137.32	-158.8	198.0	344.6	332.4	12.19	28.266		
3,200.0	3,172.8	3,152.8	3,152.8	8.6	5.5	-138.94	-158.8	198.0	355.8	343.2	12.52	28.414		
3,300.0	3,271.7	3,251.7	3,251.7	8.9	5.7	-140.47	-158.8	198.0	367.2	354.4	12.85	28.581		
3,400.0	3,370.5	3,350.5	3,350.5	9.3	5.8	-141.90	-158.8	198.0	379.0	365.8	13.18	28.762		
3,500.0	3,469.4	3,449.4	3,449.4	9.6	6.0	-143.25	-158.8	198.0	390.9	377.4	13.50	28.954		
3,600.0	3,568.3	3,548.3	3,548.3	9.9	6.2	-144.52	-158.8	198.0	403.0	389.2	13.82	29.154		
3,700.0	3,667.2	3,647.2	3,647.2	10.2	6.4	-145.72	-158.8	198.0	415.4	401.2	14.15	29.359		
3,800.0	3,766.0	3,746.0	3,746.0	10.5	6.5	-146.84	-158.8	198.0	427.9	413.4	14.47	29.569		
3,900.0	3,864.9	3,844.9	3,844.9	10.8	6.7	-147.90	-158.8	198.0	440.5	425.7	14.79	29.780		
4,000.0	3,963.8	3,943.8	3,943.8	11.1	6.9	-148.91	-158.8	198.0	453.3	438.2	15.11	29.991		
4,100.0	4,062.7	4,042.7	4,042.7	11.4	7.1	-149.85	-158.8	198.0	466.2	450.8	15.44	30.203		
4,200.0	4,161.5	4,141.5	4,141.5	11.8	7.2	-150.75	-158.8	198.0	479.3	463.5	15.76	30.413		
4,300.0	4,260.4	4,240.4	4,240.4	12.1	7.4	-151.60	-158.8	198.0	492.4	476.4	16.08	30.620		
4,400.0	4,359.3	4,339.3	4,339.3	12.4	7.6	-152.41	-158.8	198.0	505.7	489.3	16.40	30.826		
4,500.0	4,458.1	4,438.1	4,438.1	12.7	7.7	-153.17	-158.8	198.0	519.0	502.3	16.73	31.028		
4,600.0	4,557.0	4,537.0	4,537.0	13.0	7.9	-153.89	-158.8	198.0	532.5	515.4	17.05	31.227		
4,700.0	4,655.9	4,635.9	4,635.9	13.3	8.1	-154.58	-158.8	198.0	546.0	528.6	17.38	31.423		
4,800.0	4,754.8	4,734.8	4,734.8	13.6	8.3	-155.24	-158.8	198.0	559.6	541.9	17.70	31.614		
4,900.0	4,853.6	4,833.6	4,833.6	14.0	8.4	-155.87	-158.8	198.0	573.2	555.2	18.02	31.802		
5,000.0	4,952.5	4,932.5	4,932.5	14.3	8.6	-156.46	-158.8	198.0	587.0	568.6	18.35	31.986		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - PACE 3 (EXISTING) - TEXAS TEA OIL - NO SURVEYS													Offset Site Error:	0.0 ft
Survey Program: 5050-Geolink MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
5,100.0	5,051.4	5,031.4	5,031.4	14.6	8.8	-157.03	-158.8	198.0	600.7	582.1	18.68	32.165		
5,200.0	5,150.3	5,050.0	5,050.0	14.9	8.8	-157.14	-158.8	198.0	619.8	600.9	18.90	32.790		
5,300.0	5,249.1	5,050.0	5,050.0	15.2	8.8	-157.14	-158.8	198.0	653.5	634.4	19.10	34.207		
5,400.0	5,348.0	5,050.0	5,050.0	15.5	8.8	-157.14	-158.8	198.0	700.0	680.7	19.31	36.257		
5,500.0	5,446.9	5,050.0	5,050.0	15.8	8.8	-157.14	-158.8	198.0	756.9	737.4	19.51	38.799		
5,600.0	5,545.7	5,050.0	5,050.0	16.2	8.8	-157.14	-158.8	198.0	822.1	802.3	19.71	41.708		
5,700.0	5,644.6	5,050.0	5,050.0	16.5	8.8	-157.14	-158.8	198.0	893.7	873.8	19.91	44.882		
5,800.0	5,743.5	5,050.0	5,050.0	16.8	8.8	-157.14	-158.8	198.0	970.4	950.2	20.11	48.243		
5,900.0	5,842.4	5,050.0	5,050.0	17.1	8.8	-157.14	-158.8	198.0	1,051.0	1,030.6	20.32	51.730		
6,000.0	5,941.2	5,050.0	5,050.0	17.4	8.8	-157.14	-158.8	198.0	1,134.6	1,114.1	20.52	55.299		
6,100.0	6,040.1	5,050.0	5,050.0	17.7	8.8	-157.14	-158.8	198.0	1,220.8	1,200.1	20.72	58.917		
6,200.0	6,139.0	5,050.0	5,050.0	18.0	8.8	-157.14	-158.8	198.0	1,308.9	1,288.0	20.92	62.560		
6,300.0	6,237.9	5,050.0	5,050.0	18.4	8.8	-157.14	-158.8	198.0	1,398.6	1,377.5	21.12	66.208		
6,400.0	6,336.7	5,050.0	5,050.0	18.7	8.8	-157.14	-158.8	198.0	1,489.6	1,468.3	21.33	69.849		
6,500.0	6,435.6	5,050.0	5,050.0	19.0	8.8	-157.14	-158.8	198.0	1,581.8	1,560.2	21.53	73.471		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - SATER 24-8 (EXISTING) - KERRMCGEE WELL - SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 15-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
13,500.0	7,267.0	7,369.0	7,216.9	100.0	24.2	-96.12	7,100.0	-425.4	1,568.2	1,456.2	112.02	13.999	
13,600.0	7,267.0	7,367.1	7,215.1	101.7	24.2	-95.64	7,100.0	-425.4	1,469.3	1,355.5	113.82	12.908	
13,700.0	7,267.0	7,365.2	7,213.2	103.5	24.2	-95.17	7,100.1	-425.4	1,370.6	1,254.9	115.62	11.853	
13,800.0	7,267.0	7,363.4	7,211.4	105.2	24.2	-94.71	7,100.1	-425.3	1,272.0	1,154.6	117.42	10.833	
13,900.0	7,267.0	7,361.6	7,209.6	106.9	24.2	-94.26	7,100.1	-425.3	1,173.7	1,054.5	119.21	9.846	
14,000.0	7,267.0	7,359.9	7,207.9	108.7	24.2	-93.81	7,100.1	-425.3	1,075.7	954.7	121.00	8.890	
14,100.0	7,267.0	7,358.2	7,206.1	110.4	24.2	-93.37	7,100.2	-425.3	978.1	855.3	122.78	7.967	
14,200.0	7,267.0	7,356.5	7,204.4	112.1	24.2	-92.93	7,100.2	-425.2	881.0	756.5	124.55	7.074	
14,300.0	7,267.0	7,356.0	7,204.0	113.9	24.2	-92.82	7,100.2	-425.2	784.7	658.4	126.30	6.213	
14,400.0	7,267.0	7,353.2	7,201.2	115.6	24.2	-92.10	7,100.3	-425.2	689.4	561.3	128.08	5.383	
14,500.0	7,267.0	7,351.6	7,199.6	117.4	24.2	-91.69	7,100.3	-425.2	595.7	465.8	129.84	4.588	
14,514.5	7,267.0	7,351.4	7,199.3	117.6	24.2	-91.63	7,100.3	-425.2	582.3	452.2	130.10	4.476 CC, ES, SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - SATER 7-8 (EXISTING) - KERRMCGEE WELL - SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 15-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
14,200.0	7,267.0	7,283.0	7,227.7	112.1	15.6	-91.96	7,566.3	-1,196.5	1,637.0	1,511.0	125.95	12.997	
14,300.0	7,267.0	7,283.0	7,227.7	113.9	15.6	-91.96	7,566.3	-1,196.5	1,559.7	1,432.0	127.69	12.214	
14,400.0	7,267.0	7,277.4	7,222.1	115.6	15.6	-91.64	7,566.3	-1,196.6	1,485.1	1,355.7	129.45	11.473	
14,500.0	7,267.0	7,277.2	7,221.9	117.4	15.6	-91.63	7,566.3	-1,196.6	1,413.7	1,282.5	131.19	10.776	
14,514.5	7,267.0	7,277.2	7,221.9	117.6	15.6	-91.63	7,566.3	-1,196.6	1,403.7	1,272.2	131.44	10.679	CC, ES, SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - SATER 8-8 (EXISTING) - KERRMCGEE WELL - SURVEYS													Offset Site Error: 0.0 ft
Survey Program: 15-Geolink MWD													Offset Well Error: 0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	
14,100.0	7,267.0	7,620.3	7,225.8	110.4	37.4	94.22	7,685.4	268.2	1,628.7	1,502.5	126.20	12.905	
14,200.0	7,267.0	7,618.8	7,224.3	112.1	37.4	94.02	7,685.4	268.2	1,532.7	1,404.8	127.97	11.977	
14,300.0	7,267.0	7,617.2	7,222.7	113.9	37.4	93.82	7,685.4	268.3	1,437.4	1,307.6	129.74	11.078	
14,400.0	7,267.0	7,615.6	7,221.1	115.6	37.4	93.61	7,685.4	268.3	1,342.6	1,211.1	131.52	10.209	
14,500.0	7,267.0	7,614.0	7,219.5	117.4	37.4	93.41	7,685.4	268.3	1,248.8	1,115.5	133.29	9.369	
14,514.5	7,267.0	7,613.8	7,219.3	117.6	37.4	93.38	7,685.4	268.3	1,235.2	1,101.7	133.54	9.250 CC, ES, SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - STANLEY 2 (EXISTING) - GERRITY OIL - NO SURVEYS													Offset Site Error: 0.0 ft	
Survey Program: 5175-Geolink MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	28.0	28.0	0.0	0.0	103.02	-304.5	1,316.7	1,351.4					
100.0	100.0	128.0	128.0	0.1	0.2	103.02	-304.5	1,316.7	1,351.4	1,351.1	0.35	3,908.450		
200.0	200.0	228.0	228.0	0.3	0.4	103.02	-304.5	1,316.7	1,351.4	1,350.7	0.69	1,944.967		
300.0	300.0	328.0	328.0	0.5	0.6	103.02	-304.5	1,316.7	1,351.4	1,350.4	1.04	1,294.601		
400.0	400.0	428.0	428.0	0.6	0.7	103.02	-304.5	1,316.7	1,351.4	1,350.0	1.39	970.186		
500.0	500.0	528.0	528.0	0.8	0.9	103.02	-304.5	1,316.7	1,351.4	1,349.7	1.74	775.782 CC		
600.0	600.0	628.0	628.0	1.0	1.1	-91.96	-304.5	1,316.7	1,351.5	1,349.4	2.09	645.746		
700.0	699.8	727.8	727.8	1.2	1.3	-92.18	-304.5	1,316.7	1,351.7	1,349.2	2.45	550.801		
800.0	799.5	827.5	827.5	1.4	1.4	-92.54	-304.5	1,316.7	1,352.0	1,349.2	2.84	476.594 ES		
900.0	898.7	926.7	926.7	1.6	1.6	-93.04	-304.5	1,316.7	1,352.6	1,349.4	3.25	415.821		
1,000.0	997.6	1,025.6	1,025.6	1.9	1.8	-93.66	-304.5	1,316.7	1,353.5	1,349.8	3.69	366.547		
1,100.0	1,096.5	1,124.5	1,124.5	2.2	2.0	-94.28	-304.5	1,316.7	1,354.6	1,350.4	4.14	326.840		
1,200.0	1,195.3	1,223.3	1,223.3	2.5	2.1	-94.90	-304.5	1,316.7	1,355.8	1,351.2	4.60	294.472		
1,300.0	1,294.2	1,322.2	1,322.2	2.8	2.3	-95.53	-304.5	1,316.7	1,357.1	1,352.1	5.07	267.739		
1,400.0	1,393.1	1,421.1	1,421.1	3.1	2.5	-96.15	-304.5	1,316.7	1,358.7	1,353.1	5.54	245.373		
1,500.0	1,492.0	1,520.0	1,520.0	3.4	2.7	-96.77	-304.5	1,316.7	1,360.4	1,354.4	6.01	226.434		
1,600.0	1,590.8	1,618.8	1,618.8	3.7	2.8	-97.39	-304.5	1,316.7	1,362.3	1,355.8	6.48	210.223		
1,700.0	1,689.7	1,717.7	1,717.7	4.0	3.0	-98.00	-304.5	1,316.7	1,364.3	1,357.3	6.95	196.210		
1,800.0	1,788.6	1,816.6	1,816.6	4.3	3.2	-98.62	-304.5	1,316.7	1,366.5	1,359.0	7.43	183.992		
1,900.0	1,887.5	1,915.5	1,915.5	4.6	3.3	-99.23	-304.5	1,316.7	1,368.8	1,360.9	7.90	173.256		
2,000.0	1,986.3	2,014.3	2,014.3	4.9	3.5	-99.84	-304.5	1,316.7	1,371.3	1,363.0	8.37	163.755		
2,100.0	2,085.2	2,113.2	2,113.2	5.2	3.7	-100.45	-304.5	1,316.7	1,374.0	1,365.1	8.85	155.296		
2,200.0	2,184.1	2,212.1	2,212.1	5.5	3.9	-101.06	-304.5	1,316.7	1,376.8	1,367.5	9.32	147.721		
2,300.0	2,282.9	2,310.9	2,310.9	5.8	4.0	-101.66	-304.5	1,316.7	1,379.8	1,370.0	9.79	140.903		
2,400.0	2,381.8	2,409.8	2,409.8	6.1	4.2	-102.26	-304.5	1,316.7	1,382.9	1,372.7	10.26	134.737		
2,500.0	2,480.7	2,508.7	2,508.7	6.4	4.4	-102.86	-304.5	1,316.7	1,386.2	1,375.5	10.73	129.139		
2,600.0	2,579.6	2,607.6	2,607.6	6.8	4.6	-103.46	-304.5	1,316.7	1,389.7	1,378.5	11.20	124.036		
2,700.0	2,678.4	2,706.4	2,706.4	7.1	4.7	-104.05	-304.5	1,316.7	1,393.3	1,381.6	11.67	119.367		
2,800.0	2,777.3	2,805.3	2,805.3	7.4	4.9	-104.64	-304.5	1,316.7	1,397.0	1,384.9	12.14	115.083		
2,900.0	2,876.2	2,904.2	2,904.2	7.7	5.1	-105.22	-304.5	1,316.7	1,400.9	1,388.3	12.61	111.139		
3,000.0	2,975.1	3,003.1	3,003.1	8.0	5.2	-105.81	-304.5	1,316.7	1,405.0	1,391.9	13.07	107.499		
3,100.0	3,073.9	3,101.9	3,101.9	8.3	5.4	-106.39	-304.5	1,316.7	1,409.2	1,395.6	13.53	104.130		
3,200.0	3,172.8	3,200.8	3,200.8	8.6	5.6	-106.96	-304.5	1,316.7	1,413.5	1,399.5	13.99	101.005		
3,300.0	3,271.7	3,299.7	3,299.7	8.9	5.8	-107.54	-304.5	1,316.7	1,418.0	1,403.5	14.45	98.100		
3,400.0	3,370.5	3,398.5	3,398.5	9.3	5.9	-108.10	-304.5	1,316.7	1,422.6	1,407.7	14.91	95.394		
3,500.0	3,469.4	3,497.4	3,497.4	9.6	6.1	-108.67	-304.5	1,316.7	1,427.4	1,412.0	15.37	92.868		
3,600.0	3,568.3	3,596.3	3,596.3	9.9	6.3	-109.23	-304.5	1,316.7	1,432.3	1,416.5	15.83	90.507		
3,700.0	3,667.2	3,695.2	3,695.2	10.2	6.4	-109.79	-304.5	1,316.7	1,437.4	1,421.1	16.28	88.295		
3,800.0	3,766.0	3,794.0	3,794.0	10.5	6.6	-110.34	-304.5	1,316.7	1,442.5	1,425.8	16.73	86.220		
3,900.0	3,864.9	3,892.9	3,892.9	10.8	6.8	-110.89	-304.5	1,316.7	1,447.9	1,430.7	17.18	84.270		
4,000.0	3,963.8	3,991.8	3,991.8	11.1	7.0	-111.44	-304.5	1,316.7	1,453.3	1,435.7	17.63	82.436		
4,100.0	4,062.7	4,090.7	4,090.7	11.4	7.1	-111.98	-304.5	1,316.7	1,458.9	1,440.8	18.08	80.709		
4,200.0	4,161.5	4,189.5	4,189.5	11.8	7.3	-112.52	-304.5	1,316.7	1,464.6	1,446.1	18.52	79.079		
4,300.0	4,260.4	4,288.4	4,288.4	12.1	7.5	-113.05	-304.5	1,316.7	1,470.5	1,451.5	18.96	77.540		
4,400.0	4,359.3	4,387.3	4,387.3	12.4	7.7	-113.58	-304.5	1,316.7	1,476.5	1,457.1	19.41	76.085		
4,500.0	4,458.1	4,486.1	4,486.1	12.7	7.8	-114.11	-304.5	1,316.7	1,482.6	1,462.7	19.85	74.708		
4,600.0	4,557.0	4,585.0	4,585.0	13.0	8.0	-114.63	-304.5	1,316.7	1,488.8	1,468.5	20.28	73.404		
4,700.0	4,655.9	4,683.9	4,683.9	13.3	8.2	-115.15	-304.5	1,316.7	1,495.2	1,474.5	20.72	72.167		
4,800.0	4,754.8	4,782.8	4,782.8	13.6	8.3	-115.66	-304.5	1,316.7	1,501.7	1,480.5	21.15	70.994		
4,900.0	4,853.6	4,881.6	4,881.6	14.0	8.5	-116.17	-304.5	1,316.7	1,508.3	1,486.7	21.58	69.879		
5,000.0	4,952.5	4,980.5	4,980.5	14.3	8.7	-116.67	-304.5	1,316.7	1,515.0	1,493.0	22.01	68.819		
5,100.0	5,051.4	5,079.4	5,079.4	14.6	8.9	-117.17	-304.5	1,316.7	1,521.8	1,499.4	22.44	67.810		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Offset Design													S17-T2N-R67W (Big Horn) - STANLEY 2 (EXISTING) - GERRITY OIL - NO SURVEYS		Offset Site Error:		0.0 ft	
Survey Program: 5175-Geolink MWD													Offset Well Error:		0.0 ft			
Reference		Offset		Semi Major Axis			Distance							Warning				
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N/-S	Centre +E/-W	Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor						
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)								
5,200.0	5,150.3	5,175.0	5,175.0	14.9	9.0	-117.65	-304.5	1,316.7	1,528.8	1,505.9	22.86	66.863						
5,300.0	5,249.1	5,175.0	5,175.0	15.2	9.0	-117.65	-304.5	1,316.7	1,539.3	1,516.1	23.15	66.479						
5,400.0	5,348.0	5,175.0	5,175.0	15.5	9.0	-117.65	-304.5	1,316.7	1,556.1	1,532.6	23.44	66.376 SF						
5,500.0	5,446.9	5,175.0	5,175.0	15.8	9.0	-117.65	-304.5	1,316.7	1,579.1	1,555.3	23.73	66.535						
5,600.0	5,545.7	5,175.0	5,175.0	16.2	9.0	-117.65	-304.5	1,316.7	1,608.0	1,584.0	24.02	66.935						

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Bighorn 4G-17H-P267
Project:	DJ Wattenberg	TVD Reference:	WELL @ 4983.0ft
Reference Site:	S17-T2N-R67W (Big Horn)	MD Reference:	WELL @ 4983.0ft
Site Error:	0.0ft	North Reference:	True
Reference Well:	Bighorn 4G-17H-P267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #3	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4983.0ft

Offset Depths are relative to Offset Datum

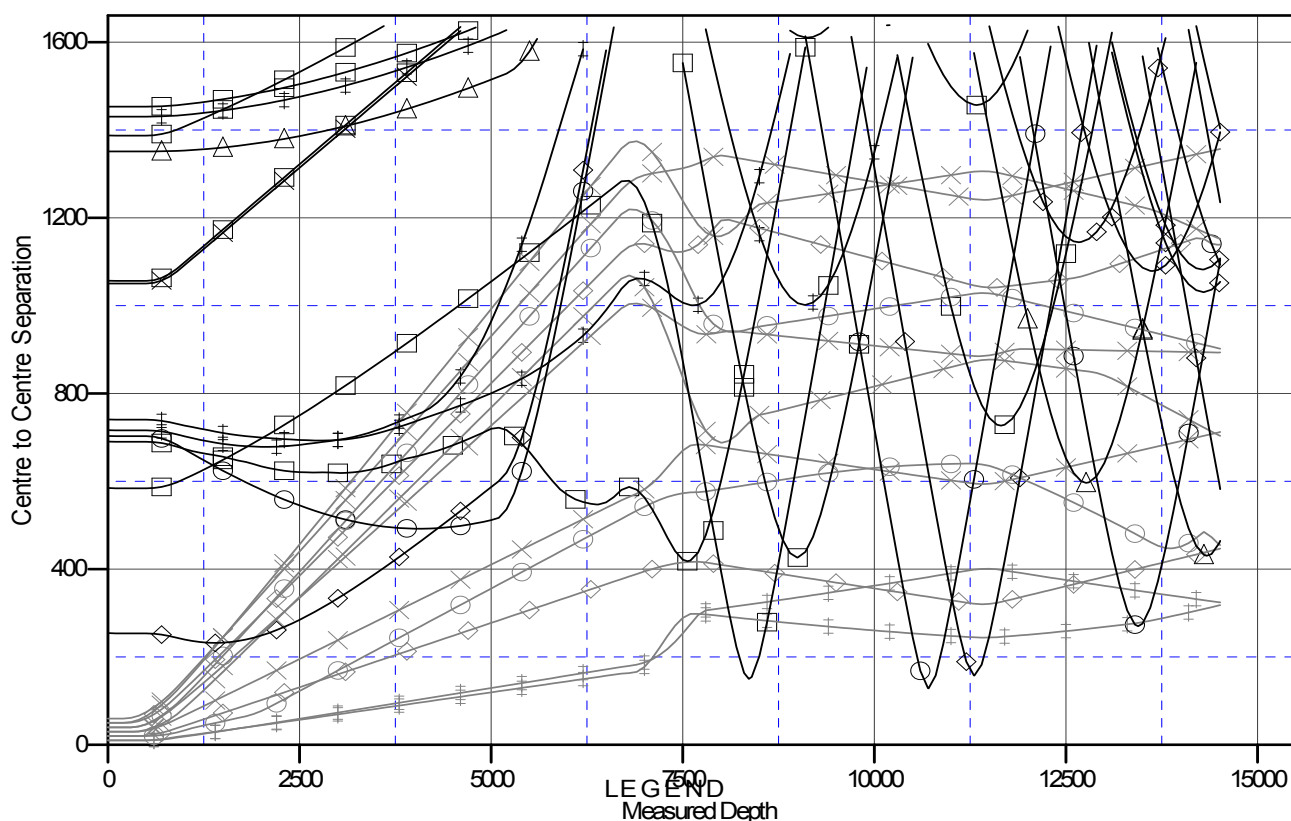
Central Meridian is -105.500000 °

Coordinates are relative to: Bighorn 4G-17H-P267

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.38°

Ladder Plot



ING), MERIT ENERGY, NOSURVEYS V0	DECHANT STATE 3 (EXISTING), FOUNDATION, NOSURVEYS V0	MILLER 33-17J (EXISTING), ENCANA
DD, Plan #2 V0	DIER 1 (EXISTING), ENCANA WELL, GYROV0	MILLER 34-17J (EXISTING), ENCANA
DD, Plan #4 V0	DIER 33-8 (EXISTING), ENCANA WELL, GYROV0	MILLER 43-17 (EXISTING), SUNDANCE
DD, Plan #3 V0	DIER 34-8 (EXISTING), ENCANA WELL, GYROV0	MILLER 43-17J (EXISTING), SUNDANCE
DD, Plan #1 V0	DIER 44-8 (EXISTING), ENCANA WELL, GYROV0	MILLER 44-17J (EXISTING), ENCANA
DD, Plan #1 V0	DIER 4-4-8 (EXISTING), ENCANA WELL, NOSURVEYS V0	PAGE 1 (EXISTING), TEXAS TEA OIL
DD, Plan #3 V0	DIER 8-4-8 (EXISTING), ENCANA WELL, SURVEYS V0	PAGE 2 (EXISTING), TEXAS TEA OIL
DD, Plan #3 V0	DIER 8-6-8 (EXISTING), ENCANA WELL, SURVEYS V0	PAGE 3 (EXISTING), TEXAS TEA OIL
DD, Plan #5 V0	DIER J 1-A (EXISTING), ENCANA WELL, GYROV0	SATER 24-8 (EXISTING), KERRMCCOY
DD, Plan #3 V0	MILLER 1 (EXISTING), SUNDANCE WELL, GYROV0	SATER 7-8 (EXISTING), KERRMCCOY
DD, Plan #2 V0	MILLER 1-17 (EXISTING), ENCANA WELL, NOSURVEYS V0	SATER 8-8 (EXISTING), KERRMCCOY

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