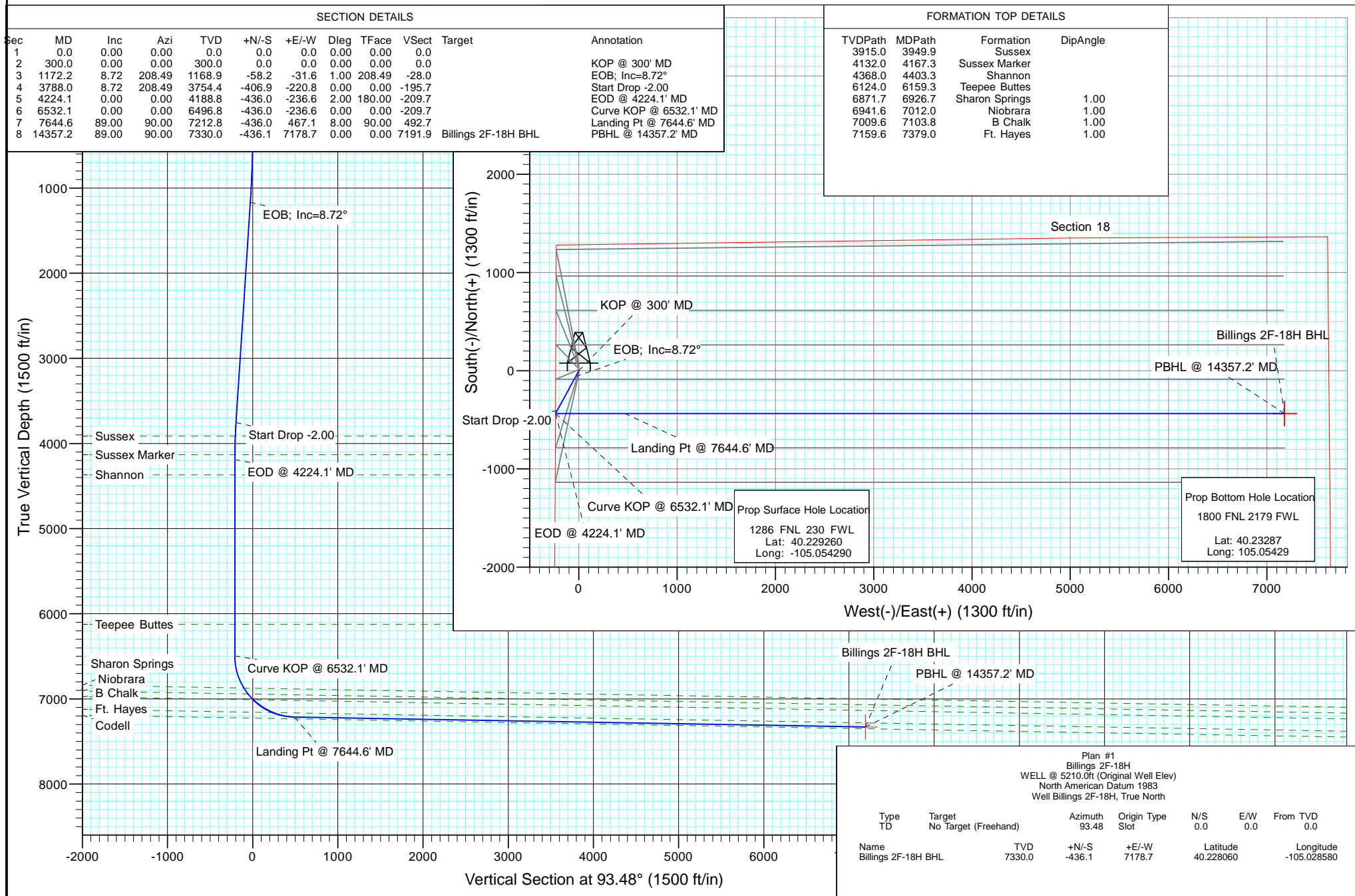




Project: DJ Wattenberg
Site: S18-T3N-R68W (Billings)
Well: Billings 2F-18H
Wellbore: HZ
Design: Plan #1



Cathedral Energy Services

Planning Report

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

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

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

Well	Billings 2F-18H					
Well Position	+N/-S	0.0 ft	Northing:	1,326,676.81 ft	Latitude:	40.229260
	+E/-W	0.0 ft	Easting:	3,124,453.21 ft	Longitude:	-105.054290
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,197.0 ft

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

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	93.48

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,172.2	8.72	208.49	1,168.9	-58.2	-31.6	1.00	1.00	0.00	208.49	
3,788.0	8.72	208.49	3,754.4	-406.9	-220.8	0.00	0.00	0.00	0.00	
4,224.1	0.00	0.00	4,188.8	-436.0	-236.6	2.00	-2.00	0.00	180.00	
6,532.1	0.00	0.00	6,496.8	-436.0	-236.6	0.00	0.00	0.00	0.00	
7,644.6	89.00	90.00	7,212.8	-436.0	467.1	8.00	8.00	0.00	90.00	
14,357.2	89.00	90.00	7,330.0	-436.1	7,178.7	0.00	0.00	0.00	0.00	Billings 2F-18H BHL

Cathedral Energy Services

Planning Report

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

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	KOP @ 300' MD
400.0	1.00	208.49	400.0	-0.8	-0.4	-0.4	1.00	1.00	
500.0	2.00	208.49	500.0	-3.1	-1.7	-1.5	1.00	1.00	
600.0	3.00	208.49	599.9	-6.9	-3.7	-3.3	1.00	1.00	
700.0	4.00	208.49	699.7	-12.3	-6.7	-5.9	1.00	1.00	
800.0	5.00	208.49	799.4	-19.2	-10.4	-9.2	1.00	1.00	
900.0	6.00	208.49	898.9	-27.6	-15.0	-13.3	1.00	1.00	
1,000.0	7.00	208.49	998.3	-37.5	-20.4	-18.1	1.00	1.00	
1,100.0	8.00	208.49	1,097.4	-49.0	-26.6	-23.6	1.00	1.00	
1,172.2	8.72	208.49	1,168.9	-58.2	-31.6	-28.0	1.00	1.00	EOB; Inc=8.72°
1,200.0	8.72	208.49	1,196.3	-61.9	-33.6	-29.8	0.00	0.00	
1,300.0	8.72	208.49	1,295.2	-75.3	-40.8	-36.2	0.00	0.00	
1,400.0	8.72	208.49	1,394.0	-88.6	-48.1	-42.6	0.00	0.00	
1,500.0	8.72	208.49	1,492.8	-101.9	-55.3	-49.0	0.00	0.00	
1,600.0	8.72	208.49	1,591.7	-115.3	-62.5	-55.4	0.00	0.00	
1,700.0	8.72	208.49	1,690.5	-128.6	-69.8	-61.9	0.00	0.00	
1,800.0	8.72	208.49	1,789.4	-141.9	-77.0	-68.3	0.00	0.00	
1,900.0	8.72	208.49	1,888.2	-155.2	-84.2	-74.7	0.00	0.00	
2,000.0	8.72	208.49	1,987.1	-168.6	-91.5	-81.1	0.00	0.00	
2,100.0	8.72	208.49	2,085.9	-181.9	-98.7	-87.5	0.00	0.00	
2,200.0	8.72	208.49	2,184.7	-195.2	-105.9	-93.9	0.00	0.00	
2,300.0	8.72	208.49	2,283.6	-208.6	-113.2	-100.3	0.00	0.00	
2,400.0	8.72	208.49	2,382.4	-221.9	-120.4	-106.7	0.00	0.00	
2,500.0	8.72	208.49	2,481.3	-235.2	-127.6	-113.2	0.00	0.00	
2,600.0	8.72	208.49	2,580.1	-248.5	-134.9	-119.6	0.00	0.00	
2,700.0	8.72	208.49	2,679.0	-261.9	-142.1	-126.0	0.00	0.00	
2,800.0	8.72	208.49	2,777.8	-275.2	-149.4	-132.4	0.00	0.00	
2,900.0	8.72	208.49	2,876.7	-288.5	-156.6	-138.8	0.00	0.00	
3,000.0	8.72	208.49	2,975.5	-301.9	-163.8	-145.2	0.00	0.00	
3,100.0	8.72	208.49	3,074.3	-315.2	-171.1	-151.6	0.00	0.00	
3,200.0	8.72	208.49	3,173.2	-328.5	-178.3	-158.0	0.00	0.00	
3,300.0	8.72	208.49	3,272.0	-341.8	-185.5	-164.4	0.00	0.00	
3,400.0	8.72	208.49	3,370.9	-355.2	-192.8	-170.9	0.00	0.00	
3,500.0	8.72	208.49	3,469.7	-368.5	-200.0	-177.3	0.00	0.00	
3,600.0	8.72	208.49	3,568.6	-381.8	-207.2	-183.7	0.00	0.00	
3,700.0	8.72	208.49	3,667.4	-395.1	-214.5	-190.1	0.00	0.00	
3,788.0	8.72	208.49	3,754.4	-406.9	-220.8	-195.7	0.00	0.00	Start Drop -2.00
3,800.0	8.48	208.49	3,766.2	-408.5	-221.7	-196.5	2.00	-2.00	
3,900.0	6.48	208.49	3,865.4	-419.9	-227.9	-202.0	2.00	-2.00	
3,949.9	5.49	208.49	3,915.0	-424.5	-230.4	-204.2	2.00	-2.00	Sussex
4,000.0	4.48	208.49	3,964.9	-428.3	-232.4	-206.0	2.00	-2.00	
4,100.0	2.48	208.49	4,064.7	-433.6	-235.3	-208.6	2.00	-2.00	
4,167.3	1.14	208.49	4,132.0	-435.5	-236.4	-209.5	2.00	-2.00	Sussex Marker
4,200.0	0.48	208.49	4,164.7	-435.9	-236.6	-209.7	2.00	-2.00	
4,224.1	0.00	0.00	4,188.8	-436.0	-236.6	-209.7	2.00	-2.00	EOD @ 4224.1' MD
4,300.0	0.00	0.00	4,264.7	-436.0	-236.6	-209.7	0.00	0.00	
4,400.0	0.00	0.00	4,364.7	-436.0	-236.6	-209.7	0.00	0.00	
4,403.3	0.00	0.00	4,368.0	-436.0	-236.6	-209.7	0.00	0.00	Shannon
4,500.0	0.00	0.00	4,464.7	-436.0	-236.6	-209.7	0.00	0.00	

Cathedral Energy Services

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Company:	EnCana Oil & Gas (USA) Inc	TVD Reference:	WELL @ 5210.0ft (Original Well Elev)
Project:	DJ Wattenberg	MD Reference:	WELL @ 5210.0ft (Original Well Elev)
Site:	S18-T3N-R68W (Billings)	North Reference:	True
Well:	Billings 2F-18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
4,600.0	0.00	0.00	4,564.7	-436.0	-236.6	-209.7	0.00	0.00	
4,700.0	0.00	0.00	4,664.7	-436.0	-236.6	-209.7	0.00	0.00	
4,800.0	0.00	0.00	4,764.7	-436.0	-236.6	-209.7	0.00	0.00	
4,900.0	0.00	0.00	4,864.7	-436.0	-236.6	-209.7	0.00	0.00	
5,000.0	0.00	0.00	4,964.7	-436.0	-236.6	-209.7	0.00	0.00	
5,100.0	0.00	0.00	5,064.7	-436.0	-236.6	-209.7	0.00	0.00	
5,200.0	0.00	0.00	5,164.7	-436.0	-236.6	-209.7	0.00	0.00	
5,300.0	0.00	0.00	5,264.7	-436.0	-236.6	-209.7	0.00	0.00	
5,400.0	0.00	0.00	5,364.7	-436.0	-236.6	-209.7	0.00	0.00	
5,500.0	0.00	0.00	5,464.7	-436.0	-236.6	-209.7	0.00	0.00	
5,600.0	0.00	0.00	5,564.7	-436.0	-236.6	-209.7	0.00	0.00	
5,700.0	0.00	0.00	5,664.7	-436.0	-236.6	-209.7	0.00	0.00	
5,800.0	0.00	0.00	5,764.7	-436.0	-236.6	-209.7	0.00	0.00	
5,900.0	0.00	0.00	5,864.7	-436.0	-236.6	-209.7	0.00	0.00	
6,000.0	0.00	0.00	5,964.7	-436.0	-236.6	-209.7	0.00	0.00	
6,100.0	0.00	0.00	6,064.7	-436.0	-236.6	-209.7	0.00	0.00	
6,159.3	0.00	0.00	6,124.0	-436.0	-236.6	-209.7	0.00	0.00	Teepee Buttes
6,200.0	0.00	0.00	6,164.7	-436.0	-236.6	-209.7	0.00	0.00	
6,300.0	0.00	0.00	6,264.7	-436.0	-236.6	-209.7	0.00	0.00	
6,400.0	0.00	0.00	6,364.7	-436.0	-236.6	-209.7	0.00	0.00	
6,500.0	0.00	0.00	6,464.7	-436.0	-236.6	-209.7	0.00	0.00	
6,532.1	0.00	0.00	6,496.8	-436.0	-236.6	-209.7	0.00	0.00	Curve KOP @ 6532.1' MD
6,600.0	5.44	90.00	6,564.6	-436.0	-233.4	-206.5	8.00	8.00	
6,700.0	13.44	90.00	6,663.2	-436.0	-217.0	-190.2	8.00	8.00	
6,800.0	21.44	90.00	6,758.5	-436.0	-187.1	-160.3	8.00	8.00	
6,900.0	29.44	90.00	6,848.7	-436.0	-144.2	-117.5	8.00	8.00	
6,929.4	31.78	90.00	6,874.0	-436.0	-129.2	-102.5	8.00	8.00	Sharon Springs
7,000.0	37.44	90.00	6,932.1	-436.0	-89.1	-62.5	8.00	8.00	
7,013.8	38.54	90.00	6,943.0	-436.0	-80.6	-54.0	8.00	8.00	Niobrara
7,100.0	45.44	90.00	7,007.0	-436.0	-23.0	3.5	8.00	8.00	
7,104.3	45.78	90.00	7,010.0	-436.0	-19.9	6.5	8.00	8.00	B Chalk
7,200.0	53.44	90.00	7,072.0	-436.0	52.9	79.3	8.00	8.00	
7,300.0	61.44	90.00	7,125.8	-436.0	137.1	163.3	8.00	8.00	
7,369.5	67.00	90.00	7,156.0	-436.0	199.7	225.8	8.00	8.00	Ft. Hayes
7,400.0	69.44	90.00	7,167.3	-436.0	228.0	254.0	8.00	8.00	
7,500.0	77.44	90.00	7,195.8	-436.0	323.8	349.6	8.00	8.00	
7,600.0	85.44	90.00	7,210.7	-436.0	422.6	448.2	8.00	8.00	
7,644.6	89.00	90.00	7,212.8	-436.0	467.1	492.7	8.00	8.00	Landing Pt @ 7644.6' MD
7,700.0	89.00	90.00	7,213.8	-436.0	522.5	548.0	0.00	0.00	
7,800.0	89.00	90.00	7,215.6	-436.0	622.5	647.8	0.00	0.00	
7,900.0	89.00	90.00	7,217.3	-436.0	722.5	747.6	0.00	0.00	
8,000.0	89.00	90.00	7,219.1	-436.0	822.5	847.4	0.00	0.00	
8,100.0	89.00	90.00	7,220.8	-436.0	922.4	947.2	0.00	0.00	
8,200.0	89.00	90.00	7,222.5	-436.0	1,022.4	1,047.0	0.00	0.00	
8,300.0	89.00	90.00	7,224.3	-436.0	1,122.4	1,146.8	0.00	0.00	
8,340.8	89.00	90.00	7,225.0	-436.0	1,163.2	1,187.5	0.00	0.00	Codell
8,400.0	89.00	90.00	7,226.0	-436.0	1,222.4	1,246.6	0.00	0.00	
8,500.0	89.00	90.00	7,227.8	-436.0	1,322.4	1,346.4	0.00	0.00	
8,600.0	89.00	90.00	7,229.5	-436.0	1,422.4	1,446.2	0.00	0.00	
8,700.0	89.00	90.00	7,231.3	-436.0	1,522.4	1,546.0	0.00	0.00	
8,800.0	89.00	90.00	7,233.0	-436.0	1,622.3	1,645.8	0.00	0.00	
8,900.0	89.00	90.00	7,234.8	-436.0	1,722.3	1,745.6	0.00	0.00	

Cathedral Energy Services

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Well:	Billings 2F-18H	Survey Calculation Method:	Minimum Curvature
Wellbore:	HZ		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
9,000.0	89.00	90.00	7,236.5	-436.0	1,822.3	1,845.4	0.00	0.00	
9,100.0	89.00	90.00	7,238.2	-436.0	1,922.3	1,945.2	0.00	0.00	
9,200.0	89.00	90.00	7,240.0	-436.0	2,022.3	2,045.0	0.00	0.00	
9,300.0	89.00	90.00	7,241.7	-436.0	2,122.3	2,144.8	0.00	0.00	
9,400.0	89.00	90.00	7,243.5	-436.0	2,222.2	2,244.6	0.00	0.00	
9,500.0	89.00	90.00	7,245.2	-436.0	2,322.2	2,344.4	0.00	0.00	
9,600.0	89.00	90.00	7,247.0	-436.0	2,422.2	2,444.2	0.00	0.00	
9,700.0	89.00	90.00	7,248.7	-436.0	2,522.2	2,544.0	0.00	0.00	
9,800.0	89.00	90.00	7,250.5	-436.0	2,622.2	2,643.8	0.00	0.00	
9,900.0	89.00	90.00	7,252.2	-436.0	2,722.2	2,743.6	0.00	0.00	
10,000.0	89.00	90.00	7,254.0	-436.0	2,822.2	2,843.4	0.00	0.00	
10,100.0	89.00	90.00	7,255.7	-436.0	2,922.1	2,943.2	0.00	0.00	
10,200.0	89.00	90.00	7,257.4	-436.0	3,022.1	3,043.0	0.00	0.00	
10,300.0	89.00	90.00	7,259.2	-436.0	3,122.1	3,142.8	0.00	0.00	
10,400.0	89.00	90.00	7,260.9	-436.0	3,222.1	3,242.6	0.00	0.00	
10,500.0	89.00	90.00	7,262.7	-436.0	3,322.1	3,342.4	0.00	0.00	
10,600.0	89.00	90.00	7,264.4	-436.0	3,422.1	3,442.2	0.00	0.00	
10,700.0	89.00	90.00	7,266.2	-436.0	3,522.1	3,542.0	0.00	0.00	
10,800.0	89.00	90.00	7,267.9	-436.0	3,622.0	3,641.8	0.00	0.00	
10,900.0	89.00	90.00	7,269.7	-436.1	3,722.0	3,741.6	0.00	0.00	
11,000.0	89.00	90.00	7,271.4	-436.1	3,822.0	3,841.4	0.00	0.00	
11,100.0	89.00	90.00	7,273.2	-436.1	3,922.0	3,941.2	0.00	0.00	
11,200.0	89.00	90.00	7,274.9	-436.1	4,022.0	4,041.0	0.00	0.00	
11,300.0	89.00	90.00	7,276.6	-436.1	4,122.0	4,140.8	0.00	0.00	
11,400.0	89.00	90.00	7,278.4	-436.1	4,221.9	4,240.6	0.00	0.00	
11,500.0	89.00	90.00	7,280.1	-436.1	4,321.9	4,340.4	0.00	0.00	
11,600.0	89.00	90.00	7,281.9	-436.1	4,421.9	4,440.2	0.00	0.00	
11,700.0	89.00	90.00	7,283.6	-436.1	4,521.9	4,540.0	0.00	0.00	
11,800.0	89.00	90.00	7,285.4	-436.1	4,621.9	4,639.8	0.00	0.00	
11,900.0	89.00	90.00	7,287.1	-436.1	4,721.9	4,739.6	0.00	0.00	
12,000.0	89.00	90.00	7,288.9	-436.1	4,821.9	4,839.4	0.00	0.00	
12,100.0	89.00	90.00	7,290.6	-436.1	4,921.8	4,939.2	0.00	0.00	
12,200.0	89.00	90.00	7,292.4	-436.1	5,021.8	5,039.0	0.00	0.00	
12,300.0	89.00	90.00	7,294.1	-436.1	5,121.8	5,138.8	0.00	0.00	
12,400.0	89.00	90.00	7,295.8	-436.1	5,221.8	5,238.6	0.00	0.00	
12,500.0	89.00	90.00	7,297.6	-436.1	5,321.8	5,338.4	0.00	0.00	
12,600.0	89.00	90.00	7,299.3	-436.1	5,421.8	5,438.2	0.00	0.00	
12,700.0	89.00	90.00	7,301.1	-436.1	5,521.7	5,538.0	0.00	0.00	
12,800.0	89.00	90.00	7,302.8	-436.1	5,621.7	5,637.8	0.00	0.00	
12,900.0	89.00	90.00	7,304.6	-436.1	5,721.7	5,737.6	0.00	0.00	
13,000.0	89.00	90.00	7,306.3	-436.1	5,821.7	5,837.4	0.00	0.00	
13,100.0	89.00	90.00	7,308.1	-436.1	5,921.7	5,937.2	0.00	0.00	
13,200.0	89.00	90.00	7,309.8	-436.1	6,021.7	6,037.0	0.00	0.00	
13,300.0	89.00	90.00	7,311.5	-436.1	6,121.7	6,136.8	0.00	0.00	
13,400.0	89.00	90.00	7,313.3	-436.1	6,221.6	6,236.6	0.00	0.00	
13,500.0	89.00	90.00	7,315.0	-436.1	6,321.6	6,336.4	0.00	0.00	
13,600.0	89.00	90.00	7,316.8	-436.1	6,421.6	6,436.2	0.00	0.00	
13,700.0	89.00	90.00	7,318.5	-436.1	6,521.6	6,536.0	0.00	0.00	
13,800.0	89.00	90.00	7,320.3	-436.1	6,621.6	6,635.8	0.00	0.00	
13,900.0	89.00	90.00	7,322.0	-436.1	6,721.6	6,735.6	0.00	0.00	
14,000.0	89.00	90.00	7,323.8	-436.1	6,821.5	6,835.4	0.00	0.00	
14,100.0	89.00	90.00	7,325.5	-436.1	6,921.5	6,935.2	0.00	0.00	

Cathedral Energy Services

Planning Report

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

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Comments / Formations
14,200.0	89.00	90.00	7,327.3	-436.1	7,021.5	7,035.0	0.00	0.00	
14,300.0	89.00	90.00	7,329.0	-436.1	7,121.5	7,134.8	0.00	0.00	
14,357.2	89.00	90.00	7,330.0	-436.1	7,178.7	7,191.9	0.00	0.00	PBHL @ 14357.2' MD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Billings 2F-18H BHL - plan hits target center - Point	0.00	0.00	7,330.0	-436.1	7,178.7	1,326,276.81	3,131,633.99	40.228060	-105.028580
Interp @ 4188.8 (Billings) - plan hits target center - Point	0.00	0.00	4,188.8	-436.0	-236.6	1,326,239.63	3,124,218.78	40.228063	-105.055137

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,949.9	3,915.0	Sussex			
4,167.3	4,132.0	Sussex Marker			
4,403.3	4,368.0	Shannon			
6,159.3	6,124.0	Teepee Buttes			
6,929.4	6,874.0	Sharon Springs			
7,013.8	6,943.0	Niobrara			
7,104.3	7,010.0	B Chalk			
7,369.5	7,156.0	Ft. Hayes			
8,340.8	7,225.0	Codell			

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.0	300.0	0.0	0.0	KOP @ 300' MD
1,172.2	1,168.9	-58.2	-31.6	EOB; Inc=8.72°
3,788.0	3,754.4	-406.9	-220.8	Start Drop -2.00
4,224.1	4,188.8	-436.0	-236.6	EOD @ 4224.1' MD
6,532.1	6,496.8	-436.0	-236.6	Curve KOP @ 6532.1' MD
7,644.6	7,212.8	-436.0	467.1	Landing Pt @ 7644.6' MD
14,357.2	7,330.0	-436.1	7,178.7	PBHL @ 14357.2' MD

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S18-T3N-R68W (Billings)

Billings 2F-18H

HZ

Plan #1

Anticollision Report

29 November, 2012

Cathedral Energy Services

Anticollision Report

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

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0ft	Error Model:	Systematic Ellipse
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 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	14,357.2	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	47.4	46.8	88.201	CC
Billings 2A-18H - Hz - Plan #1	200.0	201.0	47.4	46.7	72.364	ES
Billings 2A-18H - Hz - Plan #1	600.0	596.6	67.9	65.8	33.176	SF
Billings 2B-18H - HZ - Plan #1	300.0	300.0	40.1	39.1	39.995	CC, ES
Billings 2B-18H - HZ - Plan #1	14,357.2	14,328.8	1,403.5	1,044.4	3.908	SF
Billings 2C-18H - HZ - Plan #1	300.0	300.0	29.1	28.1	29.090	CC, ES
Billings 2C-18H - HZ - Plan #1	14,357.2	14,068.8	1,091.2	744.5	3.147	SF
Billings 2D-18H - Hz - Plan #1	200.0	200.0	18.2	17.6	27.904	CC, ES
Billings 2D-18H - Hz - Plan #1	14,357.2	14,244.8	706.6	349.8	1.980	SF
Billings 2E-18H - HZ - Plan #1	300.0	300.0	10.9	9.9	10.909	CC, ES
Billings 2E-18H - HZ - Plan #1	14,357.2	14,030.7	460.8	185.4	1.673	SF
Billings 2G-18H - Hz - Plan #1	687.9	687.4	7.5	5.1	3.152	CC
Billings 2G-18H - Hz - Plan #1	700.0	699.6	7.5	5.1	3.094	ES
Billings 2G-18H - Hz - Plan #1	14,357.2	14,093.1	460.8	185.3	1.673	SF
Billings 2H-18H - Hz - Plan #1	200.0	200.0	21.9	21.2	33.485	CC, ES
Billings 2H-18H - Hz - Plan #1	14,357.2	14,380.2	704.5	346.2	1.966	SF

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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 Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	1.0	1.0	0.0	0.0	0.00	47.4	0.0	47.4					
100.0	100.0	101.0	101.0	0.2	0.2	0.00	47.4	0.0	47.4	47.1	0.31	155.063		
166.3	166.3	167.3	167.3	0.3	0.3	0.00	47.4	0.0	47.4	46.8	0.54	88.201 CC		
200.0	200.0	201.0	201.0	0.3	0.3	0.00	47.4	0.0	47.4	46.7	0.65	72.364 ES		
300.0	300.0	300.0	300.0	0.5	0.5	-0.20	48.2	-0.2	48.2	47.2	1.00	48.137		
400.0	400.0	399.3	399.2	0.7	0.7	151.22	50.8	-0.7	51.6	50.2	1.35	38.197		
500.0	500.0	498.1	498.0	0.9	0.9	151.63	55.0	-1.5	58.1	56.4	1.70	34.230		
600.0	599.9	596.6	596.3	1.0	1.1	152.34	60.8	-2.6	67.9	65.8	2.05	33.176 SF		
700.0	699.7	694.5	693.9	1.2	1.3	153.15	68.3	-4.1	80.9	78.5	2.40	33.754		
800.0	799.4	791.7	790.6	1.4	1.5	153.93	77.3	-5.8	97.1	94.3	2.75	35.330		
900.0	898.9	888.0	886.4	1.7	1.7	154.62	87.9	-7.9	116.5	113.4	3.10	37.552		
1,000.0	998.3	983.4	981.0	1.9	2.0	155.20	99.9	-10.2	139.0	135.5	3.46	40.204		
1,100.0	1,097.4	1,077.6	1,074.2	2.2	2.3	155.68	113.2	-12.8	164.6	160.8	3.81	43.150		
1,200.0	1,196.3	1,170.7	1,166.0	2.5	2.6	156.10	127.9	-15.6	193.2	189.1	4.18	46.271		
1,300.0	1,295.2	1,262.7	1,256.6	2.8	2.9	156.41	143.8	-18.7	223.7	219.2	4.54	49.247		
1,400.0	1,394.0	1,353.8	1,346.0	3.1	3.2	156.55	161.0	-22.0	255.7	250.8	4.91	52.058		
1,500.0	1,492.8	1,443.9	1,434.2	3.4	3.6	156.57	179.4	-25.6	289.1	283.8	5.28	54.733		
1,600.0	1,591.7	1,533.1	1,521.1	3.7	3.9	156.51	198.9	-29.4	323.9	318.3	5.65	57.295		
1,700.0	1,690.5	1,621.3	1,606.7	4.0	4.3	156.39	219.5	-33.4	360.1	354.1	6.03	59.762		
1,800.0	1,789.4	1,708.4	1,691.0	4.3	4.7	156.24	241.2	-37.6	397.7	391.3	6.40	62.150		
1,900.0	1,888.2	1,794.5	1,774.0	4.6	5.1	156.06	263.8	-42.0	436.6	429.8	6.77	64.469		
2,000.0	1,987.1	1,879.5	1,855.6	4.9	5.6	155.87	287.3	-46.5	476.8	469.7	7.15	66.725		
2,100.0	2,085.9	1,968.4	1,940.5	5.2	6.0	155.66	312.8	-51.5	518.1	510.6	7.53	68.817		
2,200.0	2,184.7	2,059.4	2,027.6	5.5	6.5	155.47	339.1	-56.6	559.4	551.5	7.92	70.672		
2,300.0	2,283.6	2,150.5	2,114.6	5.9	7.0	155.32	365.3	-61.7	600.7	592.4	8.30	72.350		
2,400.0	2,382.4	2,241.5	2,201.6	6.2	7.5	155.18	391.6	-66.7	642.1	633.4	8.69	73.875		
2,500.0	2,481.3	2,332.6	2,288.7	6.5	8.0	155.06	417.8	-71.8	683.4	674.3	9.08	75.266		
2,600.0	2,580.1	2,423.6	2,375.7	6.8	8.4	154.95	444.0	-76.9	724.7	715.2	9.47	76.541		
2,700.0	2,679.0	2,514.7	2,462.8	7.1	8.9	154.85	470.3	-82.0	766.0	756.2	9.86	77.713		
2,800.0	2,777.8	2,605.7	2,549.8	7.4	9.4	154.77	496.5	-87.1	807.4	797.1	10.25	78.794		
2,900.0	2,876.7	2,696.8	2,636.8	7.7	9.9	154.69	522.8	-92.2	848.7	838.1	10.64	79.795		
3,000.0	2,975.5	2,787.8	2,723.9	8.1	10.4	154.62	549.0	-97.3	890.1	879.0	11.03	80.723		
3,100.0	3,074.3	2,878.9	2,810.9	8.4	10.9	154.56	575.2	-102.4	931.4	920.0	11.42	81.586		
3,200.0	3,173.2	2,969.9	2,898.0	8.7	11.4	154.50	601.5	-107.5	972.7	960.9	11.81	82.392		
3,300.0	3,272.0	3,061.0	2,985.0	9.0	11.8	154.44	627.7	-112.5	1,014.1	1,001.9	12.20	83.145		
3,400.0	3,370.9	3,152.0	3,072.0	9.3	12.3	154.39	654.0	-117.6	1,055.4	1,042.8	12.59	83.850		
3,500.0	3,469.7	3,243.1	3,159.1	9.6	12.8	154.35	680.2	-122.7	1,096.7	1,083.8	12.98	84.512		
3,600.0	3,568.6	3,334.1	3,246.1	9.9	13.3	154.31	706.4	-127.8	1,138.1	1,124.7	13.37	85.134		
3,700.0	3,667.4	3,425.2	3,332.2	10.3	13.8	154.27	732.7	-132.9	1,179.4	1,165.7	13.76	85.721		
3,800.0	3,766.2	3,516.2	3,420.2	10.6	14.3	154.28	758.9	-138.0	1,220.7	1,206.6	14.16	86.222		
3,900.0	3,865.4	3,608.1	3,508.0	10.8	14.8	154.57	785.4	-143.1	1,260.3	1,245.7	14.60	86.302		
4,000.0	3,964.9	3,701.1	3,596.9	11.1	15.3	154.76	812.2	-148.3	1,297.0	1,281.9	15.03	86.299		
4,100.0	4,064.7	3,795.1	3,686.8	11.2	15.8	154.85	839.3	-153.6	1,330.7	1,315.2	15.43	86.228		
4,200.0	4,164.7	3,890.1	3,777.5	11.3	16.3	154.86	866.7	-158.9	1,361.4	1,345.6	15.81	86.102		
4,300.0	4,264.7	3,985.6	3,868.9	11.5	16.8	3.12	894.2	-164.2	1,390.0	1,362.8	27.25	51.019		
4,400.0	4,364.7	4,081.2	3,960.3	11.6	17.3	2.83	921.8	-169.6	1,418.6	1,390.7	27.87	50.896		
4,500.0	4,464.7	4,176.8	4,051.7	11.7	17.9	2.55	949.3	-174.9	1,447.2	1,418.7	28.50	50.775		
4,600.0	4,564.7	4,272.4	4,143.1	11.8	18.4	2.28	976.8	-180.3	1,475.8	1,446.7	29.13	50.657		
4,700.0	4,664.7	4,368.0	4,234.4	11.9	18.9	2.03	1,004.4	-185.6	1,504.4	1,474.7	29.77	50.542		
4,800.0	4,764.7	4,463.6	4,325.8	12.1	19.4	1.78	1,031.9	-190.9	1,533.1	1,502.7	30.40	50.428		
4,900.0	4,864.7	4,559.2	4,417.2	12.2	19.9	1.55	1,059.5	-196.3	1,561.8	1,530.8	31.04	50.317		
5,000.0	4,964.7	4,654.8	4,508.6	12.3	20.4	1.32	1,087.0	-201.6	1,590.6	1,558.9	31.68	50.208		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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							
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	
5,100.0	5,064.7	4,772.6	4,621.2	12.4	21.1	1.05	1,120.7	-208.2	1,619.2	1,586.8	32.42	49.937		

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	40.1	0.0	40.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	40.1	0.0	40.1	39.8	0.30	131.936		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	40.1	0.0	40.1	39.4	0.65	61.382		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	40.1	0.0	40.1	39.1	1.00	39.995 CC, ES		
400.0	400.0	399.3	399.3	0.7	0.7	151.78	40.9	-0.2	41.7	40.3	1.35	30.876		
500.0	500.0	498.4	498.4	0.9	0.9	152.49	43.4	-0.8	46.5	44.8	1.70	27.385		
600.0	599.9	597.3	597.1	1.0	1.0	153.38	47.5	-1.9	54.5	52.5	2.05	26.645		
700.0	699.7	695.6	695.3	1.2	1.2	154.26	53.3	-3.3	65.8	63.4	2.40	27.448		
800.0	799.4	793.4	792.8	1.4	1.4	155.01	60.7	-5.2	80.3	77.5	2.75	29.191		
900.0	898.9	890.4	889.4	1.7	1.7	155.62	69.5	-7.4	97.9	94.8	3.10	31.539		
1,000.0	998.3	986.5	984.8	1.9	1.9	156.09	79.9	-10.0	118.7	115.2	3.46	34.288		
1,100.0	1,097.4	1,081.5	1,079.1	2.2	2.1	156.45	91.7	-12.9	142.5	138.7	3.82	37.308		
1,200.0	1,196.3	1,175.5	1,172.1	2.5	2.4	156.73	104.8	-16.2	169.4	165.2	4.18	40.484		
1,300.0	1,295.2	1,268.4	1,263.8	2.8	2.7	156.89	119.3	-19.8	198.2	193.6	4.56	43.503		
1,400.0	1,394.0	1,360.5	1,354.5	3.1	3.0	156.88	135.0	-23.8	228.4	223.4	4.93	46.337		
1,500.0	1,492.8	1,451.7	1,444.0	3.4	3.3	156.75	152.0	-28.0	260.0	254.7	5.30	49.019		
1,600.0	1,591.7	1,542.0	1,532.3	3.7	3.7	156.55	170.1	-32.6	293.1	287.4	5.68	51.577		
1,700.0	1,690.5	1,631.3	1,619.4	4.0	4.0	156.30	189.4	-37.4	327.5	321.4	6.06	54.030		
1,800.0	1,789.4	1,719.7	1,705.2	4.3	4.4	156.03	209.8	-42.5	363.3	356.9	6.44	56.395		
1,900.0	1,888.2	1,807.0	1,789.7	4.6	4.8	155.74	231.2	-47.8	400.5	393.7	6.82	58.686		
2,000.0	1,987.1	1,893.2	1,872.8	4.9	5.2	155.43	253.6	-53.4	439.0	431.8	7.21	60.910		
2,100.0	2,085.9	1,978.5	1,954.6	5.2	5.7	155.13	276.9	-59.3	478.8	471.2	7.59	63.078		
2,200.0	2,184.7	2,062.6	2,034.9	5.5	6.1	154.82	301.0	-65.3	519.9	512.0	7.97	65.198		
2,300.0	2,283.6	2,145.7	2,113.9	5.9	6.6	154.52	326.0	-71.6	562.3	554.0	8.36	67.276		
2,400.0	2,382.4	2,227.6	2,191.5	6.2	7.1	154.22	351.7	-78.0	606.0	597.3	8.74	69.318		
2,500.0	2,481.3	2,308.4	2,267.6	6.5	7.5	153.93	378.1	-84.6	650.9	641.8	9.12	71.330		
2,600.0	2,580.1	2,395.7	2,349.4	6.8	8.1	153.64	407.3	-91.9	696.6	687.1	9.52	73.158		
2,700.0	2,679.0	2,484.5	2,432.8	7.1	8.6	153.37	437.1	-99.4	742.3	732.4	9.92	74.816		
2,800.0	2,777.8	2,573.4	2,516.2	7.4	9.2	153.14	467.0	-106.8	788.1	777.8	10.32	76.345		
2,900.0	2,876.7	2,662.3	2,599.6	7.7	9.7	152.93	496.8	-114.3	833.8	823.1	10.72	77.761		
3,000.0	2,975.5	2,751.2	2,683.0	8.1	10.3	152.74	526.6	-121.8	879.6	868.5	11.12	79.075		
3,100.0	3,074.3	2,840.0	2,766.3	8.4	10.8	152.57	556.4	-129.2	925.4	913.9	11.52	80.298		
3,200.0	3,173.2	2,928.9	2,849.7	8.7	11.4	152.42	586.3	-136.7	971.2	959.2	11.93	81.439		
3,300.0	3,272.0	3,017.8	2,933.1	9.0	11.9	152.28	616.1	-144.2	1,016.9	1,004.6	12.33	82.506		
3,400.0	3,370.9	3,106.7	3,016.5	9.3	12.5	152.15	645.9	-151.6	1,062.7	1,050.0	12.73	83.505		
3,500.0	3,469.7	3,195.5	3,099.9	9.6	13.0	152.03	675.7	-159.1	1,108.5	1,095.4	13.13	84.444		
3,600.0	3,568.6	3,284.4	3,183.3	9.9	13.6	151.92	705.6	-166.6	1,154.3	1,140.8	13.53	85.326		
3,700.0	3,667.4	3,373.3	3,266.7	10.3	14.1	151.83	735.4	-174.0	1,200.1	1,186.2	13.93	86.158		
3,800.0	3,766.2	3,462.2	3,350.1	10.6	14.7	151.79	765.2	-181.5	1,245.9	1,231.6	14.34	86.885		
3,900.0	3,865.4	3,560.6	3,442.5	10.8	15.3	152.10	798.2	-189.7	1,290.0	1,275.2	14.82	87.048		
4,000.0	3,964.9	3,726.1	3,599.7	11.1	16.2	152.19	848.3	-202.3	1,328.1	1,312.7	15.40	86.243		
4,100.0	4,064.7	3,900.6	3,768.4	11.2	17.0	152.19	891.4	-213.1	1,358.0	1,342.1	15.95	85.125		
4,200.0	4,164.7	4,082.3	3,946.6	11.3	17.6	152.10	925.7	-221.7	1,379.1	1,362.6	16.47	83.748		
4,300.0	4,264.7	4,268.8	4,131.4	11.5	18.1	0.37	949.5	-227.6	1,391.9	1,363.6	28.31	49.166		
4,400.0	4,364.7	4,457.8	4,320.0	11.6	18.4	0.25	961.6	-230.6	1,398.3	1,369.6	28.71	48.696		
4,500.0	4,464.7	4,602.5	4,464.7	11.7	18.5	0.23	963.1	-231.0	1,399.1	1,370.1	28.96	48.308		
4,600.0	4,564.7	4,702.5	4,564.7	11.8	18.6	0.23	963.1	-231.0	1,399.1	1,369.9	29.17	47.970		
4,700.0	4,664.7	4,802.5	4,664.7	11.9	18.6	0.23	963.1	-231.0	1,399.1	1,369.7	29.37	47.633		
4,800.0	4,764.7	4,902.5	4,764.7	12.1	18.7	0.23	963.1	-231.0	1,399.1	1,369.5	29.58	47.296		
4,900.0	4,864.7	5,002.5	4,864.7	12.2	18.8	0.23	963.1	-231.0	1,399.1	1,369.3	29.79	46.961		
5,000.0	4,964.7	5,102.5	4,964.7	12.3	18.9	0.23	963.1	-231.0	1,399.1	1,369.1	30.01	46.625		
5,100.0	5,064.7	5,202.5	5,064.7	12.4	19.0	0.23	963.1	-231.0	1,399.1	1,368.9	30.22	46.291		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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	5,164.7	5,302.5	5,164.7	12.5	19.0	0.23	963.1	-231.0	1,399.1	1,368.6	30.44	45.959		
5,300.0	5,264.7	5,402.5	5,264.7	12.7	19.1	0.23	963.1	-231.0	1,399.1	1,368.4	30.66	45.627		
5,400.0	5,364.7	5,502.5	5,364.7	12.8	19.2	0.23	963.1	-231.0	1,399.1	1,368.2	30.89	45.297		
5,500.0	5,464.7	5,602.5	5,464.7	12.9	19.3	0.23	963.1	-231.0	1,399.1	1,368.0	31.11	44.969		
5,600.0	5,564.7	5,702.5	5,564.7	13.1	19.4	0.23	963.1	-231.0	1,399.1	1,367.7	31.34	44.642		
5,700.0	5,664.7	5,802.5	5,664.7	13.2	19.5	0.23	963.1	-231.0	1,399.1	1,367.5	31.57	44.317		
5,800.0	5,764.7	5,902.5	5,764.7	13.3	19.6	0.23	963.1	-231.0	1,399.1	1,367.3	31.80	43.994		
5,900.0	5,864.7	6,002.5	5,864.7	13.5	19.7	0.23	963.1	-231.0	1,399.1	1,367.0	32.04	43.672		
6,000.0	5,964.7	6,102.5	5,964.7	13.6	19.8	0.23	963.1	-231.0	1,399.1	1,366.8	32.27	43.353		
6,100.0	6,064.7	6,202.5	6,064.7	13.7	19.9	0.23	963.1	-231.0	1,399.1	1,366.6	32.51	43.036		
6,200.0	6,164.7	6,302.5	6,164.7	13.9	19.9	0.23	963.1	-231.0	1,399.1	1,366.3	32.75	42.721		
6,300.0	6,264.7	6,402.5	6,264.7	14.0	20.0	0.23	963.1	-231.0	1,399.1	1,366.1	32.99	42.408		
6,400.0	6,364.7	6,502.5	6,364.7	14.1	20.1	0.23	963.1	-231.0	1,399.1	1,365.8	33.23	42.098		
6,409.0	6,373.7	6,511.6	6,373.7	14.1	20.2	0.23	963.1	-231.0	1,399.1	1,365.8	33.26	42.070		
6,500.0	6,464.7	6,601.6	6,463.6	14.3	20.2	0.42	963.1	-226.5	1,399.1	1,365.6	33.48	41.795		
6,600.0	6,564.6	6,698.1	6,558.5	14.4	20.2	-88.99	963.1	-209.2	1,399.3	1,374.9	24.37	57.411		
6,700.0	6,663.2	6,792.8	6,648.4	14.4	20.2	-88.39	963.1	-180.0	1,399.6	1,375.2	24.45	57.248		
6,800.0	6,758.5	6,885.7	6,732.3	14.4	20.2	-87.82	963.1	-140.1	1,400.1	1,375.6	24.46	57.248		
6,900.0	6,848.7	6,977.2	6,809.1	14.4	20.3	-87.29	963.1	-90.5	1,400.7	1,376.2	24.49	57.191		
7,000.0	6,932.1	7,067.3	6,878.0	14.4	20.3	-86.81	963.1	-32.5	1,401.3	1,376.6	24.67	56.799		
7,100.0	7,007.0	7,156.4	6,938.4	14.5	20.4	-86.40	963.1	32.9	1,401.9	1,376.7	25.16	55.714		
7,200.0	7,072.0	7,244.6	6,989.7	14.8	20.7	-86.04	963.1	104.6	1,402.4	1,376.3	26.10	53.732		
7,300.0	7,125.8	7,332.1	7,031.6	15.2	21.0	-85.76	963.1	181.3	1,402.9	1,375.3	27.61	50.811		
7,400.0	7,167.3	7,419.0	7,063.6	16.0	21.5	-85.54	963.0	262.1	1,403.3	1,373.6	29.72	47.212		
7,500.0	7,195.8	7,505.5	7,085.5	17.2	22.1	-85.41	963.0	345.7	1,403.6	1,371.2	32.40	43.316		
7,600.0	7,210.7	7,591.9	7,097.2	18.7	23.0	-85.35	963.0	431.2	1,403.7	1,368.1	35.56	39.476		
7,700.0	7,213.8	7,685.3	7,100.1	20.5	24.1	-85.35	963.0	524.6	1,403.7	1,364.5	39.15	35.853		
7,800.0	7,215.6	7,785.3	7,101.8	22.4	25.5	-85.35	963.0	624.5	1,403.7	1,360.6	43.09	32.575		
7,900.0	7,217.3	7,885.3	7,103.5	24.4	27.2	-85.35	963.0	724.5	1,403.7	1,356.4	47.21	29.730		
8,000.0	7,219.1	7,985.3	7,105.3	26.5	28.9	-85.35	963.0	824.5	1,403.7	1,352.2	51.48	27.267		
8,100.0	7,220.8	8,085.3	7,107.0	28.6	30.8	-85.35	963.0	924.5	1,403.7	1,347.8	55.85	25.130		
8,200.0	7,222.5	8,185.3	7,108.8	30.8	32.8	-85.35	963.0	1,024.5	1,403.7	1,343.3	60.32	23.271		
8,300.0	7,224.3	8,285.3	7,110.5	33.0	34.9	-85.35	963.0	1,124.5	1,403.6	1,338.8	64.85	21.646		
8,400.0	7,226.0	8,385.3	7,112.3	35.3	37.0	-85.35	963.0	1,224.4	1,403.6	1,334.2	69.43	20.216		
8,500.0	7,227.8	8,485.3	7,114.0	37.6	39.2	-85.35	963.0	1,324.4	1,403.6	1,329.6	74.06	18.953		
8,600.0	7,229.5	8,585.3	7,115.8	39.9	41.4	-85.35	963.0	1,424.4	1,403.6	1,324.9	78.73	17.829		
8,700.0	7,231.3	8,685.3	7,117.5	42.2	43.6	-85.35	963.0	1,524.4	1,403.6	1,320.2	83.42	16.826		
8,800.0	7,233.0	8,785.3	7,119.3	44.6	45.9	-85.35	963.0	1,624.4	1,403.6	1,315.5	88.15	15.924		
8,900.0	7,234.8	8,885.3	7,121.0	47.0	48.2	-85.35	963.0	1,724.4	1,403.6	1,310.7	92.89	15.111		
9,000.0	7,236.5	8,985.3	7,122.7	49.3	50.5	-85.35	963.0	1,824.4	1,403.6	1,306.0	97.65	14.374		
9,100.0	7,238.2	9,085.3	7,124.5	51.7	52.8	-85.35	963.0	1,924.3	1,403.6	1,301.2	102.43	13.703		
9,200.0	7,240.0	9,185.3	7,126.2	54.1	55.2	-85.35	963.0	2,024.3	1,403.6	1,296.4	107.22	13.091		
9,300.0	7,241.7	9,285.3	7,128.0	56.5	57.5	-85.35	963.0	2,124.3	1,403.6	1,291.6	112.03	12.529		
9,400.0	7,243.5	9,385.3	7,129.7	58.9	59.9	-85.35	963.0	2,224.3	1,403.6	1,286.8	116.84	12.013		
9,500.0	7,245.2	9,485.3	7,131.5	61.3	62.2	-85.35	963.0	2,324.3	1,403.6	1,281.9	121.67	11.537		
9,600.0	7,247.0	9,585.3	7,133.2	63.7	64.6	-85.35	963.0	2,424.3	1,403.6	1,277.1	126.50	11.096		
9,700.0	7,248.7	9,685.3	7,135.0	66.1	67.0	-85.35	963.0	2,524.2	1,403.6	1,272.3	131.34	10.687		
9,800.0	7,250.5	9,785.3	7,136.7	68.6	69.4	-85.35	962.9	2,624.2	1,403.6	1,267.4	136.19	10.306		
9,900.0	7,252.2	9,885.3	7,138.4	71.0	71.8	-85.35	962.9	2,724.2	1,403.6	1,262.6	141.04	9.952		
10,000.0	7,254.0	9,985.3	7,140.2	73.4	74.2	-85.35	962.9	2,824.2	1,403.6	1,257.7	145.90	9.620		
10,100.0	7,255.7	10,085.3	7,141.9	75.9	76.6	-85.35	962.9	2,924.2	1,403.6	1,252.8	150.76	9.310		
10,200.0	7,257.4	10,185.3	7,143.7	78.3	79.0	-85.35	962.9	3,024.2	1,403.6	1,248.0	155.63	9.019		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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	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		
10,300.0	7,259.2	10,285.3	7,145.4	80.7	81.4	-85.35	962.9	3,124.2	1,403.6	1,243.1	160.50	8.745		
10,400.0	7,260.9	10,385.3	7,147.2	83.2	83.8	-85.35	962.9	3,224.1	1,403.6	1,238.2	165.37	8.487		
10,500.0	7,262.7	10,485.3	7,148.9	85.6	86.3	-85.35	962.9	3,324.1	1,403.6	1,233.3	170.25	8.244		
10,600.0	7,264.4	10,585.3	7,150.7	88.0	88.7	-85.35	962.9	3,424.1	1,403.6	1,228.5	175.13	8.014		
10,700.0	7,266.2	10,685.3	7,152.4	90.5	91.1	-85.35	962.9	3,524.1	1,403.6	1,223.6	180.01	7.797		
10,800.0	7,267.9	10,785.3	7,154.2	92.9	93.5	-85.35	962.9	3,624.1	1,403.6	1,218.7	184.90	7.591		
10,900.0	7,269.7	10,885.3	7,155.9	95.4	96.0	-85.35	962.9	3,724.1	1,403.6	1,213.8	189.79	7.395		
11,000.0	7,271.4	10,985.3	7,157.6	97.8	98.4	-85.35	962.9	3,824.0	1,403.6	1,208.9	194.68	7.210		
11,100.0	7,273.2	11,085.3	7,159.4	100.3	100.8	-85.35	962.9	3,924.0	1,403.6	1,204.0	199.57	7.033		
11,200.0	7,274.9	11,185.3	7,161.1	102.7	103.3	-85.35	962.9	4,024.0	1,403.6	1,199.1	204.47	6.865		
11,300.0	7,276.6	11,285.3	7,162.9	105.2	105.7	-85.35	962.9	4,124.0	1,403.6	1,194.2	209.36	6.704		
11,400.0	7,278.4	11,385.3	7,164.6	107.6	108.2	-85.35	962.9	4,224.0	1,403.6	1,189.3	214.26	6.551		
11,500.0	7,280.1	11,485.3	7,166.4	110.1	110.6	-85.35	962.9	4,324.0	1,403.6	1,184.4	219.16	6.404		
11,600.0	7,281.9	11,585.3	7,168.1	112.6	113.0	-85.35	962.9	4,424.0	1,403.6	1,179.5	224.06	6.264		
11,700.0	7,283.6	11,685.3	7,169.9	115.0	115.5	-85.35	962.9	4,523.9	1,403.5	1,174.6	228.96	6.130		
11,800.0	7,285.4	11,785.3	7,171.6	117.5	117.9	-85.35	962.9	4,623.9	1,403.5	1,169.7	233.87	6.001		
11,900.0	7,287.1	11,885.3	7,173.4	119.9	120.4	-85.35	962.9	4,723.9	1,403.5	1,164.8	238.77	5.878		
12,000.0	7,288.9	11,985.3	7,175.1	122.4	122.8	-85.35	962.9	4,823.9	1,403.5	1,159.9	243.68	5.760		
12,100.0	7,290.6	12,085.3	7,176.8	124.8	125.3	-85.35	962.9	4,923.9	1,403.5	1,155.0	248.58	5.646		
12,200.0	7,292.4	12,185.3	7,178.6	127.3	127.7	-85.35	962.8	5,023.9	1,403.5	1,150.0	253.49	5.537		
12,300.0	7,294.1	12,285.3	7,180.3	129.8	130.2	-85.35	962.8	5,123.9	1,403.5	1,145.1	258.40	5.432		
12,400.0	7,295.8	12,385.3	7,182.1	132.2	132.6	-85.35	962.8	5,223.8	1,403.5	1,140.2	263.31	5.330		
12,500.0	7,297.6	12,485.3	7,183.8	134.7	135.1	-85.35	962.8	5,323.8	1,403.5	1,135.3	268.22	5.233		
12,600.0	7,299.3	12,585.3	7,185.6	137.1	137.5	-85.35	962.8	5,423.8	1,403.5	1,130.4	273.13	5.139		
12,700.0	7,301.1	12,685.3	7,187.3	139.6	140.0	-85.35	962.8	5,523.8	1,403.5	1,125.5	278.04	5.048		
12,800.0	7,302.8	12,785.3	7,189.1	142.1	142.4	-85.35	962.8	5,623.8	1,403.5	1,120.6	282.95	4.960		
12,900.0	7,304.6	12,885.3	7,190.8	144.5	144.9	-85.35	962.8	5,723.8	1,403.5	1,115.6	287.87	4.876		
13,000.0	7,306.3	12,985.3	7,192.6	147.0	147.4	-85.35	962.8	5,823.7	1,403.5	1,110.7	292.78	4.794		
13,100.0	7,308.1	13,085.3	7,194.3	149.5	149.8	-85.35	962.8	5,923.7	1,403.5	1,105.8	297.69	4.715		
13,200.0	7,309.8	13,185.3	7,196.0	151.9	152.3	-85.35	962.8	6,023.7	1,403.5	1,100.9	302.61	4.638		
13,300.0	7,311.5	13,285.3	7,197.8	154.4	154.7	-85.35	962.8	6,123.7	1,403.5	1,096.0	307.52	4.564		
13,400.0	7,313.3	13,385.3	7,199.5	156.8	157.2	-85.35	962.8	6,223.7	1,403.5	1,091.1	312.44	4.492		
13,500.0	7,315.0	13,485.3	7,201.3	159.3	159.6	-85.35	962.8	6,323.7	1,403.5	1,086.1	317.36	4.422		
13,600.0	7,316.8	13,585.3	7,203.0	161.8	162.1	-85.35	962.8	6,423.7	1,403.5	1,081.2	322.27	4.355		
13,700.0	7,318.5	13,685.3	7,204.8	164.2	164.6	-85.35	962.8	6,523.6	1,403.5	1,076.3	327.19	4.290		
13,800.0	7,320.3	13,785.3	7,206.5	166.7	167.0	-85.35	962.8	6,623.6	1,403.5	1,071.4	332.11	4.226		
13,900.0	7,322.0	13,885.3	7,208.3	169.2	169.5	-85.35	962.8	6,723.6	1,403.5	1,066.5	337.03	4.164		
14,000.0	7,323.8	13,985.3	7,210.0	171.6	172.0	-85.35	962.8	6,823.6	1,403.5	1,061.5	341.95	4.104		
14,100.0	7,325.5	14,085.3	7,211.7	174.1	174.4	-85.35	962.8	6,923.6	1,403.5	1,056.6	346.86	4.046		
14,200.0	7,327.3	14,185.3	7,213.5	176.6	176.9	-85.35	962.8	7,023.6	1,403.5	1,051.7	351.78	3.990		
14,300.0	7,329.0	14,285.3	7,215.2	179.0	179.3	-85.35	962.8	7,123.5	1,403.5	1,046.8	356.70	3.935		
14,337.3	7,329.7	14,322.6	7,215.9	180.0	180.3	-85.35	962.8	7,160.8	1,403.5	1,044.9	358.54	3.914		
14,357.2	7,330.0	14,328.8	7,216.0	180.4	180.4	-85.35	962.8	7,167.1	1,403.5	1,044.4	359.18	3.908 SF		

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor		
0.0	0.0	0.0	0.0	0.0	0.0	0.00	29.1	0.0	29.1					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	29.1	0.0	29.1	28.8	0.30	95.963		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	29.1	0.0	29.1	28.5	0.65	44.646		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	29.1	0.0	29.1	28.1	1.00	29.090 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	152.30	29.1	0.0	29.9	28.6	1.35	22.142		
500.0	500.0	499.4	499.4	0.9	0.8	153.82	29.9	-0.3	33.0	31.3	1.70	19.443		
600.0	599.9	598.7	598.6	1.0	1.0	155.04	32.3	-1.3	39.3	37.3	2.05	19.200		
700.0	699.7	697.5	697.4	1.2	1.2	155.86	36.3	-2.9	48.8	46.4	2.40	20.328		
800.0	799.4	795.9	795.6	1.4	1.4	156.31	41.8	-5.1	61.4	58.6	2.75	22.285		
900.0	898.9	893.6	893.0	1.7	1.6	156.53	48.9	-7.9	77.0	73.9	3.11	24.767		
1,000.0	998.3	990.5	989.5	1.9	1.8	156.59	57.4	-11.2	95.8	92.3	3.47	27.591		
1,100.0	1,097.4	1,086.5	1,084.9	2.2	2.0	156.57	67.3	-15.2	117.5	113.7	3.84	30.638		
1,200.0	1,196.3	1,181.5	1,179.1	2.5	2.3	156.51	78.6	-19.7	142.3	138.1	4.21	33.804		
1,300.0	1,295.2	1,275.7	1,272.3	2.8	2.6	156.33	91.2	-24.7	168.8	164.2	4.59	36.784		
1,400.0	1,394.0	1,369.0	1,364.4	3.1	2.8	155.99	105.1	-30.2	196.7	191.8	4.97	39.551		
1,500.0	1,492.8	1,461.5	1,455.5	3.4	3.2	155.56	120.2	-36.3	226.1	220.7	5.36	42.145		
1,600.0	1,591.7	1,553.2	1,545.4	3.7	3.5	155.07	136.6	-42.8	256.8	251.1	5.76	44.598		
1,700.0	1,690.5	1,646.5	1,636.8	4.0	3.8	154.58	154.4	-49.8	288.7	282.5	6.16	46.865		
1,800.0	1,789.4	1,741.3	1,729.5	4.3	4.2	154.16	172.5	-57.1	320.7	314.1	6.57	48.839		
1,900.0	1,888.2	1,836.0	1,822.2	4.6	4.5	153.82	190.6	-64.3	352.6	345.7	6.97	50.575		
2,000.0	1,987.1	1,930.7	1,914.9	4.9	4.9	153.54	208.7	-71.5	384.6	377.2	7.38	52.112		
2,100.0	2,085.9	2,025.5	2,007.6	5.2	5.2	153.30	226.8	-78.7	416.6	408.8	7.79	53.483		
2,200.0	2,184.7	2,120.2	2,100.3	5.5	5.6	153.10	244.9	-85.9	448.6	440.4	8.20	54.712		
2,300.0	2,283.6	2,214.9	2,193.0	5.9	6.0	152.92	263.0	-93.1	480.6	472.0	8.61	55.820		
2,400.0	2,382.4	2,309.7	2,285.7	6.2	6.3	152.76	281.1	-100.3	512.6	503.6	9.02	56.823		
2,500.0	2,481.3	2,404.4	2,378.4	6.5	6.7	152.62	299.3	-107.5	544.6	535.2	9.43	57.736		
2,600.0	2,580.1	2,499.1	2,471.1	6.8	7.1	152.50	317.4	-114.7	576.7	566.8	9.85	58.571		
2,700.0	2,679.0	2,593.8	2,563.8	7.1	7.5	152.39	335.5	-122.0	608.7	598.4	10.26	59.336		
2,800.0	2,777.8	2,688.6	2,656.5	7.4	7.8	152.29	353.6	-129.2	640.7	630.0	10.67	60.040		
2,900.0	2,876.7	2,783.3	2,749.2	7.7	8.2	152.21	371.7	-136.4	672.7	661.6	11.08	60.690		
3,000.0	2,975.5	2,878.0	2,841.9	8.1	8.6	152.12	389.8	-143.6	704.7	693.2	11.50	61.292		
3,100.0	3,074.3	2,972.8	2,934.6	8.4	9.0	152.05	407.9	-150.8	736.8	724.9	11.91	61.850		
3,200.0	3,173.2	3,067.5	3,027.3	8.7	9.3	151.98	426.1	-158.0	768.8	756.5	12.33	62.371		
3,300.0	3,272.0	3,162.2	3,120.0	9.0	9.7	151.92	444.2	-165.2	800.8	788.1	12.74	62.856		
3,400.0	3,370.9	3,257.0	3,212.7	9.3	10.1	151.86	462.3	-172.4	832.8	819.7	13.16	63.310		
3,500.0	3,469.7	3,351.7	3,305.4	9.6	10.5	151.81	480.4	-179.6	864.9	851.3	13.57	63.736		
3,600.0	3,568.6	3,446.4	3,398.1	9.9	10.8	151.76	498.5	-186.9	896.9	882.9	13.98	64.135		
3,700.0	3,667.4	3,541.1	3,490.8	10.3	11.2	151.71	516.6	-194.1	928.9	914.5	14.40	64.511		
3,800.0	3,766.2	3,635.9	3,583.5	10.6	11.6	151.71	534.7	-201.3	960.9	946.1	14.82	64.837		
3,900.0	3,865.4	3,731.2	3,676.8	10.8	12.0	151.91	553.0	-208.5	991.2	975.9	15.27	64.910		
4,000.0	3,964.9	3,866.2	3,809.4	11.1	12.4	151.94	576.5	-217.9	1,016.9	1,001.1	15.76	64.504		
4,100.0	4,064.7	4,013.3	3,955.0	11.2	12.8	151.91	595.7	-225.5	1,035.2	1,018.9	16.24	63.753		
4,200.0	4,164.7	4,163.1	4,104.3	11.3	13.1	151.83	608.0	-230.4	1,045.6	1,029.0	16.66	62.748		
4,300.0	4,264.7	4,314.3	4,255.4	11.5	13.3	0.23	613.0	-232.5	1,049.1	1,025.7	23.37	44.892		
4,400.0	4,364.7	4,423.7	4,364.7	11.6	13.4	0.23	613.1	-232.5	1,049.2	1,025.5	23.61	44.445		
4,500.0	4,464.7	4,523.7	4,464.7	11.7	13.5	0.23	613.1	-232.5	1,049.2	1,025.3	23.84	44.016		
4,600.0	4,564.7	4,623.7	4,564.7	11.8	13.6	0.23	613.1	-232.5	1,049.2	1,025.1	24.07	43.590		
4,700.0	4,664.7	4,723.7	4,664.7	11.9	13.7	0.23	613.1	-232.5	1,049.2	1,024.8	24.30	43.168		
4,800.0	4,764.7	4,823.7	4,764.7	12.1	13.8	0.23	613.1	-232.5	1,049.2	1,024.6	24.54	42.749		
4,900.0	4,864.7	4,923.7	4,864.7	12.2	14.0	0.23	613.1	-232.5	1,049.2	1,024.4	24.78	42.333		
5,000.0	4,964.7	5,023.7	4,964.7	12.3	14.1	0.23	613.1	-232.5	1,049.2	1,024.1	25.03	41.921		
5,100.0	5,064.7	5,123.7	5,064.7	12.4	14.2	0.23	613.1	-232.5	1,049.2	1,023.9	25.27	41.513		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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	5,164.7	5,223.7	5,164.7	12.5	14.3	0.23	613.1	-232.5	1,049.2	1,023.6	25.52	41.109	
5,300.0	5,264.7	5,323.7	5,264.7	12.7	14.4	0.23	613.1	-232.5	1,049.2	1,023.4	25.77	40.710	
5,400.0	5,364.7	5,423.7	5,364.7	12.8	14.5	0.23	613.1	-232.5	1,049.2	1,023.1	26.02	40.314	
5,500.0	5,464.7	5,523.7	5,464.7	12.9	14.6	0.23	613.1	-232.5	1,049.2	1,022.9	26.28	39.923	
5,600.0	5,564.7	5,623.7	5,564.7	13.1	14.7	0.23	613.1	-232.5	1,049.2	1,022.6	26.54	39.536	
5,700.0	5,664.7	5,723.7	5,664.7	13.2	14.9	0.23	613.1	-232.5	1,049.2	1,022.4	26.80	39.154	
5,800.0	5,764.7	5,823.7	5,764.7	13.3	15.0	0.23	613.1	-232.5	1,049.2	1,022.1	27.06	38.776	
5,900.0	5,864.7	5,923.7	5,864.7	13.5	15.1	0.23	613.1	-232.5	1,049.2	1,021.8	27.32	38.402	
6,000.0	5,964.7	6,023.7	5,964.7	13.6	15.2	0.23	613.1	-232.5	1,049.2	1,021.6	27.59	38.033	
6,100.0	6,064.7	6,123.7	6,064.7	13.7	15.3	0.23	613.1	-232.5	1,049.2	1,021.3	27.85	37.669	
6,200.0	6,164.7	6,223.7	6,164.7	13.9	15.5	0.23	613.1	-232.5	1,049.2	1,021.0	28.12	37.309	
6,224.0	6,188.7	6,247.6	6,188.7	13.9	15.5	0.23	613.1	-232.5	1,049.2	1,021.0	28.19	37.223	
6,300.0	6,264.7	6,323.1	6,264.0	14.0	15.5	0.40	613.1	-229.4	1,049.2	1,020.8	28.39	36.957	
6,400.0	6,364.7	6,419.8	6,359.4	14.1	15.6	1.24	613.1	-213.8	1,049.4	1,020.7	28.65	36.622	
6,500.0	6,464.7	6,510.8	6,446.5	14.3	15.6	2.67	613.1	-187.6	1,050.4	1,021.5	28.92	36.320	
6,600.0	6,564.6	6,595.2	6,523.7	14.4	15.6	-85.46	613.1	-153.6	1,053.0	1,029.0	23.92	44.017	
6,700.0	6,663.2	6,676.4	6,593.7	14.4	15.6	-83.60	613.1	-112.6	1,056.6	1,032.6	23.97	44.086	
6,800.0	6,758.5	6,755.1	6,656.7	14.4	15.6	-81.84	613.1	-65.5	1,061.1	1,037.1	24.01	44.201	
6,900.0	6,848.7	6,831.8	6,712.8	14.4	15.7	-80.22	613.1	-13.2	1,066.0	1,041.8	24.15	44.149	
7,000.0	6,932.1	6,906.9	6,761.9	14.4	15.8	-78.75	613.1	43.5	1,071.1	1,046.7	24.42	43.865	
7,100.0	7,007.0	6,980.6	6,804.2	14.5	16.1	-77.45	613.1	103.9	1,076.1	1,051.1	25.00	43.047	
7,200.0	7,072.0	7,050.0	6,838.1	14.8	16.4	-76.38	613.1	164.4	1,080.7	1,054.8	25.92	41.694	
7,300.0	7,125.8	7,125.2	6,868.0	15.2	17.0	-75.45	613.1	233.3	1,084.6	1,057.2	27.38	39.618	
7,400.0	7,167.3	7,200.0	6,890.4	16.0	17.7	-74.74	613.1	304.7	1,087.8	1,058.4	29.33	37.093	
7,500.0	7,195.8	7,267.3	6,904.2	17.2	18.6	-74.30	613.1	370.5	1,089.9	1,058.3	31.67	34.417	
7,600.0	7,210.7	7,337.8	6,911.9	18.7	19.6	-74.08	613.1	440.6	1,091.0	1,056.6	34.45	31.668	
7,700.0	7,213.8	7,425.0	6,914.1	20.5	21.0	-74.05	613.1	527.8	1,091.1	1,053.3	37.83	28.844	
7,800.0	7,215.6	7,525.0	6,915.8	22.4	22.8	-74.05	613.1	627.7	1,091.1	1,049.5	41.64	26.202	
7,900.0	7,217.3	7,625.0	6,917.5	24.4	24.8	-74.05	613.1	727.7	1,091.1	1,045.5	45.63	23.910	
8,000.0	7,219.1	7,725.0	6,919.3	26.5	26.8	-74.05	613.1	827.7	1,091.1	1,041.4	49.76	21.927	
8,100.0	7,220.8	7,825.0	6,921.0	28.6	28.9	-74.05	613.1	927.7	1,091.1	1,037.1	53.99	20.209	
8,200.0	7,222.5	7,925.0	6,922.8	30.8	31.1	-74.05	613.1	1,027.7	1,091.1	1,032.8	58.31	18.714	
8,300.0	7,224.3	8,025.0	6,924.5	33.0	33.3	-74.05	613.1	1,127.7	1,091.1	1,028.5	62.68	17.407	
8,400.0	7,226.0	8,125.0	6,926.3	35.3	35.6	-74.05	613.1	1,227.6	1,091.1	1,024.0	67.11	16.258	
8,500.0	7,227.8	8,225.0	6,928.0	37.6	37.8	-74.05	613.1	1,327.6	1,091.1	1,019.6	71.59	15.243	
8,600.0	7,229.5	8,325.0	6,929.8	39.9	40.1	-74.05	613.1	1,427.6	1,091.1	1,015.0	76.09	14.340	
8,700.0	7,231.3	8,425.0	6,931.5	42.2	42.5	-74.05	613.1	1,527.6	1,091.1	1,010.5	80.63	13.533	
8,800.0	7,233.0	8,525.0	6,933.3	44.6	44.8	-74.05	613.1	1,627.6	1,091.1	1,006.0	85.19	12.809	
8,900.0	7,234.8	8,625.0	6,935.0	47.0	47.2	-74.05	613.1	1,727.6	1,091.1	1,001.4	89.77	12.155	
9,000.0	7,236.5	8,725.0	6,936.7	49.3	49.5	-74.05	613.1	1,827.6	1,091.1	996.8	94.37	11.563	
9,100.0	7,238.2	8,825.0	6,938.5	51.7	51.9	-74.05	613.1	1,927.5	1,091.1	992.2	98.98	11.024	
9,200.0	7,240.0	8,925.0	6,940.2	54.1	54.3	-74.05	613.1	2,027.5	1,091.1	987.5	103.61	10.532	
9,300.0	7,241.7	9,025.0	6,942.0	56.5	56.7	-74.05	613.1	2,127.5	1,091.1	982.9	108.24	10.080	
9,400.0	7,243.5	9,125.0	6,943.7	58.9	59.1	-74.05	613.1	2,227.5	1,091.1	978.2	112.89	9.665	
9,500.0	7,245.2	9,225.0	6,945.5	61.3	61.5	-74.05	613.1	2,327.5	1,091.1	973.6	117.55	9.282	
9,600.0	7,247.0	9,325.0	6,947.2	63.7	63.9	-74.05	613.1	2,427.5	1,091.1	968.9	122.21	8.928	
9,700.0	7,248.7	9,425.0	6,949.0	66.1	66.3	-74.05	613.1	2,527.4	1,091.1	964.3	126.88	8.599	
9,800.0	7,250.5	9,525.0	6,950.7	68.6	68.7	-74.05	613.1	2,627.4	1,091.1	959.6	131.56	8.294	
9,900.0	7,252.2	9,625.0	6,952.5	71.0	71.1	-74.05	613.1	2,727.4	1,091.1	954.9	136.25	8.009	
10,000.0	7,254.0	9,725.0	6,954.2	73.4	73.6	-74.05	613.1	2,827.4	1,091.1	950.2	140.93	7.742	
10,100.0	7,255.7	9,825.0	6,955.9	75.9	76.0	-74.05	613.1	2,927.4	1,091.1	945.5	145.63	7.493	
10,200.0	7,257.4	9,925.0	6,957.7	78.3	78.4	-74.05	613.1	3,027.4	1,091.1	940.8	150.32	7.259	

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning	
10,300.0	7,259.2	10,025.0	6,959.4	80.7	80.9	-74.05	613.1	3,127.4	1,091.1	936.1	155.03	7.038		
10,400.0	7,260.9	10,125.0	6,961.2	83.2	83.3	-74.05	613.1	3,227.3	1,091.1	931.4	159.73	6.831		
10,500.0	7,262.7	10,225.0	6,962.9	85.6	85.7	-74.05	613.1	3,327.3	1,091.1	926.7	164.44	6.636		
10,600.0	7,264.4	10,325.0	6,964.7	88.0	88.2	-74.05	613.1	3,427.3	1,091.1	922.0	169.15	6.451		
10,700.0	7,266.2	10,425.0	6,966.4	90.5	90.6	-74.05	613.1	3,527.3	1,091.1	917.3	173.86	6.276		
10,800.0	7,267.9	10,525.0	6,968.2	92.9	93.1	-74.05	613.1	3,627.3	1,091.1	912.6	178.58	6.110		
10,900.0	7,269.7	10,625.0	6,969.9	95.4	95.5	-74.05	613.1	3,727.3	1,091.1	907.8	183.29	5.953		
11,000.0	7,271.4	10,725.0	6,971.7	97.8	98.0	-74.05	613.1	3,827.3	1,091.1	903.1	188.01	5.804		
11,100.0	7,273.2	10,825.0	6,973.4	100.3	100.4	-74.05	613.1	3,927.2	1,091.1	898.4	192.73	5.661		
11,200.0	7,274.9	10,925.0	6,975.1	102.7	102.9	-74.05	613.1	4,027.2	1,091.1	893.7	197.46	5.526		
11,300.0	7,276.6	11,025.0	6,976.9	105.2	105.3	-74.05	613.1	4,127.2	1,091.1	889.0	202.18	5.397		
11,400.0	7,278.4	11,125.0	6,978.6	107.6	107.8	-74.05	613.1	4,227.2	1,091.1	884.2	206.91	5.274		
11,500.0	7,280.1	11,225.0	6,980.4	110.1	110.2	-74.05	613.1	4,327.2	1,091.1	879.5	211.64	5.156		
11,600.0	7,281.9	11,325.0	6,982.1	112.6	112.7	-74.05	613.1	4,427.2	1,091.1	874.8	216.37	5.043		
11,700.0	7,283.6	11,425.0	6,983.9	115.0	115.1	-74.05	613.1	4,527.1	1,091.1	870.0	221.10	4.935		
11,800.0	7,285.4	11,525.0	6,985.6	117.5	117.6	-74.05	613.1	4,627.1	1,091.1	865.3	225.83	4.832		
11,900.0	7,287.1	11,625.0	6,987.4	119.9	120.0	-74.05	613.1	4,727.1	1,091.1	860.6	230.56	4.733		
12,000.0	7,288.9	11,725.0	6,989.1	122.4	122.5	-74.05	613.1	4,827.1	1,091.1	855.8	235.30	4.637		
12,100.0	7,290.6	11,825.0	6,990.8	124.8	124.9	-74.05	613.1	4,927.1	1,091.1	851.1	240.03	4.546		
12,200.0	7,292.4	11,925.0	6,992.6	127.3	127.4	-74.05	613.1	5,027.1	1,091.1	846.4	244.77	4.458		
12,300.0	7,294.1	12,025.0	6,994.3	129.8	129.9	-74.05	613.1	5,127.1	1,091.1	841.6	249.50	4.373		
12,400.0	7,295.8	12,125.0	6,996.1	132.2	132.3	-74.05	613.1	5,227.0	1,091.1	836.9	254.24	4.292		
12,500.0	7,297.6	12,225.0	6,997.8	134.7	134.8	-74.05	613.1	5,327.0	1,091.1	832.2	258.98	4.213		
12,600.0	7,299.3	12,325.0	6,999.6	137.1	137.2	-74.05	613.1	5,427.0	1,091.1	827.4	263.72	4.138		
12,700.0	7,301.1	12,425.0	7,001.3	139.6	139.7	-74.05	613.1	5,527.0	1,091.1	822.7	268.46	4.064		
12,800.0	7,302.8	12,525.0	7,003.1	142.1	142.2	-74.05	613.1	5,627.0	1,091.1	817.9	273.20	3.994		
12,900.0	7,304.6	12,625.0	7,004.8	144.5	144.6	-74.05	613.1	5,727.0	1,091.1	813.2	277.94	3.926		
13,000.0	7,306.3	12,725.0	7,006.6	147.0	147.1	-74.05	613.1	5,826.9	1,091.1	808.5	282.68	3.860		
13,100.0	7,308.1	12,825.0	7,008.3	149.5	149.5	-74.05	613.1	5,926.9	1,091.1	803.7	287.42	3.796		
13,200.0	7,309.8	12,925.0	7,010.0	151.9	152.0	-74.05	613.1	6,026.9	1,091.1	799.0	292.16	3.735		
13,300.0	7,311.5	13,025.0	7,011.8	154.4	154.5	-74.05	613.1	6,126.9	1,091.1	794.2	296.91	3.675		
13,400.0	7,313.3	13,125.0	7,013.5	156.8	156.9	-74.05	613.1	6,226.9	1,091.1	789.5	301.65	3.617		
13,500.0	7,315.0	13,225.0	7,015.3	159.3	159.4	-74.05	613.1	6,326.9	1,091.1	784.7	306.39	3.561		
13,600.0	7,316.8	13,325.0	7,017.0	161.8	161.9	-74.05	613.1	6,426.9	1,091.1	780.0	311.14	3.507		
13,700.0	7,318.5	13,425.0	7,018.8	164.2	164.3	-74.05	613.1	6,526.8	1,091.1	775.3	315.88	3.454		
13,800.0	7,320.3	13,525.0	7,020.5	166.7	166.8	-74.05	613.1	6,626.8	1,091.1	770.5	320.63	3.403		
13,900.0	7,322.0	13,625.0	7,022.3	169.2	169.3	-74.05	613.1	6,726.8	1,091.1	765.8	325.38	3.353		
14,000.0	7,323.8	13,725.0	7,024.0	171.6	171.7	-74.05	613.1	6,826.8	1,091.1	761.0	330.12	3.305		
14,100.0	7,325.5	13,825.0	7,025.8	174.1	174.2	-74.05	613.0	6,926.8	1,091.1	756.3	334.87	3.258		
14,200.0	7,327.3	13,925.0	7,027.5	176.6	176.7	-74.05	613.0	7,026.8	1,091.1	751.5	339.61	3.213		
14,300.0	7,329.0	14,025.0	7,029.2	179.0	179.1	-74.05	613.0	7,126.7	1,091.1	746.8	344.36	3.169		
14,337.3	7,329.7	14,062.3	7,029.9	180.0	180.0	-74.05	613.0	7,164.0	1,091.1	745.0	346.13	3.152		
14,357.2	7,330.0	14,068.8	7,030.0	180.4	180.2	-74.05	613.0	7,170.5	1,091.2	744.5	346.76	3.147 SF		

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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	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 CC, ES		
300.0	300.0	299.8	299.8	0.5	0.5	-1.82	18.8	-0.6	18.9	17.9	1.00	18.826		
400.0	400.0	399.4	399.4	0.7	0.7	146.22	20.7	-2.4	21.6	20.2	1.35	15.964		
500.0	500.0	498.9	498.8	0.9	0.9	143.57	23.8	-5.4	27.2	25.5	1.71	15.943		
600.0	599.9	598.1	597.8	1.0	1.1	141.97	28.2	-9.6	35.6	33.6	2.06	17.266		
700.0	699.7	696.9	696.3	1.2	1.3	141.13	33.8	-14.9	46.9	44.5	2.43	19.295		
800.0	799.4	795.1	794.1	1.4	1.5	140.74	40.5	-21.3	60.9	58.1	2.81	21.711		
900.0	898.9	892.7	891.1	1.7	1.7	140.58	48.4	-28.9	77.7	74.5	3.19	24.334		
1,000.0	998.3	989.6	987.1	1.9	2.0	140.54	57.5	-37.5	97.2	93.6	3.59	27.051		
1,100.0	1,097.4	1,085.6	1,082.1	2.2	2.3	140.55	67.6	-47.2	119.4	115.4	4.01	29.791		
1,200.0	1,196.3	1,180.6	1,175.8	2.5	2.6	140.61	78.7	-57.9	144.2	139.8	4.44	32.497		
1,300.0	1,295.2	1,274.9	1,268.6	2.8	2.9	140.53	90.9	-69.5	170.7	165.8	4.88	34.973		
1,400.0	1,394.0	1,368.4	1,360.4	3.1	3.3	140.22	104.0	-82.1	198.5	193.1	5.33	37.221		
1,500.0	1,492.8	1,461.2	1,451.0	3.4	3.6	139.77	118.1	-95.5	227.6	221.8	5.79	39.291		
1,600.0	1,591.7	1,553.1	1,540.6	3.7	4.0	139.23	133.2	-109.9	258.0	251.7	6.26	41.219		
1,700.0	1,690.5	1,645.2	1,629.9	4.0	4.4	138.65	149.2	-125.3	289.7	283.0	6.73	43.035		
1,800.0	1,789.4	1,739.8	1,721.7	4.3	4.9	138.12	166.0	-141.3	321.8	314.6	7.21	44.605		
1,900.0	1,888.2	1,834.5	1,813.4	4.6	5.3	137.69	182.8	-157.4	353.9	346.2	7.70	45.971		
2,000.0	1,987.1	1,929.4	1,905.4	4.9	5.7	137.34	199.7	-173.5	386.0	377.8	8.18	47.168		
2,100.0	2,085.9	2,037.7	2,010.9	5.2	6.2	137.14	217.4	-190.5	416.6	407.9	8.69	47.944		
2,200.0	2,184.7	2,148.2	2,119.4	5.5	6.5	137.26	236.6	-205.0	444.0	434.8	9.18	48.338		
2,300.0	2,283.6	2,260.6	2,230.5	5.9	6.9	137.64	244.9	-216.7	468.1	458.4	9.67	48.415		
2,400.0	2,382.4	2,374.7	2,343.9	6.2	7.1	138.26	254.1	-225.6	489.0	478.8	10.14	48.229		
2,500.0	2,481.3	2,490.0	2,458.9	6.5	7.3	139.11	260.1	-231.3	506.5	496.0	10.59	47.831		
2,600.0	2,580.1	2,606.3	2,575.1	6.8	7.5	140.17	262.8	-233.9	520.8	509.8	11.02	47.265		
2,700.0	2,679.0	2,710.2	2,679.0	7.1	7.6	141.25	262.9	-234.0	532.8	521.3	11.42	46.666		
2,800.0	2,777.8	2,809.0	2,777.8	7.4	7.7	142.25	262.9	-234.0	544.7	532.9	11.80	46.160		
2,900.0	2,876.7	2,907.9	2,876.7	7.7	7.8	143.20	262.9	-234.0	556.8	544.7	12.18	45.719		
3,000.0	2,975.5	3,006.7	2,975.5	8.1	7.9	144.11	262.9	-234.0	569.1	556.6	12.55	45.332		
3,100.0	3,074.3	3,105.6	3,074.3	8.4	8.0	144.98	262.9	-234.0	581.5	568.6	12.92	44.994		
3,200.0	3,173.2	3,204.4	3,173.2	8.7	8.2	145.82	262.9	-234.0	594.0	580.7	13.29	44.697		
3,300.0	3,272.0	3,303.2	3,272.0	9.0	8.3	146.62	262.9	-234.0	606.7	593.0	13.65	44.437		
3,400.0	3,370.9	3,402.1	3,370.9	9.3	8.4	147.39	262.9	-234.0	619.5	605.4	14.01	44.208		
3,500.0	3,469.7	3,500.9	3,469.7	9.6	8.5	148.13	262.9	-234.0	632.3	618.0	14.37	44.007		
3,600.0	3,568.6	3,599.8	3,568.6	9.9	8.6	148.84	262.9	-234.0	645.3	630.6	14.72	43.831		
3,700.0	3,667.4	3,698.6	3,667.4	10.3	8.8	149.52	262.9	-234.0	658.4	643.3	15.07	43.676		
3,800.0	3,766.2	3,797.5	3,766.2	10.6	8.9	150.19	262.9	-234.0	671.5	656.1	15.43	43.528		
3,900.0	3,865.4	3,896.6	3,865.4	10.8	9.0	150.84	262.9	-234.0	682.8	667.1	15.79	43.248		
4,000.0	3,964.9	3,996.1	3,964.9	11.1	9.2	151.31	262.9	-234.0	691.2	675.1	16.13	42.848		
4,100.0	4,064.7	4,096.0	4,064.7	11.2	9.3	151.60	262.9	-234.0	696.5	680.1	16.46	42.330		
4,200.0	4,164.7	4,195.9	4,164.7	11.3	9.4	151.72	262.9	-234.0	698.8	682.1	16.76	41.695		
4,300.0	4,264.7	4,295.9	4,264.7	11.5	9.6	0.21	262.9	-234.0	698.9	679.6	19.31	36.188		
4,400.0	4,364.7	4,395.9	4,364.7	11.6	9.7	0.21	262.9	-234.0	698.9	679.3	19.59	35.681		
4,500.0	4,464.7	4,495.9	4,464.7	11.7	9.8	0.21	262.9	-234.0	698.9	679.1	19.86	35.183		
4,600.0	4,564.7	4,595.9	4,564.7	11.8	10.0	0.21	262.9	-234.0	698.9	678.8	20.14	34.696		
4,700.0	4,664.7	4,695.9	4,664.7	11.9	10.1	0.21	262.9	-234.0	698.9	678.5	20.43	34.219		
4,800.0	4,764.7	4,795.9	4,764.7	12.1	10.3	0.21	262.9	-234.0	698.9	678.2	20.71	33.751		
4,900.0	4,864.7	4,895.9	4,864.7	12.2	10.4	0.21	262.9	-234.0	698.9	677.9	20.99	33.293		
5,000.0	4,964.7	4,995.9	4,964.7	12.3	10.5	0.21	262.9	-234.0	698.9	677.6	21.28	32.844		
5,100.0	5,064.7	5,095.9	5,064.7	12.4	10.7	0.21	262.9	-234.0	698.9	677.3	21.57	32.405		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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							
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	
5,200.0	5,164.7	5,195.9	5,164.7	12.5	10.8	0.21	262.9	-234.0	698.9	677.1	21.86	31.974		
5,300.0	5,264.7	5,295.9	5,264.7	12.7	11.0	0.21	262.9	-234.0	698.9	676.8	22.15	31.553		
5,400.0	5,364.7	5,395.9	5,364.7	12.8	11.1	0.21	262.9	-234.0	698.9	676.5	22.44	31.140		
5,500.0	5,464.7	5,495.9	5,464.7	12.9	11.3	0.21	262.9	-234.0	698.9	676.2	22.74	30.737		
5,600.0	5,564.7	5,595.9	5,564.7	13.1	11.4	0.21	262.9	-234.0	698.9	675.9	23.04	30.341		
5,700.0	5,664.7	5,695.9	5,664.7	13.2	11.6	0.21	262.9	-234.0	698.9	675.6	23.33	29.954		
5,800.0	5,764.7	5,795.9	5,764.7	13.3	11.7	0.21	262.9	-234.0	698.9	675.3	23.63	29.575		
5,900.0	5,864.7	5,895.9	5,864.7	13.5	11.9	0.21	262.9	-234.0	698.9	675.0	23.93	29.203		
6,000.0	5,964.7	5,995.9	5,964.7	13.6	12.0	0.21	262.9	-234.0	698.9	674.7	24.23	28.840		
6,100.0	6,064.7	6,095.9	6,064.7	13.7	12.2	0.21	262.9	-234.0	698.9	674.4	24.54	28.484		
6,200.0	6,164.7	6,195.9	6,164.7	13.9	12.3	0.21	262.9	-234.0	698.9	674.1	24.84	28.135		
6,300.0	6,264.7	6,295.9	6,264.7	14.0	12.5	0.21	262.9	-234.0	698.9	673.8	25.15	27.794		
6,400.0	6,364.7	6,395.9	6,364.7	14.1	12.6	0.21	262.9	-234.0	698.9	673.5	25.45	27.459		
6,429.1	6,393.8	6,425.0	6,393.8	14.2	12.7	0.21	262.9	-234.0	698.9	673.4	25.54	27.363		
6,500.0	6,464.7	6,495.5	6,464.2	14.3	12.8	0.47	262.9	-230.8	698.9	673.2	25.76	27.129		
6,600.0	6,564.6	6,593.0	6,560.3	14.4	12.8	-88.48	262.9	-215.1	699.2	675.0	24.21	28.882		
6,700.0	6,663.2	6,688.7	6,651.8	14.4	12.8	-87.40	262.9	-187.1	699.6	675.4	24.24	28.859		
6,800.0	6,758.5	6,782.9	6,737.3	14.4	12.8	-86.38	262.9	-147.9	700.3	676.1	24.22	28.910		
6,900.0	6,848.7	6,875.7	6,815.9	14.4	12.8	-85.44	262.9	-98.7	701.2	676.9	24.25	28.919		
7,000.0	6,932.1	6,967.2	6,886.5	14.4	12.9	-84.58	262.9	-40.5	702.1	677.7	24.43	28.743		
7,100.0	7,007.0	7,057.8	6,948.5	14.5	13.1	-83.82	262.9	25.4	703.0	678.1	24.92	28.210		
7,200.0	7,072.0	7,150.0	7,002.6	14.8	13.5	-83.16	262.9	100.0	703.9	678.1	25.87	27.207		
7,300.0	7,125.8	7,236.4	7,044.2	15.2	14.2	-82.66	262.9	175.7	704.7	677.4	27.36	25.760		
7,400.0	7,167.3	7,324.8	7,077.0	16.0	15.3	-82.26	262.9	257.8	705.4	675.9	29.44	23.960		
7,500.0	7,195.8	7,412.9	7,099.4	17.2	16.5	-82.00	262.9	342.9	705.8	673.8	32.07	22.010		
7,600.0	7,210.7	7,500.0	7,111.1	18.7	17.9	-81.88	262.9	429.1	706.0	670.9	35.14	20.095		
7,700.0	7,213.8	7,595.1	7,113.9	20.5	19.7	-81.87	263.0	524.2	706.1	667.4	38.70	18.243		
7,800.0	7,215.6	7,695.1	7,115.7	22.4	21.6	-81.87	263.0	624.2	706.1	663.5	42.62	16.567		
7,900.0	7,217.3	7,795.1	7,117.4	24.4	23.7	-81.87	263.0	724.2	706.1	659.4	46.72	15.114		
8,000.0	7,219.1	7,895.1	7,119.2	26.5	25.8	-81.87	263.0	824.2	706.1	655.1	50.96	13.856		
8,100.0	7,220.8	7,995.1	7,120.9	28.6	28.0	-81.87	263.0	924.2	706.1	650.8	55.31	12.766		
8,200.0	7,222.5	8,095.1	7,122.7	30.8	30.2	-81.87	263.0	1,024.1	706.1	646.4	59.74	11.819		
8,300.0	7,224.3	8,195.1	7,124.4	33.0	32.5	-81.87	263.0	1,124.1	706.1	641.9	64.25	10.991		
8,400.0	7,226.0	8,295.1	7,126.2	35.3	34.8	-81.87	263.0	1,224.1	706.1	637.3	68.80	10.263		
8,500.0	7,227.8	8,395.1	7,127.9	37.6	37.1	-81.87	263.0	1,324.1	706.1	632.7	73.40	9.620		
8,600.0	7,229.5	8,495.1	7,129.7	39.9	39.4	-81.87	263.0	1,424.1	706.1	628.1	78.04	9.048		
8,700.0	7,231.3	8,595.1	7,131.4	42.2	41.8	-81.87	263.0	1,524.1	706.1	623.4	82.71	8.538		
8,800.0	7,233.0	8,695.1	7,133.1	44.6	44.1	-81.87	263.0	1,624.0	706.1	618.7	87.40	8.080		
8,900.0	7,234.8	8,795.1	7,134.9	47.0	46.5	-81.87	263.0	1,724.0	706.1	614.0	92.11	7.666		
9,000.0	7,236.5	8,895.1	7,136.6	49.3	48.9	-81.87	263.0	1,824.0	706.2	609.3	96.84	7.292		
9,100.0	7,238.2	8,995.1	7,138.4	51.7	51.3	-81.87	263.0	1,924.0	706.2	604.6	101.59	6.951		
9,200.0	7,240.0	9,095.1	7,140.1	54.1	53.7	-81.87	263.0	2,024.0	706.2	599.8	106.35	6.640		
9,300.0	7,241.7	9,195.1	7,141.9	56.5	56.1	-81.87	263.0	2,124.0	706.2	595.0	111.13	6.355		
9,400.0	7,243.5	9,295.1	7,143.6	58.9	58.5	-81.87	263.1	2,224.0	706.2	590.3	115.91	6.092		
9,500.0	7,245.2	9,395.1	7,145.4	61.3	60.9	-81.87	263.1	2,323.9	706.2	585.5	120.70	5.851		
9,600.0	7,247.0	9,495.1	7,147.1	63.7	63.4	-81.87	263.1	2,423.9	706.2	580.7	125.50	5.627		
9,700.0	7,248.7	9,595.1	7,148.9	66.1	65.8	-81.87	263.1	2,523.9	706.2	575.9	130.31	5.419		
9,800.0	7,250.5	9,695.1	7,150.6	68.6	68.2	-81.87	263.1	2,623.9	706.2	571.1	135.13	5.226		
9,900.0	7,252.2	9,795.1	7,152.3	71.0	70.6	-81.87	263.1	2,723.9	706.2	566.3	139.95	5.046		
10,000.0	7,254.0	9,895.1	7,154.1	73.4	73.1	-81.87	263.1	2,823.9	706.2	561.4	144.77	4.878		
10,100.0	7,255.7	9,995.1	7,155.8	75.9	75.5	-81.87	263.1	2,923.8	706.2	556.6	149.60	4.721		
10,200.0	7,257.4	10,095.1	7,157.6	78.3	78.0	-81.87	263.1	3,023.8	706.2	551.8	154.44	4.573		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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)				
10,300.0	7,259.2	10,195.1	7,159.3	80.7	80.4	-81.87	263.1	3,123.8	706.2	547.0	159.28	4.434		
10,400.0	7,260.9	10,295.1	7,161.1	83.2	82.8	-81.87	263.1	3,223.8	706.3	542.1	164.12	4.303		
10,500.0	7,262.7	10,395.1	7,162.8	85.6	85.3	-81.87	263.1	3,323.8	706.3	537.3	168.97	4.180		
10,600.0	7,264.4	10,495.1	7,164.6	88.0	87.7	-81.87	263.1	3,423.8	706.3	532.5	173.81	4.063		
10,700.0	7,266.2	10,595.1	7,166.3	90.5	90.2	-81.87	263.1	3,523.8	706.3	527.6	178.67	3.953		
10,800.0	7,267.9	10,695.1	7,168.0	92.9	92.6	-81.87	263.1	3,623.7	706.3	522.8	183.52	3.849		
10,900.0	7,269.7	10,795.1	7,169.8	95.4	95.1	-81.87	263.1	3,723.7	706.3	517.9	188.38	3.749		
11,000.0	7,271.4	10,895.1	7,171.5	97.8	97.5	-81.87	263.1	3,823.7	706.3	513.1	193.23	3.655		
11,100.0	7,273.2	10,995.1	7,173.3	100.3	100.0	-81.87	263.1	3,923.7	706.3	508.2	198.09	3.565		
11,200.0	7,274.9	11,095.1	7,175.0	102.7	102.4	-81.87	263.2	4,023.7	706.3	503.4	202.96	3.480		
11,300.0	7,276.6	11,195.1	7,176.8	105.2	104.9	-81.87	263.2	4,123.7	706.3	498.5	207.82	3.399		
11,400.0	7,278.4	11,295.1	7,178.5	107.6	107.3	-81.87	263.2	4,223.6	706.3	493.6	212.68	3.321		
11,500.0	7,280.1	11,395.1	7,180.3	110.1	109.8	-81.87	263.2	4,323.6	706.3	488.8	217.55	3.247		
11,600.0	7,281.9	11,495.1	7,182.0	112.6	112.3	-81.87	263.2	4,423.6	706.3	483.9	222.42	3.176		
11,700.0	7,283.6	11,595.1	7,183.8	115.0	114.7	-81.87	263.2	4,523.6	706.3	479.1	227.29	3.108		
11,800.0	7,285.4	11,695.1	7,185.5	117.5	117.2	-81.87	263.2	4,623.6	706.3	474.2	232.16	3.043		
11,900.0	7,287.1	11,795.1	7,187.2	119.9	119.6	-81.87	263.2	4,723.6	706.4	469.3	237.03	2.980		
12,000.0	7,288.9	11,895.1	7,189.0	122.4	122.1	-81.87	263.2	4,823.6	706.4	464.5	241.90	2.920		
12,100.0	7,290.6	11,995.1	7,190.7	124.8	124.6	-81.87	263.2	4,923.5	706.4	459.6	246.78	2.862		
12,200.0	7,292.4	12,095.1	7,192.5	127.3	127.0	-81.87	263.2	5,023.5	706.4	454.7	251.65	2.807		
12,300.0	7,294.1	12,195.1	7,194.2	129.8	129.5	-81.87	263.2	5,123.5	706.4	449.9	256.53	2.754		
12,400.0	7,295.8	12,295.1	7,196.0	132.2	131.9	-81.87	263.2	5,223.5	706.4	445.0	261.41	2.702		
12,500.0	7,297.6	12,395.1	7,197.7	134.7	134.4	-81.87	263.2	5,323.5	706.4	440.1	266.28	2.653		
12,600.0	7,299.3	12,495.1	7,199.5	137.1	136.9	-81.87	263.2	5,423.5	706.4	435.2	271.16	2.605		
12,700.0	7,301.1	12,595.1	7,201.2	139.6	139.3	-81.87	263.2	5,523.4	706.4	430.4	276.04	2.559		
12,800.0	7,302.8	12,695.1	7,203.0	142.1	141.8	-81.87	263.2	5,623.4	706.4	425.5	280.92	2.515		
12,900.0	7,304.6	12,795.1	7,204.7	144.5	144.3	-81.87	263.3	5,723.4	706.4	420.6	285.80	2.472		
13,000.0	7,306.3	12,895.1	7,206.4	147.0	146.7	-81.87	263.3	5,823.4	706.4	415.7	290.68	2.430		
13,100.0	7,308.1	12,995.1	7,208.2	149.5	149.2	-81.87	263.3	5,923.4	706.4	410.9	295.56	2.390		
13,200.0	7,309.8	13,095.1	7,209.9	151.9	151.7	-81.87	263.3	6,023.4	706.4	406.0	300.44	2.351		
13,300.0	7,311.5	13,195.1	7,211.7	154.4	154.1	-81.87	263.3	6,123.4	706.5	401.1	305.33	2.314		
13,400.0	7,313.3	13,295.1	7,213.4	156.8	156.6	-81.87	263.3	6,223.3	706.5	396.2	310.21	2.277		
13,500.0	7,315.0	13,395.1	7,215.2	159.3	159.1	-81.87	263.3	6,323.3	706.5	391.4	315.09	2.242		
13,600.0	7,316.8	13,495.1	7,216.9	161.8	161.5	-81.87	263.3	6,423.3	706.5	386.5	319.98	2.208		
13,700.0	7,318.5	13,595.1	7,218.7	164.2	164.0	-81.87	263.3	6,523.3	706.5	381.6	324.86	2.175		
13,800.0	7,320.3	13,695.1	7,220.4	166.7	166.5	-81.87	263.3	6,623.3	706.5	376.7	329.75	2.143		
13,900.0	7,322.0	13,795.1	7,222.2	169.2	168.9	-81.87	263.3	6,723.3	706.5	371.9	334.63	2.111		
14,000.0	7,323.8	13,895.1	7,223.9	171.6	171.4	-81.87	263.3	6,823.3	706.5	367.0	339.52	2.081		
14,100.0	7,325.5	13,995.1	7,225.6	174.1	173.9	-81.87	263.3	6,923.2	706.5	362.1	344.40	2.051		
14,200.0	7,327.3	14,095.1	7,227.4	176.6	176.3	-81.87	263.3	7,023.2	706.5	357.2	349.29	2.023		
14,300.0	7,329.0	14,195.1	7,229.1	179.0	178.8	-81.87	263.3	7,123.2	706.5	352.3	354.17	1.995		
14,329.5	7,329.5	14,224.6	7,229.6	179.8	179.5	-81.87	263.3	7,152.7	706.5	350.9	355.61	1.987		
14,357.2	7,330.0	14,244.8	7,230.0	180.4	180.0	-81.87	263.3	7,172.9	706.6	349.8	356.79	1.980 SF		

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 2E-18H - HZ - Plan #1													Offset Site Error:	0.0 ft
Survey Program: 0-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance				Total Uncertainty Axis	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
0.0	0.0	0.0	0.0	0.0	0.0	0.00	10.9	0.0	10.9					
100.0	100.0	100.0	100.0	0.2	0.2	0.00	10.9	0.0	10.9	10.6	0.30	35.986		
200.0	200.0	200.0	200.0	0.3	0.3	0.00	10.9	0.0	10.9	10.3	0.65	16.742		
300.0	300.0	300.0	300.0	0.5	0.5	0.00	10.9	0.0	10.9	9.9	1.00	10.909 CC, ES		
400.0	400.0	400.0	400.0	0.7	0.7	153.55	10.9	0.0	11.7	10.4	1.35	8.663		
500.0	500.0	500.1	500.1	0.9	0.9	155.10	10.6	-0.8	13.7	12.0	1.70	8.048		
600.0	599.9	600.1	600.1	1.0	1.0	153.30	9.6	-3.2	16.5	14.4	2.05	8.029		
700.0	699.7	700.2	700.1	1.2	1.2	149.78	7.9	-7.3	20.2	17.8	2.42	8.350		
800.0	799.4	800.2	799.9	1.4	1.4	145.69	5.6	-12.9	24.9	22.1	2.80	8.883		
900.0	898.9	900.1	899.5	1.7	1.6	141.69	2.6	-20.1	30.6	27.4	3.20	9.547		
1,000.0	998.3	1,000.0	998.9	1.9	1.8	138.07	-1.1	-29.0	37.4	33.8	3.64	10.276		
1,100.0	1,097.4	1,099.7	1,098.0	2.2	2.1	135.14	-5.4	-39.2	45.4	41.3	4.11	11.049		
1,200.0	1,196.3	1,199.3	1,196.9	2.5	2.3	134.09	-9.7	-49.7	54.6	50.1	4.59	11.894		
1,300.0	1,295.2	1,298.8	1,295.8	2.8	2.6	133.68	-14.1	-60.2	64.2	59.1	5.09	12.621		
1,400.0	1,394.0	1,398.4	1,394.7	3.1	2.8	133.38	-18.4	-70.7	73.7	68.1	5.58	13.205		
1,500.0	1,492.8	1,497.9	1,493.6	3.4	3.1	133.14	-22.8	-81.2	83.3	77.2	6.09	13.682		
1,600.0	1,591.7	1,597.4	1,592.5	3.7	3.3	132.95	-27.1	-91.7	92.8	86.2	6.59	14.077		
1,700.0	1,690.5	1,697.0	1,691.4	4.0	3.6	132.80	-31.5	-102.1	102.3	95.2	7.10	14.410		
1,800.0	1,789.4	1,796.5	1,790.3	4.3	3.8	132.67	-35.8	-112.6	111.9	104.3	7.61	14.694		
1,900.0	1,888.2	1,896.1	1,889.2	4.6	4.1	132.57	-40.2	-123.1	121.4	113.3	8.13	14.938		
2,000.0	1,987.1	1,995.6	1,988.1	4.9	4.3	132.48	-44.6	-133.6	131.0	122.3	8.64	15.150		
2,100.0	2,085.9	2,095.2	2,087.0	5.2	4.6	132.40	-48.9	-144.1	140.5	131.3	9.16	15.336		
2,200.0	2,184.7	2,194.7	2,185.8	5.5	4.9	132.33	-53.3	-154.5	150.1	140.4	9.68	15.500		
2,300.0	2,283.6	2,294.2	2,284.7	5.9	5.1	132.27	-57.6	-165.0	159.6	149.4	10.20	15.646		
2,400.0	2,382.4	2,393.8	2,383.6	6.2	5.4	132.21	-62.0	-175.5	169.1	158.4	10.72	15.777		
2,500.0	2,481.3	2,493.3	2,482.5	6.5	5.6	132.17	-66.3	-186.0	178.7	167.4	11.24	15.895		
2,600.0	2,580.1	2,592.9	2,581.4	6.8	5.9	132.12	-70.7	-196.5	188.2	176.5	11.76	16.001		
2,700.0	2,679.0	2,692.4	2,680.3	7.1	6.2	132.08	-75.0	-207.0	197.8	185.5	12.29	16.097		
2,800.0	2,777.8	2,792.0	2,779.2	7.4	6.4	132.05	-79.4	-217.4	207.3	194.5	12.81	16.186		
2,900.0	2,876.7	2,891.0	2,877.8	7.7	6.7	132.47	-83.1	-226.3	217.0	203.7	13.27	16.351		
3,000.0	2,975.5	2,989.8	2,976.4	8.1	6.8	133.71	-85.4	-232.0	226.9	213.3	13.65	16.628		
3,100.0	3,074.3	3,088.1	3,074.7	8.4	7.0	135.66	-86.5	-234.6	237.3	223.4	13.94	17.029		
3,200.0	3,173.2	3,186.7	3,173.2	8.7	7.1	138.05	-86.6	-234.7	248.4	234.3	14.18	17.521		
3,300.0	3,272.0	3,285.5	3,272.0	9.0	7.2	140.27	-86.6	-234.7	260.0	245.5	14.42	18.033		
3,400.0	3,370.9	3,384.3	3,370.9	9.3	7.4	142.30	-86.6	-234.7	271.9	257.2	14.65	18.551		
3,500.0	3,469.7	3,483.2	3,469.7	9.6	7.5	144.17	-86.6	-234.7	284.1	269.2	14.89	19.071		
3,600.0	3,568.6	3,582.0	3,568.6	9.9	7.7	145.88	-86.6	-234.7	296.5	281.4	15.14	19.588		
3,700.0	3,667.4	3,680.9	3,667.4	10.3	7.8	147.45	-86.6	-234.7	309.2	293.9	15.38	20.100		
3,800.0	3,766.2	3,779.7	3,766.2	10.6	7.9	148.91	-86.6	-234.7	322.1	306.5	15.64	20.602		
3,900.0	3,865.4	3,878.9	3,865.4	10.8	8.1	150.17	-86.6	-234.7	333.4	317.5	15.90	20.971		
4,000.0	3,964.9	3,978.4	3,964.9	11.1	8.2	151.05	-86.6	-234.7	341.7	325.6	16.17	21.138		
4,100.0	4,064.7	4,078.2	4,064.7	11.2	8.4	151.59	-86.6	-234.7	347.1	330.6	16.44	21.110		
4,200.0	4,164.7	4,178.2	4,164.7	11.3	8.5	151.81	-86.6	-234.7	349.3	332.6	16.72	20.894		
4,300.0	4,264.7	4,278.2	4,264.7	11.5	8.7	0.31	-86.6	-234.7	349.4	331.1	18.34	19.054		
4,400.0	4,364.7	4,378.2	4,364.7	11.6	8.8	0.31	-86.6	-234.7	349.4	330.8	18.63	18.755		
4,500.0	4,464.7	4,478.2	4,464.7	11.7	9.0	0.31	-86.6	-234.7	349.4	330.5	18.93	18.463		
4,600.0	4,564.7	4,578.2	4,564.7	11.8	9.1	0.31	-86.6	-234.7	349.4	330.2	19.22	18.178		
4,700.0	4,664.7	4,678.2	4,664.7	11.9	9.3	0.31	-86.6	-234.7	349.4	329.9	19.52	17.901		
4,800.0	4,764.7	4,778.2	4,764.7	12.1	9.4	0.31	-86.6	-234.7	349.4	329.6	19.82	17.631		
4,900.0	4,864.7	4,878.2	4,864.7	12.2	9.6	0.31	-86.6	-234.7	349.4	329.3	20.12	17.368		
5,000.0	4,964.7	4,978.2	4,964.7	12.3	9.7	0.31	-86.6	-234.7	349.4	329.0	20.42	17.111		
5,100.0	5,064.7	5,078.2	5,064.7	12.4	9.9	0.31	-86.6	-234.7	349.4	328.7	20.72	16.861		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 2E-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	5,164.7	5,178.2	5,164.7	12.5	10.1	0.31	-86.6	-234.7	349.4	328.4	21.03	16.617		
5,300.0	5,264.7	5,278.2	5,264.7	12.7	10.2	0.31	-86.6	-234.7	349.4	328.1	21.33	16.379		
5,400.0	5,364.7	5,378.2	5,364.7	12.8	10.4	0.31	-86.6	-234.7	349.4	327.8	21.64	16.147		
5,500.0	5,464.7	5,478.2	5,464.7	12.9	10.5	0.31	-86.6	-234.7	349.4	327.5	21.95	15.921		
5,600.0	5,564.7	5,578.2	5,564.7	13.1	10.7	0.31	-86.6	-234.7	349.4	327.2	22.26	15.700		
5,700.0	5,664.7	5,678.2	5,664.7	13.2	10.8	0.31	-86.6	-234.7	349.4	326.9	22.57	15.485		
5,800.0	5,764.7	5,778.2	5,764.7	13.3	11.0	0.31	-86.6	-234.7	349.4	326.6	22.88	15.275		
5,900.0	5,864.7	5,878.2	5,864.7	13.5	11.2	0.31	-86.6	-234.7	349.4	326.2	23.19	15.069		
6,000.0	5,964.7	5,978.2	5,964.7	13.6	11.3	0.31	-86.6	-234.7	349.4	325.9	23.50	14.869		
6,100.0	6,064.7	6,078.2	6,064.7	13.7	11.5	0.31	-86.6	-234.7	349.4	325.6	23.81	14.673		
6,200.0	6,164.7	6,178.2	6,164.7	13.9	11.6	0.31	-86.6	-234.7	349.4	325.3	24.13	14.482		
6,232.0	6,196.7	6,210.2	6,196.7	13.9	11.7	0.31	-86.6	-234.7	349.4	325.2	24.23	14.422		
6,300.0	6,264.7	6,277.8	6,264.2	14.0	11.8	0.83	-86.6	-231.6	349.5	325.0	24.47	14.281		
6,400.0	6,364.7	6,374.8	6,359.9	14.1	11.8	3.39	-86.6	-215.9	350.1	325.2	24.91	14.056		
6,500.0	6,464.7	6,466.0	6,447.1	14.3	11.8	7.67	-86.6	-189.6	353.0	327.6	25.39	13.905		
6,600.0	6,564.6	6,550.0	6,523.9	14.4	11.8	-76.91	-86.6	-155.7	360.3	337.0	23.28	15.479		
6,700.0	6,663.2	6,631.9	6,594.5	14.4	11.8	-71.64	-86.6	-114.2	370.7	347.4	23.25	15.944		
6,800.0	6,758.5	6,710.7	6,657.5	14.4	11.9	-66.94	-86.6	-66.9	383.1	359.7	23.32	16.428		
6,900.0	6,848.7	6,787.5	6,713.6	14.4	12.0	-62.83	-86.6	-14.5	396.5	373.0	23.47	16.891		
7,000.0	6,932.1	6,862.7	6,762.7	14.4	12.3	-59.31	-86.6	42.4	410.0	386.3	23.72	17.282		
7,100.0	7,007.0	6,936.5	6,804.8	14.5	12.8	-56.37	-86.6	102.9	422.9	398.8	24.07	17.571		
7,200.0	7,072.0	7,009.2	6,840.1	14.8	13.5	-53.99	-86.6	166.5	434.5	410.0	24.54	17.705		
7,300.0	7,125.8	7,081.1	6,868.4	15.2	14.3	-52.14	-86.6	232.5	444.4	419.2	25.21	17.628		
7,400.0	7,167.3	7,150.0	6,889.2	16.0	15.3	-50.79	-86.6	298.2	452.1	426.0	26.10	17.324		
7,500.0	7,195.8	7,223.2	6,904.3	17.2	16.4	-49.87	-86.6	369.8	457.4	430.1	27.35	16.725		
7,600.0	7,210.7	7,300.0	6,912.2	18.7	17.8	-49.41	-86.6	446.2	460.2	431.2	28.99	15.874		
7,700.0	7,213.8	7,381.6	6,914.0	20.5	19.3	-49.36	-86.6	527.7	460.5	429.2	31.32	14.703		
7,800.0	7,215.6	7,481.6	6,915.7	22.4	21.3	-49.36	-86.5	627.7	460.5	426.2	34.31	13.421		
7,900.0	7,217.3	7,581.6	6,917.4	24.4	23.4	-49.36	-86.5	727.7	460.5	423.1	37.44	12.300		
8,000.0	7,219.1	7,681.6	6,919.2	26.5	25.6	-49.36	-86.5	827.7	460.5	419.8	40.68	11.321		
8,100.0	7,220.8	7,781.6	6,920.9	28.6	27.8	-49.37	-86.5	927.7	460.5	416.5	44.00	10.467		
8,200.0	7,222.5	7,881.6	6,922.7	30.8	30.1	-49.37	-86.5	1,027.7	460.5	413.1	47.39	9.719		
8,300.0	7,224.3	7,981.6	6,924.4	33.0	32.3	-49.37	-86.5	1,127.6	460.5	409.7	50.83	9.061		
8,400.0	7,226.0	8,081.6	6,926.2	35.3	34.7	-49.37	-86.5	1,227.6	460.5	406.2	54.31	8.480		
8,500.0	7,227.8	8,181.6	6,927.9	37.6	37.0	-49.37	-86.5	1,327.6	460.5	402.7	57.83	7.964		
8,600.0	7,229.5	8,281.6	6,929.7	39.9	39.3	-49.37	-86.5	1,427.6	460.5	399.2	61.37	7.504		
8,700.0	7,231.3	8,381.6	6,931.4	42.2	41.7	-49.37	-86.5	1,527.6	460.5	395.6	64.95	7.091		
8,800.0	7,233.0	8,481.6	6,933.2	44.6	44.1	-49.37	-86.5	1,627.6	460.5	392.0	68.54	6.719		
8,900.0	7,234.8	8,581.6	6,934.9	47.0	46.5	-49.37	-86.5	1,727.5	460.5	388.4	72.15	6.383		
9,000.0	7,236.5	8,681.6	6,936.6	49.3	48.9	-49.37	-86.5	1,827.5	460.5	384.8	75.77	6.078		
9,100.0	7,238.2	8,781.6	6,938.4	51.7	51.3	-49.37	-86.5	1,927.5	460.5	381.1	79.41	5.799		
9,200.0	7,240.0	8,881.6	6,940.1	54.1	53.7	-49.37	-86.5	2,027.5	460.5	377.5	83.06	5.545		
9,300.0	7,241.7	8,981.6	6,941.9	56.5	56.1	-49.37	-86.5	2,127.5	460.5	373.8	86.72	5.311		
9,400.0	7,243.5	9,081.6	6,943.6	58.9	58.5	-49.37	-86.5	2,227.5	460.6	370.2	90.39	5.095		
9,500.0	7,245.2	9,181.6	6,945.4	61.3	60.9	-49.37	-86.5	2,327.5	460.6	366.5	94.06	4.896		
9,600.0	7,247.0	9,281.6	6,947.1	63.7	63.4	-49.37	-86.5	2,427.4	460.6	362.8	97.74	4.712		
9,700.0	7,248.7	9,381.6	6,948.9	66.1	65.8	-49.37	-86.5	2,527.4	460.6	359.1	101.43	4.541		
9,800.0	7,250.5	9,481.6	6,950.6	68.6	68.2	-49.37	-86.5	2,627.4	460.6	355.4	105.13	4.381		
9,900.0	7,252.2	9,581.6	6,952.4	71.0	70.7	-49.37	-86.5	2,727.4	460.6	351.7	108.82	4.232		
10,000.0	7,254.0	9,681.6	6,954.1	73.4	73.1	-49.37	-86.5	2,827.4	460.6	348.0	112.53	4.093		
10,100.0	7,255.7	9,781.6	6,955.8	75.9	75.5	-49.37	-86.5	2,927.4	460.6	344.3	116.23	3.962		
10,200.0	7,257.4	9,881.6	6,957.6	78.3	78.0	-49.37	-86.5	3,027.4	460.6	340.6	119.94	3.840		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 2E-18H - HZ - Plan #1												Offset Site Error:	0.0 ft
Survey Program: 0-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Total Uncertainty Axis	Separation Factor	Warning
10,300.0	7,259.2	9,981.6	6,959.3	80.7	80.4	-49.37	-86.5	3,127.3	460.6	336.9	123.66	3.725	
10,400.0	7,260.9	10,081.6	6,961.1	83.2	82.9	-49.37	-86.5	3,227.3	460.6	333.2	127.37	3.616	
10,500.0	7,262.7	10,181.6	6,962.8	85.6	85.3	-49.37	-86.5	3,327.3	460.6	329.5	131.09	3.513	
10,600.0	7,264.4	10,281.6	6,964.6	88.0	87.8	-49.37	-86.5	3,427.3	460.6	325.8	134.82	3.416	
10,700.0	7,266.2	10,381.6	6,966.3	90.5	90.2	-49.37	-86.5	3,527.3	460.6	322.1	138.54	3.325	
10,800.0	7,267.9	10,481.6	6,968.1	92.9	92.7	-49.37	-86.5	3,627.3	460.6	318.3	142.27	3.238	
10,900.0	7,269.7	10,581.6	6,969.8	95.4	95.1	-49.37	-86.5	3,727.2	460.6	314.6	146.00	3.155	
11,000.0	7,271.4	10,681.6	6,971.6	97.8	97.6	-49.37	-86.5	3,827.2	460.6	310.9	149.73	3.076	
11,100.0	7,273.2	10,781.6	6,973.3	100.3	100.0	-49.37	-86.5	3,927.2	460.6	307.1	153.46	3.001	
11,200.0	7,274.9	10,881.6	6,975.0	102.7	102.5	-49.37	-86.5	4,027.2	460.6	303.4	157.19	2.930	
11,300.0	7,276.6	10,981.6	6,976.8	105.2	105.0	-49.38	-86.5	4,127.2	460.6	299.7	160.93	2.862	
11,400.0	7,278.4	11,081.6	6,978.5	107.6	107.4	-49.38	-86.5	4,227.2	460.6	295.9	164.66	2.797	
11,500.0	7,280.1	11,181.6	6,980.3	110.1	109.9	-49.38	-86.5	4,327.2	460.6	292.2	168.40	2.735	
11,600.0	7,281.9	11,281.6	6,982.0	112.6	112.3	-49.38	-86.5	4,427.1	460.6	288.5	172.14	2.676	
11,700.0	7,283.6	11,381.6	6,983.8	115.0	114.8	-49.38	-86.4	4,527.1	460.6	284.7	175.88	2.619	
11,800.0	7,285.4	11,481.6	6,985.5	117.5	117.3	-49.38	-86.4	4,627.1	460.6	281.0	179.62	2.564	
11,900.0	7,287.1	11,581.6	6,987.3	119.9	119.7	-49.38	-86.4	4,727.1	460.6	277.3	183.36	2.512	
12,000.0	7,288.9	11,681.6	6,989.0	122.4	122.2	-49.38	-86.4	4,827.1	460.6	273.5	187.11	2.462	
12,100.0	7,290.6	11,781.6	6,990.7	124.8	124.6	-49.38	-86.4	4,927.1	460.6	269.8	190.85	2.414	
12,200.0	7,292.4	11,881.6	6,992.5	127.3	127.1	-49.38	-86.4	5,027.0	460.6	266.0	194.59	2.367	
12,300.0	7,294.1	11,981.6	6,994.2	129.8	129.6	-49.38	-86.4	5,127.0	460.6	262.3	198.34	2.322	
12,400.0	7,295.8	12,081.6	6,996.0	132.2	132.0	-49.38	-86.4	5,227.0	460.6	258.6	202.09	2.279	
12,500.0	7,297.6	12,181.6	6,997.7	134.7	134.5	-49.38	-86.4	5,327.0	460.6	254.8	205.83	2.238	
12,600.0	7,299.3	12,281.6	6,999.5	137.1	137.0	-49.38	-86.4	5,427.0	460.6	251.1	209.58	2.198	
12,700.0	7,301.1	12,381.6	7,001.2	139.6	139.4	-49.38	-86.4	5,527.0	460.6	247.3	213.33	2.159	
12,800.0	7,302.8	12,481.6	7,003.0	142.1	141.9	-49.38	-86.4	5,627.0	460.7	243.6	217.08	2.122	
12,900.0	7,304.6	12,581.6	7,004.7	144.5	144.4	-49.38	-86.4	5,726.9	460.7	239.8	220.83	2.086	
13,000.0	7,306.3	12,681.6	7,006.5	147.0	146.8	-49.38	-86.4	5,826.9	460.7	236.1	224.58	2.051	
13,100.0	7,308.1	12,781.6	7,008.2	149.5	149.3	-49.38	-86.4	5,926.9	460.7	232.3	228.33	2.018	
13,200.0	7,309.8	12,881.6	7,009.9	151.9	151.8	-49.38	-86.4	6,026.9	460.7	228.6	232.08	1.985	
13,300.0	7,311.5	12,981.6	7,011.7	154.4	154.2	-49.38	-86.4	6,126.9	460.7	224.8	235.83	1.953	
13,400.0	7,313.3	13,081.6	7,013.4	156.8	156.7	-49.38	-86.4	6,226.9	460.7	221.1	239.58	1.923	
13,500.0	7,315.0	13,181.6	7,015.2	159.3	159.2	-49.38	-86.4	6,326.8	460.7	217.3	243.34	1.893	
13,600.0	7,316.8	13,281.6	7,016.9	161.8	161.6	-49.38	-86.4	6,426.8	460.7	213.6	247.09	1.864	
13,700.0	7,318.5	13,381.6	7,018.7	164.2	164.1	-49.38	-86.4	6,526.8	460.7	209.8	250.84	1.837	
13,800.0	7,320.3	13,481.6	7,020.4	166.7	166.6	-49.38	-86.4	6,626.8	460.7	206.1	254.60	1.809	
13,900.0	7,322.0	13,581.6	7,022.2	169.2	169.0	-49.38	-86.4	6,726.8	460.7	202.3	258.35	1.783	
14,000.0	7,323.8	13,681.6	7,023.9	171.6	171.5	-49.38	-86.4	6,826.8	460.7	198.6	262.10	1.758	
14,100.0	7,325.5	13,781.6	7,025.7	174.1	174.0	-49.38	-86.4	6,926.8	460.7	194.8	265.86	1.733	
14,200.0	7,327.3	13,881.6	7,027.4	176.6	176.4	-49.38	-86.4	7,026.7	460.7	191.1	269.61	1.709	
14,300.0	7,329.0	13,981.6	7,029.1	179.0	178.9	-49.38	-86.4	7,126.7	460.7	187.3	273.37	1.685	
14,329.4	7,329.5	14,010.9	7,029.7	179.8	179.6	-49.38	-86.4	7,156.1	460.7	186.2	274.47	1.678	
14,357.2	7,330.0	14,030.7	7,030.0	180.4	180.1	-49.38	-86.4	7,175.8	460.8	185.4	275.36	1.673 SF	

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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				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	-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		
400.0	400.0	400.0	400.0	0.7	0.7	-30.84	-10.9	0.0	10.2	8.8	1.35	7.528		
500.0	500.0	499.8	499.8	0.9	0.9	-37.70	-11.8	-0.3	8.8	7.1	1.70	5.177		
600.0	599.9	599.7	599.6	1.0	1.0	-48.79	-14.3	-1.0	7.8	5.8	2.06	3.810		
687.9	687.6	687.4	687.3	1.2	1.2	-61.82	-17.8	-2.1	7.5	5.1	2.39	3.152 CC		
700.0	699.7	699.6	699.4	1.2	1.2	-63.77	-18.4	-2.3	7.5	5.1	2.44	3.094 ES		
800.0	799.4	799.5	799.2	1.4	1.4	-79.61	-24.2	-4.1	8.1	5.3	2.85	2.845		
900.0	898.9	899.4	898.8	1.7	1.6	-92.68	-31.7	-6.4	9.5	6.2	3.29	2.899		
1,000.0	998.3	999.4	998.3	1.9	1.8	-101.80	-40.9	-9.2	11.7	7.9	3.75	3.109		
1,100.0	1,097.4	1,099.3	1,097.6	2.2	2.1	-107.70	-51.7	-12.5	14.3	10.1	4.24	3.379		
1,200.0	1,196.3	1,199.3	1,196.7	2.5	2.3	-111.20	-64.1	-16.4	17.4	12.6	4.76	3.656		
1,300.0	1,295.2	1,299.3	1,295.6	2.8	2.6	-110.04	-78.3	-20.7	20.4	15.1	5.33	3.821		
1,400.0	1,394.0	1,399.3	1,394.3	3.1	2.9	-104.89	-94.0	-25.5	23.2	17.2	5.97	3.885		
1,500.0	1,492.8	1,499.2	1,492.7	3.4	3.3	-98.95	-110.6	-30.6	26.2	19.6	6.61	3.956		
1,600.0	1,591.7	1,599.2	1,591.1	3.7	3.6	-94.26	-127.2	-35.7	29.4	22.1	7.25	4.052		
1,700.0	1,690.5	1,699.1	1,689.5	4.0	3.9	-90.51	-143.8	-40.8	32.7	24.9	7.87	4.158		
1,800.0	1,789.4	1,799.0	1,787.9	4.3	4.2	-87.47	-160.4	-45.9	36.2	27.7	8.48	4.267		
1,900.0	1,888.2	1,898.9	1,886.3	4.6	4.6	-84.96	-177.0	-51.0	39.7	30.7	9.09	4.373		
2,000.0	1,987.1	1,998.9	1,984.7	4.9	4.9	-82.87	-193.5	-56.1	43.4	33.7	9.69	4.475		
2,100.0	2,085.9	2,098.8	2,083.1	5.2	5.3	-81.11	-210.1	-61.2	47.0	36.7	10.29	4.572		
2,200.0	2,184.7	2,198.7	2,181.5	5.5	5.6	-79.60	-226.7	-66.3	50.7	39.8	10.88	4.663		
2,300.0	2,283.6	2,298.6	2,279.9	5.9	5.9	-78.29	-243.3	-71.4	54.5	43.0	11.47	4.748		
2,400.0	2,382.4	2,398.5	2,378.3	6.2	6.3	-77.16	-259.9	-76.5	58.2	46.2	12.06	4.827		
2,500.0	2,481.3	2,498.5	2,476.7	6.5	6.6	-76.16	-276.5	-81.6	62.0	49.3	12.65	4.901		
2,600.0	2,580.1	2,598.4	2,575.1	6.8	7.0	-75.27	-293.1	-86.7	65.8	52.6	13.24	4.971		
2,700.0	2,679.0	2,698.3	2,673.5	7.1	7.3	-74.49	-309.6	-91.8	69.6	55.8	13.82	5.035		
2,800.0	2,777.8	2,798.2	2,771.9	7.4	7.7	-73.78	-326.2	-96.9	73.4	59.0	14.41	5.096		
2,900.0	2,876.7	2,898.2	2,870.3	7.7	8.0	-73.15	-342.8	-102.0	77.3	62.3	14.99	5.153		
3,000.0	2,975.5	2,998.1	2,968.7	8.1	8.3	-72.57	-359.4	-107.1	81.1	65.5	15.58	5.206		
3,100.0	3,074.3	3,098.0	3,067.1	8.4	8.7	-72.05	-376.0	-112.2	84.9	68.8	16.16	5.256		
3,200.0	3,173.2	3,197.9	3,165.5	8.7	9.0	-71.57	-392.6	-117.3	88.8	72.0	16.74	5.303		
3,300.0	3,272.0	3,297.9	3,264.0	9.0	9.4	-71.13	-409.2	-122.4	92.7	75.3	17.33	5.347		
3,400.0	3,370.9	3,397.8	3,362.4	9.3	9.7	-70.73	-425.7	-127.5	96.5	78.6	17.91	5.389		
3,500.0	3,469.7	3,497.7	3,460.8	9.6	10.1	-70.36	-442.3	-132.6	100.4	81.9	18.49	5.428		
3,600.0	3,568.6	3,597.6	3,559.2	9.9	10.4	-70.02	-458.9	-137.7	104.3	85.2	19.08	5.465		
3,700.0	3,667.4	3,697.5	3,657.6	10.3	10.8	-69.70	-475.5	-142.8	108.1	88.5	19.66	5.501		
3,800.0	3,766.2	3,797.5	3,756.0	10.6	11.1	-69.40	-492.1	-147.9	112.0	91.8	20.24	5.535		
3,900.0	3,865.4	3,897.3	3,854.3	10.8	11.5	-68.21	-508.7	-152.9	116.7	96.0	20.67	5.644		
4,000.0	3,964.9	3,997.0	3,952.4	11.1	11.8	-65.66	-525.2	-158.0	122.8	101.9	20.89	5.878		
4,100.0	4,064.7	4,096.3	4,050.3	11.2	12.2	-62.03	-541.7	-163.1	130.8	109.9	20.89	6.259		
4,200.0	4,164.7	4,195.2	4,147.6	11.3	12.5	-57.69	-558.1	-168.1	141.1	120.4	20.70	6.817		
4,300.0	4,264.7	4,293.7	4,244.7	11.5	12.8	-55.38	-574.5	-173.2	153.6	133.7	19.90	7.718		
4,400.0	4,364.7	4,392.2	4,341.6	11.6	13.2	-53.32	-590.8	-178.2	167.1	146.1	20.95	7.976		
4,500.0	4,464.7	4,490.6	4,438.6	11.7	13.5	-51.67	-607.1	-183.2	181.2	159.3	21.89	8.276		
4,600.0	4,564.7	4,589.1	4,535.6	11.8	13.9	-50.53	-623.5	-188.2	195.8	173.1	22.75	8.606		
4,700.0	4,664.7	4,687.6	4,632.6	11.9	14.2	-49.99	-639.8	-193.3	210.9	187.3	23.55	8.955		
4,800.0	4,764.7	4,786.1	4,729.6	12.1	14.6	-49.12	-656.2	-198.3	226.2	202.0	24.29	9.315		
4,900.0	4,864.7	4,884.6	4,826.6	12.2	14.9	-48.48	-672.5	-203.3	241.9	216.9	24.99	9.681		
5,000.0	4,964.7	4,983.0	4,923.5	12.3	15.3	-47.92	-688.9	-208.3	257.8	232.1	25.65	10.049		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 2G-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							
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	
5,100.0	5,064.7	5,081.5	5,020.5	12.4	15.6	175.06	-705.2	-213.4	273.8	247.5	26.29	10.417		
5,200.0	5,164.7	5,180.0	5,117.5	12.5	15.9	176.34	-721.6	-218.4	290.0	263.1	26.90	10.781		
5,300.0	5,264.7	5,278.5	5,214.5	12.7	16.3	177.49	-737.9	-223.4	306.3	278.9	27.50	11.142		
5,400.0	5,364.7	5,384.5	5,319.0	12.8	16.6	178.55	-754.7	-228.6	322.1	294.0	28.08	11.471		
5,500.0	5,464.7	5,495.8	5,429.4	12.9	16.9	179.34	-768.5	-232.8	334.4	305.9	28.58	11.700		
5,600.0	5,564.7	5,608.0	5,541.1	13.1	17.1	179.87	-778.4	-235.8	343.2	314.2	29.00	11.832		
5,700.0	5,664.7	5,720.9	5,653.9	13.2	17.3	-179.85	-784.0	-237.6	348.2	318.8	29.34	11.868		
5,800.0	5,764.7	5,831.8	5,764.7	13.3	17.4	-179.77	-785.4	-238.0	349.4	319.8	29.60	11.804		
5,900.0	5,864.7	5,931.8	5,864.7	13.5	17.5	-179.77	-785.4	-238.0	349.4	319.6	29.85	11.707		
6,000.0	5,964.7	6,031.8	5,964.7	13.6	17.6	-179.77	-785.4	-238.0	349.4	319.3	30.09	11.611		
6,100.0	6,064.7	6,131.8	6,064.7	13.7	17.7	-179.77	-785.4	-238.0	349.4	319.1	30.34	11.516		
6,200.0	6,164.7	6,231.8	6,164.7	13.9	17.8	-179.77	-785.4	-238.0	349.4	318.8	30.59	11.422		
6,268.3	6,233.0	6,300.1	6,233.0	13.9	17.9	-179.92	-785.4	-237.1	349.4	318.7	30.75	11.363		
6,300.0	6,264.7	6,331.7	6,264.5	14.0	17.9	179.70	-785.4	-234.8	349.4	318.6	30.80	11.347		
6,400.0	6,364.7	6,429.1	6,360.6	14.1	18.0	177.11	-785.4	-219.0	349.9	319.1	30.80	11.362		
6,500.0	6,464.7	6,520.7	6,448.1	14.3	18.0	172.79	-785.4	-192.4	352.6	322.0	30.62	11.517		
6,600.0	6,564.6	6,605.5	6,525.6	14.4	18.0	77.30	-785.4	-158.0	359.6	334.1	25.52	14.089		
6,700.0	6,663.2	6,687.0	6,595.7	14.4	17.9	72.02	-785.4	-116.5	369.8	343.7	26.06	14.191		
6,800.0	6,758.5	6,766.0	6,658.8	14.4	18.0	67.27	-785.4	-69.0	382.1	355.9	26.22	14.572		
6,900.0	6,848.7	6,842.9	6,714.8	14.4	18.0	63.11	-785.4	-16.3	395.5	369.4	26.05	15.185		
7,000.0	6,932.1	6,918.2	6,763.8	14.4	18.2	59.55	-785.4	40.7	409.0	383.5	25.58	15.990		
7,100.0	7,007.0	6,992.0	6,805.8	14.5	18.4	56.57	-785.5	101.5	422.0	397.0	25.02	16.869		
7,200.0	7,072.0	7,064.8	6,840.9	14.8	18.7	54.15	-785.5	165.2	433.8	409.1	24.61	17.622		
7,300.0	7,125.8	7,136.8	6,869.0	15.2	19.1	52.25	-785.5	231.4	443.8	419.1	24.64	18.012		
7,400.0	7,167.3	7,208.1	6,890.2	16.0	19.6	50.85	-785.5	299.4	451.7	426.3	25.34	17.823		
7,500.0	7,195.8	7,278.9	6,904.5	17.2	20.3	49.91	-785.5	368.8	457.2	430.3	26.88	17.005		
7,600.0	7,210.7	7,350.0	6,911.8	18.7	21.2	49.43	-785.5	439.5	460.1	430.9	29.27	15.722		
7,700.0	7,213.8	7,438.3	6,913.9	20.5	22.4	49.35	-785.5	527.7	460.6	428.4	32.14	14.332		
7,800.0	7,215.6	7,538.3	6,915.6	22.4	24.1	49.36	-785.5	627.7	460.6	425.5	35.05	13.142		
7,900.0	7,217.3	7,638.3	6,917.3	24.4	25.9	49.36	-785.5	727.7	460.6	422.5	38.11	12.086		
8,000.0	7,219.1	7,738.3	6,919.1	26.5	27.8	49.36	-785.5	827.7	460.6	419.3	41.28	11.157		
8,100.0	7,220.8	7,838.3	6,920.8	28.6	29.8	49.36	-785.5	927.7	460.6	416.0	44.55	10.338		
8,200.0	7,222.5	7,938.3	6,922.6	30.8	31.9	49.36	-785.5	1,027.6	460.6	412.7	47.89	9.617		
8,300.0	7,224.3	8,038.3	6,924.3	33.0	34.1	49.36	-785.5	1,127.6	460.6	409.3	51.29	8.980		
8,400.0	7,226.0	8,138.3	6,926.1	35.3	36.3	49.36	-785.5	1,227.6	460.6	405.9	54.74	8.414		
8,500.0	7,227.8	8,238.3	6,927.8	37.6	38.5	49.36	-785.5	1,327.6	460.6	402.4	58.23	7.911		
8,600.0	7,229.5	8,338.3	6,929.6	39.9	40.8	49.36	-785.5	1,427.6	460.6	398.9	61.74	7.460		
8,700.0	7,231.3	8,438.3	6,931.3	42.2	43.1	49.36	-785.5	1,527.6	460.6	395.3	65.29	7.055		
8,800.0	7,233.0	8,538.3	6,933.1	44.6	45.4	49.36	-785.5	1,627.6	460.6	391.7	68.86	6.689		
8,900.0	7,234.8	8,638.3	6,934.8	47.0	47.7	49.36	-785.5	1,727.5	460.6	388.2	72.45	6.358		
9,000.0	7,236.5	8,738.3	6,936.5	49.3	50.1	49.36	-785.5	1,827.5	460.6	384.6	76.06	6.056		
9,100.0	7,238.2	8,838.3	6,938.3	51.7	52.4	49.36	-785.5	1,927.5	460.6	380.9	79.68	5.781		
9,200.0	7,240.0	8,938.3	6,940.0	54.1	54.8	49.36	-785.5	2,027.5	460.6	377.3	83.31	5.529		
9,300.0	7,241.7	9,038.3	6,941.8	56.5	57.2	49.36	-785.6	2,127.5	460.6	373.7	86.95	5.297		
9,400.0	7,243.5	9,138.3	6,943.5	58.9	59.5	49.36	-785.6	2,227.5	460.6	370.0	90.61	5.084		
9,500.0	7,245.2	9,238.3	6,945.3	61.3	61.9	49.36	-785.6	2,327.5	460.6	366.4	94.27	4.886		
9,600.0	7,247.0	9,338.3	6,947.0	63.7	64.3	49.36	-785.6	2,427.4	460.6	362.7	97.94	4.703		
9,700.0	7,248.7	9,438.3	6,948.8	66.1	66.7	49.36	-785.6	2,527.4	460.6	359.0	101.62	4.533		
9,800.0	7,250.5	9,538.3	6,950.5	68.6	69.1	49.36	-785.6	2,627.4	460.6	355.3	105.30	4.374		
9,900.0	7,252.2	9,638.3	6,952.3	71.0	71.5	49.36	-785.6	2,727.4	460.6	351.6	108.99	4.226		
10,000.0	7,254.0	9,738.3	6,954.0	73.4	74.0	49.36	-785.6	2,827.4	460.6	348.0	112.68	4.088		
10,100.0	7,255.7	9,838.3	6,955.7	75.9	76.4	49.36	-785.6	2,927.4	460.6	344.3	116.38	3.958		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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
10,200.0	7,257.4	9,938.3	6,957.5	78.3	78.8	49.36	-785.6	3,027.3	460.6	340.6	120.08	3.836	
10,300.0	7,259.2	10,038.3	6,959.2	80.7	81.2	49.36	-785.6	3,127.3	460.6	336.9	123.79	3.721	
10,400.0	7,260.9	10,138.3	6,961.0	83.2	83.7	49.36	-785.6	3,227.3	460.7	333.2	127.50	3.613	
10,500.0	7,262.7	10,238.3	6,962.7	85.6	86.1	49.36	-785.6	3,327.3	460.7	329.4	131.21	3.511	
10,600.0	7,264.4	10,338.3	6,964.5	88.0	88.5	49.36	-785.6	3,427.3	460.7	325.7	134.93	3.414	
10,700.0	7,266.2	10,438.3	6,966.2	90.5	91.0	49.36	-785.6	3,527.3	460.7	322.0	138.65	3.323	
10,800.0	7,267.9	10,538.3	6,968.0	92.9	93.4	49.36	-785.6	3,627.3	460.7	318.3	142.37	3.236	
10,900.0	7,269.7	10,638.3	6,969.7	95.4	95.8	49.36	-785.6	3,727.2	460.7	314.6	146.09	3.153	
11,000.0	7,271.4	10,738.3	6,971.4	97.8	98.3	49.36	-785.6	3,827.2	460.7	310.9	149.82	3.075	
11,100.0	7,273.2	10,838.3	6,973.2	100.3	100.7	49.37	-785.6	3,927.2	460.7	307.1	153.54	3.000	
11,200.0	7,274.9	10,938.3	6,974.9	102.7	103.2	49.37	-785.6	4,027.2	460.7	303.4	157.27	2.929	
11,300.0	7,276.6	11,038.3	6,976.7	105.2	105.6	49.37	-785.7	4,127.2	460.7	299.7	161.00	2.861	
11,400.0	7,278.4	11,138.3	6,978.4	107.6	108.1	49.37	-785.7	4,227.2	460.7	295.9	164.73	2.797	
11,500.0	7,280.1	11,238.3	6,980.2	110.1	110.5	49.37	-785.7	4,327.1	460.7	292.2	168.47	2.735	
11,600.0	7,281.9	11,338.3	6,981.9	112.6	113.0	49.37	-785.7	4,427.1	460.7	288.5	172.20	2.675	
11,700.0	7,283.6	11,438.3	6,983.7	115.0	115.4	49.37	-785.7	4,527.1	460.7	284.8	175.94	2.618	
11,800.0	7,285.4	11,538.3	6,985.4	117.5	117.9	49.37	-785.7	4,627.1	460.7	281.0	179.67	2.564	
11,900.0	7,287.1	11,638.3	6,987.2	119.9	120.3	49.37	-785.7	4,727.1	460.7	277.3	183.41	2.512	
12,000.0	7,288.9	11,738.3	6,988.9	122.4	122.8	49.37	-785.7	4,827.1	460.7	273.5	187.15	2.462	
12,100.0	7,290.6	11,838.3	6,990.6	124.8	125.2	49.37	-785.7	4,927.1	460.7	269.8	190.89	2.413	
12,200.0	7,292.4	11,938.3	6,992.4	127.3	127.7	49.37	-785.7	5,027.0	460.7	266.1	194.63	2.367	
12,300.0	7,294.1	12,038.3	6,994.1	129.8	130.1	49.37	-785.7	5,127.0	460.7	262.3	198.38	2.322	
12,400.0	7,295.8	12,138.3	6,995.9	132.2	132.6	49.37	-785.7	5,227.0	460.7	258.6	202.12	2.279	
12,500.0	7,297.6	12,238.3	6,997.6	134.7	135.1	49.37	-785.7	5,327.0	460.7	254.8	205.86	2.238	
12,600.0	7,299.3	12,338.3	6,999.4	137.1	137.5	49.37	-785.7	5,427.0	460.7	251.1	209.61	2.198	
12,700.0	7,301.1	12,438.3	7,001.1	139.6	140.0	49.37	-785.7	5,527.0	460.7	247.4	213.35	2.159	
12,800.0	7,302.8	12,538.3	7,002.9	142.1	142.4	49.37	-785.7	5,626.9	460.7	243.6	217.10	2.122	
12,900.0	7,304.6	12,638.3	7,004.6	144.5	144.9	49.37	-785.7	5,726.9	460.7	239.9	220.85	2.086	
13,000.0	7,306.3	12,738.3	7,006.4	147.0	147.3	49.37	-785.7	5,826.9	460.7	236.1	224.59	2.051	
13,100.0	7,308.1	12,838.3	7,008.1	149.5	149.8	49.37	-785.7	5,926.9	460.7	232.4	228.34	2.018	
13,200.0	7,309.8	12,938.3	7,009.8	151.9	152.3	49.37	-785.7	6,026.9	460.7	228.6	232.09	1.985	
13,300.0	7,311.5	13,038.3	7,011.6	154.4	154.7	49.37	-785.8	6,126.9	460.7	224.9	235.84	1.954	
13,400.0	7,313.3	13,138.3	7,013.3	156.8	157.2	49.37	-785.8	6,226.9	460.7	221.1	239.59	1.923	
13,500.0	7,315.0	13,238.3	7,015.1	159.3	159.7	49.37	-785.8	6,326.8	460.7	217.4	243.34	1.893	
13,600.0	7,316.8	13,338.3	7,016.8	161.8	162.1	49.37	-785.8	6,426.8	460.7	213.7	247.09	1.865	
13,700.0	7,318.5	13,438.3	7,018.6	164.2	164.6	49.37	-785.8	6,526.8	460.7	209.9	250.84	1.837	
13,800.0	7,320.3	13,538.3	7,020.3	166.7	167.0	49.37	-785.8	6,626.8	460.7	206.2	254.59	1.810	
13,900.0	7,322.0	13,638.3	7,022.1	169.2	169.5	49.37	-785.8	6,726.8	460.7	202.4	258.35	1.783	
14,000.0	7,323.8	13,738.3	7,023.8	171.6	172.0	49.37	-785.8	6,826.8	460.8	198.7	262.10	1.758	
14,100.0	7,325.5	13,838.3	7,025.6	174.1	174.4	49.37	-785.8	6,926.8	460.8	194.9	265.85	1.733	
14,200.0	7,327.3	13,938.3	7,027.3	176.6	176.9	49.37	-785.8	7,026.7	460.8	191.2	269.60	1.709	
14,300.0	7,329.0	14,038.3	7,029.0	179.0	179.4	49.37	-785.8	7,126.7	460.8	187.4	273.36	1.686	
14,331.6	7,329.6	14,069.9	7,029.6	179.8	180.1	49.37	-785.8	7,158.3	460.8	186.2	274.54	1.678	
14,357.2	7,330.0	14,093.1	7,030.0	180.4	180.7	49.38	-785.8	7,181.6	460.8	185.3	275.46	1.673 SF	

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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	-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 CC, ES		
300.0	300.0	299.6	299.6	0.5	0.5	-179.54	-22.7	-0.2	22.7	21.7	1.00	22.673		
400.0	400.0	399.2	399.2	0.7	0.7	-27.74	-25.2	-0.7	24.5	23.1	1.35	18.144		
500.0	500.0	498.7	498.6	0.9	0.9	-28.51	-29.5	-1.6	26.4	24.7	1.70	15.555		
600.0	599.9	598.3	597.9	1.0	1.1	-30.09	-35.4	-2.9	28.6	26.5	2.05	13.917		
700.0	699.7	697.7	697.1	1.2	1.3	-32.30	-43.0	-4.6	30.9	28.5	2.41	12.814		
800.0	799.4	797.1	796.1	1.4	1.5	-34.95	-52.2	-6.5	33.5	30.7	2.78	12.038		
900.0	898.9	896.5	894.8	1.7	1.8	-37.89	-63.2	-8.9	36.4	33.2	3.17	11.472		
1,000.0	998.3	995.8	993.3	1.9	2.0	-40.99	-75.8	-11.6	39.6	36.0	3.58	11.041		
1,100.0	1,097.4	1,095.1	1,091.5	2.2	2.3	-44.15	-90.1	-14.7	43.2	39.1	4.04	10.696		
1,200.0	1,196.3	1,194.3	1,189.3	2.5	2.6	-47.23	-106.0	-18.1	47.2	42.7	4.53	10.423		
1,300.0	1,295.2	1,293.4	1,286.8	2.8	3.0	-49.17	-123.5	-21.9	52.5	47.5	5.04	10.417		
1,400.0	1,394.0	1,392.4	1,383.8	3.1	3.4	-49.81	-142.7	-26.0	59.3	53.8	5.55	10.680		
1,500.0	1,492.8	1,491.1	1,480.2	3.4	3.8	-49.50	-163.5	-30.5	67.5	61.5	6.05	11.156		
1,600.0	1,591.7	1,589.6	1,576.0	3.7	4.2	-48.57	-185.8	-35.3	77.2	70.7	6.54	11.807		
1,700.0	1,690.5	1,687.8	1,671.1	4.0	4.6	-47.26	-209.6	-40.5	88.3	81.3	7.01	12.609		
1,800.0	1,789.4	1,786.8	1,766.7	4.3	5.1	-45.91	-234.7	-45.9	100.5	93.0	7.46	13.470		
1,900.0	1,888.2	1,886.0	1,862.6	4.6	5.5	-44.85	-259.9	-51.3	112.7	104.8	7.92	14.237		
2,000.0	1,987.1	1,985.2	1,958.4	4.9	6.0	-43.99	-285.1	-56.7	125.0	116.6	8.38	14.922		
2,100.0	2,085.9	2,084.5	2,054.2	5.2	6.5	-43.28	-310.3	-62.2	137.3	128.4	8.83	15.537		
2,200.0	2,184.7	2,183.7	2,150.0	5.5	7.0	-42.69	-335.5	-67.6	149.5	140.3	9.29	16.091		
2,300.0	2,283.6	2,282.9	2,245.8	5.9	7.4	-42.19	-360.7	-73.0	161.9	152.1	9.75	16.593		
2,400.0	2,382.4	2,382.2	2,341.7	6.2	7.9	-41.77	-385.9	-78.5	174.2	164.0	10.22	17.050		
2,500.0	2,481.3	2,481.4	2,437.5	6.5	8.4	-41.39	-411.1	-83.9	186.5	175.8	10.68	17.467		
2,600.0	2,580.1	2,580.6	2,533.3	6.8	8.9	-41.07	-436.3	-89.3	198.8	187.7	11.14	17.850		
2,700.0	2,679.0	2,679.9	2,629.1	7.1	9.3	-40.78	-461.5	-94.7	211.2	199.6	11.60	18.201		
2,800.0	2,777.8	2,779.1	2,725.0	7.4	9.8	-40.52	-486.7	-100.2	223.5	211.4	12.06	18.526		
2,900.0	2,876.7	2,878.3	2,820.8	7.7	10.3	-40.29	-511.9	-105.6	235.9	223.3	12.53	18.826		
3,000.0	2,975.5	2,977.6	2,916.6	8.1	10.8	-40.09	-537.1	-111.0	248.2	235.2	12.99	19.105		
3,100.0	3,074.3	3,076.8	3,012.4	8.4	11.2	-39.90	-562.3	-116.5	260.6	247.1	13.46	19.365		
3,200.0	3,173.2	3,176.0	3,108.3	8.7	11.7	-39.73	-587.5	-121.9	272.9	259.0	13.92	19.607		
3,300.0	3,272.0	3,275.2	3,204.1	9.0	12.2	-39.58	-612.7	-127.3	285.3	270.9	14.38	19.834		
3,400.0	3,370.9	3,374.5	3,299.9	9.3	12.7	-39.43	-637.9	-132.8	297.6	282.8	14.85	20.046		
3,500.0	3,469.7	3,473.7	3,395.7	9.6	13.2	-39.30	-663.1	-138.2	310.0	294.7	15.31	20.245		
3,600.0	3,568.6	3,572.9	3,491.6	9.9	13.6	-39.18	-688.3	-143.6	322.4	306.6	15.78	20.432		
3,700.0	3,667.4	3,672.2	3,587.4	10.3	14.1	-39.07	-713.5	-149.1	334.7	318.5	16.24	20.609		
3,800.0	3,766.2	3,771.4	3,683.2	10.6	14.6	-38.98	-738.7	-154.5	347.1	330.4	16.71	20.775		
3,900.0	3,865.4	3,870.4	3,778.8	10.8	15.1	-38.84	-763.9	-159.9	361.1	344.0	17.12	21.092		
4,000.0	3,964.9	3,968.9	3,873.9	11.1	15.6	-38.43	-788.9	-165.3	377.9	360.4	17.45	21.657		
4,100.0	4,064.7	4,066.8	3,968.5	11.2	16.0	-37.79	-813.7	-170.6	397.4	379.7	17.69	22.459		
4,200.0	4,164.7	4,164.0	4,062.3	11.3	16.5	-36.98	-838.4	-176.0	419.7	401.8	17.87	23.488		
4,300.0	4,264.7	4,260.5	4,155.6	11.5	17.0	172.61	-862.9	-181.3	444.1	417.7	26.44	16.795		
4,400.0	4,364.7	4,357.1	4,248.8	11.6	17.4	173.67	-887.5	-186.5	468.8	441.6	27.16	17.257		
4,500.0	4,464.7	4,453.7	4,342.1	11.7	17.9	174.62	-912.0	-191.8	493.6	465.7	27.87	17.710		
4,600.0	4,564.7	4,550.2	4,435.3	11.8	18.4	175.49	-936.5	-197.1	518.5	489.9	28.56	18.152		
4,700.0	4,664.7	4,646.8	4,528.6	11.9	18.8	176.27	-961.0	-202.4	543.5	514.2	29.24	18.583		
4,800.0	4,764.7	4,743.4	4,621.8	12.1	19.3	176.98	-985.5	-207.7	568.5	538.6	29.92	19.003		
4,900.0	4,864.7	4,839.9	4,715.1	12.2	19.8	177.64	-1,010.1	-213.0	593.7	563.1	30.58	19.412		
5,000.0	4,964.7	4,936.5	4,808.3	12.3	20.2	178.24	-1,034.6	-218.2	618.9	587.7	31.25	19.809		
5,100.0	5,064.7	5,054.5	4,922.7	12.4	20.8	178.88	-1,063.0	-224.4	643.0	611.0	31.96	20.117		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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						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	5,164.7	5,180.3	5,045.8	12.5	21.2	179.40	-1,088.2	-229.8	663.0	630.4	32.62	20.327		
5,300.0	5,264.7	5,308.3	5,172.1	12.7	21.6	179.79	-1,108.4	-234.2	678.8	645.6	33.18	20.459		
5,400.0	5,364.7	5,437.9	5,300.8	12.8	21.9	-179.94	-1,123.3	-237.4	690.2	656.6	33.64	20.521		
5,500.0	5,464.7	5,568.6	5,431.2	12.9	22.1	-179.78	-1,132.5	-239.3	697.3	663.3	34.00	20.508		
5,600.0	5,564.7	5,699.9	5,562.4	13.1	22.3	-179.72	-1,135.8	-240.1	699.9	665.6	34.26	20.425		
5,700.0	5,664.7	5,802.2	5,664.7	13.2	22.3	-179.72	-1,135.9	-240.1	699.9	665.4	34.48	20.295		
5,800.0	5,764.7	5,902.2	5,764.7	13.3	22.4	-179.72	-1,135.9	-240.1	699.9	665.2	34.70	20.167		
5,900.0	5,864.7	6,002.2	5,864.7	13.5	22.5	-179.72	-1,135.9	-240.1	699.9	664.9	34.93	20.039		
6,000.0	5,964.7	6,102.2	5,964.7	13.6	22.6	-179.72	-1,135.9	-240.1	699.9	664.7	35.15	19.912		
6,100.0	6,064.7	6,202.2	6,064.7	13.7	22.7	-179.72	-1,135.9	-240.1	699.9	664.5	35.37	19.785		
6,200.0	6,164.7	6,302.2	6,164.7	13.9	22.7	-179.72	-1,135.9	-240.1	699.9	664.3	35.60	19.659		
6,300.0	6,264.7	6,402.2	6,264.7	14.0	22.8	-179.72	-1,135.9	-240.1	699.9	664.0	35.83	19.533		
6,400.0	6,364.7	6,502.2	6,364.7	14.1	22.9	-179.72	-1,135.9	-240.1	699.9	663.8	36.06	19.408		
6,500.0	6,464.7	6,602.4	6,464.8	14.3	23.0	-179.87	-1,135.9	-238.2	699.9	663.6	36.28	19.292		
6,517.7	6,482.4	6,620.1	6,482.5	14.3	23.0	90.01	-1,135.9	-236.7	699.9	675.6	24.23	28.879		
6,600.0	6,564.6	6,701.3	6,562.6	14.4	23.0	89.23	-1,135.9	-224.2	699.9	675.4	24.52	28.549		
6,700.0	6,663.2	6,798.6	6,656.1	14.4	23.0	88.30	-1,135.9	-197.4	700.2	675.5	24.70	28.344		
6,800.0	6,758.5	6,894.4	6,743.8	14.4	23.0	87.41	-1,135.9	-158.9	700.6	675.8	24.77	28.287		
6,900.0	6,848.7	6,989.0	6,824.5	14.4	23.0	86.58	-1,135.9	-109.7	701.1	676.3	24.79	28.286		
7,000.0	6,932.1	7,082.5	6,897.3	14.4	23.1	85.81	-1,135.8	-51.2	701.7	676.9	24.89	28.197		
7,100.0	7,007.0	7,174.9	6,961.1	14.5	23.1	85.12	-1,135.8	15.6	702.4	677.2	25.25	27.815		
7,200.0	7,072.0	7,266.5	7,015.3	14.8	23.3	84.52	-1,135.8	89.3	703.1	677.0	26.05	26.990		
7,300.0	7,125.8	7,357.3	7,059.4	15.2	23.6	84.02	-1,135.8	168.7	703.7	676.2	27.45	25.638		
7,400.0	7,167.3	7,450.0	7,093.7	16.0	24.0	83.62	-1,135.8	254.7	704.2	674.6	29.56	23.824		
7,500.0	7,195.8	7,537.5	7,115.6	17.2	24.6	83.34	-1,135.8	339.4	704.6	672.3	32.29	21.823		
7,600.0	7,210.7	7,627.2	7,127.2	18.7	25.3	83.18	-1,135.8	428.2	704.8	669.2	35.59	19.805		
7,700.0	7,213.8	7,723.0	7,129.7	20.5	26.3	83.15	-1,135.8	524.0	704.8	665.6	39.27	17.947		
7,800.0	7,215.6	7,823.0	7,131.5	22.4	27.5	83.15	-1,135.8	624.0	704.8	661.7	43.19	16.321		
7,900.0	7,217.3	7,923.0	7,133.2	24.4	28.9	83.15	-1,135.8	724.0	704.8	657.5	47.29	14.906		
8,000.0	7,219.1	8,023.0	7,135.0	26.5	30.5	83.15	-1,135.8	824.0	704.8	653.3	51.53	13.679		
8,100.0	7,220.8	8,123.0	7,136.7	28.6	32.3	83.15	-1,135.8	923.9	704.8	648.9	55.88	12.613		
8,200.0	7,222.5	8,223.0	7,138.5	30.8	34.2	83.15	-1,135.8	1,023.9	704.8	644.5	60.32	11.685		
8,300.0	7,224.3	8,323.0	7,140.2	33.0	36.1	83.15	-1,135.8	1,123.9	704.8	640.0	64.82	10.873		
8,400.0	7,226.0	8,423.0	7,142.0	35.3	38.1	83.15	-1,135.8	1,223.9	704.8	635.4	69.39	10.158		
8,500.0	7,227.8	8,523.0	7,143.7	37.6	40.2	83.15	-1,135.8	1,323.9	704.8	630.8	73.99	9.525		
8,600.0	7,229.5	8,623.0	7,145.4	39.9	42.4	83.15	-1,135.8	1,423.9	704.8	626.2	78.64	8.963		
8,700.0	7,231.3	8,723.0	7,147.2	42.2	44.6	83.15	-1,135.8	1,523.9	704.8	621.5	83.31	8.460		
8,800.0	7,233.0	8,823.0	7,148.9	44.6	46.8	83.15	-1,135.8	1,623.8	704.8	616.8	88.01	8.008		
8,900.0	7,234.8	8,923.0	7,150.7	47.0	49.0	83.15	-1,135.8	1,723.8	704.8	612.0	92.74	7.600		
9,000.0	7,236.5	9,023.0	7,152.4	49.3	51.3	83.15	-1,135.8	1,823.8	704.8	607.3	97.48	7.230		
9,100.0	7,238.2	9,123.0	7,154.2	51.7	53.6	83.15	-1,135.8	1,923.8	704.8	602.5	102.24	6.894		
9,200.0	7,240.0	9,223.0	7,155.9	54.1	55.9	83.15	-1,135.8	2,023.8	704.8	597.8	107.01	6.586		
9,300.0	7,241.7	9,323.0	7,157.7	56.5	58.2	83.15	-1,135.7	2,123.8	704.8	593.0	111.79	6.304		
9,400.0	7,243.5	9,423.0	7,159.4	58.9	60.6	83.15	-1,135.7	2,223.7	704.7	588.2	116.59	6.045		
9,500.0	7,245.2	9,523.0	7,161.2	61.3	62.9	83.15	-1,135.7	2,323.7	704.7	583.4	121.39	5.806		
9,600.0	7,247.0	9,623.0	7,162.9	63.7	65.3	83.15	-1,135.7	2,423.7	704.7	578.5	126.20	5.584		
9,700.0	7,248.7	9,723.0	7,164.6	66.1	67.6	83.15	-1,135.7	2,523.7	704.7	573.7	131.02	5.379		
9,800.0	7,250.5	9,823.0	7,166.4	68.6	70.0	83.15	-1,135.7	2,623.7	704.7	568.9	135.85	5.188		
9,900.0	7,252.2	9,923.0	7,168.1	71.0	72.4	83.15	-1,135.7	2,723.7	704.7	564.0	140.68	5.009		
10,000.0	7,254.0	10,023.0	7,169.9	73.4	74.8	83.15	-1,135.7	2,823.7	704.7	559.2	145.52	4.843		
10,100.0	7,255.7	10,123.0	7,171.6	75.9	77.2	83.15	-1,135.7	2,923.6	704.7	554.3	150.36	4.687		
10,200.0	7,257.4	10,223.0	7,173.4	78.3	79.6	83.15	-1,135.7	3,023.6	704.7	549.5	155.21	4.540		

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

Cathedral Energy Services

Anticollision Report

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

Offset Design S18-T3N-R68W (Billings) - Billings 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		Separation		Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Uncertainty Axis			
10,300.0	7,259.2	10,323.0	7,175.1	80.7	82.0	83.15	-1,135.7	3,123.6	704.7	544.6	160.06	4.403		
10,400.0	7,260.9	10,423.0	7,176.9	83.2	84.4	83.15	-1,135.7	3,223.6	704.7	539.8	164.91	4.273		
10,500.0	7,262.7	10,523.0	7,178.6	85.6	86.8	83.15	-1,135.7	3,323.6	704.7	534.9	169.77	4.151		
10,600.0	7,264.4	10,623.0	7,180.4	88.0	89.2	83.15	-1,135.7	3,423.6	704.7	530.0	174.63	4.035		
10,700.0	7,266.2	10,723.0	7,182.1	90.5	91.6	83.15	-1,135.7	3,523.6	704.7	525.2	179.50	3.926		
10,800.0	7,267.9	10,823.0	7,183.8	92.9	94.0	83.15	-1,135.7	3,623.5	704.7	520.3	184.36	3.822		
10,900.0	7,269.7	10,923.0	7,185.6	95.4	96.4	83.15	-1,135.7	3,723.5	704.7	515.4	189.23	3.724		
11,000.0	7,271.4	11,023.0	7,187.3	97.8	98.9	83.15	-1,135.7	3,823.5	704.7	510.6	194.10	3.630		
11,100.0	7,273.2	11,123.0	7,189.1	100.3	101.3	83.15	-1,135.7	3,923.5	704.7	505.7	198.98	3.541		
11,200.0	7,274.9	11,223.0	7,190.8	102.7	103.7	83.15	-1,135.7	4,023.5	704.6	500.8	203.85	3.457		
11,300.0	7,276.6	11,323.0	7,192.6	105.2	106.2	83.15	-1,135.7	4,123.5	704.6	495.9	208.73	3.376		
11,400.0	7,278.4	11,423.0	7,194.3	107.6	108.6	83.15	-1,135.7	4,223.4	704.6	491.0	213.61	3.299		
11,500.0	7,280.1	11,523.0	7,196.1	110.1	111.0	83.15	-1,135.7	4,323.4	704.6	486.1	218.49	3.225		
11,600.0	7,281.9	11,623.0	7,197.8	112.6	113.5	83.15	-1,135.6	4,423.4	704.6	481.3	223.37	3.155		
11,700.0	7,283.6	11,723.0	7,199.6	115.0	115.9	83.15	-1,135.6	4,523.4	704.6	476.4	228.25	3.087		
11,800.0	7,285.4	11,823.0	7,201.3	117.5	118.3	83.15	-1,135.6	4,623.4	704.6	471.5	233.13	3.022		
11,900.0	7,287.1	11,923.0	7,203.0	119.9	120.8	83.15	-1,135.6	4,723.4	704.6	466.6	238.02	2.960		
12,000.0	7,288.9	12,023.0	7,204.8	122.4	123.2	83.15	-1,135.6	4,823.4	704.6	461.7	242.91	2.901		
12,100.0	7,290.6	12,123.0	7,206.5	124.8	125.7	83.15	-1,135.6	4,923.3	704.6	456.8	247.79	2.843		
12,200.0	7,292.4	12,223.0	7,208.3	127.3	128.1	83.15	-1,135.6	5,023.3	704.6	451.9	252.68	2.788		
12,300.0	7,294.1	12,323.0	7,210.0	129.8	130.6	83.15	-1,135.6	5,123.3	704.6	447.0	257.57	2.735		
12,400.0	7,295.8	12,423.0	7,211.8	132.2	133.0	83.15	-1,135.6	5,223.3	704.6	442.1	262.46	2.685		
12,500.0	7,297.6	12,523.0	7,213.5	134.7	135.5	83.15	-1,135.6	5,323.3	704.6	437.2	267.35	2.635		
12,600.0	7,299.3	12,623.0	7,215.3	137.1	137.9	83.15	-1,135.6	5,423.3	704.6	432.3	272.24	2.588		
12,700.0	7,301.1	12,723.0	7,217.0	139.6	140.4	83.15	-1,135.6	5,523.2	704.6	427.4	277.14	2.542		
12,800.0	7,302.8	12,823.0	7,218.7	142.1	142.8	83.15	-1,135.6	5,623.2	704.6	422.5	282.03	2.498		
12,900.0	7,304.6	12,923.0	7,220.5	144.5	145.3	83.15	-1,135.6	5,723.2	704.5	417.6	286.92	2.456		
13,000.0	7,306.3	13,023.0	7,222.2	147.0	147.7	83.15	-1,135.6	5,823.2	704.5	412.7	291.82	2.414		
13,100.0	7,308.1	13,123.0	7,224.0	149.5	150.2	83.15	-1,135.6	5,923.2	704.5	407.8	296.71	2.374		
13,200.0	7,309.8	13,223.0	7,225.7	151.9	152.6	83.15	-1,135.6	6,023.2	704.5	402.9	301.61	2.336		
13,300.0	7,311.5	13,323.0	7,227.5	154.4	155.1	83.15	-1,135.6	6,123.2	704.5	398.0	306.50	2.299		
13,400.0	7,313.3	13,423.0	7,229.2	156.8	157.5	83.15	-1,135.6	6,223.1	704.5	393.1	311.40	2.262		
13,500.0	7,315.0	13,523.0	7,231.0	159.3	160.0	83.15	-1,135.6	6,323.1	704.5	388.2	316.30	2.227		
13,600.0	7,316.8	13,623.0	7,232.7	161.8	162.5	83.14	-1,135.6	6,423.1	704.5	383.3	321.19	2.193		
13,700.0	7,318.5	13,723.0	7,234.5	164.2	164.9	83.14	-1,135.6	6,523.1	704.5	378.4	326.09	2.160		
13,800.0	7,320.3	13,823.0	7,236.2	166.7	167.4	83.14	-1,135.5	6,623.1	704.5	373.5	330.99	2.128		
13,900.0	7,322.0	13,923.0	7,237.9	169.2	169.8	83.14	-1,135.5	6,723.1	704.5	368.6	335.89	2.097		
14,000.0	7,323.8	14,023.0	7,239.7	171.6	172.3	83.14	-1,135.5	6,823.0	704.5	363.7	340.79	2.067		
14,100.0	7,325.5	14,123.0	7,241.4	174.1	174.7	83.14	-1,135.5	6,923.0	704.5	358.8	345.69	2.038		
14,200.0	7,327.3	14,223.0	7,243.2	176.6	177.2	83.14	-1,135.5	7,023.0	704.5	353.9	350.59	2.009		
14,300.0	7,329.0	14,323.0	7,244.9	179.0	179.7	83.14	-1,135.5	7,123.0	704.5	349.0	355.49	1.982		
14,357.2	7,330.0	14,380.2	7,245.9	180.4	181.1	83.14	-1,135.5	7,180.2	704.5	346.2	358.29	1.966 SF		

Cathedral Energy Services

Anticollision Report

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

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

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

