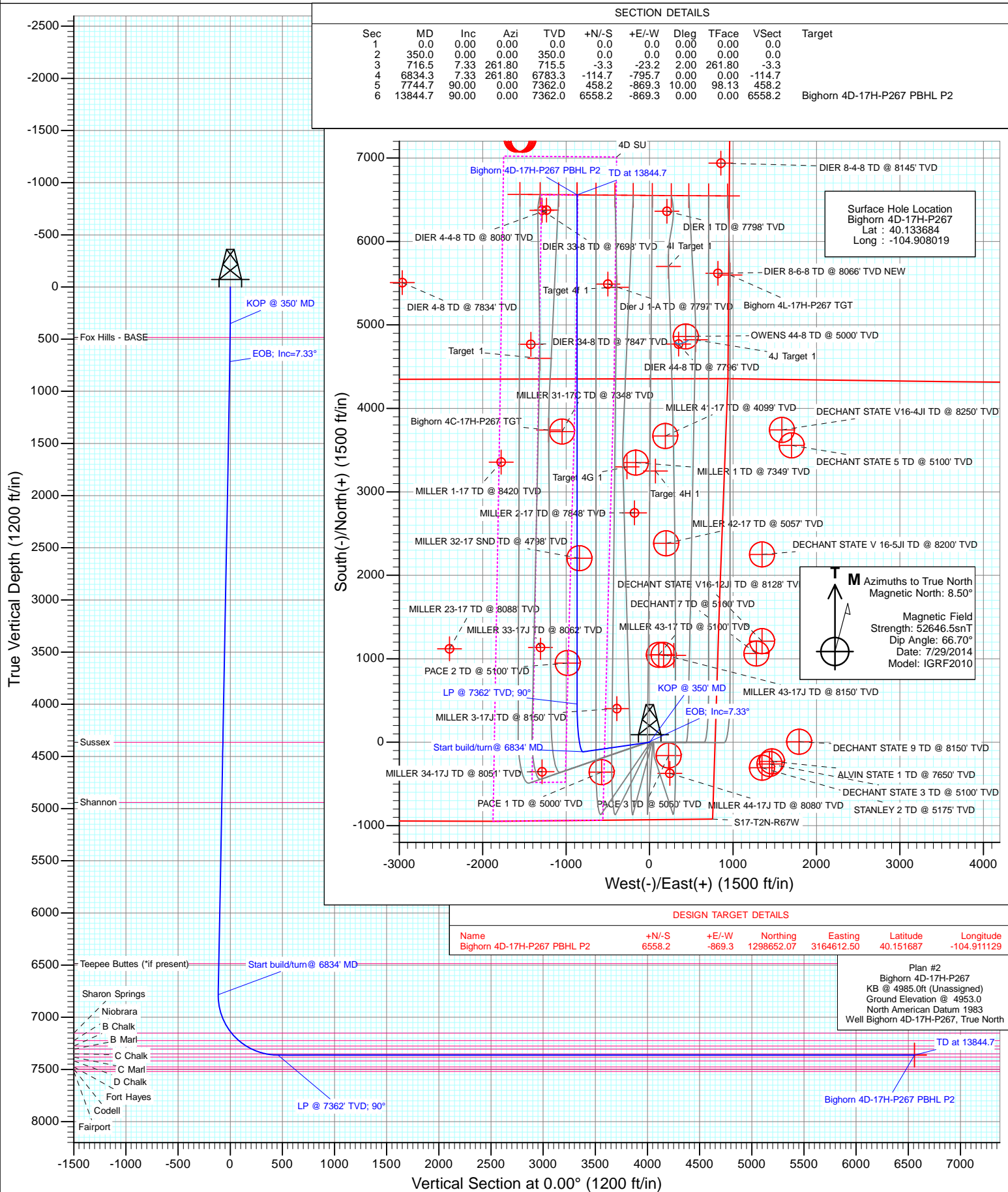




Project: DJ Wattenberg  
Site: S17-T2N-R67W (Big Horn)  
Well: Bighorn 4D-17H-P267  
Wellbore: DD  
Design: Plan #2



# HP

## Planning Report

<b>Database:</b>	USA EDM R5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site:</b>	S17-T2N-R67W (Big Horn)	<b>North Reference:</b>	True
<b>Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

<b>Project</b>	DJ Wattenberg		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	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 4D-17H-P267					
Well Position	+N/-S	0.0 ft	Northing:	1,292,099.82 ft	Latitude:	40.133684
	+E/-W	0.0 ft	Easting:	3,165,525.60 ft	Longitude:	-104.908019
Position Uncertainty		0.0 ft	Wellhead Elevation:	0.0 ft	Ground Level:	4,953.0 ft

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

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	0.00

<b>Plan Sections</b>										
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	
350.0	0.00	0.00	350.0	0.0	0.0	0.00	0.00	0.00	0.00	
716.5	7.33	261.80	715.5	-3.3	-23.2	2.00	2.00	0.00	261.80	
6,834.3	7.33	261.80	6,783.3	-114.7	-795.7	0.00	0.00	0.00	0.00	
7,744.7	90.00	0.00	7,362.0	458.2	-869.3	10.00	9.08	10.79	98.13	
13,844.7	90.00	0.00	7,362.0	6,558.2	-869.3	0.00	0.00	0.00	0.00	Bighorn 4D-17H-P267

# HP

## Planning Report

<b>Database:</b>	USA EDM R5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site:</b>	S17-T2N-R67W (Big Horn)	<b>North Reference:</b>	True
<b>Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
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	
350.0	0.00	0.00	350.0	0.0	0.0	0.0	0.00	0.00	KOP @ 350' MD
400.0	1.00	261.80	400.0	-0.1	-0.4	-0.1	2.00	2.00	
483.0	2.66	261.80	483.0	-0.4	-3.1	-0.4	2.00	2.00	Fox Hills - BASE
500.0	3.00	261.80	499.9	-0.6	-3.9	-0.6	2.00	2.00	
600.0	5.00	261.80	599.7	-1.6	-10.8	-1.6	2.00	2.00	
700.0	7.00	261.80	699.1	-3.0	-21.1	-3.0	2.00	2.00	
716.5	7.33	261.80	715.5	-3.3	-23.2	-3.3	2.00	2.00	EOB; Inc=7.33°
800.0	7.33	261.80	798.3	-4.9	-33.7	-4.9	0.00	0.00	
900.0	7.33	261.80	897.5	-6.7	-46.3	-6.7	0.00	0.00	
1,000.0	7.33	261.80	996.7	-8.5	-59.0	-8.5	0.00	0.00	
1,100.0	7.33	261.80	1,095.9	-10.3	-71.6	-10.3	0.00	0.00	
1,200.0	7.33	261.80	1,195.1	-12.1	-84.2	-12.1	0.00	0.00	
1,300.0	7.33	261.80	1,294.2	-14.0	-96.9	-14.0	0.00	0.00	
1,400.0	7.33	261.80	1,393.4	-15.8	-109.5	-15.8	0.00	0.00	
1,500.0	7.33	261.80	1,492.6	-17.6	-122.1	-17.6	0.00	0.00	
1,600.0	7.33	261.80	1,591.8	-19.4	-134.7	-19.4	0.00	0.00	
1,700.0	7.33	261.80	1,691.0	-21.2	-147.4	-21.2	0.00	0.00	
1,800.0	7.33	261.80	1,790.1	-23.1	-160.0	-23.1	0.00	0.00	
1,900.0	7.33	261.80	1,889.3	-24.9	-172.6	-24.9	0.00	0.00	
2,000.0	7.33	261.80	1,988.5	-26.7	-185.2	-26.7	0.00	0.00	
2,100.0	7.33	261.80	2,087.7	-28.5	-197.9	-28.5	0.00	0.00	
2,200.0	7.33	261.80	2,186.9	-30.3	-210.5	-30.3	0.00	0.00	
2,300.0	7.33	261.80	2,286.1	-32.2	-223.1	-32.2	0.00	0.00	
2,400.0	7.33	261.80	2,385.2	-34.0	-235.7	-34.0	0.00	0.00	
2,500.0	7.33	261.80	2,484.4	-35.8	-248.4	-35.8	0.00	0.00	
2,600.0	7.33	261.80	2,583.6	-37.6	-261.0	-37.6	0.00	0.00	
2,700.0	7.33	261.80	2,682.8	-39.4	-273.6	-39.4	0.00	0.00	
2,800.0	7.33	261.80	2,782.0	-41.3	-286.3	-41.3	0.00	0.00	
2,900.0	7.33	261.80	2,881.2	-43.1	-298.9	-43.1	0.00	0.00	
3,000.0	7.33	261.80	2,980.3	-44.9	-311.5	-44.9	0.00	0.00	
3,100.0	7.33	261.80	3,079.5	-46.7	-324.1	-46.7	0.00	0.00	
3,200.0	7.33	261.80	3,178.7	-48.5	-336.8	-48.5	0.00	0.00	
3,300.0	7.33	261.80	3,277.9	-50.4	-349.4	-50.4	0.00	0.00	
3,400.0	7.33	261.80	3,377.1	-52.2	-362.0	-52.2	0.00	0.00	
3,500.0	7.33	261.80	3,476.3	-54.0	-374.6	-54.0	0.00	0.00	
3,600.0	7.33	261.80	3,575.4	-55.8	-387.3	-55.8	0.00	0.00	
3,700.0	7.33	261.80	3,674.6	-57.6	-399.9	-57.6	0.00	0.00	
3,800.0	7.33	261.80	3,773.8	-59.4	-412.5	-59.4	0.00	0.00	
3,900.0	7.33	261.80	3,873.0	-61.3	-425.2	-61.3	0.00	0.00	
4,000.0	7.33	261.80	3,972.2	-63.1	-437.8	-63.1	0.00	0.00	
4,100.0	7.33	261.80	4,071.4	-64.9	-450.4	-64.9	0.00	0.00	
4,200.0	7.33	261.80	4,170.5	-66.7	-463.0	-66.7	0.00	0.00	
4,300.0	7.33	261.80	4,269.7	-68.5	-475.7	-68.5	0.00	0.00	
4,395.1	7.33	261.80	4,364.0	-70.3	-487.7	-70.3	0.00	0.00	Sussex
4,400.0	7.33	261.80	4,368.9	-70.4	-488.3	-70.4	0.00	0.00	
4,500.0	7.33	261.80	4,468.1	-72.2	-500.9	-72.2	0.00	0.00	
4,600.0	7.33	261.80	4,567.3	-74.0	-513.5	-74.0	0.00	0.00	
4,700.0	7.33	261.80	4,666.5	-75.8	-526.2	-75.8	0.00	0.00	

# HP

## Planning Report

<b>Database:</b>	USA EDM R5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site:</b>	S17-T2N-R67W (Big Horn)	<b>North Reference:</b>	True
<b>Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,800.0	7.33	261.80	4,765.6	-77.6	-538.8	-77.6	0.00	0.00	
4,900.0	7.33	261.80	4,864.8	-79.5	-551.4	-79.5	0.00	0.00	
4,975.8	7.33	261.80	4,940.0	-80.8	-561.0	-80.8	0.00	0.00	Shannon
5,000.0	7.33	261.80	4,964.0	-81.3	-564.1	-81.3	0.00	0.00	
5,100.0	7.33	261.80	5,063.2	-83.1	-576.7	-83.1	0.00	0.00	
5,200.0	7.33	261.80	5,162.4	-84.9	-589.3	-84.9	0.00	0.00	
5,300.0	7.33	261.80	5,261.5	-86.7	-601.9	-86.7	0.00	0.00	
5,400.0	7.33	261.80	5,360.7	-88.6	-614.6	-88.6	0.00	0.00	
5,500.0	7.33	261.80	5,459.9	-90.4	-627.2	-90.4	0.00	0.00	
5,600.0	7.33	261.80	5,559.1	-92.2	-639.8	-92.2	0.00	0.00	
5,700.0	7.33	261.80	5,658.3	-94.0	-652.4	-94.0	0.00	0.00	
5,800.0	7.33	261.80	5,757.5	-95.8	-665.1	-95.8	0.00	0.00	
5,900.0	7.33	261.80	5,856.6	-97.7	-677.7	-97.7	0.00	0.00	
6,000.0	7.33	261.80	5,955.8	-99.5	-690.3	-99.5	0.00	0.00	
6,100.0	7.33	261.80	6,055.0	-101.3	-702.9	-101.3	0.00	0.00	
6,200.0	7.33	261.80	6,154.2	-103.1	-715.6	-103.1	0.00	0.00	
6,300.0	7.33	261.80	6,253.4	-104.9	-728.2	-104.9	0.00	0.00	
6,400.0	7.33	261.80	6,352.6	-106.8	-740.8	-106.8	0.00	0.00	
6,500.0	7.33	261.80	6,451.7	-108.6	-753.5	-108.6	0.00	0.00	
6,532.5	7.33	261.80	6,484.0	-109.2	-757.6	-109.2	0.00	0.00	Teepee Buttes (*if present)
6,600.0	7.33	261.80	6,550.9	-110.4	-766.1	-110.4	0.00	0.00	
6,700.0	7.33	261.80	6,650.1	-112.2	-778.7	-112.2	0.00	0.00	
6,800.0	7.33	261.80	6,749.3	-114.0	-791.3	-114.0	0.00	0.00	
6,834.3	7.33	261.80	6,783.3	-114.7	-795.7	-114.7	0.00	0.00	Start build/turn@ 6834' MD
6,900.0	9.11	307.47	6,848.4	-112.1	-804.0	-112.1	10.00	2.71	
7,000.0	17.10	335.56	6,945.8	-93.8	-816.4	-93.8	10.00	7.99	
7,100.0	26.47	345.19	7,038.6	-58.8	-828.2	-58.8	10.00	9.37	
7,200.0	36.17	349.97	7,123.9	-8.1	-839.0	-8.1	10.00	9.69	
7,233.0	39.40	351.08	7,150.0	11.9	-842.4	11.9	10.00	9.78	Sharon Springs
7,300.0	45.98	352.93	7,199.2	56.8	-848.6	56.8	10.00	9.82	
7,333.8	49.31	353.72	7,222.0	81.6	-851.5	81.6	10.00	9.85	Niobrara
7,400.0	55.84	355.04	7,262.2	133.9	-856.6	133.9	10.00	9.87	
7,423.5	58.17	355.47	7,275.0	153.6	-858.3	153.6	10.00	9.89	B Chalk
7,485.9	64.34	356.49	7,305.0	208.1	-862.1	208.1	10.00	9.90	B Marl
7,500.0	65.74	356.71	7,310.9	220.9	-862.8	220.9	10.00	9.90	
7,600.0	75.65	358.13	7,344.0	315.0	-867.0	315.0	10.00	9.91	
7,626.8	78.30	358.49	7,350.0	341.1	-867.8	341.1	10.00	9.92	C Chalk
7,700.0	85.57	359.43	7,360.3	413.5	-869.1	413.5	10.00	9.92	
7,744.7	90.00	0.00	7,362.0	458.2	-869.3	458.2	10.00	9.92	LP @ 7362' TVD; 90°
7,800.0	90.00	0.00	7,362.0	513.5	-869.3	513.5	0.00	0.00	
7,900.0	90.00	0.00	7,362.0	613.5	-869.3	613.5	0.00	0.00	
8,000.0	90.00	0.00	7,362.0	713.5	-869.3	713.5	0.00	0.00	
8,100.0	90.00	0.00	7,362.0	813.5	-869.3	813.5	0.00	0.00	
8,200.0	90.00	0.00	7,362.0	913.5	-869.3	913.5	0.00	0.00	
8,300.0	90.00	0.00	7,362.0	1,013.5	-869.3	1,013.5	0.00	0.00	
8,400.0	90.00	0.00	7,362.0	1,113.5	-869.3	1,113.5	0.00	0.00	
8,500.0	90.00	0.00	7,362.0	1,213.5	-869.3	1,213.5	0.00	0.00	
8,600.0	90.00	0.00	7,362.0	1,313.5	-869.3	1,313.5	0.00	0.00	
8,700.0	90.00	0.00	7,362.0	1,413.5	-869.3	1,413.5	0.00	0.00	
8,800.0	90.00	0.00	7,362.0	1,513.5	-869.3	1,513.5	0.00	0.00	
8,900.0	90.00	0.00	7,362.0	1,613.5	-869.3	1,613.5	0.00	0.00	
9,000.0	90.00	0.00	7,362.0	1,713.5	-869.3	1,713.5	0.00	0.00	

# HP

## Planning Report

<b>Database:</b>	USA EDM R5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site:</b>	S17-T2N-R67W (Big Horn)	<b>North Reference:</b>	True
<b>Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,100.0	90.00	0.00	7,362.0	1,813.5	-869.3	1,813.5	0.00	0.00	
9,200.0	90.00	0.00	7,362.0	1,913.5	-869.3	1,913.5	0.00	0.00	
9,300.0	90.00	0.00	7,362.0	2,013.5	-869.3	2,013.5	0.00	0.00	
9,400.0	90.00	0.00	7,362.0	2,113.5	-869.3	2,113.5	0.00	0.00	
9,500.0	90.00	0.00	7,362.0	2,213.5	-869.3	2,213.5	0.00	0.00	
9,600.0	90.00	0.00	7,362.0	2,313.5	-869.3	2,313.5	0.00	0.00	
9,700.0	90.00	0.00	7,362.0	2,413.5	-869.3	2,413.5	0.00	0.00	
9,800.0	90.00	0.00	7,362.0	2,513.5	-869.3	2,513.5	0.00	0.00	
9,900.0	90.00	0.00	7,362.0	2,613.5	-869.3	2,613.5	0.00	0.00	
10,000.0	90.00	0.00	7,362.0	2,713.5	-869.3	2,713.5	0.00	0.00	
10,100.0	90.00	0.00	7,362.0	2,813.5	-869.3	2,813.5	0.00	0.00	
10,200.0	90.00	0.00	7,362.0	2,913.5	-869.3	2,913.5	0.00	0.00	
10,300.0	90.00	0.00	7,362.0	3,013.5	-869.3	3,013.5	0.00	0.00	
10,400.0	90.00	0.00	7,362.0	3,113.5	-869.3	3,113.5	0.00	0.00	
10,500.0	90.00	0.00	7,362.0	3,213.5	-869.3	3,213.5	0.00	0.00	
10,600.0	90.00	0.00	7,362.0	3,313.5	-869.3	3,313.5	0.00	0.00	
10,700.0	90.00	0.00	7,362.0	3,413.5	-869.3	3,413.5	0.00	0.00	
10,800.0	90.00	0.00	7,362.0	3,513.5	-869.3	3,513.5	0.00	0.00	
10,900.0	90.00	0.00	7,362.0	3,613.5	-869.3	3,613.5	0.00	0.00	
11,000.0	90.00	0.00	7,362.0	3,713.5	-869.3	3,713.5	0.00	0.00	
11,100.0	90.00	0.00	7,362.0	3,813.5	-869.3	3,813.5	0.00	0.00	
11,200.0	90.00	0.00	7,362.0	3,913.5	-869.3	3,913.5	0.00	0.00	
11,300.0	90.00	0.00	7,362.0	4,013.5	-869.3	4,013.5	0.00	0.00	
11,400.0	90.00	0.00	7,362.0	4,113.5	-869.3	4,113.5	0.00	0.00	
11,500.0	90.00	0.00	7,362.0	4,213.5	-869.3	4,213.5	0.00	0.00	
11,600.0	90.00	0.00	7,362.0	4,313.5	-869.3	4,313.5	0.00	0.00	
11,700.0	90.00	0.00	7,362.0	4,413.5	-869.3	4,413.5	0.00	0.00	
11,800.0	90.00	0.00	7,362.0	4,513.5	-869.3	4,513.5	0.00	0.00	
11,900.0	90.00	0.00	7,362.0	4,613.5	-869.3	4,613.5	0.00	0.00	
12,000.0	90.00	0.00	7,362.0	4,713.5	-869.3	4,713.5	0.00	0.00	
12,100.0	90.00	0.00	7,362.0	4,813.5	-869.3	4,813.5	0.00	0.00	
12,200.0	90.00	0.00	7,362.0	4,913.5	-869.3	4,913.5	0.00	0.00	
12,300.0	90.00	0.00	7,362.0	5,013.5	-869.3	5,013.5	0.00	0.00	
12,400.0	90.00	0.00	7,362.0	5,113.5	-869.3	5,113.5	0.00	0.00	
12,500.0	90.00	0.00	7,362.0	5,213.5	-869.3	5,213.5	0.00	0.00	
12,600.0	90.00	0.00	7,362.0	5,313.5	-869.3	5,313.5	0.00	0.00	
12,700.0	90.00	0.00	7,362.0	5,413.5	-869.3	5,413.5	0.00	0.00	
12,800.0	90.00	0.00	7,362.0	5,513.5	-869.3	5,513.5	0.00	0.00	
12,900.0	90.00	0.00	7,362.0	5,613.5	-869.3	5,613.5	0.00	0.00	
13,000.0	90.00	0.00	7,362.0	5,713.5	-869.3	5,713.5	0.00	0.00	
13,100.0	90.00	0.00	7,362.0	5,813.5	-869.3	5,813.5	0.00	0.00	
13,200.0	90.00	0.00	7,362.0	5,913.5	-869.3	5,913.5	0.00	0.00	
13,300.0	90.00	0.00	7,362.0	6,013.5	-869.3	6,013.5	0.00	0.00	
13,400.0	90.00	0.00	7,362.0	6,113.5	-869.3	6,113.5	0.00	0.00	
13,500.0	90.00	0.00	7,362.0	6,213.5	-869.3	6,213.5	0.00	0.00	
13,600.0	90.00	0.00	7,362.0	6,313.5	-869.3	6,313.5	0.00	0.00	
13,700.0	90.00	0.00	7,362.0	6,413.5	-869.3	6,413.5	0.00	0.00	
13,800.0	90.00	0.00	7,362.0	6,513.5	-869.3	6,513.5	0.00	0.00	
13,844.7	90.00	0.00	7,362.0	6,558.2	-869.3	6,558.2	0.00	0.00	TD at 13844.7

# HP

## Planning Report

<b>Database:</b>	USA EDM R5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site:</b>	S17-T2N-R67W (Big Horn)	<b>North Reference:</b>	True
<b>Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Bighorn 4D-17H-P267 P	0.00	0.38	7,362.0	6,558.2	-869.3	1,298,652.07	3,164,612.50	40.151687	-104.911129
- plan hits target center									
- Point									
Bighorn 4D-17H-P267 P	0.00	0.38	7,500.0	6,558.2	-869.3	1,298,652.07	3,164,612.50	40.151687	-104.911129
- plan misses target center by 138.0ft at 13844.7ft MD (7362.0 TVD, 6558.2 N, -869.3 E)									
- Point									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
483.0	483.0	Fox Hills - BASE				
4,395.1	4,364.0	Sussex				
4,975.8	4,940.0	Shannon				
6,532.5	6,484.0	Teepee Buttes (*if present)				
7,233.0	7,150.0	Sharon Springs				
7,333.8	7,222.0	Niobrara				
7,423.5	7,275.0	B Chalk				
7,485.9	7,305.0	B Marl				
7,626.8	7,350.0	C Chalk				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
350.0	350.0	0.0	0.0	KOP @ 350' MD
716.5	715.5	-3.3	-23.2	EOB; Inc=7.33°
6,834.3	6,783.3	-114.7	-795.7	Start build/turn@ 6834' MD
7,744.7	7,362.0	458.2	-869.3	LP @ 7362' TVD; 90°
13,844.7	7,362.0	6,558.2	-869.3	TD at 13844.7

# **EnCana Oil & Gas (USA) Inc**

**DJ Wattenberg**

**S17-T2N-R67W (Big Horn)**

**Bighorn 4D-17H-P267**

**DD**

**Plan #2**

## **Anticollision Report**

**27 January, 2015**

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	Plan #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD Interval 100.0ft	<b>Error Model:</b>	Systematic Ellipse
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,000.0ft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>		<b>Date</b>	1/27/2015		
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	13,844.7	Plan #2 (DD)	Geolink MWD	Geolink MWD	



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance		Separation Factor	Warning
			Between Centres (ft)	Between Ellipses (ft)		
S17-T2N-R67W (Big Horn)						
Bighorn 4A-17H-P267 - DD - Plan #2	200.0	198.0	29.9	29.3	51.017	CC, ES
Bighorn 4A-17H-P267 - DD - Plan #2	13,844.7	14,262.8	689.5	456.6	2.960	SF
Bighorn 4B-17H-P267 - DD - Plan #4	236.0	234.0	20.1	19.4	28.276	CC, ES
Bighorn 4B-17H-P267 - DD - Plan #4	13,844.7	14,412.1	463.0	238.4	2.061	SF
Bighorn 4C-17H-P267 - DD - Plan #3	300.0	298.0	10.1	9.1	10.760	CC, ES
Bighorn 4C-17H-P267 - DD - Plan #3	13,844.7	14,055.8	238.8	21.7	1.100	Level 2, SF
Bighorn 4E-17H-P267 - DD - Plan #1	300.0	298.0	10.1	9.1	10.760	CC
Bighorn 4E-17H-P267 - DD - Plan #1	327.8	325.8	10.1	9.1	9.813	ES
Bighorn 4E-17H-P267 - DD - Plan #1	13,844.7	14,535.9	245.3	27.3	1.125	Level 2, SF
Bighorn 4F-17H-P267 - DD - Plan #4	300.0	298.0	19.9	18.9	21.224	CC
Bighorn 4F-17H-P267 - DD - Plan #4	327.8	325.8	19.9	18.9	19.294	ES
Bighorn 4F-17H-P267 - DD - Plan #4	13,844.7	14,690.0	475.3	250.0	2.109	SF
Bighorn 4G-17H-P267 - DD - Plan #3	300.0	298.0	29.9	29.0	31.983	CC
Bighorn 4G-17H-P267 - DD - Plan #3	327.8	325.8	30.0	29.0	29.042	ES
Bighorn 4G-17H-P267 - DD - Plan #3	13,844.7	14,490.9	679.9	447.6	2.926	SF
Bighorn 4H-17H-P267 - DD - Plan #3	300.0	298.0	40.0	39.0	42.742	CC
Bighorn 4H-17H-P267 - DD - Plan #3	327.8	325.8	40.1	39.0	38.791	ES
Bighorn 4H-17H-P267 - DD - Plan #3	13,844.7	14,666.1	912.3	680.0	3.927	SF
Bighorn 4I-17H-P267 - DD - Plan #6	300.0	298.0	50.1	49.1	53.502	CC
Bighorn 4I-17H-P267 - DD - Plan #6	327.8	325.8	50.1	49.1	48.541	ES
Bighorn 4I-17H-P267 - DD - Plan #6	700.0	696.9	71.5	69.2	30.564	SF
Bighorn 4J-17H-P267 - DD - Plan #4	300.0	300.0	60.1	59.2	64.261	CC
Bighorn 4J-17H-P267 - DD - Plan #4	327.8	327.8	60.2	59.2	58.290	ES
Bighorn 4J-17H-P267 - DD - Plan #4	600.0	595.2	80.5	78.6	40.881	SF
Bighorn 4K-17H-P267 - DD - Plan #2	300.0	298.0	69.9	69.0	74.725	CC, ES
Bighorn 4K-17H-P267 - DD - Plan #2	600.0	589.3	95.6	93.6	48.709	SF
Bighorn 4L-17H-P267 - DD - Plan #3	200.0	198.0	80.0	79.4	136.368	CC, ES
Bighorn 4L-17H-P267 - DD - Plan #3	600.0	584.4	117.2	115.3	60.025	SF
DIER 1 (EXISTING) - ENCANA WELL - GYRO						Out of range
DIER 1 (EXISTING) - ENCANA WELL - GYRO						Out of range
DIER 33-8 (EXISTING) - ENCANA WELL - GYRO	13,652.0	7,315.5	418.0	291.2	3.297	CC, ES
DIER 33-8 (EXISTING) - ENCANA WELL - GYRO	13,700.0	7,316.5	420.8	293.1	3.297	SF
DIER 34-8 (EXISTING) - ENCANA WELL - GYRO	12,045.2	7,305.9	550.0	451.1	5.565	CC, ES
DIER 34-8 (EXISTING) - ENCANA WELL - GYRO	12,100.0	7,307.0	552.7	452.9	5.539	SF
DIER 44-8 (EXISTING) - ENCANA WELL - GYRO						Out of range
DIER 44-8 (EXISTING) - ENCANA WELL - GYRO						Out of range
DIER 44-8 (EXISTING) - ENCANA WELL - GYRO						Out of range
DIER 4-4-8 (EXISTING) - ENCANA WELL - NO SURVEY	13,662.2	7,295.0	365.6	238.7	2.881	CC, ES, SF
DIER J 1-A (EXISTING) - ENCANA WELL - GYRO	12,779.5	7,326.3	357.8	246.2	3.206	CC, ES
DIER J 1-A (EXISTING) - ENCANA WELL - GYRO	12,800.0	7,326.0	358.4	246.4	3.201	SF
MILLER 1 (EXISTING) - SUNDANCE WELL - GYRO	10,636.3	7,330.9	704.1	629.6	9.450	CC, ES
MILLER 1 (EXISTING) - SUNDANCE WELL - GYRO	10,800.0	7,330.4	722.9	645.5	9.349	SF
MILLER 1-17 (EXISTING) - ENCANA WELL - NO SURV	10,643.1	7,318.0	909.3	834.7	12.188	CC, ES
MILLER 1-17 (EXISTING) - ENCANA WELL - NO SURV	10,800.0	7,318.0	922.7	845.4	11.937	SF
MILLER 2-17 (EXISTING) - ENCANA WELL - GYRO	10,039.0	7,327.3	693.5	629.2	10.787	CC, ES
MILLER 2-17 (EXISTING) - ENCANA WELL - GYRO	10,200.0	7,324.6	711.9	644.9	10.622	SF
MILLER 31-17C (EXISTING) - SUNDANCE WELL - GYR	11,008.9	7,297.8	178.0	97.2	2.203	CC, ES, SF
MILLER 3-17J (EXISTING) - ENCANA - NO SURVEYS	3,128.1	3,075.4	454.8	441.4	33.978	CC
MILLER 3-17J (EXISTING) - ENCANA - NO SURVEYS	3,300.0	3,245.9	455.3	441.2	32.146	ES
MILLER 3-17J (EXISTING) - ENCANA - NO SURVEYS	7,800.0	7,330.0	489.4	460.2	16.731	SF
MILLER 33-17J (EXISTING) - ENCANA - SURVEYS	4,484.3	4,400.3	247.5	231.2	15.237	CC
MILLER 33-17J (EXISTING) - ENCANA - SURVEYS	4,500.0	4,413.8	247.6	231.2	15.150	ES
MILLER 33-17J (EXISTING) - ENCANA - SURVEYS	8,500.0	7,612.5	411.1	359.8	8.017	SF

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
S17-T2N-R67W (Big Horn)						
MILLER 34-17J (EXISTING) - ENCANA - SURVEYS	5,721.7	5,637.2	127.4	107.7	6.453	CC, ES
MILLER 34-17J (EXISTING) - ENCANA - SURVEYS	5,800.0	5,711.5	128.8	108.8	6.434	SF
MILLER 44-17J (EXISTING) - ENCANA - SURVEYS	5,289.0	5,224.9	21.4	-1.6	0.929	Level 1, CC, ES, SF
PACE 1 (EXISTING) - TEXAS TEA OIL - NO SURVEYS	5,064.1	5,000.0	276.0	253.8	12.462	CC, ES, SF
SATER 24-8 (EXISTING) - KERRMCGEE WELL - SURV	13,844.7	7,477.5	716.4	586.4	5.510	CC, ES, SF
SATER 7-8 (EXISTING) - KERRMCGEE WELL - SURVE						Out of range
S5-T2N-R67W (Vogl-McCoy)						
DIER 23-8 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
DIER 23-8 (EXISTING) - ENCANA WELL - SURVEYS						Out of range
SATER 24-8 (EXISTING) - KERR-MCGEE WELL - SURV	13,844.7	7,497.7	716.8	586.9	5.518	CC, ES, SF
SATER 7-8 (EXISTING) - KERR-MCGEE WELL - SURV						Out of range
Vogl-McCoy 2G-5H-F267 - Hz - FINAL						Out of range
Vogl-McCoy 2G-5H-F267 - Hz - Plan #7						Out of range
Vogl-McCoy 2H-5H-F267 - Hz - FINAL						Out of range
Vogl-McCoy 2H-5H-F267 - Hz - Plan #2						Out of range
S9-T2N-R67W (Sprague)						
DIER 1 (EXISTING) - ENCANA WELL - EXISTING - VES						Out of range
DIER 1 (EXISTING) - ENCANA WELL - EXISTING - VES						Out of range
DIER 1 (EXISTING) - ENCANA WELL - EXISTING - VES						Out of range
DIER 44-8 - ENCANA - GYRO						Out of range
DIER 44-8 - ENCANA - GYRO						Out of range
DIER 44-8 - ENCANA - GYRO						Out of range
SATER 24C-5HZ - KMG - PLAN	13,844.7	7,217.0	864.0	737.0	6.802	CC, ES, SF
SATER 40N-5HZ (EXISTING) - KERR-MCGEE WELL - B						Out of range

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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)				
0.0	0.0	0.0	0.0	0.0	0.0	-89.95	0.0	-29.9	30.0					
100.0	100.0	98.0	98.0	0.1	0.1	-89.95	0.0	-29.9	29.9	29.7	0.24	125.487		
200.0	200.0	198.0	198.0	0.3	0.3	-89.95	0.0	-29.9	29.9	29.3	0.59	51.017 CC, ES		
300.0	300.0	297.0	297.0	0.5	0.5	-90.93	-0.5	-31.5	31.5	30.6	0.94	33.613		
400.0	400.0	395.8	395.6	0.6	0.7	4.83	-2.2	-36.2	35.9	34.7	1.28	28.025		
500.0	499.9	494.4	493.9	0.8	0.9	2.01	-4.9	-44.2	40.7	39.1	1.63	24.989		
600.0	599.7	592.8	591.6	1.0	1.1	-1.01	-8.8	-55.3	45.5	43.5	1.98	23.027		
700.0	699.1	691.0	688.6	1.3	1.5	-4.17	-13.7	-69.6	50.3	48.0	2.32	21.686		
800.0	798.3	789.0	784.8	1.5	1.8	-7.29	-19.7	-86.9	56.4	53.8	2.67	21.152		
900.0	897.5	886.4	879.9	1.8	2.2	-9.84	-26.8	-107.2	66.0	63.0	3.02	21.876		
1,000.0	996.7	985.8	976.4	2.0	2.7	-11.76	-34.5	-129.5	77.3	73.9	3.38	22.907		
1,100.0	1,095.9	1,085.1	1,072.9	2.3	3.1	-13.19	-42.2	-151.7	88.7	85.0	3.74	23.731		
1,200.0	1,195.1	1,184.4	1,169.4	2.6	3.5	-14.30	-49.9	-173.9	100.1	96.0	4.10	24.398		
1,300.0	1,294.2	1,283.7	1,265.9	2.9	4.0	-15.18	-57.6	-196.1	111.6	107.1	4.47	24.944		
1,400.0	1,393.4	1,383.1	1,362.4	3.1	4.4	-15.89	-65.3	-218.3	123.0	118.2	4.84	25.397		
1,500.0	1,492.6	1,482.4	1,458.9	3.4	4.9	-16.49	-73.0	-240.5	134.5	129.3	5.22	25.778		
1,600.0	1,591.8	1,581.7	1,555.4	3.7	5.3	-16.99	-80.7	-262.7	146.0	140.4	5.59	26.101		
1,700.0	1,691.0	1,681.1	1,651.9	4.0	5.8	-17.42	-88.4	-284.9	157.5	151.5	5.97	26.378		
1,800.0	1,790.1	1,780.4	1,748.4	4.3	6.2	-17.78	-96.1	-307.2	169.0	162.7	6.35	26.617		
1,900.0	1,889.3	1,879.7	1,845.0	4.5	6.7	-18.11	-103.8	-329.4	180.5	173.8	6.73	26.826		
2,000.0	1,988.5	1,979.1	1,941.5	4.8	7.1	-18.39	-111.5	-351.6	192.1	184.9	7.11	27.010		
2,100.0	2,087.7	2,078.4	2,038.0	5.1	7.6	-18.64	-119.2	-373.8	203.6	196.1	7.49	27.172		
2,200.0	2,186.9	2,177.7	2,134.5	5.4	8.0	-18.86	-126.9	-396.0	215.1	207.2	7.87	27.317		
2,300.0	2,286.1	2,277.0	2,231.0	5.7	8.5	-19.07	-134.6	-418.2	226.6	218.4	8.26	27.446		
2,400.0	2,385.2	2,376.4	2,327.5	6.0	8.9	-19.25	-142.3	-440.4	238.2	229.5	8.64	27.563		
2,500.0	2,484.4	2,475.7	2,424.0	6.2	9.4	-19.41	-150.0	-462.6	249.7	240.7	9.03	27.668		
2,600.0	2,583.6	2,575.0	2,520.5	6.5	9.9	-19.56	-157.7	-484.9	261.3	251.8	9.41	27.764		
2,700.0	2,682.8	2,674.4	2,617.0	6.8	10.3	-19.70	-165.4	-507.1	272.8	263.0	9.80	27.851		
2,800.0	2,782.0	2,773.7	2,713.5	7.1	10.8	-19.83	-173.1	-529.3	284.3	274.2	10.18	27.931		
2,900.0	2,881.2	2,873.0	2,810.0	7.4	11.2	-19.94	-180.8	-551.5	295.9	285.3	10.57	28.004		
3,000.0	2,980.3	2,972.4	2,906.5	7.7	11.7	-20.05	-188.5	-573.7	307.4	296.5	10.95	28.071		
3,100.0	3,079.5	3,071.7	3,003.0	7.9	12.1	-20.15	-196.2	-595.9	319.0	307.6	11.34	28.134		
3,200.0	3,178.7	3,171.0	3,099.6	8.2	12.6	-20.25	-203.9	-618.1	330.5	318.8	11.72	28.191		
3,300.0	3,277.9	3,270.3	3,196.1	8.5	13.0	-20.33	-211.6	-640.3	342.1	330.0	12.11	28.245		
3,400.0	3,377.1	3,369.7	3,292.6	8.8	13.5	-20.41	-219.3	-662.6	353.6	341.1	12.50	28.295		
3,500.0	3,476.3	3,469.0	3,389.1	9.1	13.9	-20.49	-227.0	-684.8	365.2	352.3	12.88	28.342		
3,600.0	3,575.4	3,568.3	3,485.6	9.4	14.4	-20.56	-234.7	-707.0	376.7	363.4	13.27	28.385		
3,700.0	3,674.6	3,667.7	3,582.1	9.6	14.8	-20.63	-242.4	-729.2	388.3	374.6	13.66	28.426		
3,800.0	3,773.8	3,767.0	3,678.6	9.9	15.3	-20.69	-250.1	-751.4	399.8	385.8	14.05	28.464		
3,900.0	3,873.0	3,866.3	3,775.1	10.2	15.8	-20.75	-257.8	-773.6	411.4	396.9	14.43	28.501		
4,000.0	3,972.2	3,965.7	3,871.6	10.5	16.2	-20.81	-265.5	-795.8	422.9	408.1	14.82	28.535		
4,100.0	4,071.4	4,065.0	3,968.1	10.8	16.7	-20.86	-273.2	-818.0	434.5	419.3	15.21	28.567		
4,200.0	4,170.5	4,164.3	4,064.6	11.1	17.1	-20.91	-280.9	-840.3	446.0	430.4	15.60	28.597		
4,300.0	4,269.7	4,263.6	4,161.1	11.3	17.6	-20.96	-288.6	-862.5	457.6	441.6	15.98	28.626		
4,400.0	4,368.9	4,363.0	4,257.6	11.6	18.0	-21.01	-296.3	-884.7	469.1	452.8	16.37	28.653		
4,500.0	4,468.1	4,462.3	4,354.2	11.9	18.5	-21.05	-304.0	-906.9	480.7	463.9	16.76	28.679		
4,600.0	4,567.3	4,561.6	4,450.7	12.2	18.9	-21.09	-311.7	-929.1	492.2	475.1	17.15	28.704		
4,700.0	4,666.5	4,661.0	4,547.2	12.5	19.4	-21.13	-319.4	-951.3	503.8	486.3	17.54	28.727		
4,800.0	4,765.6	4,760.3	4,643.7	12.8	19.8	-21.17	-327.1	-973.5	515.3	497.4	17.93	28.749		
4,900.0	4,864.8	4,859.6	4,740.2	13.0	20.3	-21.20	-334.8	-995.7	526.9	508.6	18.31	28.771		
5,000.0	4,964.0	4,958.9	4,836.7	13.3	20.8	-21.24	-342.5	-1,017.9	538.5	519.8	18.70	28.791		
5,100.0	5,063.2	5,058.3	4,933.2	13.6	21.2	-21.27	-350.2	-1,040.2	550.0	530.9	19.09	28.810		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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	5,162.4	5,157.6	5,029.7	13.9	21.7	-21.30	-357.9	-1,062.4	561.6	542.1	19.48	28.829		
5,300.0	5,261.5	5,256.9	5,126.2	14.2	22.1	-21.33	-365.6	-1,084.6	573.1	553.2	19.87	28.847		
5,400.0	5,360.7	5,356.3	5,222.7	14.5	22.6	-21.36	-373.3	-1,106.8	584.7	564.4	20.26	28.864		
5,500.0	5,459.9	5,455.6	5,319.2	14.7	23.0	-21.39	-381.0	-1,129.0	596.2	575.6	20.64	28.880		
5,600.0	5,559.1	5,554.9	5,415.7	15.0	23.5	-21.42	-388.6	-1,151.2	607.8	586.7	21.03	28.896		
5,700.0	5,658.3	5,654.3	5,512.2	15.3	23.9	-21.45	-396.3	-1,173.4	619.3	597.9	21.42	28.911		
5,800.0	5,757.5	5,753.6	5,608.8	15.6	24.4	-21.47	-404.0	-1,195.6	630.9	609.1	21.81	28.926		
5,900.0	5,856.6	5,852.9	5,705.3	15.9	24.8	-21.49	-411.7	-1,217.9	642.4	620.2	22.20	28.940		
6,000.0	5,955.8	5,952.2	5,801.8	16.2	25.3	-21.52	-419.4	-1,240.1	654.0	631.4	22.59	28.953		
6,100.0	6,055.0	6,051.6	5,898.3	16.5	25.8	-21.54	-427.1	-1,262.3	665.6	642.6	22.98	28.966		
6,200.0	6,154.2	6,150.9	5,994.8	16.7	26.2	-21.56	-434.8	-1,284.5	677.1	653.8	23.37	28.978		
6,300.0	6,253.4	6,250.2	6,091.3	17.0	26.7	-21.58	-442.5	-1,306.7	688.7	664.9	23.76	28.990		
6,400.0	6,352.6	6,349.6	6,187.8	17.3	27.1	-21.60	-450.2	-1,328.9	700.2	676.1	24.14	29.002		
6,500.0	6,451.7	6,448.9	6,284.3	17.6	27.6	-21.62	-457.9	-1,351.1	711.8	687.3	24.53	29.013		
6,600.0	6,550.9	6,548.2	6,380.8	17.9	28.0	-21.64	-465.6	-1,373.3	723.3	698.4	24.92	29.024		
6,700.0	6,650.1	6,647.6	6,477.3	18.2	28.5	-21.66	-473.3	-1,395.6	734.9	709.6	25.31	29.035		
6,800.0	6,749.3	6,746.9	6,573.8	18.4	28.9	-21.68	-481.0	-1,417.8	746.5	720.8	25.70	29.045		
6,900.0	6,848.4	6,856.2	6,680.0	18.7	29.4	-66.44	-489.3	-1,442.2	759.8	733.9	25.89	29.350		
7,000.0	6,945.8	7,152.6	6,959.6	19.0	30.3	-91.73	-428.7	-1,506.3	767.0	740.7	26.35	29.107		
7,100.0	7,038.6	7,409.0	7,150.7	19.2	30.5	-95.00	-266.7	-1,549.6	759.4	733.0	26.46	28.696		
7,200.0	7,123.9	7,601.1	7,238.3	19.4	30.6	-92.92	-97.9	-1,569.2	744.8	718.1	26.66	27.933		
7,300.0	7,199.2	7,745.4	7,265.6	19.7	30.8	-89.72	43.3	-1,575.0	729.7	702.6	27.07	26.953		
7,400.0	7,262.2	7,838.6	7,267.0	20.0	31.0	-87.55	136.4	-1,575.0	718.4	690.7	27.66	25.972		
7,500.0	7,310.9	7,925.5	7,267.0	20.5	31.2	-85.49	223.4	-1,574.7	713.1	684.5	28.50	25.018		
7,600.0	7,344.0	8,019.6	7,267.0	21.1	31.5	-83.63	317.5	-1,574.3	711.2	681.5	29.76	23.903		
7,700.0	7,360.3	8,118.1	7,267.0	21.7	31.9	-82.58	416.0	-1,574.0	710.7	679.3	31.49	22.571		
7,800.0	7,362.0	8,218.1	7,267.0	22.5	32.4	-82.48	516.0	-1,573.6	710.4	676.8	33.59	21.152		
7,900.0	7,362.0	8,318.1	7,267.0	23.4	33.0	-82.47	616.0	-1,573.3	710.1	674.2	35.89	19.782		
8,000.0	7,362.0	8,418.1	7,267.0	24.4	33.7	-82.47	716.0	-1,572.9	709.7	671.3	38.38	18.492		
8,100.0	7,362.0	8,518.1	7,267.0	25.4	34.5	-82.47	816.0	-1,572.6	709.4	668.4	41.01	17.297		
8,200.0	7,362.0	8,618.1	7,267.0	26.6	35.3	-82.46	916.0	-1,572.2	709.0	665.3	43.76	16.203		
8,300.0	7,362.0	8,718.1	7,267.0	27.7	36.2	-82.46	1,016.0	-1,571.9	708.7	662.1	46.60	15.206		
8,400.0	7,362.0	8,818.1	7,267.0	29.0	37.1	-82.46	1,116.0	-1,571.5	708.3	658.8	49.53	14.301		
8,500.0	7,362.0	8,918.1	7,267.0	30.3	38.1	-82.45	1,215.9	-1,571.2	708.0	655.5	52.53	13.479		
8,600.0	7,362.0	9,018.1	7,267.0	31.7	39.2	-82.45	1,315.9	-1,570.8	707.6	652.1	55.58	12.733		
8,700.0	7,362.0	9,118.1	7,267.0	33.0	40.3	-82.44	1,415.9	-1,570.5	707.3	648.6	58.67	12.055		
8,800.0	7,362.0	9,218.1	7,267.0	34.5	41.5	-82.44	1,515.9	-1,570.1	706.9	645.1	61.81	11.437		
8,900.0	7,362.0	9,318.1	7,267.0	35.9	42.7	-82.44	1,615.9	-1,569.8	706.6	641.6	64.98	10.873		
9,000.0	7,362.0	9,418.1	7,267.0	37.4	43.9	-82.43	1,715.9	-1,569.4	706.3	638.1	68.19	10.358		
9,100.0	7,362.0	9,518.1	7,267.0	38.9	45.2	-82.43	1,815.9	-1,569.1	705.9	634.5	71.42	9.885		
9,200.0	7,362.0	9,618.1	7,267.0	40.4	46.5	-82.43	1,915.9	-1,568.7	705.6	630.9	74.67	9.450		
9,300.0	7,362.0	9,718.1	7,267.0	41.9	47.8	-82.42	2,015.9	-1,568.4	705.2	627.3	77.94	9.049		
9,400.0	7,362.0	9,818.1	7,267.0	43.5	49.2	-82.42	2,115.9	-1,568.0	704.9	623.6	81.22	8.678		
9,500.0	7,362.0	9,918.1	7,267.0	45.1	50.6	-82.41	2,215.9	-1,567.7	704.5	620.0	84.53	8.335		
9,600.0	7,362.0	10,018.1	7,267.0	46.6	52.0	-82.41	2,315.9	-1,567.3	704.2	616.3	87.84	8.017		
9,700.0	7,362.0	10,118.1	7,267.0	48.2	53.4	-82.41	2,415.9	-1,567.0	703.8	612.7	91.17	7.720		
9,800.0	7,362.0	10,218.1	7,267.0	49.8	54.9	-82.40	2,515.9	-1,566.6	703.5	609.0	94.51	7.444		
9,900.0	7,362.0	10,318.1	7,267.0	51.5	56.3	-82.40	2,615.9	-1,566.3	703.1	605.3	97.85	7.186		
10,000.0	7,362.0	10,418.1	7,267.0	53.1	57.8	-82.40	2,715.9	-1,565.9	702.8	601.6	101.21	6.944		
10,100.0	7,362.0	10,518.1	7,267.0	54.7	59.3	-82.39	2,815.9	-1,565.6	702.4	597.9	104.58	6.717		
10,200.0	7,362.0	10,618.1	7,267.0	56.4	60.8	-82.39	2,915.9	-1,565.3	702.1	594.2	107.95	6.504		
10,300.0	7,362.0	10,718.1	7,267.0	58.0	62.4	-82.38	3,015.9	-1,564.9	701.8	590.4	111.33	6.304		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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		
10,400.0	7,362.0	10,818.1	7,267.0	59.7	63.9	-82.38	3,115.9	-1,564.6	701.4	586.7	114.71	6.115		
10,500.0	7,362.0	10,918.1	7,267.0	61.3	65.4	-82.38	3,215.9	-1,564.2	701.1	583.0	118.10	5.936		
10,600.0	7,362.0	11,018.1	7,267.0	63.0	67.0	-82.37	3,315.9	-1,563.9	700.7	579.2	121.49	5.768		
10,700.0	7,362.0	11,118.1	7,267.0	64.6	68.6	-82.37	3,415.9	-1,563.5	700.4	575.5	124.89	5.608		
10,800.0	7,362.0	11,218.1	7,267.0	66.3	70.1	-82.37	3,515.9	-1,563.2	700.0	571.7	128.29	5.456		
10,900.0	7,362.0	11,318.1	7,267.0	68.0	71.7	-82.36	3,615.9	-1,562.8	699.7	568.0	131.70	5.313		
11,000.0	7,362.0	11,418.1	7,267.0	69.7	73.3	-82.36	3,715.9	-1,562.5	699.3	564.2	135.11	5.176		
11,100.0	7,362.0	11,518.1	7,267.0	71.4	74.9	-82.35	3,815.9	-1,562.1	699.0	560.5	138.52	5.046		
11,200.0	7,362.0	11,618.1	7,267.0	73.0	76.5	-82.35	3,915.9	-1,561.8	698.6	556.7	141.94	4.922		
11,300.0	7,362.0	11,718.1	7,267.0	74.7	78.1	-82.35	4,015.9	-1,561.4	698.3	552.9	145.36	4.804		
11,400.0	7,362.0	11,818.1	7,267.0	76.4	79.8	-82.34	4,115.9	-1,561.1	697.9	549.2	148.78	4.691		
11,500.0	7,362.0	11,918.1	7,267.0	78.1	81.4	-82.34	4,215.9	-1,560.7	697.6	545.4	152.20	4.583		
11,600.0	7,362.0	12,018.1	7,267.0	79.8	83.0	-82.33	4,315.9	-1,560.4	697.3	541.6	155.63	4.480		
11,700.0	7,362.0	12,118.1	7,267.0	81.5	84.7	-82.33	4,415.9	-1,560.0	696.9	537.9	159.06	4.382		
11,800.0	7,362.0	12,218.1	7,267.0	83.2	86.3	-82.33	4,515.9	-1,559.7	696.6	534.1	162.49	4.287		
11,900.0	7,362.0	12,318.1	7,267.0	84.9	87.9	-82.32	4,615.9	-1,559.3	696.2	530.3	165.92	4.196		
12,000.0	7,362.0	12,418.1	7,267.0	86.6	89.6	-82.32	4,715.9	-1,559.0	695.9	526.5	169.35	4.109		
12,100.0	7,362.0	12,518.1	7,267.0	88.3	91.2	-82.32	4,815.9	-1,558.6	695.5	522.7	172.79	4.025		
12,200.0	7,362.0	12,618.1	7,267.0	90.1	92.9	-82.31	4,915.9	-1,558.3	695.2	519.0	176.22	3.945		
12,300.0	7,362.0	12,718.1	7,267.0	91.8	94.6	-82.31	5,015.9	-1,557.9	694.8	515.2	179.66	3.867		
12,400.0	7,362.0	12,818.1	7,267.0	93.5	96.2	-82.30	5,115.9	-1,557.6	694.5	511.4	183.10	3.793		
12,500.0	7,362.0	12,918.1	7,267.0	95.2	97.9	-82.30	5,215.9	-1,557.2	694.1	507.6	186.54	3.721		
12,600.0	7,362.0	13,018.1	7,267.0	96.9	99.6	-82.30	5,315.9	-1,556.9	693.8	503.8	189.98	3.652		
12,700.0	7,362.0	13,118.1	7,267.0	98.6	101.2	-82.29	5,415.9	-1,556.5	693.4	500.0	193.43	3.585		
12,800.0	7,362.0	13,218.1	7,267.0	100.3	102.9	-82.29	5,515.9	-1,556.2	693.1	496.2	196.87	3.521		
12,900.0	7,362.0	13,318.1	7,267.0	102.1	104.6	-82.28	5,615.9	-1,555.8	692.8	492.4	200.32	3.458		
13,000.0	7,362.0	13,418.1	7,267.0	103.8	106.3	-82.28	5,715.9	-1,555.5	692.4	488.6	203.76	3.398		
13,100.0	7,362.0	13,518.1	7,267.0	105.5	108.0	-82.28	5,815.9	-1,555.1	692.1	484.9	207.21	3.340		
13,200.0	7,362.0	13,618.1	7,267.0	107.2	109.6	-82.27	5,915.9	-1,554.8	691.7	481.1	210.66	3.284		
13,300.0	7,362.0	13,718.1	7,267.0	109.0	111.3	-82.27	6,015.9	-1,554.4	691.4	477.3	214.11	3.229		
13,400.0	7,362.0	13,818.1	7,267.0	110.7	113.0	-82.27	6,115.9	-1,554.1	691.0	473.5	217.56	3.176		
13,500.0	7,362.0	13,918.1	7,267.0	112.4	114.7	-82.26	6,215.9	-1,553.7	690.7	469.7	221.01	3.125		
13,600.0	7,362.0	14,018.1	7,267.0	114.1	116.4	-82.26	6,315.9	-1,553.4	690.3	465.9	224.46	3.076		
13,700.0	7,362.0	14,118.1	7,267.0	115.9	118.1	-82.25	6,415.9	-1,553.0	690.0	462.1	227.91	3.027		
13,800.0	7,362.0	14,218.1	7,267.0	117.6	119.8	-82.25	6,515.9	-1,552.7	689.6	458.3	231.36	2.981		
13,844.7	7,362.0	14,262.8	7,267.0	118.4	120.5	-82.25	6,560.6	-1,552.5	689.5	456.6	232.90	2.960 SF		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		
0.0	0.0	0.0	0.0	0.0	0.0	-89.94	0.0	-20.1	20.2					
100.0	100.0	98.0	98.0	0.1	0.1	-89.94	0.0	-20.1	20.1	19.9	0.24	84.440	CC, ES	
200.0	200.0	198.0	198.0	0.3	0.3	-89.94	0.0	-20.1	20.1	19.5	0.59	34.329		
236.0	236.0	234.0	234.0	0.4	0.4	-89.94	0.0	-20.1	20.1	19.4	0.71	28.276		
300.0	300.0	297.7	297.7	0.5	0.5	-90.30	-0.1	-20.5	20.5	19.6	0.94	21.932		
400.0	400.0	396.9	396.8	0.6	0.6	5.37	-1.2	-23.7	23.3	22.0	1.28	18.169		
500.0	499.9	496.0	495.7	0.8	0.9	1.95	-3.4	-30.1	26.5	24.8	1.63	16.227		
600.0	599.7	595.0	594.2	1.0	1.1	-1.99	-6.8	-39.7	29.6	27.6	1.98	14.978		
700.0	699.1	693.8	692.1	1.3	1.4	-6.27	-11.2	-52.6	32.9	30.5	2.32	14.147		
800.0	798.3	792.5	789.3	1.5	1.7	-10.45	-16.7	-68.5	37.5	34.8	2.67	14.006		
900.0	897.5	891.3	886.0	1.8	2.1	-13.52	-23.3	-87.4	45.3	42.3	3.03	14.941		
1,000.0	996.7	990.9	983.5	2.0	2.5	-15.64	-30.1	-107.1	53.9	50.5	3.40	15.853		
1,100.0	1,095.9	1,090.6	1,080.9	2.3	2.8	-17.18	-36.9	-126.8	62.6	58.8	3.78	16.576		
1,200.0	1,195.1	1,190.2	1,178.3	2.6	3.2	-18.34	-43.7	-146.4	71.3	67.1	4.15	17.157		
1,300.0	1,294.2	1,289.8	1,275.7	2.9	3.6	-19.25	-50.5	-166.1	80.0	75.5	4.54	17.631		
1,400.0	1,393.4	1,389.4	1,373.1	3.1	4.0	-19.98	-57.3	-185.7	88.7	83.8	4.92	18.024		
1,500.0	1,492.6	1,489.0	1,470.5	3.4	4.4	-20.58	-64.1	-205.4	97.5	92.2	5.31	18.354		
1,600.0	1,591.8	1,588.6	1,568.0	3.7	4.8	-21.08	-70.9	-225.0	106.2	100.5	5.70	18.633		
1,700.0	1,691.0	1,688.2	1,665.4	4.0	5.3	-21.51	-77.7	-244.7	115.0	108.9	6.09	18.874		
1,800.0	1,790.1	1,787.8	1,762.8	4.3	5.7	-21.87	-84.5	-264.4	123.7	117.3	6.48	19.081		
1,900.0	1,889.3	1,887.5	1,860.2	4.5	6.1	-22.19	-91.3	-284.0	132.5	125.6	6.88	19.263		
2,000.0	1,988.5	1,987.1	1,957.6	4.8	6.5	-22.46	-98.1	-303.7	141.3	134.0	7.27	19.423		
2,100.0	2,087.7	2,086.7	2,055.0	5.1	6.9	-22.71	-104.9	-323.3	150.1	142.4	7.67	19.565		
2,200.0	2,186.9	2,186.3	2,152.5	5.4	7.3	-22.92	-111.7	-343.0	158.8	150.8	8.07	19.691		
2,300.0	2,286.1	2,285.9	2,249.9	5.7	7.7	-23.12	-118.5	-362.7	167.6	159.1	8.46	19.804		
2,400.0	2,385.2	2,385.5	2,347.3	6.0	8.1	-23.29	-125.3	-382.3	176.4	167.5	8.86	19.907		
2,500.0	2,484.4	2,485.1	2,444.7	6.2	8.5	-23.45	-132.1	-402.0	185.2	175.9	9.26	19.999		
2,600.0	2,583.6	2,584.7	2,542.1	6.5	8.9	-23.60	-138.9	-421.6	193.9	184.3	9.66	20.083		
2,700.0	2,682.8	2,684.4	2,639.5	6.8	9.3	-23.73	-145.7	-441.3	202.7	192.7	10.06	20.160		
2,800.0	2,782.0	2,784.0	2,737.0	7.1	9.7	-23.85	-152.5	-460.9	211.5	201.1	10.46	20.231		
2,900.0	2,881.2	2,883.6	2,834.4	7.4	10.1	-23.96	-159.3	-480.6	220.3	209.4	10.85	20.296		
3,000.0	2,980.3	2,983.2	2,931.8	7.7	10.5	-24.06	-166.1	-500.3	229.1	217.8	11.25	20.356		
3,100.0	3,079.5	3,082.8	3,029.2	7.9	10.9	-24.16	-172.9	-519.9	237.9	226.2	11.65	20.411		
3,200.0	3,178.7	3,182.4	3,126.6	8.2	11.4	-24.25	-179.7	-539.6	246.7	234.6	12.05	20.463		
3,300.0	3,277.9	3,282.0	3,224.0	8.5	11.8	-24.33	-186.5	-559.2	255.5	243.0	12.45	20.511		
3,400.0	3,377.1	3,381.6	3,321.5	8.8	12.2	-24.41	-193.3	-578.9	264.2	251.4	12.86	20.555		
3,500.0	3,476.3	3,481.3	3,418.9	9.1	12.6	-24.48	-200.1	-598.5	273.0	259.8	13.26	20.597		
3,600.0	3,575.4	3,580.9	3,516.3	9.4	13.0	-24.55	-206.9	-618.2	281.8	268.2	13.66	20.636		
3,700.0	3,674.6	3,680.5	3,613.7	9.6	13.4	-24.61	-213.7	-637.9	290.6	276.6	14.06	20.673		
3,800.0	3,773.8	3,780.1	3,711.1	9.9	13.8	-24.67	-220.5	-657.5	299.4	284.9	14.46	20.707		
3,900.0	3,873.0	3,879.7	3,808.5	10.2	14.2	-24.73	-227.3	-677.2	308.2	293.3	14.86	20.740		
4,000.0	3,972.2	3,979.3	3,906.0	10.5	14.6	-24.78	-234.1	-696.8	317.0	301.7	15.26	20.771		
4,100.0	4,071.4	4,078.9	4,003.4	10.8	15.0	-24.83	-240.9	-716.5	325.8	310.1	15.66	20.800		
4,200.0	4,170.5	4,178.5	4,100.8	11.1	15.4	-24.88	-247.7	-736.1	334.6	318.5	16.06	20.827		
4,300.0	4,269.7	4,278.2	4,198.2	11.3	15.8	-24.92	-254.5	-755.8	343.4	326.9	16.47	20.853		
4,400.0	4,368.9	4,377.8	4,295.6	11.6	16.3	-24.96	-261.3	-775.5	352.2	335.3	16.87	20.878		
4,500.0	4,468.1	4,477.4	4,393.0	11.9	16.7	-25.00	-268.1	-795.1	360.9	343.7	17.27	20.901		
4,600.0	4,567.3	4,577.0	4,490.5	12.2	17.1	-25.04	-274.9	-814.8	369.7	352.1	17.67	20.924		
4,700.0	4,666.5	4,676.6	4,587.9	12.5	17.5	-25.08	-281.7	-834.4	378.5	360.5	18.07	20.945		
4,800.0	4,765.6	4,776.2	4,685.3	12.8	17.9	-25.12	-288.5	-854.1	387.3	368.8	18.47	20.966		
4,900.0	4,864.8	4,875.8	4,782.7	13.0	18.3	-25.15	-295.3	-873.7	396.1	377.2	18.88	20.985		
5,000.0	4,964.0	4,975.4	4,880.1	13.3	18.7	-25.18	-302.1	-893.4	404.9	385.6	19.28	21.003		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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	5,063.2	5,075.1	4,977.5	13.6	19.1	-25.21	-308.9	-913.1	413.7	394.0	19.68	21.021		
5,200.0	5,162.4	5,174.7	5,075.0	13.9	19.5	-25.24	-315.7	-932.7	422.5	402.4	20.08	21.038		
5,300.0	5,261.5	5,274.3	5,172.4	14.2	19.9	-25.27	-322.5	-952.4	431.3	410.8	20.48	21.055		
5,400.0	5,360.7	5,373.9	5,269.8	14.5	20.3	-25.30	-329.3	-972.0	440.1	419.2	20.89	21.070		
5,500.0	5,459.9	5,473.5	5,367.2	14.7	20.7	-25.32	-336.1	-991.7	448.9	427.6	21.29	21.085		
5,600.0	5,559.1	5,573.1	5,464.6	15.0	21.2	-25.35	-342.9	-1,011.3	457.7	436.0	21.69	21.100		
5,700.0	5,658.3	5,672.7	5,562.0	15.3	21.6	-25.37	-349.7	-1,031.0	466.5	444.4	22.09	21.113		
5,800.0	5,757.5	5,772.3	5,659.5	15.6	22.0	-25.40	-356.6	-1,050.7	475.3	452.8	22.50	21.127		
5,900.0	5,856.6	5,872.0	5,756.9	15.9	22.4	-25.42	-363.4	-1,070.3	484.0	461.1	22.90	21.140		
6,000.0	5,955.8	5,971.6	5,854.3	16.2	22.8	-25.44	-370.2	-1,090.0	492.8	469.5	23.30	21.152		
6,100.0	6,055.0	6,071.2	5,951.7	16.5	23.2	-25.46	-377.0	-1,109.6	501.6	477.9	23.70	21.164		
6,200.0	6,154.2	6,170.8	6,049.1	16.7	23.6	-25.48	-383.8	-1,129.3	510.4	486.3	24.10	21.176		
6,300.0	6,253.4	6,270.4	6,146.5	17.0	24.0	-25.50	-390.6	-1,148.9	519.2	494.7	24.51	21.187		
6,400.0	6,352.6	6,370.0	6,244.0	17.3	24.4	-25.52	-397.4	-1,168.6	528.0	503.1	24.91	21.197		
6,500.0	6,451.7	6,469.6	6,341.4	17.6	24.8	-25.54	-404.2	-1,188.3	536.8	511.5	25.31	21.208		
6,600.0	6,550.9	6,569.2	6,438.8	17.9	25.2	-25.56	-411.0	-1,207.9	545.6	519.9	25.71	21.218		
6,700.0	6,650.1	6,668.9	6,536.2	18.2	25.7	-25.57	-417.8	-1,227.6	554.4	528.3	26.12	21.228		
6,800.0	6,749.3	6,768.5	6,633.6	18.4	26.1	-25.59	-424.6	-1,247.2	563.2	536.7	26.52	21.237		
6,900.0	6,848.4	6,867.7	6,730.7	18.7	26.5	-70.52	-431.3	-1,266.8	574.1	547.3	26.73	21.474		
7,000.0	6,945.8	6,964.2	6,825.0	19.0	26.9	-97.88	-437.9	-1,285.9	594.1	567.3	26.73	22.221		
7,100.0	7,038.6	7,096.4	6,954.4	19.2	27.4	-108.18	-443.8	-1,311.9	623.7	596.8	26.89	23.190		
7,200.0	7,123.9	7,436.1	7,265.1	19.4	28.0	-114.82	-334.4	-1,371.8	641.0	612.8	28.22	22.714		
7,300.0	7,199.2	7,773.7	7,462.7	19.7	28.2	-112.03	-68.9	-1,405.9	629.9	600.8	29.13	21.629		
7,400.0	7,262.2	7,992.3	7,498.0	20.0	28.5	-106.60	145.5	-1,408.4	601.0	571.3	29.66	20.261		
7,500.0	7,310.9	8,079.1	7,498.0	20.5	28.7	-105.94	232.3	-1,406.6	575.8	546.0	29.86	19.283		
7,600.0	7,344.0	8,173.1	7,498.0	21.1	29.1	-105.02	326.3	-1,404.7	559.9	529.6	30.35	18.450		
7,700.0	7,360.3	8,271.6	7,498.0	21.7	29.5	-104.51	424.7	-1,402.6	551.6	520.5	31.03	17.773		
7,800.0	7,362.0	8,371.5	7,498.0	22.5	30.1	-104.56	524.6	-1,400.5	548.9	516.4	32.54	16.871		
7,900.0	7,362.0	8,471.5	7,498.0	23.4	30.7	-104.62	624.6	-1,398.4	546.9	512.1	34.82	15.704		
8,000.0	7,362.0	8,571.5	7,498.0	24.4	31.4	-104.67	724.5	-1,396.3	544.9	507.6	37.28	14.615		
8,100.0	7,362.0	8,671.4	7,498.0	25.4	32.2	-104.73	824.5	-1,394.2	542.8	503.0	39.87	13.614		
8,200.0	7,362.0	8,771.4	7,498.0	26.6	33.1	-104.79	924.4	-1,392.1	540.8	498.2	42.57	12.702		
8,300.0	7,362.0	8,871.4	7,498.0	27.7	34.1	-104.84	1,024.4	-1,390.0	538.8	493.4	45.37	11.876		
8,400.0	7,362.0	8,971.4	7,498.0	29.0	35.1	-104.90	1,124.4	-1,387.9	536.8	488.5	48.23	11.128		
8,500.0	7,362.0	9,071.4	7,498.0	30.3	36.1	-104.96	1,224.3	-1,385.8	534.7	483.6	51.16	10.451		
8,600.0	7,362.0	9,171.3	7,498.0	31.7	37.2	-105.02	1,324.3	-1,383.7	532.7	478.6	54.14	9.839		
8,700.0	7,362.0	9,271.3	7,498.0	33.0	38.4	-105.08	1,424.2	-1,381.7	530.7	473.5	57.16	9.283		
8,800.0	7,362.0	9,371.3	7,498.0	34.5	39.6	-105.13	1,524.2	-1,379.6	528.7	468.4	60.22	8.778		
8,900.0	7,362.0	9,471.3	7,498.0	35.9	40.9	-105.19	1,624.1	-1,377.5	526.6	463.3	63.31	8.318		
9,000.0	7,362.0	9,571.2	7,498.0	37.4	42.2	-105.25	1,724.1	-1,375.4	524.6	458.2	66.43	7.898		
9,100.0	7,362.0	9,671.2	7,498.0	38.9	43.5	-105.31	1,824.1	-1,373.3	522.6	453.0	69.56	7.513		
9,200.0	7,362.0	9,771.2	7,498.0	40.4	44.8	-105.38	1,924.0	-1,371.2	520.6	447.9	72.72	7.159		
9,300.0	7,362.0	9,871.2	7,498.0	41.9	46.2	-105.44	2,024.0	-1,369.1	518.6	442.7	75.89	6.833		
9,400.0	7,362.0	9,971.2	7,498.0	43.5	47.6	-105.50	2,123.9	-1,367.0	516.5	437.5	79.07	6.533		
9,500.0	7,362.0	10,071.1	7,498.0	45.1	49.0	-105.56	2,223.9	-1,364.9	514.5	432.3	82.27	6.254		
9,600.0	7,362.0	10,171.1	7,498.0	46.6	50.5	-105.62	2,323.8	-1,362.8	512.5	427.0	85.48	5.996		
9,700.0	7,362.0	10,271.1	7,498.0	48.2	52.0	-105.69	2,423.8	-1,360.7	510.5	421.8	88.69	5.756		
9,800.0	7,362.0	10,371.1	7,498.0	49.8	53.4	-105.75	2,523.7	-1,358.6	508.5	416.6	91.91	5.532		
9,900.0	7,362.0	10,471.0	7,498.0	51.5	54.9	-105.82	2,623.7	-1,356.5	506.5	411.3	95.14	5.323		
10,000.0	7,362.0	10,571.0	7,498.0	53.1	56.5	-105.88	2,723.7	-1,354.4	504.4	406.1	98.38	5.127		
10,100.0	7,362.0	10,671.0	7,498.0	54.7	58.0	-105.95	2,823.6	-1,352.3	502.4	400.8	101.62	4.944		
10,200.0	7,362.0	10,771.0	7,498.0	56.4	59.5	-106.01	2,923.6	-1,350.2	500.4	395.5	104.87	4.772		

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



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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				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	7,362.0	10,871.0	7,498.0	58.0	61.1	-106.08	3,023.5	-1,348.2	498.4	390.3	108.11	4.610		
10,400.0	7,362.0	10,970.9	7,498.0	59.7	62.6	-106.14	3,123.5	-1,346.1	496.4	385.0	111.37	4.457		
10,500.0	7,362.0	11,070.9	7,498.0	61.3	64.2	-106.21	3,223.4	-1,344.0	494.4	379.8	114.62	4.313		
10,600.0	7,362.0	11,170.9	7,498.0	63.0	65.8	-106.28	3,323.4	-1,341.9	492.4	374.5	117.87	4.177		
10,700.0	7,362.0	11,270.9	7,498.0	64.6	67.4	-106.35	3,423.4	-1,339.8	490.4	369.2	121.13	4.048		
10,800.0	7,362.0	11,370.8	7,498.0	66.3	69.0	-106.42	3,523.3	-1,337.7	488.3	364.0	124.39	3.926		
10,900.0	7,362.0	11,470.8	7,498.0	68.0	70.6	-106.49	3,623.3	-1,335.6	486.3	358.7	127.65	3.810		
11,000.0	7,362.0	11,570.8	7,498.0	69.7	72.2	-106.56	3,723.2	-1,333.5	484.3	353.4	130.91	3.700		
11,100.0	7,362.0	11,670.8	7,498.0	71.4	73.8	-106.63	3,823.2	-1,331.4	482.3	348.2	134.16	3.595		
11,200.0	7,362.0	11,770.8	7,498.0	73.0	75.5	-106.70	3,923.1	-1,329.3	480.3	342.9	137.42	3.495		
11,300.0	7,362.0	11,870.7	7,498.0	74.7	77.1	-106.77	4,023.1	-1,327.2	478.3	337.6	140.68	3.400		
11,400.0	7,362.0	11,970.7	7,498.0	76.4	78.7	-106.85	4,123.0	-1,325.1	476.3	332.4	143.94	3.309		
11,500.0	7,362.0	12,070.7	7,498.0	78.1	80.4	-106.92	4,223.0	-1,323.0	474.3	327.1	147.20	3.222		
11,600.0	7,362.0	12,170.7	7,498.0	79.8	82.0	-106.99	4,323.0	-1,320.9	472.3	321.8	150.45	3.139		
11,700.0	7,362.0	12,270.7	7,498.0	81.5	83.7	-107.07	4,422.9	-1,318.8	470.3	316.6	153.71	3.060		
11,800.0	7,362.0	12,370.6	7,498.0	83.2	85.3	-107.14	4,522.9	-1,316.7	468.3	311.3	156.96	2.984		
11,900.0	7,362.0	12,469.0	7,498.0	84.9	87.0	-107.22	4,621.2	-1,314.7	466.3	306.1	160.19	2.911		
12,000.0	7,362.0	12,561.8	7,498.0	86.6	88.5	-107.25	4,714.0	-1,313.9	465.5	302.1	163.35	2.849		
12,006.5	7,362.0	12,567.8	7,498.0	86.7	88.6	-107.25	4,720.0	-1,313.9	465.5	301.9	163.56	2.846		
12,100.0	7,362.0	12,654.5	7,498.0	88.3	90.1	-107.22	4,806.8	-1,314.5	466.1	299.6	166.57	2.798		
12,200.0	7,362.0	12,753.5	7,498.0	90.1	91.7	-107.16	4,905.7	-1,316.2	467.8	297.9	169.92	2.753		
12,300.0	7,362.0	12,853.5	7,498.0	91.8	93.4	-107.10	5,005.7	-1,318.0	469.5	296.2	173.30	2.709		
12,400.0	7,362.0	12,953.5	7,498.0	93.5	95.1	-107.04	5,105.6	-1,319.7	471.1	294.4	176.68	2.667		
12,500.0	7,362.0	13,053.5	7,498.0	95.2	96.8	-106.97	5,205.6	-1,321.5	472.8	292.7	180.06	2.626		
12,600.0	7,362.0	13,153.4	7,498.0	96.9	98.5	-106.91	5,305.6	-1,323.2	474.5	291.0	183.44	2.586		
12,700.0	7,362.0	13,253.4	7,498.0	98.6	100.2	-106.85	5,405.5	-1,325.0	476.1	289.3	186.83	2.548		
12,800.0	7,362.0	13,353.4	7,498.0	100.3	101.9	-106.79	5,505.5	-1,326.7	477.8	287.6	190.22	2.512		
12,900.0	7,362.0	13,453.4	7,498.0	102.1	103.6	-106.73	5,605.5	-1,328.5	479.5	285.9	193.61	2.476		
13,000.0	7,362.0	13,553.4	7,498.0	103.8	105.3	-106.67	5,705.5	-1,330.2	481.1	284.1	197.00	2.442		
13,100.0	7,362.0	13,653.4	7,498.0	105.5	107.0	-106.61	5,805.4	-1,331.9	482.8	282.4	200.40	2.409		
13,200.0	7,362.0	13,753.3	7,498.0	107.2	108.7	-106.55	5,905.4	-1,333.7	484.5	280.7	203.80	2.377		
13,300.0	7,362.0	13,853.3	7,498.0	109.0	110.4	-106.49	6,005.4	-1,335.4	486.2	279.0	207.20	2.346		
13,400.0	7,362.0	13,953.3	7,498.0	110.7	112.1	-106.43	6,105.3	-1,337.2	487.8	277.2	210.60	2.316		
13,500.0	7,362.0	14,053.3	7,498.0	112.4	113.8	-106.38	6,205.3	-1,338.9	489.5	275.5	214.01	2.287		
13,600.0	7,362.0	14,153.3	7,498.0	114.1	115.5	-106.32	6,305.3	-1,340.7	491.2	273.8	217.41	2.259		
13,700.0	7,362.0	14,351.0	7,498.0	115.9	118.8	-106.85	6,501.9	-1,325.0	484.3	262.5	221.79	2.183		
13,800.0	7,362.0	14,412.1	7,498.0	117.6	119.8	-107.34	6,561.5	-1,311.3	465.5	241.6	223.88	2.079		
13,844.7	7,362.0	14,412.1	7,498.0	118.4	119.8	-107.34	6,561.5	-1,311.3	463.0	238.4	224.62	2.061 SF		



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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							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	-89.93	0.0	-10.1	10.3					
100.0	100.0	98.0	98.0	0.1	0.1	-89.93	0.0	-10.1	10.1	9.8	0.24	42.220		
200.0	200.0	198.0	198.0	0.3	0.3	-89.93	0.0	-10.1	10.1	9.5	0.59	17.164		
300.0	300.0	298.0	298.0	0.5	0.5	-89.93	0.0	-10.1	10.1	9.1	0.94	10.760	CC, ES	
400.0	400.0	397.6	397.6	0.6	0.6	5.84	-0.5	-11.6	11.2	9.9	1.28	8.741		
500.0	499.9	497.2	497.1	0.8	0.8	0.90	-2.2	-16.5	12.7	11.1	1.63	7.804		
600.0	599.7	596.7	596.2	1.0	1.1	-5.52	-4.9	-24.6	14.3	12.3	1.98	7.225		
700.0	699.1	696.2	694.9	1.3	1.3	-12.90	-8.8	-36.0	16.1	13.7	2.33	6.895		
800.0	798.3	795.5	793.0	1.5	1.6	-19.43	-13.8	-50.5	19.3	16.6	2.70	7.151		
900.0	897.5	895.2	891.1	1.8	1.9	-22.78	-19.5	-67.4	25.1	22.0	3.09	8.132		
1,000.0	996.7	995.0	989.3	2.0	2.3	-24.83	-25.3	-84.5	31.0	27.6	3.48	8.913		
1,100.0	1,095.9	1,094.8	1,087.4	2.3	2.6	-26.22	-31.1	-101.5	37.0	33.1	3.89	9.525		
1,200.0	1,195.1	1,194.6	1,185.6	2.6	3.0	-27.22	-36.9	-118.6	43.0	38.7	4.29	10.014		
1,300.0	1,294.2	1,294.4	1,283.8	2.9	3.3	-27.98	-42.7	-135.6	49.0	44.3	4.71	10.413		
1,400.0	1,393.4	1,394.3	1,382.0	3.1	3.7	-28.57	-48.5	-152.6	55.0	49.9	5.12	10.743		
1,500.0	1,492.6	1,494.1	1,480.2	3.4	4.0	-29.05	-54.3	-169.7	61.0	55.5	5.54	11.020		
1,600.0	1,591.8	1,593.9	1,578.4	3.7	4.4	-29.44	-60.1	-186.7	67.0	61.1	5.95	11.256		
1,700.0	1,691.0	1,693.7	1,676.5	4.0	4.8	-29.76	-65.9	-203.8	73.0	66.7	6.37	11.459		
1,800.0	1,790.1	1,793.5	1,774.7	4.3	5.1	-30.04	-71.7	-220.8	79.0	72.2	6.79	11.635		
1,900.0	1,889.3	1,893.3	1,872.9	4.5	5.5	-30.28	-77.5	-237.8	85.1	77.8	7.21	11.790		
2,000.0	1,988.5	1,993.2	1,971.1	4.8	5.8	-30.48	-83.3	-254.9	91.1	83.4	7.64	11.926		
2,100.0	2,087.7	2,093.0	2,069.3	5.1	6.2	-30.66	-89.1	-271.9	97.1	89.0	8.06	12.047		
2,200.0	2,186.9	2,192.8	2,167.4	5.4	6.6	-30.82	-94.9	-289.0	103.1	94.6	8.48	12.156		
2,300.0	2,286.1	2,292.6	2,265.6	5.7	6.9	-30.97	-100.7	-306.0	109.1	100.2	8.91	12.254		
2,400.0	2,385.2	2,392.4	2,363.8	6.0	7.3	-31.09	-106.5	-323.0	115.2	105.8	9.33	12.342		
2,500.0	2,484.4	2,492.3	2,462.0	6.2	7.6	-31.21	-112.3	-340.1	121.2	111.4	9.76	12.422		
2,600.0	2,583.6	2,592.1	2,560.2	6.5	8.0	-31.31	-118.1	-357.1	127.2	117.0	10.18	12.495		
2,700.0	2,682.8	2,691.9	2,658.4	6.8	8.4	-31.40	-123.9	-374.2	133.2	122.6	10.60	12.562		
2,800.0	2,782.0	2,791.7	2,756.5	7.1	8.7	-31.49	-129.7	-391.2	139.2	128.2	11.03	12.624		
2,900.0	2,881.2	2,891.5	2,854.7	7.4	9.1	-31.57	-135.5	-408.2	145.3	133.8	11.46	12.681		
3,000.0	2,980.3	2,991.3	2,952.9	7.7	9.5	-31.64	-141.3	-425.3	151.3	139.4	11.88	12.734		
3,100.0	3,079.5	3,091.2	3,051.1	7.9	9.8	-31.71	-147.1	-442.3	157.3	145.0	12.31	12.782		
3,200.0	3,178.7	3,191.0	3,149.3	8.2	10.2	-31.77	-152.9	-459.4	163.3	150.6	12.73	12.828		
3,300.0	3,277.9	3,290.8	3,247.4	8.5	10.5	-31.83	-158.7	-476.4	169.4	156.2	13.16	12.870		
3,400.0	3,377.1	3,390.6	3,345.6	8.8	10.9	-31.88	-164.5	-493.4	175.4	161.8	13.59	12.910		
3,500.0	3,476.3	3,490.4	3,443.8	9.1	11.3	-31.93	-170.3	-510.5	181.4	167.4	14.01	12.947		
3,600.0	3,575.4	3,590.3	3,542.0	9.4	11.6	-31.98	-176.1	-527.5	187.4	173.0	14.44	12.982		
3,700.0	3,674.6	3,690.1	3,640.2	9.6	12.0	-32.02	-181.9	-544.5	193.5	178.6	14.87	13.014		
3,800.0	3,773.8	3,789.9	3,738.4	9.9	12.4	-32.07	-187.7	-561.6	199.5	184.2	15.29	13.045		
3,900.0	3,873.0	3,889.7	3,836.5	10.2	12.7	-32.10	-193.5	-578.6	205.5	189.8	15.72	13.074		
4,000.0	3,972.2	3,989.5	3,934.7	10.5	13.1	-32.14	-199.3	-595.7	211.5	195.4	16.15	13.102		
4,100.0	4,071.4	4,089.3	4,032.9	10.8	13.4	-32.18	-205.1	-612.7	217.6	201.0	16.57	13.128		
4,200.0	4,170.5	4,189.2	4,131.1	11.1	13.8	-32.21	-210.9	-629.7	223.6	206.6	17.00	13.153		
4,300.0	4,269.7	4,289.0	4,229.3	11.3	14.2	-32.24	-216.7	-646.8	229.6	212.2	17.43	13.176		
4,400.0	4,368.9	4,388.8	4,327.5	11.6	14.5	-32.27	-222.5	-663.8	235.6	217.8	17.85	13.199		
4,500.0	4,468.1	4,488.6	4,425.6	11.9	14.9	-32.30	-228.3	-680.9	241.7	223.4	18.28	13.220		
4,600.0	4,567.3	4,588.4	4,523.8	12.2	15.3	-32.32	-234.1	-697.9	247.7	229.0	18.71	13.240		
4,700.0	4,666.5	4,688.3	4,622.0	12.5	15.6	-32.35	-239.9	-714.9	253.7	234.6	19.13	13.259		
4,800.0	4,765.6	4,788.1	4,720.2	12.8	16.0	-32.37	-245.7	-732.0	259.7	240.2	19.56	13.278		
4,900.0	4,864.8	4,887.9	4,818.4	13.0	16.3	-32.40	-251.5	-749.0	265.8	245.8	19.99	13.295		
5,000.0	4,964.0	4,987.7	4,916.5	13.3	16.7	-32.42	-257.3	-766.1	271.8	251.4	20.42	13.312		
5,100.0	5,063.2	5,087.5	5,014.7	13.6	17.1	-32.44	-263.1	-783.1	277.8	257.0	20.84	13.328		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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	5,162.4	5,187.3	5,112.9	13.9	17.4	-32.46	-268.9	-800.1	283.8	262.6	21.27	13.344		
5,300.0	5,261.5	5,287.2	5,211.1	14.2	17.8	-32.48	-274.7	-817.2	289.9	268.2	21.70	13.359		
5,400.0	5,360.7	5,387.0	5,309.3	14.5	18.2	-32.50	-280.5	-834.2	295.9	273.8	22.13	13.373		
5,500.0	5,459.9	5,486.8	5,407.5	14.7	18.5	-32.52	-286.3	-851.3	301.9	279.4	22.55	13.387		
5,600.0	5,559.1	5,586.6	5,505.6	15.0	18.9	-32.53	-292.1	-868.3	307.9	285.0	22.98	13.400		
5,700.0	5,658.3	5,686.4	5,603.8	15.3	19.2	-32.55	-297.9	-885.3	314.0	290.6	23.41	13.413		
5,800.0	5,757.5	5,786.3	5,702.0	15.6	19.6	-32.57	-303.7	-902.4	320.0	296.2	23.84	13.425		
5,900.0	5,856.6	5,886.1	5,800.2	15.9	20.0	-32.58	-309.5	-919.4	326.0	301.8	24.26	13.437		
6,000.0	5,955.8	5,985.9	5,898.4	16.2	20.3	-32.60	-315.3	-936.4	332.0	307.3	24.69	13.448		
6,100.0	6,055.0	6,085.7	5,996.5	16.5	20.7	-32.61	-321.1	-953.5	338.1	312.9	25.12	13.459		
6,200.0	6,154.2	6,185.5	6,094.7	16.7	21.1	-32.62	-326.9	-970.5	344.1	318.5	25.55	13.470		
6,300.0	6,253.4	6,285.3	6,192.9	17.0	21.4	-32.64	-332.7	-987.6	350.1	324.1	25.97	13.480		
6,400.0	6,352.6	6,385.2	6,291.1	17.3	21.8	-32.65	-338.5	-1,004.6	356.1	329.7	26.40	13.490		
6,500.0	6,451.7	6,485.0	6,389.3	17.6	22.1	-32.66	-344.3	-1,021.6	362.2	335.3	26.83	13.499		
6,600.0	6,550.9	6,584.8	6,487.5	17.9	22.5	-32.67	-350.1	-1,038.7	368.2	340.9	27.26	13.509		
6,700.0	6,650.1	6,684.6	6,585.6	18.2	22.9	-32.69	-355.9	-1,055.7	374.2	346.5	27.68	13.517		
6,800.0	6,749.3	6,794.5	6,693.8	18.4	23.3	-32.64	-361.8	-1,074.5	380.1	351.9	28.13	13.513		
6,900.0	6,848.4	6,965.7	6,860.2	18.7	23.7	-75.15	-339.4	-1,103.7	376.4	348.3	28.10	13.393		
7,000.0	6,945.8	7,124.6	7,002.6	19.0	23.9	-98.08	-274.7	-1,129.0	366.0	338.3	27.63	13.245		
7,100.0	7,038.6	7,267.9	7,111.7	19.2	24.1	-101.36	-184.4	-1,148.8	352.4	325.3	27.07	13.017		
7,200.0	7,123.9	7,396.1	7,187.7	19.4	24.2	-98.99	-82.5	-1,162.9	338.8	312.0	26.73	12.672		
7,300.0	7,199.2	7,511.1	7,235.5	19.7	24.4	-94.26	21.5	-1,172.1	327.7	300.9	26.77	12.240		
7,400.0	7,262.2	7,615.5	7,260.4	20.0	24.7	-88.38	122.6	-1,177.3	320.9	293.7	27.17	11.811		
7,481.3	7,303.0	7,694.2	7,266.9	20.4	25.0	-83.17	200.9	-1,179.2	319.2	291.5	27.68	11.533		
7,500.0	7,310.9	7,711.4	7,267.0	20.5	25.1	-81.97	218.1	-1,179.3	319.3	291.5	27.80	11.486		
7,600.0	7,344.0	7,805.6	7,267.0	21.1	25.5	-76.62	312.3	-1,180.2	322.0	293.2	28.79	11.183		
7,700.0	7,360.3	7,904.1	7,267.0	21.7	26.0	-73.73	410.8	-1,181.0	325.0	294.5	30.52	10.648		
7,800.0	7,362.0	8,004.1	7,267.0	22.5	26.7	-73.43	510.8	-1,181.9	326.1	293.4	32.72	9.967		
7,900.0	7,362.0	8,104.1	7,267.0	23.4	27.4	-73.47	610.8	-1,182.8	326.9	292.0	34.95	9.355		
8,000.0	7,362.0	8,204.1	7,267.0	24.4	28.3	-73.52	710.8	-1,183.6	327.8	290.4	37.35	8.776		
8,100.0	7,362.0	8,304.1	7,267.0	25.4	29.2	-73.56	810.7	-1,184.5	328.6	288.7	39.89	8.238		
8,200.0	7,362.0	8,404.0	7,267.0	26.6	30.2	-73.60	910.7	-1,185.4	329.4	286.9	42.55	7.742		
8,300.0	7,362.0	8,504.0	7,267.0	27.7	31.2	-73.65	1,010.7	-1,186.2	330.3	285.0	45.31	7.290		
8,400.0	7,362.0	8,604.0	7,267.0	29.0	32.4	-73.69	1,110.7	-1,187.1	331.1	283.0	48.14	6.878		
8,500.0	7,362.0	8,704.0	7,267.0	30.3	33.5	-73.73	1,210.7	-1,188.0	332.0	280.9	51.04	6.503		
8,600.0	7,362.0	8,804.0	7,267.0	31.7	34.8	-73.77	1,310.7	-1,188.9	332.8	278.8	54.00	6.162		
8,700.0	7,362.0	8,904.0	7,267.0	33.0	36.0	-73.81	1,410.7	-1,189.7	333.6	276.6	57.01	5.852		
8,800.0	7,362.0	9,004.0	7,267.0	34.5	37.3	-73.86	1,510.7	-1,190.6	334.5	274.4	60.06	5.569		
8,900.0	7,362.0	9,104.0	7,267.0	35.9	38.7	-73.90	1,610.7	-1,191.5	335.3	272.2	63.14	5.311		
9,000.0	7,362.0	9,204.0	7,267.0	37.4	40.1	-73.94	1,710.7	-1,192.4	336.1	269.9	66.25	5.074		
9,100.0	7,362.0	9,304.0	7,267.0	38.9	41.5	-73.98	1,810.7	-1,193.2	337.0	267.6	69.39	4.856		
9,200.0	7,362.0	9,404.0	7,267.0	40.4	42.9	-74.02	1,910.7	-1,194.1	337.8	265.3	72.56	4.656		
9,300.0	7,362.0	9,504.0	7,267.0	41.9	44.4	-74.06	2,010.7	-1,195.0	338.7	262.9	75.74	4.471		
9,400.0	7,362.0	9,604.0	7,267.0	43.5	45.8	-74.10	2,110.6	-1,195.8	339.5	260.6	78.94	4.301		
9,500.0	7,362.0	9,704.0	7,267.0	45.1	47.3	-74.14	2,210.6	-1,196.7	340.3	258.2	82.16	4.142		
9,600.0	7,362.0	9,804.0	7,267.0	46.6	48.8	-74.18	2,310.6	-1,197.6	341.2	255.8	85.39	3.996		
9,700.0	7,362.0	9,904.0	7,267.0	48.2	50.4	-74.22	2,410.6	-1,198.5	342.0	253.4	88.64	3.859		
9,800.0	7,362.0	10,004.0	7,267.0	49.8	51.9	-74.26	2,510.6	-1,199.3	342.9	251.0	91.89	3.731		
9,900.0	7,362.0	10,104.0	7,267.0	51.5	53.5	-74.30	2,610.6	-1,200.2	343.7	248.5	95.16	3.612		
10,000.0	7,362.0	10,204.0	7,267.0	53.1	55.0	-74.34	2,710.6	-1,201.1	344.5	246.1	98.44	3.500		
10,100.0	7,362.0	10,304.0	7,267.0	54.7	56.6	-74.38	2,810.6	-1,202.0	345.4	243.7	101.72	3.395		
10,200.0	7,362.0	10,404.0	7,267.0	56.4	58.2	-74.42	2,910.6	-1,202.8	346.2	241.2	105.02	3.297		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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	7,362.0	10,504.0	7,267.0	58.0	59.8	-74.46	3,010.6	-1,203.7	347.1	238.7	108.32	3.204		
10,400.0	7,362.0	10,604.0	7,267.0	59.7	61.4	-74.49	3,110.6	-1,204.6	347.9	236.3	111.63	3.117		
10,500.0	7,362.0	10,704.0	7,267.0	61.3	63.0	-74.53	3,210.6	-1,205.4	348.7	233.8	114.95	3.034		
10,600.0	7,362.0	10,804.0	7,267.0	63.0	64.7	-74.57	3,310.6	-1,206.3	349.6	231.3	118.27	2.956		
10,700.0	7,362.0	10,904.0	7,267.0	64.6	66.3	-74.61	3,410.6	-1,207.2	350.4	228.8	121.59	2.882		
10,800.0	7,362.0	11,003.9	7,267.0	66.3	67.9	-74.65	3,510.5	-1,208.1	351.3	226.3	124.93	2.812		
10,900.0	7,362.0	11,103.9	7,267.0	68.0	69.6	-74.68	3,610.5	-1,208.9	352.1	223.8	128.26	2.745		
11,000.0	7,362.0	11,203.9	7,267.0	69.7	71.2	-74.72	3,710.5	-1,209.8	353.0	221.3	131.60	2.682		
11,100.0	7,362.0	11,308.4	7,267.0	71.4	72.9	-74.74	3,815.0	-1,210.2	353.3	218.3	135.01	2.617		
11,200.0	7,362.0	11,414.7	7,267.0	73.0	74.7	-74.68	3,921.3	-1,208.8	352.0	213.6	138.41	2.543		
11,300.0	7,362.0	11,520.9	7,267.0	74.7	76.4	-74.53	4,027.4	-1,205.4	348.9	207.2	141.74	2.462		
11,400.0	7,362.0	11,622.3	7,267.0	76.4	78.1	-74.33	4,128.7	-1,200.8	344.6	199.6	144.96	2.377		
11,500.0	7,362.0	11,722.2	7,267.0	78.1	79.7	-74.12	4,228.5	-1,196.2	340.2	192.0	148.14	2.296		
11,600.0	7,362.0	11,822.1	7,267.0	79.8	81.4	-73.90	4,328.3	-1,191.6	335.8	184.4	151.32	2.219		
11,700.0	7,362.0	11,922.0	7,267.0	81.5	83.0	-73.68	4,428.1	-1,187.0	331.4	176.9	154.48	2.145		
11,800.0	7,362.0	12,021.9	7,267.0	83.2	84.7	-73.46	4,527.9	-1,182.5	327.0	169.3	157.63	2.074		
11,900.0	7,362.0	12,121.8	7,267.0	84.9	86.3	-73.23	4,627.6	-1,177.9	322.6	161.8	160.77	2.007		
12,000.0	7,362.0	12,221.6	7,267.0	86.6	88.0	-72.99	4,727.4	-1,173.3	318.2	154.3	163.89	1.942		
12,100.0	7,362.0	12,321.5	7,267.0	88.3	89.7	-72.74	4,827.2	-1,168.8	313.8	146.8	167.00	1.879		
12,200.0	7,362.0	12,421.4	7,267.0	90.1	91.3	-72.49	4,927.0	-1,164.2	309.5	139.4	170.09	1.819		
12,300.0	7,362.0	12,521.3	7,267.0	91.8	93.0	-72.23	5,026.8	-1,159.6	305.1	131.9	173.16	1.762		
12,400.0	7,362.0	12,621.2	7,267.0	93.5	94.7	-71.97	5,126.6	-1,155.0	300.7	124.5	176.22	1.707		
12,500.0	7,362.0	12,721.1	7,267.0	95.2	96.4	-71.69	5,226.4	-1,150.5	296.4	117.1	179.25	1.653		
12,600.0	7,362.0	12,821.0	7,267.0	96.9	98.0	-71.41	5,326.2	-1,145.9	292.0	109.8	182.27	1.602		
12,700.0	7,362.0	12,920.9	7,267.0	98.6	99.7	-71.12	5,426.0	-1,141.3	287.7	102.4	185.26	1.553		
12,800.0	7,362.0	13,020.8	7,267.0	100.3	101.4	-70.82	5,525.8	-1,136.7	283.4	95.1	188.23	1.505		
12,900.0	7,362.0	13,120.7	7,267.0	102.1	103.1	-70.51	5,625.5	-1,132.2	279.0	87.9	191.17	1.460 Level 3		
13,000.0	7,362.0	13,220.6	7,267.0	103.8	104.8	-70.19	5,725.3	-1,127.6	274.7	80.6	194.08	1.416 Level 3		
13,100.0	7,362.0	13,320.5	7,267.0	105.5	106.5	-69.87	5,825.1	-1,123.0	270.4	73.5	196.97	1.373 Level 3		
13,200.0	7,362.0	13,420.4	7,267.0	107.2	108.2	-69.53	5,924.9	-1,118.4	266.1	66.3	199.82	1.332 Level 3		
13,300.0	7,362.0	13,520.3	7,267.0	109.0	109.9	-69.18	6,024.7	-1,113.9	261.8	59.2	202.64	1.292 Level 3		
13,400.0	7,362.0	13,620.2	7,267.0	110.7	111.6	-68.81	6,124.5	-1,109.3	257.6	52.2	205.42	1.254 Level 3		
13,500.0	7,362.0	13,720.1	7,267.0	112.4	113.3	-68.44	6,224.3	-1,104.7	253.3	45.1	208.16	1.217 Level 2		
13,600.0	7,362.0	13,820.0	7,267.0	114.1	115.0	-68.05	6,324.1	-1,100.1	249.0	38.2	210.86	1.181 Level 2		
13,700.0	7,362.0	13,919.9	7,267.0	115.9	116.7	-67.65	6,423.9	-1,095.6	244.8	31.3	213.51	1.147 Level 2		
13,800.0	7,362.0	14,019.8	7,267.0	117.6	118.4	-67.24	6,523.7	-1,091.0	240.6	24.5	216.11	1.113 Level 2		
13,844.7	7,362.0	14,055.8	7,267.0	118.4	119.0	-67.08	6,559.7	-1,089.3	238.8	21.7	217.18	1.100 Level 2, SF		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		
0.0	0.0	0.0	0.0	0.0	0.0	90.02	0.0	10.1	10.3					
100.0	100.0	98.0	98.0	0.1	0.1	90.02	0.0	10.1	10.1	9.8	0.24	42.220		
200.0	200.0	198.0	198.0	0.3	0.3	90.02	0.0	10.1	10.1	9.5	0.59	17.164		
300.0	300.0	298.0	298.0	0.5	0.5	90.02	0.0	10.1	10.1	9.1	0.94	10.760 CC		
327.8	327.8	325.8	325.8	0.5	0.5	-171.83	0.0	10.1	10.1	9.1	1.03	9.813 ES		
400.0	400.0	398.0	398.0	0.6	0.6	-172.12	0.0	10.1	10.5	9.2	1.28	8.173		
500.0	499.9	498.2	498.2	0.8	0.8	-168.13	-1.4	9.1	13.0	11.4	1.63	7.972		
600.0	599.7	598.3	598.1	1.0	1.0	-158.17	-5.7	6.2	17.5	15.5	2.00	8.745		
700.0	699.1	698.2	697.6	1.3	1.2	-148.20	-12.8	1.3	24.5	22.1	2.41	10.180		
800.0	798.3	797.8	796.5	1.5	1.5	-139.20	-22.8	-5.5	33.4	30.5	2.88	11.608		
900.0	897.5	897.0	894.5	1.8	1.8	-129.55	-35.5	-14.2	43.2	39.8	3.42	12.608		
1,000.0	996.7	996.2	992.2	2.0	2.1	-121.83	-49.6	-23.8	54.1	50.1	3.99	13.565		
1,100.0	1,095.9	1,095.4	1,089.9	2.3	2.4	-116.77	-63.7	-33.5	65.7	61.1	4.55	14.426		
1,200.0	1,195.1	1,194.6	1,187.6	2.6	2.7	-113.23	-77.8	-43.1	77.6	72.5	5.12	15.169		
1,300.0	1,294.2	1,293.8	1,285.4	2.9	3.0	-110.64	-91.8	-52.7	89.8	84.1	5.68	15.806		
1,400.0	1,393.4	1,392.9	1,383.1	3.1	3.4	-108.68	-105.9	-62.4	102.1	95.8	6.24	16.351		
1,500.0	1,492.6	1,492.1	1,480.8	3.4	3.7	-107.13	-120.0	-72.0	114.4	107.6	6.80	16.820		
1,600.0	1,591.8	1,591.3	1,578.5	3.7	4.0	-105.89	-134.1	-81.6	126.9	119.5	7.37	17.227		
1,700.0	1,691.0	1,690.5	1,676.2	4.0	4.4	-104.87	-148.2	-91.3	139.4	131.4	7.93	17.582		
1,800.0	1,790.1	1,789.7	1,773.9	4.3	4.7	-104.02	-162.3	-100.9	151.9	143.4	8.49	17.895		
1,900.0	1,889.3	1,888.9	1,871.6	4.5	5.1	-103.30	-176.3	-110.5	164.5	155.4	9.05	18.172		
2,000.0	1,988.5	1,988.1	1,969.3	4.8	5.4	-102.68	-190.4	-120.2	177.0	167.4	9.61	18.419		
2,100.0	2,087.7	2,087.3	2,067.0	5.1	5.8	-102.14	-204.5	-129.8	189.6	179.5	10.17	18.640		
2,200.0	2,186.9	2,186.5	2,164.7	5.4	6.1	-101.67	-218.6	-139.4	202.2	191.5	10.73	18.839		
2,300.0	2,286.1	2,285.6	2,262.5	5.7	6.4	-101.25	-232.7	-149.1	214.9	203.6	11.30	19.019		
2,400.0	2,385.2	2,384.8	2,360.2	6.0	6.8	-100.88	-246.8	-158.7	227.5	215.6	11.86	19.183		
2,500.0	2,484.4	2,484.0	2,457.9	6.2	7.1	-100.55	-260.8	-168.3	240.1	227.7	12.42	19.333		
2,600.0	2,583.6	2,583.2	2,555.6	6.5	7.5	-100.26	-274.9	-177.9	252.8	239.8	12.98	19.470		
2,700.0	2,682.8	2,682.4	2,653.3	6.8	7.8	-99.99	-289.0	-187.6	265.4	251.9	13.54	19.597		
2,800.0	2,782.0	2,781.6	2,751.0	7.1	8.2	-99.74	-303.1	-197.2	278.1	264.0	14.11	19.713		
2,900.0	2,881.2	2,880.8	2,848.7	7.4	8.5	-99.52	-317.2	-206.8	290.7	276.1	14.67	19.821		
3,000.0	2,980.3	2,980.0	2,946.4	7.7	8.8	-99.31	-331.3	-216.5	303.4	288.2	15.23	19.921		
3,100.0	3,079.5	3,079.2	3,044.1	7.9	9.2	-99.13	-345.4	-226.1	316.1	300.3	15.79	20.014		
3,200.0	3,178.7	3,178.3	3,141.9	8.2	9.5	-98.95	-359.4	-235.7	328.8	312.4	16.36	20.101		
3,300.0	3,277.9	3,277.5	3,239.6	8.5	9.9	-98.79	-373.5	-245.4	341.4	324.5	16.92	20.182		
3,400.0	3,377.1	3,376.7	3,337.3	8.8	10.2	-98.64	-387.6	-255.0	354.1	336.6	17.48	20.259		
3,500.0	3,476.3	3,475.9	3,435.0	9.1	10.6	-98.50	-401.7	-264.6	366.8	348.8	18.04	20.330		
3,600.0	3,575.4	3,575.1	3,532.7	9.4	10.9	-98.37	-415.8	-274.3	379.5	360.9	18.60	20.397		
3,700.0	3,674.6	3,674.3	3,630.4	9.6	11.2	-98.25	-429.9	-283.9	392.2	373.0	19.17	20.461		
3,800.0	3,773.8	3,773.5	3,728.1	9.9	11.6	-98.14	-443.9	-293.5	404.9	385.1	19.73	20.520		
3,900.0	3,873.0	3,872.7	3,825.8	10.2	11.9	-98.03	-458.0	-303.2	417.5	397.2	20.29	20.577		
4,000.0	3,972.2	3,971.9	3,923.5	10.5	12.3	-97.93	-472.1	-312.8	430.2	409.4	20.85	20.630		
4,100.0	4,071.4	4,071.0	4,021.2	10.8	12.6	-97.84	-486.2	-322.4	442.9	421.5	21.42	20.681		
4,200.0	4,170.5	4,170.2	4,119.0	11.1	13.0	-97.75	-500.3	-332.0	455.6	433.6	21.98	20.729		
4,300.0	4,269.7	4,269.4	4,216.7	11.3	13.3	-97.66	-514.4	-341.7	468.3	445.8	22.54	20.775		
4,400.0	4,368.9	4,368.6	4,314.4	11.6	13.7	-97.58	-528.4	-351.3	481.0	457.9	23.10	20.819		
4,500.0	4,468.1	4,467.8	4,412.1	11.9	14.0	-97.51	-542.5	-360.9	493.7	470.0	23.67	20.860		
4,600.0	4,567.3	4,567.0	4,509.8	12.2	14.4	-97.44	-556.6	-370.6	506.4	482.2	24.23	20.900		
4,700.0	4,666.5	4,666.2	4,607.5	12.5	14.7	-97.37	-570.7	-380.2	519.1	494.3	24.79	20.938		
4,800.0	4,765.6	4,765.4	4,705.2	12.8	15.0	-97.30	-584.8	-389.8	531.8	506.4	25.35	20.974		
4,900.0	4,864.8	4,864.6	4,802.9	13.0	15.4	-97.24	-598.9	-399.5	544.5	518.6	25.92	21.009		
5,000.0	4,964.0	4,963.7	4,900.6	13.3	15.7	-97.18	-612.9	-409.1	557.2	530.7	26.48	21.042		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		
5,100.0	5,063.2	5,062.9	4,998.3	13.6	16.1	-97.12	-627.0	-418.7	569.9	542.8	27.04	21.074		
5,200.0	5,162.4	5,162.1	5,096.1	13.9	16.4	-97.07	-641.1	-428.4	582.6	555.0	27.60	21.105		
5,300.0	5,261.5	5,261.3	5,193.8	14.2	16.8	-97.02	-655.2	-438.0	595.3	567.1	28.17	21.134		
5,400.0	5,360.7	5,360.5	5,291.5	14.5	17.1	-96.97	-669.3	-447.6	608.0	579.2	28.73	21.162		
5,500.0	5,459.9	5,459.7	5,389.2	14.7	17.5	-96.92	-683.4	-457.3	620.7	591.4	29.29	21.189		
5,600.0	5,559.1	5,558.9	5,486.9	15.0	17.8	-96.87	-697.5	-466.9	633.4	603.5	29.85	21.215		
5,700.0	5,658.3	5,658.1	5,584.6	15.3	18.2	-96.83	-711.5	-476.5	646.1	615.7	30.42	21.241		
5,800.0	5,757.5	5,757.3	5,682.3	15.6	18.5	-96.79	-725.6	-486.2	658.8	627.8	30.98	21.265		
5,900.0	5,856.6	5,856.5	5,780.0	15.9	18.8	-96.75	-739.7	-495.8	671.5	639.9	31.54	21.288		
6,000.0	5,955.8	5,955.6	5,877.7	16.2	19.2	-96.71	-753.8	-505.4	684.2	652.1	32.10	21.311		
6,100.0	6,055.0	6,054.8	5,975.5	16.5	19.5	-96.67	-767.9	-515.0	696.9	664.2	32.67	21.333		
6,200.0	6,154.2	6,154.0	6,073.2	16.7	19.9	-96.63	-782.0	-524.7	709.6	676.4	33.23	21.354		
6,300.0	6,253.4	6,253.2	6,170.9	17.0	20.2	-96.60	-796.0	-534.3	722.3	688.5	33.79	21.374		
6,400.0	6,352.6	6,352.4	6,268.6	17.3	20.6	-96.56	-810.1	-543.9	735.0	700.6	34.36	21.394		
6,500.0	6,451.7	6,451.6	6,366.3	17.6	20.9	-96.53	-824.2	-553.6	747.7	712.8	34.92	21.413		
6,600.0	6,550.9	7,869.2	7,267.0	17.9	17.9	-175.27	-110.4	-642.4	728.7	703.3	25.32	28.783		
6,700.0	6,650.1	7,867.3	7,267.0	18.2	17.9	-174.78	-112.2	-642.4	633.7	608.2	25.51	24.843		
6,800.0	6,749.3	7,865.5	7,267.0	18.4	17.9	-174.29	-114.0	-642.4	540.6	514.9	25.71	21.031		
6,900.0	6,848.4	7,867.5	7,267.0	18.7	17.9	153.04	-112.1	-642.4	450.6	423.6	26.97	16.707		
7,000.0	6,945.8	7,885.7	7,267.0	19.0	17.9	135.97	-93.8	-642.4	367.1	338.8	28.27	12.983		
7,100.0	7,038.6	7,920.8	7,267.0	19.2	17.9	128.96	-58.8	-642.4	296.0	268.1	27.90	10.611		
7,200.0	7,123.9	7,971.5	7,267.0	19.4	18.0	120.32	-8.1	-642.4	244.4	217.5	26.94	9.073		
7,300.0	7,199.2	8,036.4	7,267.0	19.7	18.1	108.33	56.8	-642.4	217.7	191.1	26.65	8.171		
7,365.6	7,242.0	8,085.7	7,267.0	19.9	18.3	99.17	106.1	-642.4	213.4	186.1	27.31	7.815		
7,400.0	7,262.2	8,113.5	7,267.0	20.0	18.4	94.29	133.9	-642.4	214.4	186.6	27.81	7.708		
7,500.0	7,310.9	8,200.4	7,267.0	20.5	18.8	81.46	220.9	-642.4	224.4	195.2	29.26	7.671		
7,600.0	7,344.0	8,294.6	7,267.0	21.1	19.3	72.50	315.0	-642.4	236.9	206.9	29.97	7.903		
7,700.0	7,360.3	8,393.1	7,267.0	21.7	20.0	68.17	413.5	-642.4	244.4	214.1	30.33	8.058		
7,800.0	7,362.0	8,493.1	7,267.0	22.5	20.9	67.72	513.5	-642.4	245.3	213.6	31.72	7.733		
7,900.0	7,362.0	8,593.1	7,267.0	23.4	21.8	67.72	613.5	-642.4	245.3	211.4	33.89	7.239		
8,000.0	7,362.0	8,693.1	7,267.0	24.4	22.9	67.72	713.5	-642.4	245.3	209.1	36.22	6.773		
8,100.0	7,362.0	8,793.1	7,267.0	25.4	24.0	67.72	813.5	-642.4	245.3	206.6	38.68	6.342		
8,200.0	7,362.0	8,893.1	7,267.0	26.6	25.2	67.72	913.5	-642.4	245.3	204.0	41.25	5.946		
8,300.0	7,362.0	8,993.1	7,267.0	27.7	26.5	67.72	1,013.5	-642.4	245.3	201.4	43.91	5.586		
8,400.0	7,362.0	9,093.1	7,267.0	29.0	27.8	67.72	1,113.5	-642.4	245.3	198.6	46.65	5.258		
8,500.0	7,362.0	9,193.1	7,267.0	30.3	29.2	67.72	1,213.5	-642.4	245.3	195.8	49.45	4.961		
8,600.0	7,362.0	9,293.1	7,267.0	31.7	30.6	67.72	1,313.5	-642.4	245.3	193.0	52.30	4.691		
8,700.0	7,362.0	9,393.1	7,267.0	33.0	32.0	67.72	1,413.5	-642.4	245.3	190.1	55.19	4.445		
8,800.0	7,362.0	9,493.1	7,267.0	34.5	33.5	67.72	1,513.5	-642.4	245.3	187.2	58.12	4.220		
8,900.0	7,362.0	9,593.1	7,267.0	35.9	35.0	67.72	1,613.5	-642.4	245.3	184.2	61.09	4.016		
9,000.0	7,362.0	9,693.1	7,267.0	37.4	36.5	67.72	1,713.5	-642.4	245.3	181.2	64.08	3.828		
9,100.0	7,362.0	9,793.1	7,267.0	38.9	38.0	67.72	1,813.5	-642.4	245.3	178.2	67.09	3.656		
9,200.0	7,362.0	9,893.1	7,267.0	40.4	39.6	67.72	1,913.5	-642.4	245.3	175.2	70.13	3.498		
9,300.0	7,362.0	9,993.1	7,267.0	41.9	41.2	67.72	2,013.5	-642.4	245.3	172.1	73.18	3.352		
9,400.0	7,362.0	10,093.1	7,267.0	43.5	42.8	67.72	2,113.5	-642.4	245.3	169.0	76.25	3.217		
9,500.0	7,362.0	10,193.1	7,267.0	45.1	44.4	67.72	2,213.5	-642.4	245.3	166.0	79.34	3.092		
9,600.0	7,362.0	10,293.1	7,267.0	46.6	46.0	67.72	2,313.5	-642.4	245.3	162.9	82.44	2.976		
9,700.0	7,362.0	10,393.1	7,267.0	48.2	47.6	67.72	2,413.5	-642.4	245.3	159.7	85.55	2.867		
9,800.0	7,362.0	10,493.1	7,267.0	49.8	49.2	67.72	2,513.5	-642.4	245.3	156.6	88.66	2.767		
9,900.0	7,362.0	10,593.1	7,267.0	51.5	50.8	67.72	2,613.5	-642.4	245.3	153.5	91.79	2.672		
10,000.0	7,362.0	10,693.1	7,267.0	53.1	52.5	67.72	2,713.5	-642.4	245.3	150.4	94.93	2.584		
10,100.0	7,362.0	10,793.1	7,267.0	54.7	54.1	67.72	2,813.5	-642.4	245.3	147.2	98.07	2.501		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		
10,200.0	7,362.0	10,893.1	7,267.0	56.4	55.8	67.72	2,913.5	-642.4	245.3	144.1	101.22	2.423		
10,300.0	7,362.0	10,993.1	7,267.0	58.0	57.5	67.72	3,013.5	-642.4	245.3	140.9	104.38	2.350		
10,400.0	7,362.0	11,093.1	7,267.0	59.7	59.1	67.72	3,113.5	-642.4	245.3	137.8	107.54	2.281		
10,500.0	7,362.0	11,193.1	7,267.0	61.3	60.8	67.72	3,213.5	-642.4	245.3	134.6	110.71	2.216		
10,600.0	7,362.0	11,293.1	7,267.0	63.0	62.5	67.72	3,313.5	-642.4	245.3	131.4	113.88	2.154		
10,700.0	7,362.0	11,393.1	7,267.0	64.6	64.2	67.72	3,413.5	-642.4	245.3	128.2	117.06	2.096		
10,800.0	7,362.0	11,493.1	7,267.0	66.3	65.9	67.72	3,513.5	-642.4	245.3	125.1	120.24	2.040		
10,900.0	7,362.0	11,593.1	7,267.0	68.0	67.5	67.72	3,613.5	-642.4	245.3	121.9	123.42	1.987		
11,000.0	7,362.0	11,693.1	7,267.0	69.7	69.2	67.72	3,713.5	-642.4	245.3	118.7	126.61	1.937		
11,100.0	7,362.0	11,793.1	7,267.0	71.4	70.9	67.72	3,813.5	-642.4	245.3	115.5	129.80	1.890		
11,200.0	7,362.0	11,893.1	7,267.0	73.0	72.6	67.72	3,913.5	-642.4	245.3	112.3	132.99	1.844		
11,300.0	7,362.0	11,993.1	7,267.0	74.7	74.3	67.72	4,013.5	-642.4	245.3	109.1	136.18	1.801		
11,400.0	7,362.0	12,093.1	7,267.0	76.4	76.0	67.72	4,113.5	-642.4	245.3	105.9	139.38	1.760		
11,500.0	7,362.0	12,193.1	7,267.0	78.1	77.7	67.72	4,213.5	-642.4	245.3	102.7	142.58	1.720		
11,600.0	7,362.0	12,293.1	7,267.0	79.8	79.5	67.72	4,313.5	-642.4	245.3	99.5	145.78	1.683		
11,700.0	7,362.0	12,393.1	7,267.0	81.5	81.2	67.72	4,413.5	-642.4	245.3	96.3	148.99	1.646		
11,800.0	7,362.0	12,493.1	7,267.0	83.2	82.9	67.72	4,513.5	-642.4	245.3	93.1	152.20	1.612		
11,900.0	7,362.0	12,593.1	7,267.0	84.9	84.6	67.72	4,613.5	-642.4	245.3	89.9	155.40	1.578		
12,000.0	7,362.0	12,693.1	7,267.0	86.6	86.3	67.72	4,713.5	-642.4	245.3	86.7	158.61	1.546		
12,100.0	7,362.0	12,793.1	7,267.0	88.3	88.0	67.72	4,813.5	-642.4	245.3	83.5	161.83	1.516		
12,200.0	7,362.0	12,893.1	7,267.0	90.1	89.7	67.72	4,913.5	-642.4	245.3	80.3	165.04	1.486 Level 3		
12,300.0	7,362.0	12,993.1	7,267.0	91.8	91.5	67.72	5,013.5	-642.4	245.3	77.0	168.25	1.458 Level 3		
12,400.0	7,362.0	13,093.1	7,267.0	93.5	93.2	67.72	5,113.5	-642.4	245.3	73.8	171.47	1.431 Level 3		
12,500.0	7,362.0	13,193.1	7,267.0	95.2	94.9	67.72	5,213.5	-642.4	245.3	70.6	174.69	1.404 Level 3		
12,600.0	7,362.0	13,293.1	7,267.0	96.9	96.6	67.72	5,313.5	-642.4	245.3	67.4	177.90	1.379 Level 3		
12,700.0	7,362.0	13,393.1	7,267.0	98.6	98.3	67.72	5,413.5	-642.4	245.3	64.2	181.12	1.354 Level 3		
12,800.0	7,362.0	13,493.1	7,267.0	100.3	100.1	67.72	5,513.5	-642.4	245.3	61.0	184.34	1.331 Level 3		
12,900.0	7,362.0	13,593.1	7,267.0	102.1	101.8	67.72	5,613.5	-642.4	245.3	57.7	187.56	1.308 Level 3		
13,000.0	7,362.0	13,693.1	7,267.0	103.8	103.5	67.72	5,713.5	-642.4	245.3	54.5	190.79	1.286 Level 3		
13,100.0	7,362.0	13,793.1	7,267.0	105.5	105.3	67.72	5,813.5	-642.4	245.3	51.3	194.01	1.264 Level 3		
13,200.0	7,362.0	13,893.1	7,267.0	107.2	107.0	67.72	5,913.5	-642.4	245.3	48.1	197.23	1.244 Level 2		
13,300.0	7,362.0	13,993.1	7,267.0	109.0	108.7	67.72	6,013.5	-642.4	245.3	44.8	200.46	1.224 Level 2		
13,400.0	7,362.0	14,093.1	7,267.0	110.7	110.4	67.72	6,113.5	-642.4	245.3	41.6	203.68	1.204 Level 2		
13,500.0	7,362.0	14,193.1	7,267.0	112.4	112.2	67.72	6,213.5	-642.4	245.3	38.4	206.91	1.186 Level 2		
13,600.0	7,362.0	14,293.1	7,267.0	114.1	113.9	67.72	6,313.5	-642.4	245.3	35.2	210.14	1.167 Level 2		
13,700.0	7,362.0	14,393.1	7,267.0	115.9	115.6	67.72	6,413.5	-642.4	245.3	31.9	213.37	1.150 Level 2		
13,800.0	7,362.0	14,493.1	7,267.0	117.6	117.4	67.72	6,513.5	-642.4	245.3	28.7	216.59	1.133 Level 2		
13,834.2	7,362.0	14,527.3	7,267.0	118.2	118.0	67.72	6,547.7	-642.4	245.3	27.6	217.70	1.127 Level 2		
13,844.7	7,362.0	14,535.9	7,267.0	118.4	118.1	67.72	6,556.4	-642.4	245.3	27.3	218.01	1.125 Level 2, SF		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4F-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.97	-0.3	19.9	20.0					
100.0	100.0	98.0	98.0	0.1	0.1	90.97	-0.3	19.9	19.9	19.6	0.24	83.279		
200.0	200.0	198.0	198.0	0.3	0.3	90.97	-0.3	19.9	19.9	19.3	0.59	33.857		
300.0	300.0	298.0	298.0	0.5	0.5	90.97	-0.3	19.9	19.9	18.9	0.94	21.224 CC		
327.8	327.8	325.8	325.8	0.5	0.5	-170.86	-0.3	19.9	19.9	18.9	1.03	19.294 ES		
400.0	400.0	398.0	398.0	0.6	0.6	-171.03	-0.3	19.9	20.3	19.0	1.28	15.793		
500.0	499.9	498.1	498.1	0.8	0.8	-171.46	-0.7	19.7	23.6	21.9	1.63	14.429		
600.0	599.7	598.3	598.2	1.0	1.0	-167.39	-3.8	18.2	29.0	27.0	1.99	14.619		
700.0	699.1	698.3	698.0	1.3	1.2	-160.89	-10.0	15.1	36.9	34.5	2.36	15.627		
800.0	798.3	798.0	797.1	1.5	1.4	-153.63	-19.3	10.5	46.5	43.7	2.79	16.696		
900.0	897.5	897.3	895.5	1.8	1.7	-145.44	-31.6	4.4	56.5	53.2	3.28	17.235		
1,000.0	996.7	996.4	993.4	2.0	2.0	-138.17	-45.6	-2.5	67.6	63.7	3.81	17.732		
1,100.0	1,095.9	1,095.5	1,091.2	2.3	2.3	-132.98	-59.6	-9.4	79.4	75.0	4.35	18.234		
1,200.0	1,195.1	1,194.6	1,189.1	2.6	2.6	-129.16	-73.6	-16.4	91.6	86.7	4.90	18.703		
1,300.0	1,294.2	1,293.7	1,286.9	2.9	2.9	-126.24	-87.6	-23.3	104.2	98.8	5.45	19.127		
1,400.0	1,393.4	1,392.8	1,384.7	3.1	3.2	-123.96	-101.6	-30.2	117.0	111.0	6.00	19.505		
1,500.0	1,492.6	1,491.8	1,482.6	3.4	3.5	-122.13	-115.6	-37.1	130.0	123.4	6.55	19.842		
1,600.0	1,591.8	1,590.9	1,580.4	3.7	3.8	-120.63	-129.6	-44.1	143.0	135.9	7.10	20.141		
1,700.0	1,691.0	1,690.0	1,678.3	4.0	4.1	-119.38	-143.6	-51.0	156.1	148.5	7.65	20.408		
1,800.0	1,790.1	1,789.1	1,776.1	4.3	4.4	-118.33	-157.6	-57.9	169.3	161.1	8.20	20.647		
1,900.0	1,889.3	1,888.2	1,874.0	4.5	4.8	-117.42	-171.6	-64.8	182.6	173.8	8.75	20.861		
2,000.0	1,988.5	1,987.2	1,971.8	4.8	5.1	-116.64	-185.6	-71.8	195.8	186.5	9.30	21.055		
2,100.0	2,087.7	2,086.3	2,069.6	5.1	5.4	-115.96	-199.6	-78.7	209.2	199.3	9.85	21.230		
2,200.0	2,186.9	2,185.4	2,167.5	5.4	5.7	-115.36	-213.6	-85.6	222.5	212.1	10.40	21.389		
2,300.0	2,286.1	2,284.5	2,265.3	5.7	6.0	-114.83	-227.6	-92.5	235.8	224.9	10.95	21.535		
2,400.0	2,385.2	2,383.6	2,363.2	6.0	6.3	-114.36	-241.6	-99.4	249.2	237.7	11.50	21.668		
2,500.0	2,484.4	2,482.7	2,461.0	6.2	6.7	-113.93	-255.6	-106.4	262.6	250.6	12.05	21.790		
2,600.0	2,583.6	2,581.7	2,558.9	6.5	7.0	-113.55	-269.7	-113.3	276.0	263.4	12.60	21.903		
2,700.0	2,682.8	2,680.8	2,656.7	6.8	7.3	-113.20	-283.7	-120.2	289.4	276.3	13.15	22.007		
2,800.0	2,782.0	2,779.9	2,754.5	7.1	7.6	-112.88	-297.7	-127.1	302.8	289.1	13.70	22.104		
2,900.0	2,881.2	2,879.0	2,852.4	7.4	8.0	-112.59	-311.7	-134.1	316.3	302.0	14.25	22.194		
3,000.0	2,980.3	2,978.1	2,950.2	7.7	8.3	-112.32	-325.7	-141.0	329.7	314.9	14.80	22.277		
3,100.0	3,079.5	3,077.1	3,048.1	7.9	8.6	-112.08	-339.7	-147.9	343.2	327.8	15.35	22.355		
3,200.0	3,178.7	3,176.2	3,145.9	8.2	8.9	-111.85	-353.7	-154.8	356.6	340.7	15.90	22.428		
3,300.0	3,277.9	3,275.3	3,243.7	8.5	9.2	-111.64	-367.7	-161.8	370.1	353.6	16.45	22.497		
3,400.0	3,377.1	3,374.4	3,341.6	8.8	9.6	-111.44	-381.7	-168.7	383.5	366.5	17.00	22.561		
3,500.0	3,476.3	3,473.5	3,439.4	9.1	9.9	-111.26	-395.7	-175.6	397.0	379.4	17.55	22.622		
3,600.0	3,575.4	3,572.6	3,537.3	9.4	10.2	-111.09	-409.7	-182.5	410.4	392.3	18.10	22.679		
3,700.0	3,674.6	3,671.6	3,635.1	9.6	10.5	-110.92	-423.7	-189.5	423.9	405.3	18.65	22.733		
3,800.0	3,773.8	3,770.7	3,733.0	9.9	10.9	-110.77	-437.7	-196.4	437.4	418.2	19.20	22.784		
3,900.0	3,873.0	3,869.8	3,830.8	10.2	11.2	-110.63	-451.7	-203.3	450.9	431.1	19.75	22.833		
4,000.0	3,972.2	3,968.9	3,928.6	10.5	11.5	-110.50	-465.7	-210.2	464.3	444.1	20.30	22.879		
4,100.0	4,071.4	4,068.0	4,026.5	10.8	11.8	-110.37	-479.7	-217.1	477.8	457.0	20.85	22.922		
4,200.0	4,170.5	4,167.0	4,124.3	11.1	12.1	-110.26	-493.7	-224.1	491.3	469.9	21.40	22.964		
4,300.0	4,269.7	4,266.1	4,222.2	11.3	12.5	-110.14	-507.7	-231.0	504.8	482.9	21.94	23.003		
4,400.0	4,368.9	4,365.2	4,320.0	11.6	12.8	-110.04	-521.7	-237.9	518.3	495.8	22.49	23.041		
4,500.0	4,468.1	4,464.3	4,417.9	11.9	13.1	-109.93	-535.7	-244.8	531.8	508.7	23.04	23.077		
4,600.0	4,567.3	4,563.4	4,515.7	12.2	13.4	-109.84	-549.7	-251.8	545.3	521.7	23.59	23.111		
4,700.0	4,666.5	4,662.5	4,613.5	12.5	13.8	-109.75	-563.8	-258.7	558.8	534.6	24.14	23.144		
4,800.0	4,765.6	4,761.5	4,711.4	12.8	14.1	-109.66	-577.8	-265.6	572.3	547.6	24.69	23.176		
4,900.0	4,864.8	4,860.6	4,809.2	13.0	14.4	-109.58	-591.8	-272.5	585.7	560.5	25.24	23.206		
5,000.0	4,964.0	4,959.7	4,907.1	13.3	14.7	-109.50	-605.8	-279.5	599.2	573.4	25.79	23.235		

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



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4F-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	5,063.2	5,058.8	5,004.9	13.6	15.0	-109.42	-619.8	-286.4	612.7	586.4	26.34	23.262		
5,200.0	5,162.4	5,157.9	5,102.8	13.9	15.4	-109.35	-633.8	-293.3	626.2	599.3	26.89	23.289		
5,300.0	5,261.5	5,256.9	5,200.6	14.2	15.7	-109.28	-647.8	-300.2	639.7	612.3	27.44	23.314		
5,400.0	5,360.7	5,356.0	5,298.4	14.5	16.0	-109.21	-661.8	-307.2	653.2	625.2	27.99	23.339		
5,500.0	5,459.9	5,455.1	5,396.3	14.7	16.3	-109.15	-675.8	-314.1	666.7	638.2	28.54	23.363		
5,600.0	5,559.1	5,554.2	5,494.1	15.0	16.7	-109.09	-689.8	-321.0	680.2	651.1	29.09	23.386		
5,700.0	5,658.3	5,653.3	5,592.0	15.3	17.0	-109.03	-703.8	-327.9	693.7	664.1	29.64	23.408		
5,800.0	5,757.5	5,752.4	5,689.8	15.6	17.3	-108.97	-717.8	-334.8	707.2	677.1	30.19	23.429		
5,900.0	5,856.6	5,851.4	5,787.6	15.9	17.6	-108.92	-731.8	-341.8	720.7	690.0	30.74	23.449		
6,000.0	5,955.8	5,950.5	5,885.5	16.2	18.0	-108.86	-745.8	-348.7	734.2	703.0	31.29	23.469		
6,100.0	6,055.0	6,049.6	5,983.3	16.5	18.3	-108.81	-759.8	-355.6	747.8	715.9	31.83	23.488		
6,200.0	6,154.2	6,148.7	6,081.2	16.7	18.6	-108.76	-773.8	-362.5	761.3	728.9	32.38	23.507		
6,300.0	6,253.4	6,247.8	6,179.0	17.0	18.9	-108.72	-787.8	-369.5	774.8	741.8	32.93	23.525		
6,400.0	6,352.6	6,346.8	6,276.9	17.3	19.2	-108.67	-801.8	-376.4	788.3	754.8	33.48	23.542		
6,500.0	6,451.7	6,445.9	6,374.7	17.6	19.6	-108.63	-815.8	-383.3	801.8	767.7	34.03	23.559		
6,600.0	6,550.9	6,545.0	6,472.5	17.9	19.9	-108.58	-829.8	-390.2	815.3	780.7	34.58	23.575		
6,700.0	6,650.1	6,644.1	6,570.4	18.2	20.2	-108.54	-843.8	-397.2	828.8	793.7	35.13	23.591		
6,800.0	6,749.3	6,743.3	6,670.0	18.4	20.5	-108.50	-857.8	-404.1	842.3	806.7	35.68	23.607		
6,900.0	6,848.4	6,842.4	6,768.0	18.7	20.8	-108.46	-871.8	-410.4	855.8	819.7	36.23	23.623		
7,000.0	6,947.6	6,941.6	6,868.0	19.0	21.1	-108.42	-885.8	-416.7	869.8	832.7	36.78	23.639		
7,100.0	7,046.8	7,040.8	6,968.0	19.2	21.3	-108.38	-899.8	-423.0	883.8	845.7	37.33	23.655		
7,200.0	7,145.9	7,140.0	7,068.0	19.5	21.6	-108.34	-913.8	-429.3	897.8	858.7	37.88	23.671		
7,300.0	7,245.1	7,239.1	7,168.0	19.7	21.8	-108.30	-927.8	-435.6	911.8	871.7	38.43	23.687		
7,400.0	7,344.2	7,338.2	7,268.0	20.0	22.1	-108.26	-941.8	-441.9	925.8	884.7	38.98	23.703		
7,500.0	7,443.4	7,437.4	7,368.0	20.2	22.3	-108.22	-955.8	-448.1	939.8	897.7	39.53	23.719		
7,600.0	7,542.6	7,536.6	7,468.0	20.5	22.5	-108.18	-969.8	-454.4	953.8	910.7	40.08	23.735		
7,700.0	7,641.8	7,635.8	7,568.0	20.7	22.7	-108.14	-983.8	-460.7	967.8	923.7	40.63	23.751		
7,800.0	7,741.0	7,735.0	7,668.0	21.0	23.0	-108.10	-997.8	-467.0	981.8	936.7	41.18	23.767		
7,900.0	7,840.2	7,834.2	7,768.0	21.2	23.2	-108.06	-1,011.8	-473.3	995.8	949.7	41.73	23.783		
8,000.0	7,939.4	7,933.4	7,868.0	21.5	23.5	-108.02	-1,025.8	-479.6	1,009.8	962.7	42.28	23.799		
8,100.0	8,038.6	8,032.6	7,968.0	21.7	23.7	-107.98	-1,039.8	-485.9	1,023.8	975.7	42.83	23.815		
8,200.0	8,137.8	8,131.8	8,068.0	22.0	24.0	-107.94	-1,053.8	-492.2	1,037.8	988.7	43.38	23.831		
8,300.0	8,237.0	8,231.0	8,168.0	22.2	24.2	-107.90	-1,067.8	-498.5	1,051.8	1,001.7	43.93	23.847		
8,400.0	8,336.2	8,330.2	8,268.0	22.5	24.5	-107.86	-1,081.8	-504.8	1,065.8	1,014.7	44.48	23.863		
8,500.0	8,435.4	8,429.4	8,368.0	22.7	24.7	-107.82	-1,095.8	-511.1	1,079.8	1,027.7	45.03	23.879		
8,600.0	8,534.6	8,528.6	8,468.0	23.0	25.0	-107.78	-1,109.8	-517.4	1,093.8	1,040.7	45.58	23.895		
8,700.0	8,633.8	8,627.8	8,568.0	23.2	25.2	-107.74	-1,123.8	-523.7	1,107.8	1,053.7	46.13	23.911		
8,800.0	8,733.0	8,727.0	8,668.0	23.5	25.5	-107.70	-1,137.8	-529.9	1,121.8	1,066.7	46.68	23.927		
8,900.0	8,832.2	8,826.2	8,768.0	23.7	25.7	-107.66	-1,151.8	-536.2	1,135.8	1,079.7	47.23	23.943		
9,000.0	8,931.4	8,925.4	8,868.0	24.0	26.0	-107.62	-1,165.8	-542.5	1,149.8	1,092.7	47.78	23.959		
9,100.0	9,030.6	9,024.6	8,968.0	24.2	26.2	-107.58	-1,179.8	-548.8	1,163.8	1,105.7	48.33	23.975		
9,200.0	9,129.8	9,123.8	9,068.0	24.5	26.5	-107.54	-1,193.8	-555.1	1,177.8	1,118.7	48.88	23.991		
9,300.0	9,229.0	9,223.0	9,168.0	24.7	26.7	-107.50	-1,207.8	-561.4	1,191.8	1,131.7	49.43	24.007		
9,400.0	9,328.2	9,322.2	9,268.0	25.0	27.0	-107.46	-1,221.8	-567.7	1,205.8	1,144.7	49.98	24.023		
9,500.0	9,427.4	9,421.4	9,368.0	25.1	27.1	-107.41	-1,235.8	-574.0	1,219.8	1,157.7	50.53	24.039		
9,600.0	9,526.6	9,520.6	9,468.0	25.3	27.3	-107.37	-1,249.8	-580.3	1,233.8	1,170.7	51.08	24.055		
9,700.0	9,625.8	9,619.8	9,568.0	25.5	27.5	-107.33	-1,263.8	-586.6	1,247.8	1,183.7	51.63	24.071		
9,800.0	9,725.0	9,719.0	9,668.0	25.7	27.7	-107.29	-1,277.8	-592.9	1,261.8	1,196.7	52.18	24.087		
9,900.0	9,824.2	9,818.2	9,768.0	25.9	27.9	-107.26	-1,291.8	-599.2	1,275.8	1,209.7	52.73	24.103		
10,000.0	9,923.4	9,917.4	9,868.0	26.1	28.1	-107.22	-1,305.8	-605.5	1,289.8	1,222.7	53.28	24.119		
10,100.0	10,022.6	10,016.6	9,968.0	26.3	28.3	-107.18	-1,319.8	-611.8	1,303.8	1,235.7	53.83	24.135		

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



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4F-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	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)			
10,200.0	7,362.0	11,043.5	7,498.0	56.4	55.2	107.14	2,908.8	-421.9	468.2	363.7	104.57	4.478	
10,300.0	7,362.0	11,143.5	7,498.0	58.0	56.9	107.10	3,008.8	-420.9	469.3	361.4	107.83	4.352	
10,400.0	7,362.0	11,243.5	7,498.0	59.7	58.5	107.07	3,108.8	-419.8	470.3	359.1	111.11	4.232	
10,500.0	7,362.0	11,343.5	7,498.0	61.3	60.2	107.03	3,208.8	-418.8	471.3	356.9	114.40	4.120	
10,600.0	7,362.0	11,443.5	7,498.0	63.0	61.9	106.99	3,308.7	-417.7	472.3	354.6	117.69	4.013	
10,700.0	7,362.0	11,543.5	7,498.0	64.6	63.6	106.95	3,408.7	-416.7	473.3	352.3	120.98	3.912	
10,800.0	7,362.0	11,643.5	7,498.0	66.3	65.3	106.92	3,508.7	-415.6	474.3	350.0	124.28	3.816	
10,900.0	7,362.0	11,743.5	7,498.0	68.0	67.0	106.88	3,608.7	-414.5	475.3	347.7	127.59	3.725	
11,000.0	7,362.0	11,843.5	7,498.0	69.7	68.7	106.84	3,708.7	-413.5	476.3	345.4	130.90	3.639	
11,100.0	7,362.0	11,943.5	7,498.0	71.4	70.4	106.81	3,808.7	-412.4	477.3	343.1	134.22	3.556	
11,200.0	7,362.0	12,043.5	7,498.0	73.0	72.1	106.77	3,908.7	-411.4	478.3	340.8	137.54	3.478	
11,300.0	7,362.0	12,143.4	7,498.0	74.7	73.8	106.73	4,008.7	-410.3	479.3	338.5	140.86	3.403	
11,400.0	7,362.0	12,243.4	7,498.0	76.4	75.5	106.70	4,108.7	-409.3	480.3	336.1	144.19	3.331	
11,500.0	7,362.0	12,343.4	7,498.0	78.1	77.3	106.66	4,208.6	-408.2	481.3	333.8	147.53	3.263	
11,600.0	7,362.0	12,443.4	7,498.0	79.8	79.0	106.63	4,308.6	-407.2	482.4	331.5	150.86	3.197	
11,700.0	7,362.0	12,543.4	7,498.0	81.5	80.7	106.59	4,408.6	-406.1	483.4	329.2	154.20	3.135	
11,800.0	7,362.0	12,643.4	7,498.0	83.2	82.4	106.55	4,508.6	-405.1	484.4	326.8	157.54	3.075	
11,900.0	7,362.0	12,743.4	7,498.0	84.9	84.1	106.52	4,608.6	-404.0	485.4	324.5	160.89	3.017	
12,000.0	7,362.0	12,843.4	7,498.0	86.6	85.9	106.48	4,708.6	-403.0	486.4	322.2	164.24	2.962	
12,100.0	7,362.0	12,943.4	7,498.0	88.3	87.6	106.45	4,808.6	-401.9	487.4	319.8	167.59	2.908	
12,200.0	7,362.0	13,043.4	7,498.0	90.1	89.3	106.41	4,908.6	-400.9	488.4	317.5	170.94	2.857	
12,300.0	7,362.0	13,143.4	7,498.0	91.8	91.0	106.38	5,008.6	-399.8	489.4	315.1	174.30	2.808	
12,400.0	7,362.0	13,243.4	7,498.0	93.5	92.8	106.34	5,108.5	-398.7	490.4	312.8	177.66	2.761	
12,500.0	7,362.0	13,343.4	7,498.0	95.2	94.5	106.31	5,208.5	-397.7	491.4	310.4	181.02	2.715	
12,600.0	7,362.0	13,443.4	7,498.0	96.9	96.2	106.27	5,308.5	-396.6	492.5	308.1	184.39	2.671	
12,700.0	7,362.0	13,543.4	7,498.0	98.6	97.9	106.24	5,408.5	-395.6	493.5	305.7	187.75	2.628	
12,800.0	7,362.0	13,648.7	7,498.0	100.3	99.8	106.22	5,513.8	-394.8	494.2	303.0	191.20	2.585	
12,900.0	7,362.0	13,757.7	7,498.0	102.1	101.7	106.25	5,622.8	-395.9	493.2	298.5	194.65	2.534	
13,000.0	7,362.0	13,857.8	7,498.0	103.8	103.4	106.32	5,722.9	-397.9	491.3	293.3	197.93	2.482	
13,100.0	7,362.0	13,957.8	7,498.0	105.5	105.1	106.38	5,822.9	-399.9	489.4	288.2	201.21	2.432	
13,200.0	7,362.0	14,057.8	7,498.0	107.2	106.9	106.45	5,922.8	-401.9	487.4	283.0	204.48	2.384	
13,300.0	7,362.0	14,157.7	7,498.0	109.0	108.6	106.52	6,022.8	-403.9	485.5	277.8	207.75	2.337	
13,400.0	7,362.0	14,257.7	7,498.0	110.7	110.3	106.58	6,122.7	-405.9	483.6	272.6	211.02	2.292	
13,500.0	7,362.0	14,357.7	7,498.0	112.4	112.1	106.65	6,222.7	-407.9	481.7	267.4	214.28	2.248	
13,600.0	7,362.0	14,457.7	7,498.0	114.1	113.8	106.72	6,322.7	-409.9	479.8	262.2	217.55	2.205	
13,700.0	7,362.0	14,557.7	7,498.0	115.9	115.5	106.79	6,422.6	-411.9	477.9	257.1	220.81	2.164	
13,800.0	7,362.0	14,657.6	7,498.0	117.6	117.3	106.86	6,522.6	-413.9	476.0	251.9	224.07	2.124	
13,841.4	7,362.0	14,690.0	7,498.0	118.3	117.8	106.88	6,554.9	-414.5	475.3	250.0	225.27	2.110	
13,844.7	7,362.0	14,690.0	7,498.0	118.4	117.8	106.88	6,554.9	-414.5	475.3	250.0	225.33	2.109 SF	

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4G-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		
0.0	0.0	0.0	0.0	0.0	0.0	90.66	-0.3	29.9	30.0					
100.0	100.0	98.0	98.0	0.1	0.1	90.66	-0.3	29.9	29.9	29.7	0.24	125.496		
200.0	200.0	198.0	198.0	0.3	0.3	90.66	-0.3	29.9	29.9	29.3	0.59	51.020		
300.0	300.0	298.0	298.0	0.5	0.5	90.66	-0.3	29.9	29.9	29.0	0.94	31.983 CC		
327.8	327.8	325.8	325.8	0.5	0.5	-171.16	-0.3	29.9	30.0	29.0	1.03	29.042 ES		
400.0	400.0	398.0	398.0	0.6	0.6	-171.27	-0.3	29.9	30.4	29.1	1.28	23.630		
500.0	499.9	497.9	497.9	0.8	0.8	-172.16	-0.3	29.9	33.8	32.2	1.63	20.709		
600.0	599.7	598.0	598.0	1.0	1.0	-171.19	-2.0	29.5	40.3	38.3	1.98	20.330		
700.0	699.1	697.9	697.7	1.3	1.2	-167.20	-6.9	28.2	49.5	47.1	2.34	21.123		
800.0	798.3	797.4	796.9	1.5	1.4	-161.80	-15.2	25.9	60.6	57.8	2.74	22.142		
900.0	897.5	896.5	895.3	1.8	1.6	-155.39	-26.8	22.9	72.1	68.9	3.18	22.665		
1,000.0	996.7	995.3	993.0	2.0	1.9	-148.97	-40.9	19.1	84.6	80.9	3.67	23.064		
1,100.0	1,095.9	1,094.1	1,090.7	2.3	2.2	-144.11	-55.2	15.3	97.9	93.7	4.17	23.461		
1,200.0	1,195.1	1,193.0	1,188.4	2.6	2.5	-140.43	-69.5	11.5	111.7	107.0	4.69	23.837		
1,300.0	1,294.2	1,291.8	1,286.1	2.9	2.7	-137.57	-83.8	7.7	125.9	120.7	5.21	24.183		
1,400.0	1,393.4	1,390.6	1,383.8	3.1	3.0	-135.29	-98.1	3.9	140.3	134.6	5.73	24.497		
1,500.0	1,492.6	1,489.4	1,481.5	3.4	3.3	-133.44	-112.4	0.1	154.9	148.7	6.25	24.781		
1,600.0	1,591.8	1,588.2	1,579.2	3.7	3.6	-131.91	-126.7	-3.7	169.7	162.9	6.78	25.036		
1,700.0	1,691.0	1,687.0	1,676.9	4.0	3.9	-130.62	-141.0	-7.5	184.5	177.2	7.30	25.266		
1,800.0	1,790.1	1,785.8	1,774.6	4.3	4.2	-129.52	-155.3	-11.3	199.4	191.6	7.83	25.474		
1,900.0	1,889.3	1,884.7	1,872.3	4.5	4.5	-128.58	-169.6	-15.2	214.4	206.0	8.35	25.663		
2,000.0	1,988.5	1,983.5	1,970.0	4.8	4.8	-127.76	-183.9	-19.0	229.4	220.5	8.88	25.834		
2,100.0	2,087.7	2,082.3	2,067.7	5.1	5.1	-127.04	-198.2	-22.8	244.5	235.1	9.41	25.990		
2,200.0	2,186.9	2,181.1	2,165.4	5.4	5.5	-126.41	-212.5	-26.6	259.6	249.7	9.93	26.133		
2,300.0	2,286.1	2,279.9	2,263.1	5.7	5.8	-125.84	-226.8	-30.4	274.7	264.3	10.46	26.264		
2,400.0	2,385.2	2,378.7	2,360.8	6.0	6.1	-125.33	-241.1	-34.2	289.9	278.9	10.99	26.385		
2,500.0	2,484.4	2,477.6	2,458.5	6.2	6.4	-124.88	-255.4	-38.0	305.0	293.5	11.51	26.496		
2,600.0	2,583.6	2,576.4	2,556.2	6.5	6.7	-124.46	-269.7	-41.8	320.2	308.2	12.04	26.599		
2,700.0	2,682.8	2,675.2	2,653.9	6.8	7.0	-124.09	-284.0	-45.6	335.4	322.9	12.57	26.694		
2,800.0	2,782.0	2,774.0	2,751.6	7.1	7.3	-123.75	-298.3	-49.4	350.7	337.6	13.09	26.783		
2,900.0	2,881.2	2,872.8	2,849.3	7.4	7.6	-123.43	-312.6	-53.2	365.9	352.3	13.62	26.866		
3,000.0	2,980.3	2,971.6	2,947.0	7.7	7.9	-123.14	-326.9	-57.0	381.1	367.0	14.15	26.943		
3,100.0	3,079.5	3,070.4	3,044.7	7.9	8.2	-122.87	-341.2	-60.8	396.4	381.7	14.67	27.016		
3,200.0	3,178.7	3,169.3	3,142.4	8.2	8.5	-122.63	-355.5	-64.6	411.6	396.4	15.20	27.084		
3,300.0	3,277.9	3,268.1	3,240.1	8.5	8.8	-122.40	-369.8	-68.5	426.9	411.2	15.72	27.148		
3,400.0	3,377.1	3,366.9	3,337.8	8.8	9.2	-122.18	-384.1	-72.3	442.1	425.9	16.25	27.208		
3,500.0	3,476.3	3,465.7	3,435.5	9.1	9.5	-121.98	-398.4	-76.1	457.4	440.6	16.78	27.265		
3,600.0	3,575.4	3,564.5	3,533.2	9.4	9.8	-121.80	-412.7	-79.9	472.7	455.4	17.30	27.318		
3,700.0	3,674.6	3,663.3	3,630.9	9.6	10.1	-121.62	-426.9	-83.7	488.0	470.2	17.83	27.369		
3,800.0	3,773.8	3,762.1	3,728.6	9.9	10.4	-121.46	-441.2	-87.5	503.3	484.9	18.36	27.417		
3,900.0	3,873.0	3,861.0	3,826.3	10.2	10.7	-121.30	-455.5	-91.3	518.6	499.7	18.88	27.462		
4,000.0	3,972.2	3,959.8	3,924.0	10.5	11.0	-121.16	-469.8	-95.1	533.9	514.4	19.41	27.506		
4,100.0	4,071.4	4,058.6	4,021.7	10.8	11.3	-121.02	-484.1	-98.9	549.2	529.2	19.94	27.547		
4,200.0	4,170.5	4,157.4	4,119.4	11.1	11.6	-120.89	-498.4	-102.7	564.5	544.0	20.46	27.586		
4,300.0	4,269.7	4,256.2	4,217.1	11.3	11.9	-120.77	-512.7	-106.5	579.8	558.8	20.99	27.623		
4,400.0	4,368.9	4,355.0	4,314.8	11.6	12.2	-120.65	-527.0	-110.3	595.1	573.6	21.51	27.659		
4,500.0	4,468.1	4,453.8	4,412.5	11.9	12.6	-120.54	-541.3	-114.1	610.4	588.3	22.04	27.693		
4,600.0	4,567.3	4,552.7	4,510.2	12.2	12.9	-120.43	-555.6	-118.0	625.7	603.1	22.57	27.726		
4,700.0	4,666.5	4,651.5	4,607.9	12.5	13.2	-120.33	-569.9	-121.8	641.0	617.9	23.09	27.757		
4,800.0	4,765.6	4,750.3	4,705.6	12.8	13.5	-120.24	-584.2	-125.6	656.3	632.7	23.62	27.787		
4,900.0	4,864.8	4,849.1	4,803.3	13.0	13.8	-120.14	-598.5	-129.4	671.6	647.5	24.15	27.815		
5,000.0	4,964.0	4,947.9	4,901.0	13.3	14.1	-120.06	-612.8	-133.2	686.9	662.3	24.67	27.843		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4G-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	5,063.2	5,046.7	4,998.7	13.6	14.4	-119.97	-627.1	-137.0	702.3	677.1	25.20	27.869		
5,200.0	5,162.4	5,145.5	5,096.4	13.9	14.7	-119.89	-641.4	-140.8	717.6	691.9	25.72	27.895		
5,300.0	5,261.5	5,244.4	5,194.1	14.2	15.0	-119.82	-655.7	-144.6	732.9	706.7	26.25	27.919		
5,400.0	5,360.7	5,343.2	5,291.8	14.5	15.3	-119.74	-670.0	-148.4	748.2	721.5	26.78	27.943		
5,500.0	5,459.9	5,442.0	5,389.5	14.7	15.7	-119.67	-684.3	-152.2	763.6	736.2	27.30	27.965		
5,600.0	5,559.1	5,540.8	5,487.2	15.0	16.0	-119.60	-698.6	-156.0	778.9	751.0	27.83	27.987		
5,700.0	5,658.3	5,639.6	5,584.9	15.3	16.3	-119.54	-712.9	-159.8	794.2	765.8	28.36	28.008		
5,800.0	5,757.5	5,738.4	5,682.6	15.6	16.6	-119.48	-727.2	-163.6	809.5	780.6	28.88	28.029		
5,900.0	5,856.6	5,837.2	5,780.3	15.9	16.9	-119.42	-741.5	-167.4	824.9	795.4	29.41	28.048		
6,000.0	5,955.8	5,936.1	5,878.0	16.2	17.2	-119.36	-755.8	-171.3	840.2	810.3	29.93	28.067		
6,100.0	6,055.0	6,034.9	5,975.7	16.5	17.5	-119.30	-770.1	-175.1	855.5	825.1	30.46	28.086		
6,200.0	6,154.2	6,133.7	6,073.4	16.7	17.8	-119.25	-784.4	-178.9	870.8	839.9	30.99	28.103		
6,300.0	6,253.4	6,232.5	6,171.1	17.0	18.1	-119.20	-798.7	-182.7	886.2	854.7	31.51	28.121		
6,400.0	6,352.6	6,331.3	6,268.8	17.3	18.4	-119.14	-813.0	-186.5	901.5	869.5	32.04	28.137		
6,500.0	6,451.7	6,430.1	6,366.5	17.6	18.8	-119.10	-827.3	-190.3	916.8	884.3	32.57	28.153		
6,600.0	6,550.9	7,861.6	7,267.0	17.9	14.5	-174.27	-95.9	-228.7	897.0	871.7	25.27	35.493		
6,700.0	6,650.1	7,860.1	7,267.0	18.2	14.5	-174.13	-97.4	-228.7	828.1	802.7	25.45	32.535		
6,800.0	6,749.3	7,858.6	7,267.0	18.4	14.5	-174.00	-98.9	-228.6	766.1	740.5	25.63	29.887		
6,900.0	6,848.4	7,860.9	7,267.0	18.7	14.5	144.51	-96.6	-228.7	712.8	686.8	25.96	27.453		
7,000.0	6,945.8	7,879.5	7,267.0	19.0	14.5	120.09	-78.0	-229.2	670.4	644.2	26.20	25.591		
7,100.0	7,038.6	7,914.8	7,267.0	19.2	14.5	111.18	-42.7	-230.1	641.1	614.9	26.23	24.437		
7,200.0	7,123.9	7,965.8	7,267.0	19.4	14.6	104.73	8.3	-231.5	624.8	598.5	26.37	23.692		
7,300.0	7,199.2	8,030.9	7,267.0	19.7	14.8	98.48	73.4	-233.3	619.5	592.6	26.88	23.045		
7,313.3	7,208.4	8,040.6	7,267.0	19.7	14.8	97.65	83.0	-233.5	619.5	592.5	27.00	22.942		
7,400.0	7,262.2	8,108.2	7,267.0	20.0	15.2	92.44	150.6	-235.3	621.6	593.7	27.84	22.325		
7,500.0	7,310.9	8,195.3	7,267.0	20.5	15.7	87.22	237.7	-237.7	626.8	597.7	29.07	21.561		
7,600.0	7,344.0	8,289.6	7,267.0	21.1	16.4	83.47	331.9	-240.2	631.5	601.1	30.39	20.781		
7,700.0	7,360.3	8,388.1	7,267.0	21.7	17.3	81.66	430.4	-242.9	633.1	601.3	31.79	19.914		
7,800.0	7,362.0	8,488.0	7,267.0	22.5	18.3	81.52	530.3	-245.6	630.9	597.2	33.67	18.736		
7,900.0	7,362.0	8,588.0	7,267.0	23.4	19.4	81.48	630.2	-248.2	628.2	592.3	35.99	17.456		
8,000.0	7,362.0	8,687.9	7,267.0	24.4	20.6	81.45	730.1	-250.9	625.6	587.1	38.48	16.258		
8,100.0	7,362.0	8,787.9	7,267.0	25.4	21.9	81.41	830.1	-253.6	622.9	581.8	41.11	15.153		
8,200.0	7,362.0	8,887.9	7,267.0	26.6	23.2	81.37	930.0	-256.3	620.3	576.4	43.85	14.144		
8,300.0	7,362.0	8,987.8	7,267.0	27.7	24.6	81.34	1,029.9	-259.0	617.6	570.9	46.70	13.226		
8,400.0	7,362.0	9,087.8	7,267.0	29.0	26.1	81.30	1,129.9	-261.7	614.9	565.3	49.62	12.394		
8,500.0	7,362.0	9,187.8	7,267.0	30.3	27.6	81.26	1,229.8	-264.4	612.3	559.7	52.60	11.640		
8,600.0	7,362.0	9,287.7	7,267.0	31.7	29.1	81.22	1,329.7	-267.1	609.6	554.0	55.64	10.957		
8,700.0	7,362.0	9,387.7	7,267.0	33.0	30.6	81.18	1,429.6	-269.8	607.0	548.2	58.73	10.336		
8,800.0	7,362.0	9,487.6	7,267.0	34.5	32.1	81.14	1,529.6	-272.4	604.3	542.5	61.85	9.770		
8,900.0	7,362.0	9,587.6	7,267.0	35.9	33.7	81.10	1,629.5	-275.1	601.7	536.6	65.01	9.255		
9,000.0	7,362.0	9,687.6	7,267.0	37.4	35.3	81.06	1,729.4	-277.8	599.0	530.8	68.20	8.783		
9,100.0	7,362.0	9,787.5	7,267.0	38.9	36.9	81.02	1,829.3	-280.5	596.3	524.9	71.41	8.351		
9,200.0	7,362.0	9,887.5	7,267.0	40.4	38.5	80.98	1,929.3	-283.2	593.7	519.0	74.64	7.954		
9,300.0	7,362.0	9,987.5	7,267.0	41.9	40.2	80.94	2,029.2	-285.9	591.0	513.1	77.89	7.588		
9,400.0	7,362.0	10,087.4	7,267.0	43.5	41.8	80.90	2,129.1	-288.6	588.4	507.2	81.16	7.250		
9,500.0	7,362.0	10,187.4	7,267.0	45.1	43.5	80.86	2,229.1	-291.3	585.7	501.3	84.44	6.936		
9,600.0	7,362.0	10,287.4	7,267.0	46.6	45.1	80.82	2,329.0	-294.0	583.1	495.3	87.73	6.646		
9,700.0	7,362.0	10,387.3	7,267.0	48.2	46.8	80.78	2,428.9	-296.7	580.4	489.4	91.04	6.375		
9,800.0	7,362.0	10,487.3	7,267.0	49.8	48.5	80.73	2,528.8	-299.3	577.7	483.4	94.35	6.123		
9,900.0	7,362.0	10,587.2	7,267.0	51.5	50.1	80.69	2,628.8	-302.0	575.1	477.4	97.68	5.888		
10,000.0	7,362.0	10,687.2	7,267.0	53.1	51.8	80.65	2,728.7	-304.7	572.4	471.4	101.01	5.667		
10,100.0	7,362.0	10,787.2	7,267.0	54.7	53.5	80.60	2,828.6	-307.4	569.8	465.4	104.35	5.460		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4G-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	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)			
10,200.0	7,362.0	10,887.1	7,267.0	56.4	55.2	80.56	2,928.5	-310.1	567.1	459.4	107.69	5.266	
10,300.0	7,362.0	10,987.1	7,267.0	58.0	56.9	80.51	3,028.5	-312.8	564.5	453.4	111.04	5.084	
10,400.0	7,362.0	11,087.1	7,267.0	59.7	58.6	80.47	3,128.4	-315.5	561.8	447.4	114.39	4.911	
10,500.0	7,362.0	11,187.0	7,267.0	61.3	60.3	80.42	3,228.3	-318.2	559.2	441.4	117.75	4.749	
10,600.0	7,362.0	11,284.5	7,267.0	63.0	61.9	80.38	3,325.8	-320.7	556.6	435.5	121.07	4.597	
10,700.0	7,362.0	11,375.8	7,267.0	64.6	63.5	80.36	3,417.0	-322.0	555.2	430.9	124.30	4.466	
10,740.3	7,362.0	11,412.5	7,267.0	65.3	64.1	80.35	3,453.8	-322.2	555.0	429.4	125.60	4.419	
10,800.0	7,362.0	11,467.0	7,267.0	66.3	65.1	80.36	3,508.3	-321.9	555.3	427.8	127.54	4.354	
10,900.0	7,362.0	11,558.3	7,267.0	68.0	66.6	80.39	3,599.5	-320.3	557.0	426.2	130.79	4.259	
11,000.0	7,362.0	11,649.5	7,267.0	69.7	68.2	80.44	3,690.7	-317.3	560.3	426.3	134.05	4.180	
11,100.0	7,362.0	11,748.7	7,267.0	71.4	69.9	80.51	3,789.8	-313.0	564.5	427.1	137.46	4.107	
11,200.0	7,362.0	11,848.6	7,267.0	73.0	71.6	80.58	3,889.6	-308.8	568.7	427.8	140.89	4.037	
11,300.0	7,362.0	11,948.5	7,267.0	74.7	73.3	80.65	3,989.5	-304.5	572.9	428.6	144.32	3.970	
11,400.0	7,362.0	12,048.4	7,267.0	76.4	75.0	80.72	4,089.3	-300.3	577.1	429.4	147.75	3.906	
11,500.0	7,362.0	12,148.3	7,267.0	78.1	76.7	80.79	4,189.1	-296.0	581.3	430.1	151.19	3.845	
11,600.0	7,362.0	12,248.3	7,267.0	79.8	78.4	80.85	4,288.9	-291.8	585.5	430.9	154.63	3.787	
11,700.0	7,362.0	12,348.2	7,267.0	81.5	80.1	80.92	4,388.7	-287.5	589.7	431.6	158.07	3.731	
11,800.0	7,362.0	12,448.1	7,267.0	83.2	81.8	80.98	4,488.5	-283.3	593.9	432.4	161.51	3.677	
11,900.0	7,362.0	12,548.0	7,267.0	84.9	83.6	81.05	4,588.4	-279.0	598.1	433.1	164.96	3.626	
12,000.0	7,362.0	12,647.9	7,267.0	86.6	85.3	81.11	4,688.2	-274.8	602.3	433.9	168.41	3.576	
12,100.0	7,362.0	12,747.8	7,267.0	88.3	87.0	81.17	4,788.0	-270.5	606.5	434.6	171.86	3.529	
12,200.0	7,362.0	12,847.7	7,267.0	90.1	88.7	81.23	4,887.8	-266.3	610.7	435.4	175.32	3.483	
12,300.0	7,362.0	12,947.6	7,267.0	91.8	90.5	81.29	4,987.6	-262.0	614.9	436.1	178.78	3.440	
12,400.0	7,362.0	13,047.5	7,267.0	93.5	92.2	81.35	5,087.5	-257.8	619.1	436.9	182.23	3.397	
12,500.0	7,362.0	13,147.4	7,267.0	95.2	93.9	81.41	5,187.3	-253.5	623.3	437.6	185.69	3.357	
12,600.0	7,362.0	13,247.4	7,267.0	96.9	95.6	81.47	5,287.1	-249.3	627.5	438.4	189.16	3.318	
12,700.0	7,362.0	13,347.3	7,267.0	98.6	97.4	81.53	5,386.9	-245.0	631.7	439.1	192.62	3.280	
12,800.0	7,362.0	13,447.2	7,267.0	100.3	99.1	81.58	5,486.7	-240.8	636.0	439.9	196.09	3.243	
12,900.0	7,362.0	13,547.1	7,267.0	102.1	100.8	81.64	5,586.6	-236.5	640.2	440.6	199.55	3.208	
13,000.0	7,362.0	13,647.0	7,267.0	103.8	102.6	81.69	5,686.4	-232.3	644.4	441.4	203.02	3.174	
13,100.0	7,362.0	13,746.9	7,267.0	105.5	104.3	81.75	5,786.2	-228.0	648.6	442.1	206.49	3.141	
13,200.0	7,362.0	13,846.8	7,267.0	107.2	106.0	81.80	5,886.0	-223.8	652.8	442.8	209.96	3.109	
13,300.0	7,362.0	13,946.7	7,267.0	109.0	107.8	81.86	5,985.8	-219.5	657.0	443.6	213.43	3.078	
13,400.0	7,362.0	14,046.6	7,267.0	110.7	109.5	81.91	6,085.7	-215.3	661.2	444.3	216.91	3.048	
13,500.0	7,362.0	14,146.5	7,267.0	112.4	111.2	81.96	6,185.5	-211.0	665.4	445.0	220.38	3.019	
13,600.0	7,362.0	14,246.4	7,267.0	114.1	113.0	82.01	6,285.3	-206.8	669.6	445.8	223.86	2.991	
13,700.0	7,362.0	14,346.4	7,267.0	115.9	114.7	82.06	6,385.1	-202.5	673.8	446.5	227.33	2.964	
13,800.0	7,362.0	14,446.3	7,267.0	117.6	116.4	82.11	6,484.9	-198.3	678.1	447.3	230.81	2.938	
13,844.7	7,362.0	14,490.9	7,267.0	118.4	117.2	82.13	6,529.5	-196.4	679.9	447.6	232.37	2.926 SF	

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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	90.50	-0.4	40.0	40.0					
100.0	100.0	98.0	98.0	0.1	0.1	90.50	-0.4	40.0	40.0	39.7	0.24	167.714		
200.0	200.0	198.0	198.0	0.3	0.3	90.50	-0.4	40.0	40.0	39.4	0.59	68.184		
300.0	300.0	298.0	298.0	0.5	0.5	90.50	-0.4	40.0	40.0	39.0	0.94	42.742 CC		
327.8	327.8	325.8	325.8	0.5	0.5	-171.31	-0.4	40.0	40.1	39.0	1.03	38.791 ES		
400.0	400.0	398.0	398.0	0.6	0.6	-171.39	-0.4	40.0	40.4	39.1	1.28	31.466		
500.0	499.9	498.0	498.0	0.8	0.8	-171.54	-0.8	40.0	43.8	42.2	1.63	26.853		
600.0	599.7	597.8	597.7	1.0	1.0	-168.81	-4.2	39.7	50.6	48.6	1.99	25.465		
700.0	699.1	697.1	696.8	1.3	1.2	-164.19	-11.0	39.2	60.8	58.5	2.36	25.820		
800.0	798.3	795.8	795.0	1.5	1.4	-158.87	-21.1	38.4	74.0	71.2	2.77	26.732		
900.0	897.5	894.2	892.5	1.8	1.7	-153.21	-34.4	37.4	88.3	85.1	3.22	27.453		
1,000.0	996.7	992.8	990.1	2.0	1.9	-148.79	-48.2	36.4	103.4	99.7	3.68	28.070		
1,100.0	1,095.9	1,091.4	1,087.6	2.3	2.2	-145.52	-62.1	35.3	119.0	114.8	4.16	28.587		
1,200.0	1,195.1	1,189.9	1,185.2	2.6	2.5	-143.00	-76.0	34.3	134.8	130.2	4.65	29.021		
1,300.0	1,294.2	1,288.5	1,282.8	2.9	2.8	-141.02	-89.9	33.2	150.9	145.8	5.14	29.389		
1,400.0	1,393.4	1,387.1	1,380.4	3.1	3.0	-139.42	-103.7	32.2	167.1	161.5	5.63	29.704		
1,500.0	1,492.6	1,485.7	1,478.0	3.4	3.3	-138.10	-117.6	31.2	183.4	177.3	6.12	29.977		
1,600.0	1,591.8	1,584.3	1,575.6	3.7	3.6	-137.00	-131.5	30.1	199.8	193.2	6.61	30.214		
1,700.0	1,691.0	1,682.8	1,673.2	4.0	3.9	-136.07	-145.4	29.1	216.3	209.2	7.11	30.423		
1,800.0	1,790.1	1,781.4	1,770.8	4.3	4.2	-135.26	-159.2	28.0	232.8	225.2	7.61	30.608		
1,900.0	1,889.3	1,880.0	1,868.4	4.5	4.5	-134.57	-173.1	27.0	249.3	241.2	8.10	30.772		
2,000.0	1,988.5	1,978.6	1,966.0	4.8	4.8	-133.96	-187.0	25.9	265.9	257.3	8.60	30.920		
2,100.0	2,087.7	2,077.2	2,063.6	5.1	5.1	-133.42	-200.8	24.9	282.5	273.4	9.10	31.053		
2,200.0	2,186.9	2,175.7	2,161.2	5.4	5.4	-132.94	-214.7	23.9	299.1	289.5	9.60	31.174		
2,300.0	2,286.1	2,274.3	2,258.8	5.7	5.7	-132.51	-228.6	22.8	315.8	305.7	10.09	31.283		
2,400.0	2,385.2	2,372.9	2,356.4	6.0	6.0	-132.13	-242.5	21.8	332.4	321.8	10.59	31.384		
2,500.0	2,484.4	2,471.5	2,454.0	6.2	6.3	-131.78	-256.3	20.7	349.1	338.0	11.09	31.476		
2,600.0	2,583.6	2,570.1	2,551.5	6.5	6.6	-131.46	-270.2	19.7	365.8	354.2	11.59	31.560		
2,700.0	2,682.8	2,668.6	2,649.1	6.8	6.9	-131.18	-284.1	18.6	382.5	370.4	12.09	31.638		
2,800.0	2,782.0	2,767.2	2,746.7	7.1	7.1	-130.91	-298.0	17.6	399.2	386.6	12.59	31.711		
2,900.0	2,881.2	2,865.8	2,844.3	7.4	7.4	-130.67	-311.8	16.5	415.9	402.8	13.09	31.778		
3,000.0	2,980.3	2,964.4	2,941.9	7.7	7.7	-130.44	-325.7	15.5	432.6	419.0	13.59	31.840		
3,100.0	3,079.5	3,063.0	3,039.5	7.9	8.0	-130.23	-339.6	14.5	449.3	435.2	14.08	31.899		
3,200.0	3,178.7	3,161.5	3,137.1	8.2	8.3	-130.04	-353.4	13.4	466.0	451.4	14.58	31.953		
3,300.0	3,277.9	3,260.1	3,234.7	8.5	8.6	-129.86	-367.3	12.4	482.7	467.7	15.08	32.004		
3,400.0	3,377.1	3,358.7	3,332.3	8.8	8.9	-129.69	-381.2	11.3	499.5	483.9	15.58	32.053		
3,500.0	3,476.3	3,457.3	3,429.9	9.1	9.2	-129.54	-395.1	10.3	516.2	500.1	16.08	32.098		
3,600.0	3,575.4	3,555.9	3,527.5	9.4	9.5	-129.39	-408.9	9.2	532.9	516.4	16.58	32.140		
3,700.0	3,674.6	3,654.4	3,625.1	9.6	9.8	-129.25	-422.8	8.2	549.7	532.6	17.08	32.181		
3,800.0	3,773.8	3,753.0	3,722.7	9.9	10.1	-129.12	-436.7	7.2	566.4	548.9	17.58	32.219		
3,900.0	3,873.0	3,851.6	3,820.3	10.2	10.4	-129.00	-450.6	6.1	583.2	565.1	18.08	32.255		
4,000.0	3,972.2	3,950.2	3,917.9	10.5	10.7	-128.88	-464.4	5.1	599.9	581.4	18.58	32.289		
4,100.0	4,071.4	4,048.8	4,015.4	10.8	11.0	-128.77	-478.3	4.0	616.7	597.6	19.08	32.322		
4,200.0	4,170.5	4,147.3	4,113.0	11.1	11.3	-128.67	-492.2	3.0	633.4	613.9	19.58	32.353		
4,300.0	4,269.7	4,245.9	4,210.6	11.3	11.6	-128.57	-506.1	1.9	650.2	630.1	20.08	32.382		
4,400.0	4,368.9	4,344.5	4,308.2	11.6	11.9	-128.48	-519.9	0.9	667.0	646.4	20.58	32.410		
4,500.0	4,468.1	4,443.1	4,405.8	11.9	12.2	-128.39	-533.8	-0.2	683.7	662.6	21.08	32.437		
4,600.0	4,567.3	4,541.7	4,503.4	12.2	12.5	-128.31	-547.7	-1.2	700.5	678.9	21.58	32.463		
4,700.0	4,666.5	4,640.2	4,601.0	12.5	12.8	-128.23	-561.5	-2.2	717.2	695.2	22.08	32.487		
4,800.0	4,765.6	4,738.8	4,698.6	12.8	13.1	-128.15	-575.4	-3.3	734.0	711.4	22.58	32.510		
4,900.0	4,864.8	4,837.4	4,796.2	13.0	13.4	-128.08	-589.3	-4.3	750.8	727.7	23.08	32.533		
5,000.0	4,964.0	4,936.0	4,893.8	13.3	13.7	-128.01	-603.2	-5.4	767.5	744.0	23.58	32.554		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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	5,063.2	5,034.6	4,991.4	13.6	14.0	-127.94	-617.0	-6.4	784.3	760.2	24.08	32.575		
5,200.0	5,162.4	5,133.1	5,089.0	13.9	14.3	-127.87	-630.9	-7.5	801.1	776.5	24.58	32.595		
5,300.0	5,261.5	5,231.7	5,186.6	14.2	14.6	-127.81	-644.8	-8.5	817.9	792.8	25.08	32.614		
5,400.0	5,360.7	5,330.3	5,284.2	14.5	14.9	-127.75	-658.7	-9.6	834.6	809.0	25.58	32.632		
5,500.0	5,459.9	5,428.9	5,381.8	14.7	15.2	-127.70	-672.5	-10.6	851.4	825.3	26.08	32.650		
5,600.0	5,559.1	5,527.5	5,479.4	15.0	15.5	-127.64	-686.4	-11.6	868.2	841.6	26.58	32.667		
5,700.0	5,658.3	5,626.0	5,576.9	15.3	15.8	-127.59	-700.3	-12.7	884.9	857.9	27.08	32.684		
5,800.0	5,757.5	5,724.6	5,674.5	15.6	16.0	-127.54	-714.1	-13.7	901.7	874.1	27.58	32.699		
5,900.0	5,856.6	5,823.2	5,772.1	15.9	16.3	-127.49	-728.0	-14.8	918.5	890.4	28.08	32.715		
6,000.0	5,955.8	5,921.8	5,869.7	16.2	16.6	-127.44	-741.9	-15.8	935.3	906.7	28.58	32.730		
6,100.0	6,055.0	6,020.4	5,967.3	16.5	16.9	-127.40	-755.8	-16.9	952.0	923.0	29.08	32.744		
6,200.0	6,154.2	6,118.9	6,064.9	16.7	17.2	-127.35	-769.6	-17.9	968.8	939.2	29.58	32.758		
6,300.0	6,253.4	6,217.5	6,162.5	17.0	17.5	-127.31	-783.5	-18.9	985.6	955.5	30.08	32.771		
7,000.0	6,945.8	8,014.8	7,498.0	19.0	14.0	123.89	-100.7	-25.6	965.6	939.0	26.61	36.293		
7,100.0	7,038.6	8,049.7	7,498.0	19.2	14.1	117.05	-65.8	-25.3	926.0	899.4	26.64	34.764		
7,200.0	7,123.9	8,100.4	7,498.0	19.4	14.1	113.14	-15.2	-24.9	896.9	870.3	26.54	33.789		
7,300.0	7,199.2	8,165.2	7,498.0	19.7	14.3	109.65	49.6	-24.3	877.5	850.8	26.70	32.871		
7,400.0	7,262.2	8,242.2	7,498.0	20.0	14.6	106.22	126.7	-23.6	866.3	839.0	27.28	31.752		
7,500.0	7,310.9	8,329.1	7,498.0	20.5	15.1	103.11	213.5	-22.9	861.0	832.6	28.40	30.317		
7,600.0	7,344.0	8,423.2	7,498.0	21.1	15.8	100.72	307.7	-22.1	859.3	829.3	29.96	28.681		
7,639.0	7,352.4	8,461.3	7,498.0	21.3	16.1	100.06	345.7	-21.7	859.2	828.5	30.68	28.001		
7,700.0	7,360.3	8,521.7	7,498.0	21.7	16.6	99.41	406.1	-21.2	859.4	827.6	31.84	26.995		
7,800.0	7,362.0	8,621.7	7,498.0	22.5	17.6	99.23	506.1	-20.3	860.2	826.3	33.91	25.367		
7,900.0	7,362.0	8,721.7	7,498.0	23.4	18.8	99.22	606.1	-19.5	861.1	824.9	36.17	23.804		
8,000.0	7,362.0	8,821.7	7,498.0	24.4	20.0	99.21	706.1	-18.6	861.9	823.3	38.61	22.322		
8,100.0	7,362.0	8,921.7	7,498.0	25.4	21.2	99.20	806.1	-17.7	862.8	821.6	41.20	20.940		
8,200.0	7,362.0	9,021.7	7,498.0	26.6	22.6	99.20	906.1	-16.8	863.6	819.7	43.91	19.668		
8,300.0	7,362.0	9,121.6	7,498.0	27.7	24.0	99.19	1,006.1	-16.0	864.5	817.8	46.72	18.504		
8,400.0	7,362.0	9,221.6	7,498.0	29.0	25.4	99.18	1,106.0	-15.1	865.4	815.7	49.61	17.443		
8,500.0	7,362.0	9,321.6	7,498.0	30.3	26.9	99.17	1,206.0	-14.2	866.2	813.6	52.57	16.477		
8,600.0	7,362.0	9,421.6	7,498.0	31.7	28.4	99.16	1,306.0	-13.3	867.1	811.5	55.59	15.597		
8,700.0	7,362.0	9,521.6	7,498.0	33.0	29.9	99.15	1,406.0	-12.5	867.9	809.3	58.66	14.796		
8,800.0	7,362.0	9,621.6	7,498.0	34.5	31.5	99.14	1,506.0	-11.6	868.8	807.0	61.77	14.065		
8,900.0	7,362.0	9,721.6	7,498.0	35.9	33.1	99.13	1,606.0	-10.7	869.7	804.7	64.92	13.396		
9,000.0	7,362.0	9,821.6	7,498.0	37.4	34.7	99.12	1,706.0	-9.9	870.5	802.4	68.10	12.783		
9,100.0	7,362.0	9,921.6	7,498.0	38.9	36.3	99.11	1,806.0	-9.0	871.4	800.1	71.30	12.221		
9,200.0	7,362.0	10,021.6	7,498.0	40.4	37.9	99.10	1,906.0	-8.1	872.3	797.7	74.53	11.703		
9,300.0	7,362.0	10,121.6	7,498.0	41.9	39.5	99.09	2,006.0	-7.2	873.1	795.3	77.78	11.225		
9,400.0	7,362.0	10,221.6	7,498.0	43.5	41.2	99.09	2,106.0	-6.4	874.0	792.9	81.05	10.783		
9,500.0	7,362.0	10,321.6	7,498.0	45.1	42.8	99.08	2,206.0	-5.5	874.8	790.5	84.33	10.374		
9,600.0	7,362.0	10,421.6	7,498.0	46.6	44.5	99.07	2,306.0	-4.6	875.7	788.1	87.63	9.993		
9,700.0	7,362.0	10,521.6	7,498.0	48.2	46.2	99.06	2,405.9	-3.7	876.6	785.6	90.94	9.639		
9,800.0	7,362.0	10,621.6	7,498.0	49.8	47.8	99.05	2,505.9	-2.9	877.4	783.2	94.26	9.308		
9,900.0	7,362.0	10,721.6	7,498.0	51.5	49.5	99.04	2,605.9	-2.0	878.3	780.7	97.59	8.999		
10,000.0	7,362.0	10,821.6	7,498.0	53.1	51.2	99.03	2,705.9	-1.1	879.1	778.2	100.93	8.710		
10,100.0	7,362.0	10,921.6	7,498.0	54.7	52.9	99.02	2,805.9	-0.3	880.0	775.7	104.28	8.439		
10,200.0	7,362.0	11,021.6	7,498.0	56.4	54.6	99.01	2,905.9	0.6	880.9	773.2	107.64	8.183		
10,300.0	7,362.0	11,121.6	7,498.0	58.0	56.3	99.00	3,005.9	1.5	881.7	770.7	111.00	7.943		
10,400.0	7,362.0	11,221.6	7,498.0	59.7	58.0	99.00	3,105.9	2.4	882.6	768.2	114.38	7.717		
10,500.0	7,362.0	11,321.6	7,498.0	61.3	59.7	98.99	3,205.9	3.2	883.5	765.7	117.75	7.503		
10,600.0	7,362.0	11,421.6	7,498.0	63.0	61.4	98.98	3,305.9	4.1	884.3	763.2	121.13	7.300		
10,700.0	7,362.0	11,521.6	7,498.0	64.6	63.1	98.97	3,405.9	5.0	885.2	760.7	124.52	7.109		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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		
10,800.0	7,362.0	11,621.6	7,498.0	66.3	64.8	98.96	3,505.9	5.9	886.0	758.1	127.91	6.927		
10,900.0	7,362.0	11,721.6	7,498.0	68.0	66.5	98.95	3,605.9	6.7	886.9	755.6	131.31	6.754		
11,000.0	7,362.0	11,821.5	7,498.0	69.7	68.2	98.94	3,705.8	7.6	887.8	753.1	134.71	6.590		
11,100.0	7,362.0	11,921.5	7,498.0	71.4	70.0	98.93	3,805.8	8.5	888.6	750.5	138.11	6.434		
11,200.0	7,362.0	12,021.5	7,498.0	73.0	71.7	98.93	3,905.8	9.3	889.5	748.0	141.51	6.285		
11,300.0	7,362.0	12,121.5	7,498.0	74.7	73.4	98.92	4,005.8	10.2	890.3	745.4	144.92	6.144		
11,400.0	7,362.0	12,221.5	7,498.0	76.4	75.1	98.91	4,105.8	11.1	891.2	742.9	148.34	6.008		
11,500.0	7,362.0	12,321.5	7,498.0	78.1	76.9	98.90	4,205.8	12.0	892.1	740.3	151.75	5.879		
11,600.0	7,362.0	12,421.5	7,498.0	79.8	78.6	98.89	4,305.8	12.8	892.9	737.8	155.17	5.755		
11,700.0	7,362.0	12,521.5	7,498.0	81.5	80.3	98.88	4,405.8	13.7	893.8	735.2	158.59	5.636		
11,800.0	7,362.0	12,621.5	7,498.0	83.2	82.0	98.87	4,505.8	14.6	894.7	732.6	162.01	5.522		
11,900.0	7,362.0	12,721.5	7,498.0	84.9	83.8	98.86	4,605.8	15.4	895.5	730.1	165.43	5.413		
12,000.0	7,362.0	12,821.5	7,498.0	86.6	85.5	98.86	4,705.8	16.3	896.4	727.5	168.86	5.308		
12,100.0	7,362.0	12,921.5	7,498.0	88.3	87.2	98.85	4,805.8	17.2	897.2	725.0	172.29	5.208		
12,200.0	7,362.0	13,021.5	7,498.0	90.1	89.0	98.84	4,905.8	18.1	898.1	722.4	175.72	5.111		
12,300.0	7,362.0	13,121.5	7,498.0	91.8	90.7	98.83	5,005.7	18.9	899.0	719.8	179.15	5.018		
12,400.0	7,362.0	13,221.5	7,498.0	93.5	92.4	98.82	5,105.7	19.8	899.8	717.2	182.59	4.928		
12,500.0	7,362.0	13,321.5	7,498.0	95.2	94.2	98.81	5,205.7	20.7	900.7	714.7	186.02	4.842		
12,600.0	7,362.0	13,421.5	7,498.0	96.9	95.9	98.81	5,305.7	21.6	901.6	712.1	189.46	4.759		
12,700.0	7,362.0	13,521.5	7,498.0	98.6	97.6	98.80	5,405.7	22.4	902.4	709.5	192.89	4.678		
12,800.0	7,362.0	13,621.5	7,498.0	100.3	99.4	98.79	5,505.7	23.3	903.3	706.9	196.33	4.601		
12,900.0	7,362.0	13,721.5	7,498.0	102.1	101.1	98.78	5,605.7	24.2	904.1	704.4	199.77	4.526		
13,000.0	7,362.0	13,821.5	7,498.0	103.8	102.8	98.77	5,705.7	25.0	905.0	701.8	203.22	4.453		
13,100.0	7,362.0	13,921.5	7,498.0	105.5	104.6	98.76	5,805.7	25.9	905.9	699.2	206.66	4.383		
13,200.0	7,362.0	14,021.5	7,498.0	107.2	106.3	98.75	5,905.7	26.8	906.7	696.6	210.10	4.316		
13,300.0	7,362.0	14,121.5	7,498.0	109.0	108.0	98.75	6,005.7	27.7	907.6	694.0	213.55	4.250		
13,400.0	7,362.0	14,221.5	7,498.0	110.7	109.8	98.74	6,105.7	28.5	908.5	691.5	216.99	4.187		
13,500.0	7,362.0	14,321.5	7,498.0	112.4	111.5	98.73	6,205.7	29.4	909.3	688.9	220.44	4.125		
13,600.0	7,362.0	14,421.4	7,498.0	114.1	113.3	98.72	6,305.6	30.3	910.2	686.3	223.89	4.065		
13,700.0	7,362.0	14,521.4	7,498.0	115.9	115.0	98.71	6,405.6	31.2	911.0	683.7	227.34	4.007		
13,800.0	7,362.0	14,621.4	7,498.0	117.6	116.7	98.70	6,505.6	32.0	911.9	681.1	230.79	3.951		
13,844.7	7,362.0	14,666.1	7,498.0	118.4	117.5	98.70	6,550.3	32.4	912.3	680.0	232.33	3.927 SF		



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4I-17H-P267 - DD - Plan #6													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		
0.0	0.0	0.0	0.0	0.0	0.0	90.41	-0.4	50.0	50.1					
100.0	100.0	98.0	98.0	0.1	0.1	90.41	-0.4	50.0	50.1	49.8	0.24	209.933		
200.0	200.0	198.0	198.0	0.3	0.3	90.41	-0.4	50.0	50.1	49.5	0.59	85.348		
300.0	300.0	298.0	298.0	0.5	0.5	90.41	-0.4	50.0	50.1	49.1	0.94	53.502 CC		
327.8	327.8	325.8	325.8	0.5	0.5	-171.40	-0.4	50.0	50.1	49.1	1.03	48.541 ES		
400.0	400.0	398.0	398.0	0.6	0.6	-171.46	-0.4	50.0	50.5	49.2	1.28	39.303		
500.0	499.9	497.9	497.9	0.8	0.8	-171.11	-1.2	50.1	54.0	52.3	1.63	33.042		
600.0	599.7	597.6	597.6	1.0	1.0	-169.68	-3.8	50.1	60.9	59.0	1.98	30.728		
700.0	699.1	696.9	696.8	1.3	1.2	-167.69	-8.1	50.2	71.5	69.2	2.34	30.564 SF		
800.0	798.3	795.9	795.6	1.5	1.4	-165.44	-14.0	50.3	84.5	81.8	2.71	31.170		
900.0	897.5	894.7	894.1	1.8	1.6	-162.81	-21.7	50.4	97.9	94.8	3.10	31.580		
1,000.0	996.7	993.2	992.1	2.0	1.8	-159.97	-31.0	50.6	111.9	108.4	3.51	31.857		
1,100.0	1,095.9	1,091.4	1,089.8	2.3	2.0	-157.01	-42.0	50.8	126.5	122.5	3.95	32.055		
1,200.0	1,195.1	1,189.3	1,186.8	2.6	2.3	-154.03	-54.6	51.0	141.9	137.5	4.40	32.219		
1,300.0	1,294.2	1,286.8	1,283.3	2.9	2.6	-151.07	-68.8	51.2	158.2	153.3	4.88	32.394		
1,400.0	1,393.4	1,385.0	1,380.3	3.1	2.9	-148.37	-84.0	51.5	175.2	169.8	5.38	32.597		
1,500.0	1,492.6	1,483.2	1,477.3	3.4	3.1	-146.15	-99.2	51.8	192.5	186.7	5.87	32.800		
1,600.0	1,591.8	1,581.5	1,574.4	3.7	3.4	-144.30	-114.4	52.0	210.1	203.7	6.37	32.996		
1,700.0	1,691.0	1,679.7	1,671.4	4.0	3.7	-142.74	-129.6	52.3	227.9	221.0	6.87	33.184		
1,800.0	1,790.1	1,778.0	1,768.5	4.3	4.0	-141.40	-144.8	52.6	245.7	238.4	7.37	33.362		
1,900.0	1,889.3	1,873.4	1,862.8	4.5	4.3	-140.36	-159.5	53.4	264.2	256.4	7.85	33.667		
2,000.0	1,988.5	1,968.1	1,956.4	4.8	4.6	-139.69	-173.7	55.8	283.9	275.6	8.31	34.148		
2,100.0	2,087.7	2,062.8	2,050.0	5.1	4.9	-139.31	-187.5	59.7	304.8	296.0	8.77	34.752		
2,200.0	2,186.9	2,160.5	2,146.5	5.4	5.2	-139.05	-201.7	64.3	326.1	316.9	9.23	35.328		
2,300.0	2,286.1	2,258.2	2,243.1	5.7	5.5	-138.82	-215.9	68.9	347.5	337.8	9.69	35.851		
2,400.0	2,385.2	2,355.8	2,339.6	6.0	5.8	-138.62	-230.0	73.6	368.8	358.7	10.15	36.327		
2,500.0	2,484.4	2,453.5	2,436.2	6.2	6.1	-138.44	-244.2	78.2	390.2	379.6	10.61	36.763		
2,600.0	2,583.6	2,551.2	2,532.7	6.5	6.4	-138.28	-258.4	82.8	411.5	400.5	11.07	37.163		
2,700.0	2,682.8	2,648.9	2,629.2	6.8	6.7	-138.13	-272.6	87.5	432.9	421.4	11.53	37.531		
2,800.0	2,782.0	2,746.6	2,725.8	7.1	7.0	-138.00	-286.7	92.1	454.3	442.3	12.00	37.871		
2,900.0	2,881.2	2,844.3	2,822.3	7.4	7.3	-137.88	-300.9	96.7	475.6	463.2	12.46	38.186		
3,000.0	2,980.3	2,942.0	2,918.9	7.7	7.6	-137.77	-315.1	101.4	497.0	484.1	12.92	38.479		
3,100.0	3,079.5	3,039.6	3,015.4	7.9	7.9	-137.67	-329.3	106.0	518.4	505.0	13.38	38.752		
3,200.0	3,178.7	3,137.3	3,111.9	8.2	8.2	-137.58	-343.4	110.6	539.8	525.9	13.84	39.007		
3,300.0	3,277.9	3,235.0	3,208.5	8.5	8.6	-137.49	-357.6	115.3	561.1	546.8	14.30	39.246		
3,400.0	3,377.1	3,332.7	3,305.0	8.8	8.9	-137.41	-371.8	119.9	582.5	567.7	14.76	39.470		
3,500.0	3,476.3	3,430.4	3,401.6	9.1	9.2	-137.34	-386.0	124.5	603.9	588.7	15.22	39.680		
3,600.0	3,575.4	3,528.1	3,498.1	9.4	9.5	-137.27	-400.1	129.2	625.3	609.6	15.68	39.878		
3,700.0	3,674.6	3,625.8	3,594.6	9.6	9.8	-137.21	-414.3	133.8	646.6	630.5	16.14	40.065		
3,800.0	3,773.8	3,723.4	3,691.2	9.9	10.1	-137.15	-428.5	138.4	668.0	651.4	16.60	40.242		
3,900.0	3,873.0	3,821.1	3,787.7	10.2	10.4	-137.09	-442.7	143.1	689.4	672.3	17.06	40.409		
4,000.0	3,972.2	3,918.8	3,884.3	10.5	10.7	-137.04	-456.8	147.7	710.8	693.3	17.52	40.567		
4,100.0	4,071.4	4,016.5	3,980.8	10.8	11.0	-136.99	-471.0	152.3	732.2	714.2	17.98	40.717		
4,200.0	4,170.5	4,114.2	4,077.3	11.1	11.3	-136.94	-485.2	157.0	753.5	735.1	18.44	40.860		
4,300.0	4,269.7	4,211.9	4,173.9	11.3	11.6	-136.89	-499.3	161.6	774.9	756.0	18.90	40.996		
4,400.0	4,368.9	4,309.5	4,270.4	11.6	11.9	-136.85	-513.5	166.2	796.3	776.9	19.36	41.125		
4,500.0	4,468.1	4,407.2	4,367.0	11.9	12.3	-136.81	-527.7	170.9	817.7	797.9	19.82	41.249		
4,600.0	4,567.3	4,504.9	4,463.5	12.2	12.6	-136.77	-541.9	175.5	839.1	818.8	20.28	41.367		
4,700.0	4,666.5	4,602.6	4,560.1	12.5	12.9	-136.74	-556.0	180.1	860.5	839.7	20.74	41.479		
4,800.0	4,765.6	4,700.3	4,656.6	12.8	13.2	-136.70	-570.2	184.8	881.8	860.6	21.20	41.587		
4,900.0	4,864.8	4,798.0	4,753.1	13.0	13.5	-136.67	-584.4	189.4	903.2	881.6	21.67	41.690		
5,000.0	4,964.0	4,895.7	4,849.7	13.3	13.8	-136.64	-598.6	194.0	924.6	902.5	22.13	41.789		

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



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S17-T2N-R67W (Big Horn) - Bighorn 4I-17H-P267 - DD - Plan #6		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	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)								
5,100.0	5,063.2	4,993.3	4,946.2	13.6	14.1	-136.61	-612.7	198.7	946.0	923.4	22.59	41.884						
5,200.0	5,162.4	5,091.0	5,042.8	13.9	14.4	-136.58	-626.9	203.3	967.4	944.3	23.05	41.975						
5,300.0	5,261.5	5,188.7	5,139.3	14.2	14.7	-136.56	-641.1	207.9	988.8	965.3	23.51	42.063						

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S17-T2N-R67W (Big Horn) - Bighorn 4J-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			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	90.34	-0.4	60.1	60.1					
100.0	100.0	100.0	100.0	0.1	0.1	90.34	-0.4	60.1	60.1	59.9	0.24	253.264		
200.0	200.0	200.0	200.0	0.3	0.3	90.34	-0.4	60.1	60.1	59.5	0.59	102.512		
300.0	300.0	300.0	300.0	0.5	0.5	90.34	-0.4	60.1	60.1	59.2	0.94	64.261 CC		
327.8	327.8	327.8	327.8	0.5	0.5	-171.47	-0.4	60.1	60.2	59.2	1.03	58.290 ES		
400.0	400.0	399.0	399.0	0.6	0.6	-171.51	-0.4	60.5	61.0	59.7	1.28	47.539		
500.0	499.9	496.5	496.5	0.8	0.8	-171.91	-0.4	63.9	67.8	66.2	1.63	41.713		
600.0	599.7	595.2	594.9	1.0	1.0	-172.53	-0.4	69.6	80.5	78.6	1.97	40.881 SF		
700.0	699.1	693.8	693.4	1.3	1.2	-173.22	-0.5	75.4	96.8	94.4	2.31	41.860		
800.0	798.3	792.1	791.5	1.5	1.4	-173.86	-0.5	81.2	115.2	112.6	2.66	43.379		
900.0	897.5	890.4	889.6	1.8	1.6	-174.33	-0.6	87.0	133.7	130.7	3.00	44.555		
1,000.0	996.7	988.6	987.7	2.0	1.8	-174.69	-0.6	92.8	152.3	148.9	3.35	45.491		
1,100.0	1,095.9	1,086.9	1,085.8	2.3	2.0	-174.97	-0.7	98.6	170.8	167.1	3.69	46.254		
1,200.0	1,195.1	1,185.2	1,183.9	2.6	2.2	-175.19	-0.7	104.4	189.3	185.3	4.04	46.888		
1,300.0	1,294.2	1,283.4	1,282.0	2.9	2.4	-175.38	-0.8	110.2	207.9	203.5	4.38	47.423		
1,400.0	1,393.4	1,381.7	1,380.1	3.1	2.6	-175.53	-0.8	116.0	226.4	221.7	4.73	47.880		
1,500.0	1,492.6	1,480.0	1,478.2	3.4	2.8	-175.66	-0.8	121.8	244.9	239.9	5.07	48.276		
1,600.0	1,591.8	1,578.2	1,576.3	3.7	3.0	-175.77	-0.9	127.6	263.5	258.0	5.42	48.621		
1,700.0	1,691.0	1,676.5	1,674.4	4.0	3.2	-175.87	-0.9	133.4	282.0	276.2	5.76	48.926		
1,800.0	1,790.1	1,774.8	1,772.5	4.3	3.4	-175.96	-1.0	139.2	300.5	294.4	6.11	49.196		
1,900.0	1,889.3	1,873.0	1,870.6	4.5	3.6	-176.03	-1.0	145.0	319.1	312.6	6.45	49.438		
2,000.0	1,988.5	1,971.3	1,968.7	4.8	3.8	-176.10	-1.1	150.8	337.6	330.8	6.80	49.655		
2,100.0	2,087.7	2,069.5	2,066.7	5.1	4.0	-176.16	-1.1	156.6	356.2	349.0	7.14	49.851		
2,200.0	2,186.9	2,167.8	2,164.8	5.4	4.2	-176.21	-1.2	162.4	374.7	367.2	7.49	50.029		
2,300.0	2,286.1	2,266.1	2,262.9	5.7	4.4	-176.26	-1.2	168.2	393.3	385.4	7.83	50.192		
2,400.0	2,385.2	2,364.3	2,361.0	6.0	4.5	-176.31	-1.3	174.0	411.8	403.6	8.18	50.341		
2,500.0	2,484.4	2,462.6	2,459.1	6.2	4.7	-176.35	-1.3	179.8	430.3	421.8	8.53	50.478		
2,600.0	2,583.6	2,560.9	2,557.2	6.5	4.9	-176.39	-1.3	185.6	448.9	440.0	8.87	50.604		
2,700.0	2,682.8	2,659.1	2,655.3	6.8	5.1	-176.42	-1.4	191.4	467.4	458.2	9.22	50.721		
2,800.0	2,782.0	2,757.4	2,753.4	7.1	5.3	-176.45	-1.4	197.2	486.0	476.4	9.56	50.829		
2,900.0	2,881.2	2,855.7	2,851.5	7.4	5.5	-176.48	-1.5	203.0	504.5	494.6	9.91	50.930		
3,000.0	2,980.3	2,953.9	2,949.6	7.7	5.7	-176.51	-1.5	208.8	523.0	512.8	10.25	51.024		
3,100.0	3,079.5	3,052.2	3,047.7	7.9	5.9	-176.53	-1.6	214.6	541.6	531.0	10.60	51.112		
3,200.0	3,178.7	3,150.5	3,145.8	8.2	6.1	-176.56	-1.6	220.4	560.1	549.2	10.94	51.195		
3,300.0	3,277.9	3,248.7	3,243.9	8.5	6.3	-176.58	-1.7	226.2	578.7	567.4	11.29	51.272		
3,400.0	3,377.1	3,347.0	3,342.0	8.8	6.5	-176.60	-1.7	232.0	597.2	585.6	11.63	51.345		
3,500.0	3,476.3	3,445.3	3,440.1	9.1	6.7	-176.62	-1.8	237.8	615.8	603.8	11.98	51.414		
3,600.0	3,575.4	3,543.5	3,538.2	9.4	6.9	-176.64	-1.8	243.6	634.3	622.0	12.32	51.479		
3,700.0	3,674.6	3,641.8	3,636.3	9.6	7.1	-176.66	-1.9	249.4	652.9	640.2	12.67	51.540		
3,800.0	3,773.8	3,740.1	3,734.3	9.9	7.3	-176.67	-1.9	255.2	671.4	658.4	13.01	51.598		
3,900.0	3,873.0	3,838.3	3,832.4	10.2	7.5	-176.69	-1.9	261.0	689.9	676.6	13.36	51.653		
4,000.0	3,972.2	3,936.6	3,930.5	10.5	7.7	-176.70	-2.0	266.8	708.5	694.8	13.70	51.706		
4,100.0	4,071.4	4,034.9	4,028.6	10.8	7.9	-176.72	-2.0	272.6	727.0	713.0	14.05	51.756		
4,200.0	4,170.5	4,133.1	4,126.7	11.1	8.1	-176.73	-2.1	278.4	745.6	731.2	14.39	51.803		
4,300.0	4,269.7	4,231.4	4,224.8	11.3	8.3	-176.74	-2.1	284.2	764.1	749.4	14.74	51.848		
4,400.0	4,368.9	4,329.7	4,322.9	11.6	8.5	-176.76	-2.2	290.0	782.7	767.6	15.08	51.891		
4,500.0	4,468.1	4,427.9	4,421.0	11.9	8.7	-176.77	-2.2	295.8	801.2	785.8	15.43	51.932		
4,600.0	4,567.3	4,526.2	4,519.1	12.2	8.9	-176.78	-2.3	301.6	819.7	804.0	15.77	51.972		
4,700.0	4,666.5	4,624.5	4,617.2	12.5	9.1	-176.79	-2.3	307.4	838.3	822.2	16.12	52.009		
4,800.0	4,765.6	4,722.7	4,715.3	12.8	9.3	-176.80	-2.4	313.2	856.8	840.4	16.46	52.046		
4,900.0	4,864.8	4,821.0	4,813.4	13.0	9.5	-176.81	-2.4	319.0	875.4	858.6	16.81	52.080		
5,000.0	4,964.0	4,919.2	4,911.5	13.3	9.7	-176.82	-2.4	324.8	893.9	876.8	17.15	52.113		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design											S17-T2N-R67W (Big Horn) - Bighorn 4J-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	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	5,063.2	5,017.5	5,009.6	13.6	9.9	-176.83	-2.5	330.6	912.5	895.0	17.50	52.145				
5,200.0	5,162.4	5,115.8	5,107.7	13.9	10.1	-176.84	-2.5	336.4	931.0	913.2	17.84	52.176				
5,300.0	5,261.5	5,214.0	5,205.8	14.2	10.3	-176.84	-2.6	342.2	949.6	931.4	18.19	52.206				
5,400.0	5,360.7	5,312.3	5,303.9	14.5	10.5	-176.85	-2.6	348.0	968.1	949.6	18.53	52.234				
5,500.0	5,459.9	5,410.6	5,401.9	14.7	10.7	-176.86	-2.7	353.8	986.6	967.8	18.88	52.261				

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		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	90.57	-0.7	69.9	69.9					
100.0	100.0	98.0	98.0	0.1	0.1	90.57	-0.7	69.9	69.9	69.7	0.24	293.209		
200.0	200.0	198.0	198.0	0.3	0.3	90.57	-0.7	69.9	69.9	69.3	0.59	119.204		
300.0	300.0	298.0	298.0	0.5	0.5	90.57	-0.7	69.9	69.9	69.0	0.94	74.725 CC, ES		
400.0	400.0	395.6	395.6	0.6	0.6	-171.28	-0.7	71.5	72.0	70.7	1.28	56.216		
500.0	499.9	492.7	492.5	0.8	0.8	-171.65	-0.7	76.4	80.4	78.8	1.62	49.568		
600.0	599.7	589.3	588.8	1.0	1.0	-172.21	-0.7	84.4	95.6	93.6	1.96	48.709 SF		
700.0	699.1	687.4	686.4	1.3	1.2	-172.82	-0.7	93.5	115.2	112.9	2.30	50.008		
800.0	798.3	784.9	783.6	1.5	1.5	-173.40	-0.7	102.6	136.9	134.3	2.65	51.753		
900.0	897.5	882.5	880.8	1.8	1.7	-173.83	-0.8	111.6	158.7	155.8	2.99	53.098		
1,000.0	996.7	980.1	977.9	2.0	1.9	-174.15	-0.8	120.7	180.6	177.2	3.33	54.168		
1,100.0	1,095.9	1,077.7	1,075.1	2.3	2.1	-174.40	-0.8	129.7	202.4	198.7	3.68	55.041		
1,200.0	1,195.1	1,175.3	1,172.3	2.6	2.4	-174.61	-0.8	138.8	224.2	220.2	4.02	55.765		
1,300.0	1,294.2	1,272.9	1,269.4	2.9	2.6	-174.77	-0.8	147.8	246.1	241.7	4.37	56.376		
1,400.0	1,393.4	1,370.5	1,366.6	3.1	2.8	-174.91	-0.8	156.9	267.9	263.2	4.71	56.899		
1,500.0	1,492.6	1,468.0	1,463.8	3.4	3.1	-175.03	-0.8	165.9	289.8	284.7	5.05	57.351		
1,600.0	1,591.8	1,565.6	1,560.9	3.7	3.3	-175.14	-0.8	175.0	311.6	306.2	5.40	57.745		
1,700.0	1,691.0	1,663.2	1,658.1	4.0	3.5	-175.23	-0.8	184.0	333.5	327.7	5.74	58.093		
1,800.0	1,790.1	1,760.8	1,755.3	4.3	3.8	-175.30	-0.9	193.1	355.3	349.2	6.08	58.402		
1,900.0	1,889.3	1,858.4	1,852.4	4.5	4.0	-175.37	-0.9	202.1	377.1	370.7	6.43	58.677		
2,000.0	1,988.5	1,956.0	1,949.6	4.8	4.2	-175.43	-0.9	211.2	399.0	392.2	6.77	58.925		
2,100.0	2,087.7	2,053.5	2,046.7	5.1	4.5	-175.49	-0.9	220.3	420.8	413.7	7.11	59.149		
2,200.0	2,186.9	2,151.1	2,143.9	5.4	4.7	-175.54	-0.9	229.3	442.7	435.2	7.46	59.353		
2,300.0	2,286.1	2,248.7	2,241.1	5.7	4.9	-175.58	-0.9	238.4	464.5	456.7	7.80	59.538		
2,400.0	2,385.2	2,346.3	2,338.2	6.0	5.1	-175.63	-0.9	247.4	486.4	478.2	8.15	59.708		
2,500.0	2,484.4	2,443.9	2,435.4	6.2	5.4	-175.66	-0.9	256.5	508.2	499.7	8.49	59.864		
2,600.0	2,583.6	2,541.5	2,532.6	6.5	5.6	-175.70	-0.9	265.5	530.1	521.2	8.83	60.009		
2,700.0	2,682.8	2,639.0	2,629.7	6.8	5.8	-175.73	-1.0	274.6	551.9	542.7	9.18	60.142		
2,800.0	2,782.0	2,736.6	2,726.9	7.1	6.1	-175.76	-1.0	283.6	573.8	564.2	9.52	60.266		
2,900.0	2,881.2	2,834.2	2,824.0	7.4	6.3	-175.79	-1.0	292.7	595.6	585.8	9.86	60.381		
3,000.0	2,980.3	2,931.8	2,921.2	7.7	6.5	-175.81	-1.0	301.7	617.5	607.3	10.21	60.488		
3,100.0	3,079.5	3,029.4	3,018.4	7.9	6.8	-175.83	-1.0	310.8	639.3	628.8	10.55	60.589		
3,200.0	3,178.7	3,127.0	3,115.5	8.2	7.0	-175.86	-1.0	319.8	661.2	650.3	10.90	60.683		
3,300.0	3,277.9	3,224.5	3,212.7	8.5	7.2	-175.88	-1.0	328.9	683.0	671.8	11.24	60.771		
3,400.0	3,377.1	3,322.1	3,309.9	8.8	7.5	-175.90	-1.0	337.9	704.9	693.3	11.58	60.854		
3,500.0	3,476.3	3,419.7	3,407.0	9.1	7.7	-175.91	-1.0	347.0	726.7	714.8	11.93	60.933		
3,600.0	3,575.4	3,517.3	3,504.2	9.4	7.9	-175.93	-1.1	356.1	748.6	736.3	12.27	61.007		
3,700.0	3,674.6	3,614.9	3,601.3	9.6	8.2	-175.95	-1.1	365.1	770.4	757.8	12.61	61.076		
3,800.0	3,773.8	3,712.5	3,698.5	9.9	8.4	-175.96	-1.1	374.2	792.3	779.3	12.96	61.143		
3,900.0	3,873.0	3,810.0	3,795.7	10.2	8.6	-175.98	-1.1	383.2	814.1	800.8	13.30	61.206		
4,000.0	3,972.2	3,907.6	3,892.8	10.5	8.9	-175.99	-1.1	392.3	835.9	822.3	13.64	61.265		
4,100.0	4,071.4	4,005.2	3,990.0	10.8	9.1	-176.00	-1.1	401.3	857.8	843.8	13.99	61.322		
4,200.0	4,170.5	4,102.8	4,087.2	11.1	9.3	-176.02	-1.1	410.4	879.6	865.3	14.33	61.376		
4,300.0	4,269.7	4,200.4	4,184.3	11.3	9.6	-176.03	-1.1	419.4	901.5	886.8	14.68	61.427		
4,400.0	4,368.9	4,298.0	4,281.5	11.6	9.8	-176.04	-1.1	428.5	923.3	908.3	15.02	61.477		
4,500.0	4,468.1	4,395.5	4,378.6	11.9	10.0	-176.05	-1.2	437.5	945.2	929.8	15.36	61.524		
4,600.0	4,567.3	4,493.1	4,475.8	12.2	10.3	-176.06	-1.2	446.6	967.0	951.3	15.71	61.568		
4,700.0	4,666.5	4,590.7	4,573.0	12.5	10.5	-176.07	-1.2	455.6	988.9	972.8	16.05	61.611		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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)				
0.0	0.0	0.0	0.0	0.0	0.0	90.51	-0.7	80.0	80.0					
100.0	100.0	98.0	98.0	0.1	0.1	90.51	-0.7	80.0	80.0	79.7	0.24	335.428		
200.0	200.0	198.0	198.0	0.3	0.3	90.51	-0.7	80.0	80.0	79.4	0.59	136.368 CC, ES		
300.0	300.0	295.3	295.3	0.5	0.5	90.50	-0.7	81.6	81.6	80.7	0.93	87.324		
400.0	400.0	392.3	392.2	0.6	0.7	-171.35	-0.7	86.4	87.0	85.8	1.27	68.304		
500.0	499.9	488.5	488.0	0.8	0.9	-171.63	-0.8	94.5	98.9	97.3	1.62	61.211		
600.0	599.7	584.4	583.2	1.0	1.1	-172.06	-0.8	105.6	117.2	115.3	1.95	60.025 SF		
700.0	699.1	681.8	679.9	1.3	1.4	-172.54	-0.8	117.5	139.8	137.5	2.29	61.005		
800.0	798.3	778.7	776.1	1.5	1.6	-173.03	-0.9	129.5	164.5	161.9	2.63	62.490		
900.0	897.5	875.6	872.2	1.8	1.9	-173.40	-0.9	141.4	189.3	186.3	2.97	63.629		
1,000.0	996.7	972.4	968.3	2.0	2.2	-173.68	-1.0	153.3	214.1	210.8	3.32	64.536		
1,100.0	1,095.9	1,069.3	1,064.5	2.3	2.4	-173.90	-1.0	165.3	238.9	235.2	3.66	65.274		
1,200.0	1,195.1	1,166.2	1,160.6	2.6	2.7	-174.08	-1.1	177.2	263.7	259.7	4.00	65.888		
1,300.0	1,294.2	1,263.0	1,256.7	2.9	3.0	-174.24	-1.1	189.1	288.5	284.1	4.34	66.405		
1,400.0	1,393.4	1,359.9	1,352.9	3.1	3.2	-174.36	-1.1	201.1	313.3	308.6	4.69	66.848		
1,500.0	1,492.6	1,456.8	1,449.0	3.4	3.5	-174.47	-1.2	213.0	338.1	333.0	5.03	67.230		
1,600.0	1,591.8	1,553.7	1,545.2	3.7	3.8	-174.56	-1.2	224.9	362.9	357.5	5.37	67.564		
1,700.0	1,691.0	1,650.5	1,641.3	4.0	4.0	-174.65	-1.3	236.9	387.7	382.0	5.71	67.859		
1,800.0	1,790.1	1,747.4	1,737.4	4.3	4.3	-174.72	-1.3	248.8	412.5	406.4	6.06	68.120		
1,900.0	1,889.3	1,844.3	1,833.6	4.5	4.6	-174.78	-1.4	260.7	437.3	430.9	6.40	68.353		
2,000.0	1,988.5	1,941.2	1,929.7	4.8	4.8	-174.84	-1.4	272.6	462.1	455.3	6.74	68.563		
2,100.0	2,087.7	2,038.0	2,025.8	5.1	5.1	-174.89	-1.5	284.6	486.9	479.8	7.08	68.753		
2,200.0	2,186.9	2,134.9	2,122.0	5.4	5.4	-174.93	-1.5	296.5	511.7	504.3	7.42	68.925		
2,300.0	2,286.1	2,231.8	2,218.1	5.7	5.6	-174.98	-1.5	308.4	536.5	528.7	7.77	69.082		
2,400.0	2,385.2	2,328.7	2,314.2	6.0	5.9	-175.01	-1.6	320.4	561.3	553.2	8.11	69.226		
2,500.0	2,484.4	2,425.5	2,410.4	6.2	6.2	-175.05	-1.6	332.3	586.1	577.7	8.45	69.358		
2,600.0	2,583.6	2,522.4	2,506.5	6.5	6.4	-175.08	-1.7	344.2	610.9	602.1	8.79	69.480		
2,700.0	2,682.8	2,619.3	2,602.7	6.8	6.7	-175.11	-1.7	356.2	635.7	626.6	9.14	69.593		
2,800.0	2,782.0	2,716.2	2,698.8	7.1	7.0	-175.14	-1.8	368.1	660.5	651.1	9.48	69.698		
2,900.0	2,881.2	2,813.0	2,794.9	7.4	7.2	-175.16	-1.8	380.0	685.4	675.5	9.82	69.795		
3,000.0	2,980.3	2,909.9	2,891.1	7.7	7.5	-175.19	-1.8	392.0	710.2	700.0	10.16	69.886		
3,100.0	3,079.5	3,006.8	2,987.2	7.9	7.8	-175.21	-1.9	403.9	735.0	724.5	10.50	69.971		
3,200.0	3,178.7	3,103.6	3,083.3	8.2	8.1	-175.23	-1.9	415.8	759.8	748.9	10.85	70.051		
3,300.0	3,277.9	3,200.5	3,179.5	8.5	8.3	-175.25	-2.0	427.7	784.6	773.4	11.19	70.126		
3,400.0	3,377.1	3,297.4	3,275.6	8.8	8.6	-175.27	-2.0	439.7	809.4	797.9	11.53	70.196		
3,500.0	3,476.3	3,394.3	3,371.7	9.1	8.9	-175.28	-2.1	451.6	834.2	822.3	11.87	70.262		
3,600.0	3,575.4	3,491.1	3,467.9	9.4	9.1	-175.30	-2.1	463.5	859.0	846.8	12.21	70.325		
3,700.0	3,674.6	3,588.0	3,564.0	9.6	9.4	-175.31	-2.1	475.5	883.8	871.3	12.56	70.384		
3,800.0	3,773.8	3,684.9	3,660.2	9.9	9.7	-175.33	-2.2	487.4	908.6	895.7	12.90	70.440		
3,900.0	3,873.0	3,781.8	3,756.3	10.2	9.9	-175.34	-2.2	499.3	933.4	920.2	13.24	70.493		
4,000.0	3,972.2	3,878.6	3,852.4	10.5	10.2	-175.35	-2.3	511.3	958.2	944.7	13.58	70.544		
4,100.0	4,071.4	3,975.5	3,948.6	10.8	10.5	-175.37	-2.3	523.2	983.1	969.1	13.93	70.592		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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	
12,800.0	7,362.0	7,297.5	7,295.8	100.3	12.8	-87.37	6,365.1	-1,287.3	948.9	837.0	111.82	8.485	
12,900.0	7,362.0	7,299.6	7,298.0	102.1	12.8	-87.67	6,365.2	-1,287.3	860.2	746.6	113.59	7.573	
13,000.0	7,362.0	7,301.9	7,300.2	103.8	12.8	-87.97	6,365.2	-1,287.3	774.4	659.0	115.35	6.713	
13,100.0	7,362.0	7,304.0	7,302.4	105.5	12.8	-88.27	6,365.3	-1,287.3	692.3	575.2	117.11	5.912	
13,200.0	7,362.0	7,306.2	7,304.5	107.2	12.9	-88.56	6,365.3	-1,287.3	615.6	496.7	118.87	5.179	
13,300.0	7,362.0	7,308.3	7,306.6	109.0	12.9	-88.85	6,365.3	-1,287.3	546.4	425.8	120.63	4.530	
13,400.0	7,362.0	7,310.4	7,308.7	110.7	12.9	-89.14	6,365.4	-1,287.3	488.1	365.7	122.38	3.988	
13,500.0	7,362.0	7,312.5	7,310.8	112.4	12.9	-89.42	6,365.4	-1,287.3	444.8	320.6	124.13	3.583	
13,600.0	7,362.0	7,314.5	7,312.8	114.1	12.9	-89.70	6,365.5	-1,287.4	421.2	295.4	125.88	3.346	
13,652.0	7,362.0	7,315.5	7,313.9	115.0	12.9	-89.84	6,365.5	-1,287.4	418.0	291.2	126.79	3.297 CC, ES	
13,700.0	7,362.0	7,316.5	7,314.8	115.9	12.9	-89.97	6,365.5	-1,287.4	420.8	293.1	127.63	3.297 SF	
13,800.0	7,362.0	7,318.5	7,316.8	117.6	12.9	-90.25	6,365.6	-1,287.4	443.4	314.1	129.38	3.427	
13,844.7	7,362.0	7,319.4	7,317.7	118.4	12.9	-90.37	6,365.6	-1,287.4	460.3	330.1	130.16	3.536	

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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				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		
11,300.0	7,362.0	7,291.5	7,289.1	74.7	13.0	-87.62	4,758.4	-1,419.0	926.0	840.2	85.84	10.788		
11,400.0	7,362.0	7,293.4	7,291.0	76.4	13.0	-87.81	4,758.4	-1,419.0	847.7	760.1	87.58	9.679		
11,500.0	7,362.0	7,295.3	7,292.9	78.1	13.0	-88.01	4,758.5	-1,419.1	774.3	685.0	89.32	8.669		
11,600.0	7,362.0	7,297.2	7,294.9	79.8	13.0	-88.22	4,758.5	-1,419.1	707.5	616.4	91.06	7.769		
11,700.0	7,362.0	7,299.2	7,296.8	81.5	13.0	-88.42	4,758.5	-1,419.1	649.3	556.5	92.81	6.996		
11,800.0	7,362.0	7,301.1	7,298.8	83.2	13.0	-88.62	4,758.6	-1,419.2	602.1	507.6	94.55	6.368		
11,900.0	7,362.0	7,303.1	7,300.7	84.9	13.0	-88.83	4,758.6	-1,419.2	568.8	472.5	96.29	5.907		
12,000.0	7,362.0	7,305.1	7,302.7	86.6	13.0	-89.03	4,758.7	-1,419.2	551.8	453.8	98.03	5.629		
12,045.2	7,362.0	7,305.9	7,303.6	87.4	13.0	-89.12	4,758.7	-1,419.2	550.0	451.1	98.82	5.565 CC, ES		
12,100.0	7,362.0	7,307.0	7,304.6	88.3	13.0	-89.23	4,758.7	-1,419.3	552.7	452.9	99.78	5.539 SF		
12,200.0	7,362.0	7,308.9	7,306.6	90.1	13.0	-89.43	4,758.7	-1,419.3	571.3	469.8	101.52	5.628		
12,300.0	7,362.0	7,310.8	7,308.5	91.8	13.0	-89.63	4,758.8	-1,419.3	606.1	502.8	103.26	5.870		
12,400.0	7,362.0	7,312.8	7,310.4	93.5	13.0	-89.83	4,758.8	-1,419.3	654.5	549.5	105.00	6.233		
12,500.0	7,362.0	7,314.7	7,312.3	95.2	13.0	-90.03	4,758.8	-1,419.4	713.6	606.9	106.74	6.685		
12,600.0	7,362.0	7,316.5	7,314.2	96.9	13.0	-90.23	4,758.9	-1,419.4	781.1	672.7	108.48	7.201		
12,700.0	7,362.0	7,318.4	7,316.1	98.6	13.0	-90.42	4,758.9	-1,419.4	855.0	744.8	110.22	7.758		
12,800.0	7,362.0	7,320.3	7,317.9	100.3	13.0	-90.62	4,759.0	-1,419.5	933.8	821.9	111.96	8.341		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		
12,800.0	7,362.0	7,295.0	7,295.0	100.3	12.7	-90.00	6,375.7	-1,235.0	936.5	824.6	111.91	8.369		
12,900.0	7,362.0	7,295.0	7,295.0	102.1	12.7	-90.00	6,375.7	-1,235.0	845.4	731.7	113.65	7.438		
13,000.0	7,362.0	7,295.0	7,295.0	103.8	12.7	-90.00	6,375.7	-1,235.0	756.4	641.1	115.39	6.556		
13,100.0	7,362.0	7,295.0	7,295.0	105.5	12.7	-90.00	6,375.7	-1,235.0	670.6	553.5	117.13	5.726		
13,200.0	7,362.0	7,295.0	7,295.0	107.2	12.7	-90.00	6,375.7	-1,235.0	589.3	470.5	118.87	4.958		
13,300.0	7,362.0	7,295.0	7,295.0	109.0	12.7	-90.00	6,375.7	-1,235.0	514.7	394.1	120.61	4.267		
13,400.0	7,362.0	7,295.0	7,295.0	110.7	12.7	-90.00	6,375.7	-1,235.0	449.9	327.6	122.36	3.677		
13,500.0	7,362.0	7,295.0	7,295.0	112.4	12.7	-90.00	6,375.7	-1,235.0	400.0	275.9	124.10	3.223		
13,600.0	7,362.0	7,295.0	7,295.0	114.1	12.7	-90.00	6,375.7	-1,235.0	370.9	245.0	125.84	2.947		
13,662.2	7,362.0	7,295.0	7,295.0	115.2	12.7	-90.00	6,375.7	-1,235.0	365.6	238.7	126.93	2.881	CC, ES, SF	
13,700.0	7,362.0	7,295.0	7,295.0	115.9	12.7	-90.00	6,375.7	-1,235.0	367.6	240.0	127.59	2.881		
13,800.0	7,362.0	7,295.0	7,295.0	117.6	12.7	-90.00	6,375.7	-1,235.0	390.7	261.4	129.33	3.021		
13,844.7	7,362.0	7,295.0	7,295.0	118.4	12.7	-90.00	6,375.7	-1,235.0	408.7	278.5	130.11	3.141		



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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	7,362.0	7,341.5	7,339.6	84.9	13.0	92.49	5,492.7	-511.5	949.4	853.1	96.29	9.860		
12,000.0	7,362.0	7,339.8	7,337.9	86.6	13.0	92.22	5,492.8	-511.5	857.6	759.6	98.03	8.748		
12,100.0	7,362.0	7,338.1	7,336.2	88.3	13.0	91.95	5,492.8	-511.5	767.9	668.1	99.78	7.696		
12,200.0	7,362.0	7,336.3	7,334.5	90.1	13.0	91.68	5,492.8	-511.5	681.0	579.5	101.52	6.708		
12,300.0	7,362.0	7,334.6	7,332.8	91.8	13.0	91.40	5,492.9	-511.5	598.2	495.0	103.27	5.793		
12,400.0	7,362.0	7,332.9	7,331.0	93.5	13.0	91.13	5,492.9	-511.5	521.5	416.5	105.01	4.967		
12,500.0	7,362.0	7,331.2	7,329.3	95.2	13.0	90.85	5,492.9	-511.5	454.0	347.3	106.75	4.253		
12,600.0	7,362.0	7,329.5	7,327.6	96.9	13.0	90.57	5,492.9	-511.5	400.3	291.8	108.49	3.690		
12,700.0	7,362.0	7,327.7	7,325.8	98.6	13.0	90.30	5,493.0	-511.5	366.5	256.3	110.23	3.325		
12,779.5	7,362.0	7,326.3	7,324.5	100.0	13.0	90.07	5,493.0	-511.5	357.8	246.2	111.61	3.206 CC, ES		
12,800.0	7,362.0	7,326.0	7,324.1	100.3	13.0	90.02	5,493.0	-511.5	358.4	246.4	111.97	3.201 SF		
12,900.0	7,362.0	7,324.2	7,322.4	102.1	13.0	89.74	5,493.0	-511.5	377.5	263.8	113.70	3.320		
13,000.0	7,362.0	7,322.5	7,320.6	103.8	13.0	89.46	5,493.1	-511.5	420.3	304.8	115.43	3.641		
13,100.0	7,362.0	7,320.7	7,318.9	105.5	13.0	89.18	5,493.1	-511.5	480.3	363.2	117.16	4.100		
13,200.0	7,362.0	7,319.0	7,317.1	107.2	13.0	88.90	5,493.1	-511.5	552.1	433.2	118.89	4.643		
13,300.0	7,362.0	7,317.2	7,315.3	109.0	13.0	88.61	5,493.2	-511.5	631.5	510.9	120.62	5.236		
13,400.0	7,362.0	7,315.5	7,313.6	110.7	13.0	88.33	5,493.2	-511.5	716.2	593.8	122.34	5.854		
13,500.0	7,362.0	7,313.7	7,311.8	112.4	13.0	88.05	5,493.2	-511.5	804.3	680.3	124.06	6.484		
13,600.0	7,362.0	7,311.9	7,310.0	114.1	13.0	87.76	5,493.3	-511.5	895.0	769.2	125.77	7.116		
13,700.0	7,362.0	7,310.1	7,308.2	115.9	13.0	87.48	5,493.3	-511.5	987.4	860.0	127.49	7.745		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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			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
10,000.0	7,362.0	7,333.2	7,332.2	53.1	12.9	91.24	3,349.8	-165.4	949.0	885.4	63.63	14.914	
10,100.0	7,362.0	7,332.8	7,331.8	54.7	12.9	91.21	3,349.8	-165.4	885.1	819.8	65.33	13.547	
10,200.0	7,362.0	7,332.5	7,331.5	56.4	12.9	91.18	3,349.8	-165.4	828.3	761.3	67.04	12.356	
10,300.0	7,362.0	7,332.1	7,331.1	58.0	12.9	91.15	3,349.8	-165.4	780.3	711.5	68.74	11.351	
10,400.0	7,362.0	7,331.8	7,330.8	59.7	12.9	91.12	3,349.8	-165.4	742.7	672.2	70.46	10.541	
10,500.0	7,362.0	7,331.4	7,330.4	61.3	12.9	91.09	3,349.8	-165.4	717.2	645.0	72.17	9.937	
10,600.0	7,362.0	7,331.1	7,330.1	63.0	12.9	91.06	3,349.8	-165.4	705.0	631.1	73.88	9.542	
10,636.3	7,362.0	7,330.9	7,329.9	63.6	12.9	91.05	3,349.8	-165.4	704.1	629.6	74.51	9.450 CC, ES	
10,700.0	7,362.0	7,330.7	7,329.7	64.6	12.9	91.04	3,349.8	-165.4	707.0	631.4	75.60	9.351	
10,800.0	7,362.0	7,330.4	7,329.4	66.3	12.9	91.01	3,349.8	-165.4	722.9	645.5	77.32	9.349 SF	
10,900.0	7,362.0	7,330.0	7,329.0	68.0	12.9	90.98	3,349.8	-165.4	751.8	672.8	79.04	9.512	
11,000.0	7,362.0	7,329.7	7,328.7	69.7	12.9	90.95	3,349.8	-165.4	792.5	711.7	80.76	9.812	
11,100.0	7,362.0	7,329.3	7,328.3	71.4	12.9	90.92	3,349.8	-165.3	843.0	760.6	82.49	10.220	
11,200.0	7,362.0	7,329.0	7,328.0	73.0	12.9	90.90	3,349.8	-165.3	901.9	817.7	84.21	10.710	
11,300.0	7,362.0	7,328.7	7,327.7	74.7	12.9	90.87	3,349.8	-165.3	967.6	881.6	85.94	11.259	

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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							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		
10,300.0	7,362.0	7,318.0	7,318.0	58.0	12.8	-90.00	3,356.6	-1,778.6	971.8	903.1	68.72	14.141		
10,400.0	7,362.0	7,318.0	7,318.0	59.7	12.8	-90.00	3,356.6	-1,778.6	941.2	870.8	70.43	13.363		
10,500.0	7,362.0	7,318.0	7,318.0	61.3	12.8	-90.00	3,356.6	-1,778.6	920.5	848.3	72.15	12.758		
10,600.0	7,362.0	7,318.0	7,318.0	63.0	12.8	-90.00	3,356.6	-1,778.6	910.3	836.4	73.86	12.324		
10,643.1	7,362.0	7,318.0	7,318.0	63.7	12.8	-90.00	3,356.6	-1,778.6	909.3	834.7	74.60	12.188	CC, ES	
10,700.0	7,362.0	7,318.0	7,318.0	64.6	12.8	-90.00	3,356.6	-1,778.6	911.0	835.5	75.58	12.054		
10,800.0	7,362.0	7,318.0	7,318.0	66.3	12.8	-90.00	3,356.6	-1,778.6	922.7	845.4	77.30	11.937	SF	
10,900.0	7,362.0	7,318.0	7,318.0	68.0	12.8	-90.00	3,356.6	-1,778.6	944.9	865.8	79.02	11.957		
11,000.0	7,362.0	7,318.0	7,318.0	69.7	12.8	-90.00	3,356.6	-1,778.6	976.8	896.1	80.75	12.097		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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			Distance							Warning
Measured Depth 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		
9,400.0	7,362.0	7,337.5	7,335.9	43.5	12.9	90.40	2,752.4	-175.8	943.0	889.5	53.54	17.614		
9,500.0	7,362.0	7,336.0	7,334.3	45.1	12.9	90.28	2,752.4	-175.8	878.3	823.1	55.21	15.910		
9,600.0	7,362.0	7,334.4	7,332.8	46.6	12.9	90.15	2,752.4	-175.8	820.8	763.9	56.88	14.430		
9,700.0	7,362.0	7,332.8	7,331.2	48.2	12.9	90.02	2,752.5	-175.8	771.9	713.4	58.56	13.181		
9,800.0	7,362.0	7,331.2	7,329.6	49.8	12.9	89.89	2,752.5	-175.8	733.5	673.3	60.25	12.175		
9,900.0	7,362.0	7,329.6	7,328.0	51.5	12.9	89.75	2,752.5	-175.8	707.3	645.4	61.94	11.420		
10,000.0	7,362.0	7,328.0	7,326.4	53.1	12.9	89.62	2,752.5	-175.9	694.6	631.0	63.63	10.916		
10,039.0	7,362.0	7,327.3	7,325.7	53.7	12.9	89.56	2,752.5	-175.9	693.5	629.2	64.29	10.787 CC, ES		
10,100.0	7,362.0	7,326.3	7,324.7	54.7	12.9	89.48	2,752.6	-175.9	696.2	630.8	65.33	10.657		
10,200.0	7,362.0	7,324.6	7,323.0	56.4	12.9	89.34	2,752.6	-175.9	711.9	644.9	67.03	10.622 SF		
10,300.0	7,362.0	7,322.9	7,321.3	58.0	12.9	89.20	2,752.6	-175.9	741.0	672.2	68.73	10.781		
10,400.0	7,362.0	7,321.2	7,319.6	59.7	12.9	89.06	2,752.6	-175.9	781.8	711.4	70.43	11.100		
10,500.0	7,362.0	7,319.5	7,317.9	61.3	12.9	88.91	2,752.7	-175.9	832.7	760.6	72.14	11.543		
10,600.0	7,362.0	7,317.7	7,316.1	63.0	12.9	88.77	2,752.7	-175.9	891.9	818.1	73.85	12.078		
10,700.0	7,362.0	7,315.9	7,314.3	64.6	12.9	88.62	2,752.7	-176.0	958.0	882.4	75.56	12.679		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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	
10,100.0	7,362.0	7,293.2	7,291.9	54.7	12.9	-86.11	3,722.4	-1,047.0	926.2	861.0	65.17	14.212	
10,200.0	7,362.0	7,293.7	7,292.4	56.4	12.9	-86.26	3,722.4	-1,047.1	828.2	761.4	66.88	12.384	
10,300.0	7,362.0	7,294.2	7,292.9	58.0	12.9	-86.42	3,722.4	-1,047.1	730.9	662.3	68.59	10.656	
10,400.0	7,362.0	7,294.7	7,293.4	59.7	12.9	-86.57	3,722.4	-1,047.1	634.4	564.1	70.31	9.023	
10,500.0	7,362.0	7,295.2	7,293.9	61.3	12.9	-86.73	3,722.4	-1,047.1	539.1	467.1	72.03	7.485	
10,600.0	7,362.0	7,295.7	7,294.3	63.0	12.9	-86.89	3,722.4	-1,047.1	446.0	372.2	73.75	6.047	
10,700.0	7,362.0	7,296.2	7,294.9	64.6	12.9	-87.05	3,722.4	-1,047.2	356.5	281.1	75.48	4.724	
10,800.0	7,362.0	7,296.7	7,295.4	66.3	12.9	-87.22	3,722.4	-1,047.2	274.5	197.3	77.20	3.555	
10,900.0	7,362.0	7,297.2	7,295.9	68.0	12.9	-87.38	3,722.4	-1,047.2	208.7	129.8	78.93	2.644	
11,000.0	7,362.0	7,297.7	7,296.4	69.7	12.9	-87.55	3,722.4	-1,047.2	178.3	97.6	80.66	2.210	
11,008.9	7,362.0	7,297.8	7,296.4	69.8	12.9	-87.56	3,722.4	-1,047.2	178.0	97.2	80.82	2.203 CC, ES, SF	
11,100.0	7,362.0	7,298.2	7,296.9	71.4	12.9	-87.72	3,722.4	-1,047.2	200.0	117.6	82.40	2.427	
11,200.0	7,362.0	7,298.8	7,297.4	73.0	12.9	-87.89	3,722.4	-1,047.3	261.2	177.1	84.13	3.105	
11,300.0	7,362.0	7,299.3	7,298.0	74.7	12.9	-88.06	3,722.4	-1,047.3	341.2	255.4	85.86	3.974	
11,400.0	7,362.0	7,300.0	7,298.7	76.4	12.9	-88.29	3,722.4	-1,047.3	429.7	342.1	87.60	4.906	
11,500.0	7,362.0	7,300.4	7,299.0	78.1	12.9	-88.41	3,722.4	-1,047.3	522.4	433.0	89.33	5.847	
11,600.0	7,362.0	7,300.9	7,299.6	79.8	12.9	-88.59	3,722.4	-1,047.4	617.3	526.3	91.07	6.779	
11,700.0	7,362.0	7,301.5	7,300.2	81.5	12.9	-88.77	3,722.4	-1,047.4	713.7	620.9	92.81	7.690	
11,800.0	7,362.0	7,302.1	7,300.8	83.2	12.9	-88.96	3,722.4	-1,047.4	810.9	716.3	94.55	8.577	
11,900.0	7,362.0	7,302.7	7,301.3	84.9	12.9	-89.15	3,722.4	-1,047.4	908.7	812.4	96.28	9.438	

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		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	-44.25	402.9	-392.6	563.5					
100.0	100.0	68.0	68.0	0.1	0.1	-44.25	402.9	-392.6	562.5	0.24	2,367.962			
200.0	200.0	168.0	168.0	0.3	0.3	-44.25	402.9	-392.6	562.5	0.59	958.942			
300.0	300.0	268.0	268.0	0.5	0.5	-44.25	402.9	-392.6	562.5	0.94	601.204			
400.0	400.0	368.0	368.0	0.6	0.6	53.99	402.9	-392.6	562.3	1.28	437.635			
500.0	499.9	467.9	467.9	0.8	0.8	54.31	402.9	-392.6	560.2	1.64	342.061			
600.0	599.7	567.7	567.7	1.0	1.0	54.96	402.9	-392.6	556.2	2.00	277.618			
700.0	699.1	667.1	667.1	1.3	1.2	55.94	402.9	-392.6	550.2	2.39	230.049			
800.0	798.3	766.3	766.3	1.5	1.3	57.07	402.9	-392.6	543.2	2.80	194.173			
900.0	897.5	865.5	865.5	1.8	1.5	58.21	402.9	-392.6	536.3	3.21	166.892			
1,000.0	996.7	964.7	964.7	2.0	1.7	59.37	402.9	-392.6	529.7	3.64	145.612			
1,100.0	1,095.9	1,063.9	1,063.9	2.3	1.9	60.57	402.9	-392.6	523.2	4.07	128.628			
1,200.0	1,195.1	1,163.1	1,163.1	2.6	2.0	61.79	402.9	-392.6	517.1	4.50	114.805			
1,300.0	1,294.2	1,262.2	1,262.2	2.9	2.2	63.04	402.9	-392.6	511.1	4.94	103.369			
1,400.0	1,393.4	1,361.4	1,361.4	3.1	2.4	64.32	402.9	-392.6	505.4	5.39	93.775			
1,500.0	1,492.6	1,460.6	1,460.6	3.4	2.5	65.63	402.9	-392.6	500.0	5.84	85.632			
1,600.0	1,591.8	1,559.8	1,559.8	3.7	2.7	66.97	402.9	-392.6	494.8	6.29	78.649			
1,700.0	1,691.0	1,659.0	1,659.0	4.0	2.9	68.33	402.9	-392.6	489.9	6.75	72.609			
1,800.0	1,790.1	1,758.1	1,758.1	4.3	3.1	69.72	402.9	-392.6	485.3	7.21	67.347			
1,900.0	1,889.3	1,857.3	1,857.3	4.5	3.2	71.14	402.9	-392.6	481.0	7.67	62.731			
2,000.0	1,988.5	1,956.5	1,956.5	4.8	3.4	72.58	402.9	-392.6	477.0	8.13	58.661			
2,100.0	2,087.7	2,055.7	2,055.7	5.1	3.6	74.04	402.9	-392.6	473.3	8.60	55.055			
2,200.0	2,186.9	2,154.9	2,154.9	5.4	3.8	75.52	402.9	-392.6	470.0	9.06	51.846			
2,300.0	2,286.1	2,254.1	2,254.1	5.7	3.9	77.03	402.9	-392.6	466.9	9.53	48.980			
2,400.0	2,385.2	2,353.2	2,353.2	6.0	4.1	78.55	402.9	-392.6	464.2	10.00	46.413			
2,500.0	2,484.4	2,452.4	2,452.4	6.2	4.3	80.09	402.9	-392.6	461.8	10.47	44.108			
2,600.0	2,583.6	2,551.6	2,551.6	6.5	4.5	81.64	402.9	-392.6	459.8	10.94	42.033			
2,700.0	2,682.8	2,650.8	2,650.8	6.8	4.6	83.21	402.9	-392.6	458.1	11.41	40.162			
2,800.0	2,782.0	2,750.0	2,750.0	7.1	4.8	84.78	402.9	-392.6	456.7	11.87	38.472			
2,900.0	2,881.2	2,849.2	2,849.2	7.4	5.0	86.37	402.9	-392.6	455.7	12.34	36.944			
3,000.0	2,980.3	2,948.3	2,948.3	7.7	5.1	87.96	402.9	-392.6	455.1	12.80	35.561			
3,100.0	3,079.5	3,047.5	3,047.5	7.9	5.3	89.55	402.9	-392.6	454.8	13.26	34.309			
3,128.1	3,107.4	3,075.4	3,075.4	8.0	5.4	90.00	402.9	-392.6	454.8	13.39	33.978 CC			
3,200.0	3,178.7	3,146.7	3,146.7	8.2	5.5	91.15	402.9	-392.6	454.9	14.12	33.174			
3,300.0	3,277.9	3,245.9	3,245.9	8.5	5.7	92.74	402.9	-392.6	455.3	14.16	32.146 ES			
3,400.0	3,377.1	3,345.1	3,345.1	8.8	5.8	94.33	402.9	-392.6	456.1	14.61	31.214			
3,500.0	3,476.3	3,444.3	3,444.3	9.1	6.0	95.91	402.9	-392.6	457.3	15.06	30.371			
3,600.0	3,575.4	3,543.4	3,543.4	9.4	6.2	97.48	402.9	-392.6	458.8	15.50	29.607			
3,700.0	3,674.6	3,642.6	3,642.6	9.6	6.4	99.04	402.9	-392.6	460.6	15.93	28.916			
3,800.0	3,773.8	3,741.8	3,741.8	9.9	6.5	100.59	402.9	-392.6	462.8	16.36	28.292			
3,900.0	3,873.0	3,841.0	3,841.0	10.2	6.7	102.12	402.9	-392.6	465.3	16.78	27.729			
4,000.0	3,972.2	3,940.2	3,940.2	10.5	6.9	103.63	402.9	-392.6	468.2	17.20	27.221			
4,100.0	4,071.4	4,039.4	4,039.4	10.8	7.1	105.13	402.9	-392.6	471.4	17.61	26.765			
4,200.0	4,170.5	4,138.5	4,138.5	11.1	7.2	106.61	402.9	-392.6	474.9	18.02	26.356			
4,300.0	4,269.7	4,237.7	4,237.7	11.3	7.4	108.06	402.9	-392.6	478.7	18.42	25.989			
4,400.0	4,368.9	4,336.9	4,336.9	11.6	7.6	109.49	402.9	-392.6	482.9	18.82	25.662			
4,500.0	4,468.1	4,436.1	4,436.1	11.9	7.7	110.89	402.9	-392.6	487.3	19.21	25.372			
4,600.0	4,567.3	4,535.3	4,535.3	12.2	7.9	112.27	402.9	-392.6	492.0	19.59	25.114			
4,700.0	4,666.5	4,634.5	4,634.5	12.5	8.1	113.62	402.9	-392.6	497.0	19.97	24.887			
4,800.0	4,765.6	4,733.6	4,733.6	12.8	8.3	114.95	402.9	-392.6	502.3	20.35	24.688			
4,900.0	4,864.8	4,832.8	4,832.8	13.0	8.4	116.24	402.9	-392.6	507.9	20.72	24.515			
5,000.0	4,964.0	4,932.0	4,932.0	13.3	8.6	117.51	402.9	-392.6	513.7	21.08	24.366			

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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							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	5,063.2	5,031.2	5,031.2	13.6	8.8	118.75	402.9	-392.6	519.7	498.3	21.44	24.238		
5,200.0	5,162.4	5,130.4	5,130.4	13.9	9.0	119.96	402.9	-392.6	526.0	504.2	21.80	24.130		
5,300.0	5,261.5	5,229.5	5,229.5	14.2	9.1	121.14	402.9	-392.6	532.6	510.4	22.15	24.040		
5,400.0	5,360.7	5,328.7	5,328.7	14.5	9.3	122.30	402.9	-392.6	539.3	516.8	22.50	23.967		
5,500.0	5,459.9	5,427.9	5,427.9	14.7	9.5	123.42	402.9	-392.6	546.3	523.4	22.85	23.910		
5,600.0	5,559.1	5,527.1	5,527.1	15.0	9.6	124.52	402.9	-392.6	553.4	530.2	23.19	23.866		
5,700.0	5,658.3	5,626.3	5,626.3	15.3	9.8	125.59	402.9	-392.6	560.8	537.3	23.53	23.835		
5,800.0	5,757.5	5,725.5	5,725.5	15.6	10.0	126.63	402.9	-392.6	568.4	544.5	23.86	23.816		
5,900.0	5,856.6	5,824.6	5,824.6	15.9	10.2	127.64	402.9	-392.6	576.1	551.9	24.20	23.807		
6,000.0	5,955.8	5,923.8	5,923.8	16.2	10.3	128.62	402.9	-392.6	584.0	559.5	24.53	23.809		
6,100.0	6,055.0	6,023.0	6,023.0	16.5	10.5	129.58	402.9	-392.6	592.1	567.2	24.86	23.819		
6,200.0	6,154.2	6,122.2	6,122.2	16.7	10.7	130.52	402.9	-392.6	600.4	575.2	25.19	23.837		
6,300.0	6,253.4	6,221.4	6,221.4	17.0	10.9	131.43	402.9	-392.6	608.8	583.2	25.51	23.862		
6,400.0	6,352.6	6,320.6	6,320.6	17.3	11.0	132.31	402.9	-392.6	617.3	591.5	25.83	23.894		
6,500.0	6,451.7	6,419.7	6,419.7	17.6	11.2	133.17	402.9	-392.6	626.0	599.9	26.16	23.933		
6,600.0	6,550.9	6,518.9	6,518.9	17.9	11.4	134.01	402.9	-392.6	634.8	608.4	26.48	23.976		
6,700.0	6,650.1	6,618.1	6,618.1	18.2	11.6	134.82	402.9	-392.6	643.8	617.0	26.80	24.025		
6,800.0	6,749.3	6,717.3	6,717.3	18.4	11.7	135.61	402.9	-392.6	652.9	625.8	27.12	24.078		
6,900.0	6,848.4	6,816.4	6,816.4	18.7	11.9	91.13	402.9	-392.6	659.2	631.7	27.44	24.020		
7,000.0	6,945.8	6,913.8	6,913.8	19.0	12.1	65.89	402.9	-392.6	653.0	625.6	27.35	23.876		
7,100.0	7,038.6	7,006.6	7,006.6	19.2	12.2	60.92	402.9	-392.6	634.8	607.9	26.88	23.613		
7,200.0	7,123.9	7,091.9	7,091.9	19.4	12.4	62.69	402.9	-392.6	606.8	580.5	26.34	23.041		
7,300.0	7,199.2	7,167.2	7,167.2	19.7	12.5	68.04	402.9	-392.6	572.5	546.5	26.06	21.970		
7,400.0	7,262.2	7,230.2	7,230.2	20.0	12.6	75.24	402.9	-392.6	536.4	510.2	26.23	20.447		
7,500.0	7,310.9	7,278.9	7,278.9	20.5	12.7	82.45	402.9	-392.6	504.3	477.5	26.75	18.854		
7,600.0	7,344.0	7,312.0	7,312.0	21.1	12.8	87.85	402.9	-392.6	482.6	455.1	27.43	17.594		
7,682.8	7,358.7	7,326.7	7,326.7	21.6	12.8	90.00	402.9	-392.6	476.4	448.3	28.11	16.950		
7,700.0	7,360.3	7,328.3	7,328.3	21.7	12.8	90.14	402.9	-392.6	476.7	448.4	28.25	16.876		
7,800.0	7,362.0	7,330.0	7,330.0	22.5	12.8	90.00	402.9	-392.6	489.4	460.2	29.25	16.731 SF		
7,900.0	7,362.0	7,330.0	7,330.0	23.4	12.8	90.00	402.9	-392.6	521.2	490.8	30.44	17.122		
8,000.0	7,362.0	7,330.0	7,330.0	24.4	12.8	90.00	402.9	-392.6	569.0	537.3	31.72	17.940		
8,100.0	7,362.0	7,330.0	7,330.0	25.4	12.8	90.00	402.9	-392.6	629.2	596.1	33.07	19.028		
8,200.0	7,362.0	7,330.0	7,330.0	26.6	12.8	90.00	402.9	-392.6	698.6	664.1	34.47	20.265		
8,300.0	7,362.0	7,330.0	7,330.0	27.7	12.8	90.00	402.9	-392.6	774.7	738.7	35.93	21.563		
8,400.0	7,362.0	7,330.0	7,330.0	29.0	12.8	90.00	402.9	-392.6	855.7	818.3	37.42	22.868		
8,500.0	7,362.0	7,330.0	7,330.0	30.3	12.8	90.00	402.9	-392.6	940.4	901.5	38.95	24.147		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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						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	-97.74	-92.5	-680.3	687.1					
100.0	100.0	72.0	72.0	0.1	0.1	-97.74	-92.5	-680.3	686.5	686.3	0.24	2,807.675		
200.0	200.0	172.0	172.0	0.3	0.3	-97.74	-92.5	-680.3	686.5	685.9	0.59	1,156.656		
300.0	300.0	272.0	272.0	0.5	0.5	-97.74	-92.5	-680.3	686.5	685.6	0.94	728.356		
400.0	400.0	372.0	372.0	0.6	0.6	0.46	-92.5	-680.3	686.1	684.8	1.29	531.250		
500.0	499.9	471.9	471.9	0.8	0.8	0.46	-92.5	-680.3	682.6	681.0	1.64	416.428		
600.0	599.7	571.7	571.7	1.0	1.0	0.47	-92.5	-680.3	675.6	673.7	1.98	340.375		
700.0	699.1	668.9	668.9	1.3	1.2	0.47	-92.5	-680.4	665.3	663.0	2.32	286.235		
800.0	798.3	766.9	766.9	1.5	1.3	0.46	-92.9	-680.8	653.1	650.4	2.67	244.686		
900.0	897.5	865.8	865.8	1.8	1.5	0.43	-93.4	-681.3	640.8	637.8	3.02	212.478		
1,000.0	996.7	964.7	964.7	2.0	1.7	0.38	-94.1	-681.8	628.7	625.3	3.36	186.938		
1,100.0	1,095.9	1,063.5	1,063.4	2.3	1.9	0.31	-95.0	-682.3	616.6	612.9	3.71	166.201		
1,200.0	1,195.1	1,162.1	1,162.1	2.6	2.0	0.24	-95.9	-683.0	604.6	600.5	4.06	149.036		
1,300.0	1,294.2	1,260.9	1,260.8	2.9	2.2	0.17	-96.7	-683.7	592.7	588.3	4.40	134.597		
1,400.0	1,393.4	1,359.5	1,359.5	3.1	2.4	0.11	-97.6	-684.5	580.9	576.1	4.75	122.295		
1,500.0	1,492.6	1,458.1	1,458.0	3.4	2.5	0.06	-98.2	-685.5	569.2	564.1	5.10	111.699		
1,600.0	1,591.8	1,556.7	1,556.6	3.7	2.7	0.05	-98.5	-686.7	557.7	552.2	5.44	102.474		
1,700.0	1,691.0	1,655.3	1,655.3	4.0	2.9	0.07	-98.5	-688.0	546.2	540.4	5.79	94.371		
1,800.0	1,790.1	1,754.1	1,754.0	4.3	3.1	0.08	-98.6	-689.5	534.9	528.8	6.13	87.196		
1,900.0	1,889.3	1,852.9	1,852.8	4.5	3.2	0.08	-98.8	-691.0	523.7	517.3	6.48	80.805		
2,000.0	1,988.5	1,951.6	1,951.5	4.8	3.4	0.07	-99.2	-692.7	512.7	505.8	6.83	75.081		
2,100.0	2,087.7	2,049.5	2,049.3	5.1	3.6	0.01	-100.0	-694.4	501.8	494.6	7.17	69.952		
2,200.0	2,186.9	2,150.6	2,150.4	5.4	3.8	0.01	-100.3	-696.4	491.0	483.4	7.52	65.256		
2,300.0	2,286.1	2,251.1	2,250.9	5.7	3.9	0.25	-98.5	-698.2	479.7	471.9	7.87	60.935		
2,400.0	2,385.2	2,349.1	2,348.9	6.0	4.1	0.52	-96.6	-700.1	468.6	460.4	8.22	57.020		
2,500.0	2,484.4	2,447.2	2,447.0	6.2	4.3	0.73	-95.3	-702.1	457.7	449.2	8.56	53.452		
2,600.0	2,583.6	2,546.6	2,546.4	6.5	4.5	0.89	-94.6	-704.4	447.2	438.2	8.91	50.177		
2,700.0	2,682.8	2,655.9	2,655.6	6.8	4.7	1.30	-91.8	-705.8	435.3	426.1	9.28	46.924		
2,800.0	2,782.0	2,755.3	2,754.9	7.1	4.8	1.90	-87.7	-706.0	422.4	412.7	9.63	43.869		
2,900.0	2,881.2	2,854.4	2,853.9	7.4	5.0	2.44	-84.3	-706.2	409.4	399.4	9.98	41.032		
3,000.0	2,980.3	2,953.6	2,953.1	7.7	5.2	2.93	-81.5	-706.3	396.5	386.1	10.33	38.387		
3,100.0	3,079.5	3,051.1	3,050.6	7.9	5.4	3.38	-79.1	-706.5	383.7	373.1	10.68	35.940		
3,200.0	3,178.7	3,148.4	3,147.8	8.2	5.5	3.84	-76.9	-707.2	371.5	360.5	11.03	33.694		
3,300.0	3,277.9	3,245.8	3,245.2	8.5	5.7	4.31	-74.9	-708.3	359.8	348.4	11.38	31.630		
3,400.0	3,377.1	3,343.5	3,342.9	8.8	5.9	4.80	-73.0	-710.0	348.6	336.9	11.73	29.729		
3,500.0	3,476.3	3,441.8	3,441.1	9.1	6.0	5.31	-71.2	-712.0	337.9	325.8	12.08	27.966		
3,600.0	3,575.4	3,540.1	3,539.4	9.4	6.2	5.85	-69.4	-714.3	327.4	315.0	12.44	26.329		
3,700.0	3,674.6	3,638.7	3,638.0	9.6	6.4	6.41	-67.7	-717.0	317.4	304.6	12.79	24.806		
3,800.0	3,773.8	3,739.5	3,738.7	9.9	6.6	7.02	-66.0	-719.6	307.2	294.0	13.16	23.349		
3,900.0	3,873.0	3,840.2	3,839.3	10.2	6.8	7.64	-64.4	-721.7	296.6	283.1	13.52	21.938		
4,000.0	3,972.2	3,940.8	3,939.9	10.5	6.9	8.30	-62.8	-723.4	285.7	271.8	13.89	20.569		
4,100.0	4,071.4	4,042.9	4,042.0	10.8	7.1	9.18	-60.5	-724.3	274.0	259.7	14.27	19.201		
4,200.0	4,170.5	4,137.1	4,135.7	11.1	7.3	11.54	-51.7	-725.6	263.1	248.4	14.69	17.909		
4,300.0	4,269.7	4,229.3	4,227.1	11.3	7.5	14.72	-39.7	-728.2	254.6	239.5	15.16	16.795		
4,400.0	4,368.9	4,323.3	4,319.7	11.6	7.7	18.88	-24.1	-732.3	249.3	233.5	15.72	15.854		
4,484.3	4,452.5	4,400.3	4,395.3	11.9	7.9	22.59	-10.1	-736.8	247.5	231.2	16.24	15.237	CC	
4,500.0	4,468.1	4,413.8	4,408.5	11.9	7.9	23.30	-7.4	-737.7	247.6	231.2	16.34	15.150	ES	
4,600.0	4,567.3	4,506.4	4,498.5	12.2	8.2	28.43	13.1	-745.2	250.9	233.8	17.06	14.706		
4,700.0	4,666.5	4,589.6	4,578.3	12.5	8.4	33.56	35.4	-753.0	259.7	241.9	17.80	14.585		
4,800.0	4,765.6	4,675.4	4,659.1	12.8	8.7	39.04	62.4	-763.1	275.8	257.2	18.61	14.819		
4,900.0	4,864.8	4,760.1	4,737.8	13.0	9.1	44.23	91.7	-773.7	297.5	278.1	19.41	15.330		
5,000.0	4,964.0	4,847.0	4,817.7	13.3	9.5	49.12	123.9	-785.2	324.0	303.8	20.18	16.059		

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



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		Between Centres (ft)	Between Ellipses (ft)	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	5,063.2	4,928.3	4,891.3	13.6	9.9	53.46	156.9	-795.4	355.2	334.3	20.89	17.004		
5,200.0	5,162.4	5,003.0	4,957.9	13.9	10.3	56.96	189.0	-806.0	391.3	369.8	21.52	18.186		
5,300.0	5,261.5	5,072.0	5,017.9	14.2	10.7	59.74	221.0	-817.6	433.3	411.2	22.07	19.629		
5,400.0	5,360.7	5,164.5	5,097.8	14.5	11.4	62.44	263.5	-836.8	478.1	455.4	22.65	21.102		
5,500.0	5,459.9	5,246.5	5,169.0	14.7	11.9	64.22	299.8	-855.2	522.8	499.7	23.16	22.578		
5,600.0	5,559.1	5,341.7	5,251.6	15.0	12.6	66.07	342.3	-875.7	568.0	544.3	23.68	23.982		
5,700.0	5,658.3	5,410.0	5,310.6	15.3	13.1	67.33	373.9	-889.8	614.4	590.3	24.13	25.458		
5,800.0	5,757.5	5,485.6	5,374.6	15.6	13.7	68.42	410.1	-907.5	663.8	639.3	24.58	27.003		
5,900.0	5,856.6	5,595.4	5,468.2	15.9	14.6	69.65	460.9	-934.0	712.5	687.4	25.10	28.386		
6,000.0	5,955.8	5,722.0	5,579.2	16.2	15.5	70.72	513.9	-963.7	756.6	731.0	25.64	29.514		
6,100.0	6,055.0	5,784.0	5,633.8	16.5	16.0	71.26	539.9	-977.1	800.6	774.5	26.04	30.742		
6,200.0	6,154.2	5,872.1	5,710.2	16.7	16.7	72.13	580.0	-995.1	847.2	820.7	26.51	31.959		
6,300.0	6,253.4	5,954.7	5,782.1	17.0	17.4	72.90	617.3	-1,011.3	893.4	866.5	26.97	33.131		
6,400.0	6,352.6	6,030.6	5,847.6	17.3	18.0	73.56	652.6	-1,026.5	941.1	913.7	27.41	34.340		
6,500.0	6,451.7	6,160.4	5,961.5	17.6	19.1	74.53	709.4	-1,051.5	985.6	957.7	27.96	35.253		
7,500.0	7,310.9	7,488.0	7,194.4	20.5	27.0	-37.40	1,109.6	-1,262.2	978.4	951.7	26.69	36.659		
7,600.0	7,344.0	7,543.3	7,249.4	21.1	27.1	-54.49	1,113.2	-1,265.3	894.5	861.5	32.98	27.119		
7,700.0	7,360.3	7,571.3	7,277.3	21.7	27.2	-74.37	1,114.8	-1,266.6	807.9	768.6	39.37	20.522		
7,800.0	7,362.0	7,580.7	7,286.8	22.5	27.2	-83.23	1,115.2	-1,267.1	722.8	681.4	41.44	17.444		
7,900.0	7,362.0	7,586.9	7,292.9	23.4	27.2	-84.11	1,115.5	-1,267.4	642.0	599.3	42.66	15.047		
8,000.0	7,362.0	7,592.4	7,298.4	24.4	27.2	-84.90	1,115.7	-1,267.6	567.2	523.2	43.97	12.899		
8,100.0	7,362.0	7,597.4	7,303.4	25.4	27.2	-85.61	1,116.0	-1,267.9	501.2	455.9	45.34	11.054		
8,200.0	7,362.0	7,601.5	7,307.5	26.6	27.2	-86.20	1,116.1	-1,268.0	448.0	401.3	46.77	9.579		
8,300.0	7,362.0	7,605.3	7,311.3	27.7	27.2	-86.75	1,116.3	-1,268.2	412.5	364.3	48.24	8.552		
8,400.0	7,362.0	7,609.0	7,315.0	29.0	27.2	-87.28	1,116.4	-1,268.4	399.5	349.8	49.74	8.032		
8,402.9	7,362.0	7,609.1	7,315.1	29.0	27.2	-87.29	1,116.4	-1,268.4	399.5	349.7	49.79	8.024		
8,500.0	7,362.0	7,612.5	7,318.5	30.3	27.2	-87.78	1,116.5	-1,268.6	411.1	359.8	51.28	8.017 SF		
8,600.0	7,362.0	7,615.9	7,321.8	31.7	27.2	-88.26	1,116.7	-1,268.7	445.4	392.6	52.84	8.429		
8,700.0	7,362.0	7,619.1	7,325.0	33.0	27.2	-88.71	1,116.8	-1,268.9	497.8	443.3	54.42	9.146		
8,800.0	7,362.0	7,622.1	7,328.1	34.5	27.3	-89.15	1,116.9	-1,269.0	563.1	507.1	56.02	10.052		
8,900.0	7,362.0	7,625.0	7,331.0	35.9	27.3	-89.57	1,117.0	-1,269.2	637.5	579.9	57.63	11.061		
9,000.0	7,362.0	7,629.0	7,335.0	37.4	27.3	-90.14	1,117.1	-1,269.4	718.1	658.9	59.26	12.118		
9,100.0	7,362.0	7,630.9	7,336.9	38.9	27.3	-90.41	1,117.2	-1,269.5	803.1	742.2	60.89	13.189		
9,200.0	7,362.0	7,634.2	7,340.2	40.4	27.3	-90.89	1,117.3	-1,269.6	891.2	828.7	62.54	14.251		
9,300.0	7,362.0	7,637.6	7,343.5	41.9	27.3	-91.36	1,117.4	-1,269.8	981.6	917.4	64.18	15.293		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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)						
0.0	0.0	0.0	0.0	0.0	0.0	-99.01	-111.4	-702.4	711.7					
100.0	100.0	72.0	72.0	0.1	0.1	-99.01	-111.4	-702.4	711.2	710.9	0.24	2,908.333		
200.0	200.0	172.0	172.0	0.3	0.3	-99.01	-111.4	-702.4	711.2	710.6	0.59	1,198.124		
300.0	300.0	272.0	272.0	0.5	0.5	-99.01	-111.4	-702.4	711.2	710.2	0.94	754.468		
400.0	400.0	372.0	372.0	0.6	0.6	-0.81	-111.4	-702.4	710.7	709.4	1.29	550.308		
500.0	499.9	471.9	471.9	0.8	0.8	-0.82	-111.4	-702.4	707.2	705.6	1.64	431.443		
600.0	599.7	571.7	571.7	1.0	1.0	-0.83	-111.4	-702.4	700.3	698.3	1.98	352.774		
700.0	699.1	669.9	669.9	1.3	1.2	-0.85	-111.5	-702.4	689.8	687.5	2.33	296.562		
800.0	798.3	766.3	766.3	1.5	1.3	-0.91	-112.0	-702.7	677.5	674.8	2.67	253.956		
900.0	897.5	862.5	862.5	1.8	1.5	-0.97	-112.6	-703.4	665.6	662.6	3.01	221.104		
1,000.0	996.7	958.8	958.8	2.0	1.7	-1.03	-113.3	-704.5	654.1	650.7	3.35	195.091		
1,100.0	1,095.9	1,056.4	1,056.3	2.3	1.8	-1.08	-114.0	-706.1	643.0	639.3	3.70	173.919		
1,200.0	1,195.1	1,158.1	1,158.1	2.6	2.0	-1.15	-114.7	-707.7	631.9	627.8	4.05	156.040		
1,300.0	1,294.2	1,259.8	1,259.8	2.9	2.2	-1.21	-115.3	-708.8	620.3	615.9	4.40	140.941		
1,400.0	1,393.4	1,360.9	1,360.8	3.1	2.4	-1.29	-116.0	-709.6	608.4	603.7	4.75	128.030		
1,500.0	1,492.6	1,458.9	1,458.9	3.4	2.6	-1.35	-116.5	-710.4	596.5	591.4	5.10	117.021		
1,600.0	1,591.8	1,557.0	1,556.9	3.7	2.7	-1.41	-116.9	-711.3	584.8	579.4	5.44	107.447		
1,700.0	1,691.0	1,655.1	1,655.0	4.0	2.9	-1.45	-117.3	-712.6	573.4	567.6	5.79	99.050		
1,800.0	1,790.1	1,755.2	1,755.1	4.3	3.1	-1.49	-117.5	-713.9	561.9	555.8	6.14	91.557		
1,900.0	1,889.3	1,855.3	1,855.2	4.5	3.2	-1.50	-117.5	-715.1	550.3	543.9	6.49	84.848		
2,000.0	1,988.5	1,955.4	1,955.3	4.8	3.4	-1.50	-117.4	-716.2	538.6	531.8	6.84	78.803		
2,100.0	2,087.7	2,055.6	2,055.5	5.1	3.6	-1.49	-117.0	-717.1	526.8	519.6	7.18	73.323		
2,200.0	2,186.9	2,155.8	2,155.7	5.4	3.8	-1.50	-116.9	-717.9	514.7	507.2	7.53	68.324		
2,300.0	2,286.1	2,256.1	2,256.0	5.7	3.9	-1.55	-117.1	-718.3	502.5	494.6	7.88	63.743		
2,400.0	2,385.2	2,355.8	2,355.7	6.0	4.1	-1.63	-117.6	-718.6	490.1	481.8	8.23	59.535		
2,500.0	2,484.4	2,454.9	2,454.8	6.2	4.3	-1.75	-118.2	-718.8	477.6	469.0	8.58	55.674		
2,600.0	2,583.6	2,554.0	2,553.9	6.5	4.5	-1.91	-119.1	-719.0	465.2	456.3	8.93	52.115		
2,700.0	2,682.8	2,653.2	2,653.0	6.8	4.6	-2.10	-120.3	-719.2	452.9	443.6	9.27	48.826		
2,800.0	2,782.0	2,752.5	2,752.4	7.1	4.8	-2.27	-121.1	-719.4	440.5	430.9	9.62	45.773		
2,900.0	2,881.2	2,851.9	2,851.8	7.4	5.0	-2.39	-121.6	-719.7	428.1	418.1	9.97	42.931		
3,000.0	2,980.3	2,951.1	2,951.0	7.7	5.2	-2.46	-121.6	-720.0	415.6	405.3	10.32	40.279		
3,100.0	3,079.5	3,048.8	3,048.6	7.9	5.3	-2.49	-121.4	-720.5	403.4	392.7	10.66	37.831		
3,200.0	3,178.7	3,146.5	3,146.4	8.2	5.5	-2.50	-121.1	-721.5	391.6	380.5	11.01	35.570		
3,300.0	3,277.9	3,244.4	3,244.3	8.5	5.7	-2.47	-120.6	-722.9	380.1	368.7	11.35	33.480		
3,400.0	3,377.1	3,342.2	3,342.0	8.8	5.9	-2.43	-120.1	-724.7	369.0	357.3	11.70	31.547		
3,500.0	3,476.3	3,440.0	3,439.8	9.1	6.0	-2.40	-119.8	-726.8	358.4	346.4	12.04	29.761		
3,600.0	3,575.4	3,537.9	3,537.7	9.4	6.2	-2.39	-119.7	-729.4	348.2	335.8	12.39	28.109		
3,700.0	3,674.6	3,638.1	3,637.8	9.6	6.4	-2.36	-119.5	-732.3	338.2	325.5	12.74	26.554		
3,800.0	3,773.8	3,739.1	3,738.8	9.9	6.6	-2.25	-118.8	-734.9	327.8	314.8	13.09	25.049		
3,900.0	3,873.0	3,840.0	3,839.6	10.2	6.7	-2.03	-117.5	-737.1	317.0	303.6	13.44	23.591		
4,000.0	3,972.2	3,939.6	3,939.3	10.5	6.9	-1.75	-115.9	-739.0	305.8	292.0	13.78	22.186		
4,100.0	4,071.4	4,038.7	4,038.3	10.8	7.1	-1.54	-114.7	-740.8	294.7	280.6	14.13	20.857		
4,200.0	4,170.5	4,137.7	4,137.3	11.1	7.3	-1.44	-114.2	-742.7	283.7	269.3	14.48	19.599		
4,300.0	4,269.7	4,237.3	4,236.9	11.3	7.4	-1.44	-114.2	-744.6	272.8	258.0	14.83	18.403		
4,400.0	4,368.9	4,337.4	4,337.0	11.6	7.6	-1.43	-114.1	-746.3	261.7	246.5	15.17	17.246		
4,500.0	4,468.1	4,437.5	4,437.1	11.9	7.8	-1.39	-113.8	-747.7	250.3	234.8	15.52	16.123		
4,600.0	4,567.3	4,537.3	4,536.9	12.2	8.0	-1.30	-113.4	-748.9	238.6	222.7	15.87	15.033		
4,700.0	4,666.5	4,636.7	4,636.3	12.5	8.1	-1.20	-112.8	-749.9	226.8	210.6	16.22	13.985		
4,800.0	4,765.6	4,736.1	4,735.6	12.8	8.3	-1.06	-112.2	-751.0	215.0	198.4	16.57	12.979		
4,900.0	4,864.8	4,835.4	4,835.0	13.0	8.5	-0.90	-111.6	-752.0	203.2	186.3	16.91	12.012		
5,000.0	4,964.0	4,934.7	4,934.2	13.3	8.7	-0.69	-110.8	-753.1	191.3	174.1	17.26	11.085		
5,100.0	5,063.2	5,033.9	5,033.4	13.6	8.8	-0.41	-110.0	-754.2	179.5	161.9	17.61	10.197		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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				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	5,162.4	5,133.1	5,132.6	13.9	9.0	-0.06	-109.0	-755.3	167.8	149.8	17.95	9.344	
5,300.0	5,261.5	5,231.8	5,231.3	14.2	9.2	0.40	-108.0	-756.7	156.3	138.0	18.30	8.538	
5,400.0	5,360.7	5,330.7	5,330.1	14.5	9.4	0.96	-106.9	-758.5	145.2	126.5	18.65	7.783	
5,500.0	5,459.9	5,424.5	5,423.9	14.7	9.5	1.43	-106.4	-761.8	135.8	116.9	18.99	7.153	
5,600.0	5,559.1	5,521.1	5,520.2	15.0	9.7	0.69	-109.2	-768.6	130.3	111.0	19.33	6.742	
5,700.0	5,658.3	5,616.8	5,615.4	15.3	9.9	-0.58	-113.4	-777.6	127.5	107.9	19.67	6.484	
5,721.7	5,679.8	5,637.2	5,635.6	15.4	9.9	-0.79	-114.2	-780.0	127.4	107.7	19.75	6.453 CC, ES	
5,800.0	5,757.5	5,711.5	5,709.1	15.6	10.1	-2.00	-118.4	-790.2	128.8	108.8	20.02	6.434 SF	
5,900.0	5,856.6	5,808.4	5,804.4	15.9	10.3	-4.42	-126.4	-805.4	133.1	112.7	20.40	6.527	
6,000.0	5,955.8	5,903.6	5,897.6	16.2	10.5	-6.92	-135.6	-822.7	140.5	119.7	20.81	6.751	
6,100.0	6,055.0	5,998.5	5,989.7	16.5	10.8	-9.67	-147.0	-842.6	151.6	130.3	21.25	7.133	
6,200.0	6,154.2	6,089.0	6,076.7	16.7	11.1	-11.93	-158.7	-864.3	166.3	144.6	21.70	7.664	
6,300.0	6,253.4	6,178.6	6,161.6	17.0	11.4	-13.57	-171.3	-890.1	186.2	164.1	22.14	8.413	
6,400.0	6,352.6	6,269.5	6,246.5	17.3	11.7	-14.79	-185.0	-919.7	210.3	187.8	22.56	9.323	
6,500.0	6,451.7	6,360.2	6,330.2	17.6	12.1	-15.64	-199.1	-951.6	237.1	214.1	22.96	10.324	
6,600.0	6,550.9	6,452.0	6,414.3	17.9	12.5	-16.14	-213.4	-985.6	265.7	242.4	23.35	11.380	
6,700.0	6,650.1	6,544.8	6,498.6	18.2	13.0	-16.99	-230.3	-1,020.4	296.0	272.3	23.77	12.455	
6,800.0	6,749.3	6,642.2	6,587.0	18.4	13.5	-18.22	-250.6	-1,055.8	326.5	302.3	24.23	13.474	
6,900.0	6,848.4	6,744.7	6,681.2	18.7	14.1	-62.86	-268.8	-1,091.9	356.2	331.6	24.57	14.496	
7,000.0	6,945.8	6,847.7	6,776.4	19.0	14.6	-90.25	-285.0	-1,127.8	391.9	366.9	24.93	15.720	
7,100.0	7,038.6	6,961.6	6,883.3	19.2	15.2	-100.77	-298.3	-1,164.7	432.2	406.9	25.36	17.045	
7,200.0	7,123.9	7,052.9	6,970.7	19.4	15.6	-106.21	-308.2	-1,189.2	477.9	452.3	25.64	18.640	
7,300.0	7,199.2	7,145.5	7,060.3	19.7	16.0	-109.90	-316.6	-1,211.0	532.0	506.2	25.83	20.599	
7,400.0	7,262.2	7,217.8	7,131.0	20.0	16.2	-110.53	-322.6	-1,224.7	595.4	569.4	25.98	22.918	
7,500.0	7,310.9	7,272.9	7,185.2	20.5	16.4	-107.52	-326.8	-1,233.7	668.6	642.1	26.47	25.258	
7,600.0	7,344.0	7,310.9	7,222.6	21.1	16.5	-99.57	-329.4	-1,239.3	750.0	722.4	27.58	27.192	
7,700.0	7,360.3	7,324.6	7,236.3	21.7	16.6	-84.20	-330.2	-1,241.1	837.1	808.3	28.80	29.065	
7,800.0	7,362.0	7,319.1	7,230.8	22.5	16.6	-74.46	-329.9	-1,240.4	927.1	897.7	29.42	31.512	

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		
0.0	0.0	0.0	0.0	0.0	0.0	-99.74	-111.8	-651.2	661.3					
100.0	100.0	72.0	72.0	0.1	0.1	-99.74	-111.8	-651.2	660.7	660.5	0.24	2,702.107		
200.0	200.0	172.0	172.0	0.3	0.3	-99.74	-111.8	-651.2	660.7	660.1	0.59	1,113.167		
300.0	300.0	272.0	272.0	0.5	0.5	-99.74	-111.8	-651.2	660.7	659.8	0.94	700.970		
400.0	400.0	372.0	372.0	0.6	0.6	-1.54	-111.8	-651.2	660.3	659.0	1.29	511.262		
500.0	499.9	471.9	471.9	0.8	0.8	-1.55	-111.8	-651.2	656.8	655.2	1.64	400.680		
600.0	599.7	571.7	571.7	1.0	1.0	-1.57	-111.8	-651.2	649.8	647.8	1.99	327.368		
700.0	699.1	672.6	672.6	1.3	1.2	-1.57	-111.4	-651.2	639.3	637.0	2.33	274.286		
800.0	798.3	771.3	771.3	1.5	1.3	-1.44	-109.7	-651.3	626.4	623.8	2.68	233.932		
900.0	897.5	870.1	870.1	1.8	1.5	-1.29	-107.8	-651.5	613.6	610.5	3.03	202.778		
1,000.0	996.7	968.9	968.8	2.0	1.7	-1.13	-105.8	-651.8	600.8	597.4	3.37	178.073		
1,100.0	1,095.9	1,065.6	1,065.6	2.3	1.9	-0.95	-103.7	-652.3	588.2	584.5	3.72	158.114		
1,200.0	1,195.1	1,162.4	1,162.3	2.6	2.0	-0.74	-101.6	-653.2	576.0	572.0	4.07	141.652		
1,300.0	1,294.2	1,259.3	1,259.2	2.9	2.2	-0.51	-99.3	-654.6	564.3	559.9	4.41	127.865		
1,400.0	1,393.4	1,362.4	1,362.2	3.1	2.4	-0.28	-97.3	-656.0	552.6	547.8	4.76	115.968		
1,500.0	1,492.6	1,467.4	1,467.2	3.4	2.6	-0.20	-96.5	-656.2	539.9	534.8	5.12	105.473		
1,600.0	1,591.8	1,572.1	1,571.9	3.7	2.7	-0.30	-97.1	-655.0	526.1	520.6	5.47	96.143		
1,700.0	1,691.0	1,666.5	1,666.3	4.0	2.9	-0.37	-97.5	-653.7	512.0	506.2	5.81	88.098		
1,800.0	1,790.1	1,773.3	1,773.0	4.3	3.1	-0.05	-94.6	-653.0	498.3	492.1	6.18	80.690		
1,900.0	1,889.3	1,883.4	1,883.1	4.5	3.3	0.29	-91.2	-649.7	482.1	475.6	6.54	73.671		
2,000.0	1,988.5	1,973.0	1,972.6	4.8	3.5	0.38	-90.1	-646.5	465.7	458.9	6.87	67.771		
2,100.0	2,087.7	2,071.0	2,070.5	5.1	3.6	0.28	-90.6	-643.8	450.4	443.2	7.22	62.422		
2,200.0	2,186.9	2,168.2	2,167.7	5.4	3.8	0.19	-91.0	-641.6	435.5	427.9	7.56	57.618		
2,300.0	2,286.1	2,265.9	2,265.4	5.7	4.0	0.13	-91.2	-639.7	420.8	412.9	7.90	53.259		
2,400.0	2,385.2	2,363.7	2,363.2	6.0	4.1	0.09	-91.3	-638.1	406.5	398.3	8.25	49.298		
2,500.0	2,484.4	2,461.8	2,461.3	6.2	4.3	0.09	-91.2	-636.9	392.4	383.9	8.59	45.682		
2,600.0	2,583.6	2,561.1	2,560.6	6.5	4.5	0.14	-90.7	-635.6	378.4	369.5	8.94	42.332		
2,700.0	2,682.8	2,660.4	2,659.9	6.8	4.7	0.28	-89.7	-634.4	364.3	355.0	9.29	39.226		
2,800.0	2,782.0	2,759.9	2,759.3	7.1	4.8	0.50	-88.2	-633.2	350.1	340.5	9.64	36.335		
2,900.0	2,881.2	2,861.5	2,860.9	7.4	5.0	0.36	-88.8	-631.0	335.4	325.4	9.98	33.592		
3,000.0	2,980.3	2,958.6	2,957.9	7.7	5.2	-0.01	-90.7	-628.8	320.6	310.3	10.33	31.051		
3,100.0	3,079.5	3,055.8	3,055.1	7.9	5.4	-0.32	-92.1	-627.2	306.4	295.8	10.67	28.723		
3,200.0	3,178.7	3,153.2	3,152.6	8.2	5.5	-0.54	-93.0	-626.1	292.8	281.8	11.01	26.589		
3,300.0	3,277.9	3,251.0	3,250.3	8.5	5.7	-0.73	-93.7	-625.6	279.6	268.3	11.36	24.626		
3,400.0	3,377.1	3,348.8	3,348.1	8.8	5.9	-0.89	-94.3	-625.7	267.0	255.3	11.70	22.819		
3,500.0	3,476.3	3,446.8	3,446.1	9.1	6.0	-1.01	-94.7	-626.2	254.8	242.8	12.05	21.157		
3,600.0	3,575.4	3,545.1	3,544.4	9.4	6.2	-1.06	-94.9	-627.2	243.1	230.7	12.39	19.620		
3,700.0	3,674.6	3,643.6	3,642.8	9.6	6.4	-0.99	-94.6	-628.7	231.8	219.1	12.74	18.196		
3,800.0	3,773.8	3,742.1	3,741.3	9.9	6.5	-0.79	-93.9	-630.6	220.8	207.8	13.08	16.878		
3,900.0	3,873.0	3,846.9	3,846.1	10.2	6.7	-0.79	-93.9	-631.6	209.0	195.6	13.44	15.549		
4,000.0	3,972.2	3,945.7	3,944.9	10.5	6.9	-1.22	-95.1	-630.9	195.8	182.0	13.79	14.199		
4,100.0	4,071.4	4,044.4	4,043.7	10.8	7.1	-1.72	-96.4	-630.4	182.7	168.6	14.14	12.928		
4,200.0	4,170.5	4,143.3	4,142.5	11.1	7.2	-2.31	-97.7	-630.1	169.9	155.4	14.48	11.731		
4,300.0	4,269.7	4,242.1	4,241.3	11.3	7.4	-2.96	-98.9	-630.0	157.3	142.5	14.84	10.604		
4,400.0	4,368.9	4,340.9	4,340.2	11.6	7.6	-3.59	-99.9	-630.2	145.0	129.8	15.19	9.545		
4,500.0	4,468.1	4,439.9	4,439.1	11.9	7.8	-4.18	-100.6	-630.7	132.9	117.3	15.54	8.549		
4,600.0	4,567.3	4,539.0	4,538.3	12.2	7.9	-4.75	-101.1	-631.4	121.0	105.1	15.90	7.608		
4,700.0	4,666.5	4,638.3	4,637.5	12.5	8.1	-5.42	-101.4	-632.2	109.1	92.8	16.26	6.710		
4,800.0	4,765.6	4,737.6	4,736.8	12.8	8.3	-6.21	-101.8	-633.0	97.3	80.6	16.62	5.851		
4,900.0	4,864.8	4,837.0	4,836.2	13.0	8.4	-7.17	-102.0	-633.8	85.4	68.4	16.99	5.026		
5,000.0	4,964.0	4,937.6	4,936.8	13.3	8.6	-8.35	-102.1	-634.3	73.3	55.9	17.38	4.219		
5,100.0	5,063.2	5,041.0	5,040.0	13.6	8.8	-12.25	-102.3	-628.7	55.6	37.7	17.88	3.112		

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		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		
5,200.0	5,162.4	5,139.4	5,137.6	13.9	9.0	-27.39	-104.1	-616.6	33.5	14.3	19.19	1.745		
5,289.0	5,250.7	5,224.9	5,222.0	14.2	9.2	-75.14	-107.8	-603.0	21.4	-1.6	23.03	0.929	Level 1, CC, ES, SF	
5,300.0	5,261.5	5,235.2	5,232.1	14.2	9.2	-83.41	-108.3	-601.2	21.7	-1.6	23.30	0.930	Level 1	
5,400.0	5,360.7	5,327.9	5,322.6	14.5	9.4	-129.26	-116.1	-582.8	43.2	21.2	21.98	1.965		
5,500.0	5,459.9	5,417.5	5,408.8	14.7	9.6	-141.85	-126.2	-560.8	78.9	57.7	21.24	3.715		
5,600.0	5,559.1	5,505.1	5,492.3	15.0	9.8	-146.49	-137.4	-536.8	119.0	97.8	21.18	5.618		
5,700.0	5,658.3	5,592.9	5,575.1	15.3	10.1	-149.41	-148.4	-509.7	162.4	141.1	21.26	7.637		
5,800.0	5,757.5	5,668.9	5,645.8	15.6	10.4	-151.42	-157.3	-483.2	209.4	188.0	21.41	9.781		
5,900.0	5,856.6	5,746.0	5,715.7	15.9	10.7	-152.92	-167.0	-452.4	261.4	239.8	21.61	12.097		
6,000.0	5,955.8	5,821.0	5,783.0	16.2	11.1	-153.75	-177.8	-420.8	315.8	294.0	21.86	14.448		
6,100.0	6,055.0	5,895.6	5,848.7	16.5	11.5	-154.38	-188.9	-387.4	372.9	350.8	22.12	16.854		
6,200.0	6,154.2	5,969.1	5,913.1	16.7	11.9	-154.91	-199.7	-353.6	431.0	408.6	22.40	19.243		
6,300.0	6,253.4	6,062.7	5,994.5	17.0	12.5	-155.31	-214.5	-309.9	490.2	467.5	22.71	21.581		
6,400.0	6,352.6	6,145.0	6,067.4	17.3	13.0	-155.77	-225.5	-273.3	546.7	523.6	23.01	23.762		
6,500.0	6,451.7	6,220.3	6,133.4	17.6	13.5	-156.00	-236.9	-238.9	604.6	581.3	23.31	25.943		
6,600.0	6,550.9	6,313.5	6,215.9	17.9	14.1	-156.19	-250.9	-197.8	661.0	637.4	23.64	27.962		
6,700.0	6,650.1	6,373.5	6,268.5	18.2	14.6	-156.22	-260.8	-170.8	718.8	694.9	23.93	30.036		
6,800.0	6,749.3	6,447.8	6,333.1	18.4	15.1	-156.11	-274.9	-136.9	777.7	753.4	24.27	32.050		
6,900.0	6,848.4	6,525.4	6,399.7	18.7	15.7	-154.10	-289.8	-99.9	839.2	815.1	24.14	34.762		
7,000.0	6,945.8	6,616.9	6,479.7	19.0	16.5	-120.44	-304.6	-58.1	900.7	876.6	24.13	37.329		
7,100.0	7,038.6	6,715.2	6,565.7	19.2	17.2	-106.40	-318.0	-12.5	964.6	940.0	24.56	39.269		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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 (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	-121.94	-358.4	-574.9	677.9					
100.0	100.0	75.0	75.0	0.1	0.1	-121.94	-358.4	-574.9	677.5	677.2	0.25	2,712.213		
200.0	200.0	175.0	175.0	0.3	0.3	-121.94	-358.4	-574.9	677.5	676.9	0.60	1,131.276		
300.0	300.0	275.0	275.0	0.5	0.5	-121.94	-358.4	-574.9	677.5	676.5	0.95	714.688		
400.0	400.0	375.0	375.0	0.6	0.7	-23.76	-358.4	-574.9	677.1	675.8	1.30	522.063		
500.0	499.9	474.9	474.9	0.8	0.8	-23.91	-358.4	-574.9	673.9	672.2	1.65	409.409		
600.0	599.7	574.7	574.7	1.0	1.0	-24.20	-358.4	-574.9	667.5	665.5	2.00	334.286		
700.0	699.1	674.1	674.1	1.3	1.2	-24.65	-358.4	-574.9	658.0	655.6	2.35	279.775		
800.0	798.3	773.3	773.3	1.5	1.3	-25.14	-358.4	-574.9	646.4	643.7	2.71	238.158		
900.0	897.5	872.5	872.5	1.8	1.5	-25.63	-358.4	-574.9	634.9	631.8	3.08	206.066		
1,000.0	996.7	971.7	971.7	2.0	1.7	-26.13	-358.4	-574.9	623.4	619.9	3.45	180.659		
1,100.0	1,095.9	1,070.9	1,070.9	2.3	1.9	-26.66	-358.4	-574.9	611.9	608.1	3.82	160.068		
1,200.0	1,195.1	1,170.1	1,170.1	2.6	2.0	-27.20	-358.4	-574.9	600.5	596.3	4.20	143.054		
1,300.0	1,294.2	1,269.2	1,269.2	2.9	2.2	-27.77	-358.4	-574.9	589.2	584.6	4.58	128.769		
1,400.0	1,393.4	1,368.4	1,368.4	3.1	2.4	-28.36	-358.4	-574.9	577.9	573.0	4.96	116.611		
1,500.0	1,492.6	1,467.6	1,467.6	3.4	2.6	-28.97	-358.4	-574.9	566.7	561.4	5.34	106.142		
1,600.0	1,591.8	1,566.8	1,566.8	3.7	2.7	-29.60	-358.4	-574.9	555.6	549.8	5.73	97.038		
1,700.0	1,691.0	1,666.0	1,666.0	4.0	2.9	-30.27	-358.4	-574.9	544.5	538.4	6.11	89.051		
1,800.0	1,790.1	1,765.1	1,765.1	4.3	3.1	-30.96	-358.4	-574.9	533.5	527.0	6.51	81.990		
1,900.0	1,889.3	1,864.3	1,864.3	4.5	3.3	-31.67	-358.4	-574.9	522.6	515.7	6.90	75.707		
2,000.0	1,988.5	1,963.5	1,963.5	4.8	3.4	-32.42	-358.4	-574.9	511.7	504.4	7.30	70.082		
2,100.0	2,087.7	2,062.7	2,062.7	5.1	3.6	-33.20	-358.4	-574.9	501.0	493.3	7.70	65.019		
2,200.0	2,186.9	2,161.9	2,161.9	5.4	3.8	-34.02	-358.4	-574.9	490.3	482.2	8.11	60.441		
2,300.0	2,286.1	2,261.1	2,261.1	5.7	3.9	-34.87	-358.4	-574.9	479.8	471.2	8.52	56.284		
2,400.0	2,385.2	2,360.2	2,360.2	6.0	4.1	-35.75	-358.4	-574.9	469.3	460.4	8.94	52.496		
2,500.0	2,484.4	2,459.4	2,459.4	6.2	4.3	-36.68	-358.4	-574.9	459.0	449.6	9.36	49.031		
2,600.0	2,583.6	2,558.6	2,558.6	6.5	4.5	-37.65	-358.4	-574.9	448.8	439.0	9.79	45.852		
2,700.0	2,682.8	2,657.8	2,657.8	6.8	4.6	-38.67	-358.4	-574.9	438.7	428.5	10.22	42.929		
2,800.0	2,782.0	2,757.0	2,757.0	7.1	4.8	-39.73	-358.4	-574.9	428.8	418.2	10.66	40.235		
2,900.0	2,881.2	2,856.2	2,856.2	7.4	5.0	-40.84	-358.4	-574.9	419.1	408.0	11.10	37.746		
3,000.0	2,980.3	2,955.3	2,955.3	7.7	5.2	-42.00	-358.4	-574.9	409.5	397.9	11.55	35.443		
3,100.0	3,079.5	3,054.5	3,054.5	7.9	5.3	-43.22	-358.4	-574.9	400.0	388.0	12.01	33.309		
3,200.0	3,178.7	3,153.7	3,153.7	8.2	5.5	-44.50	-358.4	-574.9	390.8	378.3	12.47	31.328		
3,300.0	3,277.9	3,252.9	3,252.9	8.5	5.7	-45.83	-358.4	-574.9	381.8	368.8	12.95	29.489		
3,400.0	3,377.1	3,352.1	3,352.1	8.8	5.9	-47.23	-358.4	-574.9	373.0	359.5	13.43	27.780		
3,500.0	3,476.3	3,451.3	3,451.3	9.1	6.0	-48.70	-358.4	-574.9	364.4	350.5	13.91	26.192		
3,600.0	3,575.4	3,550.4	3,550.4	9.4	6.2	-50.23	-358.4	-574.9	356.0	341.6	14.41	24.714		
3,700.0	3,674.6	3,649.6	3,649.6	9.6	6.4	-51.84	-358.4	-574.9	348.0	333.1	14.91	23.341		
3,800.0	3,773.8	3,748.8	3,748.8	9.9	6.5	-53.52	-358.4	-574.9	340.2	324.8	15.42	22.065		
3,900.0	3,873.0	3,848.0	3,848.0	10.2	6.7	-55.28	-358.4	-574.9	332.7	316.8	15.93	20.881		
4,000.0	3,972.2	3,947.2	3,947.2	10.5	6.9	-57.11	-358.4	-574.9	325.6	309.1	16.46	19.783		
4,100.0	4,071.4	4,046.4	4,046.4	10.8	7.1	-59.03	-358.4	-574.9	318.8	301.8	16.99	18.766		
4,200.0	4,170.5	4,145.5	4,145.5	11.1	7.2	-61.02	-358.4	-574.9	312.4	294.9	17.52	17.827		
4,300.0	4,269.7	4,244.7	4,244.7	11.3	7.4	-63.09	-358.4	-574.9	306.4	288.3	18.06	16.962		
4,400.0	4,368.9	4,343.9	4,343.9	11.6	7.6	-65.25	-358.4	-574.9	300.8	282.2	18.61	16.166		
4,500.0	4,468.1	4,443.1	4,443.1	11.9	7.8	-67.48	-358.4	-574.9	295.6	276.5	19.15	15.438		
4,600.0	4,567.3	4,542.3	4,542.3	12.2	7.9	-69.78	-358.4	-574.9	290.9	271.3	19.69	14.774		
4,700.0	4,666.5	4,641.5	4,641.5	12.5	8.1	-72.16	-358.4	-574.9	286.8	266.5	20.23	14.172		
4,800.0	4,765.6	4,740.6	4,740.6	12.8	8.3	-74.60	-358.4	-574.9	283.1	262.3	20.77	13.628		
4,900.0	4,864.8	4,839.8	4,839.8	13.0	8.4	-77.10	-358.4	-574.9	279.9	258.6	21.30	13.141		
5,000.0	4,964.0	4,939.0	4,939.0	13.3	8.6	-79.65	-358.4	-574.9	277.3	255.5	21.82	12.708		
5,064.1	5,027.5	5,000.0	5,000.0	13.5	8.7	-81.24	-358.4	-574.9	276.0	253.8	22.15	12.462	CC, ES, SF	

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

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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 (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	5,063.2	5,000.0	5,000.0	13.6	8.7	-81.24	-358.4	-574.9	278.0	255.7	22.25	12.494		
5,200.0	5,162.4	5,000.0	5,000.0	13.9	8.7	-81.24	-358.4	-574.9	306.4	283.9	22.53	13.600		
5,300.0	5,261.5	5,000.0	5,000.0	14.2	8.7	-81.24	-358.4	-574.9	361.2	338.4	22.81	15.836		
5,400.0	5,360.7	5,000.0	5,000.0	14.5	8.7	-81.24	-358.4	-574.9	432.6	409.5	23.09	18.731		
5,500.0	5,459.9	5,000.0	5,000.0	14.7	8.7	-81.24	-358.4	-574.9	513.5	490.2	23.38	21.970		
5,600.0	5,559.1	5,000.0	5,000.0	15.0	8.7	-81.24	-358.4	-574.9	600.3	576.6	23.66	25.374		
5,700.0	5,658.3	5,000.0	5,000.0	15.3	8.7	-81.24	-358.4	-574.9	690.6	666.7	23.94	28.849		
5,800.0	5,757.5	5,000.0	5,000.0	15.6	8.7	-81.24	-358.4	-574.9	783.3	759.1	24.22	32.340		
5,900.0	5,856.6	5,000.0	5,000.0	15.9	8.7	-81.24	-358.4	-574.9	877.6	853.1	24.50	35.816		
6,000.0	5,955.8	5,000.0	5,000.0	16.2	8.7	-81.24	-358.4	-574.9	973.0	948.3	24.79	39.259		

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	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		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
13,600.0	7,362.0	7,486.5	7,334.4	114.1	24.2	95.88	7,097.1	-399.7	914.8	789.3	125.56	7.286	
13,700.0	7,362.0	7,482.8	7,330.6	115.9	24.2	95.43	7,097.2	-399.5	830.8	703.4	127.39	6.522	
13,800.0	7,362.0	7,479.1	7,327.0	117.6	24.2	94.99	7,097.3	-399.3	750.6	621.4	129.21	5.809	
13,844.7	7,362.0	7,477.5	7,325.4	118.4	24.2	94.79	7,097.4	-399.2	716.4	586.4	130.03	5.510	CC, ES, SF



# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S5-T2N-R67W (Vogl-McCoy) - SATER 24-8 (EXISTING) - KERR-MCGEE 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										
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)							
13,600.0	7,362.0	7,507.5	7,355.3	114.1	24.2	96.60	7,097.3	-400.0	915.2	789.8	125.40	7.298					
13,700.0	7,362.0	7,503.4	7,351.2	115.9	24.2	96.11	7,097.4	-399.7	831.1	703.9	127.25	6.532					
13,800.0	7,362.0	7,499.4	7,347.3	117.6	24.2	95.63	7,097.5	-399.5	751.0	621.9	129.08	5.818					
13,844.7	7,362.0	7,497.7	7,345.6	118.4	24.2	95.42	7,097.6	-399.4	716.8	586.9	129.90	5.518	CC, ES, SF				

# HP

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

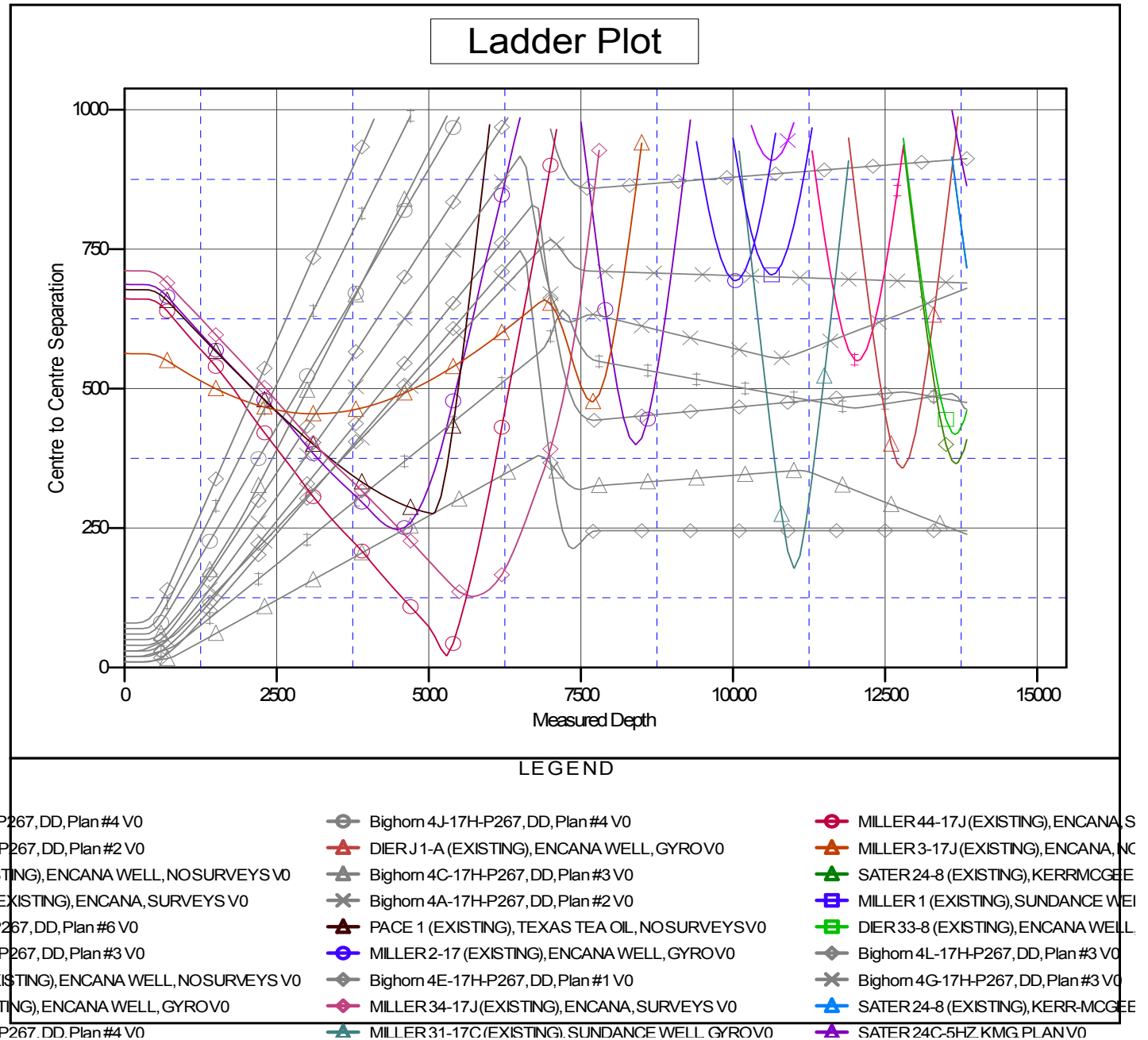
Offset Design													S9-T2N-R67W (Sprague) - SATER 24C-5HZ - KMG - PLAN		Offset Site Error:		0.0 ft
Survey Program:													17-Geolink MWD		Offset Well Error:		0.0 ft
Reference		Offset		Semi Major Axis			Distance										
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	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)							
13,600.0	7,362.0	7,175.8	7,098.9	114.1	19.5	73.22	6,942.2	-126.0	999.0	877.6	121.36	8.232					
13,700.0	7,362.0	7,205.9	7,127.0	115.9	19.5	75.23	6,953.0	-126.0	939.2	815.0	124.17	7.563					
13,800.0	7,362.0	7,211.9	7,132.5	117.6	19.5	75.63	6,955.3	-125.9	885.5	759.4	126.07	7.024					
13,844.7	7,362.0	7,217.0	7,137.2	118.4	19.5	75.97	6,957.3	-125.9	864.0	737.0	127.01	6.802	CC, ES, SF				

**HP**  
**Anticollision Report**

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Bighorn 4D-17H-P267
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Reference Site:</b>	S17-T2N-R67W (Big Horn)	<b>MD Reference:</b>	KB @ 4985.0ft (Unassigned)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bighorn 4D-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	USA EDM R5000 Multi Users DB
<b>Reference Design:</b>	Plan #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to KB @ 4985.0ft (Unassigned)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Bighorn 4D-17H-P267  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.38°



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