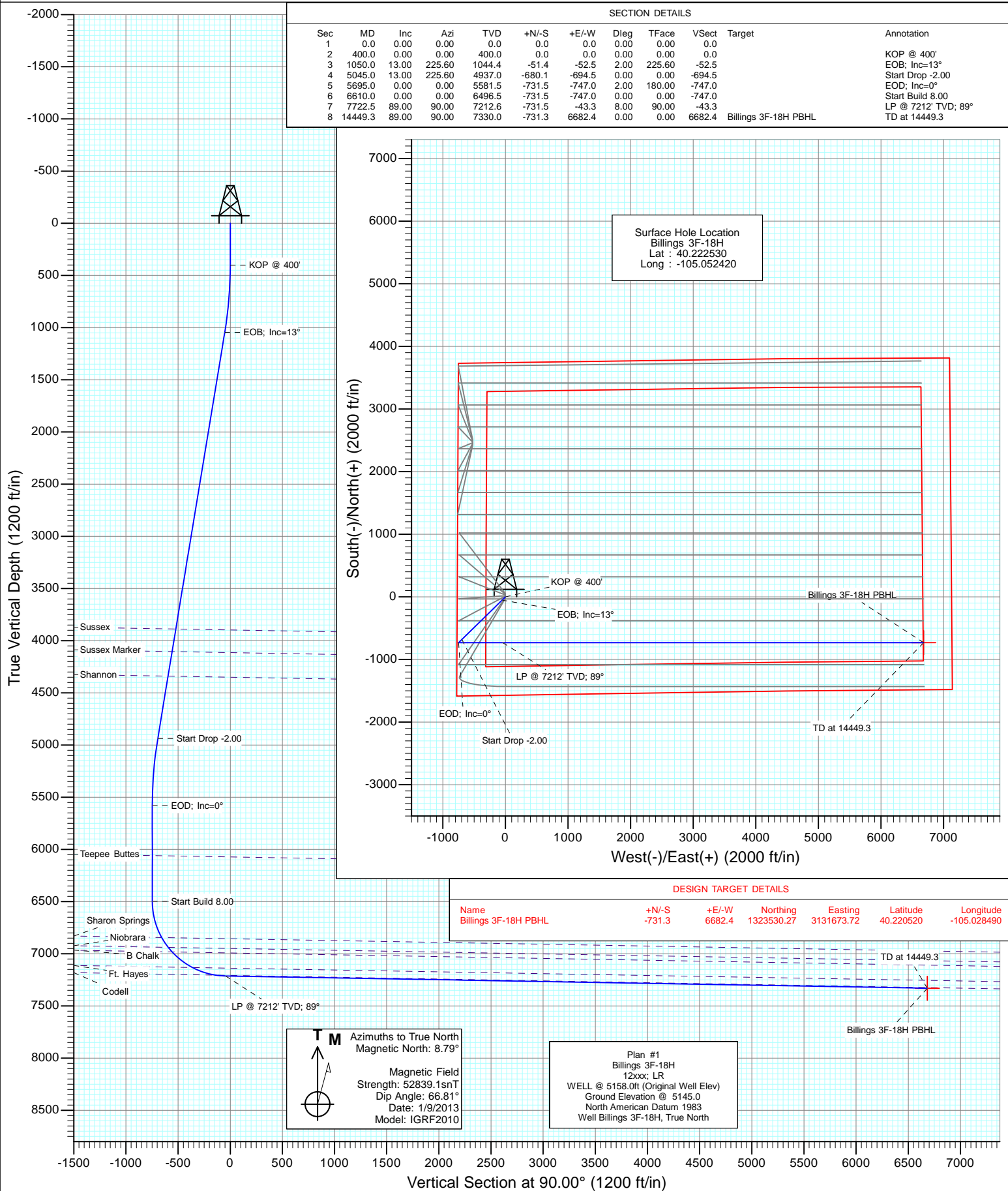




Project: DJ Wattenberg
Site: S18-T3N-R68W (Billings)
Well: Billings 3F-18H
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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 3F-18H					
Well Position	+N/-S	0.0 ft	Northing:	1,324,227.83 ft	Latitude:	40.222530
	+E/-W	0.0 ft	Easting:	3,124,987.70 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	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,050.0	13.00	225.60	1,044.4	-51.4	-52.5	2.00	2.00	0.00	225.60	
5,045.0	13.00	225.60	4,937.0	-680.1	-694.5	0.00	0.00	0.00	0.00	
5,695.0	0.00	0.00	5,581.5	-731.5	-747.0	2.00	-2.00	0.00	180.00	
6,610.0	0.00	0.00	6,496.5	-731.5	-747.0	0.00	0.00	0.00	0.00	
7,722.5	89.00	90.00	7,212.6	-731.5	-43.3	8.00	8.00	0.00	90.00	
14,449.3	89.00	90.00	7,330.0	-731.3	6,682.4	0.00	0.00	0.00	0.00	Billings 3F-18H PBHL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	KOP @ 400'
500.0	2.00	225.60	500.0	-1.2	-1.2	-1.2	2.00	2.00	
600.0	4.00	225.60	599.8	-4.9	-5.0	-5.0	2.00	2.00	
700.0	6.00	225.60	699.5	-11.0	-11.2	-11.2	2.00	2.00	
800.0	8.00	225.60	798.7	-19.5	-19.9	-19.9	2.00	2.00	
900.0	10.00	225.60	897.5	-30.5	-31.1	-31.1	2.00	2.00	
1,000.0	12.00	225.60	995.6	-43.8	-44.7	-44.7	2.00	2.00	
1,050.0	13.00	225.60	1,044.4	-51.4	-52.5	-52.5	2.00	2.00	EOB; Inc=13°
1,100.0	13.00	225.60	1,093.2	-59.2	-60.5	-60.5	0.00	0.00	
1,200.0	13.00	225.60	1,190.6	-75.0	-76.6	-76.6	0.00	0.00	
1,300.0	13.00	225.60	1,288.0	-90.7	-92.6	-92.6	0.00	0.00	
1,400.0	13.00	225.60	1,385.5	-106.5	-108.7	-108.7	0.00	0.00	
1,500.0	13.00	225.60	1,482.9	-122.2	-124.8	-124.8	0.00	0.00	
1,600.0	13.00	225.60	1,580.3	-137.9	-140.9	-140.9	0.00	0.00	
1,700.0	13.00	225.60	1,677.8	-153.7	-156.9	-156.9	0.00	0.00	
1,800.0	13.00	225.60	1,775.2	-169.4	-173.0	-173.0	0.00	0.00	
1,900.0	13.00	225.60	1,872.7	-185.2	-189.1	-189.1	0.00	0.00	
2,000.0	13.00	225.60	1,970.1	-200.9	-205.1	-205.1	0.00	0.00	
2,100.0	13.00	225.60	2,067.5	-216.6	-221.2	-221.2	0.00	0.00	
2,200.0	13.00	225.60	2,165.0	-232.4	-237.3	-237.3	0.00	0.00	
2,300.0	13.00	225.60	2,262.4	-248.1	-253.4	-253.4	0.00	0.00	
2,400.0	13.00	225.60	2,359.8	-263.8	-269.4	-269.4	0.00	0.00	
2,500.0	13.00	225.60	2,457.3	-279.6	-285.5	-285.5	0.00	0.00	
2,600.0	13.00	225.60	2,554.7	-295.3	-301.6	-301.6	0.00	0.00	
2,700.0	13.00	225.60	2,652.1	-311.1	-317.6	-317.6	0.00	0.00	
2,800.0	13.00	225.60	2,749.6	-326.8	-333.7	-333.7	0.00	0.00	
2,900.0	13.00	225.60	2,847.0	-342.5	-349.8	-349.8	0.00	0.00	
3,000.0	13.00	225.60	2,944.5	-358.3	-365.9	-365.9	0.00	0.00	
3,100.0	13.00	225.60	3,041.9	-374.0	-381.9	-381.9	0.00	0.00	
3,200.0	13.00	225.60	3,139.3	-389.8	-398.0	-398.0	0.00	0.00	
3,300.0	13.00	225.60	3,236.8	-405.5	-414.1	-414.1	0.00	0.00	
3,400.0	13.00	225.60	3,334.2	-421.2	-430.2	-430.2	0.00	0.00	
3,500.0	13.00	225.60	3,431.6	-437.0	-446.2	-446.2	0.00	0.00	
3,600.0	13.00	225.60	3,529.1	-452.7	-462.3	-462.3	0.00	0.00	
3,700.0	13.00	225.60	3,626.5	-468.5	-478.4	-478.4	0.00	0.00	
3,800.0	13.00	225.60	3,724.0	-484.2	-494.4	-494.4	0.00	0.00	
3,900.0	13.00	225.60	3,821.4	-499.9	-510.5	-510.5	0.00	0.00	
3,968.3	13.00	225.60	3,887.9	-510.7	-521.5	-521.5	0.00	0.00	Sussex
4,000.0	13.00	225.60	3,918.8	-515.7	-526.6	-526.6	0.00	0.00	
4,100.0	13.00	225.60	4,016.3	-531.4	-542.7	-542.7	0.00	0.00	
4,190.3	13.00	225.60	4,104.3	-545.6	-557.2	-557.2	0.00	0.00	Sussex Marker
4,200.0	13.00	225.60	4,113.7	-547.2	-558.7	-558.7	0.00	0.00	
4,300.0	13.00	225.60	4,211.1	-562.9	-574.8	-574.8	0.00	0.00	
4,400.0	13.00	225.60	4,308.6	-578.6	-590.9	-590.9	0.00	0.00	
4,431.8	13.00	225.60	4,339.6	-583.6	-596.0	-596.0	0.00	0.00	Shannon
4,500.0	13.00	225.60	4,406.0	-594.4	-606.9	-606.9	0.00	0.00	
4,600.0	13.00	225.60	4,503.5	-610.1	-623.0	-623.0	0.00	0.00	
4,700.0	13.00	225.60	4,600.9	-625.8	-639.1	-639.1	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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
4,800.0	13.00	225.60	4,698.3	-641.6	-655.2	-655.2	0.00	0.00	
4,900.0	13.00	225.60	4,795.8	-657.3	-671.2	-671.2	0.00	0.00	
5,000.0	13.00	225.60	4,893.2	-673.1	-687.3	-687.3	0.00	0.00	
5,045.0	13.00	225.60	4,937.0	-680.1	-694.5	-694.5	0.00	0.00	Start Drop -2.00
5,100.0	11.90	225.60	4,990.8	-688.4	-703.0	-703.0	2.00	-2.00	
5,200.0	9.90	225.60	5,088.9	-701.7	-716.5	-716.5	2.00	-2.00	
5,300.0	7.90	225.60	5,187.7	-712.5	-727.6	-727.6	2.00	-2.00	
5,400.0	5.90	225.60	5,287.0	-720.9	-736.2	-736.2	2.00	-2.00	
5,500.0	3.90	225.60	5,386.6	-726.9	-742.3	-742.3	2.00	-2.00	
5,600.0	1.90	225.60	5,486.5	-730.4	-745.9	-745.9	2.00	-2.00	
5,695.0	0.00	0.00	5,581.5	-731.5	-747.0	-747.0	2.00	-2.00	EOD; Inc=0°
5,700.0	0.00	0.00	5,586.5	-731.5	-747.0	-747.0	0.00	0.00	
5,800.0	0.00	0.00	5,686.5	-731.5	-747.0	-747.0	0.00	0.00	
5,900.0	0.00	0.00	5,786.5	-731.5	-747.0	-747.0	0.00	0.00	
6,000.0	0.00	0.00	5,886.5	-731.5	-747.0	-747.0	0.00	0.00	
6,100.0	0.00	0.00	5,986.5	-731.5	-747.0	-747.0	0.00	0.00	
6,172.5	0.00	0.00	6,059.0	-731.5	-747.0	-747.0	0.00	0.00	Teepee Buttes
6,200.0	0.00	0.00	6,086.5	-731.5	-747.0	-747.0	0.00	0.00	
6,300.0	0.00	0.00	6,186.5	-731.5	-747.0	-747.0	0.00	0.00	
6,400.0	0.00	0.00	6,286.5	-731.5	-747.0	-747.0	0.00	0.00	
6,500.0	0.00	0.00	6,386.5	-731.5	-747.0	-747.0	0.00	0.00	
6,600.0	0.00	0.00	6,486.5	-731.5	-747.0	-747.0	0.00	0.00	
6,610.0	0.00	0.00	6,496.5	-731.5	-747.0	-747.0	0.00	0.00	Start Build 8.00
6,700.0	7.20	90.00	6,586.2	-731.5	-741.4	-741.4	8.00	8.00	
6,800.0	15.20	90.00	6,684.3	-731.5	-722.0	-722.0	8.00	8.00	
6,900.0	23.20	90.00	6,778.6	-731.5	-689.1	-689.1	8.00	8.00	
6,973.4	29.07	90.00	6,844.5	-731.5	-656.8	-656.8	8.00	8.00	Sharon Springs
7,000.0	31.20	90.00	6,867.5	-731.5	-643.4	-643.4	8.00	8.00	
7,086.5	38.12	90.00	6,938.6	-731.5	-594.3	-594.3	8.00	8.00	Niobrara
7,100.0	39.20	90.00	6,949.1	-731.5	-585.8	-585.8	8.00	8.00	
7,143.9	42.71	90.00	6,982.3	-731.5	-557.1	-557.1	8.00	8.00	B Chalk
7,200.0	47.20	90.00	7,022.0	-731.5	-517.4	-517.4	8.00	8.00	
7,300.0	55.20	90.00	7,084.6	-731.5	-439.6	-439.6	8.00	8.00	
7,391.1	62.48	90.00	7,131.7	-731.5	-361.7	-361.7	8.00	8.00	Ft. Hayes
7,400.0	63.20	90.00	7,135.8	-731.5	-353.7	-353.7	8.00	8.00	
7,500.0	71.20	90.00	7,174.5	-731.5	-261.6	-261.6	8.00	8.00	
7,600.0	79.20	90.00	7,200.0	-731.5	-165.0	-165.0	8.00	8.00	
7,627.0	81.36	90.00	7,204.6	-731.5	-138.4	-138.4	8.00	8.00	Codell
7,700.0	87.20	90.00	7,211.9	-731.5	-65.8	-65.8	8.00	8.00	
7,722.5	89.00	90.00	7,212.6	-731.5	-43.3	-43.3	8.00	8.00	LP @ 7212' TVD; 89°
7,800.0	89.00	90.00	7,214.0	-731.5	34.2	34.2	0.00	0.00	
7,900.0	89.00	90.00	7,215.7	-731.5	134.1	134.1	0.00	0.00	
8,000.0	89.00	90.00	7,217.4	-731.5	234.1	234.1	0.00	0.00	
8,100.0	89.00	90.00	7,219.2	-731.5	334.1	334.1	0.00	0.00	
8,200.0	89.00	90.00	7,220.9	-731.5	434.1	434.1	0.00	0.00	
8,300.0	89.00	90.00	7,222.7	-731.5	534.1	534.1	0.00	0.00	
8,400.0	89.00	90.00	7,224.4	-731.5	634.1	634.1	0.00	0.00	
8,500.0	89.00	90.00	7,226.2	-731.5	734.0	734.0	0.00	0.00	
8,600.0	89.00	90.00	7,227.9	-731.5	834.0	834.0	0.00	0.00	
8,700.0	89.00	90.00	7,229.7	-731.5	934.0	934.0	0.00	0.00	
8,800.0	89.00	90.00	7,231.4	-731.5	1,034.0	1,034.0	0.00	0.00	
8,900.0	89.00	90.00	7,233.2	-731.5	1,134.0	1,134.0	0.00	0.00	

Planning Report

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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 3F-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
9,000.0	89.00	90.00	7,234.9	-731.5	1,234.0	1,234.0	0.00	0.00	
9,100.0	89.00	90.00	7,236.6	-731.5	1,334.0	1,334.0	0.00	0.00	
9,200.0	89.00	90.00	7,238.4	-731.5	1,433.9	1,433.9	0.00	0.00	
9,300.0	89.00	90.00	7,240.1	-731.5	1,533.9	1,533.9	0.00	0.00	
9,400.0	89.00	90.00	7,241.9	-731.4	1,633.9	1,633.9	0.00	0.00	
9,500.0	89.00	90.00	7,243.6	-731.4	1,733.9	1,733.9	0.00	0.00	
9,600.0	89.00	90.00	7,245.4	-731.4	1,833.9	1,833.9	0.00	0.00	
9,700.0	89.00	90.00	7,247.1	-731.4	1,933.9	1,933.9	0.00	0.00	
9,800.0	89.00	90.00	7,248.9	-731.4	2,033.8	2,033.8	0.00	0.00	
9,900.0	89.00	90.00	7,250.6	-731.4	2,133.8	2,133.8	0.00	0.00	
10,000.0	89.00	90.00	7,252.3	-731.4	2,233.8	2,233.8	0.00	0.00	
10,100.0	89.00	90.00	7,254.1	-731.4	2,333.8	2,333.8	0.00	0.00	
10,200.0	89.00	90.00	7,255.8	-731.4	2,433.8	2,433.8	0.00	0.00	
10,300.0	89.00	90.00	7,257.6	-731.4	2,533.8	2,533.8	0.00	0.00	
10,400.0	89.00	90.00	7,259.3	-731.4	2,633.8	2,633.8	0.00	0.00	
10,500.0	89.00	90.00	7,261.1	-731.4	2,733.7	2,733.7	0.00	0.00	
10,600.0	89.00	90.00	7,262.8	-731.4	2,833.7	2,833.7	0.00	0.00	
10,700.0	89.00	90.00	7,264.6	-731.4	2,933.7	2,933.7	0.00	0.00	
10,800.0	89.00	90.00	7,266.3	-731.4	3,033.7	3,033.7	0.00	0.00	
10,900.0	89.00	90.00	7,268.1	-731.4	3,133.7	3,133.7	0.00	0.00	
11,000.0	89.00	90.00	7,269.8	-731.4	3,233.7	3,233.7	0.00	0.00	
11,100.0	89.00	90.00	7,271.5	-731.4	3,333.7	3,333.7	0.00	0.00	
11,200.0	89.00	90.00	7,273.3	-731.4	3,433.6	3,433.6	0.00	0.00	
11,300.0	89.00	90.00	7,275.0	-731.4	3,533.6	3,533.6	0.00	0.00	
11,400.0	89.00	90.00	7,276.8	-731.4	3,633.6	3,633.6	0.00	0.00	
11,500.0	89.00	90.00	7,278.5	-731.4	3,733.6	3,733.6	0.00	0.00	
11,600.0	89.00	90.00	7,280.3	-731.4	3,833.6	3,833.6	0.00	0.00	
11,700.0	89.00	90.00	7,282.0	-731.4	3,933.6	3,933.6	0.00	0.00	
11,800.0	89.00	90.00	7,283.8	-731.4	4,033.5	4,033.5	0.00	0.00	
11,900.0	89.00	90.00	7,285.5	-731.4	4,133.5	4,133.5	0.00	0.00	
12,000.0	89.00	90.00	7,287.3	-731.4	4,233.5	4,233.5	0.00	0.00	
12,100.0	89.00	90.00	7,289.0	-731.4	4,333.5	4,333.5	0.00	0.00	
12,200.0	89.00	90.00	7,290.7	-731.4	4,433.5	4,433.5	0.00	0.00	
12,300.0	89.00	90.00	7,292.5	-731.4	4,533.5	4,533.5	0.00	0.00	
12,400.0	89.00	90.00	7,294.2	-731.4	4,633.5	4,633.5	0.00	0.00	
12,500.0	89.00	90.00	7,296.0	-731.4	4,733.4	4,733.4	0.00	0.00	
12,600.0	89.00	90.00	7,297.7	-731.4	4,833.4	4,833.4	0.00	0.00	
12,700.0	89.00	90.00	7,299.5	-731.4	4,933.4	4,933.4	0.00	0.00	
12,800.0	89.00	90.00	7,301.2	-731.4	5,033.4	5,033.4	0.00	0.00	
12,900.0	89.00	90.00	7,303.0	-731.3	5,133.4	5,133.4	0.00	0.00	
13,000.0	89.00	90.00	7,304.7	-731.3	5,233.4	5,233.4	0.00	0.00	
13,100.0	89.00	90.00	7,306.5	-731.3	5,333.3	5,333.3	0.00	0.00	
13,200.0	89.00	90.00	7,308.2	-731.3	5,433.3	5,433.3	0.00	0.00	
13,300.0	89.00	90.00	7,309.9	-731.3	5,533.3	5,533.3	0.00	0.00	
13,400.0	89.00	90.00	7,311.7	-731.3	5,633.3	5,633.3	0.00	0.00	
13,500.0	89.00	90.00	7,313.4	-731.3	5,733.3	5,733.3	0.00	0.00	
13,600.0	89.00	90.00	7,315.2	-731.3	5,833.3	5,833.3	0.00	0.00	
13,700.0	89.00	90.00	7,316.9	-731.3	5,933.3	5,933.3	0.00	0.00	
13,800.0	89.00	90.00	7,318.7	-731.3	6,033.2	6,033.2	0.00	0.00	
13,900.0	89.00	90.00	7,320.4	-731.3	6,133.2	6,133.2	0.00	0.00	
14,000.0	89.00	90.00	7,322.2	-731.3	6,233.2	6,233.2	0.00	0.00	
14,100.0	89.00	90.00	7,323.9	-731.3	6,333.2	6,333.2	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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
14,200.0	89.00	90.00	7,325.6	-731.3	6,433.2	6,433.2	0.00	0.00	
14,300.0	89.00	90.00	7,327.4	-731.3	6,533.2	6,533.2	0.00	0.00	
14,400.0	89.00	90.00	7,329.1	-731.3	6,633.1	6,633.1	0.00	0.00	
14,449.3	89.00	90.00	7,330.0	-731.3	6,682.4	6,682.4	0.00	0.00	TD at 14449.3 - Billings 3F-18H PBHL

Targets									
Target Name									
- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
Billings 3F-18H PBHL	0.00	0.00	7,330.0	-731.3	6,682.4	1,323,530.27	3,131,673.72	40.220520	-105.028490
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,968.3	3,897.0	Sussex		1.00	90.00	
4,190.3	4,114.0	Sussex Marker		1.00	90.00	
4,431.8	4,350.0	Shannon		1.00	90.00	
6,172.5	6,072.0	Teepee Buttes		1.00	90.00	
6,973.4	6,856.0	Sharon Springs		1.00	90.00	
7,086.5	6,949.0	Niobrara		1.00	90.00	
7,143.9	6,992.0	B Chalk		1.00	90.00	
7,391.1	7,138.0	Ft. Hayes		1.00	90.00	
7,627.0	7,207.0	Codell		1.00	90.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
400.0	400.0	0.0	0.0	KOP @ 400'	
1,050.0	1,044.4	-51.4	-52.5	EOB; Inc=13°	
5,045.0	4,937.0	-680.1	-694.5	Start Drop -2.00	
5,695.0	5,581.5	-731.5	-747.0	EOD; Inc=0°	
6,610.0	6,496.5	-731.5	-747.0	Start Build 8.00	
7,722.5	7,212.6	-731.5	-43.3	LP @ 7212' TVD; 89°	
14,449.3	7,330.0	-731.3	6,682.4	TD at 14449.3	

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S18-T3N-R68W (Billings)

Billings 3F-18H

Hz

Plan #1

Anticollision Report

09 January, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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	14,449.3	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	51.0	50.5	94.978	CC
Billings 3A-18H - Hz - Plan #1	200.0	201.0	51.0	50.3	77.923	ES
Billings 3A-18H - Hz - Plan #1	700.0	695.5	79.2	76.8	32.428	SF
Billings 3B-18H - Hz - Plan #1	300.0	300.0	40.1	39.1	39.999	CC, ES
Billings 3B-18H - Hz - Plan #1	600.0	598.2	50.0	48.0	24.265	SF
Billings 3C-18H - Hz - Plan #1	400.0	400.0	29.1	27.8	21.573	CC, ES
Billings 3C-18H - Hz - Plan #1	600.0	599.5	35.3	33.3	17.177	SF
Billings 3D-18H - Hz - Plan #1	400.0	400.0	18.2	16.9	13.480	CC, ES
Billings 3D-18H - Hz - Plan #1	600.0	599.9	23.4	21.3	11.398	SF
Billings 3E-18H - Hz - Plan #1	400.0	400.0	10.9	9.6	8.090	CC, ES
Billings 3E-18H - Hz - Plan #1	14,450.2	14,201.5	402.9	100.9	1.334	Level 3, SF
Billings 3G-18H - Hz - Plan #1	332.7	333.7	10.9	9.8	9.777	CC, ES
Billings 3G-18H - Hz - Plan #1	14,450.2	14,289.4	407.2	108.2	1.362	Level 3, SF
Billings 3H-18H - Hz - Plan #1	200.0	200.0	21.9	21.2	33.484	CC, ES
Billings 3H-18H - Hz - Plan #1	5,100.0	5,081.1	311.4	273.4	8.203	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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						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	1.0	1.0	0.0	0.0	0.00	51.0	0.0	51.0					
100.0	100.0	101.0	101.0	0.2	0.2	0.00	51.0	0.0	51.0	50.7	0.31	166.976		
166.3	166.3	167.3	167.3	0.3	0.3	0.00	51.0	0.0	51.0	50.5	0.54	94.978 CC		
200.0	200.0	201.0	201.0	0.3	0.3	0.00	51.0	0.0	51.0	50.3	0.65	77.923 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-0.59	51.7	-0.5	51.7	50.7	1.00	51.612		
400.0	400.0	399.5	399.5	0.7	0.7	-2.24	53.8	-2.1	53.8	52.5	1.35	39.865		
500.0	500.0	498.6	498.4	0.9	0.9	130.93	57.2	-4.7	58.6	56.9	1.70	34.366		
600.0	599.8	597.3	597.0	1.0	1.1	131.29	62.0	-8.3	67.0	65.0	2.07	32.455		
700.0	699.5	695.5	694.9	1.3	1.3	132.67	68.0	-13.0	79.2	76.8	2.44	32.428 SF		
800.0	798.7	793.0	791.9	1.5	1.5	134.47	75.4	-18.6	95.2	92.4	2.84	33.487		
900.0	897.5	889.6	887.9	1.8	1.7	136.33	84.0	-25.1	115.1	111.8	3.27	35.187		
1,000.0	995.6	985.0	982.5	2.1	2.0	138.03	93.7	-32.5	138.8	135.1	3.73	37.258		
1,100.0	1,093.2	1,079.3	1,075.8	2.5	2.3	139.60	104.6	-40.8	166.0	161.8	4.21	39.481		
1,200.0	1,190.6	1,172.9	1,168.2	2.9	2.6	140.61	116.6	-49.9	194.8	190.1	4.71	41.384		
1,300.0	1,288.0	1,265.9	1,259.7	3.3	2.9	141.06	129.7	-59.8	224.8	219.5	5.23	42.994		
1,400.0	1,385.5	1,358.2	1,350.4	3.8	3.2	141.16	143.9	-70.6	255.8	250.0	5.76	44.369		
1,500.0	1,482.9	1,449.9	1,440.0	4.2	3.6	141.02	159.1	-82.2	287.9	281.5	6.32	45.561		
1,600.0	1,580.3	1,540.8	1,528.6	4.6	4.0	140.71	175.3	-94.5	321.0	314.1	6.89	46.610		
1,700.0	1,677.8	1,630.9	1,616.1	5.0	4.4	140.29	192.5	-107.6	355.2	347.8	7.47	47.550		
1,800.0	1,775.2	1,721.3	1,703.5	5.4	4.8	139.79	210.8	-121.5	390.5	382.4	8.07	48.401		
1,900.0	1,872.7	1,814.7	1,793.7	5.9	5.2	139.31	230.0	-136.1	426.1	417.4	8.68	49.097		
2,000.0	1,970.1	1,908.1	1,883.9	6.3	5.7	138.90	249.3	-150.8	461.7	452.4	9.29	49.690		
2,100.0	2,067.5	2,001.5	1,974.1	6.7	6.1	138.56	268.5	-165.4	497.4	487.5	9.91	50.200		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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 3B-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 (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	0.00	40.1	0.0	40.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	40.1	0.0	40.1	39.8	0.30	131.949		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	40.1	0.0	40.1	39.4	0.65	61.388		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	40.1	0.0	40.1	39.1	1.00	39.999 CC, ES		
400.0	400.0	399.5	399.5	0.7	0.7	-0.93	40.6	-0.7	40.6	39.3	1.35	30.102		
500.0	500.0	499.0	499.0	0.9	0.9	132.53	42.3	-2.6	43.6	41.9	1.70	25.604		
600.0	599.8	598.2	598.1	1.0	1.0	133.18	45.1	-5.9	50.0	48.0	2.06	24.265 SF		
700.0	699.5	697.1	696.8	1.3	1.2	134.77	49.0	-10.5	60.0	57.6	2.44	24.626		
800.0	798.7	795.4	794.8	1.5	1.4	136.67	54.0	-16.3	73.7	70.8	2.84	25.966		
900.0	897.5	893.0	892.0	1.8	1.7	138.48	60.0	-23.3	90.9	87.7	3.26	27.874		
1,000.0	995.6	989.8	988.1	2.1	1.9	140.05	67.0	-31.5	111.8	108.1	3.72	30.091		
1,100.0	1,093.2	1,085.6	1,083.2	2.5	2.2	141.39	75.0	-40.9	136.0	131.8	4.20	32.391		
1,200.0	1,190.6	1,181.0	1,177.6	2.9	2.4	142.03	84.0	-51.4	161.5	156.8	4.71	34.275		
1,300.0	1,288.0	1,276.0	1,271.3	3.3	2.7	142.07	93.9	-63.1	187.8	182.5	5.25	35.780		
1,400.0	1,385.5	1,370.5	1,364.3	3.8	3.0	141.73	104.8	-75.8	214.9	209.1	5.81	36.988		
1,500.0	1,482.9	1,464.4	1,456.4	4.2	3.4	141.14	116.7	-89.7	242.9	236.5	6.40	37.971		
1,600.0	1,580.3	1,559.3	1,549.3	4.6	3.7	140.44	129.4	-104.6	271.6	264.6	7.00	38.788		
1,700.0	1,677.8	1,655.1	1,642.9	5.0	4.1	139.85	142.3	-119.7	300.4	292.7	7.61	39.443		
1,800.0	1,775.2	1,750.8	1,736.6	5.4	4.5	139.36	155.2	-134.9	329.2	320.9	8.23	39.982		
1,900.0	1,872.7	1,846.5	1,830.2	5.9	4.9	138.95	168.2	-150.0	358.0	349.2	8.85	40.432		
2,000.0	1,970.1	1,942.2	1,923.8	6.3	5.2	138.61	181.1	-165.1	386.9	377.4	9.48	40.813		
2,100.0	2,067.5	2,038.0	2,017.5	6.7	5.6	138.31	194.0	-180.3	415.7	405.6	10.11	41.139		
2,200.0	2,165.0	2,133.7	2,111.1	7.2	6.0	138.05	207.0	-195.4	444.6	433.9	10.73	41.421		
2,300.0	2,262.4	2,229.4	2,204.7	7.6	6.4	137.82	219.9	-210.5	473.5	462.1	11.36	41.666		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	29.1	0.0	29.1	28.8	0.30	95.963		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.65	44.646		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	29.1	0.0	29.1	28.1	1.00	29.090		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	29.1	0.0	29.1	27.8	1.35	21.573 CC, ES		
500.0	500.0	499.8	499.8	0.9	0.9	135.19	29.5	-0.8	30.7	29.0	1.70	18.042		
600.0	599.8	599.5	599.4	1.0	1.0	137.15	30.4	-3.2	35.3	33.3	2.06	17.177 SF		
700.0	699.5	699.0	698.8	1.3	1.2	139.45	32.0	-7.3	43.2	40.7	2.43	17.780		
800.0	798.7	798.1	797.8	1.5	1.4	141.53	34.2	-12.9	54.2	51.4	2.82	19.234		
900.0	897.5	896.8	896.2	1.8	1.6	143.18	37.0	-20.0	68.4	65.2	3.23	21.173		
1,000.0	995.6	995.0	994.0	2.1	1.8	144.42	40.5	-28.7	85.8	82.1	3.67	23.360		
1,100.0	1,093.2	1,092.7	1,091.0	2.5	2.1	145.31	44.5	-38.9	106.0	101.8	4.15	25.560		
1,200.0	1,190.6	1,190.1	1,187.6	2.9	2.3	145.35	49.1	-50.6	126.8	122.1	4.66	27.229		
1,300.0	1,288.0	1,287.5	1,283.9	3.3	2.6	144.73	54.3	-63.8	147.9	142.7	5.20	28.421		
1,400.0	1,385.5	1,384.6	1,379.7	3.8	2.9	143.71	60.1	-78.5	169.3	163.6	5.79	29.249		
1,500.0	1,482.9	1,482.1	1,475.7	4.2	3.2	142.59	66.3	-94.2	191.1	184.7	6.40	29.862		
1,600.0	1,580.3	1,579.6	1,571.8	4.6	3.5	141.70	72.5	-110.0	212.8	205.8	7.02	30.338		
1,700.0	1,677.8	1,677.2	1,667.9	5.0	3.9	140.97	78.7	-125.8	234.6	227.0	7.64	30.715		
1,800.0	1,775.2	1,774.7	1,763.9	5.4	4.2	140.36	84.9	-141.5	256.5	248.2	8.27	31.020		
1,900.0	1,872.7	1,872.3	1,860.0	5.9	4.5	139.85	91.1	-157.3	278.4	269.5	8.90	31.270		
2,000.0	1,970.1	1,969.8	1,956.1	6.3	4.8	139.41	97.3	-173.0	300.3	290.7	9.54	31.478		
2,100.0	2,067.5	2,067.4	2,052.2	6.7	5.2	139.04	103.5	-188.8	322.2	312.0	10.18	31.654		
2,200.0	2,165.0	2,164.9	2,148.2	7.2	5.5	138.71	109.7	-204.6	344.1	333.2	10.82	31.803		
2,300.0	2,262.4	2,262.5	2,244.3	7.6	5.8	138.42	115.9	-220.3	366.0	354.5	11.46	31.933		
2,400.0	2,359.8	2,360.0	2,340.4	8.0	6.2	138.16	122.1	-236.1	387.9	375.8	12.11	32.045		
2,500.0	2,457.3	2,457.6	2,436.4	8.4	6.5	137.93	128.4	-251.9	409.9	397.1	12.75	32.143		
2,600.0	2,554.7	2,555.1	2,532.5	8.9	6.9	137.73	134.6	-267.6	431.8	418.4	13.40	32.230		
2,700.0	2,652.1	2,652.7	2,628.6	9.3	7.2	137.54	140.8	-283.4	453.7	439.7	14.04	32.307		
2,800.0	2,749.6	2,750.2	2,724.6	9.7	7.5	137.37	147.0	-299.1	475.7	461.0	14.69	32.376		
2,900.0	2,847.0	2,847.8	2,820.7	10.2	7.9	137.22	153.2	-314.9	497.7	482.3	15.34	32.437		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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	Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	18.2	0.0	18.2	17.9	0.30	59.963		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.6	0.65	27.897		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	18.2	0.0	18.2	17.2	1.00	18.177		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	18.2	0.0	18.2	16.9	1.35	13.480 CC, ES		
500.0	500.0	500.0	500.0	0.9	0.8	138.05	18.2	0.0	19.5	17.8	1.70	11.450		
600.0	599.8	599.9	599.9	1.0	1.0	144.48	18.2	-0.9	23.4	21.3	2.05	11.398 SF		
700.0	699.5	699.8	699.8	1.3	1.2	149.26	18.0	-3.5	30.0	27.6	2.41	12.435		
800.0	798.7	799.6	799.5	1.5	1.4	152.28	17.7	-7.8	39.1	36.3	2.78	14.093		
900.0	897.5	899.2	898.9	1.8	1.6	154.03	17.3	-13.9	50.7	47.6	3.15	16.099		
1,000.0	995.6	998.6	998.0	2.1	1.8	154.99	16.7	-21.6	64.8	61.3	3.55	18.282		
1,100.0	1,093.2	1,097.8	1,096.8	2.5	2.0	155.40	16.1	-31.1	80.9	77.0	3.97	20.413		
1,200.0	1,190.6	1,197.2	1,195.5	2.9	2.2	154.91	15.3	-42.3	96.7	92.3	4.42	21.877		
1,300.0	1,288.0	1,296.8	1,294.3	3.3	2.5	153.73	14.4	-55.2	111.8	106.9	4.92	22.740		
1,400.0	1,385.5	1,396.5	1,392.9	3.8	2.8	152.11	13.4	-69.8	126.3	120.8	5.46	23.131		
1,500.0	1,482.9	1,496.3	1,491.3	4.2	3.1	150.15	12.3	-86.2	140.2	134.2	6.05	23.160		
1,600.0	1,580.3	1,595.2	1,588.7	4.6	3.4	148.23	11.2	-103.3	154.0	147.3	6.68	23.061		
1,700.0	1,677.8	1,694.2	1,686.2	5.0	3.7	146.63	10.0	-120.5	167.9	160.6	7.32	22.951		
1,800.0	1,775.2	1,793.1	1,783.6	5.4	4.0	145.27	8.8	-137.6	181.9	173.9	7.96	22.839		
1,900.0	1,872.7	1,892.0	1,881.0	5.9	4.4	144.11	7.7	-154.8	196.0	187.4	8.62	22.731		
2,000.0	1,970.1	1,991.0	1,978.4	6.3	4.7	143.11	6.5	-171.9	210.2	200.9	9.29	22.629		
2,100.0	2,067.5	2,089.9	2,075.8	6.7	5.0	142.23	5.3	-189.0	224.4	214.5	9.96	22.535		
2,200.0	2,165.0	2,188.8	2,173.3	7.2	5.4	141.45	4.2	-206.2	238.7	228.1	10.63	22.447		
2,300.0	2,262.4	2,287.7	2,270.7	7.6	5.7	140.77	3.0	-223.3	253.0	241.7	11.31	22.367		
2,400.0	2,359.8	2,386.7	2,368.1	8.0	6.0	140.15	1.8	-240.5	267.4	255.4	11.99	22.293		
2,500.0	2,457.3	2,485.6	2,465.5	8.4	6.4	139.60	0.6	-257.6	281.7	269.1	12.68	22.226		
2,600.0	2,554.7	2,584.5	2,563.0	8.9	6.7	139.11	-0.5	-274.7	296.1	282.8	13.36	22.163		
2,700.0	2,652.1	2,683.4	2,660.4	9.3	7.1	138.66	-1.7	-291.9	310.6	296.5	14.05	22.106		
2,800.0	2,749.6	2,782.4	2,757.8	9.7	7.4	138.24	-2.9	-309.0	325.0	310.3	14.74	22.053		
2,900.0	2,847.0	2,881.3	2,855.2	10.2	7.8	137.87	-4.0	-326.1	339.4	324.0	15.43	22.004		
3,000.0	2,944.5	2,980.2	2,952.7	10.6	8.1	137.52	-5.2	-343.3	353.9	337.8	16.12	21.959		
3,100.0	3,041.9	3,079.1	3,050.1	11.0	8.4	137.21	-6.4	-360.4	368.4	351.6	16.81	21.917		
3,200.0	3,139.3	3,178.1	3,147.5	11.5	8.8	136.91	-7.5	-377.6	382.9	365.4	17.50	21.878		
3,300.0	3,236.8	3,277.0	3,244.9	11.9	9.1	136.64	-8.7	-394.7	397.4	379.2	18.19	21.842		
3,400.0	3,334.2	3,375.9	3,342.4	12.3	9.5	136.38	-9.9	-411.8	411.9	393.0	18.89	21.808		
3,500.0	3,431.6	3,474.9	3,439.8	12.8	9.8	136.15	-11.0	-429.0	426.4	406.8	19.58	21.776		
3,600.0	3,529.1	3,573.8	3,537.2	13.2	10.2	135.93	-12.2	-446.1	440.9	420.6	20.27	21.746		
3,700.0	3,626.5	3,672.7	3,634.6	13.6	10.5	135.72	-13.4	-463.3	455.4	434.4	20.97	21.719		
3,800.0	3,724.0	3,771.6	3,732.1	14.1	10.9	135.53	-14.5	-480.4	469.9	448.3	21.66	21.692		
3,900.0	3,821.4	3,870.6	3,829.5	14.5	11.2	135.35	-15.7	-497.5	484.5	462.1	22.36	21.668		
4,000.0	3,918.8	3,969.5	3,926.9	14.9	11.6	135.17	-16.9	-514.7	499.0	475.9	23.05	21.645		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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					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	0.00	10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	10.9	0.0	10.9	10.6	0.30	35.986		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.65	16.742		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	10.9	0.0	10.9	9.9	1.00	10.909		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	10.9	0.0	10.9	9.6	1.35	8.090 CC, ES		
500.0	500.0	500.1	500.1	0.9	0.9	136.70	10.5	-0.8	11.8	10.1	1.70	6.909		
600.0	599.8	600.2	600.1	1.0	1.0	141.97	9.3	-3.1	14.3	12.3	2.06	6.960		
700.0	699.5	700.2	700.1	1.3	1.2	147.47	7.3	-7.0	18.8	16.3	2.42	7.756		
800.0	798.7	800.3	799.9	1.5	1.4	151.85	4.4	-12.4	25.1	22.3	2.78	9.025		
900.0	897.5	900.3	899.6	1.8	1.6	154.99	0.8	-19.3	33.4	30.3	3.16	10.595		
1,000.0	995.6	1,000.3	999.2	2.1	1.8	157.18	-3.7	-27.8	43.7	40.2	3.54	12.352		
1,100.0	1,093.2	1,100.2	1,098.5	2.5	2.1	158.60	-8.9	-37.8	55.4	51.5	3.93	14.101		
1,200.0	1,190.6	1,200.5	1,197.9	2.9	2.3	158.77	-15.0	-49.4	66.2	61.9	4.35	15.213		
1,300.0	1,288.0	1,301.0	1,297.3	3.3	2.6	158.08	-21.9	-62.6	75.6	70.8	4.81	15.739		
1,400.0	1,385.5	1,401.8	1,396.7	3.8	3.0	156.78	-29.7	-77.3	83.7	78.4	5.30	15.799		
1,500.0	1,482.9	1,501.5	1,494.8	4.2	3.3	155.37	-37.7	-92.7	91.2	85.3	5.81	15.677		
1,600.0	1,580.3	1,601.2	1,593.0	4.6	3.6	154.18	-45.8	-108.0	98.7	92.3	6.35	15.546		
1,700.0	1,677.8	1,700.8	1,691.2	5.0	3.9	153.15	-53.8	-123.3	106.2	99.3	6.89	15.413		
1,800.0	1,775.2	1,800.5	1,789.4	5.4	4.3	152.26	-61.9	-138.7	113.8	106.3	7.45	15.283		
1,900.0	1,872.7	1,900.2	1,887.6	5.9	4.6	151.48	-69.9	-154.0	121.4	113.4	8.01	15.158		
2,000.0	1,970.1	1,999.9	1,985.8	6.3	4.9	150.80	-78.0	-169.3	129.0	120.4	8.58	15.040		
2,100.0	2,067.5	2,099.6	2,083.9	6.7	5.3	150.19	-86.0	-184.6	136.6	127.5	9.15	14.929		
2,200.0	2,165.0	2,199.3	2,182.1	7.2	5.6	149.64	-94.1	-200.0	144.3	134.6	9.73	14.826		
2,300.0	2,262.4	2,299.0	2,280.3	7.6	6.0	149.15	-102.1	-215.3	151.9	141.6	10.32	14.729		
2,400.0	2,359.8	2,398.7	2,378.5	8.0	6.3	148.71	-110.2	-230.6	159.6	148.7	10.90	14.639		
2,500.0	2,457.3	2,498.4	2,476.7	8.4	6.7	148.31	-118.2	-246.0	167.3	155.8	11.49	14.556		
2,600.0	2,554.7	2,598.1	2,574.9	8.9	7.0	147.94	-126.2	-261.3	175.0	162.9	12.09	14.478		
2,700.0	2,652.1	2,697.8	2,673.0	9.3	7.3	147.60	-134.3	-276.6	182.7	170.0	12.68	14.405		
2,800.0	2,749.6	2,797.5	2,771.2	9.7	7.7	147.29	-142.3	-291.9	190.4	177.1	13.28	14.337		
2,900.0	2,847.0	2,897.2	2,869.4	10.2	8.0	147.01	-150.4	-307.3	198.1	184.2	13.88	14.274		
3,000.0	2,944.5	2,996.9	2,967.6	10.6	8.4	146.75	-158.4	-322.6	205.8	191.3	14.48	14.214		
3,100.0	3,041.9	3,096.6	3,065.8	11.0	8.7	146.50	-166.5	-337.9	213.5	198.4	15.08	14.159		
3,200.0	3,139.3	3,196.3	3,164.0	11.5	9.1	146.27	-174.5	-353.2	221.2	205.5	15.68	14.107		
3,300.0	3,236.8	3,296.0	3,262.1	11.9	9.4	146.06	-182.6	-368.6	228.9	212.6	16.28	14.058		
3,400.0	3,334.2	3,395.7	3,360.3	12.3	9.8	145.86	-190.6	-383.9	236.7	219.8	16.89	14.012		
3,500.0	3,431.6	3,495.4	3,458.5	12.8	10.1	145.68	-198.7	-399.2	244.4	226.9	17.50	13.968		
3,600.0	3,529.1	3,595.1	3,556.7	13.2	10.5	145.50	-206.7	-414.6	252.1	234.0	18.10	13.927		
3,700.0	3,626.5	3,694.8	3,654.9	13.6	10.8	145.34	-214.8	-429.9	259.8	241.1	18.71	13.888		
3,800.0	3,724.0	3,794.5	3,753.1	14.1	11.2	145.18	-222.8	-445.2	267.6	248.2	19.32	13.852		
3,900.0	3,821.4	3,894.2	3,851.2	14.5	11.5	145.04	-230.9	-460.5	275.3	255.4	19.92	13.817		
4,000.0	3,918.8	3,993.9	3,949.4	14.9	11.9	144.90	-238.9	-475.9	283.0	262.5	20.53	13.784		
4,100.0	4,016.3	4,093.6	4,047.6	15.4	12.2	144.77	-247.0	-491.2	290.8	269.6	21.14	13.752		
4,200.0	4,113.7	4,193.3	4,145.8	15.8	12.6	144.65	-255.0	-506.5	298.5	276.7	21.75	13.723		
4,300.0	4,211.1	4,293.0	4,244.0	16.2	12.9	144.53	-263.1	-521.9	306.2	283.9	22.36	13.694		
4,400.0	4,308.6	4,392.7	4,342.2	16.7	13.3	144.42	-271.1	-537.2	314.0	291.0	22.97	13.667		
4,500.0	4,406.0	4,492.4	4,440.3	17.1	13.6	144.31	-279.1	-552.5	321.7	298.1	23.58	13.641		
4,600.0	4,503.5	4,592.1	4,538.5	17.5	14.0	144.21	-287.2	-567.8	329.5	305.3	24.20	13.617		
4,700.0	4,600.9	4,691.8	4,636.7	18.0	14.3	144.11	-295.2	-583.2	337.2	312.4	24.81	13.593		
4,800.0	4,698.3	4,791.5	4,734.9	18.4	14.7	144.02	-303.3	-598.5	345.0	319.5	25.42	13.571		
4,900.0	4,795.8	4,891.2	4,833.1	18.8	15.0	143.93	-311.3	-613.8	352.7	326.7	26.03	13.549		
5,000.0	4,893.2	4,990.9	4,931.3	19.3	15.4	143.85	-319.4	-629.2	360.4	333.8	26.64	13.528		
5,100.0	4,990.8	5,090.6	5,029.5	19.7	15.7	143.76	-327.4	-644.5	367.8	340.5	27.26	13.489		

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 3F-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 3F-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 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	5,088.9	5,190.5	5,127.8	20.0	16.1	143.41	-335.5	-659.8	372.6	344.6	27.94	13.335		
5,300.0	5,187.7	5,289.0	5,224.9	20.3	16.4	142.74	-343.4	-674.9	374.7	346.0	28.67	13.069		
5,400.0	5,287.0	5,385.2	5,319.8	20.6	16.7	141.91	-350.5	-688.5	374.9	345.5	29.38	12.757		
5,500.0	5,386.6	5,481.4	5,415.0	20.7	17.0	140.94	-356.9	-700.7	373.4	343.3	30.09	12.408		
5,600.0	5,486.5	5,577.6	5,510.4	20.9	17.3	139.82	-362.6	-711.4	370.2	339.4	30.79	12.026		
5,700.0	5,586.5	5,673.8	5,606.1	21.0	17.5	4.12	-367.5	-720.8	365.5	336.1	29.46	12.407		
5,800.0	5,686.5	5,770.2	5,702.0	21.0	17.7	2.91	-371.6	-728.7	360.7	331.3	29.37	12.281		
5,900.0	5,786.5	5,866.8	5,798.4	21.1	17.9	1.90	-375.1	-735.2	356.9	327.5	29.33	12.166		
6,000.0	5,886.5	5,963.7	5,895.2	21.2	18.1	1.09	-377.7	-740.3	354.0	324.6	29.35	12.059		
6,100.0	5,986.5	6,060.8	5,992.1	21.3	18.2	0.50	-379.6	-743.9	351.9	322.5	29.44	11.955		
6,200.0	6,086.5	6,158.0	6,089.3	21.4	18.3	0.15	-380.8	-746.1	350.7	321.2	29.59	11.853		
6,300.0	6,186.5	6,255.2	6,186.5	21.5	18.4	0.03	-381.2	-746.8	350.4	320.5	29.81	11.752		
6,400.0	6,286.5	6,355.2	6,286.5	21.6	18.5	0.03	-381.2	-746.8	350.4	320.3	30.07	11.650		
6,432.4	6,318.9	6,387.6	6,318.8	21.6	18.6	0.08	-381.2	-746.5	350.4	320.2	30.18	11.610		
6,500.0	6,386.5	6,454.7	6,385.8	21.7	18.5	0.94	-381.2	-741.3	350.4	319.8	30.60	11.449		
6,600.0	6,486.5	6,550.9	6,480.1	21.7	18.4	3.93	-381.2	-722.9	351.2	319.5	31.72	11.074		
6,700.0	6,586.2	6,642.5	6,566.9	21.8	18.1	-81.95	-381.2	-693.9	354.1	322.1	32.01	11.061		
6,800.0	6,684.3	6,731.3	6,646.9	21.6	17.7	-78.05	-381.2	-655.3	358.6	328.1	30.44	11.782		
6,900.0	6,778.6	6,817.9	6,719.6	21.3	17.2	-74.48	-381.2	-608.5	364.3	335.4	28.89	12.611		
7,000.0	6,867.5	6,900.0	6,783.0	20.9	16.8	-71.34	-381.2	-556.3	370.8	343.3	27.51	13.477		
7,100.0	6,949.1	6,985.4	6,842.1	20.5	16.3	-68.46	-381.2	-494.7	377.5	351.2	26.32	14.340		
7,200.0	7,022.0	7,067.0	6,891.3	20.0	15.8	-66.06	-381.2	-429.7	384.1	358.6	25.48	15.076		
7,300.0	7,084.6	7,150.0	6,933.4	19.5	15.4	-64.04	-381.2	-358.3	390.1	365.1	24.98	15.615		
7,400.0	7,135.8	7,227.1	6,964.9	19.1	15.1	-62.53	-381.2	-288.0	395.3	370.3	24.94	15.848		
7,500.0	7,174.5	7,306.0	6,989.2	18.7	14.9	-61.38	-381.2	-212.9	399.3	374.0	25.32	15.770		
7,600.0	7,200.0	7,384.5	7,005.0	18.6	14.8	-60.64	-381.2	-136.0	402.0	375.8	26.16	15.366		
7,700.0	7,211.9	7,462.8	7,012.2	18.6	15.3	-60.31	-381.2	-58.1	403.2	375.8	27.41	14.712		
7,800.0	7,214.0	7,558.6	7,014.1	19.0	16.5	-60.29	-381.2	37.7	403.3	374.0	29.36	13.738		
7,900.0	7,215.7	7,658.6	7,015.8	20.0	18.0	-60.28	-381.2	137.6	403.3	371.5	31.79	12.685		
8,000.0	7,217.4	7,758.6	7,017.6	21.3	19.7	-60.28	-381.2	237.6	403.3	368.7	34.60	11.658		
8,100.0	7,219.2	7,858.6	7,019.3	22.9	21.5	-60.28	-381.2	337.6	403.3	365.6	37.68	10.703		
8,200.0	7,220.9	7,958.6	7,021.0	24.7	23.4	-60.28	-381.2	437.6	403.3	362.3	40.99	9.839		
8,300.0	7,222.7	8,058.6	7,022.8	26.6	25.4	-60.28	-381.2	537.6	403.3	358.8	44.46	9.070		
8,400.0	7,224.4	8,158.6	7,024.5	28.6	27.5	-60.28	-381.2	637.6	403.3	355.2	48.07	8.389		
8,500.0	7,226.2	8,258.6	7,026.3	30.7	29.6	-60.28	-381.3	737.6	403.3	351.5	51.79	7.787		
8,600.0	7,227.9	8,358.6	7,028.0	32.8	31.8	-60.28	-381.3	837.5	403.3	347.7	55.59	7.254		
8,700.0	7,229.7	8,458.6	7,029.8	35.0	34.1	-60.28	-381.3	937.5	403.3	343.8	59.46	6.782		
8,800.0	7,231.4	8,558.6	7,031.5	37.2	36.3	-60.28	-381.3	1,037.5	403.2	339.9	63.38	6.362		
8,900.0	7,233.2	8,658.6	7,033.3	39.4	38.6	-60.28	-381.3	1,137.5	403.2	335.9	67.35	5.987		
9,000.0	7,234.9	8,758.6	7,035.0	41.7	40.9	-60.28	-381.3	1,237.5	403.2	331.9	71.36	5.650		
9,100.0	7,236.6	8,858.6	7,036.8	43.9	43.2	-60.28	-381.3	1,337.5	403.2	327.8	75.40	5.347		
9,200.0	7,238.4	8,958.6	7,038.5	46.2	45.6	-60.28	-381.3	1,437.4	403.2	323.7	79.47	5.074		
9,300.0	7,240.1	9,058.6	7,040.2	48.6	47.9	-60.28	-381.3	1,537.4	403.2	319.6	83.56	4.825		
9,400.0	7,241.9	9,158.6	7,042.0	50.9	50.3	-60.28	-381.3	1,637.4	403.2	315.5	87.68	4.599		
9,500.0	7,243.6	9,258.6	7,043.7	53.2	52.6	-60.27	-381.3	1,737.4	403.2	311.4	91.81	4.392		
9,600.0	7,245.4	9,358.6	7,045.5	55.6	55.0	-60.27	-381.3	1,837.4	403.2	307.2	95.95	4.202		
9,700.0	7,247.1	9,458.6	7,047.2	57.9	57.4	-60.27	-381.3	1,937.4	403.2	303.1	100.11	4.028		
9,800.0	7,248.9	9,558.6	7,049.0	60.3	59.8	-60.27	-381.3	2,037.4	403.2	298.9	104.27	3.866		
9,900.0	7,250.6	9,658.6	7,050.7	62.7	62.2	-60.27	-381.3	2,137.3	403.2	294.7	108.45	3.717		
10,000.0	7,252.3	9,758.6	7,052.5	65.1	64.6	-60.27	-381.3	2,237.3	403.2	290.5	112.64	3.579		
10,100.0	7,254.1	9,858.6	7,054.2	67.5	67.0	-60.27	-381.3	2,337.3	403.1	286.3	116.84	3.450		
10,200.0	7,255.8	9,958.6	7,056.0	69.9	69.4	-60.27	-381.3	2,437.3	403.1	282.1	121.04	3.331		

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 3F-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 3F-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							
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
10,300.0	7,257.6	10,058.6	7,057.7	72.3	71.8	-60.27	-381.4	2,537.3	403.1	277.9	125.25	3.219	
10,400.0	7,259.3	10,158.6	7,059.4	74.7	74.3	-60.27	-381.4	2,637.3	403.1	273.7	129.47	3.114	
10,500.0	7,261.1	10,258.6	7,061.2	77.1	76.7	-60.27	-381.4	2,737.3	403.1	269.4	133.69	3.015	
10,600.0	7,262.8	10,358.6	7,062.9	79.5	79.1	-60.27	-381.4	2,837.2	403.1	265.2	137.91	2.923	
10,700.0	7,264.6	10,458.6	7,064.7	81.9	81.6	-60.27	-381.4	2,937.2	403.1	261.0	142.14	2.836	
10,800.0	7,266.3	10,558.6	7,066.4	84.3	84.0	-60.27	-381.4	3,037.2	403.1	256.7	146.38	2.754	
10,900.0	7,268.1	10,658.6	7,068.2	86.8	86.4	-60.27	-381.4	3,137.2	403.1	252.5	150.62	2.676	
11,000.0	7,269.8	10,758.6	7,069.9	89.2	88.9	-60.27	-381.4	3,237.2	403.1	248.2	154.86	2.603	
11,100.0	7,271.5	10,858.6	7,071.7	91.6	91.3	-60.27	-381.4	3,337.2	403.1	244.0	159.10	2.533	
11,200.0	7,273.3	10,958.6	7,073.4	94.0	93.7	-60.26	-381.4	3,437.1	403.1	239.7	163.35	2.468	
11,300.0	7,275.0	11,058.6	7,075.1	96.5	96.2	-60.26	-381.4	3,537.1	403.1	235.5	167.60	2.405	
11,400.0	7,276.8	11,158.6	7,076.9	98.9	98.6	-60.26	-381.4	3,637.1	403.1	231.2	171.85	2.345	
11,500.0	7,278.5	11,258.6	7,078.6	101.3	101.1	-60.26	-381.4	3,737.1	403.0	226.9	176.11	2.289	
11,600.0	7,280.3	11,358.6	7,080.4	103.8	103.5	-60.26	-381.4	3,837.1	403.0	222.7	180.36	2.235	
11,700.0	7,282.0	11,458.6	7,082.1	106.2	106.0	-60.26	-381.4	3,937.1	403.0	218.4	184.62	2.183	
11,800.0	7,283.8	11,558.6	7,083.9	108.7	108.4	-60.26	-381.4	4,037.1	403.0	214.1	188.88	2.134	
11,900.0	7,285.5	11,658.6	7,085.6	111.1	110.9	-60.26	-381.4	4,137.0	403.0	209.9	193.14	2.087	
12,000.0	7,287.3	11,758.6	7,087.4	113.6	113.3	-60.26	-381.5	4,237.0	403.0	205.6	197.41	2.041	
12,100.0	7,289.0	11,858.6	7,089.1	116.0	115.8	-60.26	-381.5	4,337.0	403.0	201.3	201.67	1.998	
12,200.0	7,290.7	11,958.6	7,090.9	118.4	118.2	-60.26	-381.5	4,437.0	403.0	197.1	205.94	1.957	
12,300.0	7,292.5	12,058.6	7,092.6	120.9	120.7	-60.26	-381.5	4,537.0	403.0	192.8	210.21	1.917	
12,400.0	7,294.2	12,158.6	7,094.3	123.3	123.2	-60.26	-381.5	4,637.0	403.0	188.5	214.48	1.879	
12,500.0	7,296.0	12,258.6	7,096.1	125.8	125.6	-60.26	-381.5	4,736.9	403.0	184.2	218.75	1.842	
12,600.0	7,297.7	12,358.6	7,097.8	128.2	128.1	-60.26	-381.5	4,836.9	403.0	179.9	223.02	1.807	
12,700.0	7,299.5	12,458.6	7,099.6	130.7	130.5	-60.26	-381.5	4,936.9	403.0	175.7	227.29	1.773	
12,800.0	7,301.2	12,558.6	7,101.3	133.1	133.0	-60.25	-381.5	5,036.9	402.9	171.4	231.56	1.740	
12,900.0	7,303.0	12,658.6	7,103.1	135.6	135.4	-60.25	-381.5	5,136.9	402.9	167.1	235.84	1.709	
13,000.0	7,304.7	12,758.6	7,104.8	138.1	137.9	-60.25	-381.5	5,236.9	402.9	162.8	240.11	1.678	
13,100.0	7,306.5	12,858.6	7,106.6	140.5	140.4	-60.25	-381.5	5,336.9	402.9	158.5	244.39	1.649	
13,200.0	7,308.2	12,958.6	7,108.3	143.0	142.8	-60.25	-381.5	5,436.8	402.9	154.3	248.66	1.620	
13,300.0	7,309.9	13,058.6	7,110.1	145.4	145.3	-60.25	-381.5	5,536.8	402.9	150.0	252.94	1.593	
13,400.0	7,311.7	13,158.6	7,111.8	147.9	147.7	-60.25	-381.5	5,636.8	402.9	145.7	257.22	1.566	
13,500.0	7,313.4	13,258.6	7,113.5	150.3	150.2	-60.25	-381.5	5,736.8	402.9	141.4	261.50	1.541	
13,600.0	7,315.2	13,358.6	7,115.3	152.8	152.7	-60.25	-381.5	5,836.8	402.9	137.1	265.78	1.516	
13,700.0	7,316.9	13,458.6	7,117.0	155.3	155.1	-60.25	-381.5	5,936.8	402.9	132.8	270.05	1.492 Level 3	
13,800.0	7,318.7	13,558.6	7,118.8	157.7	157.6	-60.25	-381.6	6,036.7	402.9	128.5	274.33	1.469 Level 3	
13,900.0	7,320.4	13,658.6	7,120.5	160.2	160.0	-60.25	-381.6	6,136.7	402.9	124.2	278.62	1.446 Level 3	
14,000.0	7,322.2	13,758.6	7,122.3	162.6	162.5	-60.25	-381.6	6,236.7	402.9	120.0	282.90	1.424 Level 3	
14,100.0	7,323.9	13,858.6	7,124.0	165.1	165.0	-60.25	-381.6	6,336.7	402.8	115.7	287.18	1.403 Level 3	
14,200.0	7,325.6	13,958.6	7,125.8	167.5	167.4	-60.25	-381.6	6,436.7	402.8	111.4	291.46	1.382 Level 3	
14,300.0	7,327.4	14,058.6	7,127.5	170.0	169.9	-60.25	-381.6	6,536.7	402.8	107.1	295.74	1.362 Level 3	
14,400.0	7,329.1	14,158.6	7,129.3	172.5	172.4	-60.25	-381.6	6,636.7	402.8	102.8	300.02	1.343 Level 3	
14,435.7	7,329.8	14,194.3	7,129.9	173.4	173.2	-60.24	-381.6	6,672.4	402.8	101.3	301.56	1.336 Level 3	
14,450.2	7,330.0	14,201.5	7,130.0	173.7	173.4	-60.24	-381.6	6,679.5	402.9	100.9	302.02	1.334 Level 3, SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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 (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	1.0	1.0	0.0	0.0	-180.00	-10.9	0.0	10.9					
100.0	100.0	101.0	101.0	0.2	0.2	-180.00	-10.9	0.0	10.9	10.6	0.31	35.781		
200.0	200.0	201.0	201.0	0.3	0.3	-180.00	-10.9	0.0	10.9	10.3	0.65	16.698		
300.0	300.0	301.0	301.0	0.5	0.5	-180.00	-10.9	0.0	10.9	9.9	1.00	10.890		
332.7	332.7	333.7	333.7	0.6	0.6	-180.00	-10.9	0.0	10.9	9.8	1.12	9.777 CC, ES		
400.0	400.0	400.8	400.7	0.7	0.7	-178.07	-11.5	-0.4	11.5	10.1	1.35	8.495		
500.0	500.0	500.0	499.8	0.9	0.9	-37.18	-15.8	-3.4	14.7	13.0	1.70	8.647		
600.0	599.8	599.1	598.4	1.0	1.1	-32.80	-24.2	-9.3	20.0	17.9	2.06	9.682		
700.0	699.5	697.7	695.8	1.3	1.4	-30.25	-36.8	-18.1	27.1	24.7	2.43	11.163		
800.0	798.7	795.8	791.8	1.5	1.8	-28.84	-53.4	-29.7	36.1	33.3	2.81	12.854		
900.0	897.5	895.0	888.0	1.8	2.2	-28.67	-72.9	-43.4	45.4	42.2	3.21	14.138		
1,000.0	995.6	994.8	984.8	2.1	2.6	-30.37	-92.7	-57.3	51.8	48.2	3.67	14.127		
1,100.0	1,093.2	1,094.6	1,081.8	2.5	3.0	-33.37	-112.5	-71.1	55.7	51.5	4.20	13.247		
1,200.0	1,190.6	1,194.5	1,178.7	2.9	3.5	-36.25	-132.3	-85.0	59.3	54.5	4.80	12.363		
1,300.0	1,288.0	1,294.4	1,275.6	3.3	3.9	-38.78	-152.1	-98.8	63.1	57.7	5.44	11.605		
1,400.0	1,385.5	1,394.3	1,372.5	3.8	4.4	-41.03	-171.9	-112.7	67.0	60.9	6.11	10.960		
1,500.0	1,482.9	1,494.2	1,469.5	4.2	4.8	-43.03	-191.7	-126.6	71.0	64.2	6.82	10.411		
1,600.0	1,580.3	1,594.1	1,566.4	4.6	5.3	-44.81	-211.5	-140.4	75.0	67.5	7.55	9.944		
1,700.0	1,677.8	1,694.0	1,663.3	5.0	5.7	-46.41	-231.3	-154.3	79.2	70.9	8.29	9.546		
1,800.0	1,775.2	1,793.9	1,760.2	5.4	6.2	-47.85	-251.1	-168.1	83.3	74.3	9.05	9.204		
1,900.0	1,872.7	1,893.8	1,857.2	5.9	6.6	-49.16	-270.9	-182.0	87.6	77.7	9.83	8.909		
2,000.0	1,970.1	1,993.7	1,954.1	6.3	7.1	-50.34	-290.6	-195.9	91.8	81.2	10.61	8.653		
2,100.0	2,067.5	2,093.6	2,051.0	6.7	7.6	-51.42	-310.4	-209.7	96.1	84.7	11.40	8.430		
2,200.0	2,165.0	2,193.5	2,147.9	7.2	8.0	-52.40	-330.2	-223.6	100.5	88.3	12.20	8.233		
2,300.0	2,262.4	2,293.4	2,244.9	7.6	8.5	-53.30	-350.0	-237.4	104.8	91.8	13.01	8.059		
2,400.0	2,359.8	2,393.2	2,341.8	8.0	8.9	-54.13	-369.8	-251.3	109.2	95.4	13.81	7.905		
2,500.0	2,457.3	2,493.1	2,438.7	8.4	9.4	-54.90	-389.6	-265.2	113.6	99.0	14.63	7.767		
2,600.0	2,554.7	2,593.0	2,535.6	8.9	9.9	-55.61	-409.4	-279.0	118.0	102.6	15.44	7.643		
2,700.0	2,652.1	2,692.9	2,632.6	9.3	10.3	-56.26	-429.2	-292.9	122.5	106.2	16.26	7.531		
2,800.0	2,749.6	2,792.8	2,729.5	9.7	10.8	-56.88	-449.0	-306.8	126.9	109.8	17.08	7.430		
2,900.0	2,847.0	2,892.7	2,826.4	10.2	11.2	-57.45	-468.8	-320.6	131.4	113.5	17.90	7.339		
3,000.0	2,944.5	2,992.6	2,923.3	10.6	11.7	-57.98	-488.6	-334.5	135.9	117.1	18.73	7.255		
3,100.0	3,041.9	3,092.5	3,020.3	11.0	12.1	-58.48	-508.4	-348.3	140.4	120.8	19.55	7.178		
3,200.0	3,139.3	3,192.4	3,117.2	11.5	12.6	-58.94	-528.2	-362.2	144.9	124.5	20.38	7.108		
3,300.0	3,236.8	3,292.3	3,214.1	11.9	13.1	-59.38	-548.0	-376.1	149.4	128.2	21.21	7.043		
3,400.0	3,334.2	3,392.2	3,311.0	12.3	13.5	-59.80	-567.8	-389.9	153.9	131.8	22.04	6.983		
3,500.0	3,431.6	3,492.1	3,408.0	12.8	14.0	-60.19	-587.6	-403.8	158.4	135.5	22.87	6.928		
3,600.0	3,529.1	3,591.9	3,504.9	13.2	14.4	-60.56	-607.4	-417.6	162.9	139.2	23.70	6.876		
3,700.0	3,626.5	3,691.8	3,601.8	13.6	14.9	-60.90	-627.2	-431.5	167.5	143.0	24.53	6.829		
3,800.0	3,724.0	3,791.7	3,698.7	14.1	15.4	-61.23	-647.0	-445.4	172.0	146.7	25.36	6.784		
3,900.0	3,821.4	3,891.6	3,795.7	14.5	15.8	-61.55	-666.8	-459.2	176.6	150.4	26.19	6.742		
4,000.0	3,918.8	3,991.5	3,892.6	14.9	16.3	-61.84	-686.6	-473.1	181.1	154.1	27.02	6.703		
4,100.0	4,016.3	4,091.4	3,989.5	15.4	16.7	-62.13	-706.4	-486.9	185.7	157.8	27.85	6.666		
4,200.0	4,113.7	4,191.3	4,086.4	15.8	17.2	-62.40	-726.2	-500.8	190.3	161.6	28.69	6.632		
4,300.0	4,211.1	4,291.2	4,183.4	16.2	17.7	-62.65	-745.9	-514.7	194.8	165.3	29.52	6.599		
4,400.0	4,308.6	4,391.1	4,280.3	16.7	18.1	-62.90	-765.7	-528.5	199.4	169.0	30.35	6.569		
4,500.0	4,406.0	4,491.0	4,377.2	17.1	18.6	-63.13	-785.5	-542.4	204.0	172.8	31.19	6.540		
4,600.0	4,503.5	4,590.9	4,474.1	17.5	19.0	-63.35	-805.3	-556.3	208.5	176.5	32.02	6.513		
4,700.0	4,600.9	4,690.8	4,571.1	18.0	19.5	-63.57	-825.1	-570.1	213.1	180.3	32.86	6.487		
4,800.0	4,698.3	4,790.7	4,668.0	18.4	20.0	-63.77	-844.9	-584.0	217.7	184.0	33.69	6.462		
4,900.0	4,795.8	4,890.5	4,764.9	18.8	20.4	-63.97	-864.7	-597.8	222.3	187.8	34.53	6.439		
5,000.0	4,893.2	4,990.4	4,861.8	19.3	20.9	-64.16	-884.5	-611.7	226.9	191.5	35.36	6.417		

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 3F-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 3F-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				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		
5,100.0	4,990.8	5,090.3	4,958.7	19.7	21.3	-64.27	-904.3	-625.6	231.7	195.6	36.15	6.409		
5,200.0	5,088.9	5,190.1	5,055.5	20.0	21.8	-63.76	-924.1	-639.4	237.9	201.2	36.70	6.482		
5,300.0	5,187.7	5,289.6	5,152.1	20.3	22.3	-62.58	-943.8	-653.2	245.7	208.7	36.98	6.645		
5,400.0	5,287.0	5,388.8	5,248.4	20.6	22.7	-60.84	-963.5	-667.0	255.3	218.3	37.00	6.901		
5,500.0	5,386.6	5,487.5	5,344.1	20.7	23.2	-58.63	-983.0	-680.7	267.0	230.2	36.77	7.262		
5,600.0	5,486.5	5,585.6	5,439.3	20.9	23.6	-56.08	-1,002.5	-694.3	281.1	244.8	36.30	7.742		
5,700.0	5,586.5	5,683.0	5,533.8	21.0	24.1	172.31	-1,021.8	-707.8	297.8	264.1	33.70	8.835		
5,800.0	5,686.5	5,784.9	5,632.8	21.0	24.5	175.34	-1,041.7	-721.7	315.9	280.5	35.43	8.918		
5,900.0	5,786.5	5,888.2	5,743.9	21.1	24.9	177.78	-1,059.6	-734.3	331.2	294.4	36.84	8.990		
6,000.0	5,886.5	6,013.8	5,858.4	21.2	25.2	179.36	-1,072.3	-743.2	342.1	304.2	37.82	9.045		
6,100.0	5,986.5	6,130.8	5,975.1	21.3	25.4	-179.81	-1,079.4	-748.1	348.1	309.7	38.41	9.063		
6,200.0	6,086.5	6,243.2	6,087.5	21.4	25.4	-179.64	-1,080.9	-749.2	349.3	310.7	38.69	9.030		
6,300.0	6,186.5	6,343.2	6,187.5	21.5	25.5	-179.64	-1,080.9	-749.2	349.3	310.5	38.89	8.984		
6,400.0	6,286.5	6,443.2	6,287.5	21.6	25.6	-179.64	-1,080.9	-749.2	349.3	310.3	39.09	8.937		
6,457.0	6,343.5	6,500.3	6,344.5	21.6	25.6	-180.00	-1,080.9	-747.0	349.3	310.3	39.07	8.941		
6,500.0	6,386.5	6,542.9	6,386.9	21.7	25.6	179.25	-1,080.9	-742.4	349.4	310.5	38.88	8.985		
6,600.0	6,486.5	6,638.9	6,480.8	21.7	25.4	176.07	-1,080.9	-723.0	350.2	312.3	37.90	9.241		
6,700.0	6,586.2	6,730.1	6,566.9	21.8	25.2	81.78	-1,080.9	-693.0	353.3	315.8	37.47	9.428		
6,800.0	6,684.3	6,818.5	6,646.0	21.6	24.9	77.72	-1,080.9	-653.8	358.1	319.9	38.13	9.390		
6,900.0	6,778.6	6,904.5	6,717.9	21.3	24.6	73.99	-1,080.9	-606.5	364.2	326.2	38.07	9.567		
7,000.0	6,867.5	6,988.5	6,782.0	20.9	24.3	70.65	-1,080.9	-552.4	371.2	333.9	37.29	9.955		
7,100.0	6,949.1	7,070.9	6,838.4	20.5	23.9	67.73	-1,080.9	-492.4	378.5	342.6	35.87	10.552		
7,200.0	7,022.0	7,150.0	6,885.7	20.0	23.6	65.28	-1,080.9	-429.0	385.6	351.7	34.00	11.344		
7,300.0	7,084.6	7,231.6	6,926.8	19.5	23.3	63.18	-1,080.9	-358.6	392.2	360.3	31.90	12.295		
7,400.0	7,135.8	7,310.6	6,958.8	19.1	23.1	61.56	-1,080.9	-286.4	397.8	367.9	29.94	13.288		
7,500.0	7,174.5	7,388.8	6,982.4	18.7	23.0	60.36	-1,080.9	-211.8	402.3	373.7	28.52	14.106		
7,600.0	7,200.0	7,466.6	6,997.7	18.6	22.9	59.57	-1,080.9	-135.6	405.3	377.3	28.02	14.462		
7,700.0	7,211.9	7,544.2	7,004.7	18.6	23.0	59.20	-1,080.9	-58.4	406.8	378.0	28.72	14.161		
7,800.0	7,214.0	7,640.4	7,006.5	19.0	23.2	59.17	-1,080.9	37.8	406.9	376.3	30.54	13.322		
7,900.0	7,215.7	7,740.4	7,008.2	20.0	23.8	59.17	-1,080.9	137.8	406.9	374.1	32.82	12.398		
8,000.0	7,217.4	7,840.4	7,010.0	21.3	24.6	59.17	-1,080.9	237.8	406.9	371.4	35.46	11.474		
8,100.0	7,219.2	7,940.4	7,011.7	22.9	25.8	59.17	-1,080.9	337.7	406.9	368.5	38.40	10.597		
8,200.0	7,220.9	8,040.4	7,013.4	24.7	27.2	59.17	-1,080.9	437.7	406.9	365.3	41.56	9.791		
8,300.0	7,222.7	8,140.4	7,015.2	26.6	28.8	59.17	-1,080.9	537.7	406.9	362.0	44.90	9.061		
8,400.0	7,224.4	8,240.4	7,016.9	28.6	30.6	59.17	-1,080.9	637.7	406.9	358.5	48.39	8.409		
8,500.0	7,226.2	8,340.4	7,018.7	30.7	32.5	59.17	-1,080.9	737.7	406.9	354.9	51.99	7.826		
8,600.0	7,227.9	8,440.4	7,020.4	32.8	34.5	59.17	-1,080.9	837.7	406.9	351.2	55.69	7.307		
8,700.0	7,229.7	8,540.4	7,022.2	35.0	36.6	59.17	-1,080.9	937.6	406.9	347.5	59.46	6.844		
8,800.0	7,231.4	8,640.4	7,023.9	37.2	38.7	59.17	-1,080.9	1,037.6	406.9	343.6	63.29	6.430		
8,900.0	7,233.2	8,740.4	7,025.7	39.4	40.8	59.17	-1,080.9	1,137.6	406.9	339.8	67.17	6.058		
9,000.0	7,234.9	8,840.4	7,027.4	41.7	43.0	59.17	-1,080.9	1,237.6	406.9	335.8	71.09	5.724		
9,100.0	7,236.6	8,940.4	7,029.2	43.9	45.3	59.17	-1,080.9	1,337.6	406.9	331.9	75.05	5.422		
9,200.0	7,238.4	9,040.4	7,030.9	46.2	47.5	59.18	-1,080.9	1,437.6	406.9	327.9	79.04	5.148		
9,300.0	7,240.1	9,140.4	7,032.6	48.6	49.8	59.18	-1,080.9	1,537.6	406.9	323.9	83.06	4.899		
9,400.0	7,241.9	9,240.4	7,034.4	50.9	52.1	59.18	-1,080.9	1,637.5	406.9	319.8	87.10	4.672		
9,500.0	7,243.6	9,340.4	7,036.1	53.2	54.4	59.18	-1,080.9	1,737.5	406.9	315.8	91.16	4.464		
9,600.0	7,245.4	9,440.4	7,037.9	55.6	56.7	59.18	-1,080.9	1,837.5	406.9	311.7	95.23	4.273		
9,700.0	7,247.1	9,540.4	7,039.6	57.9	59.0	59.18	-1,080.9	1,937.5	407.0	307.6	99.33	4.097		
9,800.0	7,248.9	9,640.4	7,041.4	60.3	61.4	59.18	-1,080.9	2,037.5	407.0	303.5	103.43	3.935		
9,900.0	7,250.6	9,740.4	7,043.1	62.7	63.7	59.18	-1,080.9	2,137.5	407.0	299.4	107.55	3.784		
10,000.0	7,252.3	9,840.4	7,044.9	65.1	66.1	59.18	-1,080.9	2,237.5	407.0	295.3	111.67	3.644		
10,100.0	7,254.1	9,940.4	7,046.6	67.5	68.4	59.18	-1,080.9	2,337.4	407.0	291.2	115.81	3.514		

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 3F-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 3F-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				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
10,200.0	7,255.8	10,040.4	7,048.4	69.9	70.8	59.18	-1,080.9	2,437.4	407.0	287.0	119.95	3.393		
10,300.0	7,257.6	10,140.4	7,050.1	72.3	73.2	59.18	-1,080.9	2,537.4	407.0	282.9	124.10	3.279		
10,400.0	7,259.3	10,240.4	7,051.8	74.7	75.6	59.18	-1,080.9	2,637.4	407.0	278.7	128.26	3.173		
10,500.0	7,261.1	10,340.4	7,053.6	77.1	78.0	59.18	-1,080.9	2,737.4	407.0	274.6	132.42	3.073		
10,600.0	7,262.8	10,440.4	7,055.3	79.5	80.4	59.18	-1,080.9	2,837.4	407.0	270.4	136.59	2.980		
10,700.0	7,264.6	10,540.4	7,057.1	81.9	82.8	59.18	-1,080.9	2,937.3	407.0	266.2	140.77	2.891		
10,800.0	7,266.3	10,640.4	7,058.8	84.3	85.2	59.18	-1,080.9	3,037.3	407.0	262.1	144.95	2.808		
10,900.0	7,268.1	10,740.4	7,060.6	86.8	87.6	59.18	-1,080.9	3,137.3	407.0	257.9	149.13	2.729		
11,000.0	7,269.8	10,840.4	7,062.3	89.2	90.0	59.18	-1,080.9	3,237.3	407.0	253.7	153.32	2.655		
11,100.0	7,271.5	10,940.4	7,064.1	91.6	92.4	59.18	-1,080.9	3,337.3	407.0	249.5	157.51	2.584		
11,200.0	7,273.3	11,040.4	7,065.8	94.0	94.8	59.18	-1,080.9	3,437.3	407.0	245.3	161.71	2.517		
11,300.0	7,275.0	11,140.4	7,067.6	96.5	97.3	59.18	-1,080.9	3,537.3	407.0	241.1	165.90	2.453		
11,400.0	7,276.8	11,240.4	7,069.3	98.9	99.7	59.18	-1,080.9	3,637.2	407.0	236.9	170.10	2.393		
11,500.0	7,278.5	11,340.4	7,071.0	101.3	102.1	59.18	-1,081.0	3,737.2	407.0	232.7	174.31	2.335		
11,600.0	7,280.3	11,440.4	7,072.8	103.8	104.5	59.18	-1,081.0	3,837.2	407.0	228.5	178.51	2.280		
11,700.0	7,282.0	11,540.4	7,074.5	106.2	107.0	59.18	-1,081.0	3,937.2	407.0	224.3	182.72	2.228		
11,800.0	7,283.8	11,640.4	7,076.3	108.7	109.4	59.18	-1,081.0	4,037.2	407.0	220.1	186.93	2.177		
11,900.0	7,285.5	11,740.4	7,078.0	111.1	111.8	59.18	-1,081.0	4,137.2	407.0	215.9	191.14	2.130		
12,000.0	7,287.3	11,840.4	7,079.8	113.6	114.3	59.19	-1,081.0	4,237.1	407.1	211.7	195.36	2.084		
12,100.0	7,289.0	11,940.4	7,081.5	116.0	116.7	59.19	-1,081.0	4,337.1	407.1	207.5	199.57	2.040		
12,200.0	7,290.7	12,040.4	7,083.3	118.4	119.1	59.19	-1,081.0	4,437.1	407.1	203.3	203.79	1.997		
12,300.0	7,292.5	12,140.4	7,085.0	120.9	121.6	59.19	-1,081.0	4,537.1	407.1	199.1	208.01	1.957		
12,400.0	7,294.2	12,240.4	7,086.7	123.3	124.0	59.19	-1,081.0	4,637.1	407.1	194.8	212.23	1.918		
12,500.0	7,296.0	12,340.4	7,088.5	125.8	126.5	59.19	-1,081.0	4,737.1	407.1	190.6	216.45	1.881		
12,600.0	7,297.7	12,440.4	7,090.2	128.2	128.9	59.19	-1,081.0	4,837.1	407.1	186.4	220.68	1.845		
12,700.0	7,299.5	12,540.4	7,092.0	130.7	131.4	59.19	-1,081.0	4,937.0	407.1	182.2	224.90	1.810		
12,800.0	7,301.2	12,640.4	7,093.7	133.1	133.8	59.19	-1,081.0	5,037.0	407.1	178.0	229.13	1.777		
12,900.0	7,303.0	12,740.4	7,095.5	135.6	136.2	59.19	-1,081.0	5,137.0	407.1	173.7	233.35	1.745		
13,000.0	7,304.7	12,840.4	7,097.2	138.1	138.7	59.19	-1,081.0	5,237.0	407.1	169.5	237.58	1.714		
13,100.0	7,306.5	12,940.4	7,099.0	140.5	141.1	59.19	-1,081.0	5,337.0	407.1	165.3	241.81	1.684		
13,200.0	7,308.2	13,040.4	7,100.7	143.0	143.6	59.19	-1,081.0	5,437.0	407.1	161.1	246.04	1.655		
13,300.0	7,309.9	13,140.4	7,102.5	145.4	146.0	59.19	-1,081.0	5,536.9	407.1	156.8	250.27	1.627		
13,400.0	7,311.7	13,240.4	7,104.2	147.9	148.5	59.19	-1,081.0	5,636.9	407.1	152.6	254.50	1.600		
13,500.0	7,313.4	13,340.4	7,105.9	150.3	150.9	59.19	-1,081.0	5,736.9	407.1	148.4	258.73	1.574		
13,600.0	7,315.2	13,440.4	7,107.7	152.8	153.4	59.19	-1,081.0	5,836.9	407.1	144.2	262.96	1.548		
13,700.0	7,316.9	13,540.4	7,109.4	155.3	155.9	59.19	-1,081.0	5,936.9	407.1	139.9	267.20	1.524		
13,800.0	7,318.7	13,640.4	7,111.2	157.7	158.3	59.19	-1,081.0	6,036.9	407.1	135.7	271.43	1.500 Level 3		
13,900.0	7,320.4	13,740.4	7,112.9	160.2	160.8	59.19	-1,081.0	6,136.9	407.1	131.5	275.67	1.477 Level 3		
14,000.0	7,322.2	13,840.4	7,114.7	162.6	163.2	59.19	-1,081.0	6,236.8	407.1	127.2	279.90	1.455 Level 3		
14,100.0	7,323.9	13,940.4	7,116.4	165.1	165.7	59.19	-1,081.0	6,336.8	407.1	123.0	284.14	1.433 Level 3		
14,200.0	7,325.6	14,040.4	7,118.2	167.5	168.1	59.19	-1,081.0	6,436.8	407.1	118.8	288.38	1.412 Level 3		
14,300.0	7,327.4	14,140.4	7,119.9	170.0	170.6	59.19	-1,081.0	6,536.8	407.2	114.5	292.61	1.391 Level 3		
14,400.0	7,329.1	14,240.4	7,121.7	172.5	173.0	59.19	-1,081.0	6,636.8	407.2	110.3	296.85	1.372 Level 3		
14,427.1	7,329.6	14,267.5	7,122.1	173.1	173.7	59.19	-1,081.0	6,663.9	407.2	109.2	298.00	1.366 Level 3		
14,450.2	7,330.0	14,289.4	7,122.5	173.7	174.2	59.19	-1,081.0	6,685.8	407.2	108.2	298.95	1.362 Level 3, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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			
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	71.972		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-21.9	0.0	21.9	21.2	0.65	33.484 CC, ES		
300.0	300.0	299.3	299.3	0.5	0.5	-177.87	-23.3	-0.9	23.4	22.4	1.00	23.276		
400.0	400.0	398.4	398.2	0.7	0.7	-172.88	-27.8	-3.5	28.1	26.7	1.37	20.494		
500.0	500.0	497.1	496.6	0.9	0.9	-34.60	-35.1	-7.8	34.7	33.0	1.70	20.368		
600.0	599.8	595.6	594.4	1.0	1.2	-33.12	-45.4	-13.8	41.8	39.8	2.06	20.275		
700.0	699.5	693.9	691.4	1.3	1.5	-33.03	-58.5	-21.5	49.3	46.8	2.43	20.245		
800.0	798.7	791.8	787.6	1.5	1.8	-33.78	-74.4	-30.8	57.1	54.2	2.83	20.172		
900.0	897.5	889.5	882.9	1.8	2.3	-35.05	-93.1	-41.7	65.2	61.9	3.26	19.998		
1,000.0	995.6	989.2	979.7	2.1	2.7	-37.20	-113.6	-53.8	72.2	68.4	3.76	19.208		
1,100.0	1,093.2	1,089.0	1,076.6	2.5	3.1	-40.44	-134.1	-65.8	76.9	72.5	4.34	17.699		
1,200.0	1,190.6	1,188.8	1,173.6	2.9	3.6	-43.54	-154.7	-77.8	81.5	76.5	4.99	16.320		
1,300.0	1,288.0	1,288.6	1,270.5	3.3	4.0	-46.29	-175.2	-89.8	86.3	80.6	5.69	15.172		
1,400.0	1,385.5	1,388.4	1,367.4	3.8	4.4	-48.75	-195.7	-101.8	91.3	84.9	6.42	14.221		
1,500.0	1,482.9	1,488.2	1,464.3	4.2	4.9	-50.95	-216.3	-113.9	96.5	89.3	7.18	13.431		
1,600.0	1,580.3	1,588.0	1,561.3	4.6	5.3	-52.93	-236.8	-125.9	101.8	93.8	7.97	12.773		
1,700.0	1,677.8	1,687.8	1,658.2	5.0	5.8	-54.71	-257.3	-137.9	107.2	98.4	8.77	12.220		
1,800.0	1,775.2	1,787.6	1,755.1	5.4	6.2	-56.32	-277.8	-149.9	112.7	103.1	9.59	11.753		
1,900.0	1,872.7	1,887.4	1,852.0	5.9	6.7	-57.77	-298.4	-162.0	118.2	107.8	10.41	11.355		
2,000.0	1,970.1	1,987.2	1,949.0	6.3	7.1	-59.10	-318.9	-174.0	123.9	112.6	11.25	11.013		
2,100.0	2,067.5	2,087.0	2,045.9	6.7	7.6	-60.31	-339.4	-186.0	129.6	117.5	12.09	10.718		
2,200.0	2,165.0	2,186.8	2,142.8	7.2	8.0	-61.41	-359.9	-198.0	135.3	122.4	12.93	10.461		
2,300.0	2,262.4	2,286.6	2,239.7	7.6	8.5	-62.43	-380.5	-210.1	141.1	127.3	13.78	10.236		
2,400.0	2,359.8	2,386.5	2,336.7	8.0	8.9	-63.37	-401.0	-222.1	146.9	132.3	14.64	10.037		
2,500.0	2,457.3	2,486.3	2,433.6	8.4	9.4	-64.23	-421.5	-234.1	152.8	137.3	15.49	9.862		
2,600.0	2,554.7	2,586.1	2,530.5	8.9	9.8	-65.03	-442.1	-246.1	158.7	142.4	16.35	9.705		
2,700.0	2,652.1	2,685.9	2,627.4	9.3	10.3	-65.77	-462.6	-258.2	164.6	147.4	17.21	9.564		
2,800.0	2,749.6	2,785.7	2,724.4	9.7	10.7	-66.47	-483.1	-270.2	170.6	152.5	18.08	9.438		
2,900.0	2,847.0	2,885.5	2,821.3	10.2	11.2	-67.11	-503.6	-282.2	176.6	157.6	18.94	9.324		
3,000.0	2,944.5	2,985.3	2,918.2	10.6	11.7	-67.71	-524.2	-294.2	182.6	162.8	19.80	9.220		
3,100.0	3,041.9	3,085.1	3,015.1	11.0	12.1	-68.28	-544.7	-306.3	188.6	167.9	20.67	9.126		
3,200.0	3,139.3	3,184.9	3,112.1	11.5	12.6	-68.80	-565.2	-318.3	194.6	173.1	21.53	9.040		
3,300.0	3,236.8	3,284.7	3,209.0	11.9	13.0	-69.30	-585.7	-330.3	200.7	178.3	22.40	8.961		
3,400.0	3,334.2	3,384.5	3,305.9	12.3	13.5	-69.77	-606.3	-342.3	206.8	183.5	23.26	8.888		
3,500.0	3,431.6	3,484.3	3,402.8	12.8	13.9	-70.21	-626.8	-354.4	212.8	188.7	24.13	8.821		
3,600.0	3,529.1	3,584.1	3,499.8	13.2	14.4	-70.63	-647.3	-366.4	218.9	193.9	24.99	8.759		
3,700.0	3,626.5	3,683.9	3,596.7	13.6	14.8	-71.02	-667.9	-378.4	225.0	199.2	25.86	8.702		
3,800.0	3,724.0	3,783.7	3,693.6	14.1	15.3	-71.39	-688.4	-390.4	231.2	204.4	26.73	8.649		
3,900.0	3,821.4	3,883.5	3,790.5	14.5	15.7	-71.75	-708.9	-402.5	237.3	209.7	27.59	8.599		
4,000.0	3,918.8	3,983.3	3,887.5	14.9	16.2	-72.08	-729.4	-414.5	243.4	214.9	28.46	8.553		
4,100.0	4,016.3	4,083.1	3,984.4	15.4	16.6	-72.40	-750.0	-426.5	249.5	220.2	29.33	8.509		
4,200.0	4,113.7	4,182.9	4,081.3	15.8	17.1	-72.71	-770.5	-438.5	255.7	225.5	30.19	8.469		
4,300.0	4,211.1	4,282.7	4,178.2	16.2	17.5	-73.00	-791.0	-450.5	261.8	230.8	31.06	8.431		
4,400.0	4,308.6	4,382.5	4,275.2	16.7	18.0	-73.28	-811.5	-462.6	268.0	236.1	31.93	8.395		
4,500.0	4,406.0	4,482.3	4,372.1	17.1	18.4	-73.54	-832.1	-474.6	274.2	241.4	32.79	8.361		
4,600.0	4,503.5	4,582.1	4,469.0	17.5	18.9	-73.79	-852.6	-486.6	280.3	246.7	33.66	8.329		
4,700.0	4,600.9	4,681.9	4,565.9	18.0	19.3	-74.03	-873.1	-498.6	286.5	252.0	34.52	8.299		
4,800.0	4,698.3	4,781.7	4,662.9	18.4	19.8	-74.27	-893.6	-510.7	292.7	257.3	35.39	8.271		
4,900.0	4,795.8	4,881.5	4,759.8	18.8	20.2	-74.49	-914.2	-522.7	298.9	262.6	36.26	8.244		
5,000.0	4,893.2	4,981.3	4,856.7	19.3	20.7	-74.70	-934.7	-534.7	305.1	268.0	37.12	8.218		
5,100.0	4,990.8	5,081.1	4,953.6	19.7	21.2	-74.88	-955.2	-546.7	311.4	273.4	37.96	8.203 SF		

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

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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						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	5,088.9	5,180.8	5,050.5	20.0	21.6	-74.58	-975.7	-558.8	318.6	279.9	38.62	8.248		
5,300.0	5,187.7	5,280.3	5,147.1	20.3	22.1	-73.73	-996.2	-570.7	326.7	287.6	39.10	8.356		
5,400.0	5,287.0	5,379.5	5,243.4	20.6	22.5	-72.38	-1,016.6	-582.7	336.0	296.6	39.39	8.531		
5,500.0	5,386.6	5,478.2	5,339.3	20.7	23.0	-70.60	-1,036.9	-594.6	346.7	307.2	39.47	8.782		
5,600.0	5,486.5	5,576.4	5,434.6	20.9	23.4	-68.47	-1,057.1	-606.4	359.0	319.6	39.36	9.120		
5,700.0	5,586.5	5,673.8	5,529.3	21.0	23.8	159.55	-1,077.1	-618.2	373.3	344.0	29.26	12.758		
5,800.0	5,686.5	5,770.9	5,623.6	21.0	24.3	162.23	-1,097.1	-629.9	389.0	358.2	30.84	12.616		
5,900.0	5,786.5	5,868.1	5,717.9	21.1	24.7	164.70	-1,117.1	-641.6	405.6	373.2	32.34	12.540		
6,000.0	5,886.5	5,965.2	5,812.2	21.2	25.2	166.98	-1,137.1	-653.3	422.8	389.0	33.77	12.520		
6,100.0	5,986.5	6,062.3	5,906.5	21.3	25.6	169.09	-1,157.0	-665.0	440.7	405.5	35.13	12.545		
6,200.0	6,086.5	6,159.4	6,000.9	21.4	26.0	171.03	-1,177.0	-676.7	459.1	422.7	36.41	12.607		
6,300.0	6,186.5	6,256.5	6,095.2	21.5	26.5	172.82	-1,197.0	-688.4	478.0	440.3	37.63	12.700		
6,400.0	6,286.5	6,353.6	6,189.5	21.6	26.9	174.48	-1,217.0	-700.1	497.3	458.5	38.79	12.818		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3F-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 3F-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 3F-18H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.29°

