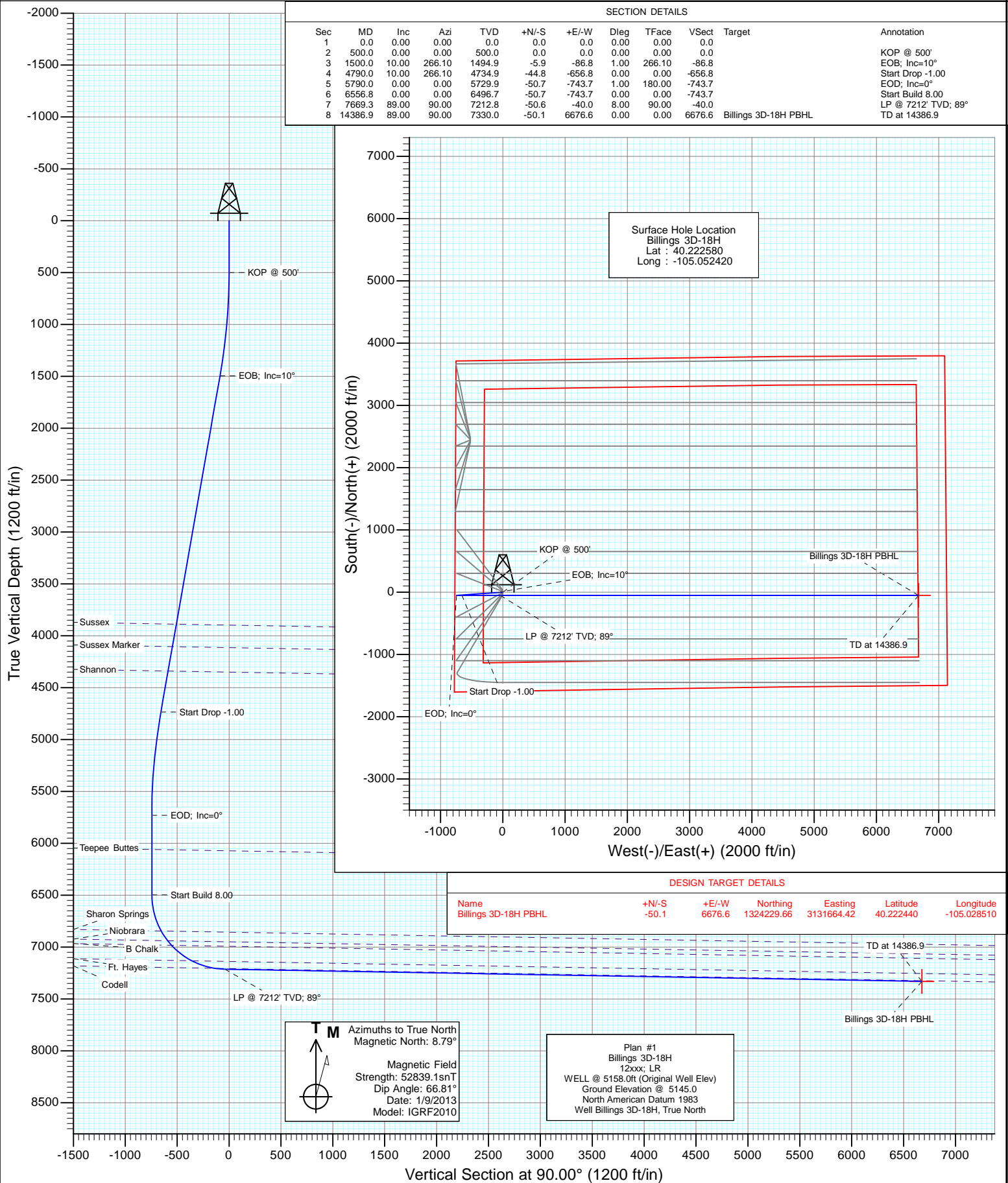




Project: DJ Wattenberg
Site: S18-T3N-R68W (Billings)
Well: Billings 3D-18H
Wellbore: Hz
Design: Plan #1



Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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 3D-18H					
Well Position	+N-S	0.0 ft	Northing:	1,324,246.04 ft	Latitude:	40.222580
	+E-W	0.0 ft	Easting:	3,124,987.61 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	
500.0	0.00	0.00	500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	10.00	266.10	1,494.9	-5.9	-86.8	1.00	1.00	0.00	266.10	
4,790.0	10.00	266.10	4,734.9	-44.8	-656.8	0.00	0.00	0.00	0.00	
5,790.0	0.00	0.00	5,729.9	-50.7	-743.7	1.00	-1.00	0.00	180.00	
6,556.8	0.00	0.00	6,496.7	-50.7	-743.7	0.00	0.00	0.00	0.00	
7,669.3	89.00	90.00	7,212.8	-50.6	-40.0	8.00	8.00	0.00	90.00	
14,386.9	89.00	90.00	7,330.0	-50.1	6,676.6	0.00	0.00	0.00	0.00	Billings 3D-18H PBHL

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	KOP @ 500'
600.0	1.00	266.10	600.0	-0.1	-0.9	-0.9	1.00	1.00	
700.0	2.00	266.10	700.0	-0.2	-3.5	-3.5	1.00	1.00	
800.0	3.00	266.10	799.9	-0.5	-7.8	-7.8	1.00	1.00	
900.0	4.00	266.10	899.7	-0.9	-13.9	-13.9	1.00	1.00	
1,000.0	5.00	266.10	999.4	-1.5	-21.8	-21.8	1.00	1.00	
1,100.0	6.00	266.10	1,098.9	-2.1	-31.3	-31.3	1.00	1.00	
1,200.0	7.00	266.10	1,198.3	-2.9	-42.6	-42.6	1.00	1.00	
1,300.0	8.00	266.10	1,297.4	-3.8	-55.6	-55.6	1.00	1.00	
1,400.0	9.00	266.10	1,396.3	-4.8	-70.4	-70.4	1.00	1.00	
1,500.0	10.00	266.10	1,494.9	-5.9	-86.8	-86.8	1.00	1.00	EOB; Inc=10°
1,600.0	10.00	266.10	1,593.4	-7.1	-104.2	-104.2	0.00	0.00	
1,700.0	10.00	266.10	1,691.9	-8.3	-121.5	-121.5	0.00	0.00	
1,800.0	10.00	266.10	1,790.4	-9.5	-138.8	-138.8	0.00	0.00	
1,900.0	10.00	266.10	1,888.9	-10.6	-156.1	-156.1	0.00	0.00	
2,000.0	10.00	266.10	1,987.3	-11.8	-173.5	-173.5	0.00	0.00	
2,100.0	10.00	266.10	2,085.8	-13.0	-190.8	-190.8	0.00	0.00	
2,200.0	10.00	266.10	2,184.3	-14.2	-208.1	-208.1	0.00	0.00	
2,300.0	10.00	266.10	2,282.8	-15.4	-225.4	-225.4	0.00	0.00	
2,400.0	10.00	266.10	2,381.3	-16.6	-242.8	-242.8	0.00	0.00	
2,500.0	10.00	266.10	2,479.7	-17.7	-260.1	-260.1	0.00	0.00	
2,600.0	10.00	266.10	2,578.2	-18.9	-277.4	-277.4	0.00	0.00	
2,700.0	10.00	266.10	2,676.7	-20.1	-294.7	-294.7	0.00	0.00	
2,800.0	10.00	266.10	2,775.2	-21.3	-312.1	-312.1	0.00	0.00	
2,900.0	10.00	266.10	2,873.7	-22.5	-329.4	-329.4	0.00	0.00	
3,000.0	10.00	266.10	2,972.1	-23.6	-346.7	-346.7	0.00	0.00	
3,100.0	10.00	266.10	3,070.6	-24.8	-364.0	-364.0	0.00	0.00	
3,200.0	10.00	266.10	3,169.1	-26.0	-381.4	-381.4	0.00	0.00	
3,300.0	10.00	266.10	3,267.6	-27.2	-398.7	-398.7	0.00	0.00	
3,400.0	10.00	266.10	3,366.1	-28.4	-416.0	-416.0	0.00	0.00	
3,500.0	10.00	266.10	3,464.5	-29.5	-433.3	-433.3	0.00	0.00	
3,600.0	10.00	266.10	3,563.0	-30.7	-450.7	-450.7	0.00	0.00	
3,700.0	10.00	266.10	3,661.5	-31.9	-468.0	-468.0	0.00	0.00	
3,800.0	10.00	266.10	3,760.0	-33.1	-485.3	-485.3	0.00	0.00	
3,900.0	10.00	266.10	3,858.5	-34.3	-502.6	-502.6	0.00	0.00	
3,930.1	10.00	266.10	3,888.1	-34.6	-507.9	-507.9	0.00	0.00	Sussex
4,000.0	10.00	266.10	3,957.0	-35.4	-520.0	-520.0	0.00	0.00	
4,100.0	10.00	266.10	4,055.4	-36.6	-537.3	-537.3	0.00	0.00	
4,149.8	10.00	266.10	4,104.5	-37.2	-545.9	-545.9	0.00	0.00	Sussex Marker
4,200.0	10.00	266.10	4,153.9	-37.8	-554.6	-554.6	0.00	0.00	
4,300.0	10.00	266.10	4,252.4	-39.0	-571.9	-571.9	0.00	0.00	
4,388.7	10.00	266.10	4,339.7	-40.0	-587.3	-587.3	0.00	0.00	Shannon
4,400.0	10.00	266.10	4,350.9	-40.2	-589.3	-589.3	0.00	0.00	
4,500.0	10.00	266.10	4,449.4	-41.4	-606.6	-606.6	0.00	0.00	
4,600.0	10.00	266.10	4,547.8	-42.5	-623.9	-623.9	0.00	0.00	
4,700.0	10.00	266.10	4,646.3	-43.7	-641.2	-641.2	0.00	0.00	
4,790.0	10.00	266.10	4,734.9	-44.8	-656.8	-656.8	0.00	0.00	Start Drop -1.00

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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	9.90	266.10	4,744.8	-44.9	-658.5	-658.5	1.00	-1.00	
4,900.0	8.90	266.10	4,843.5	-46.0	-674.8	-674.8	1.00	-1.00	
5,000.0	7.90	266.10	4,942.4	-47.0	-689.4	-689.4	1.00	-1.00	
5,100.0	6.90	266.10	5,041.5	-47.9	-702.3	-702.3	1.00	-1.00	
5,200.0	5.90	266.10	5,140.9	-48.6	-713.4	-713.4	1.00	-1.00	
5,300.0	4.90	266.10	5,240.5	-49.3	-722.8	-722.8	1.00	-1.00	
5,400.0	3.90	266.10	5,340.2	-49.8	-730.4	-730.4	1.00	-1.00	
5,500.0	2.90	266.10	5,440.0	-50.2	-736.3	-736.3	1.00	-1.00	
5,600.0	1.90	266.10	5,539.9	-50.5	-740.5	-740.5	1.00	-1.00	
5,700.0	0.90	266.10	5,639.9	-50.7	-743.0	-743.0	1.00	-1.00	
5,790.0	0.00	0.00	5,729.9	-50.7	-743.7	-743.7	1.00	-1.00	EOD; Inc=0°
5,800.0	0.00	0.00	5,739.9	-50.7	-743.7	-743.7	0.00	0.00	
5,900.0	0.00	0.00	5,839.9	-50.7	-743.7	-743.7	0.00	0.00	
6,000.0	0.00	0.00	5,939.9	-50.7	-743.7	-743.7	0.00	0.00	
6,100.0	0.00	0.00	6,039.9	-50.7	-743.7	-743.7	0.00	0.00	
6,119.1	0.00	0.00	6,059.0	-50.7	-743.7	-743.7	0.00	0.00	Teepee Buttes
6,200.0	0.00	0.00	6,139.9	-50.7	-743.7	-743.7	0.00	0.00	
6,300.0	0.00	0.00	6,239.9	-50.7	-743.7	-743.7	0.00	0.00	
6,400.0	0.00	0.00	6,339.9	-50.7	-743.7	-743.7	0.00	0.00	
6,500.0	0.00	0.00	6,439.9	-50.7	-743.7	-743.7	0.00	0.00	
6,556.8	0.00	0.00	6,496.7	-50.7	-743.7	-743.7	0.00	0.00	Start Build 8.00
6,600.0	3.46	90.00	6,539.9	-50.7	-742.4	-742.4	8.00	8.00	
6,700.0	11.46	90.00	6,638.9	-50.7	-729.4	-729.4	8.00	8.00	
6,800.0	19.46	90.00	6,735.2	-50.7	-702.8	-702.8	8.00	8.00	
6,900.0	27.46	90.00	6,826.9	-50.7	-663.0	-663.0	8.00	8.00	
6,920.1	29.06	90.00	6,844.6	-50.7	-653.5	-653.5	8.00	8.00	Sharon Springs
7,000.0	35.46	90.00	6,912.1	-50.7	-610.9	-610.9	8.00	8.00	
7,033.2	38.11	90.00	6,938.7	-50.7	-591.0	-591.0	8.00	8.00	Niobrara
7,090.5	42.70	90.00	6,982.3	-50.7	-553.8	-553.8	8.00	8.00	B Chalk
7,100.0	43.46	90.00	6,989.3	-50.7	-547.4	-547.4	8.00	8.00	
7,200.0	51.46	90.00	7,056.8	-50.7	-473.7	-473.7	8.00	8.00	
7,300.0	59.46	90.00	7,113.5	-50.7	-391.4	-391.4	8.00	8.00	
7,337.6	62.46	90.00	7,131.7	-50.7	-358.6	-358.6	8.00	8.00	Ft. Hayes
7,400.0	67.46	90.00	7,158.1	-50.7	-302.0	-302.0	8.00	8.00	
7,500.0	75.46	90.00	7,189.9	-50.7	-207.3	-207.3	8.00	8.00	
7,573.0	81.30	90.00	7,204.6	-50.6	-135.8	-135.8	8.00	8.00	Codell
7,600.0	83.46	90.00	7,208.2	-50.6	-109.1	-109.1	8.00	8.00	
7,669.3	89.00	90.00	7,212.8	-50.6	-40.0	-40.0	8.00	8.00	LP @ 7212' TVD; 89°
7,700.0	89.00	90.00	7,213.3	-50.6	-9.3	-9.3	0.00	0.00	
7,800.0	89.00	90.00	7,215.0	-50.6	90.7	90.7	0.00	0.00	
7,900.0	89.00	90.00	7,216.8	-50.6	190.7	190.7	0.00	0.00	
8,000.0	89.00	90.00	7,218.5	-50.6	290.7	290.7	0.00	0.00	
8,100.0	89.00	90.00	7,220.3	-50.6	390.7	390.7	0.00	0.00	
8,200.0	89.00	90.00	7,222.0	-50.6	490.7	490.7	0.00	0.00	
8,300.0	89.00	90.00	7,223.8	-50.6	590.6	590.6	0.00	0.00	
8,400.0	89.00	90.00	7,225.5	-50.6	690.6	690.6	0.00	0.00	
8,500.0	89.00	90.00	7,227.3	-50.6	790.6	790.6	0.00	0.00	
8,600.0	89.00	90.00	7,229.0	-50.6	890.6	890.6	0.00	0.00	
8,700.0	89.00	90.00	7,230.7	-50.6	990.6	990.6	0.00	0.00	
8,800.0	89.00	90.00	7,232.5	-50.5	1,090.6	1,090.6	0.00	0.00	
8,900.0	89.00	90.00	7,234.2	-50.5	1,190.5	1,190.5	0.00	0.00	
9,000.0	89.00	90.00	7,236.0	-50.5	1,290.5	1,290.5	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 3D-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	7,237.7	-50.5	1,390.5	1,390.5	0.00	0.00	
9,200.0	89.00	90.00	7,239.5	-50.5	1,490.5	1,490.5	0.00	0.00	
9,300.0	89.00	90.00	7,241.2	-50.5	1,590.5	1,590.5	0.00	0.00	
9,400.0	89.00	90.00	7,243.0	-50.5	1,690.5	1,690.5	0.00	0.00	
9,500.0	89.00	90.00	7,244.7	-50.5	1,790.5	1,790.5	0.00	0.00	
9,600.0	89.00	90.00	7,246.5	-50.5	1,890.4	1,890.4	0.00	0.00	
9,700.0	89.00	90.00	7,248.2	-50.5	1,990.4	1,990.4	0.00	0.00	
9,800.0	89.00	90.00	7,249.9	-50.5	2,090.4	2,090.4	0.00	0.00	
9,900.0	89.00	90.00	7,251.7	-50.5	2,190.4	2,190.4	0.00	0.00	
10,000.0	89.00	90.00	7,253.4	-50.4	2,290.4	2,290.4	0.00	0.00	
10,100.0	89.00	90.00	7,255.2	-50.4	2,390.4	2,390.4	0.00	0.00	
10,200.0	89.00	90.00	7,256.9	-50.4	2,490.4	2,490.4	0.00	0.00	
10,300.0	89.00	90.00	7,258.7	-50.4	2,590.3	2,590.3	0.00	0.00	
10,400.0	89.00	90.00	7,260.4	-50.4	2,690.3	2,690.3	0.00	0.00	
10,500.0	89.00	90.00	7,262.2	-50.4	2,790.3	2,790.3	0.00	0.00	
10,600.0	89.00	90.00	7,263.9	-50.4	2,890.3	2,890.3	0.00	0.00	
10,700.0	89.00	90.00	7,265.7	-50.4	2,990.3	2,990.3	0.00	0.00	
10,800.0	89.00	90.00	7,267.4	-50.4	3,090.3	3,090.3	0.00	0.00	
10,900.0	89.00	90.00	7,269.1	-50.4	3,190.2	3,190.2	0.00	0.00	
11,000.0	89.00	90.00	7,270.9	-50.4	3,290.2	3,290.2	0.00	0.00	
11,100.0	89.00	90.00	7,272.6	-50.4	3,390.2	3,390.2	0.00	0.00	
11,200.0	89.00	90.00	7,274.4	-50.3	3,490.2	3,490.2	0.00	0.00	
11,300.0	89.00	90.00	7,276.1	-50.3	3,590.2	3,590.2	0.00	0.00	
11,400.0	89.00	90.00	7,277.9	-50.3	3,690.2	3,690.2	0.00	0.00	
11,500.0	89.00	90.00	7,279.6	-50.3	3,790.2	3,790.2	0.00	0.00	
11,600.0	89.00	90.00	7,281.4	-50.3	3,890.1	3,890.1	0.00	0.00	
11,700.0	89.00	90.00	7,283.1	-50.3	3,990.1	3,990.1	0.00	0.00	
11,800.0	89.00	90.00	7,284.9	-50.3	4,090.1	4,090.1	0.00	0.00	
11,900.0	89.00	90.00	7,286.6	-50.3	4,190.1	4,190.1	0.00	0.00	
12,000.0	89.00	90.00	7,288.3	-50.3	4,290.1	4,290.1	0.00	0.00	
12,100.0	89.00	90.00	7,290.1	-50.3	4,390.1	4,390.1	0.00	0.00	
12,200.0	89.00	90.00	7,291.8	-50.3	4,490.0	4,490.0	0.00	0.00	
12,300.0	89.00	90.00	7,293.6	-50.3	4,590.0	4,590.0	0.00	0.00	
12,400.0	89.00	90.00	7,295.3	-50.3	4,690.0	4,690.0	0.00	0.00	
12,500.0	89.00	90.00	7,297.1	-50.2	4,790.0	4,790.0	0.00	0.00	
12,600.0	89.00	90.00	7,298.8	-50.2	4,890.0	4,890.0	0.00	0.00	
12,700.0	89.00	90.00	7,300.6	-50.2	4,990.0	4,990.0	0.00	0.00	
12,800.0	89.00	90.00	7,302.3	-50.2	5,090.0	5,090.0	0.00	0.00	
12,900.0	89.00	90.00	7,304.0	-50.2	5,189.9	5,189.9	0.00	0.00	
13,000.0	89.00	90.00	7,305.8	-50.2	5,289.9	5,289.9	0.00	0.00	
13,100.0	89.00	90.00	7,307.5	-50.2	5,389.9	5,389.9	0.00	0.00	
13,200.0	89.00	90.00	7,309.3	-50.2	5,489.9	5,489.9	0.00	0.00	
13,300.0	89.00	90.00	7,311.0	-50.2	5,589.9	5,589.9	0.00	0.00	
13,400.0	89.00	90.00	7,312.8	-50.2	5,689.9	5,689.9	0.00	0.00	
13,500.0	89.00	90.00	7,314.5	-50.2	5,789.8	5,789.8	0.00	0.00	
13,600.0	89.00	90.00	7,316.3	-50.2	5,889.8	5,889.8	0.00	0.00	
13,700.0	89.00	90.00	7,318.0	-50.1	5,989.8	5,989.8	0.00	0.00	
13,800.0	89.00	90.00	7,319.8	-50.1	6,089.8	6,089.8	0.00	0.00	
13,900.0	89.00	90.00	7,321.5	-50.1	6,189.8	6,189.8	0.00	0.00	
14,000.0	89.00	90.00	7,323.2	-50.1	6,289.8	6,289.8	0.00	0.00	
14,100.0	89.00	90.00	7,325.0	-50.1	6,389.8	6,389.8	0.00	0.00	
14,200.0	89.00	90.00	7,326.7	-50.1	6,489.7	6,489.7	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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	7,328.5	-50.1	6,589.7	6,589.7	0.00	0.00	
14,386.9	89.00	90.00	7,330.0	-50.1	6,676.6	6,676.6	0.00	0.00	TD at 14386.9 - Billings 3D-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 3D-18H PBHL	0.00	0.00	7,330.0	-50.1	6,676.6	1,324,229.66	3,131,664.42	40.222440	-105.028510
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,930.1	3,897.0	Sussex		1.00	90.00
4,149.8	4,114.0	Sussex Marker		1.00	90.00
4,388.7	4,350.0	Shannon		1.00	90.00
6,119.1	6,072.0	Teepee Buttes		1.00	90.00
6,920.1	6,856.0	Sharon Springs		1.00	90.00
7,033.2	6,949.0	Niobrara		1.00	90.00
7,090.5	6,992.0	B Chalk		1.00	90.00
7,337.6	7,138.0	Ft. Hayes		1.00	90.00
7,573.0	7,207.0	Codell		1.00	90.00

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
500.0	500.0	0.0	0.0	KOP @ 500'
1,500.0	1,494.9	-5.9	-86.8	EOB; Inc=10°
4,790.0	4,734.9	-44.8	-656.8	Start Drop -1.00
5,790.0	5,729.9	-50.7	-743.7	EOD; Inc=0°
6,556.8	6,496.7	-50.7	-743.7	Start Build 8.00
7,669.3	7,212.8	-50.6	-40.0	LP @ 7212' TVD; 89°
14,386.9	7,330.0	-50.1	6,676.6	TD at 14386.9

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S18-T3N-R68W (Billings)

Billings 3D-18H

Hz

Plan #1

Anticollision Report

09 January, 2013

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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	14,386.9	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	32.8	32.3	61.065	CC
Billings 3A-18H - Hz - Plan #1	200.0	201.0	32.8	32.1	50.099	ES
Billings 3A-18H - Hz - Plan #1	700.0	697.6	51.3	48.9	21.241	SF
Billings 3B-18H - Hz - Plan #1	300.0	300.0	21.9	20.9	21.822	CC, ES
Billings 3B-18H - Hz - Plan #1	700.0	698.5	31.9	29.5	13.237	SF
Billings 3C-18H - Hz - Plan #1	400.0	400.0	10.9	9.6	8.093	CC
Billings 3C-18H - Hz - Plan #1	14,386.9	14,383.4	353.4	7.2	1.021	Level 2, ES, SF
Billings 3E-18H - Hz - Plan #1	400.0	400.0	7.3	5.9	5.390	CC, ES
Billings 3E-18H - Hz - Plan #1	14,386.9	14,201.5	402.9	101.2	1.336	Level 3, SF
Billings 3F-18H - Hz - Plan #1	400.0	400.0	18.2	16.9	13.480	CC, ES
Billings 3F-18H - Hz - Plan #1	600.0	598.8	23.4	21.3	11.384	SF
Billings 3G-18H - Hz - Plan #1	345.4	346.4	29.1	28.0	25.076	CC, ES
Billings 3G-18H - Hz - Plan #1	500.0	498.8	34.1	32.4	19.959	SF
Billings 3H-18H - Hz - Plan #1	200.0	200.0	40.1	39.4	61.382	CC, ES
Billings 3H-18H - Hz - Plan #1	500.0	495.4	54.0	52.2	30.716	SF

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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	32.8	0.0	32.8					
100.0	100.0	101.0	101.0	0.2	0.2	0.00	32.8	0.0	32.8	32.5	0.31	107.355		
166.3	166.3	167.3	167.3	0.3	0.3	0.00	32.8	0.0	32.8	32.3	0.54	61.065 CC		
200.0	200.0	201.0	201.0	0.3	0.3	0.00	32.8	0.0	32.8	32.1	0.65	50.099 ES		
300.0	300.0	300.5	300.5	0.5	0.5	-0.91	33.5	-0.5	33.5	32.5	1.00	33.389		
400.0	400.0	400.0	400.0	0.7	0.7	-3.40	35.6	-2.1	35.6	34.3	1.35	26.312		
500.0	500.0	499.4	499.2	0.8	0.9	-6.92	39.0	-4.7	39.3	37.6	1.71	22.977		
600.0	600.0	598.6	598.2	1.0	1.1	84.12	43.8	-8.4	44.6	42.5	2.06	21.689		
700.0	700.0	697.6	697.0	1.2	1.3	82.94	50.0	-13.1	51.3	48.9	2.41	21.241 SF		
800.0	799.9	796.4	795.3	1.4	1.5	82.95	57.5	-18.8	59.3	56.5	2.78	21.317		
900.0	899.7	895.0	893.3	1.6	1.8	83.73	66.3	-25.5	68.6	65.5	3.16	21.693		
1,000.0	999.4	993.3	990.8	1.8	2.0	84.96	76.4	-33.2	79.3	75.8	3.57	22.236		
1,100.0	1,098.9	1,091.3	1,087.7	2.0	2.3	86.42	87.9	-41.9	91.4	87.4	4.00	22.863		
1,200.0	1,198.3	1,188.9	1,184.0	2.2	2.6	87.95	100.5	-51.5	105.0	100.5	4.46	23.517		
1,300.0	1,297.4	1,286.1	1,279.6	2.5	3.0	89.49	114.5	-62.1	119.9	115.0	4.96	24.162		
1,400.0	1,396.3	1,382.9	1,374.5	2.8	3.3	90.96	129.6	-73.6	136.4	130.9	5.51	24.775		
1,500.0	1,494.9	1,479.2	1,468.6	3.1	3.7	92.34	146.0	-86.1	154.3	148.3	6.09	25.342		
1,600.0	1,593.4	1,575.0	1,561.9	3.4	4.1	93.53	163.5	-99.4	173.7	167.0	6.70	25.928		
1,700.0	1,691.9	1,670.5	1,654.4	3.7	4.6	94.18	182.2	-113.6	194.5	187.1	7.32	26.549		
1,800.0	1,790.4	1,767.3	1,747.9	4.1	5.0	94.50	202.1	-128.7	216.2	208.2	7.96	27.159		
1,900.0	1,888.9	1,864.9	1,842.2	4.4	5.5	94.75	222.2	-144.0	237.9	229.3	8.60	27.655		
2,000.0	1,987.3	1,962.5	1,936.4	4.7	5.9	94.96	242.3	-159.3	259.7	250.5	9.25	28.064		
2,100.0	2,085.8	2,060.1	2,030.7	5.1	6.4	95.14	262.4	-174.6	281.5	271.6	9.91	28.406		
2,200.0	2,184.3	2,157.7	2,125.0	5.4	6.9	95.30	282.5	-189.9	303.3	292.7	10.57	28.695		
2,300.0	2,282.8	2,255.2	2,219.3	5.8	7.3	95.43	302.6	-205.2	325.1	313.8	11.23	28.941		
2,400.0	2,381.3	2,352.8	2,313.5	6.1	7.8	95.55	322.7	-220.4	346.9	335.0	11.90	29.154		
2,500.0	2,479.7	2,450.4	2,407.8	6.4	8.3	95.65	342.8	-235.7	368.6	356.1	12.57	29.338		
2,600.0	2,578.2	2,548.0	2,502.1	6.8	8.7	95.74	362.9	-251.0	390.4	377.2	13.23	29.500		
2,700.0	2,676.7	2,645.6	2,596.3	7.1	9.2	95.82	383.0	-266.3	412.2	398.3	13.91	29.643		
2,800.0	2,775.2	2,743.2	2,690.6	7.5	9.7	95.89	403.1	-281.6	434.0	419.4	14.58	29.770		
2,900.0	2,873.7	2,840.8	2,784.9	7.8	10.1	95.96	423.2	-296.9	455.8	440.5	15.25	29.883		
3,000.0	2,972.1	2,938.4	2,879.1	8.2	10.6	96.02	443.3	-312.2	477.6	461.7	15.93	29.984		
3,100.0	3,070.6	3,036.0	2,973.4	8.5	11.1	96.07	463.4	-327.5	499.4	482.8	16.60	30.076		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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				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	21.9	0.0	21.9					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	21.9	0.0	21.9	21.6	0.30	71.986		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	21.9	0.0	21.9	21.2	0.65	33.491		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	21.9	0.0	21.9	20.9	1.00	21.822 CC, ES		
400.0	400.0	399.7	399.7	0.7	0.7	-1.69	22.4	-0.7	22.4	21.1	1.35	16.611		
500.0	500.0	499.4	499.4	0.8	0.9	-6.24	24.1	-2.6	24.3	22.6	1.70	14.264		
600.0	600.0	599.0	598.9	1.0	1.0	83.24	26.9	-5.9	27.5	25.4	2.05	13.378		
700.0	700.0	698.5	698.2	1.2	1.2	81.02	30.9	-10.5	31.9	29.5	2.41	13.237 SF		
800.0	799.9	797.9	797.2	1.4	1.4	80.42	35.9	-16.4	37.5	34.7	2.78	13.494		
900.0	899.7	897.1	896.0	1.6	1.7	80.87	42.0	-23.6	44.2	41.1	3.17	13.973		
1,000.0	999.4	996.1	994.4	1.8	1.9	81.92	49.3	-32.1	52.1	48.5	3.57	14.570		
1,100.0	1,098.9	1,094.9	1,092.4	2.0	2.2	83.28	57.6	-41.9	61.0	57.0	4.01	15.223		
1,200.0	1,198.3	1,193.5	1,189.9	2.2	2.5	84.76	67.0	-52.9	71.2	66.7	4.48	15.887		
1,300.0	1,297.4	1,291.9	1,286.9	2.5	2.8	86.25	77.5	-65.1	82.5	77.5	4.99	16.532		
1,400.0	1,396.3	1,389.9	1,383.4	2.8	3.1	87.68	89.0	-78.6	95.0	89.5	5.54	17.140		
1,500.0	1,494.9	1,487.7	1,479.2	3.1	3.5	89.02	101.5	-93.3	108.8	102.6	6.14	17.702		
1,600.0	1,593.4	1,586.5	1,575.8	3.4	3.9	90.23	114.8	-108.9	123.3	116.5	6.77	18.216		
1,700.0	1,691.9	1,685.4	1,672.6	3.7	4.2	91.18	128.2	-124.5	137.9	130.5	7.41	18.618		
1,800.0	1,790.4	1,784.3	1,769.3	4.1	4.6	91.96	141.6	-140.1	152.5	144.4	8.05	18.938		
1,900.0	1,888.9	1,883.2	1,866.1	4.4	5.0	92.59	154.9	-155.8	167.1	158.4	8.71	19.197		
2,000.0	1,987.3	1,982.1	1,962.8	4.7	5.4	93.13	168.3	-171.4	181.8	172.4	9.37	19.410		
2,100.0	2,085.8	2,081.0	2,059.6	5.1	5.8	93.58	181.6	-187.1	196.4	186.4	10.03	19.587		
2,200.0	2,184.3	2,179.9	2,156.3	5.4	6.2	93.97	195.0	-202.7	211.1	200.4	10.70	19.736		
2,300.0	2,282.8	2,278.8	2,253.0	5.8	6.6	94.31	208.3	-218.3	225.8	214.4	11.37	19.863		
2,400.0	2,381.3	2,377.7	2,349.8	6.1	7.0	94.61	221.7	-234.0	240.5	228.4	12.04	19.972		
2,500.0	2,479.7	2,476.6	2,446.5	6.4	7.4	94.88	235.0	-249.6	255.2	242.4	12.72	20.067		
2,600.0	2,578.2	2,575.5	2,543.3	6.8	7.8	95.11	248.4	-265.2	269.9	256.5	13.39	20.150		
2,700.0	2,676.7	2,674.4	2,640.0	7.1	8.1	95.33	261.8	-280.9	284.6	270.5	14.07	20.223		
2,800.0	2,775.2	2,773.4	2,736.8	7.5	8.5	95.52	275.1	-296.5	299.3	284.5	14.75	20.288		
2,900.0	2,873.7	2,872.3	2,833.5	7.8	8.9	95.69	288.5	-312.2	314.0	298.5	15.43	20.345		
3,000.0	2,972.1	2,971.2	2,930.3	8.2	9.3	95.85	301.8	-327.8	328.7	312.6	16.11	20.397		
3,100.0	3,070.6	3,070.1	3,027.0	8.5	9.7	95.99	315.2	-343.4	343.4	326.6	16.80	20.444		
3,200.0	3,169.1	3,169.0	3,123.8	8.9	10.1	96.12	328.5	-359.1	358.1	340.6	17.48	20.486		
3,300.0	3,267.6	3,267.9	3,220.5	9.2	10.5	96.24	341.9	-374.7	372.8	354.7	18.17	20.524		
3,400.0	3,366.1	3,366.8	3,317.3	9.6	10.9	96.36	355.2	-390.3	387.6	368.7	18.85	20.559		
3,500.0	3,464.5	3,465.7	3,414.0	9.9	11.3	96.46	368.6	-406.0	402.3	382.7	19.54	20.591		
3,600.0	3,563.0	3,564.6	3,510.8	10.3	11.7	96.56	382.0	-421.6	417.0	396.8	20.22	20.620		
3,700.0	3,661.5	3,663.5	3,607.5	10.6	12.1	96.65	395.3	-437.3	431.7	410.8	20.91	20.647		
3,800.0	3,760.0	3,762.4	3,704.2	11.0	12.5	96.73	408.7	-452.9	446.4	424.8	21.60	20.672		
3,900.0	3,858.5	3,861.3	3,801.0	11.3	12.9	96.81	422.0	-468.5	461.2	438.9	22.28	20.696		
4,000.0	3,957.0	3,960.3	3,897.7	11.7	13.3	96.88	435.4	-484.2	475.9	452.9	22.97	20.717		
4,100.0	4,055.4	4,059.2	3,994.5	12.0	13.7	96.95	448.7	-499.8	490.6	466.9	23.66	20.737		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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)				
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	36.000		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.65	16.749		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	10.9	0.0	10.9	9.9	1.00	10.913		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	10.9	0.0	10.9	9.6	1.35	8.093 CC		
500.0	500.0	499.9	499.9	0.8	0.9	-4.12	11.3	-0.8	11.3	9.6	1.70	6.637		
600.0	600.0	599.8	599.8	1.0	1.0	82.95	12.2	-3.2	12.5	10.4	2.05	6.091		
700.0	700.0	699.6	699.5	1.2	1.2	78.68	13.8	-7.3	14.6	12.1	2.41	6.040		
800.0	799.9	799.4	799.1	1.4	1.4	76.63	16.0	-12.9	17.4	14.6	2.78	6.248		
900.0	899.7	899.2	898.5	1.6	1.6	76.13	18.9	-20.2	20.9	17.7	3.16	6.593		
1,000.0	999.4	998.8	997.7	1.8	1.8	76.55	22.4	-29.1	25.0	21.5	3.57	7.010		
1,100.0	1,098.9	1,098.4	1,096.7	2.0	2.1	77.48	26.5	-39.6	29.9	25.9	4.01	7.459		
1,200.0	1,198.3	1,197.9	1,195.3	2.2	2.3	78.65	31.3	-51.6	35.5	31.0	4.48	7.911		
1,300.0	1,297.4	1,297.3	1,293.7	2.5	2.6	79.91	36.6	-65.2	41.7	36.7	5.00	8.349		
1,400.0	1,396.3	1,396.6	1,391.6	2.8	2.9	81.15	42.6	-80.4	48.7	43.1	5.56	8.760		
1,500.0	1,494.9	1,496.3	1,489.8	3.1	3.3	83.05	49.0	-96.6	56.0	49.8	6.17	9.074		
1,600.0	1,593.4	1,596.0	1,588.0	3.4	3.6	85.36	55.3	-112.7	63.2	56.4	6.80	9.291		
1,700.0	1,691.9	1,695.7	1,686.2	3.7	3.9	87.18	61.7	-128.8	70.5	63.1	7.45	9.467		
1,800.0	1,790.4	1,795.4	1,784.4	4.1	4.2	88.67	68.0	-144.9	77.9	69.8	8.11	9.612		
1,900.0	1,888.9	1,895.2	1,882.6	4.4	4.6	89.89	74.3	-161.0	85.4	76.6	8.77	9.733		
2,000.0	1,987.3	1,994.9	1,980.8	4.7	4.9	90.92	80.7	-177.1	92.8	83.4	9.44	9.836		
2,100.0	2,085.8	2,094.6	2,079.0	5.1	5.3	91.80	87.0	-193.2	100.3	90.2	10.11	9.924		
2,200.0	2,184.3	2,194.3	2,177.1	5.4	5.6	92.55	93.4	-209.3	107.8	97.0	10.78	10.000		
2,300.0	2,282.8	2,294.0	2,275.3	5.8	6.0	93.21	99.7	-225.4	115.3	103.9	11.46	10.067		
2,400.0	2,381.3	2,393.7	2,373.5	6.1	6.3	93.78	106.1	-241.5	122.9	110.7	12.14	10.125		
2,500.0	2,479.7	2,493.4	2,471.7	6.4	6.6	94.29	112.4	-257.6	130.4	117.6	12.82	10.177		
2,600.0	2,578.2	2,593.1	2,569.9	6.8	7.0	94.74	118.8	-273.8	138.0	124.5	13.50	10.223		
2,700.0	2,676.7	2,692.8	2,668.1	7.1	7.3	95.15	125.1	-289.9	145.5	131.4	14.18	10.265		
2,800.0	2,775.2	2,792.5	2,766.3	7.5	7.7	95.52	131.5	-306.0	153.1	138.2	14.86	10.302		
2,900.0	2,873.7	2,892.2	2,864.5	7.8	8.0	95.85	137.8	-322.1	160.7	145.1	15.55	10.336		
3,000.0	2,972.1	2,992.0	2,962.7	8.2	8.4	96.15	144.2	-338.2	168.3	152.0	16.23	10.367		
3,100.0	3,070.6	3,091.7	3,060.9	8.5	8.7	96.42	150.5	-354.3	175.9	158.9	16.92	10.396		
3,200.0	3,169.1	3,191.4	3,159.1	8.9	9.1	96.68	156.8	-370.4	183.4	165.8	17.60	10.422		
3,300.0	3,267.6	3,291.1	3,257.3	9.2	9.4	96.91	163.2	-386.5	191.0	172.7	18.29	10.446		
3,400.0	3,366.1	3,390.8	3,355.5	9.6	9.8	97.12	169.5	-402.6	198.6	179.7	18.98	10.468		
3,500.0	3,464.5	3,490.5	3,453.7	9.9	10.1	97.32	175.9	-418.7	206.2	186.6	19.66	10.488		
3,600.0	3,563.0	3,590.2	3,551.9	10.3	10.5	97.51	182.2	-434.8	213.8	193.5	20.35	10.507		
3,700.0	3,661.5	3,689.9	3,650.1	10.6	10.8	97.68	188.6	-451.0	221.4	200.4	21.04	10.525		
3,800.0	3,760.0	3,789.6	3,748.2	11.0	11.2	97.84	194.9	-467.1	229.0	207.3	21.73	10.541		
3,900.0	3,858.5	3,889.3	3,846.4	11.3	11.5	97.99	201.3	-483.2	236.6	214.2	22.42	10.557		
4,000.0	3,957.0	3,989.0	3,944.6	11.7	11.9	98.13	207.6	-499.3	244.2	221.1	23.10	10.572		
4,100.0	4,055.4	4,088.7	4,042.8	12.0	12.2	98.27	214.0	-515.4	251.9	228.1	23.79	10.585		
4,200.0	4,153.9	4,188.5	4,141.0	12.4	12.6	98.39	220.3	-531.5	259.5	235.0	24.48	10.598		
4,300.0	4,252.4	4,288.2	4,239.2	12.7	12.9	98.51	226.6	-547.6	267.1	241.9	25.17	10.610		
4,400.0	4,350.9	4,387.9	4,337.4	13.1	13.3	98.62	233.0	-563.7	274.7	248.8	25.86	10.622		
4,500.0	4,449.4	4,487.6	4,435.6	13.4	13.6	98.72	239.3	-579.8	282.3	255.7	26.55	10.632		
4,600.0	4,547.8	4,587.3	4,533.8	13.8	14.0	98.82	245.7	-595.9	289.9	262.7	27.24	10.643		
4,700.0	4,646.3	4,687.0	4,632.0	14.1	14.3	98.92	252.0	-612.1	297.5	269.6	27.93	10.652		
4,800.0	4,744.8	4,786.7	4,730.2	14.5	14.7	99.01	258.4	-628.2	305.1	276.5	28.62	10.662		
4,900.0	4,843.5	4,886.4	4,828.4	14.8	15.0	98.98	264.7	-644.3	312.6	283.3	29.28	10.675		
5,000.0	4,942.4	4,986.2	4,926.6	15.1	15.4	98.65	271.1	-660.4	319.8	289.9	29.91	10.690		
5,100.0	5,041.5	5,087.5	5,026.6	15.4	15.7	98.16	277.2	-675.9	326.5	296.0	30.49	10.706		

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 3D-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 3D-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							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	5,140.9	5,189.1	5,127.0	15.6	16.0	97.68	282.7	-689.8	332.4	301.4	31.02	10.716		
5,300.0	5,240.5	5,290.7	5,227.8	15.8	16.3	97.20	287.5	-702.1	337.6	306.1	31.50	10.719		
5,400.0	5,340.2	5,392.4	5,328.9	16.0	16.5	96.73	291.7	-712.7	342.1	310.2	31.93	10.716		
5,500.0	5,440.0	5,494.3	5,430.3	16.2	16.8	96.25	295.2	-721.7	345.8	313.5	32.30	10.707		
5,600.0	5,539.9	5,596.3	5,532.0	16.4	17.0	95.76	298.1	-728.9	348.8	316.2	32.63	10.691		
5,700.0	5,639.9	5,698.3	5,633.8	16.5	17.1	95.26	300.3	-734.5	351.1	318.2	32.90	10.670		
5,800.0	5,739.9	5,800.4	5,735.9	16.6	17.3	0.85	301.8	-738.4	352.6	331.2	21.34	16.521		
5,900.0	5,839.9	5,902.7	5,838.1	16.7	17.4	0.49	302.7	-740.6	353.4	331.7	21.71	16.280		
6,000.0	5,939.9	6,004.5	5,939.9	16.8	17.5	0.40	302.9	-741.2	353.6	331.6	22.05	16.038		
6,100.0	6,039.9	6,104.5	6,039.9	16.9	17.6	0.40	302.9	-741.2	353.6	331.2	22.38	15.800		
6,200.0	6,139.9	6,204.5	6,139.9	17.0	17.7	0.40	302.9	-741.2	353.6	330.9	22.71	15.568		
6,300.0	6,239.9	6,304.5	6,239.9	17.1	17.8	0.40	302.9	-741.2	353.6	330.6	23.05	15.343		
6,400.0	6,339.9	6,404.5	6,339.9	17.3	18.0	0.40	302.9	-741.2	353.6	330.2	23.38	15.125		
6,500.0	6,439.9	6,504.5	6,439.9	17.4	18.1	0.40	302.9	-741.2	353.6	329.9	23.71	14.912		
6,600.0	6,539.9	6,604.3	6,539.7	17.5	18.1	-89.60	302.9	-739.9	353.6	318.8	34.84	10.150		
6,700.0	6,638.9	6,704.0	6,638.4	17.4	18.0	-89.61	302.9	-727.0	353.6	319.0	34.64	10.208		
6,800.0	6,735.2	6,803.7	6,734.5	17.1	17.8	-89.62	302.9	-700.6	353.6	319.5	34.09	10.373		
6,900.0	6,826.9	6,903.4	6,825.9	16.6	17.4	-89.65	302.9	-661.1	353.6	320.4	33.23	10.641		
7,000.0	6,912.1	7,003.1	6,911.0	16.1	16.9	-89.68	302.9	-609.3	353.6	321.5	32.13	11.006		
7,100.0	6,989.3	7,102.8	6,988.1	15.5	16.3	-89.72	302.9	-546.1	353.6	322.7	30.90	11.441		
7,200.0	7,056.8	7,202.6	7,055.7	14.9	15.7	-89.76	302.9	-472.9	353.6	323.9	29.73	11.893		
7,300.0	7,113.5	7,302.4	7,112.5	14.4	15.2	-89.81	302.9	-390.9	353.6	324.8	28.83	12.264		
7,400.0	7,158.1	7,402.3	7,157.4	14.2	14.8	-89.86	302.9	-301.7	353.6	325.1	28.44	12.431		
7,500.0	7,189.9	7,502.2	7,189.4	14.4	14.7	-89.92	302.9	-207.2	353.6	324.8	28.78	12.287		
7,600.0	7,208.2	7,602.1	7,208.1	14.9	15.0	-89.98	302.9	-109.1	353.6	323.7	29.92	11.818		
7,700.0	7,213.3	7,702.1	7,213.4	15.9	16.0	-90.02	302.9	-9.3	353.6	321.8	31.82	11.113		
7,800.0	7,215.0	7,802.1	7,215.1	17.1	17.3	-90.02	302.9	90.7	353.6	319.2	34.33	10.300		
7,900.0	7,216.8	7,902.1	7,216.9	18.6	18.8	-90.02	302.9	190.7	353.6	316.2	37.33	9.472		
8,000.0	7,218.5	8,002.1	7,218.6	20.3	20.6	-90.02	302.9	290.7	353.6	312.8	40.71	8.685		
8,100.0	7,220.3	8,102.1	7,220.4	22.2	22.4	-90.02	303.0	390.7	353.6	309.2	44.39	7.965		
8,200.0	7,222.0	8,202.1	7,222.1	24.1	24.4	-90.02	303.0	490.6	353.6	305.3	48.29	7.321		
8,300.0	7,223.8	8,302.1	7,223.9	26.2	26.4	-90.02	303.0	590.6	353.5	301.2	52.37	6.751		
8,400.0	7,225.5	8,402.1	7,225.6	28.3	28.5	-90.02	303.0	690.6	353.5	297.0	56.59	6.247		
8,500.0	7,227.3	8,502.1	7,227.4	30.4	30.7	-90.02	303.0	790.6	353.5	292.6	60.92	5.803		
8,600.0	7,229.0	8,602.1	7,229.1	32.6	32.9	-90.02	303.0	890.6	353.5	288.2	65.34	5.411		
8,700.0	7,230.7	8,702.1	7,230.8	34.9	35.1	-90.02	303.0	990.6	353.5	283.7	69.83	5.063		
8,800.0	7,232.5	8,802.1	7,232.6	37.2	37.4	-90.02	303.0	1,090.5	353.5	279.2	74.38	4.753		
8,900.0	7,234.2	8,902.1	7,234.3	39.5	39.7	-90.02	303.0	1,190.5	353.5	274.6	78.97	4.477		
9,000.0	7,236.0	9,002.1	7,236.1	41.8	42.0	-90.02	303.0	1,290.5	353.5	269.9	83.61	4.228		
9,100.0	7,237.7	9,102.1	7,237.8	44.1	44.3	-90.02	303.0	1,390.5	353.5	265.2	88.28	4.005		
9,200.0	7,239.5	9,202.1	7,239.6	46.5	46.7	-90.02	303.0	1,490.5	353.5	260.5	92.97	3.802		
9,300.0	7,241.2	9,302.1	7,241.3	48.8	49.0	-90.02	303.0	1,590.5	353.5	255.8	97.70	3.619		
9,400.0	7,243.0	9,402.1	7,243.1	51.2	51.4	-90.02	303.0	1,690.5	353.5	251.1	102.44	3.451		
9,500.0	7,244.7	9,502.1	7,244.8	53.6	53.8	-90.02	303.0	1,790.4	353.5	246.3	107.20	3.298		
9,600.0	7,246.5	9,602.1	7,246.6	56.0	56.2	-90.02	303.0	1,890.4	353.5	241.5	111.98	3.157		
9,700.0	7,248.2	9,702.1	7,248.3	58.4	58.5	-90.02	303.0	1,990.4	353.5	236.7	116.77	3.027		
9,800.0	7,249.9	9,802.1	7,250.0	60.8	60.9	-90.02	303.0	2,090.4	353.5	231.9	121.58	2.908		
9,900.0	7,251.7	9,902.1	7,251.8	63.2	63.3	-90.02	303.0	2,190.4	353.5	227.1	126.40	2.797		
10,000.0	7,253.4	10,002.1	7,253.5	65.6	65.8	-90.02	303.0	2,290.4	353.5	222.3	131.22	2.694		
10,100.0	7,255.2	10,102.1	7,255.3	68.0	68.2	-90.02	303.1	2,390.3	353.5	217.4	136.06	2.598		
10,200.0	7,256.9	10,202.1	7,257.0	70.4	70.6	-90.02	303.1	2,490.3	353.5	212.6	140.90	2.509		
10,300.0	7,258.7	10,302.1	7,258.8	72.8	73.0	-90.02	303.1	2,590.3	353.5	207.7	145.75	2.425		

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Anticollision Report

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Site Error:	0.0ft	North Reference:	True
Reference Well:	Billings 3D-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)				
10,400.0	7,260.4	10,402.1	7,260.5	75.3	75.4	-90.02	303.1	2,690.3	353.5	202.9	150.60	2.347		
10,500.0	7,262.2	10,502.1	7,262.3	77.7	77.9	-90.02	303.1	2,790.3	353.5	198.0	155.47	2.274		
10,600.0	7,263.9	10,602.1	7,264.0	80.1	80.3	-90.02	303.1	2,890.3	353.5	193.1	160.33	2.205		
10,700.0	7,265.7	10,702.1	7,265.8	82.6	82.7	-90.02	303.1	2,990.3	353.5	188.3	165.20	2.140		
10,800.0	7,267.4	10,802.1	7,267.5	85.0	85.2	-90.02	303.1	3,090.2	353.5	183.4	170.08	2.078		
10,900.0	7,269.1	10,902.1	7,269.2	87.4	87.6	-90.02	303.1	3,190.2	353.5	178.5	174.96	2.020		
11,000.0	7,270.9	11,002.1	7,271.0	89.9	90.0	-90.02	303.1	3,290.2	353.5	173.6	179.84	1.965		
11,100.0	7,272.6	11,102.1	7,272.7	92.3	92.5	-90.02	303.1	3,390.2	353.5	168.7	184.73	1.913		
11,200.0	7,274.4	11,202.1	7,274.5	94.8	94.9	-90.02	303.1	3,490.2	353.5	163.8	189.62	1.864		
11,300.0	7,276.1	11,302.1	7,276.2	97.2	97.4	-90.02	303.1	3,590.2	353.5	158.9	194.51	1.817		
11,400.0	7,277.9	11,402.1	7,278.0	99.7	99.8	-90.02	303.1	3,690.1	353.5	154.0	199.41	1.772		
11,500.0	7,279.6	11,502.1	7,279.7	102.1	102.3	-90.02	303.1	3,790.1	353.4	149.1	204.31	1.730		
11,600.0	7,281.4	11,602.1	7,281.5	104.6	104.7	-90.02	303.1	3,890.1	353.4	144.2	209.21	1.689		
11,700.0	7,283.1	11,702.1	7,283.2	107.0	107.2	-90.02	303.1	3,990.1	353.4	139.3	214.11	1.651		
11,800.0	7,284.9	11,802.1	7,285.0	109.5	109.6	-90.02	303.1	4,090.1	353.4	134.4	219.02	1.614		
11,900.0	7,286.6	11,902.1	7,286.7	111.9	112.1	-90.02	303.1	4,190.1	353.4	129.5	223.92	1.578		
12,000.0	7,288.3	12,002.1	7,288.4	114.4	114.5	-90.02	303.1	4,290.1	353.4	124.6	228.83	1.544		
12,100.0	7,290.1	12,102.1	7,290.2	116.8	117.0	-90.02	303.2	4,390.0	353.4	119.7	233.74	1.512		
12,200.0	7,291.8	12,202.1	7,291.9	119.3	119.4	-90.02	303.2	4,490.0	353.4	114.8	238.66	1.481	Level 3	
12,300.0	7,293.6	12,302.1	7,293.7	121.8	121.9	-90.02	303.2	4,590.0	353.4	109.9	243.57	1.451	Level 3	
12,400.0	7,295.3	12,402.1	7,295.4	124.2	124.3	-90.02	303.2	4,690.0	353.4	104.9	248.48	1.422	Level 3	
12,500.0	7,297.1	12,502.1	7,297.2	126.7	126.8	-90.02	303.2	4,790.0	353.4	100.0	253.40	1.395	Level 3	
12,600.0	7,298.8	12,602.1	7,298.9	129.1	129.3	-90.02	303.2	4,890.0	353.4	95.1	258.32	1.368	Level 3	
12,700.0	7,300.6	12,702.1	7,300.7	131.6	131.7	-90.02	303.2	4,990.0	353.4	90.2	263.23	1.343	Level 3	
12,800.0	7,302.3	12,802.1	7,302.4	134.0	134.2	-90.02	303.2	5,089.9	353.4	85.3	268.15	1.318	Level 3	
12,900.0	7,304.0	12,902.1	7,304.1	136.5	136.6	-90.02	303.2	5,189.9	353.4	80.3	273.07	1.294	Level 3	
13,000.0	7,305.8	13,002.1	7,305.9	139.0	139.1	-90.02	303.2	5,289.9	353.4	75.4	278.00	1.271	Level 3	
13,100.0	7,307.5	13,102.1	7,307.6	141.4	141.5	-90.02	303.2	5,389.9	353.4	70.5	282.92	1.249	Level 2	
13,200.0	7,309.3	13,202.1	7,309.4	143.9	144.0	-90.02	303.2	5,489.9	353.4	65.6	287.84	1.228	Level 2	
13,300.0	7,311.0	13,302.1	7,311.1	146.4	146.5	-90.02	303.2	5,589.9	353.4	60.6	292.77	1.207	Level 2	
13,400.0	7,312.8	13,402.1	7,312.9	148.8	148.9	-90.02	303.2	5,689.8	353.4	55.7	297.69	1.187	Level 2	
13,500.0	7,314.5	13,502.1	7,314.6	151.3	151.4	-90.02	303.2	5,789.8	353.4	50.8	302.62	1.168	Level 2	
13,600.0	7,316.3	13,602.1	7,316.4	153.7	153.9	-90.02	303.2	5,889.8	353.4	45.8	307.54	1.149	Level 2	
13,700.0	7,318.0	13,702.1	7,318.1	156.2	156.3	-90.02	303.2	5,989.8	353.4	40.9	312.47	1.131	Level 2	
13,800.0	7,319.8	13,802.1	7,319.9	158.7	158.8	-90.02	303.2	6,089.8	353.4	36.0	317.40	1.113	Level 2	
13,900.0	7,321.5	13,902.1	7,321.6	161.1	161.2	-90.02	303.2	6,189.8	353.4	31.0	322.32	1.096	Level 2	
14,000.0	7,323.2	14,002.1	7,323.3	163.6	163.7	-90.02	303.2	6,289.8	353.4	26.1	327.25	1.080	Level 2	
14,100.0	7,325.0	14,102.1	7,325.1	166.1	166.2	-90.02	303.3	6,389.7	353.4	21.2	332.18	1.064	Level 2	
14,200.0	7,326.7	14,202.1	7,326.8	168.5	168.6	-90.02	303.3	6,489.7	353.4	16.2	337.11	1.048	Level 2	
14,300.0	7,328.5	14,302.1	7,328.6	171.0	171.1	-90.02	303.3	6,589.7	353.4	11.3	342.04	1.033	Level 2	
14,361.0	7,329.5	14,363.2	7,329.6	172.5	172.6	-90.02	303.3	6,650.7	353.4	8.3	345.05	1.024	Level 2	
14,386.9	7,330.0	14,383.4	7,330.0	173.1	173.1	-90.02	303.3	6,671.0	353.4	7.2	346.19	1.021	Level 2, ES, SF	

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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	-7.3	0.0	7.3					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-7.3	0.0	7.3	7.0	0.30	23.977		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-7.3	0.0	7.3	6.6	0.65	11.155		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-7.3	0.0	7.3	6.3	1.00	7.268		
400.0	400.0	400.0	400.0	0.7	0.7	-180.00	-7.3	0.0	7.3	5.9	1.35	5.390 CC, ES		
500.0	500.0	499.9	499.9	0.8	0.9	-174.27	-7.7	-0.8	7.7	6.0	1.70	4.544		
600.0	600.0	599.8	599.8	1.0	1.0	-72.02	-8.9	-3.1	9.1	7.1	2.05	4.444		
700.0	700.0	699.7	699.5	1.2	1.2	-68.13	-10.9	-6.9	11.2	8.8	2.41	4.669		
800.0	799.9	799.5	799.2	1.4	1.4	-67.22	-13.8	-12.3	14.0	11.2	2.77	5.042		
900.0	899.7	899.2	898.6	1.6	1.6	-67.98	-17.4	-19.2	17.3	14.2	3.15	5.490		
1,000.0	999.4	998.9	997.8	1.8	1.8	-69.55	-21.8	-27.7	21.2	17.7	3.56	5.974		
1,100.0	1,098.9	1,098.5	1,096.8	2.0	2.1	-71.45	-27.1	-37.7	25.8	21.8	3.99	6.468		
1,200.0	1,198.3	1,198.1	1,195.5	2.2	2.3	-73.41	-33.1	-49.1	31.0	26.5	4.46	6.952		
1,300.0	1,297.4	1,297.5	1,293.8	2.5	2.6	-75.30	-39.9	-62.1	36.8	31.9	4.97	7.414		
1,400.0	1,396.3	1,396.9	1,391.8	2.8	2.9	-77.07	-47.5	-76.6	43.4	37.8	5.53	7.843		
1,500.0	1,494.9	1,496.6	1,490.1	3.1	3.3	-79.45	-55.5	-91.9	50.1	44.0	6.14	8.163		
1,600.0	1,593.4	1,596.4	1,588.3	3.4	3.6	-82.18	-63.6	-107.3	56.8	50.0	6.78	8.379		
1,700.0	1,691.9	1,696.1	1,686.5	3.7	3.9	-84.34	-71.6	-122.6	63.6	56.2	7.43	8.558		
1,800.0	1,790.4	1,795.8	1,784.8	4.1	4.2	-86.08	-79.7	-137.9	70.5	62.4	8.09	8.709		
1,900.0	1,888.9	1,895.6	1,883.0	4.4	4.6	-87.51	-87.7	-153.3	77.4	68.6	8.76	8.837		
2,000.0	1,987.3	1,995.3	1,981.2	4.7	4.9	-88.70	-95.8	-168.6	84.3	74.9	9.43	8.946		
2,100.0	2,085.8	2,095.1	2,079.4	5.1	5.3	-89.71	-103.8	-183.9	91.3	81.2	10.10	9.041		
2,200.0	2,184.3	2,194.8	2,177.7	5.4	5.6	-90.58	-111.9	-199.3	98.3	87.6	10.78	9.124		
2,300.0	2,282.8	2,294.6	2,275.9	5.8	6.0	-91.33	-120.0	-214.6	105.4	93.9	11.46	9.197		
2,400.0	2,381.3	2,394.3	2,374.1	6.1	6.3	-91.99	-128.0	-229.9	112.4	100.3	12.14	9.262		
2,500.0	2,479.7	2,494.0	2,472.4	6.4	6.6	-92.57	-136.1	-245.3	119.5	106.7	12.82	9.320		
2,600.0	2,578.2	2,593.8	2,570.6	6.8	7.0	-93.09	-144.1	-260.6	126.5	113.0	13.50	9.372		
2,700.0	2,676.7	2,693.5	2,668.8	7.1	7.3	-93.55	-152.2	-275.9	133.6	119.4	14.19	9.419		
2,800.0	2,775.2	2,793.3	2,767.0	7.5	7.7	-93.96	-160.2	-291.3	140.7	125.8	14.87	9.461		
2,900.0	2,873.7	2,893.0	2,865.3	7.8	8.0	-94.34	-168.3	-306.6	147.8	132.3	15.56	9.500		
3,000.0	2,972.1	2,992.8	2,963.5	8.2	8.4	-94.68	-176.3	-322.0	154.9	138.7	16.25	9.536		
3,100.0	3,070.6	3,092.5	3,061.7	8.5	8.7	-94.99	-184.4	-337.3	162.0	145.1	16.93	9.568		
3,200.0	3,169.1	3,192.2	3,160.0	8.9	9.1	-95.27	-192.4	-352.6	169.1	151.5	17.62	9.598		
3,300.0	3,267.6	3,292.0	3,258.2	9.2	9.4	-95.53	-200.5	-368.0	176.2	157.9	18.31	9.626		
3,400.0	3,366.1	3,391.7	3,356.4	9.6	9.8	-95.77	-208.5	-383.3	183.4	164.4	19.00	9.651		
3,500.0	3,464.5	3,491.5	3,454.6	9.9	10.1	-96.00	-216.6	-398.6	190.5	170.8	19.69	9.675		
3,600.0	3,563.0	3,591.2	3,552.9	10.3	10.5	-96.21	-224.6	-414.0	197.6	177.2	20.38	9.697		
3,700.0	3,661.5	3,691.0	3,651.1	10.6	10.8	-96.40	-232.7	-429.3	204.7	183.7	21.07	9.718		
3,800.0	3,760.0	3,790.7	3,749.3	11.0	11.2	-96.58	-240.7	-444.6	211.8	190.1	21.76	9.737		
3,900.0	3,858.5	3,890.5	3,847.5	11.3	11.5	-96.75	-248.8	-460.0	219.0	196.5	22.45	9.755		
4,000.0	3,957.0	3,990.2	3,945.8	11.7	11.9	-96.90	-256.8	-475.3	226.1	203.0	23.14	9.772		
4,100.0	4,055.4	4,089.9	4,044.0	12.0	12.2	-97.05	-264.9	-490.6	233.2	209.4	23.83	9.788		
4,200.0	4,153.9	4,189.7	4,142.2	12.4	12.6	-97.19	-272.9	-506.0	240.4	215.9	24.52	9.804		
4,300.0	4,252.4	4,289.4	4,240.5	12.7	12.9	-97.32	-281.0	-521.3	247.5	222.3	25.21	9.818		
4,400.0	4,350.9	4,389.2	4,338.7	13.1	13.3	-97.44	-289.0	-536.6	254.6	228.7	25.90	9.831		
4,500.0	4,449.4	4,488.9	4,436.9	13.4	13.6	-97.56	-297.1	-552.0	261.8	235.2	26.59	9.844		
4,600.0	4,547.8	4,588.7	4,535.1	13.8	14.0	-97.67	-305.1	-567.3	268.9	241.6	27.28	9.856		
4,700.0	4,646.3	4,688.4	4,633.4	14.1	14.3	-97.78	-313.2	-582.7	276.1	248.1	27.98	9.868		
4,800.0	4,744.8	4,788.1	4,731.6	14.5	14.7	-97.88	-321.2	-598.0	283.2	254.5	28.67	9.879		
4,900.0	4,843.5	4,887.9	4,829.8	14.8	15.0	-97.84	-329.3	-613.3	290.2	260.9	29.33	9.894		
5,000.0	4,942.4	4,987.6	4,928.1	15.1	15.4	-97.47	-337.3	-628.7	297.0	267.0	29.96	9.912		
5,100.0	5,041.5	5,087.3	5,026.3	15.4	15.7	-96.79	-345.4	-644.0	303.5	273.0	30.55	9.936		

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 3D-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 3D-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	5,140.9	5,187.0	5,124.4	15.6	16.1	-95.82	-353.4	-659.3	310.0	278.9	31.10	9.967		
5,300.0	5,240.5	5,287.1	5,223.0	15.8	16.4	-94.58	-361.5	-674.6	316.4	284.8	31.61	10.010		
5,400.0	5,340.2	5,388.6	5,323.2	16.0	16.7	-93.29	-369.0	-688.9	322.3	290.3	32.05	10.058		
5,500.0	5,440.0	5,490.2	5,423.8	16.2	17.0	-92.03	-375.7	-701.7	327.7	295.3	32.42	10.107		
5,600.0	5,539.9	5,592.1	5,524.9	16.4	17.3	-90.78	-381.6	-712.9	332.6	299.8	32.74	10.157		
5,700.0	5,639.9	5,694.1	5,626.3	16.5	17.6	-89.54	-386.6	-722.5	336.9	303.9	33.01	10.207		
5,800.0	5,739.9	5,796.3	5,728.1	16.6	17.8	177.80	-390.8	-730.6	340.6	318.7	21.94	15.525		
5,900.0	5,839.9	5,898.8	5,830.3	16.7	18.0	178.89	-394.2	-737.0	343.7	321.3	22.44	15.318		
6,000.0	5,939.9	6,001.4	5,932.8	16.8	18.1	179.70	-396.8	-741.9	346.1	323.2	22.90	15.116		
6,100.0	6,039.9	6,104.3	6,035.6	16.9	18.3	-179.77	-398.5	-745.1	347.8	324.5	23.31	14.918		
6,200.0	6,139.9	6,207.2	6,138.5	17.0	18.4	-179.51	-399.3	-746.7	348.6	324.9	23.68	14.721		
6,300.0	6,239.9	6,308.6	6,239.9	17.1	18.5	-179.48	-399.4	-746.8	348.7	324.7	24.01	14.524		
6,400.0	6,339.9	6,408.7	6,340.0	17.3	18.6	-179.70	-399.4	-745.5	348.7	324.4	24.30	14.350		
6,423.8	6,363.6	6,432.4	6,363.6	17.3	18.6	-180.00	-399.4	-743.7	348.7	324.3	24.33	14.329		
6,500.0	6,439.9	6,507.3	6,437.7	17.4	18.5	178.21	-399.4	-732.8	348.9	324.5	24.35	14.329		
6,600.0	6,539.9	6,600.0	6,527.1	17.5	18.2	84.38	-399.4	-708.7	350.5	315.8	34.78	10.078		
6,700.0	6,638.9	6,691.5	6,611.7	17.4	17.9	80.26	-399.4	-673.8	354.1	319.6	34.50	10.266		
6,800.0	6,735.2	6,779.4	6,688.0	17.1	17.4	76.47	-399.4	-630.4	359.2	325.4	33.79	10.631		
6,900.0	6,826.9	6,865.1	6,756.8	16.6	17.0	73.02	-399.4	-579.4	365.4	332.6	32.73	11.162		
7,000.0	6,912.1	6,950.0	6,818.5	16.1	16.5	69.93	-399.4	-521.1	372.0	340.6	31.41	11.846		
7,100.0	6,989.3	7,031.2	6,870.6	15.5	16.0	67.31	-399.4	-458.9	378.8	348.8	29.97	12.639		
7,200.0	7,056.8	7,112.3	6,915.3	14.9	15.6	65.08	-399.4	-391.3	385.3	356.7	28.58	13.480		
7,300.0	7,113.5	7,192.4	6,951.7	14.4	15.3	63.27	-399.4	-320.0	391.0	363.6	27.43	14.253		
7,400.0	7,158.1	7,271.7	6,979.7	14.2	15.0	61.88	-399.4	-245.8	395.8	369.0	26.76	14.791		
7,500.0	7,189.9	7,350.0	6,999.1	14.4	14.9	60.90	-399.4	-170.0	399.3	372.6	26.71	14.949		
7,600.0	7,208.2	7,428.8	7,010.1	14.9	14.9	60.33	-399.4	-92.1	401.5	374.0	27.43	14.636		
7,700.0	7,213.3	7,515.1	7,013.3	15.9	15.9	60.17	-399.4	-5.8	402.1	373.1	28.95	13.886		
7,800.0	7,215.0	7,615.1	7,015.1	17.1	17.3	60.17	-399.4	94.2	402.1	371.0	31.13	12.918		
7,900.0	7,216.8	7,715.1	7,016.8	18.6	18.9	60.17	-399.4	194.2	402.1	368.4	33.71	11.928		
8,000.0	7,218.5	7,815.1	7,018.5	20.3	20.7	60.17	-399.4	294.2	402.1	365.5	36.62	10.982		
8,100.0	7,220.3	7,915.1	7,020.3	22.2	22.6	60.17	-399.4	394.1	402.1	362.3	39.77	10.110		
8,200.0	7,222.0	8,015.1	7,022.0	24.1	24.5	60.17	-399.4	494.1	402.1	359.0	43.13	9.323		
8,300.0	7,223.8	8,115.1	7,023.8	26.2	26.6	60.17	-399.5	594.1	402.1	355.5	46.64	8.622		
8,400.0	7,225.5	8,215.1	7,025.5	28.3	28.7	60.17	-399.5	694.1	402.2	351.9	50.28	7.999		
8,500.0	7,227.3	8,315.1	7,027.3	30.4	30.9	60.17	-399.5	794.1	402.2	348.2	54.01	7.446		
8,600.0	7,229.0	8,415.1	7,029.0	32.6	33.1	60.18	-399.5	894.1	402.2	344.4	57.82	6.956		
8,700.0	7,230.7	8,515.1	7,030.8	34.9	35.3	60.18	-399.5	994.1	402.2	340.5	61.69	6.519		
8,800.0	7,232.5	8,615.1	7,032.5	37.2	37.6	60.18	-399.5	1,094.0	402.2	336.6	65.62	6.129		
8,900.0	7,234.2	8,715.1	7,034.3	39.5	39.9	60.18	-399.5	1,194.0	402.2	332.6	69.59	5.780		
9,000.0	7,236.0	8,815.1	7,036.0	41.8	42.2	60.18	-399.5	1,294.0	402.2	328.6	73.60	5.465		
9,100.0	7,237.7	8,915.1	7,037.7	44.1	44.5	60.18	-399.5	1,394.0	402.2	324.6	77.64	5.181		
9,200.0	7,239.5	9,015.1	7,039.5	46.5	46.9	60.18	-399.5	1,494.0	402.2	320.5	81.70	4.923		
9,300.0	7,241.2	9,115.1	7,041.2	48.8	49.2	60.18	-399.5	1,594.0	402.3	316.5	85.79	4.689		
9,400.0	7,243.0	9,215.1	7,043.0	51.2	51.6	60.18	-399.5	1,693.9	402.3	312.4	89.90	4.475		
9,500.0	7,244.7	9,315.1	7,044.7	53.6	54.0	60.18	-399.5	1,793.9	402.3	308.3	94.02	4.279		
9,600.0	7,246.5	9,415.1	7,046.5	56.0	56.4	60.19	-399.5	1,893.9	402.3	304.1	98.16	4.098		
9,700.0	7,248.2	9,515.1	7,048.2	58.4	58.8	60.19	-399.5	1,993.9	402.3	300.0	102.32	3.932		
9,800.0	7,249.9	9,615.1	7,050.0	60.8	61.2	60.19	-399.5	2,093.9	402.3	295.8	106.48	3.778		
9,900.0	7,251.7	9,715.1	7,051.7	63.2	63.6	60.19	-399.5	2,193.9	402.3	291.7	110.66	3.636		
10,000.0	7,253.4	9,815.1	7,053.4	65.6	66.0	60.19	-399.6	2,293.9	402.3	287.5	114.84	3.504		
10,100.0	7,255.2	9,915.1	7,055.2	68.0	68.4	60.19	-399.6	2,393.8	402.4	283.3	119.03	3.380		
10,200.0	7,256.9	10,015.1	7,056.9	70.4	70.8	60.19	-399.6	2,493.8	402.4	279.1	123.23	3.265		

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 3D-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 3D-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		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	7,258.7	10,115.1	7,058.7	72.8	73.2	60.19	-399.6	2,593.8	402.4	274.9	127.44	3.157		
10,400.0	7,260.4	10,215.1	7,060.4	75.3	75.6	60.19	-399.6	2,693.8	402.4	270.7	131.65	3.057		
10,500.0	7,262.2	10,315.1	7,062.2	77.7	78.1	60.19	-399.6	2,793.8	402.4	266.5	135.87	2.962		
10,600.0	7,263.9	10,415.1	7,063.9	80.1	80.5	60.20	-399.6	2,893.8	402.4	262.3	140.09	2.873		
10,700.0	7,265.7	10,515.1	7,065.7	82.6	82.9	60.20	-399.6	2,993.7	402.4	258.1	144.32	2.788		
10,800.0	7,267.4	10,615.1	7,067.4	85.0	85.4	60.20	-399.6	3,093.7	402.4	253.9	148.55	2.709		
10,900.0	7,269.1	10,715.1	7,069.2	87.4	87.8	60.20	-399.6	3,193.7	402.5	249.7	152.79	2.634		
11,000.0	7,270.9	10,815.1	7,070.9	89.9	90.2	60.20	-399.6	3,293.7	402.5	245.4	157.02	2.563		
11,100.0	7,272.6	10,915.1	7,072.6	92.3	92.7	60.20	-399.6	3,393.7	402.5	241.2	161.27	2.496		
11,200.0	7,274.4	11,015.1	7,074.4	94.8	95.1	60.20	-399.6	3,493.7	402.5	237.0	165.51	2.432		
11,300.0	7,276.1	11,115.1	7,076.1	97.2	97.6	60.20	-399.6	3,593.7	402.5	232.7	169.76	2.371		
11,400.0	7,277.9	11,215.1	7,077.9	99.7	100.0	60.20	-399.6	3,693.6	402.5	228.5	174.01	2.313		
11,500.0	7,279.6	11,315.1	7,079.6	102.1	102.5	60.20	-399.6	3,793.6	402.5	224.3	178.26	2.258		
11,600.0	7,281.4	11,415.1	7,081.4	104.6	104.9	60.21	-399.6	3,893.6	402.5	220.0	182.52	2.205		
11,700.0	7,283.1	11,515.1	7,083.1	107.0	107.4	60.21	-399.6	3,993.6	402.5	215.8	186.78	2.155		
11,800.0	7,284.9	11,615.1	7,084.9	109.5	109.8	60.21	-399.7	4,093.6	402.6	211.5	191.04	2.107		
11,900.0	7,286.6	11,715.1	7,086.6	111.9	112.3	60.21	-399.7	4,193.6	402.6	207.3	195.30	2.061		
12,000.0	7,288.3	11,815.1	7,088.4	114.4	114.7	60.21	-399.7	4,293.5	402.6	203.0	199.56	2.017		
12,100.0	7,290.1	11,915.1	7,090.1	116.8	117.2	60.21	-399.7	4,393.5	402.6	198.8	203.83	1.975		
12,200.0	7,291.8	12,015.1	7,091.8	119.3	119.6	60.21	-399.7	4,493.5	402.6	194.5	208.09	1.935		
12,300.0	7,293.6	12,115.1	7,093.6	121.8	122.1	60.21	-399.7	4,593.5	402.6	190.3	212.36	1.896		
12,400.0	7,295.3	12,215.1	7,095.3	124.2	124.5	60.21	-399.7	4,693.5	402.6	186.0	216.63	1.859		
12,500.0	7,297.1	12,315.1	7,097.1	126.7	127.0	60.21	-399.7	4,793.5	402.6	181.7	220.90	1.823		
12,600.0	7,298.8	12,415.1	7,098.8	129.1	129.5	60.21	-399.7	4,893.5	402.7	177.5	225.17	1.788		
12,700.0	7,300.6	12,515.1	7,100.6	131.6	131.9	60.22	-399.7	4,993.4	402.7	173.2	229.44	1.755		
12,800.0	7,302.3	12,615.1	7,102.3	134.0	134.4	60.22	-399.7	5,093.4	402.7	169.0	233.72	1.723		
12,900.0	7,304.0	12,715.1	7,104.1	136.5	136.8	60.22	-399.7	5,193.4	402.7	164.7	237.99	1.692		
13,000.0	7,305.8	12,815.1	7,105.8	139.0	139.3	60.22	-399.7	5,293.4	402.7	160.4	242.27	1.662		
13,100.0	7,307.5	12,915.1	7,107.6	141.4	141.7	60.22	-399.7	5,393.4	402.7	156.2	246.55	1.633		
13,200.0	7,309.3	13,015.1	7,109.3	143.9	144.2	60.22	-399.7	5,493.4	402.7	151.9	250.82	1.606		
13,300.0	7,311.0	13,115.1	7,111.0	146.4	146.7	60.22	-399.7	5,593.4	402.7	147.6	255.10	1.579		
13,400.0	7,312.8	13,215.1	7,112.8	148.8	149.1	60.22	-399.7	5,693.3	402.8	143.4	259.38	1.553		
13,500.0	7,314.5	13,315.1	7,114.5	151.3	151.6	60.22	-399.7	5,793.3	402.8	139.1	263.66	1.528		
13,600.0	7,316.3	13,415.1	7,116.3	153.7	154.1	60.22	-399.8	5,893.3	402.8	134.8	267.94	1.503		
13,700.0	7,318.0	13,515.1	7,118.0	156.2	156.5	60.23	-399.8	5,993.3	402.8	130.6	272.23	1.480 Level 3		
13,800.0	7,319.8	13,615.1	7,119.8	158.7	159.0	60.23	-399.8	6,093.3	402.8	126.3	276.51	1.457 Level 3		
13,900.0	7,321.5	13,715.1	7,121.5	161.1	161.4	60.23	-399.8	6,193.3	402.8	122.0	280.79	1.435 Level 3		
14,000.0	7,323.2	13,815.1	7,123.3	163.6	163.9	60.23	-399.8	6,293.2	402.8	117.8	285.07	1.413 Level 3		
14,100.0	7,325.0	13,915.1	7,125.0	166.1	166.4	60.23	-399.8	6,393.2	402.8	113.5	289.36	1.392 Level 3		
14,200.0	7,326.7	14,015.1	7,126.7	168.5	168.8	60.23	-399.8	6,493.2	402.9	109.2	293.64	1.372 Level 3		
14,300.0	7,328.5	14,115.1	7,128.5	171.0	171.3	60.23	-399.8	6,593.2	402.9	104.9	297.93	1.352 Level 3		
14,348.3	7,329.3	14,163.4	7,129.3	172.2	172.5	60.23	-399.8	6,641.5	402.9	102.9	300.00	1.343 Level 3		
14,386.9	7,330.0	14,201.5	7,130.0	173.1	173.4	60.23	-399.8	6,679.5	402.9	101.2	301.64	1.336 Level 3, SF		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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			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	-180.00	-18.2	0.0	18.2					
100.0	100.0	100.0	100.0	0.2	0.2	-180.00	-18.2	0.0	18.2	17.9	0.30	59.963		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-18.2	0.0	18.2	17.6	0.65	27.897		
300.0	300.0	300.0	300.0	0.5	0.5	-180.00	-18.2	0.0	18.2	17.2	1.00	18.177		
400.0	400.0	400.0	400.0	0.7	0.7	-180.00	-18.2	0.0	18.2	16.9	1.35	13.480 CC, ES		
500.0	500.0	499.5	499.5	0.8	0.9	-176.36	-19.4	-1.2	19.5	17.8	1.70	11.447		
600.0	600.0	598.8	598.7	1.0	1.0	-76.03	-23.0	-4.9	23.4	21.3	2.05	11.384 SF		
700.0	700.0	697.8	697.3	1.2	1.2	-71.21	-29.0	-11.1	29.9	27.5	2.41	12.394		
800.0	799.9	796.4	795.1	1.4	1.5	-68.12	-37.4	-19.6	38.9	36.2	2.78	14.010		
900.0	899.7	894.3	891.9	1.6	1.8	-66.27	-48.0	-30.4	50.4	47.3	3.16	15.956		
1,000.0	999.4	991.6	987.4	1.8	2.1	-65.20	-60.8	-43.5	64.3	60.7	3.56	18.063		
1,100.0	1,098.9	1,089.1	1,082.5	2.0	2.5	-64.65	-75.7	-58.7	80.2	76.3	3.98	20.165		
1,200.0	1,198.3	1,187.8	1,178.7	2.2	2.9	-65.03	-91.3	-74.6	96.0	91.6	4.43	21.664		
1,300.0	1,297.4	1,286.6	1,275.0	2.5	3.3	-66.10	-106.8	-90.5	111.1	106.1	4.92	22.565		
1,400.0	1,396.3	1,385.5	1,371.4	2.8	3.7	-67.63	-122.4	-106.4	125.5	120.0	5.46	22.994		
1,500.0	1,494.9	1,484.5	1,467.8	3.1	4.1	-69.49	-138.0	-122.3	139.4	133.3	6.05	23.058		
1,600.0	1,593.4	1,583.4	1,564.1	3.4	4.5	-71.43	-153.5	-138.2	153.2	146.5	6.67	22.976		
1,700.0	1,691.9	1,682.3	1,660.5	3.7	4.9	-73.05	-169.1	-154.1	167.1	159.8	7.30	22.879		
1,800.0	1,790.4	1,781.2	1,756.9	4.1	5.4	-74.41	-184.7	-170.0	181.1	173.1	7.95	22.778		
1,900.0	1,888.9	1,880.2	1,853.3	4.4	5.8	-75.59	-200.2	-185.9	195.2	186.6	8.61	22.678		
2,000.0	1,987.3	1,979.1	1,949.7	4.7	6.2	-76.60	-215.8	-201.8	209.4	200.1	9.27	22.582		
2,100.0	2,085.8	2,078.0	2,046.1	5.1	6.6	-77.49	-231.4	-217.7	223.6	213.6	9.94	22.493		
2,200.0	2,184.3	2,176.9	2,142.5	5.4	7.1	-78.27	-247.0	-233.6	237.9	227.2	10.61	22.410		
2,300.0	2,282.8	2,275.9	2,238.9	5.8	7.5	-78.96	-262.5	-249.5	252.2	240.9	11.29	22.333		
2,400.0	2,381.3	2,374.8	2,335.3	6.1	7.9	-79.58	-278.1	-265.4	266.5	254.5	11.97	22.262		
2,500.0	2,479.7	2,473.7	2,431.7	6.4	8.3	-80.13	-293.7	-281.3	280.9	268.2	12.65	22.197		
2,600.0	2,578.2	2,572.7	2,528.1	6.8	8.8	-80.63	-309.2	-297.2	295.3	281.9	13.34	22.137		
2,700.0	2,676.7	2,671.6	2,624.5	7.1	9.2	-81.08	-324.8	-313.1	309.7	295.7	14.03	22.082		
2,800.0	2,775.2	2,770.5	2,720.8	7.5	9.6	-81.50	-340.4	-329.0	324.1	309.4	14.71	22.031		
2,900.0	2,873.7	2,869.4	2,817.2	7.8	10.0	-81.87	-355.9	-344.9	338.6	323.2	15.40	21.983		
3,000.0	2,972.1	2,968.4	2,913.6	8.2	10.5	-82.22	-371.5	-360.8	353.0	337.0	16.09	21.939		
3,100.0	3,070.6	3,067.3	3,010.0	8.5	10.9	-82.54	-387.1	-376.7	367.5	350.7	16.78	21.898		
3,200.0	3,169.1	3,166.2	3,106.4	8.9	11.3	-82.84	-402.7	-392.6	382.0	364.5	17.47	21.860		
3,300.0	3,267.6	3,265.1	3,202.8	9.2	11.7	-83.11	-418.2	-408.5	396.5	378.3	18.17	21.825		
3,400.0	3,366.1	3,364.1	3,299.2	9.6	12.2	-83.36	-433.8	-424.4	411.0	392.1	18.86	21.792		
3,500.0	3,464.5	3,463.0	3,395.6	9.9	12.6	-83.60	-449.4	-440.3	425.5	406.0	19.55	21.761		
3,600.0	3,563.0	3,561.9	3,492.0	10.3	13.0	-83.82	-464.9	-456.2	440.0	419.8	20.25	21.732		
3,700.0	3,661.5	3,660.8	3,588.4	10.6	13.5	-84.03	-480.5	-472.1	454.5	433.6	20.94	21.705		
3,800.0	3,760.0	3,759.8	3,684.8	11.0	13.9	-84.23	-496.1	-488.0	469.1	447.4	21.64	21.679		
3,900.0	3,858.5	3,858.7	3,781.2	11.3	14.3	-84.41	-511.6	-503.9	483.6	461.3	22.33	21.655		
4,000.0	3,957.0	3,957.6	3,877.5	11.7	14.7	-84.58	-527.2	-519.8	498.1	475.1	23.03	21.633		

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 3D-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 3D-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)				
0.0	0.0	1.0	1.0	0.0	0.0	-180.00	-29.1	0.0	29.1					
100.0	100.0	101.0	101.0	0.2	0.2	-180.00	-29.1	0.0	29.1	28.8	0.31	95.401		
200.0	200.0	201.0	201.0	0.3	0.3	-180.00	-29.1	0.0	29.1	28.5	0.65	44.521		
300.0	300.0	301.0	301.0	0.5	0.5	-180.00	-29.1	0.0	29.1	28.1	1.00	29.035		
345.4	345.4	346.4	346.4	0.6	0.6	-180.00	-29.1	0.0	29.1	28.0	1.16	25.076 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	-179.28	-29.7	-0.4	29.7	28.3	1.35	21.977		
500.0	500.0	498.8	498.7	0.8	0.9	-174.40	-33.9	-3.3	34.1	32.4	1.71	19.959 SF		
600.0	600.0	596.6	595.9	1.0	1.1	-74.90	-42.2	-9.1	43.2	41.1	2.06	21.021		
700.0	700.0	693.3	691.4	1.2	1.4	-71.12	-54.3	-17.6	56.7	54.3	2.41	23.510		
800.0	799.9	788.6	784.7	1.4	1.7	-68.79	-70.2	-28.8	74.5	71.7	2.78	26.827		
900.0	899.7	885.3	878.6	1.6	2.1	-67.59	-89.2	-42.1	95.2	92.1	3.15	30.191		
1,000.0	999.4	983.2	973.6	1.8	2.5	-67.52	-108.6	-55.6	115.5	112.0	3.55	32.522		
1,100.0	1,098.9	1,081.3	1,068.8	2.0	3.0	-68.12	-128.0	-69.3	135.1	131.2	3.97	34.006		
1,200.0	1,198.3	1,179.4	1,164.0	2.2	3.4	-69.14	-147.5	-82.9	154.2	149.7	4.43	34.821		
1,300.0	1,297.4	1,277.6	1,259.2	2.5	3.8	-70.45	-166.9	-96.5	172.7	167.8	4.92	35.104		
1,400.0	1,396.3	1,375.8	1,354.5	2.8	4.3	-71.98	-186.4	-110.1	190.8	185.3	5.45	34.973		
1,500.0	1,494.9	1,474.0	1,449.8	3.1	4.7	-73.68	-205.9	-123.7	208.5	202.5	6.04	34.527		
1,600.0	1,593.4	1,572.2	1,545.1	3.4	5.2	-75.48	-225.3	-137.4	226.2	219.5	6.65	33.992		
1,700.0	1,691.9	1,670.4	1,640.4	3.7	5.6	-77.01	-244.8	-151.0	244.1	236.8	7.28	33.502		
1,800.0	1,790.4	1,768.6	1,735.6	4.1	6.1	-78.34	-264.2	-164.6	262.1	254.2	7.93	33.061		
1,900.0	1,888.9	1,866.7	1,830.9	4.4	6.5	-79.49	-283.7	-178.2	280.2	271.6	8.58	32.666		
2,000.0	1,987.3	1,964.9	1,926.2	4.7	7.0	-80.51	-303.2	-191.9	298.5	289.2	9.24	32.313		
2,100.0	2,085.8	2,063.1	2,021.5	5.1	7.4	-81.41	-322.6	-205.5	316.8	306.9	9.90	31.998		
2,200.0	2,184.3	2,161.3	2,116.8	5.4	7.9	-82.20	-342.1	-219.1	335.2	324.6	10.57	31.716		
2,300.0	2,282.8	2,259.5	2,212.0	5.8	8.3	-82.92	-361.5	-232.8	353.6	342.4	11.24	31.463		
2,400.0	2,381.3	2,357.7	2,307.3	6.1	8.8	-83.57	-381.0	-246.4	372.1	360.2	11.91	31.235		
2,500.0	2,479.7	2,455.9	2,402.6	6.4	9.2	-84.15	-400.5	-260.0	390.6	378.0	12.59	31.029		
2,600.0	2,578.2	2,554.1	2,497.9	6.8	9.7	-84.68	-419.9	-273.6	409.2	395.9	13.27	30.842		
2,700.0	2,676.7	2,652.3	2,593.1	7.1	10.1	-85.17	-439.4	-287.3	427.8	413.8	13.95	30.672		
2,800.0	2,775.2	2,750.5	2,688.4	7.5	10.6	-85.61	-458.8	-300.9	446.4	431.8	14.63	30.517		
2,900.0	2,873.7	2,848.7	2,783.7	7.8	11.0	-86.02	-478.3	-314.5	465.1	449.8	15.31	30.375		
3,000.0	2,972.1	2,946.9	2,879.0	8.2	11.5	-86.40	-497.8	-328.1	483.7	467.7	15.99	30.245		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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 Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	-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	131.936		
200.0	200.0	200.0	200.0	0.3	0.3	-180.00	-40.1	0.0	40.1	39.4	0.65	61.382 CC, ES		
300.0	300.0	298.8	298.7	0.5	0.5	-178.81	-41.5	-0.9	41.6	40.6	1.00	41.454		
400.0	400.0	397.3	397.1	0.7	0.7	-175.73	-45.9	-3.4	46.1	44.8	1.37	33.766		
500.0	500.0	495.4	494.8	0.8	0.9	-171.77	-53.2	-7.7	54.0	52.2	1.76	30.716 SF		
600.0	600.0	592.8	591.6	1.0	1.2	-74.60	-63.3	-13.6	65.0	63.0	2.05	31.641		
700.0	700.0	689.5	687.1	1.2	1.5	-72.72	-76.1	-21.1	78.9	76.5	2.41	32.722		
800.0	799.9	785.3	781.3	1.4	1.8	-71.79	-91.5	-30.1	95.5	92.7	2.77	34.405		
900.0	899.7	880.1	873.8	1.6	2.2	-71.44	-109.4	-40.6	114.7	111.5	3.15	36.394		
1,000.0	999.4	977.6	968.5	1.8	2.6	-71.60	-129.4	-52.4	135.2	131.6	3.55	38.079		
1,100.0	1,098.9	1,075.6	1,063.6	2.0	3.1	-72.29	-149.6	-64.2	155.1	151.2	3.97	39.042		
1,200.0	1,198.3	1,173.6	1,158.8	2.2	3.5	-73.35	-169.8	-76.0	174.7	170.2	4.43	39.431		
1,300.0	1,297.4	1,271.6	1,254.0	2.5	3.9	-74.66	-189.9	-87.8	193.8	188.9	4.92	39.366		
1,400.0	1,396.3	1,369.7	1,349.2	2.8	4.4	-76.17	-210.1	-99.6	212.6	207.2	5.46	38.951		
1,500.0	1,494.9	1,467.7	1,444.4	3.1	4.8	-77.82	-230.2	-111.4	231.3	225.2	6.04	38.275		
1,600.0	1,593.4	1,565.7	1,539.5	3.4	5.2	-79.59	-250.4	-123.2	249.9	243.3	6.66	37.551		
1,700.0	1,691.9	1,663.6	1,634.7	3.7	5.7	-81.11	-270.5	-135.0	268.8	261.5	7.28	36.903		
1,800.0	1,790.4	1,761.6	1,729.8	4.1	6.1	-82.43	-290.7	-146.8	287.8	279.9	7.92	36.329		
1,900.0	1,888.9	1,859.6	1,825.0	4.4	6.6	-83.59	-310.8	-158.6	306.9	298.4	8.57	35.820		
2,000.0	1,987.3	1,957.5	1,920.1	4.7	7.0	-84.61	-331.0	-170.4	326.2	317.0	9.22	35.369		
2,100.0	2,085.8	2,055.5	2,015.3	5.1	7.4	-85.52	-351.1	-182.2	345.5	335.6	9.88	34.970		
2,200.0	2,184.3	2,153.5	2,110.4	5.4	7.9	-86.33	-371.3	-194.0	364.9	354.4	10.54	34.614		
2,300.0	2,282.8	2,251.5	2,205.6	5.8	8.3	-87.06	-391.4	-205.8	384.4	373.2	11.21	34.296		
2,400.0	2,381.3	2,349.4	2,300.7	6.1	8.8	-87.72	-411.6	-217.6	404.0	392.1	11.88	34.011		
2,500.0	2,479.7	2,447.4	2,395.9	6.4	9.2	-88.32	-431.7	-229.4	423.5	411.0	12.55	33.755		
2,600.0	2,578.2	2,545.4	2,491.0	6.8	9.7	-88.87	-451.9	-241.2	443.2	429.9	13.22	33.523		
2,700.0	2,676.7	2,643.3	2,586.2	7.1	10.1	-89.37	-472.0	-253.0	462.8	448.9	13.89	33.312		
2,800.0	2,775.2	2,741.3	2,681.3	7.5	10.5	-89.82	-492.2	-264.8	482.5	467.9	14.57	33.121		

Anticollision Report

Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Billings 3D-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 3D-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 3D-18H

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.29°

