

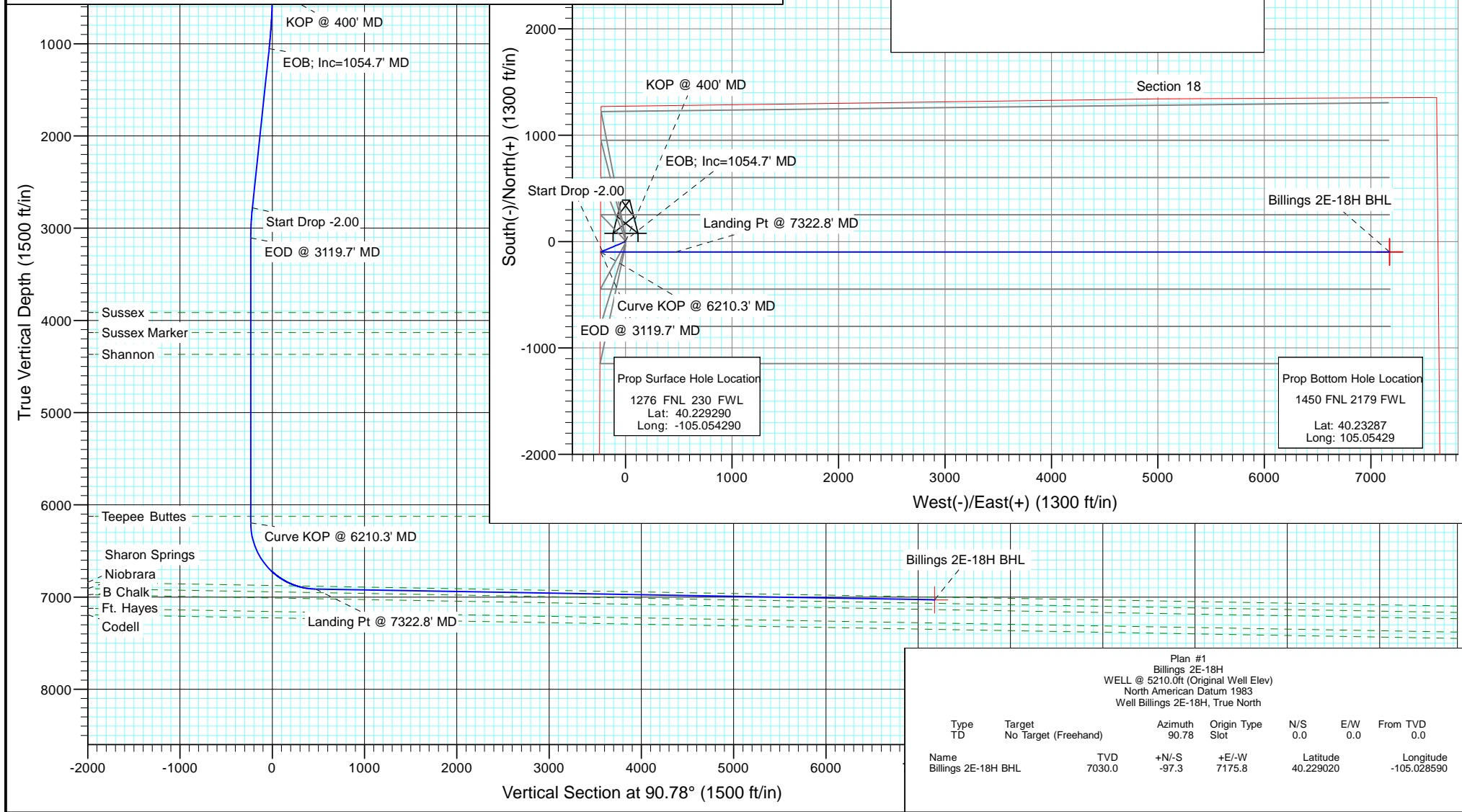


Project: DJ Wattenberg  
Site: S18-T3N-R68W (Billings)  
Well: Billings 2E-18H  
Wellbore: HZ  
Design: Plan #1



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.0	
3	1054.7	6.55	247.44	1053.3	-14.3	-34.5	1.00	247.44	-34.3	
4	2792.4	6.55	247.44	2779.6	-90.3	-217.5	0.00	0.00	-216.2	
5	3119.7	0.00	0.00	3106.3	-97.5	-234.7	2.00	180.00	-233.4	
6	6210.3	0.00	0.00	6196.8	-97.5	-234.7	0.00	0.00	-233.4	
7	7322.8	89.00	90.00	6912.9	-97.5	469.0	8.00	90.00	470.2	
8	14030.7	89.00	90.00	7030.0	-97.3	7175.8	0.00	0.00	7176.4	Billings 2E-18H BHL

FORMATION TOP DETAILS			
TVDPth	MDPath	Formation	DipAngle
3915.0	3928.5	Sussex	
4132.0	4145.5	Sussex Marker	
4368.0	4381.5	Shannon	
6124.0	6137.5	Teepee Buttes	
6878.6	7112.2	Sharon Springs	1.00



Plan #1 Billings 2E-18H WELL @ 5210.0ft (Original Well Elev) North American Datum 1983 Well Billings 2E-18H, True North						
Type	Target	Azimuth	Origin	Type	N/S	E/W
TD	No Target (Freehand)	90.78	Slot		0.0	0.0
From TVD		0.0				
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
Billings 2E-18H BHL	7030.0	-97.3	7175.8	40.229020	-105.028590	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site:</b>	S18-T3N-R68W (Billings)	<b>North Reference:</b>	True
<b>Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #1		

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

Site		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 2E-18H					
Well Position	+N/-S	0.0 ft	Northing:	1,326,687.74 ft	Latitude:	40.229290
	+E/-W	0.0 ft	Easting:	3,124,453.15 ft	Longitude:	-105.054290
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,197.0 ft

<b>Wellbore</b>	HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	11/16/2012	8.77	66.83	52,884

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	90.78

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,054.7	6.55	247.44	1,053.3	-14.3	-34.5	1.00	1.00	0.00	247.44	
2,792.4	6.55	247.44	2,779.6	-90.3	-217.5	0.00	0.00	0.00	0.00	
3,119.7	0.00	0.00	3,106.3	-97.5	-234.7	2.00	-2.00	0.00	180.00	
6,210.3	0.00	0.00	6,196.8	-97.5	-234.7	0.00	0.00	0.00	0.00	
7,322.8	89.00	90.00	6,912.9	-97.5	469.0	8.00	8.00	0.00	90.00	
14,030.7	89.00	90.00	7,030.0	-97.3	7,175.8	0.00	0.00	0.00	0.00	Billings 2E-18H BHL

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site:</b>	S18-T3N-R68W (Billings)	<b>North Reference:</b>	True
<b>Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	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' MD
500.0	1.00	247.44	500.0	-0.3	-0.8	-0.8	1.00	1.00	
600.0	2.00	247.44	600.0	-1.3	-3.2	-3.2	1.00	1.00	
700.0	3.00	247.44	699.9	-3.0	-7.3	-7.2	1.00	1.00	
800.0	4.00	247.44	799.7	-5.4	-12.9	-12.8	1.00	1.00	
900.0	5.00	247.44	899.4	-8.4	-20.1	-20.0	1.00	1.00	
1,000.0	6.00	247.44	998.9	-12.0	-29.0	-28.8	1.00	1.00	
1,054.7	6.55	247.44	1,053.3	-14.3	-34.5	-34.3	1.00	1.00	EOB; Inc=1054.7' MD
1,100.0	6.55	247.44	1,098.3	-16.3	-39.3	-39.1	0.00	0.00	
1,200.0	6.55	247.44	1,197.6	-20.7	-49.8	-49.5	0.00	0.00	
1,300.0	6.55	247.44	1,297.0	-25.1	-60.3	-60.0	0.00	0.00	
1,400.0	6.55	247.44	1,396.3	-29.4	-70.9	-70.5	0.00	0.00	
1,500.0	6.55	247.44	1,495.7	-33.8	-81.4	-80.9	0.00	0.00	
1,600.0	6.55	247.44	1,595.0	-38.2	-91.9	-91.4	0.00	0.00	
1,700.0	6.55	247.44	1,694.4	-42.6	-102.5	-101.9	0.00	0.00	
1,800.0	6.55	247.44	1,793.7	-46.9	-113.0	-112.3	0.00	0.00	
1,900.0	6.55	247.44	1,893.1	-51.3	-123.5	-122.8	0.00	0.00	
2,000.0	6.55	247.44	1,992.4	-55.7	-134.0	-133.3	0.00	0.00	
2,100.0	6.55	247.44	2,091.8	-60.1	-144.6	-143.7	0.00	0.00	
2,200.0	6.55	247.44	2,191.1	-64.4	-155.1	-154.2	0.00	0.00	
2,300.0	6.55	247.44	2,290.5	-68.8	-165.6	-164.7	0.00	0.00	
2,400.0	6.55	247.44	2,389.8	-73.2	-176.2	-175.2	0.00	0.00	
2,500.0	6.55	247.44	2,489.2	-77.5	-186.7	-185.6	0.00	0.00	
2,600.0	6.55	247.44	2,588.5	-81.9	-197.2	-196.1	0.00	0.00	
2,700.0	6.55	247.44	2,687.8	-86.3	-207.8	-206.6	0.00	0.00	
2,792.4	6.55	247.44	2,779.6	-90.3	-217.5	-216.2	0.00	0.00	Start Drop -2.00
2,800.0	6.39	247.44	2,787.2	-90.7	-218.3	-217.0	2.00	-2.00	
2,900.0	4.39	247.44	2,886.7	-94.3	-227.0	-225.7	2.00	-2.00	
3,000.0	2.39	247.44	2,986.6	-96.5	-232.4	-231.1	2.00	-2.00	
3,100.0	0.39	247.44	3,086.5	-97.5	-234.7	-233.3	2.00	-2.00	
3,119.7	0.00	0.00	3,106.3	-97.5	-234.7	-233.4	2.00	-2.00	EOD @ 3119.7' MD
3,200.0	0.00	0.00	3,186.5	-97.5	-234.7	-233.4	0.00	0.00	
3,300.0	0.00	0.00	3,286.5	-97.5	-234.7	-233.4	0.00	0.00	
3,400.0	0.00	0.00	3,386.5	-97.5	-234.7	-233.4	0.00	0.00	
3,500.0	0.00	0.00	3,486.5	-97.5	-234.7	-233.4	0.00	0.00	
3,600.0	0.00	0.00	3,586.5	-97.5	-234.7	-233.4	0.00	0.00	
3,700.0	0.00	0.00	3,686.5	-97.5	-234.7	-233.4	0.00	0.00	
3,800.0	0.00	0.00	3,786.5	-97.5	-234.7	-233.4	0.00	0.00	
3,900.0	0.00	0.00	3,886.5	-97.5	-234.7	-233.4	0.00	0.00	
3,928.5	0.00	0.00	3,915.0	-97.5	-234.7	-233.4	0.00	0.00	Sussex
4,000.0	0.00	0.00	3,986.5	-97.5	-234.7	-233.4	0.00	0.00	
4,100.0	0.00	0.00	4,086.5	-97.5	-234.7	-233.4	0.00	0.00	
4,145.5	0.00	0.00	4,132.0	-97.5	-234.7	-233.4	0.00	0.00	Sussex Marker
4,200.0	0.00	0.00	4,186.5	-97.5	-234.7	-233.4	0.00	0.00	
4,300.0	0.00	0.00	4,286.5	-97.5	-234.7	-233.4	0.00	0.00	
4,381.5	0.00	0.00	4,368.0	-97.5	-234.7	-233.4	0.00	0.00	Shannon
4,400.0	0.00	0.00	4,386.5	-97.5	-234.7	-233.4	0.00	0.00	
4,500.0	0.00	0.00	4,486.5	-97.5	-234.7	-233.4	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site:</b>	S18-T3N-R68W (Billings)	<b>North Reference:</b>	True
<b>Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	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
4,600.0	0.00	0.00	4,586.5	-97.5	-234.7	-233.4	0.00	0.00	
4,700.0	0.00	0.00	4,686.5	-97.5	-234.7	-233.4	0.00	0.00	
4,800.0	0.00	0.00	4,786.5	-97.5	-234.7	-233.4	0.00	0.00	
4,900.0	0.00	0.00	4,886.5	-97.5	-234.7	-233.4	0.00	0.00	
5,000.0	0.00	0.00	4,986.5	-97.5	-234.7	-233.4	0.00	0.00	
5,100.0	0.00	0.00	5,086.5	-97.5	-234.7	-233.4	0.00	0.00	
5,200.0	0.00	0.00	5,186.5	-97.5	-234.7	-233.4	0.00	0.00	
5,300.0	0.00	0.00	5,286.5	-97.5	-234.7	-233.4	0.00	0.00	
5,400.0	0.00	0.00	5,386.5	-97.5	-234.7	-233.4	0.00	0.00	
5,500.0	0.00	0.00	5,486.5	-97.5	-234.7	-233.4	0.00	0.00	
5,600.0	0.00	0.00	5,586.5	-97.5	-234.7	-233.4	0.00	0.00	
5,700.0	0.00	0.00	5,686.5	-97.5	-234.7	-233.4	0.00	0.00	
5,800.0	0.00	0.00	5,786.5	-97.5	-234.7	-233.4	0.00	0.00	
5,900.0	0.00	0.00	5,886.5	-97.5	-234.7	-233.4	0.00	0.00	
6,000.0	0.00	0.00	5,986.5	-97.5	-234.7	-233.4	0.00	0.00	
6,100.0	0.00	0.00	6,086.5	-97.5	-234.7	-233.4	0.00	0.00	
6,137.5	0.00	0.00	6,124.0	-97.5	-234.7	-233.4	0.00	0.00	Teepee Buttes
6,200.0	0.00	0.00	6,186.5	-97.5	-234.7	-233.4	0.00	0.00	
6,210.3	0.00	0.00	6,196.8	-97.5	-234.7	-233.4	0.00	0.00	Curve KOP @ 6210.3' MD
6,300.0	7.18	90.00	6,286.3	-97.5	-229.1	-227.8	8.00	8.00	
6,400.0	15.18	90.00	6,384.3	-97.5	-209.8	-208.4	8.00	8.00	
6,500.0	23.18	90.00	6,478.7	-97.5	-176.9	-175.6	8.00	8.00	
6,600.0	31.18	90.00	6,567.6	-97.5	-131.3	-130.0	8.00	8.00	
6,700.0	39.18	90.00	6,649.3	-97.5	-73.7	-72.4	8.00	8.00	
6,800.0	47.18	90.00	6,722.1	-97.5	-5.4	-4.1	8.00	8.00	
6,900.0	55.18	90.00	6,784.8	-97.5	72.5	73.8	8.00	8.00	
7,000.0	63.18	90.00	6,836.0	-97.5	158.3	159.6	8.00	8.00	
7,100.0	71.18	90.00	6,874.7	-97.5	250.4	251.7	8.00	8.00	
7,112.2	72.15	90.00	6,878.6	-97.5	262.0	263.2	8.00	8.00	Sharon Springs
7,200.0	79.18	90.00	6,900.3	-97.5	347.0	348.2	8.00	8.00	
7,300.0	87.18	90.00	6,912.2	-97.5	446.2	447.4	8.00	8.00	
7,322.8	89.00	90.00	6,912.9	-97.5	469.0	470.2	8.00	8.00	Landing Pt @ 7322.8' MD
7,400.0	89.00	90.00	6,914.3	-97.5	546.1	547.4	0.00	0.00	
7,500.0	89.00	90.00	6,916.0	-97.5	646.1	647.4	0.00	0.00	
7,600.0	89.00	90.00	6,917.8	-97.5	746.1	747.4	0.00	0.00	
7,700.0	89.00	90.00	6,919.5	-97.5	846.1	847.3	0.00	0.00	
7,800.0	89.00	90.00	6,921.3	-97.5	946.1	947.3	0.00	0.00	
7,900.0	89.00	90.00	6,923.0	-97.5	1,046.1	1,047.3	0.00	0.00	
8,000.0	89.00	90.00	6,924.8	-97.5	1,146.0	1,147.3	0.00	0.00	
8,100.0	89.00	90.00	6,926.5	-97.5	1,246.0	1,247.2	0.00	0.00	
8,200.0	89.00	90.00	6,928.2	-97.5	1,346.0	1,347.2	0.00	0.00	
8,300.0	89.00	90.00	6,930.0	-97.5	1,446.0	1,447.2	0.00	0.00	
8,400.0	89.00	90.00	6,931.7	-97.5	1,546.0	1,547.2	0.00	0.00	
8,500.0	89.00	90.00	6,933.5	-97.5	1,646.0	1,647.1	0.00	0.00	
8,600.0	89.00	90.00	6,935.2	-97.4	1,746.0	1,747.1	0.00	0.00	
8,700.0	89.00	90.00	6,937.0	-97.4	1,845.9	1,847.1	0.00	0.00	
8,800.0	89.00	90.00	6,938.7	-97.4	1,945.9	1,947.1	0.00	0.00	
8,900.0	89.00	90.00	6,940.5	-97.4	2,045.9	2,047.0	0.00	0.00	
9,000.0	89.00	90.00	6,942.2	-97.4	2,145.9	2,147.0	0.00	0.00	
9,100.0	89.00	90.00	6,943.9	-97.4	2,245.9	2,247.0	0.00	0.00	
9,200.0	89.00	90.00	6,945.7	-97.4	2,345.9	2,347.0	0.00	0.00	
9,300.0	89.00	90.00	6,947.4	-97.4	2,445.8	2,446.9	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site:</b>	S18-T3N-R68W (Billings)	<b>North Reference:</b>	True
<b>Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	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
9,400.0	89.00	90.00	6,949.2	-97.4	2,545.8	2,546.9	0.00	0.00	
9,500.0	89.00	90.00	6,950.9	-97.4	2,645.8	2,646.9	0.00	0.00	
9,600.0	89.00	90.00	6,952.7	-97.4	2,745.8	2,746.9	0.00	0.00	
9,700.0	89.00	90.00	6,954.4	-97.4	2,845.8	2,846.8	0.00	0.00	
9,800.0	89.00	90.00	6,956.2	-97.4	2,945.8	2,946.8	0.00	0.00	
9,900.0	89.00	90.00	6,957.9	-97.4	3,045.8	3,046.8	0.00	0.00	
10,000.0	89.00	90.00	6,959.7	-97.4	3,145.7	3,146.8	0.00	0.00	
10,100.0	89.00	90.00	6,961.4	-97.4	3,245.7	3,246.7	0.00	0.00	
10,200.0	89.00	90.00	6,963.1	-97.4	3,345.7	3,346.7	0.00	0.00	
10,300.0	89.00	90.00	6,964.9	-97.4	3,445.7	3,446.7	0.00	0.00	
10,400.0	89.00	90.00	6,966.6	-97.4	3,545.7	3,546.7	0.00	0.00	
10,500.0	89.00	90.00	6,968.4	-97.4	3,645.7	3,646.7	0.00	0.00	
10,600.0	89.00	90.00	6,970.1	-97.4	3,745.7	3,746.6	0.00	0.00	
10,700.0	89.00	90.00	6,971.9	-97.4	3,845.6	3,846.6	0.00	0.00	
10,800.0	89.00	90.00	6,973.6	-97.4	3,945.6	3,946.6	0.00	0.00	
10,900.0	89.00	90.00	6,975.4	-97.4	4,045.6	4,046.6	0.00	0.00	
11,000.0	89.00	90.00	6,977.1	-97.4	4,145.6	4,146.5	0.00	0.00	
11,100.0	89.00	90.00	6,978.9	-97.4	4,245.6	4,246.5	0.00	0.00	
11,200.0	89.00	90.00	6,980.6	-97.4	4,345.6	4,346.5	0.00	0.00	
11,300.0	89.00	90.00	6,982.3	-97.4	4,445.5	4,446.5	0.00	0.00	
11,400.0	89.00	90.00	6,984.1	-97.4	4,545.5	4,546.4	0.00	0.00	
11,500.0	89.00	90.00	6,985.8	-97.4	4,645.5	4,646.4	0.00	0.00	
11,600.0	89.00	90.00	6,987.6	-97.4	4,745.5	4,746.4	0.00	0.00	
11,700.0	89.00	90.00	6,989.3	-97.4	4,845.5	4,846.4	0.00	0.00	
11,800.0	89.00	90.00	6,991.1	-97.4	4,945.5	4,946.3	0.00	0.00	
11,900.0	89.00	90.00	6,992.8	-97.4	5,045.5	5,046.3	0.00	0.00	
12,000.0	89.00	90.00	6,994.6	-97.4	5,145.4	5,146.3	0.00	0.00	
12,100.0	89.00	90.00	6,996.3	-97.4	5,245.4	5,246.3	0.00	0.00	
12,200.0	89.00	90.00	6,998.1	-97.4	5,345.4	5,346.2	0.00	0.00	
12,300.0	89.00	90.00	6,999.8	-97.4	5,445.4	5,446.2	0.00	0.00	
12,400.0	89.00	90.00	7,001.5	-97.4	5,545.4	5,546.2	0.00	0.00	
12,500.0	89.00	90.00	7,003.3	-97.3	5,645.4	5,646.2	0.00	0.00	
12,600.0	89.00	90.00	7,005.0	-97.3	5,745.3	5,746.1	0.00	0.00	
12,700.0	89.00	90.00	7,006.8	-97.3	5,845.3	5,846.1	0.00	0.00	
12,800.0	89.00	90.00	7,008.5	-97.3	5,945.3	5,946.1	0.00	0.00	
12,900.0	89.00	90.00	7,010.3	-97.3	6,045.3	6,046.1	0.00	0.00	
13,000.0	89.00	90.00	7,012.0	-97.3	6,145.3	6,146.0	0.00	0.00	
13,100.0	89.00	90.00	7,013.8	-97.3	6,245.3	6,246.0	0.00	0.00	
13,200.0	89.00	90.00	7,015.5	-97.3	6,345.3	6,346.0	0.00	0.00	
13,300.0	89.00	90.00	7,017.2	-97.3	6,445.2	6,446.0	0.00	0.00	
13,400.0	89.00	90.00	7,019.0	-97.3	6,545.2	6,545.9	0.00	0.00	
13,500.0	89.00	90.00	7,020.7	-97.3	6,645.2	6,645.9	0.00	0.00	
13,600.0	89.00	90.00	7,022.5	-97.3	6,745.2	6,745.9	0.00	0.00	
13,700.0	89.00	90.00	7,024.2	-97.3	6,845.2	6,845.9	0.00	0.00	
13,800.0	89.00	90.00	7,026.0	-97.3	6,945.2	6,945.8	0.00	0.00	
13,900.0	89.00	90.00	7,027.7	-97.3	7,045.1	7,045.8	0.00	0.00	
14,000.0	89.00	90.00	7,029.5	-97.3	7,145.1	7,145.8	0.00	0.00	
14,030.7	89.00	90.00	7,030.0	-97.3	7,175.8	7,176.4	0.00	0.00	PBHL @ 14030.7' MD

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Project:</b>	DJ Wattenberg	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site:</b>	S18-T3N-R68W (Billings)	<b>North Reference:</b>	True
<b>Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	HZ		
<b>Design:</b>	Plan #1		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
Billings 2E-18H BHL	0.00	0.00	7,030.0	-97.3	7,175.8	1,326,626.50	3,131,629.34	40.229020	-105.028590
- plan hits target center									
- Point									
Interp @ 3106.3 (Billings)	0.00	0.00	3,106.3	-97.5	-234.7	1,326,589.06	3,124,218.91	40.229022	-105.055131
- plan hits target center									
- Point									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,928.5	3,915.0	Sussex				
4,145.5	4,132.0	Sussex Marker				
4,381.5	4,368.0	Shannon				
6,137.5	6,124.0	Teepee Buttes				
7,112.2	6,874.0	Sharon Springs		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' MD	
1,054.7	1,053.3	-14.3	-34.5	EOB; Inc=1054.7' MD	
2,792.4	2,779.6	-90.3	-217.5	Start Drop -2.00	
3,119.7	3,106.3	-97.5	-234.7	EOD @ 3119.7' MD	
6,210.3	6,196.8	-97.5	-234.7	Curve KOP @ 6210.3' MD	
7,322.8	6,912.9	-97.5	469.0	Landing Pt @ 7322.8' MD	
14,030.7	7,030.0	-97.3	7,175.8	PBHL @ 14030.7' MD	

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

**DJ Wattenberg**

**S18-T3N-R68W (Billings)**

**Billings 2E-18H**

**HZ**

**Plan #1**

## **Anticollision Report**

**29 November, 2012**

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	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 1,626.7ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program		Date	11/29/2012		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	14,030.3	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	166.3	167.3	36.4	35.9	67.849	CC
Billings 2A-18H - Hz - Plan #1	200.0	201.0	36.4	35.8	55.665	ES
Billings 2A-18H - Hz - Plan #1	14,030.7	14,260.6	1,406.2	1,047.2	3.917	SF
Billings 2B-18H - HZ - Plan #1	300.0	300.0	29.1	28.1	29.086	CC, ES
Billings 2B-18H - HZ - Plan #1	14,030.7	14,328.8	1,065.5	710.9	3.004	SF
Billings 2C-18H - HZ - Plan #1	400.0	400.0	18.2	16.9	13.483	CC, ES
Billings 2C-18H - HZ - Plan #1	14,030.7	14,068.8	699.4	339.3	1.942	SF
Billings 2D-18H - Hz - Plan #1	200.0	200.0	7.3	6.6	11.162	CC, ES
Billings 2D-18H - Hz - Plan #1	14,030.7	14,244.2	402.9	89.4	1.285	Level 3, SF
Billings 2F-18H - HZ - Plan #1	300.0	300.0	10.9	9.9	10.909	CC, ES
Billings 2F-18H - HZ - Plan #1	14,030.7	14,349.0	460.7	185.5	1.674	SF
Billings 2G-18H - Hz - Plan #1	400.0	400.0	21.9	20.5	16.180	CC, ES
Billings 2G-18H - Hz - Plan #1	14,030.7	14,087.3	699.4	339.0	1.941	SF
Billings 2H-18H - Hz - Plan #1	200.0	200.0	32.8	32.1	50.227	CC, ES
Billings 2H-18H - Hz - Plan #1	14,030.7	14,372.1	1,071.1	718.0	3.033	SF



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2A-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	36.4	0.0	36.4					
100.0	100.0	101.0	101.0	0.2	0.2	0.00	36.4	0.0	36.4	36.1	0.31	119.282		
166.3	166.3	167.3	167.3	0.3	0.3	0.00	36.4	0.0	36.4	35.9	0.54	67.849 CC		
200.0	200.0	201.0	201.0	0.3	0.3	0.00	36.4	0.0	36.4	35.8	0.65	55.665 ES		
300.0	300.0	300.4	300.4	0.5	0.5	-0.26	37.3	-0.2	37.3	36.3	1.00	37.186		
400.0	400.0	400.0	400.0	0.7	0.7	-0.96	39.9	-0.7	39.9	38.5	1.36	29.425		
500.0	500.0	498.8	498.7	0.9	0.9	111.63	44.1	-1.5	44.5	42.8	1.70	26.182		
600.0	600.0	597.8	597.5	1.0	1.1	113.08	50.0	-2.6	51.4	49.4	2.05	25.094		
700.0	699.9	696.4	695.8	1.2	1.3	115.29	57.5	-4.1	60.8	58.4	2.41	25.276		
800.0	799.7	794.5	793.4	1.4	1.5	117.71	66.7	-5.9	72.7	70.0	2.77	26.232		
900.0	899.4	892.1	890.4	1.6	1.7	120.05	77.4	-7.9	87.2	84.1	3.15	27.678		
1,000.0	998.9	989.0	986.6	1.8	2.0	122.15	89.7	-10.3	104.3	100.7	3.54	29.428		
1,100.0	1,098.3	1,085.3	1,081.7	2.1	2.3	123.98	103.4	-13.0	123.8	119.9	3.95	31.355		
1,200.0	1,197.6	1,180.9	1,176.1	2.3	2.6	125.19	118.7	-15.9	145.2	140.8	4.37	33.250		
1,300.0	1,297.0	1,275.9	1,269.6	2.6	2.9	125.86	135.3	-19.2	168.0	163.2	4.79	35.082		
1,400.0	1,396.3	1,370.2	1,362.1	2.8	3.3	126.16	153.3	-22.7	192.3	187.1	5.22	36.855		
1,500.0	1,495.7	1,463.8	1,453.6	3.1	3.6	126.21	172.7	-26.4	218.0	212.4	5.65	38.578		
1,600.0	1,595.0	1,556.6	1,544.0	3.3	4.0	126.10	193.4	-30.4	245.2	239.1	6.09	40.260		
1,700.0	1,694.4	1,648.7	1,633.3	3.6	4.4	125.87	215.3	-34.7	273.7	267.2	6.53	41.909		
1,800.0	1,793.7	1,739.9	1,721.4	3.8	4.9	125.56	238.4	-39.2	303.7	296.7	6.98	43.531		
1,900.0	1,893.1	1,830.3	1,808.4	4.1	5.3	125.20	262.6	-43.9	335.0	327.6	7.42	45.132		
2,000.0	1,992.4	1,920.5	1,894.8	4.4	5.8	124.80	288.1	-48.8	367.7	359.8	7.87	46.710		
2,100.0	2,091.8	2,014.8	1,984.9	4.6	6.3	124.42	315.3	-54.1	400.9	392.5	8.33	48.122		
2,200.0	2,191.1	2,109.1	2,075.0	4.9	6.8	124.10	342.5	-59.3	434.1	425.3	8.79	49.384		
2,300.0	2,290.5	2,203.4	2,165.2	5.1	7.3	123.83	369.6	-64.6	467.3	458.1	9.25	50.517		
2,400.0	2,389.8	2,297.7	2,255.3	5.4	7.8	123.59	396.8	-69.9	500.5	490.8	9.71	51.541		
2,500.0	2,489.2	2,392.0	2,345.5	5.7	8.3	123.38	424.0	-75.2	533.8	523.6	10.17	52.470		
2,600.0	2,588.5	2,486.3	2,435.6	5.9	8.8	123.19	451.2	-80.4	567.0	556.4	10.63	53.316		
2,700.0	2,687.8	2,580.6	2,525.8	6.2	9.3	123.03	478.3	-85.7	600.3	589.2	11.10	54.090		
2,800.0	2,787.2	2,674.9	2,615.9	6.5	9.8	122.93	505.5	-91.0	633.5	621.9	11.56	54.782		
2,900.0	2,886.7	2,769.5	2,706.3	6.7	10.3	123.21	532.8	-96.3	665.7	653.7	12.04	55.292		
3,000.0	2,986.6	2,864.6	2,797.2	6.9	10.8	123.23	560.2	-101.6	696.2	683.7	12.47	55.824		
3,100.0	3,086.5	2,960.0	2,888.4	7.0	11.3	123.02	587.7	-106.9	724.8	712.0	12.85	56.394		
3,200.0	3,186.5	3,055.6	2,979.8	7.1	11.8	9.75	615.2	-112.2	752.4	735.2	17.26	43.599		
3,300.0	3,286.5	3,151.2	3,071.2	7.3	12.3	8.99	642.8	-117.6	780.1	762.2	17.93	43.513		
3,400.0	3,386.5	3,246.8	3,162.6	7.4	12.8	8.28	670.3	-122.9	807.9	789.3	18.60	43.432		
3,500.0	3,486.5	3,342.3	3,254.0	7.5	13.4	7.62	697.9	-128.3	835.8	816.5	19.28	43.356		
3,600.0	3,586.5	3,437.9	3,345.3	7.7	13.9	7.01	725.4	-133.6	863.8	843.8	19.96	43.285		
3,700.0	3,686.5	3,533.5	3,436.7	7.8	14.4	6.43	753.0	-139.0	891.8	871.2	20.64	43.219		
3,800.0	3,786.5	3,629.1	3,528.1	8.0	14.9	5.88	780.5	-144.3	920.0	898.7	21.32	43.158		
3,900.0	3,886.5	3,724.7	3,619.5	8.1	15.4	5.37	808.1	-149.6	948.2	926.2	22.00	43.101		
4,000.0	3,986.5	3,820.3	3,710.9	8.3	15.9	4.88	835.6	-155.0	976.5	953.9	22.69	43.047		
4,100.0	4,086.5	3,915.9	3,802.3	8.4	16.5	4.43	863.2	-160.3	1,004.9	981.5	23.37	42.997		
4,200.0	4,186.5	4,011.5	3,893.6	8.6	17.0	4.00	890.7	-165.7	1,033.3	1,009.3	24.06	42.951		
4,300.0	4,286.5	4,107.1	3,985.0	8.7	17.5	3.59	918.3	-171.0	1,061.8	1,037.0	24.75	42.908		
4,400.0	4,386.5	4,202.7	4,076.4	8.9	18.0	3.20	945.8	-176.4	1,090.3	1,064.9	25.43	42.867		
4,500.0	4,486.5	4,298.3	4,167.8	9.0	18.5	2.84	973.4	-181.7	1,118.9	1,092.7	26.12	42.830		
4,600.0	4,586.5	4,393.9	4,259.2	9.2	19.0	2.49	1,000.9	-187.0	1,147.4	1,120.6	26.81	42.795		
4,700.0	4,686.5	4,489.5	4,350.6	9.3	19.5	2.15	1,028.5	-192.4	1,176.1	1,148.6	27.50	42.762		
4,800.0	4,786.5	4,585.1	4,441.9	9.5	20.1	1.84	1,056.0	-197.7	1,204.8	1,176.6	28.19	42.732		
4,900.0	4,886.5	4,680.7	4,533.3	9.6	20.6	1.54	1,083.6	-203.1	1,233.5	1,204.6	28.88	42.703		
5,000.0	4,986.5	4,809.4	4,656.7	9.8	21.2	1.16	1,119.7	-210.1	1,261.6	1,231.9	29.72	42.445		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2A-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		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	5,086.5	4,981.5	4,823.7	9.9	22.0	0.77	1,160.0	-217.9	1,285.0	1,254.4	30.63	41.951		
5,200.0	5,186.5	5,158.0	4,997.4	10.1	22.5	0.48	1,191.1	-223.9	1,302.6	1,271.2	31.39	41.502		
5,300.0	5,286.5	5,337.9	5,176.0	10.2	23.0	0.30	1,211.9	-228.0	1,314.1	1,282.2	31.98	41.095		
5,400.0	5,386.5	5,519.8	5,357.6	10.4	23.2	0.21	1,221.7	-229.9	1,319.5	1,287.1	32.40	40.732		
5,500.0	5,486.5	5,649.7	5,487.5	10.6	23.3	0.21	1,222.4	-230.0	1,319.9	1,287.3	32.66	40.409		
5,600.0	5,586.5	5,749.7	5,587.5	10.7	23.4	0.21	1,222.4	-230.0	1,319.9	1,287.0	32.91	40.106		
5,700.0	5,686.5	5,849.7	5,687.5	10.9	23.5	0.21	1,222.4	-230.0	1,319.9	1,286.8	33.16	39.805		
5,800.0	5,786.5	5,949.7	5,787.5	11.0	23.5	0.21	1,222.4	-230.0	1,319.9	1,286.5	33.41	39.508		
5,900.0	5,886.5	6,049.7	5,887.5	11.2	23.6	0.21	1,222.4	-230.0	1,319.9	1,286.3	33.66	39.214		
6,000.0	5,986.5	6,149.7	5,987.5	11.4	23.7	0.21	1,222.4	-230.0	1,319.9	1,286.0	33.91	38.922		
6,100.0	6,086.5	6,249.7	6,087.5	11.5	23.8	0.21	1,222.4	-230.0	1,319.9	1,285.8	34.17	38.634		
6,200.0	6,186.5	6,349.7	6,187.5	11.7	23.8	0.21	1,222.4	-230.0	1,319.9	1,285.5	34.42	38.349		
6,287.3	6,273.7	6,436.9	6,274.7	11.8	23.9	-90.00	1,222.4	-230.0	1,319.9	1,296.4	23.49	56.200		
6,300.0	6,286.3	6,449.5	6,287.3	11.8	23.9	-90.04	1,222.4	-230.0	1,319.9	1,296.4	23.52	56.126		
6,400.0	6,384.3	6,547.8	6,385.4	11.8	24.0	-90.63	1,222.5	-224.9	1,320.1	1,296.5	23.61	55.923		
6,500.0	6,478.7	6,647.8	6,483.5	11.8	24.0	-91.22	1,222.7	-206.0	1,320.5	1,296.9	23.59	55.967		
6,600.0	6,567.6	6,749.9	6,580.0	11.8	24.0	-91.80	1,223.1	-172.9	1,321.3	1,297.7	23.57	56.047		
6,700.0	6,649.3	6,854.2	6,672.7	11.8	24.0	-92.34	1,223.6	-125.3	1,322.3	1,298.6	23.67	55.860		
6,800.0	6,722.1	6,960.7	6,759.2	12.0	24.1	-92.85	1,224.3	-63.3	1,323.6	1,299.5	24.06	55.015		
6,900.0	6,784.8	7,069.4	6,837.0	12.5	24.2	-93.30	1,225.1	12.5	1,325.0	1,300.1	24.92	53.172		
7,000.0	6,836.0	7,180.3	6,903.6	13.4	24.4	-93.69	1,226.1	100.9	1,326.5	1,300.1	26.43	50.186		
7,100.0	6,874.7	7,293.0	6,956.5	14.5	24.8	-94.00	1,227.2	200.4	1,328.1	1,299.5	28.68	46.304		
7,200.0	6,900.3	7,407.5	6,993.6	16.0	25.4	-94.22	1,228.5	308.5	1,329.7	1,298.0	31.66	41.996		
7,300.0	6,912.2	7,523.2	7,013.2	17.8	26.2	-94.35	1,229.7	422.4	1,331.2	1,295.9	35.24	37.771		
7,400.0	6,914.3	7,630.4	7,016.9	19.7	27.2	-94.39	1,230.9	529.5	1,332.4	1,293.3	39.13	34.046		
7,500.0	6,916.0	7,730.4	7,018.6	21.7	28.4	-94.38	1,232.1	629.5	1,333.5	1,290.4	43.14	30.908		
7,600.0	6,917.8	7,830.4	7,020.4	23.8	29.8	-94.38	1,233.2	729.4	1,334.6	1,287.3	47.33	28.199		
7,700.0	6,919.5	7,930.4	7,022.1	26.0	31.3	-94.37	1,234.3	829.4	1,335.7	1,284.1	51.65	25.863		
7,800.0	6,921.3	8,030.4	7,023.9	28.2	33.0	-94.37	1,235.4	929.4	1,336.8	1,280.8	56.07	23.844		
7,900.0	6,923.0	8,130.4	7,025.6	30.5	34.8	-94.37	1,236.5	1,029.4	1,338.0	1,277.4	60.57	22.091		
8,000.0	6,924.8	8,230.3	7,027.4	32.8	36.8	-94.36	1,237.6	1,129.3	1,339.1	1,273.9	65.13	20.561		
8,100.0	6,926.5	8,330.3	7,029.1	35.1	38.8	-94.36	1,238.8	1,229.3	1,340.2	1,270.4	69.74	19.217		
8,200.0	6,928.2	8,430.3	7,030.8	37.4	40.8	-94.36	1,239.9	1,329.3	1,341.3	1,266.9	74.39	18.030		
8,300.0	6,930.0	8,530.3	7,032.6	39.8	42.9	-94.35	1,241.0	1,429.2	1,342.4	1,263.3	79.08	16.975		
8,400.0	6,931.7	8,630.3	7,034.3	42.1	45.1	-94.35	1,242.1	1,529.2	1,343.5	1,259.7	83.80	16.033		
8,500.0	6,933.5	8,730.3	7,036.1	44.5	47.3	-94.35	1,243.2	1,629.2	1,344.6	1,256.1	88.54	15.187		
8,600.0	6,935.2	8,830.3	7,037.8	46.9	49.5	-94.34	1,244.4	1,729.2	1,345.8	1,252.5	93.30	14.424		
8,700.0	6,937.0	8,930.3	7,039.6	49.3	51.8	-94.34	1,245.5	1,829.1	1,346.9	1,248.8	98.08	13.733		
8,800.0	6,938.7	9,030.3	7,041.3	51.7	54.0	-94.33	1,246.6	1,929.1	1,348.0	1,245.1	102.87	13.104		
8,900.0	6,940.5	9,130.3	7,043.1	54.1	56.3	-94.33	1,247.7	2,029.1	1,349.1	1,241.4	107.67	12.529		
9,000.0	6,942.2	9,230.3	7,044.8	56.5	58.6	-94.33	1,248.8	2,129.1	1,350.2	1,237.7	112.49	12.003		
9,100.0	6,943.9	9,330.3	7,046.6	58.9	61.0	-94.32	1,250.0	2,229.0	1,351.3	1,234.0	117.32	11.519		
9,200.0	6,945.7	9,430.3	7,048.3	61.4	63.3	-94.32	1,251.1	2,329.0	1,352.4	1,230.3	122.15	11.072		
9,300.0	6,947.4	9,530.3	7,050.0	63.8	65.6	-94.32	1,252.2	2,429.0	1,353.5	1,226.6	126.99	10.658		
9,400.0	6,949.2	9,630.3	7,051.8	66.2	68.0	-94.31	1,253.3	2,528.9	1,354.7	1,222.8	131.84	10.275		
9,500.0	6,950.9	9,730.3	7,053.5	68.7	70.4	-94.31	1,254.4	2,628.9	1,355.8	1,219.1	136.70	9.918		
9,600.0	6,952.7	9,830.2	7,055.3	71.1	72.7	-94.31	1,255.5	2,728.9	1,356.9	1,215.3	141.56	9.585		
9,700.0	6,954.4	9,930.2	7,057.0	73.5	75.1	-94.30	1,256.7	2,828.9	1,358.0	1,211.6	146.42	9.274		
9,800.0	6,956.2	10,030.2	7,058.8	76.0	77.5	-94.30	1,257.8	2,928.8	1,359.1	1,207.8	151.29	8.983		
9,900.0	6,957.9	10,130.2	7,060.5	78.4	79.9	-94.30	1,258.9	3,028.8	1,360.2	1,204.1	156.17	8.710		
10,000.0	6,959.7	10,230.2	7,062.3	80.9	82.3	-94.29	1,260.0	3,128.8	1,361.3	1,200.3	161.05	8.453		
10,100.0	6,961.4	10,330.2	7,064.0	83.3	84.7	-94.29	1,261.1	3,228.7	1,362.5	1,196.5	165.93	8.211		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2A-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		
10,200.0	6,963.1	10,430.2	7,065.7	85.8	87.1	-94.29	1,262.3	3,328.7	1,363.6	1,192.8	170.81	7.983		
10,300.0	6,964.9	10,530.2	7,067.5	88.2	89.5	-94.28	1,263.4	3,428.7	1,364.7	1,189.0	175.70	7.767		
10,400.0	6,966.6	10,630.2	7,069.2	90.7	91.9	-94.28	1,264.5	3,528.7	1,365.8	1,185.2	180.59	7.563		
10,500.0	6,968.4	10,730.2	7,071.0	93.1	94.3	-94.27	1,265.6	3,628.6	1,366.9	1,181.4	185.48	7.369		
10,600.0	6,970.1	10,830.2	7,072.7	95.6	96.7	-94.27	1,266.7	3,728.6	1,368.0	1,177.6	190.38	7.186		
10,700.0	6,971.9	10,930.2	7,074.5	98.0	99.2	-94.27	1,267.9	3,828.6	1,369.1	1,173.9	195.27	7.011		
10,800.0	6,973.6	11,030.2	7,076.2	100.5	101.6	-94.26	1,269.0	3,928.6	1,370.2	1,170.1	200.17	6.845		
10,900.0	6,975.4	11,130.2	7,078.0	103.0	104.0	-94.26	1,270.1	4,028.5	1,371.4	1,166.3	205.07	6.687		
11,000.0	6,977.1	11,230.2	7,079.7	105.4	106.4	-94.26	1,271.2	4,128.5	1,372.5	1,162.5	209.97	6.536		
11,100.0	6,978.9	11,330.2	7,081.5	107.9	108.9	-94.25	1,272.3	4,228.5	1,373.6	1,158.7	214.88	6.392		
11,200.0	6,980.6	11,430.1	7,083.2	110.3	111.3	-94.25	1,273.5	4,328.4	1,374.7	1,154.9	219.78	6.255		
11,300.0	6,982.3	11,530.1	7,084.9	112.8	113.7	-94.25	1,274.6	4,428.4	1,375.8	1,151.1	224.69	6.123		
11,400.0	6,984.1	11,630.1	7,086.7	115.2	116.2	-94.24	1,275.7	4,528.4	1,376.9	1,147.3	229.60	5.997		
11,500.0	6,985.8	11,730.1	7,088.4	117.7	118.6	-94.24	1,276.8	4,628.4	1,378.0	1,143.5	234.50	5.876		
11,600.0	6,987.6	11,830.1	7,090.2	120.2	121.1	-94.24	1,277.9	4,728.3	1,379.2	1,139.7	239.41	5.761		
11,700.0	6,989.3	11,930.1	7,091.9	122.6	123.5	-94.23	1,279.0	4,828.3	1,380.3	1,135.9	244.33	5.649		
11,800.0	6,991.1	12,030.1	7,093.7	125.1	125.9	-94.23	1,280.2	4,928.3	1,381.4	1,132.1	249.24	5.542		
11,900.0	6,992.8	12,130.1	7,095.4	127.6	128.4	-94.23	1,281.3	5,028.2	1,382.5	1,128.3	254.15	5.440		
12,000.0	6,994.6	12,230.1	7,097.2	130.0	130.8	-94.22	1,282.4	5,128.2	1,383.6	1,124.5	259.06	5.341		
12,100.0	6,996.3	12,330.1	7,098.9	132.5	133.3	-94.22	1,283.5	5,228.2	1,384.7	1,120.7	263.98	5.246		
12,200.0	6,998.1	12,430.1	7,100.6	134.9	135.7	-94.22	1,284.6	5,328.2	1,385.8	1,116.9	268.89	5.154		
12,300.0	6,999.8	12,530.1	7,102.4	137.4	138.2	-94.21	1,285.8	5,428.1	1,386.9	1,113.1	273.81	5.065		
12,400.0	7,001.5	12,630.1	7,104.1	139.9	140.6	-94.21	1,286.9	5,528.1	1,388.1	1,109.3	278.73	4.980		
12,500.0	7,003.3	12,730.1	7,105.9	142.3	143.1	-94.21	1,288.0	5,628.1	1,389.2	1,105.5	283.64	4.898		
12,600.0	7,005.0	12,830.1	7,107.6	144.8	145.5	-94.20	1,289.1	5,728.1	1,390.3	1,101.7	288.56	4.818		
12,700.0	7,006.8	12,930.1	7,109.4	147.3	148.0	-94.20	1,290.2	5,828.0	1,391.4	1,097.9	293.48	4.741		
12,800.0	7,008.5	13,030.0	7,111.1	149.7	150.4	-94.20	1,291.4	5,928.0	1,392.5	1,094.1	298.40	4.667		
12,900.0	7,010.3	13,130.0	7,112.9	152.2	152.9	-94.19	1,292.5	6,028.0	1,393.6	1,090.3	303.32	4.595		
13,000.0	7,012.0	13,230.0	7,114.6	154.7	155.3	-94.19	1,293.6	6,127.9	1,394.7	1,086.5	308.24	4.525		
13,100.0	7,013.8	13,330.0	7,116.4	157.1	157.8	-94.19	1,294.7	6,227.9	1,395.9	1,082.7	313.16	4.457		
13,200.0	7,015.5	13,430.0	7,118.1	159.6	160.2	-94.18	1,295.8	6,327.9	1,397.0	1,078.9	318.08	4.392		
13,300.0	7,017.2	13,530.0	7,119.8	162.1	162.7	-94.18	1,296.9	6,427.9	1,398.1	1,075.1	323.00	4.328		
13,400.0	7,019.0	13,630.0	7,121.6	164.5	165.1	-94.18	1,298.1	6,527.8	1,399.2	1,071.3	327.93	4.267		
13,500.0	7,020.7	13,730.0	7,123.3	167.0	167.6	-94.17	1,299.2	6,627.8	1,400.3	1,067.5	332.85	4.207		
13,600.0	7,022.5	13,830.0	7,125.1	169.5	170.1	-94.17	1,300.3	6,727.8	1,401.4	1,063.6	337.77	4.149		
13,700.0	7,024.2	13,930.0	7,126.8	171.9	172.5	-94.17	1,301.4	6,827.7	1,402.5	1,059.8	342.70	4.093		
13,800.0	7,026.0	14,030.0	7,128.6	174.4	175.0	-94.16	1,302.5	6,927.7	1,403.6	1,056.0	347.62	4.038		
13,900.0	7,027.7	14,130.0	7,130.3	176.9	177.4	-94.16	1,303.7	7,027.7	1,404.8	1,052.2	352.55	3.985		
14,000.0	7,029.5	14,230.0	7,132.1	179.3	179.9	-94.16	1,304.8	7,127.7	1,405.9	1,048.4	357.47	3.933		
14,030.7	7,030.0	14,260.6	7,132.6	180.1	180.6	-94.16	1,305.1	7,158.3	1,406.2	1,047.2	358.98	3.917 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2B-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	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	95.950		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.65	44.640		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	29.1	0.0	29.1	28.1	1.00	29.086 CC, ES		
400.0	400.0	399.5	399.5	0.7	0.7	-0.40	30.0	-0.2	30.0	28.6	1.35	22.201		
500.0	500.0	498.9	498.9	0.9	0.9	112.47	32.5	-0.8	32.8	31.1	1.70	19.332		
600.0	600.0	598.2	598.1	1.0	1.0	114.47	36.7	-1.9	38.1	36.0	2.05	18.571		
700.0	699.9	697.2	696.9	1.2	1.2	117.26	42.5	-3.3	45.8	43.4	2.41	19.011		
800.0	799.7	795.8	795.2	1.4	1.4	120.13	49.9	-5.2	56.0	53.2	2.77	20.194		
900.0	899.4	894.0	892.9	1.6	1.7	122.71	59.0	-7.5	68.8	65.7	3.15	21.845		
1,000.0	998.9	991.5	989.9	1.8	1.9	124.89	69.6	-10.1	84.3	80.7	3.54	23.784		
1,100.0	1,098.3	1,088.5	1,086.0	2.1	2.2	126.67	81.7	-13.2	102.2	98.2	3.95	25.878		
1,200.0	1,197.6	1,184.9	1,181.4	2.3	2.4	127.67	95.3	-16.6	121.7	117.4	4.36	27.899		
1,300.0	1,297.0	1,280.7	1,275.9	2.6	2.7	128.06	110.4	-20.3	142.8	138.0	4.79	29.818		
1,400.0	1,396.3	1,376.0	1,369.7	2.8	3.1	128.07	126.9	-24.5	165.2	160.0	5.22	31.649		
1,500.0	1,495.7	1,470.6	1,462.4	3.1	3.4	127.82	144.7	-28.9	189.0	183.4	5.66	33.409		
1,600.0	1,595.0	1,564.4	1,554.2	3.3	3.8	127.42	163.9	-33.7	214.3	208.2	6.10	35.111		
1,700.0	1,694.4	1,657.6	1,644.9	3.6	4.2	126.93	184.4	-38.9	240.9	234.3	6.55	36.768		
1,800.0	1,793.7	1,750.0	1,734.5	3.8	4.6	126.37	206.2	-44.3	268.8	261.8	7.00	38.389		
1,900.0	1,893.1	1,841.5	1,823.0	4.1	5.0	125.77	229.1	-50.0	298.2	290.8	7.46	39.983		
2,000.0	1,992.4	1,932.2	1,910.2	4.4	5.4	125.17	253.1	-56.1	329.0	321.0	7.92	41.556		
2,100.0	2,091.8	2,022.0	1,996.2	4.6	5.9	124.56	278.3	-62.4	361.1	352.7	8.37	43.113		
2,200.0	2,191.1	2,110.9	2,080.9	4.9	6.4	123.95	304.5	-68.9	394.5	385.7	8.83	44.659		
2,300.0	2,290.5	2,200.0	2,165.4	5.1	6.9	123.35	332.0	-75.8	429.3	420.0	9.30	46.181		
2,400.0	2,389.8	2,285.9	2,246.3	5.4	7.4	122.78	359.7	-82.7	465.5	455.7	9.75	47.720		
2,500.0	2,489.2	2,375.7	2,330.7	5.7	8.0	122.21	389.7	-90.2	502.7	492.5	10.22	49.190		
2,600.0	2,588.5	2,468.3	2,417.6	5.9	8.5	121.69	420.8	-98.0	540.1	529.5	10.69	50.516		
2,700.0	2,687.8	2,561.0	2,504.5	6.2	9.1	121.24	451.9	-105.8	577.6	566.4	11.16	51.733		
2,800.0	2,787.2	2,653.6	2,591.4	6.5	9.7	120.90	482.9	-113.6	615.1	603.4	11.64	52.836		
2,900.0	2,886.7	2,746.5	2,678.6	6.7	10.2	121.06	514.1	-121.4	651.6	639.5	12.13	53.718		
3,000.0	2,986.6	2,839.9	2,766.2	6.9	10.8	120.97	545.5	-129.2	686.6	674.0	12.57	54.606		
3,100.0	3,086.5	2,933.5	2,854.1	7.0	11.4	120.67	576.9	-137.1	719.9	707.0	12.97	55.524		
3,200.0	3,186.5	3,027.4	2,942.1	7.1	12.0	7.25	608.4	-145.0	752.4	735.1	17.29	43.515		
3,300.0	3,286.5	3,121.2	3,030.1	7.3	12.5	6.34	639.9	-152.8	784.9	766.9	18.03	43.529		
3,400.0	3,386.5	3,215.0	3,118.2	7.4	13.1	5.50	671.3	-160.7	817.7	798.9	18.78	43.542		
3,500.0	3,486.5	3,308.8	3,206.2	7.5	13.7	4.72	702.8	-168.6	850.6	831.0	19.53	43.554		
3,600.0	3,586.5	3,402.7	3,294.2	7.7	14.3	4.01	734.3	-176.5	883.6	863.3	20.28	43.565		
3,700.0	3,686.5	3,496.5	3,382.3	7.8	14.9	3.34	765.8	-184.4	916.7	895.7	21.04	43.577		
3,800.0	3,786.5	3,613.7	3,492.5	8.0	15.6	2.59	804.3	-194.0	949.4	927.4	21.91	43.328		
3,900.0	3,886.5	3,754.9	3,627.3	8.1	16.3	1.85	845.1	-204.2	978.1	955.3	22.82	42.863		
4,000.0	3,986.5	3,900.2	3,768.0	8.3	17.0	1.27	880.4	-213.1	1,002.3	978.6	23.65	42.385		
4,100.0	4,086.5	4,049.0	3,913.7	8.4	17.5	0.82	909.3	-220.3	1,021.7	997.3	24.36	41.945		
4,200.0	4,186.5	4,200.6	4,063.6	8.6	17.9	0.50	931.2	-225.8	1,036.1	1,011.1	24.96	41.501		
4,300.0	4,286.5	4,354.2	4,216.5	8.7	18.2	0.30	945.5	-229.3	1,045.4	1,019.9	25.44	41.098		
4,400.0	4,386.5	4,508.9	4,371.1	8.9	18.4	0.21	951.8	-230.9	1,049.4	1,023.6	25.79	40.689		
4,500.0	4,486.5	4,624.4	4,486.5	9.0	18.5	0.20	952.1	-231.0	1,049.6	1,023.6	26.05	40.291		
4,600.0	4,586.5	4,724.4	4,586.5	9.2	18.6	0.20	952.1	-231.0	1,049.6	1,023.3	26.30	39.909		
4,700.0	4,686.5	4,824.4	4,686.5	9.3	18.7	0.20	952.1	-231.0	1,049.6	1,023.1	26.55	39.532		
4,800.0	4,786.5	4,924.4	4,786.5	9.5	18.7	0.20	952.1	-231.0	1,049.6	1,022.8	26.80	39.161		
4,900.0	4,886.5	5,024.4	4,886.5	9.6	18.8	0.20	952.1	-231.0	1,049.6	1,022.6	27.06	38.793		
5,000.0	4,986.5	5,124.4	4,986.5	9.8	18.9	0.20	952.1	-231.0	1,049.6	1,022.3	27.31	38.431		
5,100.0	5,086.5	5,224.4	5,086.5	9.9	19.0	0.20	952.1	-231.0	1,049.6	1,022.1	27.57	38.074		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2B-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	5,186.5	5,324.4	5,186.5	10.1	19.1	0.20	952.1	-231.0	1,049.6	1,021.8	27.83	37.721		
5,300.0	5,286.5	5,424.4	5,286.5	10.2	19.1	0.20	952.1	-231.0	1,049.6	1,021.6	28.09	37.373		
5,400.0	5,386.5	5,524.4	5,386.5	10.4	19.2	0.20	952.1	-231.0	1,049.6	1,021.3	28.35	37.030		
5,500.0	5,486.5	5,624.4	5,486.5	10.6	19.3	0.20	952.1	-231.0	1,049.6	1,021.0	28.61	36.691		
5,600.0	5,586.5	5,724.4	5,586.5	10.7	19.4	0.20	952.1	-231.0	1,049.6	1,020.8	28.87	36.357		
5,700.0	5,686.5	5,824.4	5,686.5	10.9	19.5	0.20	952.1	-231.0	1,049.6	1,020.5	29.13	36.027		
5,800.0	5,786.5	5,924.4	5,786.5	11.0	19.6	0.20	952.1	-231.0	1,049.6	1,020.2	29.40	35.702		
5,900.0	5,886.5	6,024.4	5,886.5	11.2	19.7	0.20	952.1	-231.0	1,049.6	1,020.0	29.67	35.381		
6,000.0	5,986.5	6,124.4	5,986.5	11.4	19.8	0.20	952.1	-231.0	1,049.6	1,019.7	29.93	35.064		
6,100.0	6,086.5	6,224.4	6,086.5	11.5	19.9	0.20	952.1	-231.0	1,049.6	1,019.4	30.20	34.752		
6,200.0	6,186.5	6,324.4	6,186.5	11.7	20.0	0.20	952.1	-231.0	1,049.6	1,019.2	30.47	34.444		
6,277.6	6,264.0	6,401.8	6,264.0	11.8	20.0	-90.00	952.1	-231.0	1,049.6	1,026.2	23.46	44.749		
6,300.0	6,286.3	6,424.1	6,286.3	11.8	20.1	-90.10	952.1	-231.0	1,049.6	1,026.1	23.51	44.647		
6,400.0	6,384.3	6,522.2	6,384.4	11.8	20.2	-91.12	952.1	-231.0	1,049.9	1,026.2	23.62	44.448		
6,500.0	6,478.7	6,623.6	6,485.4	11.8	20.2	-92.49	952.1	-223.6	1,050.7	1,027.1	23.62	44.488		
6,600.0	6,567.6	6,729.2	6,588.4	11.8	20.2	-93.83	952.1	-200.9	1,052.1	1,028.6	23.59	44.602		
6,700.0	6,649.3	6,839.3	6,691.0	11.8	20.2	-95.13	952.1	-161.4	1,054.1	1,030.5	23.65	44.571		
6,800.0	6,722.1	6,954.1	6,790.3	12.0	20.3	-96.36	952.1	-104.0	1,056.4	1,032.5	23.96	44.095		
6,900.0	6,784.8	7,073.7	6,882.6	12.5	20.3	-97.47	952.1	-28.0	1,059.0	1,034.2	24.72	42.830		
7,000.0	6,836.0	7,198.2	6,963.8	13.4	20.5	-98.44	952.1	66.0	1,061.4	1,035.3	26.12	40.638		
7,100.0	6,874.7	7,326.8	7,029.3	14.5	21.0	-99.21	952.1	176.6	1,063.5	1,035.2	28.34	37.529		
7,200.0	6,900.3	7,458.9	7,075.0	16.0	21.7	-99.75	952.1	300.3	1,065.1	1,033.7	31.38	33.945		
7,300.0	6,912.2	7,593.2	7,097.3	17.8	23.0	-100.03	952.1	432.6	1,065.9	1,030.8	35.12	30.348		
7,400.0	6,914.3	7,703.7	7,100.4	19.7	24.4	-100.06	952.1	542.9	1,066.0	1,027.0	39.01	27.328		
7,500.0	6,916.0	7,803.7	7,102.1	21.7	25.8	-100.06	952.1	642.9	1,066.0	1,023.0	42.98	24.804		
7,600.0	6,917.8	7,903.7	7,103.9	23.8	27.5	-100.06	952.1	742.9	1,065.9	1,018.8	47.11	22.625		
7,700.0	6,919.5	8,003.7	7,105.6	26.0	29.3	-100.06	952.1	842.9	1,065.9	1,014.6	51.38	20.746		
7,800.0	6,921.3	8,103.7	7,107.4	28.2	31.2	-100.06	952.1	942.9	1,065.9	1,010.2	55.75	19.121		
7,900.0	6,923.0	8,203.7	7,109.1	30.5	33.2	-100.06	952.1	1,042.9	1,065.9	1,005.7	60.19	17.709		
8,000.0	6,924.8	8,303.7	7,110.8	32.8	35.3	-100.06	952.1	1,142.8	1,065.9	1,001.2	64.70	16.475		
8,100.0	6,926.5	8,403.7	7,112.6	35.1	37.4	-100.06	952.1	1,242.8	1,065.9	996.7	69.25	15.391		
8,200.0	6,928.2	8,503.7	7,114.3	37.4	39.6	-100.06	952.1	1,342.8	1,065.9	992.1	73.85	14.433		
8,300.0	6,930.0	8,603.7	7,116.1	39.8	41.8	-100.06	952.1	1,442.8	1,065.9	987.4	78.48	13.582		
8,400.0	6,931.7	8,703.7	7,117.8	42.1	44.0	-100.06	952.1	1,542.8	1,065.9	982.8	83.14	12.821		
8,500.0	6,933.5	8,803.7	7,119.6	44.5	46.3	-100.06	952.1	1,642.8	1,065.9	978.1	87.82	12.138		
8,600.0	6,935.2	8,903.7	7,121.3	46.9	48.6	-100.06	952.1	1,742.7	1,065.9	973.4	92.52	11.521		
8,700.0	6,937.0	9,003.7	7,123.1	49.3	50.9	-100.06	952.1	1,842.7	1,065.9	968.6	97.23	10.962		
8,800.0	6,938.7	9,103.7	7,124.8	51.7	53.2	-100.06	952.0	1,942.7	1,065.9	963.9	101.97	10.453		
8,900.0	6,940.5	9,203.7	7,126.6	54.1	55.6	-100.06	952.0	2,042.7	1,065.9	959.2	106.71	9.988		
9,000.0	6,942.2	9,303.7	7,128.3	56.5	57.9	-100.06	952.0	2,142.7	1,065.9	954.4	111.47	9.562		
9,100.0	6,943.9	9,403.7	7,130.0	58.9	60.3	-100.06	952.0	2,242.7	1,065.8	949.6	116.23	9.170		
9,200.0	6,945.7	9,503.7	7,131.8	61.4	62.7	-100.06	952.0	2,342.7	1,065.8	944.8	121.00	8.808		
9,300.0	6,947.4	9,603.7	7,133.5	63.8	65.0	-100.06	952.0	2,442.6	1,065.8	940.0	125.79	8.473		
9,400.0	6,949.2	9,703.7	7,135.3	66.2	67.4	-100.06	952.0	2,542.6	1,065.8	935.3	130.57	8.163		
9,500.0	6,950.9	9,803.7	7,137.0	68.7	69.8	-100.06	952.0	2,642.6	1,065.8	930.5	135.37	7.874		
9,600.0	6,952.7	9,903.7	7,138.8	71.1	72.2	-100.06	952.0	2,742.6	1,065.8	925.6	140.17	7.604		
9,700.0	6,954.4	10,003.7	7,140.5	73.5	74.6	-100.06	952.0	2,842.6	1,065.8	920.8	144.97	7.352		
9,800.0	6,956.2	10,103.7	7,142.3	76.0	77.0	-100.06	952.0	2,942.6	1,065.8	916.0	149.78	7.116		
9,900.0	6,957.9	10,203.7	7,144.0	78.4	79.4	-100.06	952.0	3,042.6	1,065.8	911.2	154.59	6.894		
10,000.0	6,959.7	10,303.7	7,145.8	80.9	81.9	-100.06	952.0	3,142.5	1,065.8	906.4	159.41	6.686		
10,100.0	6,961.4	10,403.7	7,147.5	83.3	84.3	-100.06	952.0	3,242.5	1,065.8	901.6	164.23	6.490		
10,200.0	6,963.1	10,503.7	7,149.2	85.8	86.7	-100.06	952.0	3,342.5	1,065.8	896.7	169.05	6.304		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2B-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	6,964.9	10,603.7	7,151.0	88.2	89.1	-100.06	952.0	3,442.5	1,065.8	891.9	173.88	6.130		
10,400.0	6,966.6	10,703.7	7,152.7	90.7	91.6	-100.06	952.0	3,542.5	1,065.8	887.1	178.70	5.964		
10,500.0	6,968.4	10,803.7	7,154.5	93.1	94.0	-100.06	952.0	3,642.5	1,065.8	882.2	183.53	5.807		
10,600.0	6,970.1	10,903.7	7,156.2	95.6	96.4	-100.06	952.0	3,742.4	1,065.7	877.4	188.37	5.658		
10,700.0	6,971.9	11,003.7	7,158.0	98.0	98.8	-100.06	952.0	3,842.4	1,065.7	872.5	193.20	5.516		
10,800.0	6,973.6	11,103.7	7,159.7	100.5	101.3	-100.06	952.0	3,942.4	1,065.7	867.7	198.04	5.382		
10,900.0	6,975.4	11,203.7	7,161.5	103.0	103.7	-100.06	952.0	4,042.4	1,065.7	862.9	202.87	5.253		
11,000.0	6,977.1	11,303.7	7,163.2	105.4	106.2	-100.06	952.0	4,142.4	1,065.7	858.0	207.71	5.131		
11,100.0	6,978.9	11,403.7	7,164.9	107.9	108.6	-100.06	952.0	4,242.4	1,065.7	853.2	212.55	5.014		
11,200.0	6,980.6	11,503.7	7,166.7	110.3	111.0	-100.06	951.9	4,342.4	1,065.7	848.3	217.40	4.902		
11,300.0	6,982.3	11,603.7	7,168.4	112.8	113.5	-100.06	951.9	4,442.3	1,065.7	843.5	222.24	4.795		
11,400.0	6,984.1	11,703.7	7,170.2	115.2	115.9	-100.06	951.9	4,542.3	1,065.7	838.6	227.09	4.693		
11,500.0	6,985.8	11,803.7	7,171.9	117.7	118.4	-100.06	951.9	4,642.3	1,065.7	833.8	231.93	4.595		
11,600.0	6,987.6	11,903.7	7,173.7	120.2	120.8	-100.06	951.9	4,742.3	1,065.7	828.9	236.78	4.501		
11,700.0	6,989.3	12,003.7	7,175.4	122.6	123.3	-100.06	951.9	4,842.3	1,065.7	824.1	241.63	4.410		
11,800.0	6,991.1	12,103.7	7,177.2	125.1	125.7	-100.06	951.9	4,942.3	1,065.7	819.2	246.48	4.324		
11,900.0	6,992.8	12,203.7	7,178.9	127.6	128.2	-100.06	951.9	5,042.2	1,065.7	814.3	251.33	4.240		
12,000.0	6,994.6	12,303.7	7,180.7	130.0	130.6	-100.06	951.9	5,142.2	1,065.7	809.5	256.18	4.160		
12,100.0	6,996.3	12,403.7	7,182.4	132.5	133.1	-100.06	951.9	5,242.2	1,065.6	804.6	261.03	4.083		
12,200.0	6,998.1	12,503.7	7,184.1	134.9	135.5	-100.06	951.9	5,342.2	1,065.6	799.8	265.88	4.008		
12,300.0	6,999.8	12,603.7	7,185.9	137.4	138.0	-100.06	951.9	5,442.2	1,065.6	794.9	270.73	3.936		
12,400.0	7,001.5	12,703.7	7,187.6	139.9	140.4	-100.06	951.9	5,542.2	1,065.6	790.0	275.59	3.867		
12,500.0	7,003.3	12,803.7	7,189.4	142.3	142.9	-100.06	951.9	5,642.2	1,065.6	785.2	280.44	3.800		
12,600.0	7,005.0	12,903.7	7,191.1	144.8	145.4	-100.06	951.9	5,742.1	1,065.6	780.3	285.30	3.735		
12,700.0	7,006.8	13,003.7	7,192.9	147.3	147.8	-100.06	951.9	5,842.1	1,065.6	775.5	290.15	3.673		
12,800.0	7,008.5	13,103.7	7,194.6	149.7	150.3	-100.06	951.9	5,942.1	1,065.6	770.6	295.01	3.612		
12,900.0	7,010.3	13,203.7	7,196.4	152.2	152.7	-100.06	951.9	6,042.1	1,065.6	765.7	299.86	3.554		
13,000.0	7,012.0	13,303.7	7,198.1	154.7	155.2	-100.06	951.9	6,142.1	1,065.6	760.9	304.72	3.497		
13,100.0	7,013.8	13,403.7	7,199.9	157.1	157.6	-100.06	951.9	6,242.1	1,065.6	756.0	309.58	3.442		
13,200.0	7,015.5	13,503.7	7,201.6	159.6	160.1	-100.06	951.9	6,342.0	1,065.6	751.1	314.44	3.389		
13,300.0	7,017.2	13,603.7	7,203.3	162.1	162.6	-100.06	951.9	6,442.0	1,065.6	746.3	319.29	3.337		
13,400.0	7,019.0	13,703.7	7,205.1	164.5	165.0	-100.06	951.9	6,542.0	1,065.6	741.4	324.15	3.287		
13,500.0	7,020.7	13,803.7	7,206.8	167.0	167.5	-100.06	951.9	6,642.0	1,065.6	736.5	329.01	3.239		
13,600.0	7,022.5	13,903.7	7,208.6	169.5	169.9	-100.06	951.8	6,742.0	1,065.6	731.7	333.87	3.191		
13,700.0	7,024.2	14,003.7	7,210.3	171.9	172.4	-100.06	951.8	6,842.0	1,065.5	726.8	338.73	3.146		
13,800.0	7,026.0	14,103.7	7,212.1	174.4	174.9	-100.06	951.8	6,942.0	1,065.5	721.9	343.59	3.101		
13,900.0	7,027.7	14,203.7	7,213.8	176.9	177.3	-100.06	951.8	7,041.9	1,065.5	717.1	348.45	3.058		
14,000.0	7,029.5	14,303.7	7,215.6	179.3	179.8	-100.06	951.8	7,141.9	1,065.5	712.2	353.31	3.016		
14,023.5	7,029.9	14,327.1	7,216.0	179.9	180.4	-100.06	951.8	7,165.4	1,065.5	711.1	354.46	3.006		
14,030.7	7,030.0	14,328.8	7,216.0	180.1	180.4	-100.06	951.8	7,167.1	1,065.5	710.9	354.67	3.004 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2C-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	59.977		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	18.2	0.0	18.2	17.6	0.65	27.904		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	18.2	0.0	18.2	17.2	1.00	18.181		
400.0	400.0	400.0	400.0	0.7	0.7	0.00	18.2	0.0	18.2	16.9	1.35	13.483 CC, ES		
500.0	500.0	499.7	499.7	0.9	0.8	113.97	19.0	-0.3	19.4	17.7	1.70	11.391		
600.0	600.0	599.3	599.2	1.0	1.0	117.36	21.4	-1.3	22.9	20.8	2.05	11.146		
700.0	699.9	698.7	698.6	1.2	1.2	121.14	25.4	-2.9	28.8	26.4	2.41	11.965		
800.0	799.7	797.8	797.5	1.4	1.4	124.37	31.0	-5.1	37.3	34.5	2.77	13.436		
900.0	899.4	896.6	896.0	1.6	1.6	126.83	38.2	-8.0	48.2	45.1	3.15	15.304		
1,000.0	998.9	994.9	993.9	1.8	1.8	128.62	46.9	-11.4	61.7	58.2	3.54	17.404		
1,100.0	1,098.3	1,092.8	1,091.1	2.1	2.1	129.87	57.1	-15.5	77.5	73.5	3.95	19.606		
1,200.0	1,197.6	1,190.1	1,187.6	2.3	2.3	130.20	68.8	-20.1	94.8	90.4	4.37	21.669		
1,300.0	1,297.0	1,287.0	1,283.5	2.6	2.6	129.89	81.9	-25.3	113.3	108.5	4.81	23.582		
1,400.0	1,396.3	1,383.4	1,378.6	2.8	2.9	129.21	96.4	-31.1	133.2	127.9	5.25	25.375		
1,500.0	1,495.7	1,479.2	1,472.9	3.1	3.2	128.32	112.4	-37.5	154.3	148.6	5.70	27.075		
1,600.0	1,595.0	1,574.5	1,566.3	3.3	3.5	127.34	129.7	-44.4	176.8	170.6	6.16	28.708		
1,700.0	1,694.4	1,671.3	1,661.0	3.6	3.9	126.38	148.2	-51.7	200.1	193.5	6.62	30.212		
1,800.0	1,793.7	1,768.5	1,756.2	3.8	4.3	125.61	166.7	-59.1	223.5	216.4	7.09	31.515		
1,900.0	1,893.1	1,865.7	1,851.3	4.1	4.6	125.00	185.3	-66.5	247.0	239.4	7.56	32.653		
2,000.0	1,992.4	1,962.9	1,946.4	4.4	5.0	124.48	203.9	-73.9	270.4	262.4	8.03	33.656		
2,100.0	2,091.8	2,060.1	2,041.5	4.6	5.4	124.06	222.5	-81.3	293.9	285.4	8.51	34.545		
2,200.0	2,191.1	2,157.3	2,136.6	4.9	5.8	123.69	241.1	-88.7	317.4	308.4	8.98	35.338		
2,300.0	2,290.5	2,254.4	2,231.7	5.1	6.1	123.37	259.7	-96.1	340.8	331.4	9.45	36.050		
2,400.0	2,389.8	2,351.6	2,326.8	5.4	6.5	123.10	278.2	-103.5	364.3	354.4	9.93	36.692		
2,500.0	2,489.2	2,448.8	2,421.9	5.7	6.9	122.86	296.8	-110.9	387.8	377.4	10.41	37.274		
2,600.0	2,588.5	2,546.0	2,517.0	5.9	7.3	122.64	315.4	-118.3	411.4	400.5	10.88	37.803		
2,700.0	2,687.8	2,643.2	2,612.1	6.2	7.7	122.45	334.0	-125.7	434.9	423.5	11.36	38.288		
2,800.0	2,787.2	2,740.4	2,707.2	6.5	8.0	122.31	352.6	-133.1	458.4	446.5	11.84	38.725		
2,900.0	2,886.7	2,837.8	2,802.5	6.7	8.4	122.34	371.2	-140.5	480.9	468.6	12.30	39.084		
3,000.0	2,986.6	2,935.4	2,898.1	6.9	8.8	122.02	389.9	-148.0	501.6	488.8	12.72	39.418		
3,100.0	3,086.5	3,033.3	2,993.8	7.0	9.2	121.40	408.6	-155.4	520.5	507.4	13.10	39.747		
3,200.0	3,186.5	3,131.1	3,089.6	7.1	9.6	7.80	427.3	-162.9	538.5	523.7	14.75	36.510		
3,300.0	3,286.5	3,229.0	3,185.3	7.3	10.0	6.76	446.0	-170.3	556.6	541.3	15.29	36.402		
3,400.0	3,386.5	3,326.8	3,281.1	7.4	10.4	5.79	464.7	-177.8	574.8	559.0	15.83	36.303		
3,500.0	3,486.5	3,424.7	3,376.9	7.5	10.7	4.87	483.4	-185.2	593.3	576.9	16.38	36.211		
3,600.0	3,586.5	3,522.5	3,472.6	7.7	11.1	4.01	502.1	-192.7	611.8	594.9	16.94	36.126		
3,700.0	3,686.5	3,620.4	3,568.4	7.8	11.5	3.21	520.8	-200.1	630.5	613.0	17.49	36.049		
3,800.0	3,786.5	3,718.3	3,664.2	8.0	11.9	2.44	539.6	-207.6	649.3	631.2	18.05	35.978		
3,900.0	3,886.5	3,834.7	3,778.4	8.1	12.3	1.64	560.6	-215.9	667.2	648.6	18.64	35.792		
4,000.0	3,986.5	3,960.9	3,903.1	8.3	12.7	0.98	578.7	-223.1	681.5	662.3	19.19	35.509		
4,100.0	4,086.5	4,088.6	4,030.0	8.4	13.0	0.53	591.8	-228.4	691.7	672.0	19.67	35.168		
4,200.0	4,186.5	4,217.4	4,158.4	8.6	13.2	0.27	599.7	-231.5	697.8	677.7	20.06	34.785		
4,300.0	4,286.5	4,345.5	4,286.5	8.7	13.4	0.18	602.2	-232.5	699.7	679.3	20.38	34.332		
4,400.0	4,386.5	4,445.5	4,386.5	8.9	13.5	0.18	602.2	-232.5	699.7	679.1	20.66	33.875		
4,500.0	4,486.5	4,545.5	4,486.5	9.0	13.6	0.18	602.2	-232.5	699.7	678.8	20.93	33.427		
4,600.0	4,586.5	4,645.5	4,586.5	9.2	13.7	0.18	602.2	-232.5	699.7	678.5	21.21	32.989		
4,700.0	4,686.5	4,745.5	4,686.5	9.3	13.8	0.18	602.2	-232.5	699.7	678.2	21.49	32.559		
4,800.0	4,786.5	4,845.5	4,786.5	9.5	13.9	0.18	602.2	-232.5	699.7	677.9	21.77	32.138		
4,900.0	4,886.5	4,945.5	4,886.5	9.6	14.0	0.18	602.2	-232.5	699.7	677.7	22.05	31.726		
5,000.0	4,986.5	5,045.5	4,986.5	9.8	14.1	0.18	602.2	-232.5	699.7	677.4	22.34	31.322		
5,100.0	5,086.5	5,145.5	5,086.5	9.9	14.2	0.18	602.2	-232.5	699.7	677.1	22.63	30.927		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2C-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	5,186.5	5,245.5	5,186.5	10.1	14.3	0.18	602.2	-232.5	699.7	676.8	22.91	30.539		
5,300.0	5,286.5	5,345.5	5,286.5	10.2	14.4	0.18	602.2	-232.5	699.7	676.5	23.20	30.159		
5,400.0	5,386.5	5,445.5	5,386.5	10.4	14.5	0.18	602.2	-232.5	699.7	676.2	23.49	29.787		
5,500.0	5,486.5	5,545.5	5,486.5	10.6	14.6	0.18	602.2	-232.5	699.7	675.9	23.78	29.423		
5,600.0	5,586.5	5,645.5	5,586.5	10.7	14.8	0.18	602.2	-232.5	699.7	675.6	24.07	29.065		
5,700.0	5,686.5	5,745.5	5,686.5	10.9	14.9	0.18	602.2	-232.5	699.7	675.4	24.37	28.715		
5,800.0	5,786.5	5,845.5	5,786.5	11.0	15.0	0.18	602.2	-232.5	699.7	675.1	24.66	28.372		
5,900.0	5,886.5	5,945.5	5,886.5	11.2	15.1	0.18	602.2	-232.5	699.7	674.8	24.96	28.036		
6,000.0	5,986.5	6,045.5	5,986.5	11.4	15.2	0.18	602.2	-232.5	699.7	674.5	25.26	27.706		
6,100.0	6,086.5	6,145.5	6,086.5	11.5	15.4	0.18	602.2	-232.5	699.7	674.2	25.55	27.383		
6,200.0	6,186.5	6,245.5	6,186.5	11.7	15.5	0.18	602.2	-232.5	699.7	673.9	25.85	27.066		
6,300.0	6,286.3	6,345.2	6,286.0	11.8	15.6	-89.82	602.2	-226.9	699.7	676.3	23.39	29.921		
6,400.0	6,384.3	6,444.9	6,383.8	11.8	15.6	-89.82	602.2	-207.7	699.7	676.3	23.46	29.828		
6,500.0	6,478.7	6,544.6	6,477.9	11.8	15.6	-89.83	602.2	-175.1	699.7	676.3	23.44	29.849		
6,600.0	6,567.6	6,644.4	6,566.6	11.8	15.6	-89.85	602.2	-129.7	699.7	676.3	23.44	29.857		
6,700.0	6,649.3	6,744.1	6,648.2	11.8	15.6	-89.86	602.2	-72.5	699.7	676.1	23.58	29.669		
6,800.0	6,722.1	6,843.9	6,721.1	12.0	15.7	-89.88	602.2	-4.4	699.7	675.6	24.07	29.075		
6,900.0	6,784.8	6,943.7	6,783.8	12.5	16.0	-89.90	602.2	73.1	699.7	674.6	25.06	27.916		
7,000.0	6,836.0	7,043.6	6,835.2	13.4	16.4	-89.93	602.2	158.7	699.7	673.0	26.72	26.189		
7,100.0	6,874.7	7,143.5	6,874.2	14.5	17.1	-89.95	602.2	250.6	699.7	670.6	29.07	24.070		
7,200.0	6,900.3	7,243.4	6,900.0	16.0	18.2	-89.98	602.2	347.0	699.7	667.6	32.06	21.824		
7,300.0	6,912.2	7,343.4	6,912.2	17.8	19.7	-90.00	602.2	446.2	699.7	664.1	35.55	19.680		
7,400.0	6,914.3	7,443.4	6,914.4	19.7	21.3	-90.01	602.2	546.1	699.7	660.3	39.39	17.764		
7,500.0	6,916.0	7,543.4	6,916.1	21.7	23.2	-90.01	602.2	646.1	699.7	656.2	43.43	16.109		
7,600.0	6,917.8	7,643.4	6,917.9	23.8	25.1	-90.01	602.2	746.1	699.7	652.0	47.65	14.683		
7,700.0	6,919.5	7,743.4	6,919.6	26.0	27.2	-90.01	602.2	846.1	699.7	647.7	52.00	13.456		
7,800.0	6,921.3	7,843.4	6,921.4	28.2	29.3	-90.01	602.2	946.1	699.7	643.2	56.44	12.396		
7,900.0	6,923.0	7,943.4	6,923.1	30.5	31.5	-90.01	602.2	1,046.1	699.7	638.7	60.97	11.476		
8,000.0	6,924.8	8,043.4	6,924.9	32.8	33.7	-90.01	602.2	1,146.1	699.7	634.1	65.55	10.673		
8,100.0	6,926.5	8,143.4	6,926.6	35.1	36.0	-90.01	602.2	1,246.0	699.7	629.5	70.19	9.968		
8,200.0	6,928.2	8,243.4	6,928.3	37.4	38.3	-90.01	602.2	1,346.0	699.7	624.8	74.86	9.346		
8,300.0	6,930.0	8,343.4	6,930.1	39.8	40.6	-90.01	602.2	1,446.0	699.6	620.1	79.57	8.793		
8,400.0	6,931.7	8,443.4	6,931.8	42.1	42.9	-90.01	602.2	1,546.0	699.6	615.3	84.31	8.299		
8,500.0	6,933.5	8,543.4	6,933.6	44.5	45.2	-90.01	602.2	1,646.0	699.6	610.6	89.06	7.856		
8,600.0	6,935.2	8,643.4	6,935.3	46.9	47.6	-90.01	602.2	1,746.0	699.6	605.8	93.84	7.456		
8,700.0	6,937.0	8,743.4	6,937.1	49.3	50.0	-90.01	602.2	1,845.9	699.6	601.0	98.64	7.093		
8,800.0	6,938.7	8,843.4	6,938.8	51.7	52.3	-90.01	602.2	1,945.9	699.6	596.2	103.45	6.763		
8,900.0	6,940.5	8,943.4	6,940.6	54.1	54.7	-90.01	602.2	2,045.9	699.6	591.4	108.27	6.462		
9,000.0	6,942.2	9,043.4	6,942.3	56.5	57.1	-90.01	602.2	2,145.9	699.6	586.5	113.10	6.186		
9,100.0	6,943.9	9,143.4	6,944.0	58.9	59.5	-90.01	602.2	2,245.9	699.6	581.7	117.94	5.932		
9,200.0	6,945.7	9,243.4	6,945.8	61.4	61.9	-90.01	602.2	2,345.9	699.6	576.8	122.79	5.698		
9,300.0	6,947.4	9,343.4	6,947.5	63.8	64.3	-90.01	602.2	2,445.9	699.6	572.0	127.65	5.481		
9,400.0	6,949.2	9,443.4	6,949.3	66.2	66.7	-90.01	602.2	2,545.8	699.6	567.1	132.51	5.279		
9,500.0	6,950.9	9,543.4	6,951.0	68.7	69.2	-90.01	602.2	2,645.8	699.6	562.2	137.39	5.092		
9,600.0	6,952.7	9,643.4	6,952.8	71.1	71.6	-90.01	602.2	2,745.8	699.6	557.3	142.26	4.918		
9,700.0	6,954.4	9,743.4	6,954.5	73.5	74.0	-90.01	602.2	2,845.8	699.6	552.5	147.14	4.755		
9,800.0	6,956.2	9,843.4	6,956.3	76.0	76.4	-90.01	602.2	2,945.8	699.6	547.6	152.03	4.602		
9,900.0	6,957.9	9,943.4	6,958.0	78.4	78.9	-90.01	602.2	3,045.8	699.6	542.7	156.92	4.458		
10,000.0	6,959.7	10,043.4	6,959.8	80.9	81.3	-90.01	602.2	3,145.7	699.6	537.8	161.81	4.324		
10,100.0	6,961.4	10,143.4	6,961.5	83.3	83.7	-90.01	602.2	3,245.7	699.6	532.9	166.70	4.197		
10,200.0	6,963.1	10,243.4	6,963.2	85.8	86.2	-90.01	602.2	3,345.7	699.6	528.0	171.60	4.077		
10,300.0	6,964.9	10,343.4	6,965.0	88.2	88.6	-90.01	602.2	3,445.7	699.6	523.1	176.50	3.963		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2C-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		
10,400.0	6,966.6	10,443.4	6,966.7	90.7	91.1	-90.01	602.2	3,545.7	699.6	518.2	181.41	3.856		
10,500.0	6,968.4	10,543.4	6,968.5	93.1	93.5	-90.01	602.2	3,645.7	699.6	513.2	186.31	3.755		
10,600.0	6,970.1	10,643.4	6,970.2	95.6	96.0	-90.01	602.2	3,745.7	699.6	508.3	191.22	3.658		
10,700.0	6,971.9	10,743.4	6,972.0	98.0	98.4	-90.01	602.2	3,845.6	699.6	503.4	196.13	3.567		
10,800.0	6,973.6	10,843.4	6,973.7	100.5	100.9	-90.01	602.2	3,945.6	699.6	498.5	201.05	3.480		
10,900.0	6,975.4	10,943.4	6,975.5	103.0	103.3	-90.01	602.2	4,045.6	699.5	493.6	205.96	3.397		
11,000.0	6,977.1	11,043.4	6,977.2	105.4	105.8	-90.01	602.2	4,145.6	699.5	488.7	210.88	3.317		
11,100.0	6,978.9	11,143.4	6,979.0	107.9	108.2	-90.01	602.2	4,245.6	699.5	483.7	215.79	3.242		
11,200.0	6,980.6	11,243.4	6,980.7	110.3	110.7	-90.01	602.2	4,345.6	699.5	478.8	220.71	3.169		
11,300.0	6,982.3	11,343.4	6,982.4	112.8	113.1	-90.01	602.2	4,445.6	699.5	473.9	225.63	3.100		
11,400.0	6,984.1	11,443.4	6,984.2	115.2	115.6	-90.01	602.2	4,545.5	699.5	469.0	230.55	3.034		
11,500.0	6,985.8	11,543.4	6,985.9	117.7	118.0	-90.01	602.2	4,645.5	699.5	464.1	235.47	2.971		
11,600.0	6,987.6	11,643.4	6,987.7	120.2	120.5	-90.01	602.1	4,745.5	699.5	459.1	240.40	2.910		
11,700.0	6,989.3	11,743.4	6,989.4	122.6	122.9	-90.01	602.1	4,845.5	699.5	454.2	245.32	2.851		
11,800.0	6,991.1	11,843.4	6,991.2	125.1	125.4	-90.01	602.1	4,945.5	699.5	449.3	250.25	2.795		
11,900.0	6,992.8	11,943.4	6,992.9	127.6	127.9	-90.01	602.1	5,045.5	699.5	444.3	255.17	2.741		
12,000.0	6,994.6	12,043.4	6,994.7	130.0	130.3	-90.01	602.1	5,145.4	699.5	439.4	260.10	2.689		
12,100.0	6,996.3	12,143.4	6,996.4	132.5	132.8	-90.01	602.1	5,245.4	699.5	434.5	265.03	2.639		
12,200.0	6,998.1	12,243.4	6,998.2	134.9	135.2	-90.01	602.1	5,345.4	699.5	429.5	269.95	2.591		
12,300.0	6,999.8	12,343.4	6,999.9	137.4	137.7	-90.01	602.1	5,445.4	699.5	424.6	274.88	2.545		
12,400.0	7,001.5	12,443.4	7,001.6	139.9	140.2	-90.01	602.1	5,545.4	699.5	419.7	279.81	2.500		
12,500.0	7,003.3	12,543.4	7,003.4	142.3	142.6	-90.01	602.1	5,645.4	699.5	414.7	284.74	2.457		
12,600.0	7,005.0	12,643.4	7,005.1	144.8	145.1	-90.01	602.1	5,745.4	699.5	409.8	289.67	2.415		
12,700.0	7,006.8	12,743.4	7,006.9	147.3	147.5	-90.01	602.1	5,845.3	699.5	404.9	294.60	2.374		
12,800.0	7,008.5	12,843.4	7,008.6	149.7	150.0	-90.01	602.1	5,945.3	699.5	399.9	299.54	2.335		
12,900.0	7,010.3	12,943.4	7,010.4	152.2	152.5	-90.01	602.1	6,045.3	699.5	395.0	304.47	2.297		
13,000.0	7,012.0	13,043.4	7,012.1	154.7	154.9	-90.01	602.1	6,145.3	699.5	390.1	309.40	2.261		
13,100.0	7,013.8	13,143.4	7,013.9	157.1	157.4	-90.01	602.1	6,245.3	699.5	385.1	314.34	2.225		
13,200.0	7,015.5	13,243.4	7,015.6	159.6	159.9	-90.01	602.1	6,345.3	699.5	380.2	319.27	2.191		
13,300.0	7,017.2	13,343.4	7,017.3	162.1	162.3	-90.01	602.1	6,445.2	699.5	375.3	324.20	2.157		
13,400.0	7,019.0	13,443.4	7,019.1	164.5	164.8	-90.01	602.1	6,545.2	699.5	370.3	329.14	2.125		
13,500.0	7,020.7	13,543.4	7,020.8	167.0	167.2	-90.01	602.1	6,645.2	699.4	365.4	334.07	2.094		
13,600.0	7,022.5	13,643.4	7,022.6	169.5	169.7	-90.01	602.1	6,745.2	699.4	360.4	339.01	2.063		
13,700.0	7,024.2	13,743.4	7,024.3	171.9	172.2	-90.01	602.1	6,845.2	699.4	355.5	343.94	2.034		
13,800.0	7,026.0	13,843.4	7,026.1	174.4	174.6	-90.01	602.1	6,945.2	699.4	350.6	348.88	2.005		
13,900.0	7,027.7	13,943.4	7,027.8	176.9	177.1	-90.01	602.1	7,045.2	699.4	345.6	353.82	1.977		
14,000.0	7,029.5	14,043.4	7,029.6	179.3	179.6	-90.01	602.1	7,145.1	699.4	340.7	358.75	1.950		
14,023.4	7,029.9	14,066.8	7,030.0	179.9	180.2	-90.01	602.1	7,168.6	699.4	339.5	359.91	1.943		
14,030.7	7,030.0	14,068.8	7,030.0	180.1	180.2	-90.01	602.1	7,170.5	699.4	339.3	360.14	1.942 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2D-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	7.3	0.0	7.3					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	7.3	0.0	7.3	7.0	0.30	23.991		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	7.3	0.0	7.3	6.6	0.65	11.162 CC, ES		
300.0	300.0	299.9	299.9	0.5	0.5	-4.35	7.9	-0.6	7.9	6.9	1.00	7.924		
400.0	400.0	399.7	399.7	0.7	0.7	-13.79	9.8	-2.4	10.1	8.7	1.35	7.464		
500.0	500.0	499.5	499.3	0.9	0.9	93.39	12.9	-5.4	14.1	12.4	1.70	8.260		
600.0	600.0	599.0	598.7	1.0	1.1	93.56	17.3	-9.6	19.8	17.7	2.06	9.597		
700.0	699.9	698.4	697.8	1.2	1.3	95.75	22.9	-15.0	27.2	24.7	2.43	11.193		
800.0	799.7	797.5	796.4	1.4	1.5	98.39	29.8	-21.5	36.3	33.5	2.81	12.925		
900.0	899.4	896.2	894.5	1.6	1.8	100.90	37.8	-29.2	47.3	44.1	3.22	14.711		
1,000.0	998.9	994.6	992.1	1.8	2.0	103.12	47.0	-38.0	60.2	56.5	3.65	16.489		
1,100.0	1,098.3	1,092.6	1,089.0	2.1	2.3	104.96	57.4	-48.0	74.8	70.7	4.11	18.228		
1,200.0	1,197.6	1,190.1	1,185.2	2.3	2.6	105.74	69.0	-59.0	91.0	86.4	4.58	19.879		
1,300.0	1,297.0	1,287.3	1,280.7	2.6	3.0	105.75	81.6	-71.1	108.4	103.4	5.06	21.444		
1,400.0	1,396.3	1,383.9	1,375.5	2.8	3.3	105.29	95.4	-84.2	127.2	121.7	5.55	22.944		
1,500.0	1,495.7	1,480.0	1,469.4	3.1	3.7	104.57	110.2	-98.4	147.4	141.3	6.04	24.396		
1,600.0	1,595.0	1,575.5	1,562.3	3.3	4.1	103.70	126.0	-113.6	168.8	162.3	6.54	25.817		
1,700.0	1,694.4	1,671.7	1,655.6	3.6	4.6	102.78	143.0	-129.8	191.5	184.5	7.04	27.200		
1,800.0	1,793.7	1,769.0	1,749.9	3.8	5.0	102.00	160.3	-146.3	214.4	206.8	7.55	28.408		
1,900.0	1,893.1	1,866.3	1,844.2	4.1	5.4	101.38	177.6	-162.8	237.3	229.2	8.05	29.463		
2,000.0	1,992.4	1,966.6	1,941.5	4.4	5.9	100.89	195.2	-179.7	260.0	251.4	8.57	30.356		
2,100.0	2,091.8	2,072.9	2,045.4	4.6	6.3	100.80	211.7	-195.5	280.3	271.2	9.08	30.855		
2,200.0	2,191.1	2,180.6	2,151.3	4.9	6.6	101.14	225.5	-208.7	297.5	287.9	9.60	30.981		
2,300.0	2,290.5	2,289.2	2,258.8	5.1	6.9	101.87	236.6	-219.2	311.6	301.5	10.12	30.795		
2,400.0	2,389.8	2,398.4	2,367.5	5.4	7.2	102.94	244.7	-227.0	322.7	312.0	10.63	30.353		
2,500.0	2,489.2	2,508.1	2,476.9	5.7	7.4	104.36	249.8	-231.9	330.7	319.6	11.13	29.712		
2,600.0	2,588.5	2,617.7	2,586.5	5.9	7.5	106.14	251.9	-233.9	335.9	324.2	11.62	28.911		
2,700.0	2,687.8	2,719.1	2,687.8	6.2	7.6	108.01	252.0	-234.0	339.3	327.2	12.08	28.082		
2,800.0	2,787.2	2,818.4	2,787.2	6.5	7.7	109.81	252.0	-234.0	343.0	330.5	12.54	27.364		
2,900.0	2,886.7	2,918.0	2,886.7	6.7	7.8	111.33	252.0	-234.0	346.3	333.4	12.94	26.761		
3,000.0	2,986.6	3,017.8	2,986.6	6.9	7.9	112.28	252.0	-234.0	348.5	335.2	13.29	26.224		
3,100.0	3,086.5	3,117.8	3,086.5	7.0	8.1	112.67	252.0	-234.0	349.5	335.9	13.59	25.719		
3,200.0	3,186.5	3,217.8	3,186.5	7.1	8.2	0.12	252.0	-234.0	349.5	336.6	12.87	27.158		
3,300.0	3,286.5	3,317.8	3,286.5	7.3	8.3	0.12	252.0	-234.0	349.5	336.3	13.17	26.527		
3,400.0	3,386.5	3,417.8	3,386.5	7.4	8.4	0.12	252.0	-234.0	349.5	336.0	13.48	25.920		
3,500.0	3,486.5	3,517.8	3,486.5	7.5	8.5	0.12	252.0	-234.0	349.5	335.7	13.79	25.338		
3,600.0	3,586.5	3,617.8	3,586.5	7.7	8.7	0.12	252.0	-234.0	349.5	335.4	14.10	24.778		
3,700.0	3,686.5	3,717.8	3,686.5	7.8	8.8	0.12	252.0	-234.0	349.5	335.1	14.42	24.239		
3,800.0	3,786.5	3,817.8	3,786.5	8.0	8.9	0.12	252.0	-234.0	349.5	334.8	14.73	23.721		
3,900.0	3,886.5	3,917.8	3,886.5	8.1	9.1	0.12	252.0	-234.0	349.5	334.4	15.05	23.223		
4,000.0	3,986.5	4,017.8	3,986.5	8.3	9.2	0.12	252.0	-234.0	349.5	334.1	15.37	22.743		
4,100.0	4,086.5	4,117.8	4,086.5	8.4	9.3	0.12	252.0	-234.0	349.5	333.8	15.69	22.280		
4,200.0	4,186.5	4,217.8	4,186.5	8.6	9.5	0.12	252.0	-234.0	349.5	333.5	16.01	21.835		
4,300.0	4,286.5	4,317.8	4,286.5	8.7	9.6	0.12	252.0	-234.0	349.5	333.2	16.33	21.405		
4,400.0	4,386.5	4,417.8	4,386.5	8.9	9.7	0.12	252.0	-234.0	349.5	332.8	16.65	20.991		
4,500.0	4,486.5	4,517.8	4,486.5	9.0	9.9	0.12	252.0	-234.0	349.5	332.5	16.97	20.591		
4,600.0	4,586.5	4,617.8	4,586.5	9.2	10.0	0.12	252.0	-234.0	349.5	332.2	17.30	20.205		
4,700.0	4,686.5	4,717.8	4,686.5	9.3	10.2	0.12	252.0	-234.0	349.5	331.9	17.62	19.832		
4,800.0	4,786.5	4,817.8	4,786.5	9.5	10.3	0.12	252.0	-234.0	349.5	331.5	17.95	19.472		
4,900.0	4,886.5	4,917.8	4,886.5	9.6	10.4	0.12	252.0	-234.0	349.5	331.2	18.27	19.124		
5,000.0	4,986.5	5,017.8	4,986.5	9.8	10.6	0.12	252.0	-234.0	349.5	330.9	18.60	18.787		
5,100.0	5,086.5	5,117.8	5,086.5	9.9	10.7	0.12	252.0	-234.0	349.5	330.6	18.93	18.462		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2D-18H - Hz - Plan #1													Offset Site Error:	0.0 ft
Survey Program: O-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total		Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis	Separation Factor		
5,200.0	5,186.5	5,217.8	5,186.5	10.1	10.9	0.12	252.0	-234.0	349.5	330.2	19.26	18.146		
5,300.0	5,286.5	5,317.8	5,286.5	10.2	11.0	0.12	252.0	-234.0	349.5	329.9	19.59	17.841		
5,400.0	5,386.5	5,417.8	5,386.5	10.4	11.2	0.12	252.0	-234.0	349.5	329.6	19.92	17.545		
5,500.0	5,486.5	5,517.8	5,486.5	10.6	11.3	0.12	252.0	-234.0	349.5	329.2	20.25	17.258		
5,600.0	5,586.5	5,617.8	5,586.5	10.7	11.5	0.12	252.0	-234.0	349.5	328.9	20.58	16.980		
5,700.0	5,686.5	5,717.8	5,686.5	10.9	11.6	0.12	252.0	-234.0	349.5	328.6	20.91	16.711		
5,800.0	5,786.5	5,817.8	5,786.5	11.0	11.8	0.12	252.0	-234.0	349.5	328.2	21.25	16.449		
5,900.0	5,886.5	5,917.8	5,886.5	11.2	11.9	0.12	252.0	-234.0	349.5	327.9	21.58	16.195		
6,000.0	5,986.5	6,017.8	5,986.5	11.4	12.1	0.12	252.0	-234.0	349.5	327.6	21.91	15.949		
6,100.0	6,086.5	6,117.8	6,086.5	11.5	12.2	0.12	252.0	-234.0	349.5	327.2	22.25	15.709		
6,200.0	6,186.5	6,217.8	6,186.5	11.7	12.4	0.12	252.0	-234.0	349.5	326.9	22.58	15.477		
6,240.7	6,227.2	6,258.4	6,227.2	11.7	12.4	-90.05	252.0	-234.0	349.5	326.2	23.25	15.030		
6,300.0	6,286.3	6,317.5	6,286.3	11.8	12.5	-90.79	252.0	-234.0	349.5	326.1	23.40	14.935		
6,400.0	6,384.3	6,415.5	6,384.3	11.8	12.7	-93.83	252.0	-234.0	350.3	326.8	23.54	14.881		
6,500.0	6,478.7	6,516.5	6,485.1	11.8	12.8	-98.13	252.0	-228.5	353.3	329.8	23.55	15.006		
6,600.0	6,567.6	6,622.5	6,588.9	11.8	12.8	-102.34	252.0	-207.8	358.4	334.9	23.45	15.280		
6,700.0	6,649.3	6,733.3	6,692.9	11.8	12.8	-106.29	252.0	-170.0	365.1	341.7	23.36	15.631		
6,800.0	6,722.1	6,849.4	6,794.3	12.0	12.8	-109.90	252.0	-113.6	372.9	349.5	23.39	15.946		
6,900.0	6,784.8	6,971.0	6,889.2	12.5	12.9	-113.06	252.0	-37.9	381.1	357.4	23.75	16.047		
7,000.0	6,836.0	7,097.9	6,973.2	13.4	13.2	-115.70	252.0	57.0	388.9	364.3	24.60	15.806		
7,100.0	6,874.7	7,229.6	7,041.3	14.5	14.2	-117.73	252.0	169.5	395.5	369.3	26.20	15.094		
7,200.0	6,900.3	7,365.1	7,088.6	16.0	15.8	-119.09	252.0	296.3	400.2	371.6	28.60	13.991		
7,300.0	6,912.2	7,503.1	7,111.4	17.8	18.0	-119.73	252.0	432.2	402.5	370.7	31.78	12.667		
7,400.0	6,914.3	7,613.6	7,114.3	19.7	20.0	-119.78	252.0	542.6	402.7	367.5	35.17	11.451		
7,500.0	6,916.0	7,713.6	7,116.0	21.7	22.0	-119.78	252.0	642.6	402.7	364.1	38.63	10.424		
7,600.0	6,917.8	7,813.6	7,117.8	23.8	24.1	-119.78	252.0	742.6	402.7	360.5	42.25	9.532		
7,700.0	6,919.5	7,913.6	7,119.5	26.0	26.2	-119.78	252.0	842.6	402.7	356.7	45.99	8.757		
7,800.0	6,921.3	8,013.6	7,121.2	28.2	28.4	-119.78	252.1	942.6	402.7	352.9	49.81	8.084		
7,900.0	6,923.0	8,113.6	7,123.0	30.5	30.6	-119.78	252.1	1,042.6	402.7	349.0	53.71	7.498		
8,000.0	6,924.8	8,213.6	7,124.7	32.8	32.9	-119.78	252.1	1,142.5	402.7	345.0	57.67	6.983		
8,100.0	6,926.5	8,313.6	7,126.5	35.1	35.2	-119.78	252.1	1,242.5	402.7	341.0	61.67	6.530		
8,200.0	6,928.2	8,413.6	7,128.2	37.4	37.5	-119.78	252.1	1,342.5	402.7	337.0	65.71	6.129		
8,300.0	6,930.0	8,513.6	7,130.0	39.8	39.9	-119.78	252.1	1,442.5	402.7	332.9	69.78	5.771		
8,400.0	6,931.7	8,613.6	7,131.7	42.1	42.2	-119.78	252.1	1,542.5	402.7	328.8	73.87	5.452		
8,500.0	6,933.5	8,713.6	7,133.5	44.5	44.6	-119.78	252.1	1,642.5	402.7	324.7	77.99	5.164		
8,600.0	6,935.2	8,813.6	7,135.2	46.9	47.0	-119.78	252.1	1,742.4	402.7	320.6	82.13	4.904		
8,700.0	6,937.0	8,913.6	7,137.0	49.3	49.3	-119.78	252.1	1,842.4	402.7	316.4	86.28	4.668		
8,800.0	6,938.7	9,013.6	7,138.7	51.7	51.7	-119.78	252.1	1,942.4	402.7	312.3	90.45	4.453		
8,900.0	6,940.5	9,113.6	7,140.4	54.1	54.1	-119.78	252.1	2,042.4	402.7	308.1	94.62	4.256		
9,000.0	6,942.2	9,213.6	7,142.2	56.5	56.5	-119.78	252.1	2,142.4	402.7	303.9	98.81	4.076		
9,100.0	6,943.9	9,313.6	7,143.9	58.9	59.0	-119.78	252.1	2,242.4	402.7	299.7	103.01	3.910		
9,200.0	6,945.7	9,413.6	7,145.7	61.4	61.4	-119.78	252.1	2,342.4	402.7	295.5	107.22	3.756		
9,300.0	6,947.4	9,513.6	7,147.4	63.8	63.8	-119.78	252.1	2,442.3	402.7	291.3	111.43	3.614		
9,400.0	6,949.2	9,613.6	7,149.2	66.2	66.2	-119.78	252.1	2,542.3	402.7	287.1	115.65	3.483		
9,500.0	6,950.9	9,713.6	7,150.9	68.7	68.7	-119.78	252.1	2,642.3	402.8	282.9	119.87	3.360		
9,600.0	6,952.7	9,813.6	7,152.7	71.1	71.1	-119.78	252.2	2,742.3	402.8	278.7	124.10	3.245		
9,700.0	6,954.4	9,913.6	7,154.4	73.5	73.5	-119.78	252.2	2,842.3	402.8	274.4	128.34	3.138		
9,800.0	6,956.2	10,013.6	7,156.2	76.0	76.0	-119.78	252.2	2,942.3	402.8	270.2	132.58	3.038		
9,900.0	6,957.9	10,113.6	7,157.9	78.4	78.4	-119.78	252.2	3,042.2	402.8	265.9	136.82	2.944		
10,000.0	6,959.7	10,213.6	7,159.6	80.9	80.8	-119.78	252.2	3,142.2	402.8	261.7	141.06	2.855		
10,100.0	6,961.4	10,313.6	7,161.4	83.3	83.3	-119.78	252.2	3,242.2	402.8	257.5	145.31	2.772		
10,200.0	6,963.1	10,413.6	7,163.1	85.8	85.7	-119.78	252.2	3,342.2	402.8	253.2	149.57	2.693		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2D-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		
10,300.0	6,964.9	10,513.6	7,164.9	88.2	88.2	-119.78	252.2	3,442.2	402.8	249.0	153.82	2.618		
10,400.0	6,966.6	10,613.6	7,166.6	90.7	90.6	-119.78	252.2	3,542.2	402.8	244.7	158.08	2.548		
10,500.0	6,968.4	10,713.6	7,168.4	93.1	93.1	-119.78	252.2	3,642.2	402.8	240.4	162.34	2.481		
10,600.0	6,970.1	10,813.6	7,170.1	95.6	95.5	-119.78	252.2	3,742.1	402.8	236.2	166.60	2.418		
10,700.0	6,971.9	10,913.6	7,171.9	98.0	98.0	-119.77	252.2	3,842.1	402.8	231.9	170.86	2.357		
10,800.0	6,973.6	11,013.6	7,173.6	100.5	100.4	-119.77	252.2	3,942.1	402.8	227.7	175.13	2.300		
10,900.0	6,975.4	11,113.6	7,175.4	103.0	102.9	-119.77	252.2	4,042.1	402.8	223.4	179.39	2.245		
11,000.0	6,977.1	11,213.6	7,177.1	105.4	105.3	-119.77	252.2	4,142.1	402.8	219.1	183.66	2.193		
11,100.0	6,978.9	11,313.6	7,178.8	107.9	107.8	-119.77	252.2	4,242.1	402.8	214.9	187.93	2.143		
11,200.0	6,980.6	11,413.6	7,180.6	110.3	110.3	-119.77	252.2	4,342.0	402.8	210.6	192.20	2.096		
11,300.0	6,982.3	11,513.6	7,182.3	112.8	112.7	-119.77	252.2	4,442.0	402.8	206.3	196.47	2.050		
11,400.0	6,984.1	11,613.6	7,184.1	115.2	115.2	-119.77	252.3	4,542.0	402.8	202.1	200.75	2.007		
11,500.0	6,985.8	11,713.6	7,185.8	117.7	117.6	-119.77	252.3	4,642.0	402.8	197.8	205.02	1.965		
11,600.0	6,987.6	11,813.6	7,187.6	120.2	120.1	-119.77	252.3	4,742.0	402.8	193.5	209.30	1.925		
11,700.0	6,989.3	11,913.6	7,189.3	122.6	122.6	-119.77	252.3	4,842.0	402.8	189.2	213.58	1.886		
11,800.0	6,991.1	12,013.6	7,191.1	125.1	125.0	-119.77	252.3	4,942.0	402.8	185.0	217.85	1.849		
11,900.0	6,992.8	12,113.6	7,192.8	127.6	127.5	-119.77	252.3	5,041.9	402.8	180.7	222.13	1.813		
12,000.0	6,994.6	12,213.6	7,194.5	130.0	129.9	-119.77	252.3	5,141.9	402.8	176.4	226.41	1.779		
12,100.0	6,996.3	12,313.6	7,196.3	132.5	132.4	-119.77	252.3	5,241.9	402.8	172.1	230.69	1.746		
12,200.0	6,998.1	12,413.6	7,198.0	134.9	134.9	-119.77	252.3	5,341.9	402.8	167.9	234.97	1.714		
12,300.0	6,999.8	12,513.6	7,199.8	137.4	137.3	-119.77	252.3	5,441.9	402.8	163.6	239.25	1.684		
12,400.0	7,001.5	12,613.6	7,201.5	139.9	139.8	-119.77	252.3	5,541.9	402.8	159.3	243.53	1.654		
12,500.0	7,003.3	12,713.6	7,203.3	142.3	142.3	-119.77	252.3	5,641.8	402.8	155.0	247.82	1.626		
12,600.0	7,005.0	12,813.6	7,205.0	144.8	144.7	-119.77	252.3	5,741.8	402.8	150.7	252.10	1.598		
12,700.0	7,006.8	12,913.6	7,206.8	147.3	147.2	-119.77	252.3	5,841.8	402.8	146.5	256.38	1.571		
12,800.0	7,008.5	13,013.6	7,208.5	149.7	149.6	-119.77	252.3	5,941.8	402.8	142.2	260.67	1.545		
12,900.0	7,010.3	13,113.6	7,210.3	152.2	152.1	-119.77	252.3	6,041.8	402.8	137.9	264.95	1.520		
13,000.0	7,012.0	13,213.6	7,212.0	154.7	154.6	-119.77	252.3	6,141.8	402.8	133.6	269.24	1.496 Level 3		
13,100.0	7,013.8	13,313.6	7,213.7	157.1	157.0	-119.77	252.4	6,241.8	402.8	129.3	273.52	1.473 Level 3		
13,200.0	7,015.5	13,413.6	7,215.5	159.6	159.5	-119.77	252.4	6,341.7	402.9	125.0	277.81	1.450 Level 3		
13,300.0	7,017.2	13,513.6	7,217.2	162.1	162.0	-119.77	252.4	6,441.7	402.9	120.8	282.10	1.428 Level 3		
13,400.0	7,019.0	13,613.6	7,219.0	164.5	164.4	-119.77	252.4	6,541.7	402.9	116.5	286.38	1.407 Level 3		
13,500.0	7,020.7	13,713.6	7,220.7	167.0	166.9	-119.77	252.4	6,641.7	402.9	112.2	290.67	1.386 Level 3		
13,600.0	7,022.5	13,813.6	7,222.5	169.5	169.4	-119.77	252.4	6,741.7	402.9	107.9	294.96	1.366 Level 3		
13,700.0	7,024.2	13,913.6	7,224.2	171.9	171.8	-119.77	252.4	6,841.7	402.9	103.6	299.25	1.346 Level 3		
13,800.0	7,026.0	14,013.6	7,226.0	174.4	174.3	-119.77	252.4	6,941.7	402.9	99.3	303.54	1.327 Level 3		
13,900.0	7,027.7	14,113.6	7,227.7	176.9	176.8	-119.77	252.4	7,041.6	402.9	95.0	307.83	1.309 Level 3		
14,000.0	7,029.5	14,213.6	7,229.5	179.3	179.2	-119.77	252.4	7,141.6	402.9	90.8	312.12	1.291 Level 3		
14,030.7	7,030.0	14,244.2	7,230.0	180.1	180.0	-119.77	252.4	7,172.3	402.9	89.4	313.43	1.285 Level 3, SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2F-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	-10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.2	0.2	180.00	-10.9	0.0	10.9	10.6	0.30	35.986		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-10.9	0.0	10.9	10.3	0.65	16.742		
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-10.9	0.0	10.9	9.9	1.00	10.909	CC, ES	
400.0	400.0	399.8	399.8	0.7	0.7	-177.97	-11.7	-0.4	11.7	10.4	1.35	8.660		
500.0	500.0	499.6	499.6	0.9	0.9	-63.85	-14.0	-1.7	13.7	12.0	1.70	8.046		
600.0	600.0	599.3	599.2	1.0	1.0	-65.61	-17.8	-3.7	16.5	14.4	2.05	8.024		
700.0	699.9	699.0	698.7	1.2	1.2	-69.09	-23.1	-6.6	20.2	17.7	2.42	8.340		
800.0	799.7	798.5	797.9	1.4	1.4	-73.12	-30.0	-10.3	24.8	22.0	2.80	8.868		
900.0	899.4	898.0	896.9	1.6	1.7	-77.06	-38.3	-14.9	30.5	27.3	3.20	9.525		
1,000.0	998.9	997.3	995.5	1.8	1.9	-80.61	-48.2	-20.2	37.3	33.7	3.64	10.249		
1,100.0	1,098.3	1,096.4	1,093.8	2.1	2.2	-83.50	-59.5	-26.4	45.3	41.2	4.11	11.015		
1,200.0	1,197.6	1,195.5	1,191.9	2.3	2.5	-84.54	-72.3	-33.3	54.5	49.9	4.59	11.855		
1,300.0	1,297.0	1,295.1	1,290.3	2.6	2.8	-84.95	-85.5	-40.5	64.0	58.9	5.08	12.587		
1,400.0	1,396.3	1,394.6	1,388.7	2.8	3.1	-85.26	-98.8	-47.7	73.5	68.0	5.58	13.175		
1,500.0	1,495.7	1,494.1	1,487.1	3.1	3.4	-85.50	-112.1	-54.9	83.1	77.0	6.08	13.655		
1,600.0	1,595.0	1,593.7	1,585.5	3.3	3.7	-85.69	-125.3	-62.1	92.6	86.0	6.59	14.053		
1,700.0	1,694.4	1,693.2	1,683.8	3.6	4.0	-85.84	-138.6	-69.3	102.2	95.1	7.10	14.388		
1,800.0	1,793.7	1,792.8	1,782.2	3.8	4.3	-85.97	-151.9	-76.5	111.7	104.1	7.61	14.674		
1,900.0	1,893.1	1,892.3	1,880.6	4.1	4.6	-86.07	-165.1	-83.7	121.2	113.1	8.13	14.919		
2,000.0	1,992.4	1,991.9	1,979.0	4.4	4.9	-86.16	-178.4	-90.9	130.8	122.1	8.64	15.133		
2,100.0	2,091.8	2,091.4	2,077.4	4.6	5.2	-86.24	-191.7	-98.1	140.3	131.2	9.16	15.320		
2,200.0	2,191.1	2,191.0	2,175.8	4.9	5.5	-86.31	-204.9	-105.3	149.9	140.2	9.68	15.485		
2,300.0	2,290.5	2,290.5	2,274.2	5.1	5.8	-86.37	-218.2	-112.5	159.4	149.2	10.20	15.632		
2,400.0	2,389.8	2,390.0	2,372.6	5.4	6.1	-86.43	-231.5	-119.7	169.0	158.2	10.72	15.764		
2,500.0	2,489.2	2,489.6	2,471.0	5.7	6.4	-86.47	-244.7	-126.9	178.5	167.3	11.24	15.882		
2,600.0	2,588.5	2,589.1	2,569.4	5.9	6.8	-86.52	-258.0	-134.1	188.0	176.3	11.76	15.989		
2,700.0	2,687.8	2,688.7	2,667.8	6.2	7.1	-86.56	-271.3	-141.3	197.6	185.3	12.28	16.086		
2,800.0	2,787.2	2,788.2	2,766.2	6.5	7.4	-86.60	-284.6	-148.5	207.1	194.3	12.81	16.175		
2,900.0	2,886.7	2,887.7	2,864.5	6.7	7.7	-86.30	-297.8	-155.7	216.8	203.5	13.27	16.339		
3,000.0	2,986.6	2,987.1	2,962.7	6.9	8.0	-85.16	-311.1	-162.9	226.8	213.1	13.65	16.616		
3,100.0	3,086.5	3,086.2	3,060.7	7.0	8.3	-83.31	-324.3	-170.1	237.2	223.3	13.94	17.019		
3,200.0	3,186.5	3,185.0	3,158.4	7.1	8.6	166.52	-337.4	-177.2	248.3	235.3	13.01	19.094		
3,300.0	3,286.5	3,283.9	3,256.1	7.3	8.9	168.74	-350.6	-184.4	259.9	246.3	13.58	19.136		
3,400.0	3,386.5	3,382.7	3,353.8	7.4	9.3	170.78	-363.8	-191.5	271.8	257.6	14.15	19.204		
3,500.0	3,486.5	3,481.6	3,451.5	7.5	9.6	172.64	-377.0	-198.7	284.0	269.2	14.72	19.293		
3,600.0	3,586.5	3,580.4	3,549.2	7.7	9.9	174.35	-390.1	-205.8	296.4	281.1	15.28	19.399		
3,700.0	3,686.5	3,679.2	3,646.9	7.8	10.2	175.93	-403.3	-212.9	309.1	293.3	15.84	19.519		
3,800.0	3,786.5	3,778.1	3,744.6	8.0	10.5	177.37	-416.5	-220.1	322.1	305.7	16.39	19.649		
3,900.0	3,886.5	3,887.0	3,852.5	8.1	10.8	178.69	-429.5	-227.2	333.8	316.9	16.93	19.721		
4,000.0	3,986.5	3,997.9	3,962.9	8.3	11.1	179.60	-439.1	-232.4	342.4	325.0	17.40	19.684		
4,100.0	4,086.5	4,109.6	4,074.3	8.4	11.2	-179.87	-444.9	-235.5	347.6	329.8	17.79	19.545		
4,200.0	4,186.5	4,221.6	4,186.3	8.6	11.4	-179.69	-446.9	-236.6	349.4	331.3	18.11	19.294		
4,300.0	4,286.5	4,321.8	4,286.5	8.7	11.5	-179.69	-446.9	-236.6	349.4	331.0	18.40	18.988		
4,400.0	4,386.5	4,421.8	4,386.5	8.9	11.6	-179.69	-446.9	-236.6	349.4	330.7	18.70	18.690		
4,500.0	4,486.5	4,521.8	4,486.5	9.0	11.7	-179.69	-446.9	-236.6	349.4	330.4	18.99	18.400		
4,600.0	4,586.5	4,621.8	4,586.5	9.2	11.8	-179.69	-446.9	-236.6	349.4	330.1	19.29	18.117		
4,700.0	4,686.5	4,721.8	4,686.5	9.3	12.0	-179.69	-446.9	-236.6	349.4	329.8	19.59	17.841		
4,800.0	4,786.5	4,821.8	4,786.5	9.5	12.1	-179.69	-446.9	-236.6	349.4	329.5	19.88	17.573		
4,900.0	4,886.5	4,921.8	4,886.5	9.6	12.2	-179.69	-446.9	-236.6	349.4	329.2	20.19	17.311		
5,000.0	4,986.5	5,021.8	4,986.5	9.8	12.3	-179.69	-446.9	-236.6	349.4	328.9	20.49	17.056		
5,100.0	5,086.5	5,121.8	5,086.5	9.9	12.4	-179.69	-446.9	-236.6	349.4	328.6	20.79	16.807		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2F-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	5,186.5	5,221.8	5,186.5	10.1	12.6	-179.69	-446.9	-236.6	349.4	328.3	21.10	16.565		
5,300.0	5,286.5	5,321.8	5,286.5	10.2	12.7	-179.69	-446.9	-236.6	349.4	328.0	21.40	16.328		
5,400.0	5,386.5	5,421.8	5,386.5	10.4	12.8	-179.69	-446.9	-236.6	349.4	327.7	21.71	16.097		
5,500.0	5,486.5	5,521.8	5,486.5	10.6	13.0	-179.69	-446.9	-236.6	349.4	327.4	22.02	15.872		
5,600.0	5,586.5	5,621.8	5,586.5	10.7	13.1	-179.69	-446.9	-236.6	349.4	327.1	22.32	15.653		
5,700.0	5,686.5	5,721.8	5,686.5	10.9	13.2	-179.69	-446.9	-236.6	349.4	326.8	22.63	15.438		
5,800.0	5,786.5	5,821.8	5,786.5	11.0	13.3	-179.69	-446.9	-236.6	349.4	326.5	22.94	15.229		
5,900.0	5,886.5	5,921.8	5,886.5	11.2	13.5	-179.69	-446.9	-236.6	349.4	326.2	23.26	15.025		
6,000.0	5,986.5	6,021.8	5,986.5	11.4	13.6	-179.69	-446.9	-236.6	349.4	325.9	23.57	14.826		
6,100.0	6,086.5	6,121.8	6,086.5	11.5	13.8	-179.69	-446.9	-236.6	349.4	325.6	23.88	14.631		
6,200.0	6,186.5	6,221.8	6,186.5	11.7	13.9	-179.69	-446.9	-236.6	349.4	325.2	24.20	14.441		
6,218.3	6,204.8	6,240.1	6,204.8	11.7	13.9	90.34	-446.9	-236.6	349.4	326.3	23.18	15.076		
6,300.0	6,286.3	6,321.6	6,286.3	11.8	14.0	91.22	-446.9	-236.6	349.5	326.2	23.35	14.967		
6,400.0	6,384.3	6,419.6	6,384.3	11.8	14.2	94.24	-446.9	-236.6	350.5	327.1	23.38	14.990		
6,500.0	6,478.7	6,514.0	6,478.7	11.8	14.3	98.92	-446.9	-236.6	354.5	331.2	23.28	15.225		
6,600.0	6,567.6	6,614.7	6,579.2	11.8	14.4	104.76	-446.9	-231.9	363.8	340.7	23.11	15.739		
6,700.0	6,649.3	6,724.7	6,687.1	11.8	14.4	110.43	-446.9	-210.9	377.3	354.3	22.96	16.429		
6,800.0	6,722.1	6,843.6	6,798.6	12.0	14.4	115.67	-446.9	-169.9	393.7	370.8	22.90	17.192		
6,900.0	6,784.8	6,973.0	6,910.4	12.5	14.4	120.34	-446.9	-105.1	411.6	388.6	23.03	17.874		
7,000.0	6,836.0	7,114.0	7,016.7	13.4	14.6	124.32	-446.9	-13.0	429.1	405.6	23.47	18.284		
7,100.0	6,874.7	7,266.6	7,109.1	14.5	15.0	127.46	-446.9	108.2	444.2	419.7	24.47	18.148		
7,200.0	6,900.3	7,429.6	7,177.2	16.0	16.4	129.59	-446.9	256.0	455.0	428.8	26.24	17.344		
7,300.0	6,912.2	7,599.6	7,210.7	17.8	18.7	130.58	-446.9	422.1	460.2	431.3	28.88	15.935		
7,400.0	6,914.3	7,718.4	7,214.1	19.7	20.8	130.64	-446.9	540.9	460.5	428.6	31.86	14.454		
7,500.0	6,916.0	7,818.4	7,215.9	21.7	22.7	130.64	-446.9	640.9	460.5	425.6	34.88	13.204		
7,600.0	6,917.8	7,918.4	7,217.6	23.8	24.8	130.64	-446.9	740.9	460.5	422.5	38.03	12.110		
7,700.0	6,919.5	8,018.4	7,219.4	26.0	26.8	130.64	-446.9	840.9	460.5	419.2	41.28	11.155		
7,800.0	6,921.3	8,118.4	7,221.1	28.2	29.0	130.63	-446.9	940.8	460.5	415.9	44.62	10.322		
7,900.0	6,923.0	8,218.4	7,222.9	30.5	31.2	130.63	-446.9	1,040.8	460.5	412.5	48.01	9.591		
8,000.0	6,924.8	8,318.4	7,224.6	32.8	33.4	130.63	-446.9	1,140.8	460.5	409.1	51.46	8.949		
8,100.0	6,926.5	8,418.4	7,226.4	35.1	35.7	130.63	-446.9	1,240.8	460.5	405.6	54.95	8.380		
8,200.0	6,928.2	8,518.4	7,228.1	37.4	38.0	130.63	-446.9	1,340.8	460.5	402.0	58.48	7.875		
8,300.0	6,930.0	8,618.4	7,229.8	39.8	40.3	130.63	-446.9	1,440.8	460.5	398.5	62.03	7.424		
8,400.0	6,931.7	8,718.4	7,231.6	42.1	42.7	130.63	-447.0	1,540.7	460.5	394.9	65.61	7.020		
8,500.0	6,933.5	8,818.4	7,233.3	44.5	45.0	130.63	-447.0	1,640.7	460.5	391.3	69.20	6.655		
8,600.0	6,935.2	8,918.4	7,235.1	46.9	47.4	130.63	-447.0	1,740.7	460.5	387.7	72.81	6.325		
8,700.0	6,937.0	9,018.4	7,236.8	49.3	49.8	130.63	-447.0	1,840.7	460.5	384.1	76.44	6.025		
8,800.0	6,938.7	9,118.4	7,238.6	51.7	52.1	130.63	-447.0	1,940.7	460.5	380.5	80.08	5.751		
8,900.0	6,940.5	9,218.4	7,240.3	54.1	54.5	130.63	-447.0	2,040.7	460.5	376.8	83.73	5.500		
9,000.0	6,942.2	9,318.4	7,242.1	56.5	56.9	130.63	-447.0	2,140.7	460.6	373.2	87.39	5.270		
9,100.0	6,943.9	9,418.4	7,243.8	58.9	59.3	130.63	-447.0	2,240.6	460.6	369.5	91.06	5.058		
9,200.0	6,945.7	9,518.4	7,245.6	61.4	61.8	130.63	-447.0	2,340.6	460.6	365.8	94.74	4.861		
9,300.0	6,947.4	9,618.4	7,247.3	63.8	64.2	130.63	-447.0	2,440.6	460.6	362.1	98.42	4.679		
9,400.0	6,949.2	9,718.4	7,249.0	66.2	66.6	130.63	-447.0	2,540.6	460.6	358.5	102.11	4.510		
9,500.0	6,950.9	9,818.4	7,250.8	68.7	69.0	130.63	-447.0	2,640.6	460.6	354.8	105.81	4.353		
9,600.0	6,952.7	9,918.4	7,252.5	71.1	71.4	130.63	-447.0	2,740.6	460.6	351.1	109.51	4.206		
9,700.0	6,954.4	10,018.4	7,254.3	73.5	73.9	130.63	-447.0	2,840.5	460.6	347.4	113.21	4.068		
9,800.0	6,956.2	10,118.4	7,256.0	76.0	76.3	130.63	-447.0	2,940.5	460.6	343.7	116.92	3.939		
9,900.0	6,957.9	10,218.4	7,257.8	78.4	78.7	130.63	-447.0	3,040.5	460.6	339.9	120.63	3.818		
10,000.0	6,959.7	10,318.4	7,259.5	80.9	81.2	130.63	-447.0	3,140.5	460.6	336.2	124.34	3.704		
10,100.0	6,961.4	10,418.4	7,261.3	83.3	83.6	130.63	-447.0	3,240.5	460.6	332.5	128.06	3.597		
10,200.0	6,963.1	10,518.4	7,263.0	85.8	86.1	130.63	-447.0	3,340.5	460.6	328.8	131.78	3.495		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2F-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)				
10,300.0	6,964.9	10,618.4	7,264.7	88.2	88.5	130.63	-447.0	3,440.5	460.6	325.1	135.50	3.399		
10,400.0	6,966.6	10,718.4	7,266.5	90.7	90.9	130.63	-447.0	3,540.4	460.6	321.4	139.23	3.308		
10,500.0	6,968.4	10,818.4	7,268.2	93.1	93.4	130.63	-447.0	3,640.4	460.6	317.6	142.95	3.222		
10,600.0	6,970.1	10,918.4	7,270.0	95.6	95.8	130.63	-447.0	3,740.4	460.6	313.9	146.68	3.140		
10,700.0	6,971.9	11,018.4	7,271.7	98.0	98.3	130.63	-447.0	3,840.4	460.6	310.2	150.41	3.062		
10,800.0	6,973.6	11,118.4	7,273.5	100.5	100.7	130.63	-447.0	3,940.4	460.6	306.5	154.14	2.988		
10,900.0	6,975.4	11,218.4	7,275.2	103.0	103.2	130.63	-447.0	4,040.4	460.6	302.7	157.88	2.917		
11,000.0	6,977.1	11,318.4	7,277.0	105.4	105.6	130.62	-447.0	4,140.4	460.6	299.0	161.61	2.850		
11,100.0	6,978.9	11,418.4	7,278.7	107.9	108.1	130.62	-447.0	4,240.3	460.6	295.3	165.35	2.786		
11,200.0	6,980.6	11,518.4	7,280.5	110.3	110.5	130.62	-447.0	4,340.3	460.6	291.5	169.09	2.724		
11,300.0	6,982.3	11,618.4	7,282.2	112.8	113.0	130.62	-447.0	4,440.3	460.6	287.8	172.83	2.665		
11,400.0	6,984.1	11,718.4	7,283.9	115.2	115.5	130.62	-447.0	4,540.3	460.6	284.1	176.57	2.609		
11,500.0	6,985.8	11,818.4	7,285.7	117.7	117.9	130.62	-447.0	4,640.3	460.6	280.3	180.31	2.555		
11,600.0	6,987.6	11,918.4	7,287.4	120.2	120.4	130.62	-447.0	4,740.3	460.6	276.6	184.05	2.503		
11,700.0	6,989.3	12,018.4	7,289.2	122.6	122.8	130.62	-447.0	4,840.2	460.6	272.8	187.79	2.453		
11,800.0	6,991.1	12,118.4	7,290.9	125.1	125.3	130.62	-447.0	4,940.2	460.6	269.1	191.54	2.405		
11,900.0	6,992.8	12,218.4	7,292.7	127.6	127.8	130.62	-447.0	5,040.2	460.6	265.4	195.28	2.359		
12,000.0	6,994.6	12,318.4	7,294.4	130.0	130.2	130.62	-447.0	5,140.2	460.6	261.6	199.03	2.314		
12,100.0	6,996.3	12,418.4	7,296.2	132.5	132.7	130.62	-447.0	5,240.2	460.6	257.9	202.77	2.272		
12,200.0	6,998.1	12,518.4	7,297.9	134.9	135.1	130.62	-447.0	5,340.2	460.6	254.1	206.52	2.230		
12,300.0	6,999.8	12,618.4	7,299.7	137.4	137.6	130.62	-447.0	5,440.2	460.6	250.4	210.27	2.191		
12,400.0	7,001.5	12,718.4	7,301.4	139.9	140.1	130.62	-447.0	5,540.1	460.6	246.6	214.02	2.152		
12,500.0	7,003.3	12,818.4	7,303.1	142.3	142.5	130.62	-447.0	5,640.1	460.7	242.9	217.77	2.115		
12,600.0	7,005.0	12,918.4	7,304.9	144.8	145.0	130.62	-447.0	5,740.1	460.7	239.1	221.52	2.080		
12,700.0	7,006.8	13,018.4	7,306.6	147.3	147.4	130.62	-447.0	5,840.1	460.7	235.4	225.27	2.045		
12,800.0	7,008.5	13,118.4	7,308.4	149.7	149.9	130.62	-447.0	5,940.1	460.7	231.6	229.02	2.011		
12,900.0	7,010.3	13,218.4	7,310.1	152.2	152.4	130.62	-447.0	6,040.1	460.7	227.9	232.77	1.979		
13,000.0	7,012.0	13,318.4	7,311.9	154.7	154.8	130.62	-447.0	6,140.0	460.7	224.1	236.52	1.948		
13,100.0	7,013.8	13,418.4	7,313.6	157.1	157.3	130.62	-447.0	6,240.0	460.7	220.4	240.27	1.917		
13,200.0	7,015.5	13,518.4	7,315.4	159.6	159.8	130.62	-447.0	6,340.0	460.7	216.6	244.03	1.888		
13,300.0	7,017.2	13,618.4	7,317.1	162.1	162.2	130.62	-447.0	6,440.0	460.7	212.9	247.78	1.859		
13,400.0	7,019.0	13,718.4	7,318.9	164.5	164.7	130.62	-447.0	6,540.0	460.7	209.1	251.53	1.831		
13,500.0	7,020.7	13,818.4	7,320.6	167.0	167.2	130.62	-447.0	6,640.0	460.7	205.4	255.29	1.805		
13,600.0	7,022.5	13,918.4	7,322.3	169.5	169.6	130.62	-447.0	6,740.0	460.7	201.6	259.04	1.778		
13,700.0	7,024.2	14,018.4	7,324.1	171.9	172.1	130.62	-447.0	6,839.9	460.7	197.9	262.79	1.753		
13,800.0	7,026.0	14,118.4	7,325.8	174.4	174.6	130.62	-447.0	6,939.9	460.7	194.1	266.55	1.728		
13,900.0	7,027.7	14,218.4	7,327.6	176.9	177.0	130.62	-447.0	7,039.9	460.7	190.4	270.30	1.704		
14,000.0	7,029.5	14,318.4	7,329.3	179.3	179.5	130.62	-447.0	7,139.9	460.7	186.6	274.06	1.681		
14,030.7	7,030.0	14,349.0	7,329.9	180.1	180.2	130.62	-447.0	7,170.5	460.7	185.5	275.21	1.674 SF		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2G-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	-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	33.485		
300.0	300.0	300.0	300.0	0.5	0.5	180.00	-21.9	0.0	21.9	20.9	1.00	21.817		
400.0	400.0	400.0	400.0	0.7	0.7	180.00	-21.9	0.0	21.9	20.5	1.35	16.180 CC, ES		
500.0	500.0	499.6	499.6	0.9	0.8	-68.84	-22.7	-0.3	22.4	20.7	1.70	13.154		
600.0	600.0	599.2	599.2	1.0	1.0	-72.68	-25.2	-1.0	23.9	21.9	2.05	11.669		
700.0	699.9	698.8	698.6	1.2	1.2	-78.02	-29.3	-2.3	26.8	24.4	2.41	11.103		
800.0	799.7	798.2	797.9	1.4	1.4	-83.77	-35.1	-4.1	31.1	28.3	2.79	11.144		
900.0	899.4	897.5	896.9	1.6	1.6	-89.12	-42.5	-6.3	36.9	33.7	3.18	11.588		
1,000.0	998.9	996.6	995.6	1.8	1.8	-93.68	-51.5	-9.1	44.3	40.7	3.61	12.286		
1,100.0	1,098.3	1,095.6	1,093.9	2.1	2.1	-97.24	-62.2	-12.4	53.3	49.3	4.06	13.142		
1,200.0	1,197.6	1,194.4	1,191.8	2.3	2.3	-98.86	-74.4	-16.1	63.7	59.1	4.53	14.063		
1,300.0	1,297.0	1,292.9	1,289.3	2.6	2.6	-99.02	-88.2	-20.4	75.1	70.1	5.01	14.997		
1,400.0	1,396.3	1,391.2	1,386.3	2.8	2.9	-98.30	-103.6	-25.1	87.7	82.2	5.51	15.935		
1,500.0	1,495.7	1,490.2	1,483.8	3.1	3.2	-97.34	-120.0	-30.2	101.0	95.0	6.01	16.818		
1,600.0	1,595.0	1,589.3	1,581.4	3.3	3.6	-96.59	-136.5	-35.2	114.3	107.8	6.51	17.558		
1,700.0	1,694.4	1,688.4	1,679.0	3.6	3.9	-96.00	-152.9	-40.3	127.6	120.6	7.02	18.185		
1,800.0	1,793.7	1,787.5	1,776.6	3.8	4.2	-95.52	-169.4	-45.3	140.9	133.4	7.53	18.723		
1,900.0	1,893.1	1,886.6	1,874.2	4.1	4.5	-95.13	-185.8	-50.4	154.3	146.2	8.04	19.188		
2,000.0	1,992.4	1,985.7	1,971.8	4.4	4.9	-94.80	-202.3	-55.4	167.6	159.1	8.55	19.595		
2,100.0	2,091.8	2,084.8	2,069.4	4.6	5.2	-94.51	-218.7	-60.5	181.0	171.9	9.07	19.953		
2,200.0	2,191.1	2,183.9	2,167.0	4.9	5.5	-94.27	-235.2	-65.6	194.3	184.7	9.59	20.270		
2,300.0	2,290.5	2,283.0	2,264.6	5.1	5.9	-94.06	-251.6	-70.6	207.7	197.6	10.10	20.553		
2,400.0	2,389.8	2,382.1	2,362.2	5.4	6.2	-93.87	-268.1	-75.7	221.0	210.4	10.62	20.808		
2,500.0	2,489.2	2,481.2	2,459.8	5.7	6.6	-93.70	-284.5	-80.7	234.4	223.3	11.14	21.037		
2,600.0	2,588.5	2,580.3	2,557.3	5.9	6.9	-93.55	-301.0	-85.8	247.8	236.1	11.66	21.245		
2,700.0	2,687.8	2,679.5	2,654.9	6.2	7.2	-93.42	-317.4	-90.8	261.1	248.9	12.18	21.434		
2,800.0	2,787.2	2,778.6	2,752.5	6.5	7.6	-93.32	-333.9	-95.9	274.5	261.8	12.70	21.606		
2,900.0	2,886.7	2,877.6	2,850.1	6.7	7.9	-93.07	-350.3	-100.9	287.7	274.6	13.18	21.838		
3,000.0	2,986.6	2,976.6	2,947.6	6.9	8.3	-92.21	-366.8	-106.0	300.9	287.3	13.57	22.164		
3,100.0	3,086.5	3,075.3	3,044.8	7.0	8.6	-90.80	-383.1	-111.0	314.1	300.2	13.90	22.598		
3,200.0	3,186.5	3,173.8	3,141.8	7.1	9.0	158.54	-399.5	-116.0	327.6	314.2	13.35	24.529		
3,300.0	3,286.5	3,272.3	3,238.8	7.3	9.3	160.35	-415.8	-121.1	341.4	327.5	13.92	24.524		
3,400.0	3,386.5	3,370.8	3,335.7	7.4	9.6	162.02	-432.2	-126.1	355.5	341.0	14.49	24.539		
3,500.0	3,486.5	3,469.2	3,432.7	7.5	10.0	163.55	-448.5	-131.1	369.9	354.9	15.06	24.571		
3,600.0	3,586.5	3,567.7	3,529.7	7.7	10.3	164.98	-464.9	-136.1	384.6	369.0	15.62	24.619		
3,700.0	3,686.5	3,666.2	3,626.7	7.8	10.7	166.30	-481.2	-141.2	399.5	383.3	16.19	24.678		
3,800.0	3,786.5	3,764.7	3,723.7	8.0	11.0	167.52	-497.6	-146.2	414.5	397.8	16.75	24.749		
3,900.0	3,886.5	3,863.2	3,820.7	8.1	11.3	168.66	-513.9	-151.2	429.8	412.5	17.31	24.827		
4,000.0	3,986.5	3,961.6	3,917.7	8.3	11.7	169.72	-530.3	-156.2	445.2	427.3	17.87	24.912		
4,100.0	4,086.5	4,060.1	4,014.6	8.4	12.0	170.71	-546.6	-161.3	460.7	442.3	18.43	25.002		
4,200.0	4,186.5	4,158.6	4,111.6	8.6	12.4	171.63	-563.0	-166.3	476.4	457.4	18.98	25.097		
4,300.0	4,286.5	4,257.1	4,208.6	8.7	12.7	172.50	-579.3	-171.3	492.2	472.6	19.53	25.195		
4,400.0	4,386.5	4,355.6	4,305.6	8.9	13.1	173.31	-595.7	-176.3	508.1	488.0	20.09	25.295		
4,500.0	4,486.5	4,454.0	4,402.6	9.0	13.4	174.08	-612.0	-181.3	524.0	503.4	20.63	25.396		
4,600.0	4,586.5	4,552.5	4,499.6	9.2	13.8	174.79	-628.3	-186.4	540.1	518.9	21.18	25.498		
4,700.0	4,686.5	4,651.0	4,596.5	9.3	14.1	175.47	-644.7	-191.4	556.2	534.5	21.73	25.601		
4,800.0	4,786.5	4,749.5	4,693.5	9.5	14.4	176.11	-661.0	-196.4	572.4	550.2	22.27	25.704		
4,900.0	4,886.5	4,848.0	4,790.5	9.6	14.8	176.71	-677.4	-201.4	588.7	565.9	22.81	25.806		
5,000.0	4,986.5	4,946.5	4,887.5	9.8	15.1	177.28	-693.7	-206.5	605.1	581.7	23.35	25.908		
5,100.0	5,086.5	5,044.9	4,984.5	9.9	15.5	177.83	-710.1	-211.5	621.5	597.6	23.89	26.009		

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



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2G-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	5,186.5	5,143.4	5,081.5	10.1	15.8	178.34	-726.4	-216.5	637.9	613.5	24.43	26.109		
5,300.0	5,286.5	5,241.9	5,178.5	10.2	16.2	178.83	-742.8	-221.5	654.4	629.4	24.97	26.207		
5,400.0	5,386.5	5,347.9	5,282.9	10.4	16.5	179.32	-760.2	-226.9	670.8	645.3	25.52	26.284		
5,500.0	5,486.5	5,475.8	5,409.5	10.6	16.9	179.78	-777.3	-232.1	684.1	658.1	26.07	26.243		
5,600.0	5,586.5	5,605.1	5,538.2	10.7	17.1	-179.92	-789.1	-235.8	693.3	666.7	26.53	26.127		
5,700.0	5,686.5	5,735.2	5,668.1	10.9	17.3	-179.76	-795.3	-237.7	698.1	671.2	26.90	25.946		
5,800.0	5,786.5	5,853.6	5,786.5	11.0	17.5	-179.73	-796.4	-238.0	698.9	671.7	27.21	25.688		
5,900.0	5,886.5	5,953.6	5,886.5	11.2	17.6	-179.73	-796.4	-238.0	698.9	671.4	27.48	25.429		
6,000.0	5,986.5	6,053.6	5,986.5	11.4	17.7	-179.73	-796.4	-238.0	698.9	671.1	27.76	25.173		
6,100.0	6,086.5	6,153.6	6,086.5	11.5	17.8	-179.73	-796.4	-238.0	698.9	670.8	28.04	24.922		
6,200.0	6,186.5	6,253.6	6,186.5	11.7	17.9	-179.73	-796.4	-238.0	698.9	670.5	28.32	24.675		
6,300.0	6,286.3	6,354.0	6,286.7	11.8	17.9	90.27	-796.4	-232.3	698.9	675.5	23.38	29.888		
6,400.0	6,384.3	6,454.4	6,385.1	11.8	18.0	90.26	-796.4	-212.8	698.9	675.4	23.46	29.795		
6,500.0	6,478.7	6,554.9	6,479.8	11.8	18.0	90.24	-796.4	-179.6	698.9	675.4	23.44	29.812		
6,600.0	6,567.6	6,655.3	6,569.0	11.8	17.9	90.22	-796.4	-133.6	698.9	675.4	23.44	29.814		
6,700.0	6,649.3	6,755.6	6,650.8	11.8	18.0	90.20	-796.4	-75.6	698.9	675.3	23.60	29.617		
6,800.0	6,722.1	6,855.9	6,723.7	12.0	18.1	90.17	-796.4	-6.8	698.9	674.8	24.09	29.011		
6,900.0	6,784.8	6,956.2	6,786.2	12.5	18.3	90.14	-796.4	71.5	698.9	673.8	25.10	27.840		
7,000.0	6,836.0	7,056.4	6,837.1	13.4	18.6	90.11	-796.4	157.6	698.9	672.1	26.77	26.103		
7,100.0	6,874.7	7,156.6	6,875.6	14.5	19.2	90.07	-796.4	250.0	698.9	669.8	29.14	23.982		
7,200.0	6,900.3	7,256.6	6,900.7	16.0	20.1	90.04	-796.4	346.8	698.9	666.8	32.15	21.740		
7,300.0	6,912.2	7,356.7	6,912.2	17.8	21.3	90.00	-796.4	446.1	698.9	663.3	35.65	19.605		
7,400.0	6,914.3	7,456.7	6,914.2	19.7	22.7	89.99	-796.4	546.1	698.9	659.4	39.49	17.698		
7,500.0	6,916.0	7,556.7	6,915.9	21.7	24.4	89.99	-796.4	646.1	698.9	655.4	43.54	16.052		
7,600.0	6,917.8	7,656.7	6,917.7	23.8	26.2	89.99	-796.4	746.1	698.9	651.2	47.76	14.633		
7,700.0	6,919.5	7,756.7	6,919.4	26.0	28.2	89.99	-796.4	846.1	698.9	646.8	52.11	13.412		
7,800.0	6,921.3	7,856.7	6,921.2	28.2	30.2	89.99	-796.4	946.0	699.0	642.4	56.56	12.358		
7,900.0	6,923.0	7,956.7	6,922.9	30.5	32.3	89.99	-796.4	1,046.0	699.0	637.9	61.09	11.442		
8,000.0	6,924.8	8,056.7	6,924.6	32.8	34.5	89.99	-796.4	1,146.0	699.0	633.3	65.67	10.643		
8,100.0	6,926.5	8,156.7	6,926.4	35.1	36.7	89.99	-796.4	1,246.0	699.0	628.7	70.31	9.942		
8,200.0	6,928.2	8,256.7	6,928.1	37.4	38.9	89.99	-796.4	1,346.0	699.0	624.0	74.98	9.322		
8,300.0	6,930.0	8,356.7	6,929.9	39.8	41.2	89.99	-796.4	1,446.0	699.0	619.3	79.69	8.771		
8,400.0	6,931.7	8,456.7	6,931.6	42.1	43.5	89.99	-796.5	1,546.0	699.0	614.6	84.43	8.279		
8,500.0	6,933.5	8,556.7	6,933.4	44.5	45.8	89.99	-796.5	1,645.9	699.0	609.8	89.18	7.838		
8,600.0	6,935.2	8,656.7	6,935.1	46.9	48.2	89.99	-796.5	1,745.9	699.0	605.1	93.96	7.439		
8,700.0	6,937.0	8,756.7	6,936.9	49.3	50.5	89.99	-796.5	1,845.9	699.0	600.3	98.76	7.078		
8,800.0	6,938.7	8,856.7	6,938.6	51.7	52.9	89.99	-796.5	1,945.9	699.0	595.5	103.57	6.750		
8,900.0	6,940.5	8,956.7	6,940.4	54.1	55.2	89.99	-796.5	2,045.9	699.0	590.6	108.39	6.449		
9,000.0	6,942.2	9,056.7	6,942.1	56.5	57.6	89.99	-796.5	2,145.9	699.0	585.8	113.22	6.174		
9,100.0	6,943.9	9,156.7	6,943.8	58.9	60.0	89.99	-796.5	2,245.8	699.1	581.0	118.06	5.921		
9,200.0	6,945.7	9,256.7	6,945.6	61.4	62.4	89.99	-796.5	2,345.8	699.1	576.1	122.91	5.687		
9,300.0	6,947.4	9,356.7	6,947.3	63.8	64.8	89.99	-796.5	2,445.8	699.1	571.3	127.77	5.471		
9,400.0	6,949.2	9,456.7	6,949.1	66.2	67.2	89.99	-796.5	2,545.8	699.1	566.4	132.64	5.271		
9,500.0	6,950.9	9,556.7	6,950.8	68.7	69.6	89.99	-796.5	2,645.8	699.1	561.6	137.51	5.084		
9,600.0	6,952.7	9,656.7	6,952.6	71.1	72.0	89.99	-796.5	2,745.8	699.1	556.7	142.38	4.910		
9,700.0	6,954.4	9,756.7	6,954.3	73.5	74.4	89.99	-796.5	2,845.8	699.1	551.8	147.26	4.747		
9,800.0	6,956.2	9,856.7	6,956.1	76.0	76.8	89.99	-796.5	2,945.7	699.1	547.0	152.15	4.595		
9,900.0	6,957.9	9,956.7	6,957.8	78.4	79.3	89.99	-796.5	3,045.7	699.1	542.1	157.04	4.452		
10,000.0	6,959.7	10,056.7	6,959.6	80.9	81.7	89.99	-796.5	3,145.7	699.1	537.2	161.93	4.317		
10,100.0	6,961.4	10,156.7	6,961.3	83.3	84.1	89.99	-796.5	3,245.7	699.1	532.3	166.83	4.191		
10,200.0	6,963.1	10,256.7	6,963.0	85.8	86.5	89.99	-796.5	3,345.7	699.1	527.4	171.73	4.071		
10,300.0	6,964.9	10,356.7	6,964.8	88.2	89.0	89.99	-796.5	3,445.7	699.1	522.5	176.63	3.958		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2G-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		
10,400.0	6,966.6	10,456.7	6,966.5	90.7	91.4	89.99	-796.6	3,545.6	699.2	517.6	181.53	3.851		
10,500.0	6,968.4	10,556.7	6,968.3	93.1	93.9	89.99	-796.6	3,645.6	699.2	512.7	186.44	3.750		
10,600.0	6,970.1	10,656.7	6,970.0	95.6	96.3	89.99	-796.6	3,745.6	699.2	507.8	191.35	3.654		
10,700.0	6,971.9	10,756.7	6,971.8	98.0	98.7	89.99	-796.6	3,845.6	699.2	502.9	196.26	3.563		
10,800.0	6,973.6	10,856.7	6,973.5	100.5	101.2	89.99	-796.6	3,945.6	699.2	498.0	201.17	3.476		
10,900.0	6,975.4	10,956.7	6,975.3	103.0	103.6	89.99	-796.6	4,045.6	699.2	493.1	206.08	3.393		
11,000.0	6,977.1	11,056.7	6,977.0	105.4	106.1	89.99	-796.6	4,145.6	699.2	488.2	211.00	3.314		
11,100.0	6,978.9	11,156.7	6,978.8	107.9	108.5	89.99	-796.6	4,245.5	699.2	483.3	215.92	3.238		
11,200.0	6,980.6	11,256.7	6,980.5	110.3	111.0	89.99	-796.6	4,345.5	699.2	478.4	220.83	3.166		
11,300.0	6,982.3	11,356.7	6,982.2	112.8	113.4	89.99	-796.6	4,445.5	699.2	473.5	225.75	3.097		
11,400.0	6,984.1	11,456.7	6,984.0	115.2	115.9	89.99	-796.6	4,545.5	699.2	468.6	230.67	3.031		
11,500.0	6,985.8	11,556.7	6,985.7	117.7	118.3	89.99	-796.6	4,645.5	699.2	463.6	235.60	2.968		
11,600.0	6,987.6	11,656.7	6,987.5	120.2	120.8	89.99	-796.6	4,745.5	699.2	458.7	240.52	2.907		
11,700.0	6,989.3	11,756.7	6,989.2	122.6	123.2	89.99	-796.6	4,845.4	699.2	453.8	245.44	2.849		
11,800.0	6,991.1	11,856.7	6,991.0	125.1	125.7	89.99	-796.6	4,945.4	699.3	448.9	250.37	2.793		
11,900.0	6,992.8	11,956.7	6,992.7	127.6	128.1	89.99	-796.6	5,045.4	699.3	444.0	255.29	2.739		
12,000.0	6,994.6	12,056.7	6,994.5	130.0	130.6	89.99	-796.6	5,145.4	699.3	439.1	260.22	2.687		
12,100.0	6,996.3	12,156.7	6,996.2	132.5	133.1	89.99	-796.6	5,245.4	699.3	434.1	265.15	2.637		
12,200.0	6,998.1	12,256.7	6,997.9	134.9	135.5	89.99	-796.6	5,345.4	699.3	429.2	270.08	2.589		
12,300.0	6,999.8	12,356.7	6,999.7	137.4	138.0	89.99	-796.6	5,445.4	699.3	424.3	275.01	2.543		
12,400.0	7,001.5	12,456.7	7,001.4	139.9	140.4	89.99	-796.7	5,545.3	699.3	419.4	279.94	2.498		
12,500.0	7,003.3	12,556.7	7,003.2	142.3	142.9	89.99	-796.7	5,645.3	699.3	414.4	284.87	2.455		
12,600.0	7,005.0	12,656.7	7,004.9	144.8	145.3	89.99	-796.7	5,745.3	699.3	409.5	289.80	2.413		
12,700.0	7,006.8	12,756.7	7,006.7	147.3	147.8	89.99	-796.7	5,845.3	699.3	404.6	294.73	2.373		
12,800.0	7,008.5	12,856.7	7,008.4	149.7	150.3	89.99	-796.7	5,945.3	699.3	399.7	299.66	2.334		
12,900.0	7,010.3	12,956.7	7,010.2	152.2	152.7	89.99	-796.7	6,045.3	699.3	394.7	304.59	2.296		
13,000.0	7,012.0	13,056.7	7,011.9	154.7	155.2	89.99	-796.7	6,145.3	699.3	389.8	309.53	2.259		
13,100.0	7,013.8	13,156.7	7,013.7	157.1	157.6	89.99	-796.7	6,245.2	699.4	384.9	314.46	2.224		
13,200.0	7,015.5	13,256.7	7,015.4	159.6	160.1	89.99	-796.7	6,345.2	699.4	380.0	319.39	2.190		
13,300.0	7,017.2	13,356.7	7,017.1	162.1	162.6	89.99	-796.7	6,445.2	699.4	375.0	324.33	2.156		
13,400.0	7,019.0	13,456.7	7,018.9	164.5	165.0	89.99	-796.7	6,545.2	699.4	370.1	329.26	2.124		
13,500.0	7,020.7	13,556.7	7,020.6	167.0	167.5	89.99	-796.7	6,645.2	699.4	365.2	334.20	2.093		
13,600.0	7,022.5	13,656.7	7,022.4	169.5	170.0	89.99	-796.7	6,745.2	699.4	360.3	339.13	2.062		
13,700.0	7,024.2	13,756.7	7,024.1	171.9	172.4	89.99	-796.7	6,845.1	699.4	355.3	344.07	2.033		
13,800.0	7,026.0	13,856.7	7,025.9	174.4	174.9	89.99	-796.7	6,945.1	699.4	350.4	349.00	2.004		
13,900.0	7,027.7	13,956.7	7,027.6	176.9	177.4	89.99	-796.7	7,045.1	699.4	345.5	353.94	1.976		
14,000.0	7,029.5	14,056.7	7,029.4	179.3	179.8	89.99	-796.7	7,145.1	699.4	340.5	358.88	1.949		
14,030.7	7,030.0	14,087.3	7,029.9	180.1	180.6	89.99	-796.7	7,175.7	699.4	339.0	360.39	1.941 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2H-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	-32.8	0.0	32.8					
100.0	100.0	100.0	100.0	0.2	0.2	180.00	-32.8	0.0	32.8	32.5	0.30	107.959		
200.0	200.0	200.0	200.0	0.3	0.3	180.00	-32.8	0.0	32.8	32.1	0.65	50.227 CC, ES		
300.0	300.0	299.4	299.4	0.5	0.5	-179.69	-33.6	-0.2	33.6	32.6	1.00	33.577		
400.0	400.0	398.8	398.8	0.7	0.7	-178.85	-36.2	-0.7	36.2	34.8	1.35	26.712		
500.0	500.0	498.1	497.9	0.9	0.9	-66.22	-40.4	-1.6	40.1	38.4	1.70	23.613		
600.0	600.0	597.2	596.9	1.0	1.1	-67.74	-46.2	-2.9	45.0	43.0	2.05	21.957		
700.0	699.9	696.2	695.6	1.2	1.3	-70.31	-53.8	-4.5	51.0	48.6	2.41	21.173		
800.0	799.7	795.0	793.9	1.4	1.5	-73.43	-63.0	-6.5	58.2	55.5	2.78	20.925		
900.0	899.4	893.6	891.9	1.6	1.8	-76.75	-73.8	-8.8	66.8	63.6	3.18	21.017		
1,000.0	998.9	991.9	989.3	1.8	2.0	-80.02	-86.2	-11.5	76.8	73.2	3.60	21.319		
1,100.0	1,098.3	1,089.8	1,086.3	2.1	2.3	-83.03	-100.2	-14.5	88.3	84.2	4.05	21.781		
1,200.0	1,197.6	1,187.5	1,182.6	2.3	2.6	-85.06	-115.8	-17.9	101.4	96.9	4.52	22.432		
1,300.0	1,297.0	1,284.8	1,278.3	2.6	3.0	-86.18	-132.9	-21.6	116.1	111.1	5.00	23.215		
1,400.0	1,396.3	1,381.7	1,373.4	2.8	3.3	-86.66	-151.5	-25.6	132.2	126.7	5.49	24.091		
1,500.0	1,495.7	1,478.2	1,467.6	3.1	3.7	-86.70	-171.6	-29.9	149.7	143.8	5.98	25.037		
1,600.0	1,595.0	1,574.1	1,560.9	3.3	4.1	-86.44	-193.1	-34.5	168.7	162.2	6.48	26.041		
1,700.0	1,694.4	1,669.4	1,653.4	3.6	4.5	-85.97	-216.0	-39.5	189.0	182.0	6.98	27.094		
1,800.0	1,793.7	1,766.0	1,746.7	3.8	5.0	-85.40	-240.4	-44.7	210.5	203.0	7.48	28.154		
1,900.0	1,893.1	1,863.7	1,841.0	4.1	5.4	-84.92	-265.2	-50.1	232.1	224.1	7.98	29.082		
2,000.0	1,992.4	1,961.3	1,935.3	4.4	5.9	-84.51	-290.0	-55.4	253.7	245.2	8.49	29.896		
2,100.0	2,091.8	2,058.9	2,029.5	4.6	6.4	-84.18	-314.8	-60.8	275.3	266.3	8.99	30.617		
2,200.0	2,191.1	2,156.5	2,123.8	4.9	6.8	-83.89	-339.6	-66.1	296.9	287.4	9.50	31.258		
2,300.0	2,290.5	2,254.2	2,218.1	5.1	7.3	-83.64	-364.4	-71.5	318.5	308.5	10.01	31.832		
2,400.0	2,389.8	2,351.8	2,312.3	5.4	7.8	-83.42	-389.1	-76.8	340.2	329.7	10.52	32.349		
2,500.0	2,489.2	2,449.4	2,406.6	5.7	8.2	-83.22	-413.9	-82.1	361.8	350.8	11.03	32.817		
2,600.0	2,588.5	2,547.0	2,500.9	5.9	8.7	-83.05	-438.7	-87.5	383.5	371.9	11.53	33.242		
2,700.0	2,687.8	2,644.7	2,595.2	6.2	9.2	-82.90	-463.5	-92.8	405.1	393.0	12.05	33.631		
2,800.0	2,787.2	2,742.3	2,689.4	6.5	9.6	-82.80	-488.3	-98.2	426.7	414.2	12.56	33.980		
2,900.0	2,886.7	2,839.8	2,783.6	6.7	10.1	-82.86	-513.1	-103.5	448.6	435.6	13.04	34.405		
3,000.0	2,986.6	2,937.1	2,877.5	6.9	10.6	-82.53	-537.8	-108.8	471.0	457.6	13.45	35.032		
3,100.0	3,086.5	3,034.0	2,971.1	7.0	11.0	-81.89	-562.4	-114.1	494.0	480.2	13.78	35.859		
3,200.0	3,186.5	3,130.6	3,064.4	7.1	11.5	166.74	-586.9	-119.4	517.4	501.2	16.25	31.852		
3,300.0	3,286.5	3,227.1	3,157.6	7.3	12.0	167.91	-611.4	-124.7	541.2	524.2	16.94	31.953		
3,400.0	3,386.5	3,323.7	3,250.9	7.4	12.4	168.99	-636.0	-130.0	565.1	547.5	17.62	32.064		
3,500.0	3,486.5	3,420.3	3,344.1	7.5	12.9	169.98	-660.5	-135.3	589.2	570.9	18.31	32.181		
3,600.0	3,586.5	3,516.8	3,437.4	7.7	13.4	170.89	-685.0	-140.6	613.4	594.4	18.99	32.302		
3,700.0	3,686.5	3,613.4	3,530.6	7.8	13.8	171.74	-709.5	-145.8	637.8	618.1	19.67	32.427		
3,800.0	3,786.5	3,710.0	3,623.9	8.0	14.3	172.52	-734.0	-151.1	662.3	641.9	20.35	32.553		
3,900.0	3,886.5	3,806.5	3,717.1	8.1	14.8	173.24	-758.6	-156.4	686.9	665.9	21.02	32.680		
4,000.0	3,986.5	3,903.1	3,810.4	8.3	15.2	173.92	-783.1	-161.7	711.6	689.9	21.69	32.807		
4,100.0	4,086.5	3,999.7	3,903.6	8.4	15.7	174.55	-807.6	-167.0	736.4	714.0	22.36	32.933		
4,200.0	4,186.5	4,096.2	3,996.9	8.6	16.2	175.14	-832.1	-172.3	761.3	738.3	23.03	33.058		
4,300.0	4,286.5	4,192.8	4,090.1	8.7	16.6	175.69	-856.7	-177.5	786.2	762.5	23.70	33.181		
4,400.0	4,386.5	4,289.4	4,183.4	8.9	17.1	176.21	-881.2	-182.8	811.2	786.9	24.36	33.302		
4,500.0	4,486.5	4,385.9	4,276.6	9.0	17.6	176.70	-905.7	-188.1	836.3	811.3	25.02	33.421		
4,600.0	4,586.5	4,482.5	4,369.9	9.2	18.0	177.16	-930.2	-193.4	861.4	835.7	25.69	33.538		
4,700.0	4,686.5	4,579.1	4,463.1	9.3	18.5	177.59	-954.7	-198.7	886.6	860.3	26.35	33.652		
4,800.0	4,786.5	4,675.6	4,556.4	9.5	19.0	178.00	-979.3	-204.0	911.8	884.8	27.01	33.763		
4,900.0	4,886.5	4,772.2	4,649.7	9.6	19.4	178.39	-1,003.8	-209.2	937.1	909.4	27.66	33.873		
5,000.0	4,986.5	4,868.8	4,742.9	9.8	19.9	178.76	-1,028.3	-214.5	962.4	934.1	28.32	33.979		
5,100.0	5,086.5	4,969.7	4,840.4	9.9	20.4	179.12	-1,053.9	-220.1	987.7	958.7	29.00	34.060		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2H-18H - Hz - Plan #1													Offset Site Error: 0.0 ft	
Survey Program: O-MWD													Offset Well Error: 0.0 ft	
Reference		Offset		Semi Major Axis			Distance						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	5,186.5	5,117.3	4,983.9	10.1	21.0	179.56	-1,087.1	-227.2	1,010.2	980.4	29.80	33.897		
5,300.0	5,286.5	5,268.1	5,132.3	10.2	21.5	179.90	-1,113.6	-232.9	1,027.7	997.3	30.49	33.710		
5,400.0	5,386.5	5,421.4	5,284.4	10.4	21.9	-179.87	-1,132.6	-237.0	1,040.2	1,009.1	31.05	33.496		
5,500.0	5,486.5	5,576.4	5,438.9	10.6	22.1	-179.74	-1,143.8	-239.4	1,047.4	1,015.9	31.49	33.262		
5,600.0	5,586.5	5,724.0	5,586.5	10.7	22.3	-179.71	-1,146.8	-240.1	1,049.3	1,017.5	31.79	33.005		
5,700.0	5,686.5	5,824.0	5,686.5	10.9	22.4	-179.71	-1,146.8	-240.1	1,049.3	1,017.3	32.04	32.745		
5,800.0	5,786.5	5,924.0	5,786.5	11.0	22.4	-179.71	-1,146.8	-240.1	1,049.3	1,017.0	32.30	32.489		
5,900.0	5,886.5	6,024.0	5,886.5	11.2	22.5	-179.71	-1,146.8	-240.1	1,049.3	1,016.7	32.55	32.235		
6,000.0	5,986.5	6,124.0	5,986.5	11.4	22.6	-179.71	-1,146.8	-240.1	1,049.3	1,016.5	32.81	31.984		
6,100.0	6,086.5	6,224.0	6,086.5	11.5	22.7	-179.71	-1,146.8	-240.1	1,049.3	1,016.2	33.06	31.736		
6,200.0	6,186.5	6,324.0	6,186.5	11.7	22.8	-179.71	-1,146.8	-240.1	1,049.3	1,016.0	33.32	31.490		
6,300.0	6,286.3	6,423.8	6,286.3	11.8	22.8	90.59	-1,146.8	-240.1	1,049.3	1,025.9	23.47	44.705		
6,400.0	6,384.3	6,521.8	6,384.3	11.8	22.9	91.60	-1,146.8	-240.1	1,049.7	1,026.2	23.55	44.579		
6,500.0	6,478.7	6,622.4	6,484.7	11.8	23.0	93.11	-1,146.8	-236.4	1,051.0	1,027.5	23.51	44.698		
6,600.0	6,567.6	6,729.0	6,589.7	11.8	23.0	94.66	-1,146.8	-217.8	1,053.1	1,029.6	23.47	44.864		
6,700.0	6,649.3	6,841.2	6,695.8	11.8	23.0	96.15	-1,146.8	-181.7	1,055.9	1,032.3	23.54	44.851		
6,800.0	6,722.1	6,959.3	6,799.9	12.0	23.0	97.56	-1,146.8	-126.3	1,059.1	1,035.2	23.87	44.371		
6,900.0	6,784.8	7,083.6	6,898.1	12.5	23.1	98.84	-1,146.8	-50.4	1,062.5	1,037.9	24.65	43.112		
7,000.0	6,836.0	7,213.9	6,985.4	13.4	23.2	99.94	-1,146.8	46.2	1,065.8	1,039.7	26.05	40.913		
7,100.0	6,874.7	7,349.7	7,056.1	14.5	23.6	100.81	-1,146.8	161.8	1,068.5	1,040.3	28.26	37.813		
7,200.0	6,900.3	7,489.7	7,104.9	16.0	24.2	101.38	-1,146.8	292.8	1,070.4	1,039.1	31.32	34.174		
7,300.0	6,912.2	7,632.3	7,127.5	17.8	25.3	101.62	-1,146.8	433.3	1,071.2	1,036.1	35.10	30.517		
7,400.0	6,914.3	7,741.4	7,130.1	19.7	26.5	101.62	-1,146.8	542.4	1,071.2	1,032.3	38.94	27.508		
7,500.0	6,916.0	7,841.4	7,131.8	21.7	27.7	101.62	-1,146.7	642.4	1,071.2	1,028.3	42.90	24.972		
7,600.0	6,917.8	7,941.4	7,133.6	23.8	29.2	101.62	-1,146.7	742.4	1,071.2	1,024.2	47.02	22.782		
7,700.0	6,919.5	8,041.4	7,135.3	26.0	30.8	101.62	-1,146.7	842.4	1,071.2	1,020.0	51.27	20.894		
7,800.0	6,921.3	8,141.4	7,137.0	28.2	32.6	101.62	-1,146.7	942.4	1,071.2	1,015.6	55.62	19.260		
7,900.0	6,923.0	8,241.4	7,138.8	30.5	34.5	101.62	-1,146.7	1,042.3	1,071.2	1,011.2	60.04	17.841		
8,000.0	6,924.8	8,341.4	7,140.5	32.8	36.5	101.62	-1,146.7	1,142.3	1,071.2	1,006.7	64.53	16.601		
8,100.0	6,926.5	8,441.4	7,142.3	35.1	38.5	101.62	-1,146.7	1,242.3	1,071.2	1,002.2	69.06	15.511		
8,200.0	6,928.2	8,541.4	7,144.0	37.4	40.6	101.62	-1,146.7	1,342.3	1,071.2	997.6	73.64	14.547		
8,300.0	6,930.0	8,641.4	7,145.8	39.8	42.8	101.62	-1,146.7	1,442.3	1,071.2	993.0	78.24	13.691		
8,400.0	6,931.7	8,741.4	7,147.5	42.1	45.0	101.62	-1,146.7	1,542.3	1,071.2	988.3	82.88	12.925		
8,500.0	6,933.5	8,841.4	7,149.3	44.5	47.2	101.62	-1,146.7	1,642.3	1,071.2	983.7	87.54	12.237		
8,600.0	6,935.2	8,941.4	7,151.0	46.9	49.4	101.62	-1,146.7	1,742.2	1,071.2	979.0	92.21	11.617		
8,700.0	6,937.0	9,041.4	7,152.8	49.3	51.7	101.62	-1,146.7	1,842.2	1,071.2	974.3	96.91	11.054		
8,800.0	6,938.7	9,141.4	7,154.5	51.7	54.0	101.62	-1,146.7	1,942.2	1,071.2	969.6	101.61	10.542		
8,900.0	6,940.5	9,241.4	7,156.2	54.1	56.3	101.62	-1,146.7	2,042.2	1,071.2	964.9	106.33	10.074		
9,000.0	6,942.2	9,341.4	7,158.0	56.5	58.6	101.62	-1,146.7	2,142.2	1,071.2	960.1	111.07	9.645		
9,100.0	6,943.9	9,441.4	7,159.7	58.9	61.0	101.62	-1,146.7	2,242.2	1,071.2	955.4	115.81	9.250		
9,200.0	6,945.7	9,541.4	7,161.5	61.4	63.3	101.62	-1,146.7	2,342.1	1,071.2	950.6	120.56	8.885		
9,300.0	6,947.4	9,641.4	7,163.2	63.8	65.7	101.62	-1,146.7	2,442.1	1,071.2	945.9	125.31	8.548		
9,400.0	6,949.2	9,741.4	7,165.0	66.2	68.1	101.62	-1,146.7	2,542.1	1,071.2	941.1	130.08	8.235		
9,500.0	6,950.9	9,841.4	7,166.7	68.7	70.4	101.62	-1,146.7	2,642.1	1,071.2	936.3	134.85	7.944		
9,600.0	6,952.7	9,941.4	7,168.5	71.1	72.8	101.62	-1,146.7	2,742.1	1,071.2	931.6	139.62	7.672		
9,700.0	6,954.4	10,041.4	7,170.2	73.5	75.2	101.62	-1,146.6	2,842.1	1,071.2	926.8	144.40	7.418		
9,800.0	6,956.2	10,141.4	7,171.9	76.0	77.6	101.62	-1,146.6	2,942.1	1,071.2	922.0	149.19	7.180		
9,900.0	6,957.9	10,241.4	7,173.7	78.4	80.0	101.62	-1,146.6	3,042.0	1,071.2	917.2	153.97	6.957		
10,000.0	6,959.7	10,341.4	7,175.4	80.9	82.4	101.62	-1,146.6	3,142.0	1,071.2	912.4	158.76	6.747		
10,100.0	6,961.4	10,441.4	7,177.2	83.3	84.8	101.62	-1,146.6	3,242.0	1,071.2	907.6	163.56	6.549		
10,200.0	6,963.1	10,541.4	7,178.9	85.8	87.2	101.62	-1,146.6	3,342.0	1,071.2	902.8	168.36	6.363		
10,300.0	6,964.9	10,641.4	7,180.7	88.2	89.6	101.62	-1,146.6	3,442.0	1,071.2	898.0	173.16	6.186		

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

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S18-T3N-R68W (Billings) - Billings 2H-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
10,400.0	6,966.6	10,741.4	7,182.4	90.7	92.0	101.62	-1,146.6	3,542.0	1,071.2	893.2	177.96	6.019	
10,500.0	6,968.4	10,841.4	7,184.2	93.1	94.5	101.62	-1,146.6	3,641.9	1,071.2	888.4	182.77	5.861	
10,600.0	6,970.1	10,941.4	7,185.9	95.6	96.9	101.62	-1,146.6	3,741.9	1,071.2	883.6	187.57	5.711	
10,700.0	6,971.9	11,041.4	7,187.7	98.0	99.3	101.62	-1,146.6	3,841.9	1,071.2	878.8	192.38	5.568	
10,800.0	6,973.6	11,141.4	7,189.4	100.5	101.7	101.62	-1,146.6	3,941.9	1,071.2	874.0	197.19	5.432	
10,900.0	6,975.4	11,241.4	7,191.1	103.0	104.2	101.62	-1,146.6	4,041.9	1,071.2	869.2	202.01	5.303	
11,000.0	6,977.1	11,341.4	7,192.9	105.4	106.6	101.62	-1,146.6	4,141.9	1,071.2	864.3	206.82	5.179	
11,100.0	6,978.9	11,441.4	7,194.6	107.9	109.0	101.62	-1,146.6	4,241.9	1,071.2	859.5	211.64	5.061	
11,200.0	6,980.6	11,541.4	7,196.4	110.3	111.5	101.62	-1,146.6	4,341.8	1,071.2	854.7	216.46	4.949	
11,300.0	6,982.3	11,641.4	7,198.1	112.8	113.9	101.62	-1,146.6	4,441.8	1,071.2	849.9	221.27	4.841	
11,400.0	6,984.1	11,741.4	7,199.9	115.2	116.4	101.62	-1,146.6	4,541.8	1,071.2	845.1	226.09	4.738	
11,500.0	6,985.8	11,841.4	7,201.6	117.7	118.8	101.62	-1,146.6	4,641.8	1,071.2	840.2	230.92	4.639	
11,600.0	6,987.6	11,941.4	7,203.4	120.2	121.2	101.62	-1,146.6	4,741.8	1,071.2	835.4	235.74	4.544	
11,700.0	6,989.3	12,041.4	7,205.1	122.6	123.7	101.62	-1,146.6	4,841.8	1,071.2	830.6	240.56	4.453	
11,800.0	6,991.1	12,141.4	7,206.9	125.1	126.1	101.62	-1,146.6	4,941.7	1,071.2	825.8	245.38	4.365	
11,900.0	6,992.8	12,241.4	7,208.6	127.6	128.6	101.62	-1,146.5	5,041.7	1,071.1	820.9	250.21	4.281	
12,000.0	6,994.6	12,341.4	7,210.3	130.0	131.0	101.62	-1,146.5	5,141.7	1,071.1	816.1	255.03	4.200	
12,100.0	6,996.3	12,441.4	7,212.1	132.5	133.5	101.62	-1,146.5	5,241.7	1,071.1	811.3	259.86	4.122	
12,200.0	6,998.1	12,541.4	7,213.8	134.9	135.9	101.62	-1,146.5	5,341.7	1,071.1	806.5	264.69	4.047	
12,300.0	6,999.8	12,641.4	7,215.6	137.4	138.4	101.62	-1,146.5	5,441.7	1,071.1	801.6	269.52	3.974	
12,400.0	7,001.5	12,741.4	7,217.3	139.9	140.8	101.62	-1,146.5	5,541.7	1,071.1	796.8	274.35	3.904	
12,500.0	7,003.3	12,841.4	7,219.1	142.3	143.3	101.62	-1,146.5	5,641.6	1,071.1	792.0	279.17	3.837	
12,600.0	7,005.0	12,941.4	7,220.8	144.8	145.7	101.62	-1,146.5	5,741.6	1,071.1	787.1	284.00	3.772	
12,700.0	7,006.8	13,041.4	7,222.6	147.3	148.2	101.62	-1,146.5	5,841.6	1,071.1	782.3	288.84	3.708	
12,800.0	7,008.5	13,141.4	7,224.3	149.7	150.6	101.62	-1,146.5	5,941.6	1,071.1	777.5	293.67	3.647	
12,900.0	7,010.3	13,241.4	7,226.1	152.2	153.1	101.62	-1,146.5	6,041.6	1,071.1	772.6	298.50	3.588	
13,000.0	7,012.0	13,341.4	7,227.8	154.7	155.5	101.62	-1,146.5	6,141.6	1,071.1	767.8	303.33	3.531	
13,100.0	7,013.8	13,441.4	7,229.5	157.1	158.0	101.62	-1,146.5	6,241.6	1,071.1	763.0	308.16	3.476	
13,200.0	7,015.5	13,541.4	7,231.3	159.6	160.5	101.62	-1,146.5	6,341.5	1,071.1	758.1	312.99	3.422	
13,300.0	7,017.2	13,641.4	7,233.0	162.1	162.9	101.62	-1,146.5	6,441.5	1,071.1	753.3	317.83	3.370	
13,400.0	7,019.0	13,741.4	7,234.8	164.5	165.4	101.62	-1,146.5	6,541.5	1,071.1	748.5	322.66	3.320	
13,500.0	7,020.7	13,841.4	7,236.5	167.0	167.8	101.62	-1,146.5	6,641.5	1,071.1	743.6	327.50	3.271	
13,600.0	7,022.5	13,941.4	7,238.3	169.5	170.3	101.62	-1,146.5	6,741.5	1,071.1	738.8	332.33	3.223	
13,700.0	7,024.2	14,041.4	7,240.0	171.9	172.7	101.62	-1,146.5	6,841.5	1,071.1	733.9	337.17	3.177	
13,800.0	7,026.0	14,141.4	7,241.8	174.4	175.2	101.62	-1,146.5	6,941.4	1,071.1	729.1	342.00	3.132	
13,900.0	7,027.7	14,241.4	7,243.5	176.9	177.7	101.62	-1,146.5	7,041.4	1,071.1	724.3	346.84	3.088	
14,000.0	7,029.5	14,341.4	7,245.2	179.3	180.1	101.62	-1,146.5	7,141.4	1,071.1	719.4	351.67	3.046	
14,030.7	7,030.0	14,372.1	7,245.8	180.1	180.9	101.62	-1,146.4	7,172.1	1,071.1	718.0	353.15	3.033 SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	EnCana Oil & Gas (USA) Inc	<b>Local Co-ordinate Reference:</b>	Well Billings 2E-18H
<b>Project:</b>	DJ Wattenberg	<b>TVD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Reference Site:</b>	S18-T3N-R68W (Billings)	<b>MD Reference:</b>	WELL @ 5210.0ft (Original Well Elev)
<b>Site Error:</b>	0.0ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Billings 2E-18H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.0ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	HZ	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 5210.0ft (Original Well Elev)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: Billings 2E-18H  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.29°

