



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3B-18H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site:	S18-T3N-R68W (Billings)	North Reference:	True
Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

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

Site		S18-T3N-R68W (Billings)			
Site Position:		Northing:	1,326,724.18 ft	Latitude:	40.229390
From:	Lat/Long	Easting:	3,124,452.97 ft	Longitude:	-105.054290
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.29 °

Well	Billings 3B-18H					
Well Position	+N-S	0.0 ft	Northing:	1,324,267.90 ft	Latitude:	40.222640
	+E-W	0.0 ft	Easting:	3,124,987.50 ft	Longitude:	-105.052420
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,145.0 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/9/2013	8.79	66.81	52,839

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	90.00	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	12.00	310.50	1,491.2	81.3	-95.2	1.00	1.00	0.00	310.50	
4,965.0	12.00	310.50	4,880.5	549.2	-643.0	0.00	0.00	0.00	0.00	
6,165.0	0.00	0.00	6,071.8	630.5	-738.2	1.00	-1.00	0.00	180.00	
6,571.1	0.00	0.00	6,477.9	630.5	-738.2	0.00	0.00	0.00	0.00	
7,683.6	89.00	90.00	7,194.0	630.6	-34.5	8.00	8.00	0.00	90.00	
14,387.3	89.00	90.00	7,311.0	631.1	6,668.1	0.00	0.00	0.00	0.00	Billings 3B-18H PBHL

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Project:	DJ Wattenberg	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site:	S18-T3N-R68W (Billings)	North Reference:	True
Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
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	KOP @ 300'
400.0	1.00	310.50	400.0	0.6	-0.7	-0.7	1.00	1.00	
500.0	2.00	310.50	500.0	2.3	-2.7	-2.7	1.00	1.00	
600.0	3.00	310.50	599.9	5.1	-6.0	-6.0	1.00	1.00	
700.0	4.00	310.50	699.7	9.1	-10.6	-10.6	1.00	1.00	
800.0	5.00	310.50	799.4	14.2	-16.6	-16.6	1.00	1.00	
900.0	6.00	310.50	898.9	20.4	-23.9	-23.9	1.00	1.00	
1,000.0	7.00	310.50	998.3	27.7	-32.5	-32.5	1.00	1.00	
1,100.0	8.00	310.50	1,097.4	36.2	-42.4	-42.4	1.00	1.00	
1,200.0	9.00	310.50	1,196.3	45.8	-53.6	-53.6	1.00	1.00	
1,300.0	10.00	310.50	1,294.9	56.5	-66.2	-66.2	1.00	1.00	
1,400.0	11.00	310.50	1,393.3	68.4	-80.0	-80.0	1.00	1.00	
1,500.0	12.00	310.50	1,491.2	81.3	-95.2	-95.2	1.00	1.00	EOB; Inc=12°
1,600.0	12.00	310.50	1,589.1	94.8	-111.0	-111.0	0.00	0.00	
1,700.0	12.00	310.50	1,686.9	108.3	-126.8	-126.8	0.00	0.00	
1,800.0	12.00	310.50	1,784.7	121.8	-142.6	-142.6	0.00	0.00	
1,900.0	12.00	310.50	1,882.5	135.3	-158.4	-158.4	0.00	0.00	
2,000.0	12.00	310.50	1,980.3	148.8	-174.3	-174.3	0.00	0.00	
2,100.0	12.00	310.50	2,078.1	162.3	-190.1	-190.1	0.00	0.00	
2,200.0	12.00	310.50	2,175.9	175.8	-205.9	-205.9	0.00	0.00	
2,300.0	12.00	310.50	2,273.8	189.3	-221.7	-221.7	0.00	0.00	
2,400.0	12.00	310.50	2,371.6	202.8	-237.5	-237.5	0.00	0.00	
2,500.0	12.00	310.50	2,469.4	216.3	-253.3	-253.3	0.00	0.00	
2,600.0	12.00	310.50	2,567.2	229.8	-269.1	-269.1	0.00	0.00	
2,700.0	12.00	310.50	2,665.0	243.3	-284.9	-284.9	0.00	0.00	
2,800.0	12.00	310.50	2,762.8	256.9	-300.7	-300.7	0.00	0.00	
2,900.0	12.00	310.50	2,860.7	270.4	-316.5	-316.5	0.00	0.00	
3,000.0	12.00	310.50	2,958.5	283.9	-332.4	-332.4	0.00	0.00	
3,100.0	12.00	310.50	3,056.3	297.4	-348.2	-348.2	0.00	0.00	
3,200.0	12.00	310.50	3,154.1	310.9	-364.0	-364.0	0.00	0.00	
3,300.0	12.00	310.50	3,251.9	324.4	-379.8	-379.8	0.00	0.00	
3,400.0	12.00	310.50	3,349.7	337.9	-395.6	-395.6	0.00	0.00	
3,500.0	12.00	310.50	3,447.5	351.4	-411.4	-411.4	0.00	0.00	
3,600.0	12.00	310.50	3,545.4	364.9	-427.2	-427.2	0.00	0.00	
3,700.0	12.00	310.50	3,643.2	378.4	-443.0	-443.0	0.00	0.00	
3,800.0	12.00	310.50	3,741.0	391.9	-458.8	-458.8	0.00	0.00	
3,900.0	12.00	310.50	3,838.8	405.4	-474.6	-474.6	0.00	0.00	
3,932.5	12.00	310.50	3,870.6	409.8	-479.8	-479.8	0.00	0.00	Sussex
4,000.0	12.00	310.50	3,936.6	418.9	-490.4	-490.4	0.00	0.00	
4,100.0	12.00	310.50	4,034.4	432.4	-506.3	-506.3	0.00	0.00	
4,153.8	12.00	310.50	4,087.0	439.6	-514.8	-514.8	0.00	0.00	Sussex Marker
4,200.0	12.00	310.50	4,132.2	445.9	-522.1	-522.1	0.00	0.00	
4,300.0	12.00	310.50	4,230.1	459.4	-537.9	-537.9	0.00	0.00	
4,394.4	12.00	310.50	4,322.4	472.1	-552.8	-552.8	0.00	0.00	Shannon
4,400.0	12.00	310.50	4,327.9	472.9	-553.7	-553.7	0.00	0.00	
4,500.0	12.00	310.50	4,425.7	486.4	-569.5	-569.5	0.00	0.00	
4,600.0	12.00	310.50	4,523.5	499.9	-585.3	-585.3	0.00	0.00	
4,700.0	12.00	310.50	4,621.3	513.4	-601.1	-601.1	0.00	0.00	
4,800.0	12.00	310.50	4,719.1	526.9	-616.9	-616.9	0.00	0.00	

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Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,900.0	12.00	310.50	4,816.9	540.4	-632.7	-632.7	0.00	0.00	
4,965.0	12.00	310.50	4,880.5	549.2	-643.0	-643.0	0.00	0.00	Start Drop -1.00
5,000.0	11.65	310.50	4,914.8	553.8	-648.5	-648.5	1.00	-1.00	
5,100.0	10.65	310.50	5,012.9	566.4	-663.2	-663.2	1.00	-1.00	
5,200.0	9.65	310.50	5,111.3	577.8	-676.6	-676.6	1.00	-1.00	
5,300.0	8.65	310.50	5,210.1	588.2	-688.7	-688.7	1.00	-1.00	
5,400.0	7.65	310.50	5,309.0	597.4	-699.4	-699.4	1.00	-1.00	
5,500.0	6.65	310.50	5,408.3	605.5	-708.9	-708.9	1.00	-1.00	
5,600.0	5.65	310.50	5,507.7	612.4	-717.1	-717.1	1.00	-1.00	
5,700.0	4.65	310.50	5,607.3	618.3	-723.9	-723.9	1.00	-1.00	
5,800.0	3.65	310.50	5,707.0	623.0	-729.4	-729.4	1.00	-1.00	
5,900.0	2.65	310.50	5,806.9	626.5	-733.6	-733.6	1.00	-1.00	
6,000.0	1.65	310.50	5,906.8	629.0	-736.4	-736.4	1.00	-1.00	
6,100.0	0.65	310.50	6,006.8	630.3	-737.9	-737.9	1.00	-1.00	
6,152.3	0.13	310.50	6,059.1	630.5	-738.2	-738.2	1.00	-1.00	Teepee Buttes
6,165.0	0.00	0.00	6,071.8	630.5	-738.2	-738.2	1.00	-1.00	EOD; Inc=0°
6,200.0	0.00	0.00	6,106.8	630.5	-738.2	-738.2	0.00	0.00	
6,300.0	0.00	0.00	6,206.8	630.5	-738.2	-738.2	0.00	0.00	
6,400.0	0.00	0.00	6,306.8	630.5	-738.2	-738.2	0.00	0.00	
6,500.0	0.00	0.00	6,406.8	630.5	-738.2	-738.2	0.00	0.00	
6,571.1	0.00	0.00	6,477.9	630.5	-738.2	-738.2	0.00	0.00	Start Build 8.00
6,600.0	2.31	90.00	6,506.8	630.5	-737.6	-737.6	8.00	8.00	
6,700.0	10.31	90.00	6,606.1	630.5	-726.7	-726.7	8.00	8.00	
6,800.0	18.31	90.00	6,702.9	630.5	-702.0	-702.0	8.00	8.00	
6,900.0	26.31	90.00	6,795.3	630.5	-664.0	-664.0	8.00	8.00	
6,935.4	29.14	90.00	6,826.7	630.5	-647.6	-647.6	8.00	8.00	Sharon Springs
7,000.0	34.31	90.00	6,881.6	630.5	-613.6	-613.6	8.00	8.00	
7,018.2	35.76	90.00	6,896.5	630.5	-603.2	-603.2	8.00	8.00	Niobrara
7,100.0	42.31	90.00	6,960.0	630.5	-551.7	-551.7	8.00	8.00	
7,106.0	42.79	90.00	6,964.4	630.5	-547.6	-547.6	8.00	8.00	B Chalk
7,200.0	50.31	90.00	7,029.0	630.5	-479.4	-479.4	8.00	8.00	
7,300.0	58.31	90.00	7,087.3	630.5	-398.3	-398.3	8.00	8.00	
7,400.0	66.31	90.00	7,133.8	630.5	-309.8	-309.8	8.00	8.00	
7,491.6	73.63	90.00	7,165.1	630.5	-223.8	-223.8	8.00	8.00	Ft. Hayes
7,500.0	74.31	90.00	7,167.4	630.5	-215.7	-215.7	8.00	8.00	
7,594.0	81.83	90.00	7,186.8	630.6	-123.9	-123.9	8.00	8.00	Codell
7,600.0	82.31	90.00	7,187.7	630.6	-117.9	-117.9	8.00	8.00	
7,683.6	89.00	90.00	7,194.0	630.6	-34.5	-34.5	8.00	8.00	LP @ 7194' TVD; 89°
7,700.0	89.00	90.00	7,194.3	630.6	-18.2	-18.2	0.00	0.00	
7,800.0	89.00	90.00	7,196.0	630.6	81.8	81.8	0.00	0.00	
7,900.0	89.00	90.00	7,197.8	630.6	181.8	181.8	0.00	0.00	
8,000.0	89.00	90.00	7,199.5	630.6	281.8	281.8	0.00	0.00	
8,100.0	89.00	90.00	7,201.3	630.6	381.8	381.8	0.00	0.00	
8,200.0	89.00	90.00	7,203.0	630.6	481.8	481.8	0.00	0.00	
8,300.0	89.00	90.00	7,204.8	630.6	581.7	581.7	0.00	0.00	
8,400.0	89.00	90.00	7,206.5	630.6	681.7	681.7	0.00	0.00	
8,500.0	89.00	90.00	7,208.3	630.6	781.7	781.7	0.00	0.00	
8,600.0	89.00	90.00	7,210.0	630.6	881.7	881.7	0.00	0.00	
8,700.0	89.00	90.00	7,211.7	630.6	981.7	981.7	0.00	0.00	
8,800.0	89.00	90.00	7,213.5	630.7	1,081.7	1,081.7	0.00	0.00	
8,900.0	89.00	90.00	7,215.2	630.7	1,181.6	1,181.6	0.00	0.00	
9,000.0	89.00	90.00	7,217.0	630.7	1,281.6	1,281.6	0.00	0.00	

Planning Report

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Project:	DJ Wattenberg	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site:	S18-T3N-R68W (Billings)	North Reference:	True
Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,100.0	89.00	90.00	7,218.7	630.7	1,381.6	1,381.6	0.00	0.00	
9,200.0	89.00	90.00	7,220.5	630.7	1,481.6	1,481.6	0.00	0.00	
9,300.0	89.00	90.00	7,222.2	630.7	1,581.6	1,581.6	0.00	0.00	
9,400.0	89.00	90.00	7,224.0	630.7	1,681.6	1,681.6	0.00	0.00	
9,500.0	89.00	90.00	7,225.7	630.7	1,781.6	1,781.6	0.00	0.00	
9,600.0	89.00	90.00	7,227.5	630.7	1,881.5	1,881.5	0.00	0.00	
9,700.0	89.00	90.00	7,229.2	630.7	1,981.5	1,981.5	0.00	0.00	
9,800.0	89.00	90.00	7,230.9	630.7	2,081.5	2,081.5	0.00	0.00	
9,900.0	89.00	90.00	7,232.7	630.7	2,181.5	2,181.5	0.00	0.00	
10,000.0	89.00	90.00	7,234.4	630.8	2,281.5	2,281.5	0.00	0.00	
10,100.0	89.00	90.00	7,236.2	630.8	2,381.5	2,381.5	0.00	0.00	
10,200.0	89.00	90.00	7,237.9	630.8	2,481.5	2,481.5	0.00	0.00	
10,300.0	89.00	90.00	7,239.7	630.8	2,581.4	2,581.4	0.00	0.00	
10,400.0	89.00	90.00	7,241.4	630.8	2,681.4	2,681.4	0.00	0.00	
10,500.0	89.00	90.00	7,243.2	630.8	2,781.4	2,781.4	0.00	0.00	
10,600.0	89.00	90.00	7,244.9	630.8	2,881.4	2,881.4	0.00	0.00	
10,700.0	89.00	90.00	7,246.6	630.8	2,981.4	2,981.4	0.00	0.00	
10,800.0	89.00	90.00	7,248.4	630.8	3,081.4	3,081.4	0.00	0.00	
10,900.0	89.00	90.00	7,250.1	630.8	3,181.3	3,181.3	0.00	0.00	
11,000.0	89.00	90.00	7,251.9	630.8	3,281.3	3,281.3	0.00	0.00	
11,100.0	89.00	90.00	7,253.6	630.8	3,381.3	3,381.3	0.00	0.00	
11,200.0	89.00	90.00	7,255.4	630.9	3,481.3	3,481.3	0.00	0.00	
11,300.0	89.00	90.00	7,257.1	630.9	3,581.3	3,581.3	0.00	0.00	
11,400.0	89.00	90.00	7,258.9	630.9	3,681.3	3,681.3	0.00	0.00	
11,500.0	89.00	90.00	7,260.6	630.9	3,781.3	3,781.3	0.00	0.00	
11,600.0	89.00	90.00	7,262.4	630.9	3,881.2	3,881.2	0.00	0.00	
11,700.0	89.00	90.00	7,264.1	630.9	3,981.2	3,981.2	0.00	0.00	
11,800.0	89.00	90.00	7,265.8	630.9	4,081.2	4,081.2	0.00	0.00	
11,900.0	89.00	90.00	7,267.6	630.9	4,181.2	4,181.2	0.00	0.00	
12,000.0	89.00	90.00	7,269.3	630.9	4,281.2	4,281.2	0.00	0.00	
12,100.0	89.00	90.00	7,271.1	630.9	4,381.2	4,381.2	0.00	0.00	
12,200.0	89.00	90.00	7,272.8	630.9	4,481.1	4,481.1	0.00	0.00	
12,300.0	89.00	90.00	7,274.6	630.9	4,581.1	4,581.1	0.00	0.00	
12,400.0	89.00	90.00	7,276.3	631.0	4,681.1	4,681.1	0.00	0.00	
12,500.0	89.00	90.00	7,278.1	631.0	4,781.1	4,781.1	0.00	0.00	
12,600.0	89.00	90.00	7,279.8	631.0	4,881.1	4,881.1	0.00	0.00	
12,700.0	89.00	90.00	7,281.6	631.0	4,981.1	4,981.1	0.00	0.00	
12,800.0	89.00	90.00	7,283.3	631.0	5,081.1	5,081.1	0.00	0.00	
12,900.0	89.00	90.00	7,285.0	631.0	5,181.0	5,181.0	0.00	0.00	
13,000.0	89.00	90.00	7,286.8	631.0	5,281.0	5,281.0	0.00	0.00	
13,100.0	89.00	90.00	7,288.5	631.0	5,381.0	5,381.0	0.00	0.00	
13,200.0	89.00	90.00	7,290.3	631.0	5,481.0	5,481.0	0.00	0.00	
13,300.0	89.00	90.00	7,292.0	631.0	5,581.0	5,581.0	0.00	0.00	
13,400.0	89.00	90.00	7,293.8	631.0	5,681.0	5,681.0	0.00	0.00	
13,500.0	89.00	90.00	7,295.5	631.0	5,780.9	5,780.9	0.00	0.00	
13,600.0	89.00	90.00	7,297.3	631.1	5,880.9	5,880.9	0.00	0.00	
13,700.0	89.00	90.00	7,299.0	631.1	5,980.9	5,980.9	0.00	0.00	
13,800.0	89.00	90.00	7,300.8	631.1	6,080.9	6,080.9	0.00	0.00	
13,900.0	89.00	90.00	7,302.5	631.1	6,180.9	6,180.9	0.00	0.00	
14,000.0	89.00	90.00	7,304.2	631.1	6,280.9	6,280.9	0.00	0.00	
14,100.0	89.00	90.00	7,306.0	631.1	6,380.9	6,380.9	0.00	0.00	
14,200.0	89.00	90.00	7,307.7	631.1	6,480.8	6,480.8	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3B-18H
Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site:	S18-T3N-R68W (Billings)	North Reference:	True
Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Hz		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,300.0	89.00	90.00	7,309.5	631.1	6,580.8	6,580.8	0.00	0.00	
14,387.3	89.00	90.00	7,311.0	631.1	6,668.1	6,668.1	0.00	0.00	TD at 14387.3 - Billings 3B-18H PBHL

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Billings 3B-18H PBHL	0.00	0.00	7,311.0	631.1	6,668.1	1,324,932.67	3,131,652.30	40.224370	-105.028540
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,932.5	3,879.0	Sussex		1.00	90.00
4,153.8	4,096.0	Sussex Marker		1.00	90.00
4,394.4	4,332.0	Shannon		1.00	90.00
6,152.3	6,072.0	Teepee Buttes		1.00	90.00
6,935.4	6,838.0	Sharon Springs		1.00	90.00
7,018.2	6,907.0	Niobrara		1.00	90.00
7,106.0	6,974.0	B Chalk		1.00	90.00
7,491.6	7,169.0	Ft. Hayes		1.00	90.00
7,594.0	7,189.0	Codell		1.00	90.00

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300'
1,500.0	1,491.2	81.3	-95.2	EOB; Inc=12°
4,965.0	4,880.5	549.2	-643.0	Start Drop -1.00
6,165.0	6,071.8	630.5	-738.2	EOD; Inc=0°
6,571.1	6,477.9	630.5	-738.2	Start Build 8.00
7,683.6	7,194.0	630.6	-34.5	LP @ 7194' TVD; 89°
14,387.3	7,311.0	631.1	6,668.1	TD at 14387.3

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S18-T3N-R68W (Billings)

Billings 3B-18H

Hz

Plan #1

Anticollision Report

09 January, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 500.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	1/9/2013		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	14,387.3	Plan #1 (Hz)	MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
S18-T3N-R68W (Billings)						
Billings 2A-18H - Hz - Plan #1						Out of range
Billings 2B-18H - HZ - Plan #1						Out of range
Billings 2C-18H - HZ - Plan #1						Out of range
Billings 2D-18H - Hz - Plan #1						Out of range
Billings 2E-18H - HZ - Plan #1						Out of range
Billings 2F-18H - HZ - Plan #1						Out of range
Billings 2G-18H - Hz - Plan #1						Out of range
Billings 2H-18H - Hz - Plan #1						Out of range
Billings 3A-18H - Hz - Plan #1	166.3	167.3	10.9	10.4	20.352	CC
Billings 3A-18H - Hz - Plan #1	200.0	201.0	10.9	10.3	16.698	ES
Billings 3A-18H - Hz - Plan #1	14,387.3	14,244.7	398.3	93.8	1.308	Level 3, SF
Billings 3C-18H - Hz - Plan #1	300.0	300.0	10.9	9.9	10.909	CC
Billings 3C-18H - Hz - Plan #1	14,387.3	14,380.2	350.2	4.7	1.014	Level 2, ES, SF
Billings 3D-18H - Hz - Plan #1	300.0	300.0	21.9	20.9	21.822	CC, ES
Billings 3D-18H - Hz - Plan #1	700.0	699.9	32.0	29.6	13.248	SF
Billings 3E-18H - Hz - Plan #1	300.0	300.0	29.1	28.1	29.090	CC, ES
Billings 3E-18H - Hz - Plan #1	700.0	699.0	42.0	39.6	17.320	SF
Billings 3F-18H - Hz - Plan #1	300.0	300.0	40.1	39.1	39.999	CC, ES
Billings 3F-18H - Hz - Plan #1	600.0	597.7	50.0	47.9	24.256	SF
Billings 3G-18H - Hz - Plan #1	300.0	301.0	51.0	50.0	50.819	CC, ES
Billings 3G-18H - Hz - Plan #1	600.0	594.1	69.3	67.3	33.528	SF
Billings 3H-18H - Hz - Plan #1	200.0	200.0	61.9	61.3	94.873	CC, ES
Billings 3H-18H - Hz - Plan #1	600.0	589.9	90.9	88.8	43.871	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3A-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	1.0	1.0	0.0	0.0	0.00	10.9	0.0	10.9					
100.0	100.0	101.0	101.0	0.2	0.2	0.00	10.9	0.0	10.9	10.6	0.31	35.781		
166.3	166.3	167.3	167.3	0.3	0.3	0.00	10.9	0.0	10.9	10.4	0.54	20.352 CC		
200.0	200.0	201.0	201.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.65	16.698 ES		
300.0	300.0	300.8	300.8	0.5	0.5	-2.64	11.6	-0.5	11.6	10.6	1.00	11.599		
400.0	400.0	400.6	400.6	0.7	0.7	43.14	13.7	-2.1	13.2	11.9	1.35	9.782		
500.0	500.0	500.4	500.3	0.9	0.9	41.41	17.2	-4.8	15.1	13.4	1.71	8.840		
600.0	599.9	600.1	599.8	1.0	1.1	41.08	22.0	-8.5	17.2	15.1	2.07	8.304		
700.0	699.7	699.8	699.2	1.2	1.3	41.73	28.3	-13.2	19.4	17.0	2.44	7.982		
800.0	799.4	799.5	798.4	1.4	1.5	43.03	35.9	-19.0	21.9	19.1	2.82	7.780		
900.0	898.9	899.1	897.4	1.7	1.8	44.74	44.8	-25.8	24.7	21.4	3.22	7.649		
1,000.0	998.3	998.7	996.1	1.9	2.0	46.69	55.2	-33.6	27.6	24.0	3.66	7.555		
1,100.0	1,097.4	1,098.2	1,094.5	2.2	2.3	48.78	66.9	-42.5	30.9	26.8	4.13	7.481		
1,200.0	1,196.3	1,197.7	1,192.7	2.5	2.7	50.90	79.9	-52.4	34.4	29.8	4.64	7.413		
1,300.0	1,294.9	1,297.1	1,290.4	2.8	3.0	53.00	94.3	-63.4	38.3	33.0	5.21	7.344		
1,400.0	1,393.3	1,396.5	1,387.8	3.1	3.4	55.05	110.0	-75.3	42.4	36.6	5.83	7.273		
1,500.0	1,491.2	1,495.8	1,484.8	3.5	3.8	57.01	127.1	-88.3	46.9	40.4	6.51	7.199		
1,600.0	1,589.1	1,595.1	1,581.4	3.9	4.2	58.10	145.5	-102.3	52.1	44.9	7.21	7.234		
1,700.0	1,686.9	1,694.2	1,677.3	4.3	4.7	57.75	165.1	-117.3	58.6	50.7	7.87	7.444		
1,800.0	1,784.7	1,793.9	1,773.7	4.7	5.1	56.87	185.7	-132.9	65.7	57.2	8.51	7.725		
1,900.0	1,882.5	1,893.7	1,870.0	5.1	5.6	56.17	206.2	-148.5	72.9	63.7	9.15	7.965		
2,000.0	1,980.3	1,993.4	1,966.3	5.5	6.1	55.59	226.8	-164.1	80.0	70.2	9.79	8.173		
2,100.0	2,078.1	2,093.1	2,062.7	5.9	6.5	55.10	247.3	-179.8	87.2	76.8	10.44	8.354		
2,200.0	2,175.9	2,192.9	2,159.0	6.3	7.0	54.69	267.9	-195.4	94.4	83.3	11.08	8.514		
2,300.0	2,273.8	2,292.6	2,255.4	6.6	7.5	54.34	288.4	-211.0	101.5	89.8	11.73	8.655		
2,400.0	2,371.6	2,392.4	2,351.7	7.0	8.0	54.03	309.0	-226.6	108.7	96.3	12.38	8.781		
2,500.0	2,469.4	2,492.1	2,448.0	7.4	8.5	53.76	329.5	-242.3	115.9	102.9	13.03	8.893		
2,600.0	2,567.2	2,591.9	2,544.4	7.8	8.9	53.52	350.1	-257.9	123.1	109.4	13.68	8.995		
2,700.0	2,665.0	2,691.6	2,640.7	8.3	9.4	53.31	370.6	-273.5	130.3	115.9	14.33	9.087		
2,800.0	2,762.8	2,791.3	2,737.1	8.7	9.9	53.12	391.2	-289.1	137.4	122.5	14.99	9.171		
2,900.0	2,860.7	2,891.1	2,833.4	9.1	10.4	52.95	411.7	-304.8	144.6	129.0	15.64	9.248		
3,000.0	2,958.5	2,990.8	2,929.8	9.5	10.9	52.80	432.3	-320.4	151.8	135.5	16.29	9.318		
3,100.0	3,056.3	3,090.6	3,026.1	9.9	11.4	52.66	452.8	-336.0	159.0	142.1	16.95	9.383		
3,200.0	3,154.1	3,190.3	3,122.4	10.3	11.8	52.53	473.4	-351.6	166.2	148.6	17.60	9.442		
3,300.0	3,251.9	3,290.0	3,218.8	10.7	12.3	52.41	493.9	-367.3	173.4	155.1	18.26	9.498		
3,400.0	3,349.7	3,389.8	3,315.1	11.1	12.8	52.30	514.5	-382.9	180.6	161.7	18.91	9.549		
3,500.0	3,447.5	3,489.5	3,411.5	11.5	13.3	52.20	535.0	-398.5	187.8	168.2	19.57	9.597		
3,600.0	3,545.4	3,589.3	3,507.8	11.9	13.8	52.11	555.6	-414.1	195.0	174.8	20.22	9.642		
3,700.0	3,643.2	3,689.0	3,604.1	12.3	14.3	52.03	576.1	-429.8	202.2	181.3	20.88	9.683		
3,800.0	3,741.0	3,788.7	3,700.5	12.7	14.8	51.95	596.7	-445.4	209.4	187.8	21.53	9.722		
3,900.0	3,838.8	3,888.5	3,796.8	13.1	15.2	51.87	617.2	-461.0	216.6	194.4	22.19	9.759		
4,000.0	3,936.6	3,988.2	3,893.2	13.5	15.7	51.80	637.8	-476.6	223.8	200.9	22.85	9.794		
4,100.0	4,034.4	4,088.0	3,989.5	13.9	16.2	51.74	658.3	-492.3	231.0	207.5	23.50	9.826		
4,200.0	4,132.2	4,187.7	4,085.9	14.3	16.7	51.67	678.8	-507.9	238.2	214.0	24.16	9.857		
4,300.0	4,230.1	4,287.4	4,182.2	14.7	17.2	51.62	699.4	-523.5	245.3	220.5	24.82	9.886		
4,400.0	4,327.9	4,387.2	4,278.5	15.1	17.7	51.56	719.9	-539.1	252.5	227.1	25.47	9.914		
4,500.0	4,425.7	4,486.9	4,374.9	15.5	18.2	51.51	740.5	-554.8	259.7	233.6	26.13	9.940		
4,600.0	4,523.5	4,586.7	4,471.2	15.9	18.6	51.46	761.0	-570.4	266.9	240.2	26.79	9.965		
4,700.0	4,621.3	4,686.4	4,567.6	16.3	19.1	51.42	781.6	-586.0	274.1	246.7	27.45	9.988		
4,800.0	4,719.1	4,786.1	4,663.9	16.7	19.6	51.37	802.1	-601.7	281.3	253.2	28.10	10.011		
4,900.0	4,816.9	4,885.9	4,760.2	17.1	20.1	51.33	822.7	-617.3	288.5	259.8	28.76	10.032		
5,000.0	4,914.8	4,989.2	4,860.2	17.5	20.6	51.38	843.4	-633.1	295.3	265.8	29.44	10.030		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3A-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-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	5,012.9	5,093.2	4,961.3	17.9	21.0	51.46	862.9	-647.8	301.5	271.4	30.09	10.020		
5,200.0	5,111.3	5,197.3	5,062.9	18.3	21.5	51.50	880.9	-661.5	307.4	276.7	30.69	10.017		
5,300.0	5,210.1	5,301.5	5,165.0	18.6	21.9	51.50	897.4	-674.1	313.0	281.8	31.24	10.020		
5,400.0	5,309.0	5,405.8	5,267.5	18.9	22.2	51.46	912.5	-685.6	318.3	286.5	31.73	10.030		
5,500.0	5,408.3	5,510.2	5,370.5	19.1	22.6	51.38	926.1	-695.9	323.2	291.1	32.18	10.046		
5,600.0	5,507.7	5,614.6	5,473.9	19.4	22.9	51.26	938.2	-705.1	327.9	295.3	32.57	10.066		
5,700.0	5,607.3	5,719.2	5,577.6	19.6	23.1	51.11	948.8	-713.2	332.2	299.3	32.91	10.092		
5,800.0	5,707.0	5,823.9	5,681.7	19.8	23.4	50.91	958.0	-720.1	336.2	303.0	33.21	10.123		
5,900.0	5,806.9	5,928.7	5,786.0	19.9	23.6	50.69	965.6	-725.9	339.8	306.4	33.45	10.159		
6,000.0	5,906.8	6,033.5	5,890.5	20.0	23.8	50.42	971.7	-730.6	343.2	309.5	33.65	10.199		
6,100.0	6,006.8	6,138.4	5,995.3	20.2	23.9	50.13	976.2	-734.0	346.2	312.4	33.80	10.243		
6,200.0	6,106.8	6,243.4	6,100.2	20.2	24.1	0.30	979.3	-736.4	348.9	313.3	35.60	9.800		
6,300.0	6,206.8	6,348.5	6,205.3	20.3	24.2	0.11	980.8	-737.5	350.3	314.4	35.90	9.758		
6,400.0	6,306.8	6,450.9	6,307.8	20.4	24.2	0.13	981.0	-737.4	350.5	314.4	36.12	9.705		
6,500.0	6,406.8	6,550.0	6,406.3	20.5	24.2	1.69	981.0	-727.9	350.7	314.9	35.79	9.797		
6,600.0	6,506.8	6,644.5	6,498.1	20.6	24.0	-84.82	981.0	-706.2	352.0	316.0	36.06	9.763		
6,700.0	6,606.1	6,735.6	6,583.3	20.6	23.8	-80.92	981.0	-674.1	355.2	318.4	36.86	9.636		
6,800.0	6,702.9	6,824.2	6,661.6	20.3	23.5	-77.29	981.0	-632.7	359.8	322.7	37.05	9.710		
6,900.0	6,795.3	6,910.6	6,732.5	20.0	23.1	-73.97	981.0	-583.3	365.3	328.7	36.59	9.983		
7,000.0	6,881.6	6,995.3	6,795.7	19.6	22.8	-71.01	981.0	-527.0	371.4	335.8	35.53	10.451		
7,100.0	6,960.0	7,078.4	6,850.8	19.1	22.4	-68.44	981.0	-464.8	377.5	343.5	33.99	11.106		
7,200.0	7,029.0	7,160.4	6,897.7	18.5	22.1	-66.28	981.0	-397.7	383.4	351.3	32.17	11.920		
7,300.0	7,087.3	7,241.3	6,936.2	18.1	21.8	-64.51	981.0	-326.6	388.7	358.4	30.33	12.815		
7,400.0	7,133.8	7,321.4	6,966.3	17.7	21.6	-63.16	981.0	-252.4	393.1	364.2	28.83	13.633		
7,500.0	7,167.4	7,400.0	6,987.5	17.4	21.5	-62.20	981.0	-176.7	396.3	368.3	28.03	14.140		
7,600.0	7,187.7	7,480.1	7,000.4	17.3	21.5	-61.63	981.0	-97.7	398.3	370.1	28.23	14.111		
7,700.0	7,194.3	7,563.1	7,004.7	17.5	21.6	-61.46	981.0	-14.8	398.9	369.3	29.57	13.488		
7,800.0	7,196.0	7,663.1	7,006.5	18.4	22.1	-61.46	981.0	85.2	398.9	367.2	31.70	12.583		
7,900.0	7,197.8	7,763.1	7,008.2	19.7	22.8	-61.46	981.0	185.1	398.9	364.6	34.23	11.652		
8,000.0	7,199.5	7,863.1	7,010.0	21.4	23.9	-61.46	981.0	285.1	398.9	361.8	37.10	10.751		
8,100.0	7,201.3	7,963.1	7,011.7	23.2	25.4	-61.46	981.0	385.1	398.9	358.6	40.24	9.912		
8,200.0	7,203.0	8,063.1	7,013.5	25.1	27.0	-61.46	981.0	485.1	398.9	355.3	43.59	9.151		
8,300.0	7,204.8	8,163.1	7,015.2	27.1	28.8	-61.46	981.0	585.1	398.8	351.7	47.10	8.468		
8,400.0	7,206.5	8,263.1	7,017.0	29.1	30.7	-61.46	981.0	685.1	398.8	348.1	50.74	7.860		
8,500.0	7,208.3	8,363.1	7,018.7	31.3	32.7	-61.45	981.0	785.0	398.8	344.3	54.48	7.320		
8,600.0	7,210.0	8,463.1	7,020.4	33.4	34.8	-61.45	981.0	885.0	398.8	340.5	58.31	6.839		
8,700.0	7,211.7	8,563.1	7,022.2	35.6	36.9	-61.45	981.0	985.0	398.8	336.6	62.21	6.410		
8,800.0	7,213.5	8,663.1	7,023.9	37.9	39.1	-61.45	981.0	1,085.0	398.8	332.6	66.17	6.027		
8,900.0	7,215.2	8,763.1	7,025.7	40.1	41.3	-61.45	981.0	1,185.0	398.8	328.6	70.17	5.683		
9,000.0	7,217.0	8,863.1	7,027.4	42.4	43.5	-61.45	981.0	1,285.0	398.8	324.6	74.21	5.374		
9,100.0	7,218.7	8,963.1	7,029.2	44.7	45.8	-61.45	981.0	1,385.0	398.8	320.5	78.28	5.094		
9,200.0	7,220.5	9,063.1	7,030.9	47.0	48.0	-61.45	981.0	1,484.9	398.8	316.4	82.38	4.840		
9,300.0	7,222.2	9,163.1	7,032.7	49.4	50.3	-61.45	980.9	1,584.9	398.7	312.2	86.51	4.609		
9,400.0	7,224.0	9,263.1	7,034.4	51.7	52.7	-61.45	980.9	1,684.9	398.7	308.1	90.66	4.398		
9,500.0	7,225.7	9,363.1	7,036.2	54.1	55.0	-61.45	980.9	1,784.9	398.7	303.9	94.82	4.205		
9,600.0	7,227.5	9,463.1	7,037.9	56.4	57.3	-61.45	980.9	1,884.9	398.7	299.7	99.00	4.027		
9,700.0	7,229.2	9,563.1	7,039.6	58.8	59.7	-61.45	980.9	1,984.9	398.7	295.5	103.20	3.864		
9,800.0	7,230.9	9,663.1	7,041.4	61.2	62.0	-61.44	980.9	2,084.8	398.7	291.3	107.40	3.712		
9,900.0	7,232.7	9,763.1	7,043.1	63.6	64.4	-61.44	980.9	2,184.8	398.7	287.1	111.62	3.572		
10,000.0	7,234.4	9,863.1	7,044.9	66.0	66.8	-61.44	980.9	2,284.8	398.7	282.8	115.85	3.441		
10,100.0	7,236.2	9,963.1	7,046.6	68.4	69.1	-61.44	980.9	2,384.8	398.7	278.6	120.09	3.320		
10,200.0	7,237.9	10,063.1	7,048.4	70.8	71.5	-61.44	980.9	2,484.8	398.7	274.3	124.33	3.207		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3A-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-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	7,239.7	10,163.1	7,050.1	73.2	73.9	-61.44	980.9	2,584.8	398.7	270.1	128.58	3.100		
10,400.0	7,241.4	10,263.1	7,051.9	75.6	76.3	-61.44	980.9	2,684.8	398.6	265.8	132.84	3.001		
10,500.0	7,243.2	10,363.1	7,053.6	78.0	78.7	-61.44	980.9	2,784.7	398.6	261.5	137.10	2.908		
10,600.0	7,244.9	10,463.1	7,055.4	80.4	81.1	-61.44	980.9	2,884.7	398.6	257.3	141.37	2.820		
10,700.0	7,246.6	10,563.1	7,057.1	82.9	83.5	-61.44	980.9	2,984.7	398.6	253.0	145.64	2.737		
10,800.0	7,248.4	10,663.1	7,058.8	85.3	85.9	-61.44	980.9	3,084.7	398.6	248.7	149.92	2.659		
10,900.0	7,250.1	10,763.1	7,060.6	87.7	88.3	-61.44	980.9	3,184.7	398.6	244.4	154.20	2.585		
11,000.0	7,251.9	10,863.1	7,062.3	90.2	90.8	-61.44	980.9	3,284.7	398.6	240.1	158.48	2.515		
11,100.0	7,253.6	10,963.1	7,064.1	92.6	93.2	-61.44	980.9	3,384.6	398.6	235.8	162.77	2.449		
11,200.0	7,255.4	11,063.1	7,065.8	95.0	95.6	-61.43	980.9	3,484.6	398.6	231.5	167.06	2.386		
11,300.0	7,257.1	11,163.1	7,067.6	97.5	98.0	-61.43	980.9	3,584.6	398.6	227.2	171.36	2.326		
11,400.0	7,258.9	11,263.1	7,069.3	99.9	100.5	-61.43	980.9	3,684.6	398.6	222.9	175.65	2.269		
11,500.0	7,260.6	11,363.1	7,071.1	102.3	102.9	-61.43	980.9	3,784.6	398.5	218.6	179.95	2.215		
11,600.0	7,262.4	11,463.1	7,072.8	104.8	105.3	-61.43	980.9	3,884.6	398.5	214.3	184.25	2.163		
11,700.0	7,264.1	11,563.1	7,074.5	107.2	107.8	-61.43	980.9	3,984.6	398.5	210.0	188.56	2.114		
11,800.0	7,265.8	11,663.1	7,076.3	109.7	110.2	-61.43	980.9	4,084.5	398.5	205.7	192.86	2.066		
11,900.0	7,267.6	11,763.1	7,078.0	112.1	112.6	-61.43	980.9	4,184.5	398.5	201.3	197.17	2.021		
12,000.0	7,269.3	11,863.1	7,079.8	114.6	115.1	-61.43	980.9	4,284.5	398.5	197.0	201.48	1.978		
12,100.0	7,271.1	11,963.1	7,081.5	117.0	117.5	-61.43	980.9	4,384.5	398.5	192.7	205.79	1.936		
12,200.0	7,272.8	12,063.1	7,083.3	119.5	120.0	-61.43	980.9	4,484.5	398.5	188.4	210.10	1.897		
12,300.0	7,274.6	12,163.1	7,085.0	121.9	122.4	-61.43	980.9	4,584.5	398.5	184.1	214.41	1.858		
12,400.0	7,276.3	12,263.1	7,086.8	124.4	124.9	-61.43	980.9	4,684.4	398.5	179.7	218.73	1.822		
12,500.0	7,278.1	12,363.1	7,088.5	126.8	127.3	-61.43	980.9	4,784.4	398.4	175.4	223.04	1.786		
12,600.0	7,279.8	12,463.1	7,090.3	129.3	129.7	-61.42	980.9	4,884.4	398.4	171.1	227.36	1.752		
12,700.0	7,281.6	12,563.1	7,092.0	131.7	132.2	-61.42	980.9	4,984.4	398.4	166.8	231.68	1.720		
12,800.0	7,283.3	12,663.1	7,093.7	134.2	134.6	-61.42	980.9	5,084.4	398.4	162.4	236.00	1.688		
12,900.0	7,285.0	12,763.1	7,095.5	136.6	137.1	-61.42	980.9	5,184.4	398.4	158.1	240.32	1.658		
13,000.0	7,286.8	12,863.1	7,097.2	139.1	139.5	-61.42	980.9	5,284.4	398.4	153.8	244.64	1.629		
13,100.0	7,288.5	12,963.1	7,099.0	141.6	142.0	-61.42	980.9	5,384.3	398.4	149.4	248.96	1.600		
13,200.0	7,290.3	13,063.1	7,100.7	144.0	144.4	-61.42	980.9	5,484.3	398.4	145.1	253.28	1.573		
13,300.0	7,292.0	13,163.1	7,102.5	146.5	146.9	-61.42	980.9	5,584.3	398.4	140.8	257.60	1.546		
13,400.0	7,293.8	13,263.1	7,104.2	148.9	149.4	-61.42	980.9	5,684.3	398.4	136.4	261.93	1.521		
13,500.0	7,295.5	13,363.1	7,106.0	151.4	151.8	-61.42	980.9	5,784.3	398.4	132.1	266.25	1.496 Level 3		
13,600.0	7,297.3	13,463.1	7,107.7	153.8	154.3	-61.42	980.9	5,884.3	398.3	127.8	270.58	1.472 Level 3		
13,700.0	7,299.0	13,563.1	7,109.5	156.3	156.7	-61.42	980.8	5,984.3	398.3	123.4	274.90	1.449 Level 3		
13,800.0	7,300.8	13,663.1	7,111.2	158.8	159.2	-61.42	980.8	6,084.2	398.3	119.1	279.23	1.427 Level 3		
13,900.0	7,302.5	13,763.1	7,112.9	161.2	161.6	-61.41	980.8	6,184.2	398.3	114.8	283.56	1.405 Level 3		
14,000.0	7,304.2	13,863.1	7,114.7	163.7	164.1	-61.41	980.8	6,284.2	398.3	110.4	287.89	1.384 Level 3		
14,100.0	7,306.0	13,963.1	7,116.4	166.1	166.5	-61.41	980.8	6,384.2	398.3	106.1	292.21	1.363 Level 3		
14,200.0	7,307.7	14,063.1	7,118.2	168.6	169.0	-61.41	980.8	6,484.2	398.3	101.7	296.54	1.343 Level 3		
14,300.0	7,309.5	14,163.1	7,119.9	171.1	171.5	-61.41	980.8	6,584.2	398.3	97.4	300.87	1.324 Level 3		
14,361.5	7,310.5	14,224.6	7,121.0	172.6	173.0	-61.41	980.8	6,645.6	398.3	94.7	303.53	1.312 Level 3		
14,387.3	7,311.0	14,244.7	7,121.3	173.2	173.5	-61.41	980.8	6,665.7	398.3	93.8	304.53	1.308 Level 3, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3C-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-10.9	0.0	10.9	10.6	0.30	35.986		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-10.9	0.0	10.9	10.3	0.65	16.742		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-10.9	0.0	10.9	9.9	1.00	10.909 CC		
400.0	400.0	400.0	400.0	0.7	0.7	-133.80	-10.9	0.0	11.5	10.2	1.35	8.522		
500.0	500.0	500.1	500.1	0.9	0.9	-138.63	-10.6	-0.8	13.0	11.3	1.70	7.640		
600.0	599.9	600.2	600.1	1.0	1.0	-140.94	-9.6	-3.3	15.0	12.9	2.06	7.288		
700.0	699.7	700.3	700.2	1.2	1.2	-141.39	-8.0	-7.3	17.4	15.0	2.42	7.197		
800.0	799.4	800.4	800.1	1.4	1.4	-140.63	-5.8	-13.0	20.3	17.5	2.80	7.247		
900.0	898.9	900.6	899.9	1.7	1.6	-139.14	-2.9	-20.3	23.6	20.4	3.20	7.375		
1,000.0	998.3	1,000.7	999.6	1.9	1.8	-137.25	0.6	-29.3	27.4	23.7	3.63	7.543		
1,100.0	1,097.4	1,100.9	1,099.1	2.2	2.1	-135.19	4.8	-39.8	31.6	27.5	4.09	7.726		
1,200.0	1,196.3	1,201.0	1,198.4	2.5	2.3	-133.10	9.6	-52.0	36.4	31.8	4.60	7.907		
1,300.0	1,294.9	1,301.1	1,297.4	2.8	2.6	-131.06	15.0	-65.8	41.6	36.5	5.15	8.077		
1,400.0	1,393.3	1,401.2	1,396.1	3.1	3.0	-129.12	21.1	-81.2	47.4	41.7	5.76	8.229		
1,500.0	1,491.2	1,501.0	1,494.4	3.5	3.3	-128.21	27.4	-97.3	54.0	47.7	6.39	8.459		
1,600.0	1,589.1	1,600.7	1,592.6	3.9	3.6	-128.18	33.7	-113.4	61.2	54.2	7.01	8.727		
1,700.0	1,686.9	1,700.5	1,690.8	4.3	3.9	-128.16	40.1	-129.5	68.4	60.7	7.65	8.941		
1,800.0	1,784.7	1,800.2	1,789.1	4.7	4.3	-128.14	46.4	-145.6	75.6	67.3	8.29	9.116		
1,900.0	1,882.5	1,900.0	1,887.3	5.1	4.6	-128.13	52.8	-161.8	82.7	73.8	8.94	9.260		
2,000.0	1,980.3	1,999.7	1,985.5	5.5	4.9	-128.12	59.1	-177.9	89.9	80.3	9.59	9.380		
2,100.0	2,078.1	2,099.4	2,083.7	5.9	5.3	-128.11	65.5	-194.0	97.1	86.8	10.24	9.483		
2,200.0	2,175.9	2,199.2	2,182.0	6.3	5.6	-128.10	71.8	-210.1	104.3	93.4	10.89	9.571		
2,300.0	2,273.8	2,298.9	2,280.2	6.6	6.0	-128.10	78.2	-226.2	111.4	99.9	11.55	9.647		
2,400.0	2,371.6	2,398.7	2,378.4	7.0	6.3	-128.09	84.5	-242.3	118.6	106.4	12.21	9.713		
2,500.0	2,469.4	2,498.4	2,476.7	7.4	6.7	-128.08	90.9	-258.5	125.8	112.9	12.87	9.771		
2,600.0	2,567.2	2,598.2	2,574.9	7.8	7.0	-128.08	97.2	-274.6	133.0	119.4	13.53	9.823		
2,700.0	2,665.0	2,697.9	2,673.1	8.3	7.4	-128.07	103.6	-290.7	140.1	125.9	14.20	9.869		
2,800.0	2,762.8	2,797.6	2,771.3	8.7	7.7	-128.07	109.9	-306.8	147.3	132.4	14.86	9.910		
2,900.0	2,860.7	2,897.4	2,869.6	9.1	8.0	-128.07	116.3	-322.9	154.5	138.9	15.53	9.947		
3,000.0	2,958.5	2,997.1	2,967.8	9.5	8.4	-128.06	122.6	-339.0	161.6	145.4	16.20	9.981		
3,100.0	3,056.3	3,096.9	3,066.0	9.9	8.7	-128.06	129.0	-355.1	168.8	152.0	16.86	10.011		
3,200.0	3,154.1	3,196.6	3,164.2	10.3	9.1	-128.06	135.3	-371.3	176.0	158.5	17.53	10.039		
3,300.0	3,251.9	3,296.4	3,262.5	10.7	9.4	-128.05	141.7	-387.4	183.2	165.0	18.20	10.065		
3,400.0	3,349.7	3,396.1	3,360.7	11.1	9.8	-128.05	148.0	-403.5	190.3	171.5	18.87	10.088		
3,500.0	3,447.5	3,495.8	3,458.9	11.5	10.1	-128.05	154.4	-419.6	197.5	178.0	19.54	10.110		
3,600.0	3,545.4	3,595.6	3,557.2	11.9	10.5	-128.05	160.7	-435.7	204.7	184.5	20.21	10.130		
3,700.0	3,643.2	3,695.3	3,655.4	12.3	10.8	-128.05	167.1	-451.8	211.9	191.0	20.88	10.149		
3,800.0	3,741.0	3,795.1	3,753.6	12.7	11.2	-128.04	173.4	-467.9	219.0	197.5	21.55	10.166		
3,900.0	3,838.8	3,894.8	3,851.8	13.1	11.5	-128.04	179.7	-484.1	226.2	204.0	22.22	10.182		
4,000.0	3,936.6	3,994.5	3,950.1	13.5	11.9	-128.04	186.1	-500.2	233.4	210.5	22.89	10.197		
4,100.0	4,034.4	4,094.3	4,048.3	13.9	12.2	-128.04	192.4	-516.3	240.6	217.0	23.56	10.211		
4,200.0	4,132.2	4,194.0	4,146.5	14.3	12.6	-128.04	198.8	-532.4	247.7	223.5	24.23	10.224		
4,300.0	4,230.1	4,293.8	4,244.7	14.7	12.9	-128.04	205.1	-548.5	254.9	230.0	24.90	10.237		
4,400.0	4,327.9	4,393.5	4,343.0	15.1	13.3	-128.03	211.5	-564.6	262.1	236.5	25.57	10.249		
4,500.0	4,425.7	4,493.3	4,441.2	15.5	13.6	-128.03	217.8	-580.8	269.2	243.0	26.24	10.260		
4,600.0	4,523.5	4,593.0	4,539.4	15.9	14.0	-128.03	224.2	-596.9	276.4	249.5	26.91	10.270		
4,700.0	4,621.3	4,692.7	4,637.7	16.3	14.3	-128.03	230.5	-613.0	283.6	256.0	27.59	10.280		
4,800.0	4,719.1	4,792.5	4,735.9	16.7	14.7	-128.03	236.9	-629.1	290.8	262.5	28.26	10.289		
4,900.0	4,816.9	4,892.2	4,834.1	17.1	15.0	-128.03	243.2	-645.2	297.9	269.0	28.93	10.298		
5,000.0	4,914.8	4,991.9	4,932.2	17.5	15.4	-128.03	249.6	-661.3	305.0	275.4	29.60	10.304		
5,100.0	5,012.9	5,089.9	5,028.9	17.9	15.7	-128.04	255.5	-676.3	311.6	281.4	30.23	10.309		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3C-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
5,200.0	5,111.3	5,187.9	5,125.9	18.3	16.0	-128.08	260.7	-689.7	317.7	286.9	30.80	10.315		
5,300.0	5,210.1	5,286.0	5,223.1	18.6	16.3	-128.17	265.4	-701.6	323.3	291.9	31.32	10.321		
5,400.0	5,309.0	5,384.0	5,320.5	18.9	16.5	-128.29	269.5	-711.9	328.3	296.5	31.79	10.327		
5,500.0	5,408.3	5,482.0	5,418.0	19.1	16.7	-128.44	272.9	-720.7	332.9	300.7	32.21	10.334		
5,600.0	5,507.7	5,580.0	5,515.7	19.4	16.9	-128.63	275.8	-727.9	336.9	304.3	32.58	10.341		
5,700.0	5,607.3	5,677.9	5,613.5	19.6	17.1	-128.85	278.0	-733.5	340.4	307.5	32.90	10.348		
5,800.0	5,707.0	5,775.9	5,711.3	19.8	17.3	-129.10	279.6	-737.6	343.4	310.3	33.17	10.354		
5,900.0	5,806.9	5,873.8	5,809.2	19.9	17.4	-129.39	280.6	-740.2	346.0	312.6	33.39	10.361		
6,000.0	5,906.8	5,971.7	5,907.1	20.0	17.5	-129.71	281.0	-741.2	348.0	314.4	33.57	10.367		
6,100.0	6,006.8	6,071.4	6,006.8	20.2	17.6	-129.97	281.0	-741.2	349.2	315.5	33.73	10.353		
6,200.0	6,106.8	6,171.4	6,106.8	20.2	17.7	-179.51	281.0	-741.2	349.5	322.2	27.24	12.829		
6,300.0	6,206.8	6,271.4	6,206.8	20.3	17.8	-179.51	281.0	-741.2	349.5	322.0	27.52	12.698		
6,400.0	6,306.8	6,371.4	6,306.8	20.4	17.9	-179.51	281.0	-741.2	349.5	321.7	27.81	12.569		
6,500.0	6,406.8	6,471.4	6,406.8	20.5	18.0	-179.51	281.0	-741.2	349.5	321.4	28.09	12.442		
6,542.4	6,449.1	6,513.7	6,449.1	20.6	18.1	90.55	281.0	-741.2	349.5	314.8	34.72	10.067		
6,600.0	6,506.8	6,571.4	6,506.8	20.6	18.1	90.58	281.0	-741.1	349.5	314.6	34.84	10.032		
6,700.0	6,606.1	6,672.1	6,607.0	20.6	18.1	91.00	281.0	-732.7	349.5	314.7	34.81	10.041		
6,800.0	6,702.9	6,773.1	6,705.4	20.3	17.9	91.41	281.0	-710.1	349.6	315.2	34.41	10.160		
6,900.0	6,795.3	6,874.4	6,799.9	20.0	17.5	91.78	281.0	-673.9	349.6	316.0	33.66	10.388		
7,000.0	6,881.6	6,976.1	6,888.7	19.6	17.0	92.13	281.0	-624.5	349.7	317.1	32.62	10.721		
7,100.0	6,960.0	7,078.1	6,969.8	19.1	16.4	92.43	281.0	-562.8	349.8	318.4	31.40	11.140		
7,200.0	7,029.0	7,180.3	7,041.5	18.5	15.8	92.68	281.0	-490.0	349.9	319.7	30.17	11.597		
7,300.0	7,087.3	7,282.7	7,102.2	18.1	15.3	92.89	281.1	-407.7	349.9	320.8	29.15	12.002		
7,400.0	7,133.8	7,385.3	7,150.6	17.7	14.9	93.03	281.1	-317.3	350.0	321.3	28.62	12.227		
7,500.0	7,167.4	7,488.0	7,185.7	17.4	14.7	93.11	281.1	-220.9	350.0	321.2	28.81	12.149		
7,600.0	7,187.7	7,590.7	7,206.6	17.3	14.9	93.13	281.1	-120.4	350.0	320.2	29.85	11.727		
7,698.2	7,195.2	7,691.1	7,213.2	17.5	15.8	92.95	281.1	-20.3	350.0	318.3	31.65	11.056		
7,700.0	7,194.3	7,692.9	7,213.2	17.5	15.9	93.10	281.1	-18.5	350.0	318.3	31.69	11.045		
7,800.0	7,196.0	7,792.9	7,215.0	18.4	17.2	93.10	281.1	81.5	350.0	315.9	34.15	10.248		
7,900.0	7,197.8	7,892.9	7,216.7	19.7	18.7	93.10	281.1	181.5	350.0	312.9	37.11	9.432		
8,000.0	7,199.5	7,992.9	7,218.5	21.4	20.4	93.10	281.1	281.5	350.0	309.6	40.46	8.652		
8,100.0	7,201.3	8,092.9	7,220.2	23.2	22.2	93.10	281.1	381.5	350.0	305.9	44.10	7.937		
8,200.0	7,203.0	8,192.9	7,222.0	25.1	24.2	93.10	281.1	481.4	350.0	302.0	47.98	7.295		
8,300.0	7,204.8	8,292.9	7,223.7	27.1	26.2	93.10	281.1	581.4	350.0	298.0	52.04	6.726		
8,400.0	7,206.5	8,392.9	7,225.5	29.1	28.3	93.10	281.1	681.4	350.0	293.8	56.24	6.224		
8,500.0	7,208.3	8,492.9	7,227.2	31.3	30.5	93.10	281.1	781.4	350.0	289.5	60.55	5.781		
8,600.0	7,210.0	8,592.9	7,228.9	33.4	32.7	93.10	281.1	881.4	350.0	285.1	64.95	5.389		
8,700.0	7,211.7	8,692.9	7,230.7	35.6	34.9	93.10	281.1	981.4	350.0	280.6	69.43	5.042		
8,800.0	7,213.5	8,792.9	7,232.4	37.9	37.2	93.10	281.1	1,081.4	350.0	276.1	73.96	4.733		
8,900.0	7,215.2	8,892.9	7,234.2	40.1	39.5	93.10	281.1	1,181.3	350.0	271.5	78.54	4.457		
9,000.0	7,217.0	8,992.9	7,235.9	42.4	41.8	93.10	281.1	1,281.3	350.0	266.9	83.17	4.209		
9,100.0	7,218.7	9,092.9	7,237.7	44.7	44.1	93.10	281.1	1,381.3	350.1	262.2	87.83	3.986		
9,200.0	7,220.5	9,192.9	7,239.4	47.0	46.5	93.10	281.1	1,481.3	350.1	257.5	92.51	3.784		
9,300.0	7,222.2	9,292.9	7,241.2	49.4	48.8	93.10	281.2	1,581.3	350.1	252.8	97.23	3.600		
9,400.0	7,224.0	9,392.9	7,242.9	51.7	51.2	93.10	281.2	1,681.3	350.1	248.1	101.96	3.433		
9,500.0	7,225.7	9,492.9	7,244.6	54.1	53.6	93.10	281.2	1,781.2	350.1	243.4	106.71	3.280		
9,600.0	7,227.5	9,592.9	7,246.4	56.4	55.9	93.10	281.2	1,881.2	350.1	238.6	111.48	3.140		
9,700.0	7,229.2	9,692.9	7,248.1	58.8	58.3	93.10	281.2	1,981.2	350.1	233.8	116.27	3.011		
9,800.0	7,230.9	9,792.9	7,249.9	61.2	60.7	93.10	281.2	2,081.2	350.1	229.0	121.06	2.892		
9,900.0	7,232.7	9,892.9	7,251.6	63.6	63.1	93.10	281.2	2,181.2	350.1	224.2	125.87	2.781		
10,000.0	7,234.4	9,992.9	7,253.4	66.0	65.5	93.10	281.2	2,281.2	350.1	219.4	130.69	2.679		
10,100.0	7,236.2	10,092.9	7,255.1	68.4	67.9	93.10	281.2	2,381.2	350.1	214.6	135.51	2.583		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3C-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
10,200.0	7,237.9	10,192.9	7,256.9	70.8	70.4	93.10	281.2	2,481.1	350.1	209.7	140.35	2.494		
10,300.0	7,239.7	10,292.9	7,258.6	73.2	72.8	93.10	281.2	2,581.1	350.1	204.9	145.19	2.411		
10,400.0	7,241.4	10,392.9	7,260.4	75.6	75.2	93.10	281.2	2,681.1	350.1	200.1	150.04	2.333		
10,500.0	7,243.2	10,492.9	7,262.1	78.0	77.6	93.10	281.2	2,781.1	350.1	195.2	154.89	2.260		
10,600.0	7,244.9	10,592.9	7,263.8	80.4	80.1	93.10	281.2	2,881.1	350.1	190.4	159.75	2.192		
10,700.0	7,246.6	10,692.9	7,265.6	82.9	82.5	93.10	281.2	2,981.1	350.1	185.5	164.61	2.127		
10,800.0	7,248.4	10,792.9	7,267.3	85.3	84.9	93.10	281.2	3,081.0	350.1	180.6	169.48	2.066		
10,900.0	7,250.1	10,892.9	7,269.1	87.7	87.4	93.10	281.2	3,181.0	350.1	175.8	174.35	2.008		
11,000.0	7,251.9	10,992.9	7,270.8	90.2	89.8	93.10	281.2	3,281.0	350.1	170.9	179.23	1.953		
11,100.0	7,253.6	11,092.9	7,272.6	92.6	92.3	93.10	281.2	3,381.0	350.1	166.0	184.11	1.902		
11,200.0	7,255.4	11,192.9	7,274.3	95.0	94.7	93.10	281.2	3,481.0	350.1	161.1	188.99	1.853		
11,300.0	7,257.1	11,292.9	7,276.1	97.5	97.1	93.10	281.3	3,581.0	350.1	156.2	193.88	1.806		
11,400.0	7,258.9	11,392.9	7,277.8	99.9	99.6	93.10	281.3	3,681.0	350.1	151.4	198.77	1.762		
11,500.0	7,260.6	11,492.9	7,279.6	102.3	102.0	93.10	281.3	3,780.9	350.1	146.5	203.66	1.719		
11,600.0	7,262.4	11,592.9	7,281.3	104.8	104.5	93.10	281.3	3,880.9	350.1	141.6	208.55	1.679		
11,700.0	7,264.1	11,692.9	7,283.0	107.2	106.9	93.10	281.3	3,980.9	350.1	136.7	213.44	1.640		
11,800.0	7,265.8	11,792.9	7,284.8	109.7	109.4	93.10	281.3	4,080.9	350.1	131.8	218.34	1.604		
11,900.0	7,267.6	11,892.9	7,286.5	112.1	111.8	93.10	281.3	4,180.9	350.1	126.9	223.24	1.568		
12,000.0	7,269.3	11,992.9	7,288.3	114.6	114.3	93.10	281.3	4,280.9	350.1	122.0	228.14	1.535		
12,100.0	7,271.1	12,092.9	7,290.0	117.0	116.7	93.10	281.3	4,380.8	350.2	117.1	233.04	1.503		
12,200.0	7,272.8	12,192.9	7,291.8	119.5	119.2	93.10	281.3	4,480.8	350.2	112.2	237.95	1.472 Level 3		
12,300.0	7,274.6	12,292.9	7,293.5	121.9	121.7	93.10	281.3	4,580.8	350.2	107.3	242.85	1.442 Level 3		
12,400.0	7,276.3	12,392.9	7,295.3	124.4	124.1	93.10	281.3	4,680.8	350.2	102.4	247.76	1.413 Level 3		
12,500.0	7,278.1	12,492.9	7,297.0	126.8	126.6	93.10	281.3	4,780.8	350.2	97.5	252.67	1.386 Level 3		
12,600.0	7,279.8	12,592.9	7,298.8	129.3	129.0	93.10	281.3	4,880.8	350.2	92.6	257.58	1.359 Level 3		
12,700.0	7,281.6	12,692.9	7,300.5	131.7	131.5	93.10	281.3	4,980.8	350.2	87.7	262.49	1.334 Level 3		
12,800.0	7,283.3	12,792.9	7,302.2	134.2	133.9	93.10	281.3	5,080.7	350.2	82.8	267.40	1.310 Level 3		
12,900.0	7,285.0	12,892.9	7,304.0	136.6	136.4	93.10	281.3	5,180.7	350.2	77.9	272.32	1.286 Level 3		
13,000.0	7,286.8	12,992.9	7,305.7	139.1	138.9	93.10	281.3	5,280.7	350.2	72.9	277.23	1.263 Level 3		
13,100.0	7,288.5	13,092.9	7,307.5	141.6	141.3	93.10	281.3	5,380.7	350.2	68.0	282.14	1.241 Level 2		
13,200.0	7,290.3	13,192.9	7,309.2	144.0	143.8	93.10	281.3	5,480.7	350.2	63.1	287.06	1.220 Level 2		
13,300.0	7,292.0	13,292.9	7,311.0	146.5	146.2	93.10	281.4	5,580.7	350.2	58.2	291.98	1.199 Level 2		
13,400.0	7,293.8	13,392.9	7,312.7	148.9	148.7	93.10	281.4	5,680.7	350.2	53.3	296.89	1.180 Level 2		
13,500.0	7,295.5	13,492.9	7,314.5	151.4	151.2	93.10	281.4	5,780.6	350.2	48.4	301.81	1.160 Level 2		
13,600.0	7,297.3	13,592.9	7,316.2	153.8	153.6	93.10	281.4	5,880.6	350.2	43.5	306.73	1.142 Level 2		
13,700.0	7,299.0	13,692.9	7,317.9	156.3	156.1	93.10	281.4	5,980.6	350.2	38.6	311.65	1.124 Level 2		
13,800.0	7,300.8	13,792.9	7,319.7	158.8	158.6	93.10	281.4	6,080.6	350.2	33.6	316.57	1.106 Level 2		
13,900.0	7,302.5	13,892.9	7,321.4	161.2	161.0	93.10	281.4	6,180.6	350.2	28.7	321.49	1.089 Level 2		
14,000.0	7,304.2	13,992.9	7,323.2	163.7	163.5	93.10	281.4	6,280.6	350.2	23.8	326.41	1.073 Level 2		
14,100.0	7,306.0	14,092.9	7,324.9	166.1	165.9	93.10	281.4	6,380.5	350.2	18.9	331.34	1.057 Level 2		
14,200.0	7,307.7	14,192.9	7,326.7	168.6	168.4	93.10	281.4	6,480.5	350.2	14.0	336.26	1.042 Level 2		
14,300.0	7,309.5	14,292.9	7,328.4	171.1	170.9	93.10	281.4	6,580.5	350.2	9.0	341.18	1.027 Level 2		
14,387.3	7,311.0	14,380.2	7,329.9	173.2	173.0	93.10	281.4	6,667.8	350.2	4.7	345.48	1.014 Level 2, ES, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3D-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-21.9	0.0	21.9					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-21.9	0.0	21.9	21.6	0.30	71.986		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-21.9	0.0	21.9	21.2	0.65	33.491		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-21.9	0.0	21.9	20.9	1.00	21.822 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-132.19	-21.9	0.0	22.4	21.1	1.35	16.606		
500.0	500.0	500.0	500.0	0.9	0.8	-136.76	-21.9	0.0	24.3	22.6	1.70	14.263		
600.0	599.9	599.9	599.9	1.0	1.0	-141.16	-21.9	-0.9	27.5	25.4	2.05	13.382		
700.0	699.7	699.9	699.8	1.2	1.2	-143.34	-22.1	-3.5	32.0	29.6	2.41	13.248 SF		
800.0	799.4	799.8	799.7	1.4	1.4	-143.89	-22.4	-7.8	37.6	34.8	2.78	13.514		
900.0	898.9	899.7	899.4	1.7	1.6	-143.38	-22.8	-13.9	44.3	41.2	3.17	14.002		
1,000.0	998.3	999.5	998.9	1.9	1.8	-142.24	-23.3	-21.7	52.2	48.6	3.57	14.610		
1,100.0	1,097.4	1,099.2	1,098.1	2.2	2.0	-140.79	-24.0	-31.2	61.2	57.2	4.01	15.273		
1,200.0	1,196.3	1,198.8	1,197.1	2.5	2.2	-139.21	-24.8	-42.5	71.5	67.0	4.48	15.946		
1,300.0	1,294.9	1,298.2	1,295.7	2.8	2.5	-137.61	-25.6	-55.4	82.9	77.9	4.99	16.601		
1,400.0	1,393.3	1,397.5	1,393.8	3.1	2.8	-136.06	-26.6	-70.0	95.5	90.0	5.55	17.217		
1,500.0	1,491.2	1,496.5	1,491.5	3.5	3.1	-134.59	-27.7	-86.2	109.4	103.3	6.15	17.785		
1,600.0	1,589.1	1,595.4	1,588.9	3.9	3.4	-133.39	-28.9	-103.4	124.0	117.2	6.78	18.286		
1,700.0	1,686.9	1,694.3	1,686.3	4.3	3.7	-132.45	-30.1	-120.5	138.5	131.1	7.42	18.677		
1,800.0	1,784.7	1,793.3	1,783.7	4.7	4.0	-131.68	-31.2	-137.6	153.2	145.1	8.07	18.989		
1,900.0	1,882.5	1,892.2	1,881.1	5.1	4.4	-131.05	-32.4	-154.8	167.8	159.1	8.72	19.242		
2,000.0	1,980.3	1,991.1	1,978.5	5.5	4.7	-130.52	-33.6	-171.9	182.4	173.1	9.38	19.449		
2,100.0	2,078.1	2,090.0	2,075.9	5.9	5.0	-130.07	-34.7	-189.1	197.1	187.1	10.04	19.622		
2,200.0	2,175.9	2,188.9	2,173.4	6.3	5.4	-129.68	-35.9	-206.2	211.8	201.1	10.71	19.768		
2,300.0	2,273.8	2,287.8	2,270.8	6.6	5.7	-129.34	-37.1	-223.3	226.4	215.1	11.38	19.892		
2,400.0	2,371.6	2,386.7	2,368.2	7.0	6.1	-129.04	-38.3	-240.5	241.1	229.1	12.06	19.999		
2,500.0	2,469.4	2,485.6	2,465.6	7.4	6.4	-128.78	-39.4	-257.6	255.8	243.1	12.73	20.091		
2,600.0	2,567.2	2,584.5	2,563.0	7.8	6.7	-128.54	-40.6	-274.7	270.5	257.1	13.41	20.172		
2,700.0	2,665.0	2,683.4	2,660.4	8.3	7.1	-128.33	-41.8	-291.9	285.2	271.1	14.09	20.244		
2,800.0	2,762.8	2,782.3	2,757.8	8.7	7.4	-128.14	-42.9	-309.0	299.9	285.2	14.77	20.307		
2,900.0	2,860.7	2,881.2	2,855.2	9.1	7.8	-127.97	-44.1	-326.1	314.6	299.2	15.45	20.363		
3,000.0	2,958.5	2,980.2	2,952.6	9.5	8.1	-127.81	-45.3	-343.3	329.4	313.2	16.13	20.414		
3,100.0	3,056.3	3,079.1	3,050.0	9.9	8.4	-127.67	-46.4	-360.4	344.1	327.2	16.82	20.460		
3,200.0	3,154.1	3,178.0	3,147.4	10.3	8.8	-127.54	-47.6	-377.5	358.8	341.3	17.50	20.501		
3,300.0	3,251.9	3,276.9	3,244.8	10.7	9.1	-127.42	-48.8	-394.7	373.5	355.3	18.19	20.538		
3,400.0	3,349.7	3,375.8	3,342.2	11.1	9.5	-127.31	-49.9	-411.8	388.2	369.3	18.87	20.573		
3,500.0	3,447.5	3,474.7	3,439.6	11.5	9.8	-127.20	-51.1	-429.0	402.9	383.4	19.56	20.604		
3,600.0	3,545.4	3,573.6	3,537.0	11.9	10.2	-127.11	-52.3	-446.1	417.7	397.4	20.24	20.633		
3,700.0	3,643.2	3,672.5	3,634.4	12.3	10.5	-127.02	-53.4	-463.2	432.4	411.4	20.93	20.659		
3,800.0	3,741.0	3,771.4	3,731.8	12.7	10.9	-126.93	-54.6	-480.4	447.1	425.5	21.62	20.684		
3,900.0	3,838.8	3,870.3	3,829.2	13.1	11.2	-126.85	-55.8	-497.5	461.8	439.5	22.30	20.706		
4,000.0	3,936.6	3,969.2	3,926.7	13.5	11.6	-126.78	-56.9	-514.6	476.5	453.6	22.99	20.727		
4,100.0	4,034.4	4,068.1	4,024.1	13.9	11.9	-126.71	-58.1	-531.8	491.3	467.6	23.68	20.747		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3E-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-29.1	0.0	29.1	28.8	0.30	95.963		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-29.1	0.0	29.1	28.5	0.65	44.646		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-29.1	0.0	29.1	28.1	1.00	29.090 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-131.78	-29.1	0.0	29.7	28.4	1.35	21.993		
500.0	500.0	499.7	499.7	0.9	0.9	-133.86	-29.5	-0.8	31.9	30.2	1.70	18.723		
600.0	599.9	599.4	599.4	1.0	1.0	-135.05	-30.8	-3.1	36.0	33.9	2.06	17.475		
700.0	699.7	699.0	698.8	1.2	1.2	-135.44	-32.8	-6.9	42.0	39.6	2.43	17.320 SF		
800.0	799.4	798.3	798.0	1.4	1.4	-135.26	-35.6	-12.3	49.9	47.1	2.81	17.795		
900.0	898.9	897.5	896.9	1.7	1.6	-134.76	-39.2	-19.1	59.8	56.6	3.21	18.640		
1,000.0	998.3	996.3	995.3	1.9	1.8	-134.10	-43.6	-27.5	71.5	67.9	3.63	19.694		
1,100.0	1,097.4	1,094.8	1,093.1	2.2	2.1	-133.39	-48.7	-37.3	85.2	81.1	4.08	20.854		
1,200.0	1,196.3	1,193.0	1,190.4	2.5	2.3	-132.69	-54.6	-48.5	100.7	96.2	4.57	22.050		
1,300.0	1,294.9	1,290.6	1,287.0	2.8	2.6	-132.01	-61.3	-61.2	118.2	113.1	5.08	23.237		
1,400.0	1,393.3	1,387.8	1,382.9	3.1	2.9	-131.37	-68.6	-75.2	137.5	131.8	5.64	24.386		
1,500.0	1,491.2	1,485.5	1,479.1	3.5	3.2	-130.99	-76.5	-90.2	158.4	152.1	6.22	25.479		
1,600.0	1,589.1	1,583.1	1,575.3	3.9	3.5	-131.02	-84.4	-105.2	179.8	173.0	6.81	26.418		
1,700.0	1,686.9	1,680.8	1,671.5	4.3	3.9	-131.05	-92.3	-120.2	201.3	193.9	7.41	27.178		
1,800.0	1,784.7	1,778.5	1,767.6	4.7	4.2	-131.08	-100.2	-135.3	222.8	214.7	8.01	27.803		
1,900.0	1,882.5	1,876.1	1,863.8	5.1	4.5	-131.10	-108.0	-150.3	244.2	235.6	8.62	28.324		
2,000.0	1,980.3	1,973.8	1,960.0	5.5	4.9	-131.12	-115.9	-165.3	265.7	256.4	9.24	28.764		
2,100.0	2,078.1	2,071.5	2,056.2	5.9	5.2	-131.13	-123.8	-180.3	287.1	277.3	9.85	29.140		
2,200.0	2,175.9	2,169.1	2,152.4	6.3	5.5	-131.14	-131.7	-195.3	308.6	298.1	10.47	29.465		
2,300.0	2,273.8	2,266.8	2,248.6	6.6	5.9	-131.15	-139.6	-210.3	330.1	319.0	11.10	29.747		
2,400.0	2,371.6	2,364.5	2,344.8	7.0	6.2	-131.16	-147.5	-225.4	351.5	339.8	11.72	29.995		
2,500.0	2,469.4	2,462.2	2,440.9	7.4	6.5	-131.17	-155.3	-240.4	373.0	360.6	12.34	30.214		
2,600.0	2,567.2	2,559.8	2,537.1	7.8	6.9	-131.18	-163.2	-255.4	394.5	381.5	12.97	30.409		
2,700.0	2,665.0	2,657.5	2,633.3	8.3	7.2	-131.18	-171.1	-270.4	415.9	402.3	13.60	30.583		
2,800.0	2,762.8	2,755.2	2,729.5	8.7	7.5	-131.19	-179.0	-285.4	437.4	423.2	14.23	30.740		
2,900.0	2,860.7	2,852.8	2,825.7	9.1	7.9	-131.20	-186.9	-300.4	458.8	444.0	14.86	30.882		
3,000.0	2,958.5	2,950.5	2,921.9	9.5	8.2	-131.20	-194.8	-315.5	480.3	464.8	15.49	31.011		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3F-18H - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: 0-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-40.1	0.0	40.1					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-40.1	0.0	40.1	39.8	0.30	131.949		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-40.1	0.0	40.1	39.4	0.65	61.388		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-40.1	0.0	40.1	39.1	1.00	39.999	CC, ES	
400.0	400.0	400.0	400.0	0.7	0.7	-131.43	-40.1	0.0	40.6	39.3	1.35	30.079		
500.0	500.0	499.0	498.9	0.9	0.9	-132.33	-41.3	-1.2	43.6	41.9	1.70	25.603		
600.0	599.9	597.7	597.5	1.0	1.0	-131.62	-44.8	-4.9	50.0	47.9	2.06	24.256	SF	
700.0	699.7	695.8	695.3	1.2	1.2	-129.93	-50.7	-10.9	60.0	57.5	2.44	24.595		
800.0	799.4	793.3	792.0	1.4	1.5	-127.90	-58.9	-19.3	73.5	70.7	2.84	25.901		
900.0	898.9	889.7	887.3	1.7	1.8	-125.92	-69.3	-29.8	90.6	87.3	3.26	27.762		
1,000.0	998.3	985.0	980.9	1.9	2.1	-124.14	-81.7	-42.5	111.3	107.6	3.72	29.918		
1,100.0	1,097.4	1,079.9	1,073.6	2.2	2.5	-122.63	-96.1	-57.3	135.3	131.1	4.20	32.212		
1,200.0	1,196.3	1,176.6	1,167.8	2.5	2.8	-121.85	-111.4	-72.8	160.9	156.2	4.71	34.138		
1,300.0	1,294.9	1,273.0	1,261.7	2.8	3.2	-121.68	-126.5	-88.3	187.4	182.1	5.25	35.685		
1,400.0	1,393.3	1,369.2	1,355.4	3.1	3.6	-121.90	-141.7	-103.8	214.7	208.9	5.81	36.931		
1,500.0	1,491.2	1,465.0	1,448.8	3.5	4.0	-122.37	-156.8	-119.2	243.0	236.6	6.40	37.947		
1,600.0	1,589.1	1,560.8	1,542.1	3.9	4.4	-123.10	-171.8	-134.5	271.8	264.8	7.01	38.762		
1,700.0	1,686.9	1,656.5	1,635.4	4.3	4.8	-123.69	-186.9	-149.9	300.6	292.9	7.62	39.422		
1,800.0	1,784.7	1,752.2	1,728.6	4.7	5.2	-124.17	-202.0	-165.3	329.4	321.1	8.24	39.964		
1,900.0	1,882.5	1,847.9	1,821.9	5.1	5.6	-124.58	-217.0	-180.7	358.2	349.4	8.86	40.417		
2,000.0	1,980.3	1,943.7	1,915.2	5.5	6.1	-124.93	-232.1	-196.1	387.1	377.6	9.49	40.800		
2,100.0	2,078.1	2,039.4	2,008.5	5.9	6.5	-125.23	-247.2	-211.5	415.9	405.8	10.11	41.128		
2,200.0	2,175.9	2,135.1	2,101.7	6.3	6.9	-125.49	-262.2	-226.9	444.8	434.1	10.74	41.411		
2,300.0	2,273.8	2,230.8	2,195.0	6.6	7.3	-125.72	-277.3	-242.2	473.7	462.3	11.37	41.658		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3G-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Total Uncertainty Axis	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)				
0.0	0.0	1.0	1.0	0.0	0.0	-180.00	-51.0	0.0	51.0					
100.0	100.0	101.0	101.0	0.2	0.2	-180.00	-51.0	0.0	51.0	50.7	0.31	166.976		
200.0	200.0	201.0	201.0	0.3	0.3	-180.00	-51.0	0.0	51.0	50.3	0.65	77.922		
300.0	300.0	301.0	301.0	0.5	0.5	-180.00	-51.0	0.0	51.0	50.0	1.00	50.819 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-130.80	-51.5	-0.4	52.1	50.8	1.35	38.564		
500.0	500.0	497.4	497.3	0.9	0.9	-129.78	-55.7	-3.3	58.0	56.3	1.70	34.091		
600.0	599.9	594.1	593.4	1.0	1.1	-127.74	-63.8	-8.9	69.3	67.3	2.07	33.528 SF		
700.0	699.7	689.3	687.5	1.2	1.4	-125.45	-75.6	-17.2	86.0	83.5	2.45	35.083		
800.0	799.4	782.7	779.0	1.4	1.7	-123.36	-91.0	-28.0	107.9	105.0	2.85	37.830		
900.0	898.9	877.4	870.9	1.7	2.1	-121.73	-109.5	-41.0	134.2	130.9	3.27	40.999		
1,000.0	998.3	973.5	964.2	1.9	2.5	-121.02	-128.6	-54.3	161.6	157.9	3.72	43.489		
1,100.0	1,097.4	1,069.4	1,057.3	2.2	2.9	-120.91	-147.6	-67.6	190.0	185.8	4.18	45.411		
1,200.0	1,196.3	1,165.0	1,150.0	2.5	3.3	-121.17	-166.5	-80.9	219.2	214.5	4.67	46.891		
1,300.0	1,294.9	1,260.3	1,242.5	2.8	3.8	-121.65	-185.4	-94.1	249.3	244.1	5.19	48.033		
1,400.0	1,393.3	1,355.3	1,334.7	3.1	4.2	-122.28	-204.2	-107.3	280.3	274.6	5.73	48.919		
1,500.0	1,491.2	1,449.9	1,426.5	3.5	4.6	-123.00	-223.0	-120.4	312.3	306.0	6.29	49.615		
1,600.0	1,589.1	1,544.4	1,518.1	3.9	5.1	-123.95	-241.7	-133.5	344.8	338.0	6.88	50.123		
1,700.0	1,686.9	1,638.8	1,609.7	4.3	5.5	-124.73	-260.4	-146.6	377.4	370.0	7.47	50.532		
1,800.0	1,784.7	1,733.2	1,701.4	4.7	5.9	-125.39	-279.1	-159.7	410.1	402.0	8.06	50.868		
1,900.0	1,882.5	1,827.6	1,793.0	5.1	6.3	-125.95	-297.8	-172.8	442.7	434.1	8.66	51.147		
2,000.0	1,980.3	1,922.1	1,884.6	5.5	6.8	-126.44	-316.5	-185.9	475.4	466.2	9.25	51.383		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3B-18H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5158.0ft (Original Well Elev)
Reference Site:	S18-T3N-R68W (Billings)	MD Reference:	WELL @ 5158.0ft (Original Well Elev)
Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 3H-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	-180.00	-61.9	0.0	61.9					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-61.9	0.0	61.9	61.6	0.30	203.922		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-61.9	0.0	61.9	61.3	0.65	94.873 CC, ES		
300.0	300.0	298.1	298.1	0.5	0.5	-179.23	-63.4	-0.8	63.4	62.4	1.00	63.475		
400.0	400.0	396.0	395.9	0.7	0.7	-128.16	-67.7	-3.4	68.5	67.1	1.35	50.727		
500.0	500.0	493.4	492.9	0.9	0.9	-126.68	-74.9	-7.6	77.6	75.9	1.71	45.505		
600.0	599.9	589.9	588.7	1.0	1.2	-125.44	-84.8	-13.4	90.9	88.8	2.07	43.871 SF		
700.0	699.7	685.4	683.1	1.2	1.5	-124.49	-97.3	-20.7	108.2	105.7	2.45	44.154		
800.0	799.4	779.6	775.6	1.4	1.8	-123.78	-112.3	-29.5	129.4	126.5	2.84	45.512		
900.0	898.9	872.2	866.0	1.7	2.2	-123.25	-129.7	-39.7	154.4	151.2	3.25	47.486		
1,000.0	998.3	967.4	958.5	1.9	2.6	-122.97	-149.2	-51.1	182.3	178.6	3.69	49.466		
1,100.0	1,097.4	1,063.1	1,051.5	2.2	3.0	-123.10	-168.9	-62.7	211.2	207.0	4.14	50.986		
1,200.0	1,196.3	1,158.5	1,144.1	2.5	3.4	-123.50	-188.5	-74.1	240.9	236.3	4.62	52.156		
1,300.0	1,294.9	1,253.6	1,236.5	2.8	3.8	-124.06	-208.1	-85.6	271.7	266.6	5.12	53.059		
1,400.0	1,393.3	1,348.3	1,328.5	3.1	4.3	-124.73	-227.6	-97.0	303.4	297.8	5.64	53.764		
1,500.0	1,491.2	1,442.7	1,420.1	3.5	4.7	-125.47	-247.0	-108.4	336.2	330.0	6.19	54.321		
1,600.0	1,589.1	1,536.8	1,511.5	3.9	5.1	-126.42	-266.3	-119.7	369.5	362.7	6.75	54.710		
1,700.0	1,686.9	1,630.9	1,602.9	4.3	5.5	-127.22	-285.7	-131.1	402.9	395.5	7.32	55.019		
1,800.0	1,784.7	1,725.0	1,694.3	4.7	6.0	-127.90	-305.0	-142.4	436.3	428.4	7.89	55.272		
1,900.0	1,882.5	1,819.2	1,785.7	5.1	6.4	-128.48	-324.4	-153.7	469.8	461.3	8.47	55.482		

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Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3B-18H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Hz	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5158.0ft (Original Well Elev)

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000 °

Coordinates are relative to: Billings 3B-18H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.29°

